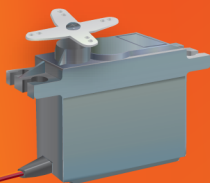


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Analog servo motor. Standard size, 1.55" x 0.73" x 1.46". 49oz-in torque @ 6Vdc. Speed: 0.23sec/60 Degrees @ 4.8V, 0.19 sec/ 60 Degrees @ 6V. 6.5" leads with standard 3-conductor female connector.

CAT# DCS-110

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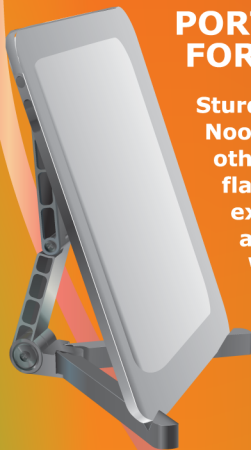
Now **\$6⁹⁵** each
5 for \$6.75 each

Happy New Year!



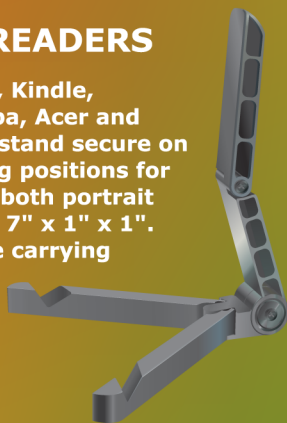
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CAT# TSN-20

\$10⁹⁵ each



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CATALOG

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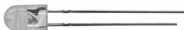
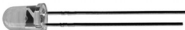
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LIGHT EMITTING DIODES (LED)

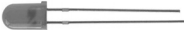
STANDARD T-1 3/4 (5mm)	Color Description		CAT#		100	1000
	RED - diffused		LED-1	10 for \$1.00	.07	.04
	GREEN - diffused	<i>Special Quantity Pricing!</i>	LED-2	10 for \$1.50	.12	.08
	YELLOW - diffused		LED-3	10 for \$1.50	.12	.08
	AMBER - diffused		LED-173	10 for \$1.00	.07	.05

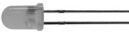




ULTRA-BRIGHT T-1 3/4 (5mm)	Ultra-bright 5mm (T 1-3/4) LEDs.					
	Improved brightness and color consistency.					
						
		no flange		with flange		
	Color Description	CAT#	EACH	100	1000	
	AQUA - water clear in off state	LED-130	60¢	45¢	30¢	
	RED - water clear in off-state. Ammo-pack	LED-151	40¢	30¢	20¢	
	RED - our "brightest red," water clear in off-state	LED-233	50¢	40¢	25¢	
	BLUE - water clear in off-state, 20° viewing angle	LED-215	60¢	45¢	30¢	
	BLUE - water clear in off-state. Ammo-pack.	LED-153	50¢	40¢	30¢	
	GREEN - water clear 3000 mcd - <i>Reduced Price!</i>	LED-57	\$1.10	90¢	80¢	
	GREEN - water clear in off-state	LED-128	75¢	55¢	40¢	
	WHITE - water clear, 15° viewing angle	LED-127	95¢	75¢	60¢	
	WHITE - water clear, warm-white	LED-156	65¢	50¢	35¢	
	WHITE - water clear in off-state, 20° viewing angle	LED-214	60¢	45¢	30¢	
	WHITE - water clear in off-state, 3000 mcd	LED-228	60¢	45¢	30¢	
	WHITE - water clear, 25° viewing angle, 3000 mcd	LED-229	60¢	45¢	30¢	
	YELLOW - water clear 3000 mcd	LED-72	95¢	75¢	47¢	
	YELLOW / AMBER - water-clear in off-state.	LED-152	40¢	30¢	20¢	
	PURPLE (HOT PINK) - water clear 1000+ mcd	LED-92	\$1.75	1.40	1.05	
	ORANGE - water clear point source	LED-136	60¢	50¢	35¢	

MINIATURE T-1 (3mm)	RED - diffused		MLED-1	10 for \$1.00	.08	.07
	GREEN - diffused		MLED-2	10 for \$1.25	.10	.08
	YELLOW - diffused		MLED-3	10 for \$1.25	.10	.08
	RED - point source		MLED-7	10 for \$1.00	.08	.07
	GREEN - point source		MLED-8	10 for \$1.00	.08	.07
	GREEN - water clear		MLED-21	10 for \$1.00	.08	.07
	YELLOW - point source		MLED-9	10 for \$1.25	.10	.08
	AMBER - diffused		MLED-12	10 for \$1.25	.10	.08
	BLUE - water clear		LED-210	3 for \$1.00	.25	.20
	BLUE - water clear Ultrabright		LED-209	75¢	.55	.40
	BLUE - point source Ultrabright - <i>Reduced Price!</i>		LED-59	60¢	.45	.35
	WHITE - water clear Ultrabright		LED-83	95¢	.80	.65
	GREEN - Ultrabright - water clear		LED-116	\$1.00	.65	.50

RED MINI-AXIAL LED	2mm red lens. Red in off-state.					
	CAT# LED-157	10 for \$1.00 • 100 for 7¢ each • 500 for 5¢ each				

SUPER-BRIGHT, HIGH-FLUX LEDS	Ultra-bright, super-flux Piranha LEDs. 7.62mm square, 4-pin DIP package aids heat dissipation. Designed for high-current, high-flux output.					
	Color	CAT#	Each	10	100	
	RED	LED-912	0.40	0.35	0.25	
	WHITE	LED-918	1.15	1.00	0.80	
	BLUE	LED-917	1.00	0.85	0.70	
	TRUE GREEN	LED-914	0.70	0.65	0.55	
	STD. GREEN	LED-915	0.95	0.80	0.70	
	YELLOW	LED-916	1.00	0.85	0.70	

FLASHING LEDS	Built-in flashing unit 3 - 5 Vdc operation	Diffused, High Brightness		100	1000	
	T-1 3/4 (5mm) RED		LED-4	2 for .90	.40	.30
	T-1 3/4 (5mm) GREEN		LED-4G	.50	.45	.40
	T-1 3/4 (5mm) WHITE		LED-4W	.75	.55	.48
	T-1 (3mm) WHITE		LED-72W	.75	.55	.48

BI-COLOR			CAT#	1-99	100	1000
	T 1 3/4 (5mm) RED / GREEN diffused		LED-6	.50	.45	.35
	Two leads. Reverse polarity to change color. Yellow on AC.					
	T 1 3/4 (5mm) RED / GREEN diffused		LED-141	.40	.32	.25
	Three leads. Center cathode. Milky-white off-state.					
	Chicago Miniature # CMD119EGW. Three-lead, rectangular LED lights red or green. Milky-white in off-state. Center, common lead is cathode.					
	Led face is 2mm x 5mm.		LED-64	.25	.20	.12
	T 1 (3mm) RED/GREEN diffused		LED-67	.35	.29	.25
	Three leads. Center cathode. Milky-white off-state.					
	T 1 (3mm) Right-angle red/green diffused LED. 3 leads mounted in a 5mm high spacer. Milky-white on off-state.		LED-188	.35	.29	.25

12 VDC LEDs

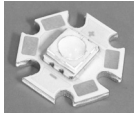
Bright 5mm round LEDs with built-in resistors for 12Vdc, 12mA operation. No external resistor required. Works well on 4-12Vdc. Dimmer at lower voltages. 35 Degree viewing angle. Lenses are tinted the same color as the LED when lit. Spec sheets available on our web site.

COLOR	CAT#	EACH	100	1000
RED	LED-12R	45¢	35¢	25¢
BLUE	LED-12B	55¢	45¢	35¢
WHITE	LED-12W	50¢	40¢	30¢
GREEN	LED-12G	50¢	40¢	30¢

HIGH-POWER LEDs

1 WATT ULTRA-BRIGHT WHITE LED

Cree XLamp™ Extremely high-brightness LED capable of operating at 1 Watt and above. Long-life, solid-state, low-voltage and current light. Mounted on star-type aluminum disc which serves as a heatsink and provides solder spots to simplify connection. 100° viewing angle. Maximum forward voltage, 4Vdc. Max. current, 350/ 700mA. Note: These are new parts. Because of their sensitivity to misuse, we cannot guarantee them after voltage has been applied. **CAT# LED-154** \$6.50 each



HIGH-POWER COOL-WHITE LED EMITTER

110-120 Lumen 1W white LED emitter. 3.35Vdc (typical), 350mA. Cool-white, 6000-6500K. 8mm diameter, 5.1mm overall height. Surface mount leads. Note: Should be mounted on heat sink for continuous use. These are new, functional parts, but they are sensitive to over-voltage and over-current. Therefore, we cannot guarantee them. **CAT# LED-216** \$3.50 ea. • 10 for \$3.20 ea.



SURFACE MOUNT LEDs

SMD RED LED

Ledtronics # SML10R3KT-TR. 3.2 x 2.8 x 1.90mm ultra red (660nm) surface mount LED. 120° viewing angle. Water-clear in off-state. Tape & reel cut strips. **CAT# LED-213** 20 for \$3.00
100 for 12¢ each



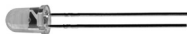
YELLOW SIDE-LOOKING LED

LiteOn # LTST-S320YKT. 1 x 3 x 2mm high side-looking yellow LED designed for LCD backlight illumination. 2mm diameter lens. Water-clear in off-state. 130° viewing angle. 585nm. **CAT# LED-165** 10 for \$1.50
100 for 12¢ each



5MM ULTRAVIOLET LEDs

Emits blue 395nm UV light. Water-clear lens. 3.7 Vdc, 20 mA. Ideal for counterfeit bill detection, detection of fluorescence in minerals, black-light posters.

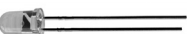


	CAT#	each	100	1000
30° beam pattern	ULED-2	\$1.40	1.05	.90
20° beam pattern	ULED-3	\$1.10	.90	.75

MISCELLANEOUS LEDs

INFRARED EMITTER

T-1 3/4 (5mm). Clear lens **CAT# ILED-8** 3 for \$1.00
100 for 20¢ each • 1000 for 14¢ each



4MM GREEN "TOMBSTONE" LED

4mm x 2mm rectangular LED with rounded face. Green diffused. **CAT# LED-172** 10 for \$1.00 • 100 for \$8.00



RGB COLOR-CHANGING LEDs, 5MM (T1-3/4)

Cycles through red-green-blue and combinations of RGB, yielding, purple, white and other hues. Great for attention-getting displays, costumes and jewelry. Two flash rates:

Slow Rate -- changes color every 3 or 4 seconds

CAT# LED-158 75¢ each
10 for 70¢ each • 100 for 50¢ each

Rapid Rate -- changes color every second for 10 seconds, then changes color 3 or 4 times per second for 10 seconds.

CAT# LED-231 75¢ each
10 for 70¢ each • 100 for 50¢ each



2MM GREEN LED IN HOLDER

2mm (T-3/4) green LED in plastic holder. Holder is 6mm x 2.5mm x 5mm high and interlocks with other similar holders. 5mm lead spacing.

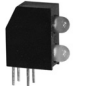
CAT# LED-176 ~~10 for \$1.00~~
15 for \$1.00 • 1000 for \$30.00 each



REDUCED PRICE!

GREEN / YELLOW BI-LEVEL LED ASSEMBLY

Ledtronics #PCB-1212-064. 3mm (T-1) diffused LEDs. Plastic assembly is 4.32mm wide x 10.9mm high. Chamfered upper back. LEDs on 2mm centers. Cross to Dialight 553, DDP PCT125, Lumex SSF-LXH240. 4mm leads. Large quantity available. Special pricing. **CAT# LED-161** 10 for \$1.00
100 for 8¢ each • 1000 for 5¢ each



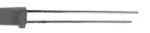
5VDC RED LED, 3MM DIFFUSED

Ledtronics, Inc # L120TR3B-5V 3mm dia. (T-1) red diffused led with built-in resistor to operate on 5Vdc. **CAT# MLED-5R** 4 for \$1.00
100 for 20¢ each • 1000 for 15¢ each



4MM RED FLAT-TOP LED

4mm diameter diffused red flat-top LED. Diffused red in off-state. **CAT# LED-167** 10 for \$1.00 • 100 for 8¢ each



20MM RED 6-LED LAMP

Six red LED chips under a clear plexiglass dome. Dome is 19.5mm dia. x 11mm high. Dome sits on a 23mm diameter x 3mm high base. Each led chip has two leads and requires an appropriate dropping resistor to operate on any voltage over 2.7 Volts. **CAT# LED-169** 2 for \$1.00 • 100 for 35¢ each



12 LED AMBER LAMP, USED

26mm dia. x 40mm long plastic lamp containing 12 bright amber LEDs. No official specs. Optimal voltage and current appears to be 11.5Vdc @ 25mA. Rear of lamp has a tapped brass insert for mounting and a rubber O-ring. Two 18" leads with 2-pin connector. These lamps are very sensitive to over-voltage. Like most LEDs they will last a long time when run at the proper voltage. However, they will burn out quickly above 11.5Vdc. Because of the sensitivity of this part, we cannot guarantee it. Removed from used equipment. **CAT# LED-155** \$2.00 each



LED TESTER

Pocket-size tester. Checks functionality, color, brightness and uniformity of leaded LEDs. Test current ratings from 2-50ma. Socket strip has seven middle positions set at 10 mA allowing comparison of LEDs in those spaces. Requires 9 v battery (not included).

CAT# LT-100 \$8.95 each



LED MOUNTING HARDWARE

CLIPS FOR 5MM LEDs

Black plastic clips allow snap-in mounting of standard size LEDs.

2-PIECE HOLDER Mounts in 6.3 mm hole.

CAT# HLED-4 10 for \$1.20

100 for 9¢ • 1000 for 8¢ each



2-PIECE Creates a cartridge that press-fits in 8mm diameter hole.

CAT# HLED-8 2 for 90¢

100 for 36¢ each • 1000 for 30¢ each



CLIPLITE HOLDERS Colored polycarbonate lens increases brightness and viewing angle with either diffused or non diffused LEDs. Mounts in 0.25" hole in panels of 0.06" to 0.125" thickness.

X= R (RED), G (GREEN), Y (YELLOW), C (CLEAR)

HLDCL-X 3 for 90¢

100 for 25¢ each • 1000 for 20¢ each



CLIPS FOR T-1 (3MM) LEDs

1 PIECE HOLDER Mounts in 4.5 mm hole.

CAT# HLED-5 10 for \$1.00

100 for 8¢ each • 1000 for 7¢ each



LED STANDOFFS

STANDOFF FOR 5MM LED

Black plastic standoff for 5mm dia., T 1 3/4, LED. For LEDs with or without flange. Standoff is 7mm dia. x 11.5mm high. LED sits inside of standoff, recessed 3mm. One plastic mounting pin.

CAT# HLED-10 10 for \$1.00 • 100 for 7¢ ea.



MOUNT FOR TWO 5MM FLANGELESS LEDS

Black plastic mount for two 5mm (T1-3/4) flangeless leds. 13.0 x 6.2 x 6.0mm h. Four plastic mounting pins on 11.0 x 5.2mm centers.

CAT# HLED-9 10 for \$1.00

100 for 8¢ each • 1000 for 6¢ each



RUBBER SPACERS 0.15" dia. rubber spacer for 3mm, T-1 LEDs. Leads can go through center holes, 1mm centers, or outer slots, 2mm centers.

0.15" SPACER **CAT# SLED-150**

10 for 50¢ • 100 for 4¢ each

1000 for 2.5¢ each



0.875" SPACER **CAT# SLED-875**

5 for 50¢ • 100 for 8¢ each

1000 for 4.5¢ each



12-24 VDC 8A DIMMER

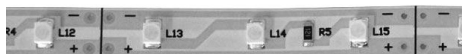
Designed for 12-24 VDC LED strip lights like our CAT#s LS-12-CW, NW, WW. Clearly-marked screw-clamp input/output terminals. Rotary adjustment. 3.5" x 2.35" x 2.25" high (including knob). Mounting holes on 1.6" x 3.1" centers.

CAT# DMR-8 \$19.95 each



12 VDC LED LIGHT STRIPS

WHITE LED STRIPS



Flexible 8mm wide, adhesive backed ribbon with surface-mount, ultrabright white LEDs every 15mm. Ideal for accent lighting in auto or home. Also great for under cabinet or shelf lighting. Dimmable. Use CAT# DMR-8. Can be cut every third LED or 50mm (approx. 2") and each segment can be lit independently. 12Vdc 25mA per segment. Wires can be soldered directly to ribbon tape. Sold as a continuous ribbon, up to 5 Meters (100 segments). Priced per 3-led, 50mm segments. Available in Cool, Neutral and Warm-white.

CAT# LS-12-CW

Cool-White - like fluorescent light

CAT# LS-12-NW

Neutral-white - Between Cool and Warm

CAT# LS-12-WW

Warm-white - Yellower, like incandescent light

\$2.35 per 3-led segment
10 segments for \$1.75 per segment
100 segments for \$1.55 per segment

RED/GREEN/BLUE 12VDC LED STRIP



Each surface mount LED is capable of red, green or blue, or any combination of colors. When all three colors are activated LED appears white. Flexible 10mm wide strip with 3M® adhesive backing. Operates on 12Vdc. The strip can be cut every 3 LEDs, 50mm (3"). Each of these 3-LED segments has clearly marked solder spots at both ends for attachment of wires or ribbon connectors. Strips can be connected end to end for longer lengths. Also available are two RF controllers, CAT# CT-21 and CAT# CT-23, which can be used to flash the LEDs in several programmed sequences at controllable speeds, also allowing dimming. Color-coded pigtail leads at both ends for easy connection. Sold in 3" (50mm) segments. A full strip is 100 segments with color-coded pigtail leads at both ends.

CAT# LS-22 \$2.50 per 3-led segment

10 segments for \$1.85 per segment

100 segments for \$1.50 per segment

CONTROLLERS FOR RGB LED STRIPS

Allows flashing, sequencing and dimming of tri-color LED strip, CAT# LS-22.

Will operate up to 5 strips, 1500 LEDs. Operates on 12-24Vdc.

Input via screw terminals or 2.5mm coax power plug. Power supply not included.

CAT# CT-21 \$35.00 each



A less expensive, infrared (IR) version of controller CT-21. Will operate 1 strip, 300 LEDs. Mates with connector pins on LED strip. Because remote control communicates via IR, remote must be operated in "line of sight" of controller.

12 Vdc regulated power supply included.

CAT# CT-23 \$25.00 each

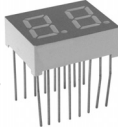


LED DISPLAYS

7 SEGMENT DISPLAY

Common Anode. Fits 24 pin DIP socket. Green. 2-digit 0.4" character height. Prepped with two plastic spacers which raise it 9mm from the PC board.

CAT# TDA-482 75¢ each
10 for 65¢ each • 100 for 50¢ each



3-DIGIT LED DISPLAY, 0.56"

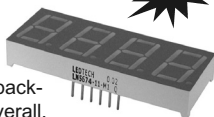
Ledtech# LC5673-11 EWRN. Three 7-segment LED digits with decimal points. 0.56" (14.22mm) high characters. Common cathode. Red digits on grey background. 28-pin DIP package, 37.7 x 19.0mm overall.

CAT# SDC-563 90¢ each
10 for 80¢ each • 100 for 75¢ each



4-DIGIT LED DISPLAY, 0.56"

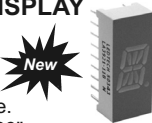
Ledtech #LN5674-11-M1-EWRN. Four 7-segment LED digits with decimal points. 0.56" (14.22mm) high. Common anode. Red digits on grey background. 50.4 x 19.05mm overall. 12-pin DIP package. 15.24mm (0.6") spacing between rows. **CAT# SDA-25** \$1.25 each
10 for \$1.10 each



ALPHA-NUMERIC LED DISPLAY

Ledtech # LA3921-11B. 0.4" high character. 14-segment with decimal point. Green LEDs on grey background. Common anode. Fits 18-pin DIP socket. 0.93" x 0.39".

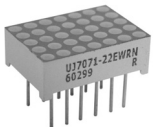
CAT# SDA-24 \$1.25 each



5 X 7 DOT MATRIX LED DISPLAY, 0.68"

Ledtech #LJ7071-22. Red dots on grey background. 12-pin DIP package. 0.3" (7.62mm) spacing between rows.

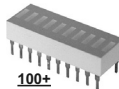
CAT# SDD-68 \$2.50 each
10 for \$2.35 each



BARGRAPH DISPLAYS

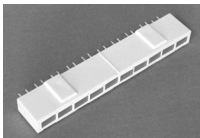
20 pin DIP socket. 10 segments.

Color	CAT #	1-9	10-99	100+
Red	BG-10	1.50	1.25	1.00
Green	BG-10G	1.50	1.25	1.00



10-LED BARGRAPH

Ledtronics #LB2512-10R3 QG. 10 red rectangular LEDs in a white surround. 635nm. 120° viewing angle. Overall size, 65 x 6 x 11mm high. Leads on 0.1" centers. **CAT# BG-10R3** \$1.00 each



INDICATOR LAMPS

12VDC LED INDICATOR ASSEMBLIES

No external resistor required. 5mm dia. diffused LED mounted in a 10mm dia. chrome bezel. 8mm dia. threaded bushing with mounting hardware. Assembly extends 30mm below mounting panel. Available in Red (R), Green (G), and Yellow (Y). **CAT# IND-16X (X=R,G,Y)** \$2.25 each



LED INDICATOR ASSEMBLIES

5mm diameter diffused LED mounted in a 10mm dia. chrome bezel. 8mm dia. threaded bushing with mounting hardware. Operate on any DC voltage as long as an appropriate resistor is connected. See our LED Hook-up guide in Spec Sheets. Available in Red (R), Green (G), Amber (A) and Blue (B). **CAT# IND-13X (X=R,G,A,B)** \$1.75 each



BLUE LED INDICATOR, CHROME ASSEMBLY

3Vdc LED will operate on any voltage when used with appropriate resistor. Threaded bushing mount in 8mm dia. hole. 10mm dia. chrome bezel. 24" color-coded leads. **CAT# IND-16B** \$1.75 each



120V INDICATOR LAMPS

Snap-fit in 9mm dia. hole. 10mm dia. lens. 30mm long. 6" leads. Three colors (red, green, amber) **CAT# IND-120(R, G, A)** \$1.50 each



120 VAC RED INDICATOR ASSEMBLY

Solico. Red neon indicator. 125V 1/3 W. 0.30" dia. x 1.32" long housing. Red lens with 0.39" diameter metallic bezel. 28" wire leads w/ 0.25" female qc connectors. UL, CSA. **CAT# IND-122** \$1.20 each



125VAC NEON INDICATOR ASSEMBLY

McGill red 125Vac neon indicator assembly. 31.5 x 17mm black bezel with 21 x 10.5mm red lens. Snap-mounts in 13 x 26mm chassis hole. 34mm behind panel depth including terminals. 0.25" qc / solder terminals. UL, CSA.

CAT# IND-34 2 for \$1.00
100 for 40¢ each • 1000 for 30¢ each



12V GREEN INDICATOR LAMP ASSEMBLY

12 Volt incandescent indicator assembly. 7mm diameter threaded body. 8mm diameter green jewel is 6mm in height. Solder-lug terminals. **CAT# IND-17G** \$1.00 each



12 VDC LED INDICATORS

Threaded bushings with nuts for easy mounting. 8mm above panel height. 22mm below panel depth. Two sizes, four colors (red, green, blue, yellow). Solder-lug terminals.

10mm dia. lens. 10mm bushing. **CAT # IND-10(R, G, B, Y)** \$1.25 each • 10 for \$1.10 each



12mm dia. lens. 12mm bushing. **CAT# IND-12(R, G, B, Y)** \$1.35 each • 10 for \$1.15 each



4 LED CLUSTERS

5-12Vdc LED assembly designed for use in cars or computers. Bright, eye-catching accent-lighting. Four-led cluster mounted in a plastic assembly, 1.58" x 0.82" x 0.5" high. Two recessed mounting holes on 1.15" centers. 36" cable with red and black leads. For 12Vdc use, but they are very bright at 5-6 Vdc. Two colors of base available, chrome and black. LEDs available in blue (B), red (R) and amber (A). No mixing for discounts.



CHROME BASE **CAT# CLD-4X** (X = B, R OR A)
\$6.00 each • 10 for \$5.50 each

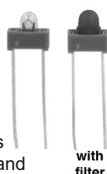
BLACK BASE

CAT# BLD-4X (X = C OR B – white or blue only)
\$6.00 each • 10 for \$5.50 each

INCANDESCENT LAMPS

6V INCANDESCENT LAMP WITH BLUE FILTER

6 Volt, 75mA miniature lamp assembly with removable blue silicon-rubber filter. 3mm diameter lamp is built-into a 4 x 7 x 3mm high plastic platform with wire leads on 5mm centers. Overall height of lamp and platform is 7mm. Leads are 18mm long.



CAT# LP-71 5 for \$1.00

100 for 15¢ each • 500 for 13¢ each
1000 for 10¢ each • 1500 for 9¢ each

T-1 (3MM) w/ INSULATED WIRE LEADS

1.5v @ 40 ma. 10" leads.

CAT# LP-3 95¢ each • 100 for 65¢ each

3v @ 55 ma. 10" leads.

CAT# LP-4 95¢ each • 100 for 65¢ each

14v @ 45 ma. 10" leads.

CAT# LP-6 95¢ each • 100 for 65¢ each

T-1 (3MM) w/ BARE WIRE LEADS

5 Volt 115 ma **CAT# LP-715** 2/\$1.00 100+ \$40.00

SPECIAL!

14 Volt 40 ma **LP-23** 3/\$1.00 100/\$20.00
500 for 18¢ each • 1000 for 14¢ each

T-1 3/4 (5MM) w/ BARE WIRE LEADS

28 V 40ma **CAT# LP-2185** 4/\$1.00 100+ \$17.00
28 V 60 ma **LP-28** 4/\$1.00 \$17.00
28 Volt 65 ma **LP-286** 4/\$1.00 \$17.00

GLASS WEDGE BASE LAMPS

T3-1/4 size. 0.40" diameter x 0.98" long.
10 pc minimum of one type (no mixing)

	CAT#	10	100
6.3V, 0.25A	LP-259	\$3.50	\$25.00
14V, 0.19A	LP-161	\$3.50	\$25.00
14V, 0.27A	LP-194	\$3.50	\$25.00
28V, 0.08A	LP-657	\$3.50	\$25.00



SOCKET FOR T 1 1/2 WEDGE-BASE

#2967 socket with 4.5" wire leads.
For T1-1/2 mini wedge-base lamps.

CAT# LPS-2967 50¢ each
10 for 45¢ each • 100 for 35¢ each



14V MINI BAYONET BASE LAMP

#1815 lamp. 14.0 volts, 0.200 amps.

CAT# LP-1815 2 for \$1.00
100 for 45¢ each



SOCKETS FOR MINI BAYONET BASE LAMPS

0.5" long L-bracket. One terminal has diode for polarity protection. Solder terminals. **CAT# LS-8** 35¢ each



1.15" long L-bracket.

Solder terminals.

CAT# LS-9 35¢ each



12-14V NEO-WEDGE BASE LAMP

JKL # DNW1-DW12/GRA/39-04S-4B.

4mm dia. incandescent lamp on a gray plastic mounting platform designed to twist-lock onto a pc board. Wire leads run across top and bottom of base and are accessible for direct connection. Lamp is provided with a removable green silicon rubber filter. Overall height is 12mm. Base dia. is 10mm.

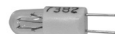
CAT# LP-70 5 for \$1.00 • 100 for 15¢ each
500 for 13¢ each • 1000 for 10¢ each



T-1 3/4 5MM DIAMETER LAMPS

T - 1 3/4 BI-PIN LAMP

VOLTS	AMPS	CAT#	
14	.080	LP-7382	2 for \$1.00 100 for \$45.00
18	.040	LP-7370	2 for \$1.00 100 for \$45.00
28	.040	LP-7387	2 for \$1.00 100 for \$45.00



T-1 3/4 MIDGET FLANGE LAMP

VOLTS	AMPS	CAT#	
14	.08	LP-382	2 for \$1.00 100 for \$45.00
28	.040	LP-327	2 for \$1.00 100 for \$45.00



NEON LAMP ASSEMBLY w/ RESISTOR

Prepped with resistor and 7" stripped and tinned pigtail leads. Operates on 120 Vac. Clear vinyl sleeve covers the top 2" of the leads.

CAT# NE-210 3 for \$1.00
50 for 27¢ each • 500 for 23¢ each



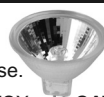
BI-PIN HALOGEN LAMPS

MR-16 BI-PIN

12 Volt. GU5.3, bi-pin base.

WATT	DEGREE	CODE	CAT#
20W	12 Degree	ESX	CAT# HLP-20S
20W	36 Degree	BAB	CAT# HLP-20
35W	36 Degree	FMW	CAT# HLP-35
50W	36 Degree	EXN	CAT# HLP-50
75W	36 Degree	EYC	CAT# HLP-75

\$1.25 each • 10 for \$1.10 each • 100 for 95¢ each
no mixing



HALOGEN LAMP W/ SOCKET

71 Watt, 12 Volt MR-16, bi-pin halogen lamp and mounting frame with ceramic socket. Overall dimensions, 2.20" x 2.15" x 1.92" high. 6" leads with heat-resistant insulation.

CAT# HLP-710 \$3.00 each



SOCKETS FOR BI-PIN HALOGEN LAMPS

HALOGEN BI-PIN SOCKETS

For MR16, MR11, glass 2-pin halogen lamps. GX5.3, G-4 and GY6.35 base. 500 Watts. Silver contacts, spring tension socket. 6" leads. UL.

Round ceramic base,
0.67" dia. x 0.38".

CAT# HLS-3

\$3.50 each



3mm x 0.5mm pitch.

Threaded mounting holes

CAT# HLS-4

\$3.65 each



FLUORESCENT LAMP PARTS

MEDIUM BI-PIN SOCKET

H&H # 1-500W-1 W/ Clip.

Butt-On fluorescent socket. Spring steel snap-in clips on back, 28mm centers. 8" black and white leads, 18 AWG solid. 660W, 600V. cULus.

CAT# SKT-262 \$1.00 each

100 for 80¢ ea. • 500 for 60¢ ea.



9W T-4 COMPACT LAMPS

9W compact UV lamp

365nm. Type T-4, 2-pin, G23 base. Overall length, 6.5"

CAT# UVL-4 \$1.25 each



9W compact fluorescent lamp

Sylvania Dulux® CF9DS/ 850. Type T-4. 2-pin, G23 base. Overall length 6.5"

CAT# FL-30 \$1.00 each • 50 for 80¢ each

White plastic socket for

CAT# FL-30 above. Not for UVL-4.

CAT# SKT-30 60¢ each • 50 for 55¢ each

FLUORESCENT STARTER SWITCH

Edwin Gaynor # 1170-2-SI-N-W.

Rocker switch for up to two 30W 120 Vac lamps. Press-and-hold momentary side of switch to start lamp; press the other side to turn it off.

Snap-mounts in 33 x 15mm rectangular cutout.

Self-connecting terminals for stripped solid copper wire. **CAT# RS-194** \$1.45 each

100 for \$1.15 each

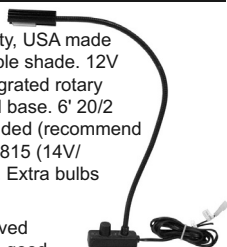


LITTLITE® GOOSENECK TASK LIGHT, USED

Littlite® L-series, surface-mount task lamp. High-quality, USA made 18" gooseneck with adjustable shade. 12V incandescent lamp with integrated rotary dimmer/switch. 3" x 1" metal base. 6' 20/2 cord. Power supply not included (recommend CAT# PS-1251 or similar). 1815 (14V/200mA) bayonet base lamp. Extra bulbs available - CAT# LP-1815.

Note: lamps are used, removed from equipment. They are in good condition, but have scratches & blemishes.

CAT# LT-17 \$9.00 each



110/130V 500W HALOGEN LAMP

Flexotek #505

4.63" long x

0.39" diameter. 0.30" dia. ceramic ends.

Typically used in high-intensity work lights and other rectangular/square high-intensity fixtures.

CAT# HLP-500 \$1.50 ea. • 10 for \$1.25 ea.



FUSE LAMPS

Popular lamps which are the same size as a 3AG 1/4" x 1 1/4" (AGC) fuse.

VOLTS	CAT#	EACH	10
6	LPFS-6	75¢	\$7.00
8	LPFS-8	\$1.00	\$8.50
12	LPFS-12	75¢	\$7.00



24V 5W XENON FROSTED RIGID LOOP LAMP

T-3 1/4 rigid loop lamp. 24V, 5W, 0.208A, 40 Lumens. Long-life, 20,000 Hr lamp. 10mm dia. x 35mm long (excluding terminals).

CAT# XLP-24 \$1.00 each • 50 for 75¢ each



FLASHERS

12 VDC FLASH ASSEMBLY

Bright xenon strobe assembly for highway emergency signal.

Approximately 80 flashes per minute. 12Vdc operation.

Horseshoe flash tube (31.5 x 16 x 6mm) mounted on 65 x 75mm pc board. On/off switch. Easy to connect. See hook-up diagram on-line spec sheet.

CAT# FSH-13 \$5.50 each



For alarm systems, discos, personal use, warning in case of danger, etc.

Long-life xenon tube. Protected against polarity reversal. Fully sealed

and water-proof. Power supply:

12 Vdc, 150 mA. Flash rate: 120/min.

2.75" dia. x 1.70". Acrylic cover with black ABS base. Threaded mounting studs on 1.7" centers. Hardware included.



color	CAT#	price
red	STROBE-3R	\$9.95 each
green	STROBE-3G	\$9.95 each
blue	STROBE-3B	\$9.95 each
amber	STROBE-3A	\$9.95 each
clear	STROBE-3C	\$9.95 each

FLASH ASSEMBLY

Working 1.5 Vdc, xenon flash

assembly with flash tube and

reflector, trigger transformer,

photoflash capacitor, neon charge

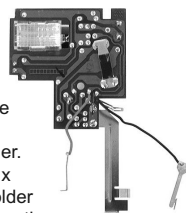
indicator and other components.

Ready to go. Built-in-AA cell holder.

PC board with components, 2.1" x 2.15" x 1.15" in depth. Battery holder adds 1.6" to length. Includes instructions.

CAT# FSH-12 \$1.00 each

10 for 85¢ each • 100 for 60¢ each



INEXPENSIVE LED FLASHER

The simplest electronic flasher ever.

A red 5mm LED with built-in flasher chip is attached to a 9 volt battery snap.

Operates on 3-9 Vdc. Flash rate, approximately 120 flashes per minute. Batteries not included.

CAT# FSH-100 2 for \$1.00

10 for 45¢ each • 100 for 40¢ each



SENSORS

CO₂, TEMPERATURE, HUMIDITY SENSORS & OTHER PARTS

"The Nose" monitor by Pure Choice. New, high-quality air sensor units containing a CO₂ sensor, a temperature and relative humidity sensor as well as an 8 x 2 LCD with LED backlight display and a 12Vdc, 40mm mini fan. We sell all of these parts separately, but you can save by buying this one device. Easy to disassemble. Note: not functional without central controller.



Contains:

CAT# CDS-1	CO ₂ Sensor	\$10.00
CAT# THS-15	Temp/humidity sensor	\$10.00
CAT# LCD-812	8x2 LCD w/backlight	\$5.50
CAT# CF-392	12Vdc 40mm fan	\$3.25

All of this

CAT# EX-11 \$20.00 each

TEMPERATURE AND HUMIDITY SENSOR

Temperature and humidity sensor with a 14bit A/D converter and a serial interface circuit. Sensirion SHT-15 chip mounted on a 80 x 10mm ribbon cable. Connecting fingers on 1mm centers.



CAT# THS-15 \$10.00 each

NDIR CARBON DIOXIDE SENSOR

GE, Telaire T6004. Compact Carbon Dioxide sensing module designed to integrate into existing controls and equipment. NDIR (Non-dispersive infrared) gold-plated optics. Diffusion or Flow-through sampling. Module size: 57 x 51 x 19mm.



CAT# CDS-1 \$10.00 each

PRESSURE SWITCH

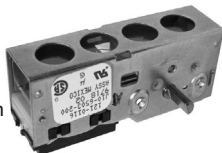
Goldtech #PS-100-0021. ON=0.17"WC. Max. 1psi. Field adjustable. Large dia. diaphragm with 5A SPDT, snap-action switch. Noryl® (PPO) case material. Multi-barb port connection for 0.250" and 0.375". 80mm dia. x 48.5mm overall thickness. Recommend vertical mount. Overall height: 100mm.



CAT# PSW-15 \$8.95 each

HUMIDISTAT

Ranco # J10-6503-200 Similar to a thermostat except it responds to relative humidity rather than temperature. Consists of a humidity sensing element, adjustable setpoint cam and an electrical switch. The sensing element changes length in response to the exposed relative humidity to move the switch mechanisms at the appropriate switch points. Set adjustment screw to a certain limit; when that limit is reached a S.P.S.T. switch opens or closes. Outer dimensions, 86 x 26 x 40mm, excluding adjustment shaft and switch terminals.



CAT# HMC-503 \$3.50 each

TRIPLE AXIS ACCELEROMETER BREAKOUT - ADXL335

Breakout board for the 3 axis ADXL335 from Analog Devices.

New



The ADXL335 is a triple axis accelerometer with extremely low noise and power consumption - only 320uA! Sensor has a full sensing range of +/-3g. Operates on 1.8 to 3.6 Vdc. Dimensions: 0.7 x 0.7"

CAT# ACL-69 \$24.95 ea. • 10 for \$22.46 ea.

PING™ ULTRASONIC RANGE FINDER

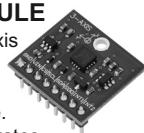
Parallax 28015. Provides a low-cost, easy method of distance measurement. Uses sonar, an ultrasonic pulse, the echo is timed to measure the distance-to-target. Ideal for robotics, and security applications. Provides precise, non-contact distance measurement within a 2cm to 3 meter range. Operates on 5Vdc. 0.81" x 1.8" x 0.60".



CAT# PX-28015 \$29.99 each

3-AXIS GYROSCOPE MODULE

Parallax # 27911. A low-power, 3-axis (yaw, pitch and roll) angular rate sensor with temperature data as an added bonus. High shock tolerance. Power-down and sleep mode. Operates on 2.7-6.5Vdc. 0.85" x 0.80"



CAT# PX-27911 \$29.99 each

COMPASS MODULE

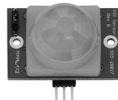
Parallax# 29133. 3-axis, HMC5883L compass module for low-field magnetic sensing with a digital interface. Converts any magnetic field to a differential voltage output on 3 axis. This voltage shift is the raw digital output value, which can then be used to calculate headings or sense magnetic fields coming from different directions.



CAT# PX-29133 \$29.99 each

PIR (PASSIVE INFRARED) SENSOR

Parallax# 28027. Detects motion by measuring changes in infrared (heat) levels emitted by surrounding objects. When motion is detected the PIR Sensor outputs a high signal on its output pin. This logic signal can be read by a micro controller or used to drive an external load. Detection range, 15' on short setting, up to 30' on long setting. LED for visual feedback. Operates on 3-6 Vdc. 1.41" x 1.0" x 0.9".



CAT# PX-28027 \$10.99 each

ALTIMETER MODULE

Parallax # 29124.

High resolution (20cm) altimeter sensor with SPI and 1°C bus interface. Includes a high linearity barometric pressure sensor and a high resolution temperature output, allowing implementation of an altimeter/thermometer without additional sensors. Operates on 3.3-6.5Vdc.



CAT# PX-29124 \$29.99 each

ULTRASONIC TRANSDUCER

Matsushita #0D24K2. 0.95" diameter x 0.38" metal case. 0.65" long pc leads on 0.4" centers.



CAT# XDR-24 \$1.25 each
10 for \$ 1.00 each

FUSES

3 AG (AGC) FUSES



STANDARD FUSES 1/4" X 1 1/4"

AMP	CAT#	PACK OF 5	100
1/4	FS-025	1.00	\$15.00
1/2	FS-0.5	1.00	\$15.00
1	FS-1	.75	\$12.00
1.5	FS-1.5	.75	\$12.00
2	FS-2	.75	\$12.00
2.5	FS-2.5	.75	\$12.00
3	FS-3	.75	\$12.00
4	FS-4	.75	\$12.00
5	FS-5	.75	\$12.00
6	FS-6	.75	\$12.00
8	FS-8	.75	\$12.00
10	FS-10	.75	\$12.00
15	FS-15	.75	\$12.00
20	FS-20	.75	\$12.00
25	FS-25	.75	\$12.00
30	FS-30	.75	\$12.00

SLOW BLOW 3 AG (MDL) FUSES

1/4" X 1 1/4" SLOW BLOW FUSES



AMP	CAT#	PACK OF 5	100
0.5	FSSB-0.5	1.75	\$30.00
1	FSSB-1	1.75	\$30.00
1.5	FSSB-1.5	1.75	\$30.00
2	FSSB-2	1.75	\$30.00
2.5	FSSB-2.5	1.75	\$30.00
3	FSSB-3	1.75	\$30.00
4	FSSB-4	1.75	\$30.00
5	FSSB-5	1.75	\$30.00
6	FSSB-6	1.75	\$30.00

GMA SIZE FUSES

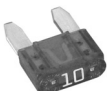


MINIATURE FUSES 3/16" X 3/4"

AMP	CAT#	PACK OF 5	100
1/2	GMA-05	1.00	\$15.00
1	GMA-1	.75	\$12.00
1.5	GMA-1.5	.75	\$12.00
2	GMA-2	.75	\$12.00
3	GMA-3	.75	\$12.00
4	GMA-4	.75	\$12.00
5	GMA-5	.75	\$12.00
6	GMA-6	.75	\$12.00
7	GMA-7	.75	\$12.00
8	GMA-8	.75	\$12.00
10	GMA-10	.75	\$12.00
12	GMA-12	.75	\$12.00
15	GMA-15	.75	\$12.00
20	GMA-20	.75	\$12.00

MINI ATC BLADE FUSES

11mm wide



AMP	COLOR	CAT#	4 PCS	100
2	GREY	MATC-2	\$1.20	\$22.00
3	PURPLE	MATC-3	\$1.20	\$22.00
4	PINK	MATC-4	\$1.20	\$22.00
5	AMBER	MATC-5	\$1.20	\$22.00
7.5	VIOLET	MATC-7.5	\$1.20	\$22.00
10	RED	MATC-10	\$1.20	\$22.00
15	TEAL	MATC-15	\$1.20	\$22.00
20	YELLOW	MATC-20	\$1.20	\$22.00
25	CLEAR	MATC-25	\$1.20	\$22.00
30	GREEN	MATC-30	\$1.20	\$22.00

8 AG FUSE, 6 AMP



1/4" X 0.9" CAT# 8AG-6 3 for \$1.00

PIGTAIL FUSES

4A 250V

5mm x 20mm, time-lag, ceramic fuse. 4A 250V. 40mm leads. UL. CAT# PTF-4 2 for \$1.00

15A 250V Time-delay glass fuse. 1.25" long x 0.275" dia. body. 1.5" leads. UL.

CAT# PTF-15 3 for \$1.00 • 100 for 25¢ each

ATC AUTOMOTIVE BLADE FUSES

19mm wide. Fits fuseholder FHP-25. Four piece minimum per item.



AMP	COLOR	CAT#	4 PCS	100
3	VIOLET	FSA-3	\$1.20	\$22.00
5	TAN	FSA-5	\$1.20	\$22.00
10	RED	FSA-10	\$1.20	\$22.00
15	TEAL	FSA-15	\$1.20	\$22.00
20	YELLOW	FSA-20	\$1.20	\$22.00
25	CLEAR	FSA-25	\$1.20	\$22.00
30	GREEN	FSA-30	\$1.20	\$22.00

AGU (5AG) FUSES AND HOLDERS

1.5" long x 0.41" diameter. Gold-plated fuses for high current applications.



Sold in packages of 5 pieces. 32 Volt max.

30 Amp	CAT# AGU-30	\$2.95 per package
40 Amp	CAT# AGU-40	\$2.95 per package
50 Amp	CAT# AGU-50	\$2.95 per package
60 Amp	CAT# AGU-60	\$2.95 per package

IN-LINE AGU FUSE HOLDERS

Waterproof, clear plastic holders with pressure fittings at each end for AWG 4-10 wire. CAT # FHP-79



\$3.95 each • 10 for \$3.65 each

FUSE HOLDERS

AGC (3AG) FUSE HOLDERS (for fuses 1/4" X 1 1/4")

PANEL MOUNT

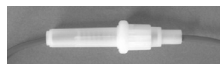
Screw style cap. Holder fits 3 AG (AGC) or MDL fuses. Chassis mounting hole 0.59" (15mm) diameter. CAT# FHPM-31 90¢ each



10 for 85¢ each • 100 for 75¢ each

IN-LINE AGC (3AG) FUSE HOLDER

For AGC (3AG) fuses. Red wire. Fuse not included.



CAT# FHP-2 85¢ each • 10 for 75¢ each

GMA FUSE HOLDERS (for fuses 3/16" x 3/4")

Alco GMA panel mount fuse holder. Screw cap. Solder-lug terminals. Rated 10 Amps 250 Vac.



CAT# FHPM-45 75¢ each
10 for 70¢ each • 100 for 65¢ each

IN-LINE GMA FUSE HOLDER W/ FUSE

Red 22 ga wire. 32" overall length. Includes F1L250V fuse.



CAT# FHP-49 85¢ each • 100 for 65¢ each

ATC BLADE FUSE HOLDERS

Red 14 AWG wire with cover.

CAT# FHP-25

\$1.50 each



SWITCHES

(brackets) indicate momentary position

SUB MINIATURE TOGGLE

0.2" diameter threaded bushing
unless otherwise noted.

S.P.D.T. ON-ON Rated: 3 amp @ 125 Vac.
Solder lug terminals. 0.4" long bat handle.
CAT# SMTS-4 \$1.35 each
10 for \$12.50 • 100 for \$110.00



D.P.D.T. ON-ON Rated: 3 amp @ 125 Vac.
Solder lug terminals. 0.4" long bat handle.
CAT# SMTS-8 \$1.75 each
10 for \$15.50 • 100 for \$135.00



MINIATURE TOGGLE

1/4-40 threaded bushing. 0.43"
long handle unless otherwise noted

S.P.D.T. ON-ON
RATED: 6 amp @ 120 Vac. Solder lug
terminals. **CAT# MTS-4** \$1.25 each
10 for \$11.00 • 100 for \$95.00



S.P.D.T. ON-ON
RATED: 6 amp @ 120 Vac. P.C. terminals.
CAT# MTS-4PC \$1.25 each
10 for \$11.00 • 100 for \$95.00



S.P.D.T. ON-OFF-ON
RATED: 5 amp @ 120 Vac
Center off. Solder lug terminals. UL.
CAT# MTS-5 \$1.25 each
10 for \$11.00 • 100 for \$95.00



SPDT ON-OFF-(ON) MINI TOGGLE SWITCH

C&K 7107. SPDT, center-off, momentary
one direction, miniature toggle switch.
Rated 0.4VA. Plain, 1/4" unthreaded bushing.
Flat toggle handle. Horizontal switching action.
Right-angle pc pins.



CAT# MTS-69 \$1.00 each

D.P.D.T. ON-OFF-ON
RATED: 3 amp @ 120 Vac
Threaded bushing. Solder lug terminals.
CAT# MTS-12 \$1.85 each
10 for \$17.00 • 100 for \$145.00



S.P.D.T. ON-OFF-(ON)
NON-THREADED BUSHING
Rated: 5 amp @ 120 Vac. Center-off
P.C. style. Momentary one direction only.
CAT# MTS-70PC 50¢ each
10 for \$4.75 • 100 for \$43.00



D.P.D.T. ON-ON
RATED: 6 amp @ 120 Vac.
Solder lugs. **CAT# MTS-8**
\$1.75 each • 10 for \$16.00
100 for \$135.00



D.P.D.T. ON-OFF-ON
NON-THREADED BUSHING. Rated: 5 amp
@ 120 Vac. P.C. terminals. Center-off.
CAT# MTS-120PC \$1.50 each
10 for \$13.00 • 100 for \$100.00



DPDT MINI-TOGGLE, ON-ON

D.P.D.T. mini-toggle switch. Plain,
non-threaded 0.25" diameter
bushing. 0.95" long, flat toggle
handle. Rated 5A, 120Vac. PC leads.
CAT# MTS-75 85¢ each



3.P.D.T. ON-ON

Rated 6 Amps, 125 Vac.
Solder-lug terminals.
CAT# MTS-60
\$2.40 each



3.P.D.T. ON-OFF-ON

Rated 6 Amps, 125 Vac.
Solder-lug terminals.
CAT# MTS-63
\$2.60 each



4.P.D.T. ON-ON

Rated 6 Amps, 125 Vac.
Solder-lug terminals.
CAT# MTS-70
\$3.25 each



STANDARD TOGGLE

15/32" threaded mounting bushing

15/20A TOGGLE SWITCHES

Heavy-duty, toggle
switches rated 20A @
125Vac / 15A @ 250Vac.
STS-70 and STS-71 are
rated 15A @ 125Vac /
10A @ 250Vac.



**Note: Parentheses in DESCRIPTION,
ie, (on)-off, indicates a momentary-on position.**

SCREW TERMINALS

CAT#	STYLE	DESC	EA	10
STS-56	SPST	on-off	\$2.00	\$1.85
STS-57	SPDT	on-on	\$2.35	\$2.10
STS-58	SPDT	on-off-on	\$2.40	\$2.20
STS-78	SPDT	(on)-off-(on)	\$2.55	\$2.35
STS-59	DPST	on-off	\$2.60	\$2.45
STS-89	DPDT	on-on	\$3.00	\$2.80
STS-60	DPDT	on-off-on	\$3.20	\$2.95
STS-79	DPDT	(on)-off-(on)	\$3.35	\$3.05
STS-80	DPDT	(on)-off-on	\$3.55	\$3.25
STS-70	4PDT	on-on	\$3.65	\$3.40
STS-71	4PDT	on-off-on	\$3.85	\$3.65

SOLDER / 0.25" QC TERMINALS

CAT#	STYLE	DESC	EA	10
STS-94	SPST	on-off	\$2.10	\$1.95
STS-95	SPDT	on-on	\$2.45	\$2.20
STS-96	SPDT	on-off-on	\$2.50	\$2.30
STS-100	SPDT	(on)-off-(on)	\$2.65	\$2.45
STS-97	DPST	on-off	\$2.70	\$2.55
STS-98	DPDT	on-on	\$3.10	\$2.90
STS-99	DPDT	on-off-on	\$3.30	\$3.05
STS-101	DPDT	(on)-off-(on)	\$3.45	\$3.15
STS-102	DPDT	(on)-off-on	\$3.65	\$3.35

DUAL SPST TOGGLE SWITCH

Rated 3 Amps @ 125 Vac. Looks like
a DPST toggle switch, but it is actually
two separate single pole switches.
When one is open, the other is closed.
Solder terms.

CAT# STS-20 \$1.50 each



TOGGLE SWITCH SAFETY COVERS

For most standard toggle switches, ie., our CAT# STS. Fits over 15/32" dia. bushing. Prevents accidental switching. When cap closes it switches toggle to down position. Cap must be open to change switch position. Cap stays open at 90 Degree angle, but springs to closed position with light touch.



Translucent Red **CAT# SC-518**
\$2.00 each • 10 for \$1.75 each

Black **CAT# SC-510**
\$2.00 each • 10 for \$1.75 each

Carbon-fiber look **CAT# SC-514**
\$2.00 each • 10 for \$1.75 each

12V LIGHTED ROCKER SWITCHES

12V LIGHTED ROCKER SWITCHES,

ROUND S.P.S.T., on-off 12V lighted rocker switch. Round body. Rated 16A. Can be wired to be always on, or when contacts are closed. Solder or 0.187" qc terminals.

0.90" DIA. BEZEL,
12V INCANDESCENT LAMP
Lighted red rocker with on-off symbols.
Mounts in 0.8" diameter hole.
CAT# LRS-32 \$1.85 each



0.90" DIA. BEZEL, ROCKER W/ LED
available with red, green, amber or blue
LED embedded in one side of rocker.
Built-in resistors allow LEDs to light on
12 Vdc. Mounts in 0.8" diameter hole.
CAT# LRS-28X (X=R, G, A or B) \$2.20 each



12V incandescent S.P.S.T. rocker.
0.65" dia. bezel, 0.45" diameter. Red.
Snap-mounts in 0.59" diameter hole.
Rated 6 amps. Solder loop terminals.
CAT# LRS-31 \$1.95 each



12 VDC LED LIGHTED ROCKERS (OVAL)

S.P.S.T., on-off, surface-mount rocker
switches with red LED indicators. Built-in
resistors for 12 Vdc operation. Surface
mount switch with threaded bushing with nut,
conveniently mounts in 0.48" dia. hole. Matte-black
oval switch with LED on one side of rocker. Above
panel dimensions are 1.22" x 0.78" x 0.63" high.
0.25" qc / solder terminals. Rated 20 A / 12 Vdc.
Available with LEDs in four colors, red (R),
green (G), amber (A), and blue (B).
CAT# LRS-30X (X=R, G, A, or B) \$2.20 each



12V LIGHTED PADDLE SWITCHES

S.P.S.T., on-off, lighted paddle switch.
Standard 15/32" threaded mounting bushing.
1.15" long x 0.43" wide plastic paddle (toggle).
12V lamp in body of switch radiates, with a
soft light, through the opaque paddle. Light
is on when switch is on. Available in red,
green, blue and amber. Red and amber are
brighter than blue and green when lit. 0.25" qc /
solder terminals. **CAT# LPS-8(X)**
X=R (red), G (green), B (blue), A (amber)
\$3.20 each • 10 of one color \$3.00 each



ROCKER SWITCHES

ROUND ROCKERS

Matte-black, single-pole rocker switches.
Snap-mount in 0.8" diameter hole.
0.9" diameter bezel. 0.6" diameter
round rocker. Rated 13 Amps / 125 Vac.
Solder or 0.187" qc terminals. TUV.
Three configurations available:



ON-OFF, S.P.S.T. **CAT# RS-144** \$1.25 each

ON-ON, S.P.D.T. **CAT# RS-145** \$1.35 each

ON-OFF-ON, S.P.D.T., center-off
CAT# RS-146 \$ 1.40 each

ON-OFF ROCKER SWITCH, 20 AMP

S.P.S.T. rocker switch. Matte black
rocker and bezel. 1.22" x
0.67" bezel. Switch snap-mounts
in 1.15" x 0.55" cutout.
0.25" qc / solder terminals.
Rated 20 Amps @ 125 Vac. UL, DVE.

CAT# RS-148 60¢ each
10 for 50¢ each • 100 for 40¢ each



"ON-OFF" in white
lettering on rocker.
CAT# RS-147 60¢ each
10 for 50¢ each
100 for 40¢ each



DPST ROCKER SWITCH

SMK #BZ35. D.P.S.T., on-off rocker
switch. Matte-black bezel (21 x 15mm)
and rocker. Rocker has embossed white
symbols – and O which appear on edge
of rocker. Snap-mounts into 20 x 13mm rectangular
cut out. Rated 6A/ 125Vac. 0.185" QC or solder
terminals. UL, CSA.

CAT# RS-189 65¢ each
100 for 50¢ each



ON-OFF ROCKER SWITCH

Arcoelectric # 1500AABB-1102.
S.P.S.T., on-off rocker switch.
Black rocker and bezel. Bezel is
1.20" x 0.55". "ON" and "OFF"
embossed on rocker in white letters.
Snap-mounts in 1.1" x 0.47" chassis cutout. Rated
16A 250V. 0.25" qc/ solder terminals. UL, CSA.

CAT# RS-152 60¢ each
10 for 50¢ each • 100 for 40¢ each
500 for 35¢ each • 1000 for 30¢ each



DPST 15A ROCKER SWITCH

Schurter #6050.5515. DPST, on-
off switch. Rated 15A 125/250 Vac.
Black bezel and rocker with white
on-off symbols (I - O). Snap-mounts
into 28mm x 26mm chassis cutout,
1.5mm thick. Switch is slightly recessed
(3mm) below bezel, PC leads. UL, CSA.

CAT# RS-183 50¢ each • 100 for 40¢ each



SPDT ON-OFF-ON ROCKER SWITCHES

S.P.D.T., center-off rocker switch. Rated 16A @ 125Vac. Snap-mounts into 26mm x 15mm rectangular cutout. Black rocker and bezel. 0.25" QC/ solder terminals. White lettering or symbols etched in rocker. Three styles:



CAT# RS-179 1 – OFF – 2
(Vertical Orientation)



CAT# RS-191 FAS – OFF – ON
(Vertical Orientation)



CAT# RS-193 FAS – O – I
(Horizontal Orientation)



75¢ each • 10 of one style 65¢ each
100 of one style 50¢ each

DPDT MINI-ROCKER, ON-OFF-(ON)

DPDT, center-off, momentary one direction. Miniature rocker switch rated 0.4VA. Black plastic rocker, 0.75" x 0.27" x 0.40" high. PC pins on 0.25" x 0.125" centers. **CAT# RS-182** 50¢ ea. 50 for 35¢ each • 100 for 30¢ each



SPST ROCKER SWITCH W/ "MASTER" SYMBOL

S.P.S.T. matte-black, single-pole rocker switch. Two-tone and MASTER painted on rocker to show ON-OFF position. Vertical mounting, switch snap mounts in 1.15" x 0.51" cutout. 0.25" QC/solder terminals. 16A @ 125 VAC, 10A @ 250 Vac. UL, CSA. **CAT# RS-196** 60¢ each



SPST ROCKER SWITCH W/ LIGHT SYMBOL

S.P.S.T. matte-black, single-pole rocker switch. HI-LOW symbol painted on rocker for vertical mounting and two-toned to show position of switch. Switch snap mounts in 1.15" x 0.51" cutout. 0.25" QC/solder terminals. 16A @ 125 Vac, 10A @ 250 Vac. UL, CSA.

CAT# RS-199 60¢ each



SPST ROCKER SWITCH

S.P.S.T. matte-black, single-pole rocker switch. ON-OFF symbol painted on rocker. Switch snap mounts in 1.15" x 0.51" cutout. 0.25" QC/solder terminals. 16A @ 125 Vac, 10A @ 250 Vac. UL, CSA. **CAT# RS-198** 60¢ each



D.P.D.T. ON-ON ROCKER SWITCH

Drees# 3082/2. Rated 16 A @ 250 Vac. Black bezel 26.6mm x 32.6mm and rocker with white symbols: I - II. Snap-mounts in 21.8mm x 27.6mm chassis cutout. 0.25" q.c. / solder terminals.

UL, CSA, DVE. **CAT# RS-190** \$1.60 each



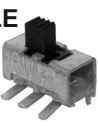
2-POSITION SLIDE SWITCHES

MINI-SLIDE SWITCH, RT-ANGLE

Miniature S.P.D.T. slide switch. 11 x 5 x 9mm high (includes slide length). Right-angle pc leads.

CAT# SSW-53 4 for \$1.00

100 for 20¢ each • 1000 for 12¢ each



MINI-RT-ANGLE SLIDE SWITCH, SPDT

Alcoswitch # TSS11DG1RA.

Miniature SPDT slide switch. Flush slider requires use of fingernail or screwdriver to activate switch. Right-angle, pc mount. Switch face is 10 x 5mm. Body extends 10mm behind face. Rated 0.4VA. USA made.

CAT# SSW-61 3 for \$1.00



DPDT MINI-SLIDE, RT. ANGLE

0.37" x 0.13" x 0.13" high. Horizontal slide lever. PC leads on 0.1" centers.

CAT# SSW-45 4 for \$1.00 • 100 for 20¢ each



MINI-SLIDE SWITCH, RIGHT-ANGLE

Mouser# 10SP013. Miniature S.P.D.T. on-on slide switch.

13.3 x 6 x 13mm high (includes slide and terminals). 0.5A / 50 Vdc. PC leads and two support tabs.

CAT# SSW-76 4 for \$1.00

100 for 20¢ each

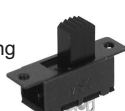


DPDT SLIDE SWITCH

Standard D.P.D.T. switch with mounting holes on 0.75" centers. Body size: 0.6" X 0.28". Solder-loop terminals.

CAT# SSW-37 4 for \$1.00

100 for 20¢ each • 1000 for 12¢ each

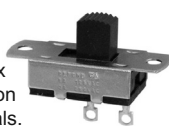


ON-OFF SLIDE SWITCH

S.P.S.T., on-off slide switch.

Rated 6A / 125Vac. Body: 0.88" x 0.56". Mounting tabs with holes on 1.15" centers. Solder-lug terminals. UL, CSA. **CAT# SSW-51** 3 for \$1.00

200 for 18¢ each • 1000 for 14¢ each



SLIDE SWITCH, DPDT

C&K L Series. DPDT slide switch. Rated 4A @ 125Vac. Plastic handle and body. Body is 0.76" x 0.43".

Mounting holes on 1" centers. Solder loop terminals. UL, CSA. **CAT# SSW-55** 45¢ each • 10 for 40¢ each

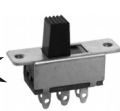


DPDT MINI SLIDE SWITCH

Standard D.P.D.T. switch with mounting holes on 0.75" centers. Body size: 0.6" X 0.30". Solder-loop terminals.

CAT# SSW-77 4 for \$1.00

100 for 20¢ each • 1000 for 12¢ each



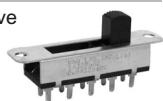
2-POLE, 4-POSITION SLIDE SWITCH

ON-ON-ON-ON. Each pole has five terminals, two connected in each position. 0.52" x 1.44" x 0.35".

Mounting tabs on 1.68" centers.

1A @ 125 Vac. 0.5A @ 125 Vdc. Solder/PC pins. UL.

CAT# SSW-69 50¢ each • 10 for 45¢ each



3-POSITION SLIDE SWITCHES ON-ON-ON

Each pole has four terminals, two of which are connected in each position.

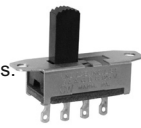
1-POLE, 3-POSITION

Mounting holes on 1" centers.

0.47" long slider. Solder-lug terminals.

CAT# SSW-62 50¢ each

100 for 35¢ each



2-POLE, 3-POSITION

Mounting tabs on 1.41" centers.
4A @ 14V. Solder loop terminals. UL.

CAT# SSW-70

50¢ each • 10 or more 45¢ each

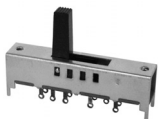


2-POLE, 3-POSITION SLIDE SWITCH

Two poles, each with a different switching configuration. On one pole, a common terminal connects to one of three other terminals. On the other pole two different terminals connect in each position.

45 x 9 x 12mm. Solder-lug terminals. Tapped holes on switch face on 39mm centers.

CAT# SSW-73 50¢ each • 10 for 45¢ each

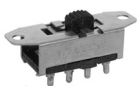


2-POLE, 3-POSITION

1/8" high slider. Mounting tabs on 1.0" centers. 0.5A @ 125 Vac/dc.

Solder / PC pins. UL. **CAT# SSW-71**

50¢ each • 10 or more 45¢ each

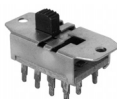


3-POLE, 3-POSITION

Mounting tabs on 1.0" centers.
3A @ 125 Vac, 0.5 A @ 125 Vdc.

Solder / PC pins. UL.

CAT# SSW-68 75¢ each • 10 for 65¢ each

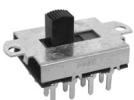


4-POLE, 3-POSITION

Mounting tabs on 1.38" centers.
4A @ 125 Vac, 1.5A @ 250 Vac.

Solder / PC pins. UL.

CAT# SSW-67 \$1.00 each • 10 for 85¢ each



SNAP ACTION SWITCHES

LARGE BODY STYLE

HEAVY-DUTY SNAP-ACTION SWITCH

Cherry # GPTBNC11.
20A 125 Vac / 250 Vac, 1HP,
S.P.D.T. snap-action switch.
Ultra-small travel. 22.9oz
operating force. Body: 50 x
17.5 x 27.5mm. 7.5mm diameter
plunger extends 7mm above switch body.
Two mounting holes on 25mm centers.
Screw terminals. cULus.

CAT# SMS-249 \$2.95 each



HEAVY-DUTY SNAP-ACTION SWITCH W/ LEVER

Cherry # GPTBLR11.
20A 125 Vac / 250 Vac, 1HP,
S.P.D.T. snap-action switch.
Ultra-small lever travel. 9oz operating
force. Body: 50 x 17.5 x 27.5mm. Metal lever
extends 12mm beyond edge of body. Two mounting
holes on 25mm centers. Screw terminals. cULus.

CAT# SMS-295 \$3.75 each



15A N.O. MOMENTARY

Cherry E13. S.P.S.T. normally-
open switch. Plunger height,
11mm. Mounting holes on
26mm centers. Rated 15A 125/250Vac,
3/4HP 125Vac, 1.5HP 250Vac.
46.5 x 16 x 16mm body. 0.25"qc/solder
terminals. UL, CSA.

CAT# SMS-301 \$1.35 each
10 for \$1.20 each



15 AMP S.P.D.T.

Unimax . 15 Amps @
125/250 Vac. Body size:
1.81" x 0.64" x 0.64".
0.25" qc / solder terminals.
3/8" dia. x 0.4" long threaded bushing. 0.25" dia.
plunger. UL, CSA. **CAT# SMS-203** \$1.50 ea.
10 for \$ 1.30 each • 100 for \$ 1.00 each



STANDARD BODY STYLE

BODY SIZE: 3/8" X 5/8" X 1 1/8"

SPDT SNAP-ACTION SWITCH WITH LEVER

Vabsco # BR15IS-QACM.
S.P.D.T. snap-action switch rated
15 Amps @ 125/250 Vac. Lever
extends 1.75" beyond end of switch.
0.187" q.c. / solder terminals. UL.

CAT# SMS-196 \$2.30 ea. • 100 for \$1.90 ea.



LEVER WITH CURVED TIP

S.P.D.T., contacts rated
10 Amps @ 125/250 Vac.
Metal lever with simulated roller
tip extends 0.45" beyond end of
switch. 0.25" qc / solder terminals. UL.

CAT# SMS-223 \$1.25 each



SPDT SNAP-ACTION SWITCH W/ SIM ROLLER TIP LEVER

Mulon #M8-1P1DM3.

Rated 5A, 250Vac.

Simulated roller tip
extends 0.44" beyond end
of switch. Switch body dimensions: 1.1" x 0.62" x
0.40". 0.25" QC/ solder terminals.

CAT# SMS-298 \$1.00 each
100 for 85¢ each



SPDT SNAP-ACTION SWITCH W/ LEVER

Vabsco # BR15IL-EACF.
S.P.D.T. snap-action switch
rated 15 Amps @ 125/250 Vac.
Lever extends 0.45" beyond end of switch. 0.25"
quick-connect / solder terminals.

CAT# SMS-195 \$2.20 each
100 for \$1.85 each



SPST N.O. SNAP-ACTION SWITCH W/ LEVER

Mulon # M8A-1PDM1. Rated 5A,
250Vac. Straight lever extends
0.40" beyond end of switch. Switch body
dimensions: 1.1" x 0.62" x 0.40".
0.187" QC/ solder terminals.

CAT# SMS-299 90¢ each • 100 for 75¢ each



S.P.D.T. W/ LEVER

S.P.D.T., contacts rated 10 Amps
@ 125/250 Vac. Metal lever
extends 0.45" beyond end of
switch. 0.25" qc / solder terminals.
UL. **CAT# SMS-222** \$1.10 each



SPDT SNAP-ACTION SWITCH, 10 AMP

S.P.D.T. switch, no lever.
Rated 10 Amp @ 125/250 Vac.
0.25" qc / solder terminals. UL.

CAT# SMS-226 \$1.10 each
10 for \$1.00 each • 100 for 85¢ each



SPDT SNAP-ACTION SWITCH, 5A

No lever. Rated 5A, 125/250Vac.
Solder/ 0.187" qc terminals. CE.

CAT# SMS-243

90¢ each • 100 for 75¢ each



SPDT SNAP-ACTION SWITCH

Omron # D3V-6G-1C24-K. S.P.D.T. switch, rated 6A @ 250Vac 1/4HP 125/250Vac. No lever. Standard body size, 28 x 16 x 10mm.

#187 qc/ solder terminals. UL, CSA, VDE.

CAT# SMS-300 95¢ each

100 for 80¢ each



SPDT SNAP-ACTION SWITCH WITH ROLLER LEVER

Vabco # BR151L-QAJE-1.34.

S.P.D.T. snap-action switch rated 15 Amps @ 125/250 Vac. Lever with roller-tip extends 0.45" beyond end of switch. 0.187" quick-connect / solder terminals. UL, CSA

CAT# SMS-197 \$2.45 each

10 for \$ 2.35 each • 100 for \$ 2.20 each



10 AMP SWITCH W/ ROLLER LEVER

S.P.D.T. snap-action switch rated

10 Amps @ 125/250 Vac.

Lever with roller-tip extends

0.45" beyond end of switch.

0.25" quick-connect / solder terminals. UL.

CAT # SMS-231 \$ 2.25 each

10 for \$ 2.10 each • 100 for \$ 1.90 each



SMALL SIZE BODY

MINI-SNAP-ACTION SWITCH W/ ROLLER LEVER

Omron # SS-5GL2T. S.P.D.T. snap-action switch with roller lever that extends 3mm beyond end of switch.

Rated 5A, 125/ 250Vac. Body: 20 x 6.50 x 10mm.

Solder-lug terminals. UL, CSA, DVE.

CAT# SMS-21 \$1.50 each



SPDT MINI SNAP-ACTION SWITCH

Microswitch # 3SX1-H58. S.P.D.T., 1A 125Vac miniature snap-action switch.

Body: 12.7 x 9.0 x 5mm. Two mounting holes on 5mm centers. Gold-plated turret terminals. UL, CSA.

CAT# SMS-247 \$1.25 each



S.P.D.T. W/ LEVER

Metal lever extends to end of switch.

Rated 5 Amps / 250 Vac. Body size:

0.78" x 0.25" x 0.42" high. Solder lug

terminals. CE. **CAT# SMS-220** \$1.10 each



LEVER W/ ROLLER TIP

S.P.D.T., Rated 5 Amps / 250 Vac.

Metal lever with roller tip extends

0.15" beyond end of switch. Body size:

0.78" x 0.25" x 0.42" high. Solder-lug

terminals. CE. **CAT# SMS-219** \$ 1.30 each



CURVE TIP LEVER

S.P.D.T., Rated 5 Amps / 250 Vac.

Metal lever with simulated roller tip

extends 0.12" beyond end of switch.

Body size: 0.78" x 0.25" x 0.42" high. Solder-lug

terminals. CE. **CAT# SMS-221** \$1.00 each



S.P.D.T. MINI-SNAP-ACTION SWITCH

Highly SS Series. Simulated roller-tip lever. Lever tip extends 0.1" beyond end of switch. S.P.D.T. contacts rated 5 Amps @ 125/250 Vac. Body, 0.78" x 0.42" x 0.25." Solder terminals. UL.

CAT# SMS-227 \$1.00 ea. • 10 for 85¢ ea.



SPDT MINI-SNAP-ACTION SWITCH W/ LEVER

Cherry DB3 miniature snap-action

switch. S.P.D.T., 0.1A 125/250V

contacts. Short solder loop terminals.

Body is 20 x 9 x 6.5mm. (0.79" x 0.35" x

0.25") Plastic lever extends 9mm (0.36")

beyond end of switch body. cULus.

CAT# SMS-302 85¢ each • 100 for 70¢ each



ROTARY SNAP ACTION

Cherry switch #E5348E0. S.P.D.T.

Rotary snap action with lever, counter-

clockwise travel. Rated 0.1 A @

125/250 Vac. 0.187" q.c. / solder

terminals. UL, CSA

CAT# RSM-1 \$2.00 each



TACTILE PUSH BUTTONS

S.P.S.T. PC MOUNT

ALPS# SKHHAK409A.

0.25" square X 0.19" high.

CAT# PB-126 4 for \$1.00 • 100 for \$22.50

500 for \$100.00 • 1000 for \$180.00



TACTILE PUSHBUTTON W/ PLUNGER

S.P.S.T., normally-open, momentary pushbutton. Plunger height is 13mm above pc mounting surface. 0.24" square body. Leads on 0.15" x 0.25" centers.

CAT# MPB-218 35¢ each

100 for 25¢ each



MINI-TACTILE PUSHBUTTON SWITCH, SURFACE MOUNT

ITT France. S.P.S.T., momentary normally-open miniature pushbutton. 6mm square body. Four surface mount leads on 4 x 8mm centers.

CAT# MPB-142 3 for \$1.00

100 for 29¢ each • 1000 for 23¢ each



SPST MOMENTARY TACTILE PUSHBUTTON, PC MOUNT

Omron B3W. S.P.S.T. momentary-on pushbutton for pc mount. 12 x 12 x 4mm high.

7.3mm diameter white plunger. Switching capacity:

50 mA, 5 to 24 Vdc (resistive load). Four pc leads

on 4.5 x 6.5mm matrix. **CAT# MPB-224**

35¢ each • 100 for 27¢ each



SPST MOMENTARY TACTILE PUSHBUTTON, PC MOUNT

Alps. S.P.S.T. momentary-on pushbutton

for pc mount. 12 x 12 x 4mm high. 8mm diameter

black plunger. Four pc leads on 4.5 x 6.5mm matrix.

CAT# MPB-223 35¢ each • 100 for 27¢ each



SPST MINI RIGHT-ANGLE TACTILE PUSHBUTTON

S.P.S.T., normally-open, momentary

pushbutton. Rated 50 mA @ 12 Vdc.

Right-angle mounting. PC leads.

CAT# MPB-139 4 for \$1.00 • 100 for 22¢ ea.



SURFACE-MOUNT

Alps #SKHUQB056A. Miniature surface mount pushbutton switch. S.P.S.T., normally-open. 6.2 x 6.5mm. 3.1mm stem height. 0.25mm travel. Contacts rated 50mA @ 12 Vdc. Tape-and-reel packaging.

CAT# MPB-136 3 for \$1.00 • 100 for 29¢ ea.
1000 for 23¢ each • 3000 for 15¢ each



MOMENTARY PUSHBUTTON SWITCHES

MOMENTARY N.O. MINI-SWITCH

S.P.S.T. miniature momentary pushbutton switch. Push-on, release-off. Press-fit in 0.31" diameter chassis hole. 0.39" diameter black bezel. Green button extends 0.29" above mounting plane in off-position. Switch body is 0.31" dia. x 0.5" long (excluding pc pins) below mounting plane.

CAT# PB-159 35¢ each • 100 for 25¢ each



NORMALLY-OPEN MOMENTARY

S.P.S.T., normally-open, momentary pushbutton switch rated 3A/ 125V. 10mm diameter red button.

14.5mm diameter x 7mm high black bezel. Threaded bushing mounts in 10mm diameter hole. Solder terminals.

CAT# PB-179 \$1.00 each

10 for 90¢ each • 100 for 78¢ each



NORMALLY-OPEN MOMENTARY (FLAT)

Heavy-duty metal pushbutton switch. Normally-open, momentary action. Nickel-plated button is flush with bezel in open position. Bezel measures 0.86" dia. x 0.05" high. Threaded bushing mounts in 0.75" diameter hole in panels up to 0.35" thick. Screw-clamp terminals. Rated 4 Amps / 125 Vac.

CAT# PB-144 \$3.95 each



NORMALLY-OPEN MOMENTARY (DOME)

Heavy-duty metal dome pushbutton switch. Normally-open, momentary action. Nickel-plated dome and bezel measure 0.86" diameter x 0.12" high. Threaded bushing mounts in 0.75" dia. hole in panels up to 0.35" thick. Screw-clamp terminals. Rated 4 Amp / 125 Vac.

CAT# PB-143 \$3.95 each



RED PUSHBUTTON WITH METAL BEZEL

S.P.S.T. momentary pushbutton. 0.51" dia. red plunger, 0.74" dia. metal bezel. 0.62" diameter threaded bushing mounts in panels up to 0.15" thick. Solder lug terminals. 4A 125 Vac.

Normally-open **CAT# PB-160** \$1.75 each

Normally-closed **CAT# PB-145** \$1.75 each



SPDT MOM. PUSHBUTTON, PC MOUNT

Eaton 9641. Miniature S.P.D.T., momentary switch rated 5 Amps / 125 Vac. Red 0.38" dia. cap press-fits on a 0.12" dia. plunger. 0.23" dia. unthreaded bushing. Gold-plated pc pins on 0.125" centers. UL.

CAT# PB-151 40¢ each

10 for 35¢ each • 100 for 25¢ each



JUMBO PUSHBUTTONS

Durable plastic S.P.D.T. momentary pushbutton switch frequently found in arcade games. Button operates a 3 Amp snap-action switch. Plunger is 0.86" dia. Bezel is 1.33" dia. Threaded bushing is 1.1" dia. and will mount in panels up to 0.75" thick. Includes large plastic mounting nut.

RED SWITCH **CAT# PB-211** \$3.75 each

GREEN SWITCH **CAT# PB-214** \$3.75 each

YELLOW SWITCH **CAT# PB-215** \$3.75 each



GAME SWITCH S.P.D.T. MOMENTARY PUSHBUTTON

Rugged momentary pushbutton switch designed for games and other repetitive applications. SPDT snap-action switch rated 5 Amps @ 125/250 Vac. 1.31" dia. x 0.15" high white bezel. 1.06" diameter threaded plastic bushing with nut. Fits panels up to 0.8" thick. 0.9" dia. opaque plastic plunger is available in red (R), green (G), blue (B), and amber (A). **CAT# PB-9(color)** \$3.00 each • 10 for \$2.75 each



SPST N.O. PUSHBUTTON

Single-pole, normally-open momentary switch. Attractive and functional dome-shaped pushbutton. 0.70" dia. black plastic bezel. 0.45" button. Extends 0.3" above mounting plane. Threaded bushing mounts in 0.52" dia. hole. Solder terminals.

Red Button **CAT# PB-138**

Black Button **CAT# PB-139**

Green Button **CAT# PB-172G**

Blue Button **CAT# PB-172B**

Yellow Button **CAT# PB-172Y**

\$1.50 each • 100 for \$1.20 each



MOMENTARY PUSHBUTTONS

(On)-(On), heavy-duty pushbutton with metal plunger and mounting bushing. Ideal for foot-switch or hard physical use. 15/32" threaded bushing for panels up to 0.5" thick. 0.4" diameter plunger. Solder terminals. Rated 2A 250Vac.

SPDT **CAT# PB-174** \$4.00 each

DPDT **CAT# PB-176** \$4.80 each



LARGE, SURFACE-MOUNT PUSHBUTTON

S.P.S.T., normally-open, momentary pushbutton switch. 1.6" dia. metal body with mounting flanges, holes on 2.3" centers. Originally for automotive horn application. 0.84" dia. black push-button, 0.95" overall height. Packaged with 2 mounting screws. **CAT# PB-156** \$1.75 each



N.O. MOMENTARY

S.P.S.T. normally-open, momentary pushbutton switch. Heavy-duty metal plunger, suitable for foot switch applications. 15/32" threaded bushing mounts in panels up to 1/2" thick. Solder-loop terms.

4 Amps / 125 Vac **CAT# PB-142** \$2.75 each

10 Amps / 125 Vac **CAT# PB-147** \$3.25 each



LARGE MOMENTARY PUSHBUTTON SWITCH

Black plastic momentary pushbutton. Fairly rugged S.P.S.T., normally-open switch, possibly designed for gaming purposes. 19.5mm dia. plunger in a 29mm dia. x 20mm high case. Mounting holes on 50mm centers. 0.187" qc/ solder terminals. Can be surface mounted or mounted from behind panel through 29.5mm diameter hole. Note: terminals are tarnished but functional.

CAT# PB-225 \$1.15 each
10 for \$1.00 each • 100 for 75¢ each

SPST N.O. MOMENTARY PUSHBUTTONS

Normally open switch with 1/4" bushing and plastic button. Ideal for most low current projects.

Red button **CAT# MPB-1**
Black button **CAT# MPB-1B**
Blue button **CAT# MPB-1BL**
Green button **CAT# MPB-1G**
Yellow button **CAT# MPB-1Y**
White button **CAT# MPB-1W**

85¢ each • 100 for 65¢ each

SPST MOMENTARY NORMALLY CLOSED PUSHBUTTON

Normally-closed momentary pushbutton. 1/4" threaded bushing. Black plastic pushbutton. Solder-loop terminals.

CAT# MPB-5 60¢ each • 100 for 45¢ each

LIGHTED MOMENTARY PUSHBUTTON SWITCHES

Momentary lighted pushbutton switches, with polycarbonate lens assemblies, designed for displays and games. The rugged S.P.D.T snap-action switch assembly is designed for millions of operations. Rated 5 Amps @ 125/250 Vac. The assembly is lighted with a replaceable 12 Volt, 3 Watt, #161 wedge-base lamp. Matte black plastic bezels. 0.93" diameter threaded bushing with a plastic nut mounts in panels up to 0.70" thick. Colors: Red (R), Green (G), Blue (B), Amber (A), and White (W).

1" ROUND LENS

1.25" diameter x 0.3" high bezel. Lens colors: red (R), green (G), blue (B), amber (A) and white (W).

CAT# LPS-1(color)
\$ 3.75 each • 10 for \$ 3.45 each

2" ROUND LENS

2.44" diameter x 0.58" high bezel. Lens colors: red (R), green (G), blue (B), amber (A) and white (W).

CAT# LPS-3(color)
\$4.75 each
10 for \$4.35 each

1.5" SQUARE LENS

1.96" square x 0.40" high bezel. Lens colors: red (R), green (G), blue (B), amber (A) and white (W).

CAT# LPS-5(color)
\$4.75 each
10 for \$4.35 each

DIP SWITCHES

LOW PROFILE STYLE ON-OFF SLIDE SWITCHES

4-Position **CAT# DWS-4S** \$1.00 each
8-Position **CAT# DWS-8S** \$1.35 each
10-Position **CAT# DWS-10S** \$1.50 each

STANDARD STYLE

8 position.
CAT# DWS-8 \$1.35 each

STANDARD STYLE

10 position. **CAT# DWS-10**
75¢ each • 100 for 55¢ each

PIANO-STYLE

10 position. **CAT# DWS-10P**
\$1.50 each

PUSH-ON PUSH-OFF SWITCHES

DPST PUSH-ON/ PUSH-OFF

ITT Schadow NE18 T70
Body is 32 x 15 x 9mm.
6A 125/250Vac. PC terminals.
Three plastic pins at front of switch for mounting stability. 3.5mm square plunger. UL, CSA.
CAT# PB-181 50¢ each

DPDT PUSH-ON / PUSH-OFF SWITCH

0.5" x 0.3" x 0.38" body. 1" overall length including plunger. PC pins.

CAT# PB-182
3 for \$1.00 • 10 for 30¢ each

S.P.S.T. ON/OFF

S.P.S.T., on-off, push-on/push-off switch rated 3A/ 125V. 10mm diameter red button. 14.5mm diameter x 7mm high black bezel. Threaded bushing mounts in 10mm diameter hole. Solder terminals. **CAT# PB-177**
\$1.35 ea. • 10 for \$1.20 ea. • 100 for \$1.05 ea.

HEAVY-DUTY PUSHBUTTONS

Push-on / push-off switch. Ideal for foot-switch applications. Metal plunger. 15/32" threaded bushing mount. Rated 2A/ 250Vac. Solder terms.

S.P.D.T. **CAT# PB-173** \$3.75 each
D.P.D.T. **CAT# PB-175** \$4.50 each

PUSHBUTTON SWITCH

Judco model# J-188A-1. SPST, push-on push-off, plastic pushbutton. Contacts rated 6 amps @ 125 Vac. Black body, actuator and panel nut. 3/8-27 threaded bushing. 4 1/2" stranded wire pigtailed. UL listed. For moisture-resistant cap/nut see CAT# WPC-3. **CAT# PB-13**
\$1.85 each • 100 for \$1.50 each

4-POSITION PUSHBUTTON SWITCH

Judco # J-188-7. Four-position, three-wire pushbutton switch.

Push 1 - no connection
Push 2 - red, white connect
Push 3 - red, white and black connect
Push 4 - red, black connect.

Plastic plunger, bushing and body. 3/8 - 27 threaded bushing. 6" stranded, stripped, pigtail leads. For moisture-resistant cap/nut see CAT# WPC-2 below.

CAT# PB-168 \$1.50 ea. • 100 for \$1.15 ea.

BLACK RUBBER BOOT/CAP

Rubber cap fits snugly over 13mm diameter knurled nut on Judco pushbutton switches. Helps prevent dust and moisture contamination. For best results, insert nut into cap before installation.



Fits CAT# PB-13

CAT# WPC-3 50¢ each • 100 for 40¢ each

Fits CAT# PB-168

CAT# WPC-2 30¢ each • 100 for 20¢ each

PUSH-ON/PUSH-OFF SWITCH, SPECIAL

Judco SPST, push-on/push-off switch. Solid tactile, snap-action feel. Solder-lug terminals.



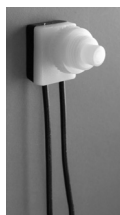
Note: Switch was for a custom application. The 3/8-27 threaded bushing is only 1/8" long. With the knurled plastic nut attached, the switch can be used in a 1/16" thick panel, or a thinner panel if a washer or spacer is used. Also, the plunger is terminated with a 1/8" (3mm) diameter tip configured for a custom cap (not included).

CAT# PB-189 2 for \$1.00

100 for 40¢ each

SPST PUSH-ON/PUSH-OFF SWITCH

Judco. SPST, push-on push-off, plastic pushbutton. Contacts rated 6 amps @ 125 Vac. 3/8-27 threaded bushing. 4 1/2" stranded wire pigtails. UL listed. For moisture-resistant cap/nut see CAT# WPC-3.

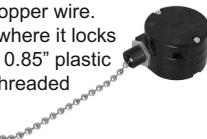


CAT# PB-190 \$1.85 each

10 for \$1.70 each

PULL CHAIN SWITCHES

Push-in terminals for solid copper wire. Push stripped wire into slot where it locks into place. 1.25" diameter x 0.85" plastic housing with 3/8" diameter threaded mounting bushing. Rated 3A 250Vac/6A 125Vac. UL



2-POSITION CEILING FAN SWITCH

Four terminals. 1st pull closes two terminals. 2nd pull closes other two terminals.

CAT# PSW-14 \$2.25 each

3-POSITION, ON-ON-ON

1st position connects terminals 1 & 2. 2nd position connects 1 & 3. 3rd position connects 2 & 3.

CAT# PSW-16 \$2.35 each

IN-LINE THUMBWHEEL SWITCH FOR SPT-1 CORD

Ying Long # YL-2. White plastic on-off thumbwheel switch for SPT-1 zip cord. No soldering necessary. Simply cut out a small portion of one side of the zip cord, and screw the two halves of the switch together over the cord. The prongs pierce the insulation on either side of the cut and make a connection between the line and the switch. Rated: 6 A 125 vac, 3 A 250 vac, 3A 125V. UL, CSA listed.



CAT# SWT-2 50¢ each • 10 for 45¢ each

3-POSITION KEYSWITCH

3-position, 4-terminal key switch. Each position sequentially connects two of the four terminals. Key is removable in each position. C&K switch body is rated 0.4VA, 20V max. Gold solder terminals. Threaded bushing with nut.



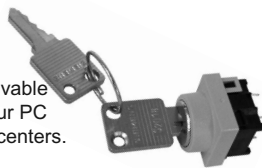
Mounts in 0.75" diameter hole in panels up to 0.25" thick. Switch body extends 1.4" below mounting plane. 1" diameter x 0.22" thick gray plastic bezel. Includes two keys and a 1" long metal cam which can be inserted into a slot in the switch and rotates with the key.

CAT# KSW-30 \$3.75 each

ON-OFF KEYSWITCH, PC MOUNT

Siemens S.P.S.T., on-off keyswitch.

18 x 18 mm square x 19mm high. Key removable on both positions. Four PC leads on 7.5 x 10mm centers. Includes two keys.



CAT# KSW-112 \$3.85 each

KNIFE SWITCHES

S.P.D.T. Screw terminals. Rated 10A/ 12Vdc. Base is 75 x 12 x 9mm high. Two mounting holes on 46mm centers.



CAT# SWS-10 \$2.25 each

D.P.S.T.

Screw terminals. Rating unknown. Base is 37 x 38 x 8mm high. Two mounting holes on 27mm centers.



CAT# SWS-11 \$2.75 each

2-POLE 3-POSITION ROTARY SWITCH

9mm threaded bushing. 6mm knurled, split shaft is 10mm long. Solder lug terminals.



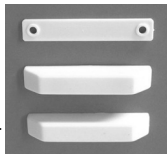
CAT# RSW-50 85¢ each

10 for 75¢ each

ALARM SWITCHES

STANDARD MAGNETIC PROXIMITY SWITCH

For closed loop alarm systems. Switch is closed when magnet is near. Cover hides screw terminals. Off-white switch and magnet. UL.



CAT# MS-14 \$4.25 each • 10 for \$40.50

SPDT

Can be used on normally open or normally closed loop systems. Switch measures 2" long x 3/8".

CAT# MS-7 \$4.50 each

10 for \$4.25 each



PRESS-FIT MAGNET SWITCH

Press-fit into 3/8" hole. Ideal for windows and doors. For normally closed systems. 0.75" operating gap. U.L. listed.



CAT# MS-11 \$3.00 per set
10 sets for \$28.50

16-POSITION ROTARY B.C.D. SWITCH

Apem # PT65106L254. 6-pin mini-dip rotary switch. Binary coded hexadecimal switching code (see truth table in our Spec Sheets online) Screwdriver adjust. 10 x 10 x 7mm. Right-angle pc mount. Pins on 0.1" centers.



CAT# RS-162 \$3.50 each

KEYPADS

12 BUTTON KEYPAD

12 button matrix-encoded keypad. Tactile buttons. Black housing, 2.7" x 2" x 0.21". White buttons with black numerals. Contacts rated 30 mA @ 12 Vdc. Mounts from top. Four stabilizing pins on 1.7" X 2.4" centers. 7-pin header, 0.1" centers.



CAT # KP-22 \$7.50 each
10 for \$7.00 each

16 BUTTON INDOOR / OUTDOOR KEYPAD

Fully-sealed, tactile snap-dome contacts. Contacts rated 30 mA @ 12 Vdc. 4 x 4 buttons (2.7" x 3" x 0.36"). Ten black keys numbered 1 to 0 (and A to J). Five blue keys with up-down arrows, CLEAR, HELP and ENTER. One red key labeled 2ND. TTL, MOS and DTL compatible. 9-pin headers, 0.1" spacing. See spec sheet on our web site for more info.



CAT # KP-23 \$12.50 each
10 for \$11.50 each

12 BUTTON KEYPAD


12 key keypad with numerals 0-9, * and #. One common terminal. Contacts rated 20 mA @ 24 Vdc. 2.01" x 2.24". Black with white buttons. Mounting holes on 1.8" x 2.24" centers. Can be rear-mounted through a 2.25" X 1.81" cutout.



CAT# KP-12 \$4.95 each

DOORBELL SWITCHES


LIGHTED DOORBELL BUTTON, WHITE

NuTone / Masterpiece # RCPB723  Surface mount lighted pushbutton for use with 10-16 Vac door chimes. S.P.S.T., normally-open. Light can be disabled if not needed or if used with battery operated chimes. White enamel, metal base. 3.5" x 1.2" x 1.0" high. Includes mounting screws.



CAT# PB-187 \$1.25 each


LIGHTED DOORBELL BUTTON, BRASS

NuTone / Masterpiece # RCPB744  Surface mount lighted pushbutton for use with 10-16 Vac door chimes. S.P.S.T., normally-open. Light can be disabled if not needed or if used with battery operated chimes. Brass or brass-plated metal body. 6.0" x 1.1" x 0.9" high. Includes mounting screws.



CAT# PB-188 \$1.50 each

SURFACE-MOUNT DOORBELL BUTTON

Broan- NuTone #RC818  Surface mount, non-lighted S.P.S.T., normally-open pushbutton for doorbells and chimes. 2.85" x 0.85" x 0.65" high white plastic base. Includes mounting screws.



CAT# PB-186 \$1.00 each

AUTO PIN SWITCHES

NICKEL-PLATED PIN SWITCH WITH POLYCARBONATE PLUNGER

1-5/16" panel mount with cut to length polycarbonate pin switch. Pin dimensions: 8 mm diameter x 29.5 mm H. Shaft dia.: 10 mm. Accepts 1/4" female disconnect.



CAT# PSW-18 \$1.75 each

Standard 1.93" long pin switch for auto security and lights.



CAT# PSW-2 \$1.00 each • 10 for \$9.00

ADJUSTABLE HOOD / DOOR PIN SWITCH

2-3/4" polycarbonate pin switch. Pin dimensions: 8.6 mm dia. x 19.5 mm H. Shaft diameter: 7.94 mm (5/16"). Accepts 1/4" female disconnect.



CAT# PSW-17 \$1.75 each

JOYSTICKS

WITH SNAP-ACTION SWITCHES

Rugged, precision-engineered 8-way joystick. Smooth, spring return-to-center stick controls four S.P.D.T. snap-action micro switches. Metal center shaft with heavy-duty black plastic stick and mounting plate. 3" x 3.5" mounting plate. Stick stands 3.75" above mounting plate. Switch mechanism extends 2" below plate.



CAT# JS-5 \$15.00 each

THUMB JOYSTICK WITH SELECT BUTTON

2-Axis, self-centering Joystick. Two independent 10K Ohm pots, one per axis. Also has a select button actuated when the joystick is pressed down. 27mm diameter footprint. 31mm max height.



CAT# JS-932 \$3.95 each • 10 for \$3.56 each

2 AXIS THUMB JOYSTICK

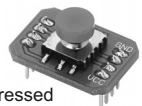
Parallax# 27800. Self-centering 2-Axis Joystick. Two independent 10K ohm potentiometers, one per axis. The modular form-factor allows you to plug the 2-Axis Joystick directly into a breadboard for easy prototyping. Dimensions: 1.64 x 1.2 x 1.1 in (41.67 x 30.54 x 27.7 mm)



CAT# PX-27800 \$6.99 each

5-POSITION THUMB CONTROL SWITCH

Parallax # 27801. Mini thumb control switch. Returns to center, un-pressed position when released. By monitoring the input state of five pins, corresponding to five normally open switches, it's easy for any microcontroller to detect whether the switch is in the up, down, left, right or pressed position. It's possible for more than one position to make contact at a time ie., pressed + right + down, or left + down, for a total of 18 input states. 0.70 x 0.95 x 0.78 in (17.8 x 24.1 x 19.8 mm). 10 k ohm pull-up resistor included on each positional pin



CAT# PX-27801 \$6.99 each

DC FANS

5 VDC 25 MM

Delta Electronics # AFB02505HHB.
5Vdc, 0.23A. 25 x 25 x 15mm.
DC brushless ball bearing fan.
13,000RPM. 29.5dBA. 4.06 CFM.
Two 50mm leads with 2-conductor
female connector, 0.1" centers.
UL, CSA, CE, VDE.

CAT# CF-404 \$3.35 each



MICRONEL 62 MM FANS

62 x 62 x 14mm. Fans are unused,
but have been in storage and show
some signs of age i.e., oil on label,
no label. Guaranteed functional.
Great price.

5 Vdc with 12" leads

CAT# CF-416

\$1.50 each 5 for \$1.25 each

5 Vdc with solder or fan-plug terminals

CAT# CF-417 \$1.25 each • 5 for \$1.00 each

9 Vdc with solder or fan-plug terminals

CAT# CF-361 \$1.25 each • 5 for \$1.00 each



12 VDC 40 MM

Sunon MagLev # KDE1204PFV2
12Vdc, 1.0W. 40 x 40 x 10mm.
7.0 CFM. 27 dBA. Two 2.3" leads
w/ 2-pin socket connector. cULus.

CAT# CF-392 \$3.25 each



Nidec Wide Body TA150DC #C34957
12 vdc 0.29 amp, 40 x 40 x 28mm.
Ball bearing. 15 CFM, 10,600 RPM,
39.2 dBA. Three 12" leads. UL, CSA

CAT# CF-398 \$3.50 each



Delta Fonsan # DFB0412H
40 x 40 x 20mm. 12Vdc 0.10A.
5" leads with 2-pin socket
connector (0.1" ctrs).
New fan prepped with
double-sided sticky tape on one
edge. UL, CSA, CE.

CAT# CF-414 \$3.25 each



12 VDC 60 MM

Adda # AD0612LB-A70GL.
12Vdc brushless, ball bearing,
low-noise fan. 12Vdc, 0.08A.
60 x 60 x 25mm. 2500 RPM.
13.2 CFM. 16.1 dB/A. Two 10"
pigtail leads. UL, CSA, CE.

CAT# CF-380 \$2.50 each



DC Tiny 25 III

TUDC1224F-022.

12 Vdc 0.14A 1.8W.

60 x 60 x 25mm. 19 CFM.

4300 RPM. 32 dBA. Two 5" leads
prepped with heatshrink tubing and
2-pin female (0.1") connector. UL, CSA, TUV.

CAT# CF-408 \$2.75 each



Delta Fonsan Model DFD0612L
12Vdc 0.09A. 60 x 60 x 20mm.
Two 5" leads with 2-cond.
Female connector (0.1" centers).
UL, CSA.

CAT# CF-413 \$2.75 each



Mitsubishi # MMF 06D12DL.

12 Vdc @ 0.07 Amps.

60mm x 60mm x 25mm

brushless seven blade

fan. UL, CSA.

CAT# CF-427 \$2.75 each



Delta# AFB0612LB.

12 Vdc, 0.10A DC brushless ball

bearing cooling fan. 60 x 60 x

15mm. 3,000 RPM, 11.55 CFM,

24.0 dB-A. Three 6" leads with

3-conductor female connector
(0.10" centers). UL, CSA, CE, VDE.

CAT# CF-411 \$2.50 each



12 VDC 80 MM

Used fan in good condition.

Fonsan DFB0812L (or equiv.).

12Vdc 0.08A cooling fan.

80 x 80 x 25mm. Metal fan

guard attached with nylon rivets.

Two 3.5" leads with 2-contact

female connector. UL, CSA.

CAT# CF-396 \$2.50 each



12 VDC 92 MM

AVC Model C9025S12H

12Vdc, 0.3A. 92 x 92 x 25mm.

Sleeve bearings. Three

5.5" leads with 3-conductor

female socket connector

(0.1" ctrs). 52 CFM, 23 dBA.

UL, CSA, CE, TUV.

CAT# CF-407 \$3.50 each



12 VDC 120 MM

Delta #WFB1212H.

120 x 120 x 26mm.

12 Vdc 0.45A DC

brushless cooling fan.

Three 12" leads.

2470 RPM, 86.52 CFM,

37.6 dBA. UL, CSA, CE, VDE.

CAT# CF-406 \$4.00 each



12 VDC MESSAGE FAN

80 x 80 x 25mm

12Vdc, 0.09Amps.

22.44 CFM. 22 dBA.

1700 RPM. These

cooling fans display your

message in red and blue

LEDs that create the

illusion of letters and

words over the rotating

blades. Also displays the temperature.

Clear plastic

frame and impellers. Includes a software CD and a

USB cable to program your message using any com-

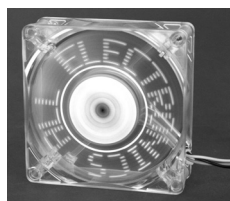
puter running a Windows® operating system. Mes-

sage can be up to 16 characters per layer - up to 8

layers. Three 8" leads with 3-pin connector and adapter

to 4-pin connector. cULus, TUV, CE, RoHS

CAT# CF-418 \$7.75 each



18 VDC 60 MM

Matsushita Panaflo

FBM06F18H. 18Vdc,

0.13 Amp. 60 x 60 x 20 mm.

11-blade impeller. Two

1.4" leads with 2-conductor

male connector. **CAT# CF-279**

\$2.25 ea. • 10 for \$2.00 ea. • 100 for \$1.35 ea.



24 VDC 40 MM

Delta #FFB-424VHN.
24 Vdc, 0.15A. DC brushless fan.
40 x 40 x 28mm. 9500 RPM.
15.8 CFM. 45 dB-A. Three
3" leads. UL, CSA, CE. Removed
from working equipment.

CAT# CF-241U \$1.50 each



24 VDC 60 MM

Adda # AD0624HS-A70GL
24 Vdc, 0.15 Amp, 60mm x
60mm x 25mm. 23 CFM.
Sleeve bearings. 7-blade
impeller. Two 16" leads with
2-pin female connector
(0.1" centers). UL, CSA, CE.

CAT# CF-276 \$2.75 each
10 for \$2.50 each • 100 for \$2.00 each



CENTRIFUGAL BLOWERS

12VDC 50MM BLOWER

Delta #BFB0512VHD.
12Vdc, 0.28A blower. 50 x 20mm,
ball bearing blower. 5300 RPM.
6.75 CFM. 38.5db-A. Two 13"
leads terminated with a 2-pin
socket connector (.01" spacing).
UL, CSA, CE, VDE.

CAT# CF-371 \$3.75 each



12 VDC 97MM BLOWER

Nidec Gamma30,
Model D10F-12B6S3.
97mm x 33mm centrifugal, ball
bearing blower. 12Vdc, 0.30A.
Three 25" leads with 3-contact
female connector.

CAT# CF-339 \$6.45 each



12 VDC 120 MM BLOWER

Mechatronics # B1232L12B.
12 Vdc, 0.360A ball bearing
blower 120 x 120 x 32mm
centrifugal blower. 25 CFM.
2100 RPM. 44dBa. Two 2" leads
with custom connector. cULus.

CAT# CF-403

\$6.75 each



AC FANS

115 VAC 80 MM

EZ Fan# FP-108A-S-3.
3.13" square X 1.5". 110/120 Vac,
50/60 Hz. 0.08/0.06 A. 6/5 W.
17 CFM. Zinc housing with
seven blade thermoplastic
impeller. Terminals accept standard
fan plug or can be soldered. UL, CSA.

CAT# CF-117 \$14.80 each



125VAC 172MM

Thermocool # G17050HASB
2900 RPM, 198 CFM cooling
fan. 125Vac, 0.4A. Ball bear-
ing fan. 172mm dia. x 51mm.
Terminals for standard fan
plug or solder. cULus, CE,
TUV, RoHS.

CAT# CF-415 \$21.95 each



115 VAC 120 MM

4.69" square x 1.5." Aluminum
housing. Thermoplastic impeller.
Terminals accept standard fan
plug or can be soldered.
UL, CSA, TUV, CE.



54 CFM, SLEEVE BEARINGS

EZ Fan # FP-108-1-S3

2000 RPM. 54 CFM. 34 dBA.

CAT# CF-120 \$14.80 each

54 CFM, BALL BEARINGS

EZ Fan # FP-108-1-S3B.

110/120 Vac, 0.11 Amps. 54 CFM.

CAT# CF-275 \$18.95 each

85 CFM, SLEEVE BEARINGS

Thermocool #G12038MAS

2600 RPM. 60Hz, 0.22A. 44 dBA.

CAT# CF-112 \$17.75 each

120 CFM, SLEEVE BEARINGS

EZ Fan # FP-108-U S1

3000 RPM. 120 CFM. 45 dBA.

CAT# CF-281 \$15.00 each

120 CFM, BALL BEARINGS

EZ Fan # FP-108-U S1B or (SU-BBT)

3000 RPM. 120 CFM. 45 dBA.

CAT# CF-282 \$19.00 each

230 VAC 120MM

Comair Rotron

GAA1238-230AB.

230 Vac 50/60 Hz.

10W. Ball bearing. 44 dBA.

3000 RPM. 120 square x 38mm.

111 CFM. Black aluminum
housing. Five blade thermoplastic impeller.

Terminals accepts standard fan plug or can be
soldered. cULus, TUV, CE, RoHS.

CAT# CF-230 \$18.50 each

10 for \$17.75 each



METAL FAN GUARDS

FOR 60 MM SQUARE FANS

CAT# CFG-60 \$1.00 each

FOR 80 MM SQUARE FANS

CAT# CFG-80 \$1.25 each



FOR 118/120 MM SQUARE FANS

CAT# CFG-120 \$1.60 each

12" FAN CORD

Fits all cooling fans
equipped with solder /
plug terminals.

Bare leads.

CAT# CFC-12 \$1.00 each



MANUFACTURERS

**We Purchase
Excess Inventories.
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or FAX your list.**

BUZZERS, BEEPERS, AUDIO ALARMS

PIEZO AUDIO ALERTS

High pitched piezo alarm signals with built-in oscillator circuitry. Low power consumption. Used in alarms, smoke-detectors, electronic games, cameras and telephones.

12 VDC AUDIO ALERT

Medium-loud, high-pitched audio alert signal. Operates on 12Vdc (6-14Vdc). Plastic assembly, 0.84" dia. x 0.51" h. PC pins on 0.6" centers.

CAT# SBZ-201 \$1.25 ea. • 100 for 80¢ ea.



3-28 VDC PIEZO BEEPER

Operates on 3-28 Vdc. Continuous tone. 103 db sound pressure. 1.14" dia. x 0.93" ABS plastic housing. Can be bulkhead mounted with tabs on 1.31" mounting centers, or can be mounted through a panel hole of 0.7" diameter via threaded bushing and panel nut. 5" wire leads. Black housing

CAT# SBZ-100 \$3.75 each



12VDC PIEZO BEEPER

High-pitched piezo beeper. 12Vdc (3-20Vdc) operation. Freq: 85 Hz. 10 dBA / 10 cm. 23mm dia. x 10mm. PC pins on 15mm centers.

CAT# SBZ-26 \$1.50 each



1-12 VDC PIEZO BEEPER

Medium-loud, 4KHz continuous tone. 85dB / 5Vdc / 10cm. Operates on 1-12Vdc. Max current 20mA @12Vdc. 15.5mm dia. x 14mm high plastic case. PC leads on 7.62mm centers. **CAT# SBZ-40** \$1.50 each
10 for \$1.40 each • 100 for \$1.20 each



3-18 VDC PIEZO BUZZER

FY14-G. 3-18Vdc mini-piezo beeper. Emits a medium-loud, high-pitched tone when energized. 80 dB. 12Vdc, 7mA, 4KHz. 13.8mm dia. x 7.5mm high. PC pins on 7.5mm centers. **CAT# SBZ-204** \$1.45 each
10 for \$1.35 each • 100 for \$1.15 each

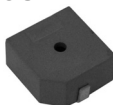


PC MOUNT BEEPERS

3 VDC BEEPER, SURFACE MOUNT

PUI Audio # SMI-1324-TW-3V-R. 3 Vdc electro-mechanical beeper. Operates 2-5Vdc, 30mA. 75dBA @ 10CM. 2,400 Hz continuous tone. 0.5" x 0.5" x 0.25". Flat, surface-mount tabs on 0.5" centers. Tabs can be straightened and soldered if desired.

CAT# SBZ-1324 \$1.20 each



4-7 VDC BEEPER

Chinasound # CEB12A-05BP. 5Vdc, 30mA, 2.3KHz, 85dB electromagnetic buzzer. 12mm diameter x 10mm high. PC leads, bent 90 degrees. 4 - 7Vdc operating range.

CAT# SBZ-493 \$1.40 each
10 for \$1.25 each • 100 for \$1.00 each



TDK # SDC161425-01. 5 Vdc (operates on 4-8Vdc) electromagnetic beeper. 16mm diameter x 14mm high. 1900Hz. 85dBA/10cm min. Average current, 30mA. PC pin terminals on 5mm centers. **CAT# SBZ-582** \$1.45 each



1 1/2-3 VOLT METAL BUZZER

2" diameter metal buzzer. Loud, annoying screech, especially at 3Vdc.

CAT# BZ-15
\$1.25 each



12V VEHICLE TRUMPET HORN

Roots Windtone W75, High Note Horn. New 12V (16V) trumpet horn with mounting brackets. 87 x 80 x 74mm.

CAT# BZ-75 \$8.50 each



PIEZO SIRENS

LOUD MINI SIREN, 12 VDC

Model# AS-9903. Extremely loud 12 Vdc car alarm siren. Distinctive siren pattern cycles through six different sounds every thirty seconds. 120dbL. Overall dimensions: 3.25" x 2.90" x 3.50" high. Two 11" wire leads. 2.85" mounting centers on adjustable metal base.

CAT# ES-903 \$14.50 each



XL MINI PIEZO SIREN

Small, painfully-loud two-tone piezo siren for auto or home security devices.

Operates 6-12 vdc, 110 ma. 108dB output (30cm). 1.81" x 1.55" x 0.88" high black plastic body. Two mounting holes on diagonal 1.80" centers. 3" wire leads.

CAT# ES-10 \$4.50 each • 10 for \$4.00 each



21MM PIEZO ELEMENT

50mm wire leads.

CAT# PE-56 \$1.00 each
10 for 85¢ each



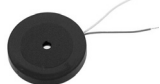
ENCASED PIEZO ELEMENTS

Plastic encased piezo elements are more resonant and louder than non encased piezo elements. They require external signal to produce sound.

0.89" DIAMETER X 0.13"

Matsushita #WM-71A111M

1" wire leads. **CAT# PE-54**
75¢ each • 100 for 50¢ each



22MM DIA. X 8MM PLASTIC CASE

Murata #PKM22EPP-40.

PC pins on 10mm centers. 4KHz resonant frequency. Piezo element inside case is 20mm diameter. **CAT# PE-57** 75¢ each



0.86" DIA. X 0.1"

Plastic housing with a ring of self-adhesive neoprene padding on the front face. 1.25" long leads. 0.79" dia. piezo element can be removed from case.

CAT# PE-49 75¢ each
10 for 65¢ each • 100 for 50¢ each



MINI TONE TRANSDUCERS

Used in paging, warning signals, metal detectors and alarm clocks. Miniature magnetic transducers require external signal source to produce sound.

RDI # DMT-1206. 48 Ohm audio tone transducer. 0.47" diameter x 0.34" high. PC pins on 0.25" centers. **CAT# PE-52** 2 for \$1.00 • 100 for 40¢ each



16 Ohm mini-tone transducer Intervox #BRT1209L-03 12mm diameter x 8.5mm high. 3.6Vdc (1.5 – 5Vdc), 70mA max current. 90 db @ 10 cm. 2048Hz. Two 3.5" leads. **CAT# PE-58** 2 for \$1.00 100 for 40¢ each • 1000 for 25¢ each



AVX/Kyocera # PCRT21BGX Black plastic front, vented metal back. Solder loop terminals. 0.82" dia. x 0.15" **CAT # PE-38** 3 for \$1.00 100 for \$25.00 • 1000 for \$125.00



MULTIMEDIA / VOIP HEADSET

Stereo headphones with boom microphone. Ideal for internet Voip telephony and other computer A/V applications. Dual 3.5mm stereo phone plugs. Volume control. **CAT# HP-103** \$7.50 ea.



HEADPHONES

LIGHTWEIGHT STEREO HEADPHONES

Lightweight stereo headphones for audio and computer applications. Adjustable headband. 3.5mm phone plug with 4' shielded cord. **CAT# HP-100** \$3.35 ea. • 100 for \$2.50 ea.



LIGHTWEIGHT STEREO EARPHONES

Lightweight stereo headphones for audio and computer applications. Adjustable headband. 3.5mm phone plug with 4' shielded cord. **CAT# HP-97** \$1.75 each 100 for \$1.25 each



FOLDING STEREO HEADPHONES

Maxview # H85010. Padded over-ear headphones for added listening isolation. Double-jointed ear cup brackets allow headphones to fold into 5" x 5" package. Includes draw-string pouch and 1/4" to 3.5mm stereo phone plug adapter. **CAT# HP-851** \$8.95 each



MONAURAL EARPIECE W/ 20' CORD

Recoton® #EP3. Old-style, mono in-ear earphone for private radio or TV listening. 3.5mm mini-plug. **CAT# EP-15** \$2.00 each



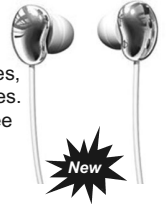
JAMMERZ - DIGITAL STEREO EARBUDS,

COBY JAMMERZ CVE52 CD, MP3, iPod In-ear isolation design blocks background noise while providing crisp sound. Durable, comfortable earbuds. 9mm drivers deliver sweet sound with powerful bass response. Impedance: 16 ohms. Frequency range: 20-20,000 Hz. Sensitivity: 102 dB / mW. Rated / Max Input Power: 5mW / 10mW. Weight 14.8 g. 3.5mm gold plated plug. **CAT# HP-52** \$6.95 each



MAXELL "COOL BEAN" STEREO EARBUDS

Compatible with most smart phones, mp3 players and mini-audio devices. Standard 3.5mm phone plug. Three different sized ear plugs and cord management device included. **CAT# HP-55** \$3.50 each



ELECTRIC MICROPHONE

The electret microphones listed below require a low current voltage of 1.5 - 10 Vdc to operate. They will not function in applications that are not specifically wired for electret microphones.

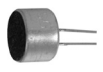
ELECTRET MIC ELEMENTS

Hosiden # KUB2823. Tiny, omnidirectional microphone. 6mm dia. x 2.7mm height. 2.2K Ohm impedance. Operates on 2.2 Vdc, 0.5 mA. Sensitivity, -45 dB. PC pins on 0.05" centers. **CAT# MIKE-79** 2 for \$1.00 10 for 40¢ each • 100 for 30¢ each



ELECTRET MICROPHONE

10mm diameter x 7mm. Two 10mm leads on 2.5mm centers. **CAT# MIC-60** 2 for \$1.00 • 10 for 40¢ each



ELECTRET MICROPHONE

1.70" x 0.92" x 0.50" rounded rectangular ABS case. 2-conductor cable (1-conductor with shield). 9' cable. **CAT# MIKE-95** \$1.00 each



ELECTRET MICROPHONE WITH PUSH-TO-TALK BUTTON

Designed for use with a Bluetooth "hands-free" kit, microphone and pushbutton are housed in a 1.53" x 1.90" x 0.71" rounded case. Microphone connected to a 12ft, 2-conductor shielded cable, and membrane push-button connected to a 10ft 4-conductor cable. **CAT# MIC-64** ~~\$4.50~~ \$1.00 each



ELECTRET MICROPHONE W/ METAL BRACKET

Electret condenser microphone in an oval, 43 x 23 x 17mm high black plastic enclosure attached to a 78mm long x 16mm wide metal bracket. Bracket extends 45mm past microphone. Bracket swivels. Probably designed to slide under auto sun visor. 290mm cable with two-conductor female connector. **CAT# MIC-7** \$1.00 each



DYNAMIC MICROPHONE

Priddis Dynamic
Microphone # DM-312.
Multi-purpose PA, Karaoke dynamic
microphone. Moving-coil element.
Uni-directional cardioid pattern.
On-off switch. 11' Low Noise
cable with 1/4" plug.

CAT# MIC-8 \$9.50 each



TRAVEL CHARGERS

DUAL PORT USB CAR CHARGER, 2.1 AMP

Creates two USB charging ports in
vehicle, 2.1 Amp capacity. For
phones, iPads®, Kindle and other
portable devices. With CB-803, below,
charges or powers most USB devices.

CAT# MT-802 \$7.50 each



3-IN-ONE SYNC/CHARGE USB CABLE

No more mess! All-in-one retractable
cable for syncing and charging most
portable phones and tablets. Connects
to any car or home charger with a USB port.
Ingenious 3-in-one plug for mini-USB,
micro-USB and Apple products. Fits Apple®,
Blackberry®, Motorola®, Samsung®,
LG®, Nokia®, HTC®, Palm®, Sony®,
Sanyo®, Kyocera®, the Amazon®
Kindle™ and more.

CAT# CB-803 \$6.00 each



12V 1000MA CHARGER W/ CIG LIGHTER SOCKET

Compact, portable 120 Vac power
supply allows cell phones, PDAs,
MP3 players and other portable
electronics with a car charger to be used anywhere
AC power is available. Perfect for home, office or
travel. 12 Vdc 1000 mA.

CAT# PS-1201 \$6.95 each



MICRO-USB CAR CHARGER

For devices with micro
USB connector. Internal
Intelligent IC prevents
overcharging.

CAT# MT-20

\$8.95 each



MICRO-USB

Smart IC protects battery
from overcharging.
Compatible with Ni-Mh and
Li-ion batteries. 6' cord.
For Motorola Q9h, Q9m,
RAZR2 V8, RAZR2 V9, RAZR2 V9m,
among others.

CAT# PS-6 \$4.00 each



CIGARETTE LIGHTER CORDS

CIGARETTE LIGHTER "Y"

1 plug to 2 sockets. 6" cord.
CAT# CLP-Y \$3.65 each
10 for \$ 3.40 each



6.5' CIGARETTE LIGHTER POWER CORD, 2.1MM COAX PLUG

6.5ft cord with
2.1mm i.d. coax
power plug. SPT-2,
18AWG zip cord.
Cigarette lighter plug
with 5A fuse.

CAT# CLP-102

\$3.50 each



CIGARETTE LIGHTER PLUG

Rubber strain relief.

CAT# CLP-101

85¢ each



12' CIGARETTE LIGHTER POWER CORD

12' 2-conductor
AWG 20 zip cord.

CAT# CLP-99

\$ 3.00 each



LASERS

RED LASER DIODE MODULE

4mW red, 650nm laser diode
module. Designed for
installation into an OEM product,
they are functioning units with a bare, exposed PC
board, 6" leads terminated with a 2-contact female
connector, 0.1" spacing. The brass body is 10.5 x
15mm. Overall length with PCB is 22mm. Operating
voltage is 3VDC @ 25mA. Polymer aspheric lens,
5mm aperture. <2mrad divergence.

CAT# DLM-3 \$7.50 ea. • 10 for \$ 7.00 ea.



5MW 650NM RED LASER DIODE

LiteOn #TLTD505T. 650nm red laser diode.
2.4-2.6V operation. 3mm dia. case with lens.
6mm diameter gold-plated heatsink base.
Gold-plated leads.

CAT# DLM-6 \$3.45 each



GREEN LASER POINTER

Bright green
laser pointer at
532 nm wavelength. Output power of <5mW (Class
IIIa Laser Product). Range of approximately
9,000 ft (2600 m) in darkness. 1.1 mm beam dia. at
source. Requires 2 "AAA" batteries (included). Can
be used for sky-pointing, projection on low clouds,
signaling. 6" x 0.5" diameter.

CAT# LP-40G \$37.95 each



ADJUSTABLE WINDSHIELD MOUNT PEDESTAL

Very sturdy, heavy-duty plastic mounting
pedestal. Adjusts to a variety of
positions. 5" high, fully-extended.
1.8" x 1.68" mounting plate is on a ball
swivel providing more position options.
Original application is unknown but, with
a little drilling or grinding, mounting
plate might easily be adapted to
communications, audio, video or other
equipment. 2.8" diameter suction cup
base adheres to any smooth, non-porous
surface. A lever actuates or releases
suction for secure mounting and quick release.

CAT# AJR-2 \$3.95 each



New

FASTENERS

INSULATED CRIMP TERMINALS

1/4" QUICK DISCONNECT MALE

	CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
	2125	22-18	RED	3.00	5.50	22.00	38.00
	2225	16-14	BLUE	3.00	5.50	22.00	38.00
	2325	12-10	YELLOW	3.60	6.10	28.50	55.00


1/4" QUICK DISCONNECT FEMALE

	CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
	1125	22-18	RED	3.00	5.50	22.00	38.00
	1225	16-14	BLUE	3.00	5.50	22.00	38.00
	1325	12-10	YELLOW	4.00	7.20	30.50	57.50

1/4" FULLY INSULATED MALE

	CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
	4125	22-18	RED	5.40	9.00	38.50	66.00
	4225	16-14	BLUE	5.40	9.00	38.50	66.00

1/4" FULLY INSULATED FEMALE

	CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
	6125	22-18	RED	5.40	9.00	38.50	66.00
	6225	16-14	BLUE	5.40	9.00	38.50	66.00

1/4" PIGGY-BACK

	CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
	3125	22-18	RED	5.40	9.00	38.50	66.00
	3225	16-14	BLUE	5.40	9.00	38.50	66.00

3/16" QUICK DISCONNECT FEMALE

	CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
	1150	22-18	RED	3.00	5.50	22.00	38.00
	1250	16-14	BLUE	3.00	5.50	22.00	38.00


3/16" QUICK CONNECT MALE

	CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
	2150	22-18	RED	3.00	5.50	22.00	38.00
	2250	16-14	BLUE	3.00	5.50	22.00	38.00


BUTT CONNECTORS

	CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
	5100	22-18	RED	3.00	5.50	22.00	38.00
	5200	16-14	BLUE	3.00	5.50	22.00	38.00
	5300	12-10	YELLOW	4.00	7.20	30.50	57.50


END CAPS

	CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
	0100	22-18	NATURAL	3.00	5.50	22.00	38.00
	0200	22-14	NATURAL	3.00	5.50	22.00	38.00
	0300	22-10	NATURAL	3.50	6.00	28.35	54.50


FULLY INSULATED MALE BULLET CONNECTORS

	CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
	5400	22-18	RED	3.00	5.50	22.00	38.00
	5500	16-14	BLUE	3.00	5.50	22.00	38.00


FULLY INSULATED FEMALE BULLET CONNECTORS

	CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
	5600	22-18	RED	4.00	7.20	30.50	57.50
	5700	16-14	BLUE	4.00	7.20	30.50	57.50

SPADE TERMINALS

	CAT#	WIRE SIZE	COLOR	STUD SIZE	50 PCS	100 PCS	500 PCS	1,000 PCS
	9106	22-18	RED	6	3.00	5.50	22.00	38.00
	9108	22-18	RED	8	3.00	5.50	22.00	38.00
	9110	22-18	RED	10	3.00	5.50	22.00	38.00
	9206	16-14	BLUE	6	3.00	5.50	22.00	38.00
	9208	16-14	BLUE	8	3.00	5.50	22.00	38.00
	9210	16-14	BLUE	10	3.00	5.50	22.00	38.00
	9308	12-10	YELLOW	8	4.00	7.20	30.50	57.50
	9310	12-10	YELLOW	10	4.00	7.20	30.50	57.50

RING TERMINALS

	CAT#	WIRE SIZE	COLOR	STUD SIZE	50 PCS	100 PCS	500 PCS	1,000 PCS
	8106	22-18	RED	6	3.00	5.50	22.00	38.00
	8108	22-18	RED	8	3.00	5.50	22.00	38.00
	8110	22-18	RED	10	3.00	5.50	22.00	38.00
	8206	16-14	BLUE	6	3.00	5.50	22.00	38.00
	8208	16-14	BLUE	8	3.00	5.50	22.00	38.00
	8210	16-14	BLUE	10	3.00	5.50	22.00	38.00
	82516	16-14	BLUE	5/16	4.25	7.50	31.00	59.00
	8308	12-10	YELLOW	8	5.40	9.00	38.50	66.00
	8310	12-10	YELLOW	10	5.40	9.00	38.50	66.00
	83516	12-10	YELLOW	5/16	6.25	11.00	52.00	90.00

52263	8-0/4	RED	10	10/\$3.00	25.00	150.00
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RED INSULATED HOOK TERMINAL, #10 STUD

Red insulated crimp terminal for 22-18AWG wire. **CAT# 6100**
 50 for \$2.50 100 for 4.5¢ each 500 for 4¢ each 1000 for \$0.032 each



CRIMP TOOL



For insulated and uninsulated solderless terminals, butt connectors and end caps. Also crimps D-sub and other connector pins.
CAT# CT-1 \$8.75 each

CABLE TIES

CAT#	LENGTH	MIN. TENSIL STRENGTH	COLOR	MAX. BNDL DIA.	10	100	1000
TR-400	4"	18 lbs	neutral	15/16"	.30	\$2.50	\$15.00
TR-400B	4"	18 lbs	black	15/16"	.35	\$3.00	\$17.50
TR-600	6"	30 lbs	neutral	1 1/2"	.50	\$4.00	\$30.00
TR-600B	6"	30 lbs	black	1 1/2"	.50	\$4.00	\$30.00
TR-800	8"	50 lbs	neutral	1 3/4"	.60	\$5.00	\$40.00
TR-800B	8"	50 lbs	black	1 3/4"	.70	\$6.00	\$50.00
TR-1100	11"	50 lbs	neutral	3"	.70	\$6.00	\$50.00
TR-1100B	11"	50 lbs	black	3"	.80	\$7.00	\$60.00
TR-1500	15"	50 lbs	neutral	4"	\$1.00	\$8.00	\$70.00
TR-1500B	15"	50 lbs	black	4"	\$1.00	\$8.00	\$70.00

ADHESIVE-BACKED TIE MOUNTS

3/4" square	10 - 40 lbs ties	CAT# TM-1	10 for \$1.20	100 for \$9.50	1000 for \$85.00
1" square	18 - 50 lbs ties	CAT# TM-2	10 for \$1.40	100 for \$10.00	1000 for \$95.00

These tie mounts are used to hold the above tie wraps to a flat surface.



WIRING NUTS

SIZE	COLOR	CAT#	50	100	500	1000
Fits 18-28 ga. wire	Grey	WN-1	\$2.00	\$3.50	\$15.00	\$25.00
Fits 18-24 ga. wire.	Blue	WN-2	\$3.00	\$5.50	\$25.00	\$45.00
Fits 16-22 ga. wire	Orange	WN-3	\$3.75	\$7.00	\$32.50	\$60.00
Fits 18-12 ga. wire	Yellow	WN-4	\$3.75	\$7.00	\$32.50	\$60.00



QUICK SPLICE

CAT#	WIRE SIZE	COLOR	50 PCS	100 PCS	500 PCS	1,000 PCS
7100	22-18	RED	5.50	10.00	47.00	75.00
7200	16-14	BLUE	5.50	10.00	47.00	75.00



SPLIT-LOOM TUBING

Dress up auto and home installations with split-loom tubing.

Allows exit or entry of wires at any point.



DIA.	COLOR	CAT#	PER FT	100 FT
1/4"	black	SLT-14	12¢	\$9.00
3/8"	black	SLT-38	15¢	\$10.00
1/2"	black	SLT-12	19¢	\$12.00
5/8"	black	SLT-58	25¢	\$18.00
3/4"	black	SLT-34	29¢	\$18.00

Minimum order 10' of one size.

TELECOM CONNECTORS

For 19- 26 AWG wire. Simply put wires in place and push button with pliers or crimping tool. Filled with silicone gel to insulate and improve conductance.

2-WIRE BUTT SPLICE - YELLOW

CAT # UYC 10 for \$2.00
50 for \$7.50 • 100 for \$11.00



3-WIRE BUTT

SPLICE - RED CAT # URC
10 for \$2.50 • 50 for \$10.00 • 100 for \$14.00



TAP CONNECTOR

Allows user to tap directly into an existing wire without cutting.

CAT # UBC 10 for \$2.50
50 for \$10.00 • 100 for \$14.00



IN-LINE SPLICE

CAT # BSL-2
10 for 90¢ • 50 for \$3.50 • 100 for \$6.50



HOOK & LOOP "WRAPPERS"

Black hook & loop straps for bundling and fastening of cables, tools, fishing poles, sporting goods.

12.5" x 0.5" CAT# WR-1
\$1.00 each • 10 for 85¢ each



NYLON SPACERS, NON-THREADED



Length	Dia.	Hole	CAT #	10	100	1000
0.25"	0.25"	#8	SP-42	0.80	5.00	35.00
0.50"	0.25"	#8	SP-58	0.90	5.50	40.00
0.6"	0.13"	18awg	SPC-5	0.40	3.00	20.00
0.62"	0.25"	#8	SP-66	0.95	5.75	42.50

WEATHERPACK IN-LINE CONNECTOR KITS



Delphi Weatherpack Connectors are environmentally sealed electrical connections designed to withstand exposure to extreme temperatures and moisture. Terminals are tin plated and have special core wings which allow crimp-only connections, eliminating the need for solder. The connector and cavity seals are triple-ribbed and made of self-lubricating silicone. Cavity plugs are available to fill unused cavities. Pin and sleeve-type terminals rated 0.5 - 16V @ 20A. Designed for automotive, marine and heavy industrial use.

155 PC KIT includes 2 each male and female connectors, 1, 2, 3, 4, 6-contact with pins, seals, plugs, insertion tool and storage box.

CAT# CKT-155 \$65.00 each

1104 PC KIT includes the following male and female connectors, 10 1-contact, 8 2-contact, 6 3-contact, 4 4-contact, 3 5-contact, 4 6-contact with pins, seals plugs, insertion tool and storage box.

CAT# CKT-1104 \$140.00 each

CRIMP TOOL FOR WEATHERPACK CONNECTORS

Durable, hardened crimp stations and steel parallel jaws eliminate faulty crimps on a wide range of gauge wire terminations. These tools work well with our Weatherpack kits.

CAT# CT-18 \$27.95 each



HEAT SHRINKABLE TUBING & ACCESSORIES

4' LENGTH OF HEATSHRINK TUBING

Polyolefin heat shrinkable tubing shrinks to 50% of its original diameter when heated. It forms a tight mechanical bond even over irregularly shaped materials.

Size listed is expanded (pre-shrunk) diameter.

Dia.	Color	CAT#	Per 4'
3/64"	BLACK	HUG-364B	\$1.15
	RED	HUG-364R	\$1.15
	WHITE	HUG-364W	\$1.15
	CLEAR	HUG-364C	\$1.15
1/16"	BLACK	HUG-116B	\$1.20
	RED	HUG-116R	\$1.20
	WHITE	HUG-116W	\$1.20
	CLEAR	HUG-116C	\$1.20
3/32"	BLACK	HUG-332B	\$1.25
	RED	HUG-332R	\$1.25
	WHITE	HUG-332W	\$1.25
	CLEAR	HUG-332C	\$1.25
1/8"	BLACK	HUG-18B	\$1.35
	RED	HUG-18R	\$1.35
	WHITE	HUG-18W	\$1.35
	CLEAR	HUG-18C	\$1.35
3/16"	BLACK	HUG-316B	\$1.60
	RED	HUG-316R	\$1.60
	WHITE	HUG-316W	\$1.60
	CLEAR	HUG-316C	\$1.60
1/4"	BLACK	HUG-14B	\$1.90
	RED	HUG-14R	\$1.90
	WHITE	HUG-14W	\$1.90
	CLEAR	HUG-14C	\$1.90
3/8"	BLACK	HUG-38B	\$2.15
	RED	HUG-38R	\$2.15
	WHITE	HUG-38W	\$2.15
	CLEAR	HUG-38C	\$2.15
1/2"	BLACK	HUG-12B	\$2.40
	RED	HUG-12R	\$2.40
	WHITE	HUG-12W	\$2.40
	CLEAR	HUG-12C	\$2.40
3/4"	BLACK	HUG-34B	\$3.15
	CLEAR	HUG-34C	\$3.15
1"	BLACK	HUG-1B	\$4.50
	CLEAR	HUG-1C	\$4.50

100' ROLL OF HEATSHRINK TUBING

Dia	CAT#	100' roll
1/16"	HSS-116(X)	\$12.00
3/32"	HSS-332(X)	\$13.00
1/8"	HSS-18(X)	\$15.00
3/16"	HSS-316(X)	\$19.00
1/4"	HSS-14(X)	\$22.00
3/8"	HSS-38(X)	\$25.00
1/2"	HSS-12(X)	\$30.00

X=color. Available colors are Black (B), White (W), Red (R), & Clear (C)

i.e. 1/16" red = **CAT# HSS-116R**

STEINEL HEAT GUN

UltraHEAT™ #SV800

Dual temperature

heat gun provides flameless

heat for applying heat shrink tubing, curing

epoxy, loosening adhesives, heating liquids,

thawing frozen pipes, stripping paint and

many other applications. Dual temperature,

600 deg. F and 800 deg F. 1300 Watts.

Impact resistant housing. Long-lasting heating element. UL listed.

CAT# HG-800 \$46.75 each



HEATSHRINK TUBING 154 PIECE ASSORTMENT

Have the right piece

of heat shrinkable

tubing when you

need it. Unbreak-

able clear plastic

box with dividers

contains

4 inch lengths of

6 different

diameters:

1/16" - 56 pcs,

3/32" - 35 pcs,

1/8" - 28 pcs,

3/16" - 18 pcs, 1/4" - 9 pcs, 3/8" - 8 pcs.

ASSORTED COLORS:

black, red, clear, yellow, green, blue, white

CAT# HS-4900 \$11.95 per kit

BLACK ONLY: CAT# HS-4901 \$11.95 per kit



DUAL WALL HEATSHRINK TUBING KIT

Dual-wall,

adhesive-lined

heatshrink tubing

assortment.

4" black polyolefin

with adhesive

lining. Shrinks to

half its original diameter when heated, creating a

moisture-resistant, tight, flexible protective seal.

Unbreakable, clear plastic box with dividers.

Contents:

1/8" 12 pcs

1/2" 4 pcs

1/4" 10 pcs

3/4" 3 pcs

3/8" 6 pcs

1" 2 pcs

CAT# HS-4903 \$15.95 per kit



HEATSHRINK CABLE MARKING KIT

1/2" pieces of

black heatshrink

tubing, numbered

0 to 9 for cable

marking applicat-

ions. Each num-

ber is supplied in

sizes 1/8", 3/16",

1/4", 3/8", and

1/2". Also includes

60 pieces of colored heatshrink tubing in assorted

sizes. Sorted by number in an unbreakable clear

plastic box. Includes: 300 pieces 1/2" long numbered

markers, assorted diameters. 60 pieces 1/2" long color

markers, assorted diameters.

CAT# HS-4902 \$11.95 per kit



18 GAUGE TEFLON TUBING (NOT SHRINKABLE)

PTFE 18 TW NATURAL.

18 Gauge, thin-wall Teflon tubing.

Natural (white). TFE-TW-300. Type VW-1.

Rated 200C Degrees. 300V rated. Nominal I.D.

0.042". Wall Thickness: 0.012". CSA. 5' minimum.

CAT# PTFE-18 5' for 75¢

100' for \$10.00 • 1000' for \$80.00



WIRE - CABLE - CO-AX

SHIELDED MULTI-CONDUCTOR JACKETED CABLES 100% FOIL SHIELD WITH DRAIN

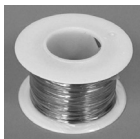
For data communication, computer hook ups, audio and instrumentation. Stranded color coded conductors. Gray vinyl jacket.



CAT#	COND.	GAUGE	O.D.	10'	50'	100'	500'	1000'
2CS22	2	22	.170"	2.40	11.50	22.00	95.00	175.00
3CS22	3	22	.180"	3.00	14.00	26.00	125.00	220.00
5CS22	5	22	.200"	3.70	17.50	33.00	130.00	255.00
10CS22	10	22	.264"	6.20	29.00	55.00	235.00	435.00

MAGNET WIRE

Solid copper wire with a very thin insulating layer. Used in applications such as winding electric motor coils, speakers and transformers. Also used in the construction of electromagnets and inductors.



1/4 LB ROLL

AWG PRICE	LENGTH	CAT#	1/4 LB
16	31'	MW-16-4	\$5.40
18	50'	MW-18-4	\$5.40
20	79'	MW-20-4	\$5.40
22	125'	MW-22-4	\$5.94
24	198'	MW-24-4	\$6.16
26	314'	MW-26-4	\$6.58
28	497'	MW-28-4	\$7.17
30	785'	MW-30-4	\$8.43
32	1217'	MW-32-4	\$8.76

1/2 LB ROLL

AWG PRICE	LENGTH	CAT#	1/2 LB
16	63'	MW-16-2	\$10.60
18	99'	MW-18-2	\$10.80
20	157'	MW-20-2	\$11.20
22	251'	MW-22-2	\$11.70
24	395'	MW-24-2	\$12.20
26	629'	MW-26-2	\$12.60
28	995'	MW-28-2	\$13.65
30	1569'	MW-30-2	\$14.77
32	2430'	MW-32-2	\$15.90

RED / BLACK AUTOMOTIVE GRADE ZIP CORD

Automotive grade "GPT" zip cord with red and black conductors. 80 degree C, flame-retardant PVC insulation. Stranded conductors. Flexible insulation. 10 ft minimum order.



CAT#	AWG	10'	50'	100'	500'
WRB-24	24	.13	.12	.11	.10
WRB-22	22	.14	.13	.12	.11
WRB-20	20	.18	.17	.16	.15
WRB-18	18	.24	.22	.21	.20
WRB-16	16	.40	.37	.36	.32
WRB-14	14	.51	.47	.45	.41
WRB-12	12	.95	.90	.80	.73

PREPPED WIRES

12" SOLID COPPER WIRE LEAD

18ga. black insulation prepped with 0.25" female QC terminal on one end. 105°C 600V UL.

CAT# PL-6 10 for \$1.00 • 100 for 7¢ each

5" LEAD, WITH 3/32" QC TERMINALS

22 gauge stranded wire. Black insulation. 3/32" female qc connectors on each end.

CAT# PL-5 10 for 50¢ • 500 for 3¢ each



HOOK-UP WIRE

26-18 AWG stranded and solid hook-up wire, PVC insulation. Colors available: Black (BK), Red (RD), White (WT), Green (GN), Yellow (YL) and Blue (BL), Brown (BR), Orange (OR), Purple (PR), Gray (GY).



Available in 25' and 100' rolls.

CAT# X X X X - 25 or 100 S

AWG color length add S for solid

i.e.: for 24GA Black, 100' stranded **CAT# 24BK-100**

i.e.: for 24GA Red, 25' solid **CAT# 24RD-25S**

25 FOOT ROLLS, STRANDED

26 AWG	CAT# 26xx-25	\$2.20 per roll
24 AWG	CAT# 24xx-25	\$2.38 per roll
22 AWG	CAT# 22xx-25	\$2.64 per roll
20 AWG	CAT# 20xx-25	\$3.36 per roll
18 AWG	CAT# 18xx-25	\$4.28 per roll

100 FOOT ROLLS, STRANDED

26 AWG	CAT# 26xx-100	\$5.18 per roll
24 AWG	CAT# 24xx-100	\$5.48 per roll
22 AWG	CAT# 22xx-100	\$7.08 per roll
20 AWG	CAT# 20xx-100	\$9.46 per roll
18 AWG	CAT# 18xx-100	\$12.30 per roll

25 FOOT ROLLS, SOLID

24 AWG	CAT# 24xx-25S	\$2.24 per roll
22 AWG	CAT# 22xx-25S	\$2.64 per roll
20 AWG	CAT# 20xx-25S	\$3.26 per roll
18 AWG	CAT# 18xx-25S	\$4.20 per roll

100 FOOT ROLLS, SOLID

24 AWG	CAT# 24xx-100S	\$5.32 per roll
22 AWG	CAT# 22xx-100S	\$6.88 per roll
20 AWG	CAT# 20xx-100S	\$9.14 per roll

SPEAKER WIRE

Good quality, stranded 2-conductor clear speaker wire.



18 GA, 50' roll	CAT# 18C-50	\$4.50 per roll
18 GA, 100' roll	CAT# 18C-100	\$8.75 per roll
16 GA, 50' roll	CAT# 16C-50	\$7.50 per roll
16 GA, 100' roll	CAT# 16C-100	\$14.00 per roll
14 GA, 50' roll	CAT# 14C-50	\$9.75 per roll
14 GA, 100' roll	CAT# 14C-100	\$19.00 per roll

MICROPHONE CABLE

2 CONDUCTOR SHIELDED

22 ga. stranded conductor. Braided copper shield. Flexible black PVC outer jacket. 0.23" nominal O.D.

CAT# MC-2 10 feet \$4.50

100 feet \$32.00 • 300 feet \$90.00

CO-AXIAL CABLE

RG-6/U, 75 OHM

18 ga solid center. Black. Double shield, 100% foil shield, 60% aluminum braid.

CAT# RG-6U 50 feet for \$10.00
250 feet for \$37.50 (15¢ per ft.)
1000 feet for \$120.00 (12¢ per ft.)

RG-58/U COAX CABLE, 50 OHM

BLACK. 20 gauge solid center, 80% copper braid shield, 50 ohm impedance.

CAT# RG-58U 50 feet for \$17.50
100 for 34¢ per ft • 500 for 29¢ per ft
1000 for 27¢ per ft

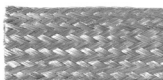
RG-174 MINI CO-AX

BLACK. 50 ohm impedance.
26 ga. stranded center. Braided copper shield.

CAT# RG-174 10 ft. \$2.90
50 ft. \$13.50 • 100 ft. \$25.00
500 ft. \$115.00 • 1000 ft. \$195.00

TUBULAR BRAID TINNED COPPER GROUND STRAP

Mil Spec QQB575B 30T875
tinned-copper braid woven in
completely round configuration.
Used as ground strap, shielding
and protective covering.



1/16" Approx 0.07" wide x 0.03" thick when flattened.
CAT# TBG-116 75¢ per ft.

7/8" Approx 0.88" wide x 0.05" thick when flattened.
CAT# TBG-78 \$2.00 per ft.

1" Approx 1" wide x 0.1" thick when flattened
CAT# TBG-1 \$2.50 per ft.

FLAT RIBBON CABLE 0.05" PITCH

0.050" pitch between conductors. 28 AWG stranded
conductors. For use with IDC, insulation displace-
ment connectors. 300 Volt rating. UL, CSA

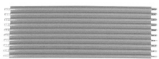
GRAY OR BLUE INSULATION

with red marker stripe on one side.
3M 3365, Spectra Strip 191-2801-0xx,
Alpha 3580/xx, Belden 9L280xx or equivalent.

Conductors	CAT #	10 feet	100 feet
10	RCBL-10	\$2.50	
14	RCBL-14	\$3.40	
16	RCBL-16	\$3.60	22.00
34	RCBL-34	\$4.30	30.00
50	RCBL-50	\$5.30	40.00

RIBBON CABLE JUMPERS, 0.10"

Flexible ribbon cable.
PC leads on 0.10" centers.



	CAT#	EACH	100
3" 10- conductor	RJ-310	50¢	30¢
2" 11-conductor	RJ-211	50¢	30¢

CATEGORY 5E CABLE, 4 TW PAIRS

4 unshielded twisted pairs (UTP). AWG 24 solid
conductors. 350 mHz. Western Electric Standard
color coding. UL, CSA listed.

CAT# CTE-5
50 feet for \$9.00
100 feet for \$16.00
1000 feet for \$110.00



TELEPHONE STATION WIRE

ROUND STATION WIRE

AWG 24, solid wire.



COND.	CAT #	50'	100'	500'	1000'
4	4C24	*special	\$10.00	\$45.00	\$85.00
* Special		4C24-50	50' roll for \$4.50		

6	6C24	\$6.50	\$9.50	\$43.00	\$80.00
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FLAT TELEPHONE WIRE

AWG 28, stranded wire.
For use with crimp-on RJ11, RJ12 and
RJ45 modular connectors. Color-coded.



COND.	CAT #	50'	100'	1000'
4	4CF	\$5.00	\$9.50	\$65.00
6	6CF	\$5.10	\$9.75	\$95.00
8	8CF	\$9.50	\$18.00	\$110.00

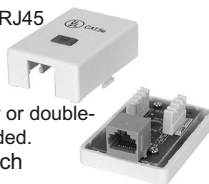
NETWORKING PRODUCTS

CAT-5E ACCESSORIES

CAT-5E SURFACE-MOUNT JACK

UL certified surface mount RJ45
jack for CAT5E cables.
Includes EIA/TIA 568A/B
wiring diagram. Quick and
easy installation with screw or double-
sided tape. Hardware included.

CAT# MT-80 \$3.85 each
10 for \$ 3.50 each



RJ-45 DATA COUPLER

Connects two CAT-5/6 cables.
Straight-through connection.

CAT# MT-88 \$2.50 each



RJ45 MODULAR T ADAPTOR

RJ45, 8-pin modular jacks.

CAT# MT-115 \$1.50 each



CATEGORY 5E CABLES

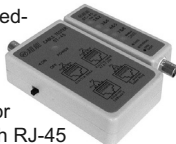
Standard, straight-through Ethernet
patch cables. 4-pair, stranded
copper terminated with 8-contact RJ45 modular
plugs. Suitable for 350MHz high-speed data appli-
cations. All cables are CAT-5E. UL, ETL.



Length	CAT#	Ea	10	100
3'	CB-53	2.35	1.95	1.45
6'	CB-560	3.90	3.40	2.90
10'	CB-510	4.25	4.00	3.20
25'	CB-525	6.85	6.20	4.85
50'	CB-550	11.35	10.50	7.20
75'	CB-575	15.75	14.75	12.50
100'	CB-500	18.55	17.00	14.95

LAN/PHONE CABLE TESTER

Instant diagnosis of 4-pair, twisted-
pair and coaxial cables for
continuity, opens, shorts,
reversed, transposed and split
pairs. Detachable remote unit for
installed cabling. For cables with RJ-45
or coaxial BNC connectors. Requires 9 Volt battery.
CAT# CT-28 \$12.00 each



PHONE ACCESSORIES

CRIMP-ON MODULAR PLUGS

For use with flat telephone wire. Eight pin plugs are for flat cable or CAT5/5E round cable. Crimp tool is on page 74.

4 PIN (6 x 4) RJ-11 MODULAR PLUGS

CAT # CMP-4 10 for \$ 2.50
50 for \$ 10.00 • 100 for \$18.00



4 PIN (4 X 4) HANDSET PLUG

CAT# CMP-40 35¢ each
100 for 25¢ each



6 PIN (6 x 6) RJ-12 MODULAR PLUGS

CAT # CMP-6 10 for \$3.00
50 for \$12.50 • 100 for \$20.00



8 PIN RJ-45 MODULAR PLUGS

For round Category 5/5E cable or 8-conductor flat cable.

CAT # CMP-8 10 for \$ 3.50
50 for \$ 15.00 • 100 for \$22.50



MODULAR JACKS & PLUGS

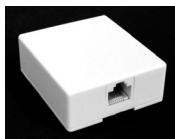
MODULAR CORD COUPLER

CAT# MT-104 75¢ each
10 for \$6.50 • 100 for \$45.00
1000 for \$300.00



SURFACE MOUNT MOD WALL JACKS

Includes mounting screws and double-sided tape. For new construction or retrofitting.



4 Conductor CAT # MT-103 65¢ each
10 for 50¢ each • 100 pcs for 40¢ each

6 Conductor CAT # MT-111 75¢ each
10 for 60¢ each • 100 pcs for 46¢ each

8 Conductor CAT # MT-181 \$1.25 each

T-ADAPTER FOR MODULAR JACK

For connection of two phones or one phone and one answering machine to one jack.

CAT# MT-101 \$1.10 each
10 for \$9.00 • 100 for \$70.00



1 TO 3 MOD PHONE JACK SPLITTER

Allows you to plug three phone devices into one jack. Modular phone plug to three modular phone jacks.

CAT# MT-110 \$1.45 each



MOD PHONE CORD SPLITTER

T-adapter for 4-conductor modular telephone cord. Enables the use of two phones or devices on one cord.

CAT# MT-118 75¢ each
100 for 50¢ each
500 for 40¢ each • 1000 for 25¢ each



2 LINE SPLITTER

Splits 2-line jacks into Line 1, Line 2 and Line 1 & 2.

CAT # MT-105 \$1.50 each



25' TELEPHONE EXTENSION CORD

Modular plug one end - dual modular jacks on other end. 6-conductor.

CAT# MT-EX2

\$2.40 each



MODULAR PHONE JACKS

RJ-11 JACK (6-PIN) W/ LEDS

Amphenol # RJHS 7067. 6-pin RJ-11 modular jack. Red and green LEDs in left and right corners. Horizontal, pc mount. Large quantity available.

CAT# MT-92 45¢ each • 100 for 30¢ each



8-PIN Horizontal entry. PC leads.

CAT# MT-82 75¢ each

10 for 65¢ each • 100 for 55¢ each



RJ-45 JACK W/ LEDS

Shielded 8-pin, RJ-45 modular jack. Green LED in upper right corner. Yellow LED in upper left (looking at the jack). PC mount.

CAT# MT-86 85¢ each • 100 for 75¢ each



MODULAR LINE CORDS

4 WIRE - MOD PLUGS BOTH ENDS (RJ-11)

Cross wired for telephone-voice apps.

DESCRIPTION	CAT#	1-9	100+
7 Feet	MT-260	.70	.50
15 Feet	MT-264	1.00	.85
25 Feet	MT-261	1.25	1.10
50 Feet	MT-370	2.25	2.00



25' "FINE LINE" PHONE CORD, 4-WIRE

Thin, flexible, easy to conceal.

CAT# MT-276 \$1.25 each



4-WIRE HANDSET CORD

7' silver satin

cord. Small, 4P4C handset plugs.

CAT# MT-463 85¢ each • 100 for 60¢ each



6 WIRE - MOD PLUGS BOTH ENDS

Straight-wired for data applications.

DESCRIPTION	CAT#	1-9	10+	100+
7 Feet	MT-363	1.25	1.10	.85
15 Feet	MT-366	1.60	1.50	1.20
25 Feet	MT-369	2.20	1.65	1.30



8 WIRE

7' RJ-45

8P8C

CAT# MT-462 \$1.50 each

10 for \$1.35 each • 100 for \$1.10 each



PHONE PICK-UP

Universal telephone pick-up Suction cup attaches to the earpiece side of a telephone handset. Picks up both sides of the phone conversation. Terminates to a 3.5 mm plug.

CAT# TPX-1 \$2.00 each



RELAYS

KH STYLE (ICE CUBE)

14 PIN (ICE CUBE) relays. All have clear or opaque plastic dust covers. Relay Size: 1.1" X 0.82" X 1.34" high



12 VDC, 4PDT

12 Vdc, 160 ohm coil. 4PDT contacts rated 5 Amps @ 240 Vac/ 28 Vdc. Solder or socket mount terminals. UL, CSA. **CAT # 4PRLY-12** \$4.25 each 10 for \$40.00 • 100 for \$375.00

24 VDC 4PDT

650 ohm coil. 3 amp contacts. Solder or socket mount **CAT# 4PRLY-24N** \$4.25 each

120 VAC 4PDT 5A

Guardian # 5310-4C-120A. 120Vac, 4400 Ohm coil. 4PDT contacts rated 5A 24Vdc/220Vac. 27 x 20 x 35.5mm high. Solder/socket pins. Fits standard KH-type relay socket. UL, CSA.

CAT# 4PRLY-120A \$4.00 each 10 for \$3.75 each

120 VAC 4PDT

P&B. 4PDT contacts, rated 3 Amps @ 120Vac/ 28Vdc, 1/10 HP. Solder or socket-mount contacts. Note: These relays may have scratches or stickers on the dustcover. They are, however, new, unused and guaranteed.

CAT# 4PRLY-120N \$3.00 each 10 for \$2.75 each

120 VAC 4PDT

Kest # KR1205N. 120 Vac, 4500 ohm coil. 4.P.D.T. contacts rated 5 A @ 240 Vac. Red LED indicator lights when coil is actuated. Solder/ socket mount terminals.

CAT# 4PRLY-120L \$4.25 each

AUTOMOTIVE / POWER RELAYS

SPDT 40 AMP AUTO RELAY

12 Vdc, 88 ohm coil. Contacts rated 40A. Plastic enclosed relay, 1.1" x 1.2" x 1" high. Plastic flange for bulkhead mounting. Mounts in standard automotive relay socket.

CAT# RLY-351 \$2.55 each 10 for \$22.50



DUAL 25 AMP RELAY, 12VDC COIL

NEC# EP2-3N1ST. Twin SPDT power relays in small package. Ideal for motor and solenoid reversible control. 12 Vdc coil @ 225 Ohm. Contact rating 25 A. Power consumption 480 mW. 16.2mm x 23.8mm x 16mm. Fully sealed. RoHS.

CAT# RLY-547 \$3.00 each



12 VDC SPDT PC MOUNT RELAY

Omron# G2R-1-E-T130. Sealed pc mount relay. 12 Vdc, 276 Ohm coil. S.P.D.T. contacts rated 16 Amps @ 30 Vdc/250 Vac. 0.50" x 1.12" x 0.97" high. UL/CSA.

RoHS Compliant. **CAT# RLY-543** \$2.75 each • 10 for \$2.65 each



12VDC SPDT MINI POWER RELAY

NEC# ET1-B3M1S. 12 Vdc SPDT mini power relay. 12.72mm x 13.88mm x 9.90mm. Coil rating 225 Ohm. Contacts rated 16 Vdc @ 25 A. Fully sealed. RoHS.

CAT# RLY-549 \$2.35 each



24 VDC SPDT

Small, open-frame, pc mount power relay. Similar P&B T90 style relays. 480 ohm coil. Estimated contact current rating: 15 A(min).

0.9" x 0.71" x 0.72" high. PC pins.

CAT # RLY-275 50¢ each • 10 for \$4.50 100 for \$40.00 • 1000 for \$300.00



24 VDC SPDT RELAY

Hasco #KLT1C12DC24.

Miniature, pc mount power relay.

Sealed case 0.75" x 0.60" x 0.62" high.

24 Vdc, 1600 Ohm coil. Contacts rated 15A (NO), 12A (NC). UL, CSA, TUV.

CAT# RLY-481 \$1.10 each 10 for \$1.00 each • 100 for 65¢ each



24 VDC SPDT 15/10A PC RELAY

Omron # G8P-114P-US.

Sealed PC mount relay for home and industrial appliances. 24Vdc, 660 Ohm coil. Contacts rated 15A/n.o., 10A/n.c. 32 x 27 x 21mm high. UL, CSA.

CAT# RLY-553 \$2.00 each 10 for \$1.80 each • 100 for \$1.65 each



8-PIN DPDT SOLDER / SOCKET MOUNT RELAYS

8-pin, DPDT relays. Rated 10A or more.

Clear polycarbonate dust cover. 1.1" x 0.83" x 1.37" high.

0.187" solder/ qc terminals or socket mount in CAT#s RST-2, RST-2PC or RST-2SL. UL, CSA.



12VDC 10A 162 Ohm coil Kest # KRLY-2012 **CAT# RLY-2012** \$4.00 each

24VDC 10A 625 Ohm coil Kest #KRLY-2024 **CAT# RLY-2024** \$4.00 each

24VDC 10A 650 Ohm coil Sky #SKNP-2C **CAT# RLY-556** \$3.35 each 100 for \$3.00 each

120VAC 12A 3.87K Ohm coil. Bulkhead mounting flanges. Omron LY2-UA-006244

CAT# RLY-453 \$1.75 each

120VAC 10A 5K Ohm coil Kest # KRLY-2120 **CAT# RLY-2120** \$4.00 each

REED RELAYS

5 VDC DIP REED RELAY

Meder# DIP05-1A57. 5 Vdc, 350 Ohm coil. S.P.S.T., normally-open contacts.

IC DIP configuration. **CAT# RLY-495** 60¢ each • 10 for 55¢ each • 100 for 45¢ each



5 VDC S.P.S.T. N.O. REED RELAY

EAC # B1A05X100A1B

5VDC reed relay. 103 Ohm coil.

S.P.S.T., normally-open, contacts.

7.5mm diameter x 23mm long. PC leads.

CAT# RLY-617 85¢ ea. • 10 for 75¢ ea.



DIP RELAYS

Miniature mechanical relays with pin configurations to fit standard DIP socket configurations (0.1" X 0.3" grid). Some are sealed for PC bath with vents that should be clipped after installation.



3 VDC DPDT DIP RELAY

Kest# KS2E-M-DC3. 3 vdc 45 ohm coil. DPDT contacts rated 2 amps. Small sealed case, 0.8" x 0.38" x 0.4" h. Fits 16 pin IC socket DIP pattern. UL, CSA.

CAT# RLY-623 \$1.75 ea. • 10 for \$1.50 ea.

5 VDC DPDT DIP RELAY

Kest# KS2E-M-DC5.

5 vdc 130 ohm coil. DPDT contacts rated 2 amps. Small sealed case, 0.80" x 0.38" x 0.40" high. Fits 16 pin IC socket DIP pattern. UL, CSA.

CAT# RLY-625 \$1.75 ea. • 10 for \$1.50 ea.

5VDC DPDT DIP RELAY

Omron # G6A-234P-ST-US

5VDC, 125 Ohm coil. DPDT contacts rated 1A @ 30Vdc / 0.6A @ 125Vac. 20 x 10 x 8mm. UL, CSA.

CAT# RLY-649 \$1.65 each



5VDC DIP RELAY

NAIS #DS2E-M-DC5V.

5VDC, DPDT, 65 ohm coil. Contacts rated 2A switching, 3A carry current.

Sealed case, 0.78" x 0.38" x 0.36" high. Can be used with 16 pin DIP socket. UL, CSA

CAT# RLY-648 \$1.75 each



12 VDC DPDT DIP RELAY

Kest# KS2E-M-DC12.

12 vdc 740 ohm coil. DPDT contacts rated 2 amps. Small sealed case, 0.80" x 0.38" x 0.40" high. Fits 16 pin IC socket DIP pattern. UL, CSA.

CAT# RLY-622 \$1.75 ea. • 10 for \$1.50 ea.

24 VDC DPDT DIP RELAY

Fujitsu # FBR46D024. 24Vdc, 2850 Ohm, low-profile DIP relay. DPDT contacts rated 1A. 0.63" x 0.38" x 0.31" h. **CAT# RLY-505** \$1.00 each 10 for 85¢ each • 100 for 70¢ each

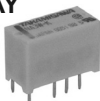
MISCELLANEOUS PC MOUNT RELAYS

3VDC DPDT MINIATURE RELAY

Takamisawa / Fujitsu # NA3W-K

3VDC, 64.3 Ohm coil. 140mW. Contacts rated 1A @ 30Vdc. Tiny, sealed relay. 15 x 7.5 x 10mm high.

UL, CSA. **CAT# RLY-528** \$1.30 each 100 for \$1.00 each



MINI SPST 3 VDC RELAY

Takamisawa #JV-3S-KT. 3Vdc. S.P.S.T., normally-open. Contacts rated 5A @ 30 Vdc/ 250Vac. 44 Ohm, high-sensitivity coil. Miniature sealed relay, 18 x 10 x 12.5mm high. PC leads. UL, CSA.

CAT# RLY-513 \$1.50 each 10 for \$1.25 each • 100 for \$1.10 each



4.5 VDC DPDT MINI-RELAY

Axicom # V23079-A1011-B301.

Miniature 4.5 Vdc, DPDT relay. Coil resistance, 145 Ohms. Contacts rated 2 Amps. 15.00 x 7.50 x 9.90mm sealed case. PC pins. UL, CSA.

CAT# RLY-534 \$1.40 ea. • 50 for \$1.15 ea.



ULTRA-SMALL 5 VDC DPDT RELAY

Omron G6K-2P-5VDC. 5.2 x 6.5 x 10mm ultra-small pc mount relay. 5Vdc, 237 Ohm coil. DPDT contacts rated 1A/30Vdc.

UL, CSA. **CAT# RLY-620** \$2.25 each

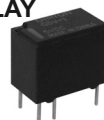


5 VDC SPDT ULTRA-MINI RELAY

OMRON # G5V-1. Ultra-miniature

S.P.D.T. 5 Vdc relay. 7.24mm x 12.25mm x 9.35mm. Coil rating 167 ohm. Contact Ratings: 1.0A @ 30 Vdc, 0.5A @ 125 Vac, 0.3A @ 60 Vdc. Fully sealed. CSA, UL, RoHS.

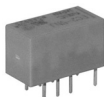
CAT# RLY-548 \$2.00 each



5VDC DPDT MINI-RELAY

NEC# EC2-5NJ. D.P.D.T. sub-mini pc mount relay. Contacts rated 2A @ 30Vdc, 178 Ohm coil. 15 x 7.5 x 8.5mm high. Sealed. PC leads. UL, CSA.

CAT# RLY-532 \$1.40 each



5 VDC DPDT RELAY

Omron # G6S-2F-Y-5VDC.

Miniature surface-mount relay. 5VDC, 125 Ohm coil. Contacts rated 0.5A @ 125Vac, 2A @ 30VDC. 15 x 7.5 x 9.4mm high. UL, CSA. Tape and reel packaging.

CAT# RLY-614 \$1.00 each 10 for 90¢ each • 100 for 75¢ each



5VDC SPDT RELAY

Hasco # KLT1C6DC5. 5Vdc, 70 Ohm coil. S.P.D.T., 6 Amp contacts. 0.87" x 0.63" x 0.66" high sealed plastic case. PC leads.

UL, CSA. **CAT# RLY-499** 95¢ each 10 for 85¢ each • 100 for 60¢ each



6VDC SPDT 10A RELAY

Fujitsu # FBR161NED006-WB 6Vdc, 100 Ohm coil. S.P.D.T., 10 Amp contacts. 0.86" x 0.64" x 0.63" high sealed plastic case.

PC leads. **CAT# RLY-501** \$1.00 each 10 for 90¢ each 100 for 65¢ each



9VDC SPDT RELAY

OEG # ORW-SS-109DM

9Vdc, 223 Ohm coil. S.P.D.T. contacts rated 5A @ 240VAC, 7A @ 120Vac/24Vdc. 0.83" x 0.63" x 0.69" high sealed plastic case. PC leads. UL, CSA.

CAT# RLY-502 95¢ each 10 for 85¢ each • 100 for 65¢ each



12VDC SPDT MINIATURE RELAY

Omron # G5V-1 12VDC. Ultra-miniature, highly sensitive SPDT relay for signal circuits. 12.5 x 7.5 x 10mm.

High-sensitivity, 150mW nominal coil power. 12Vdc, 960 Ohm coil. Carry current to 1A @ 60Vdc. Fully sealed. PC leads. UL, CSA.

CAT# RLY-619 \$1.25 each 100 for \$1.00 each



12 VDC, SPDT RELAY

Fujitsu # FBR 211NA DO12U-M.

Sealed pc mount relay. 12 Vdc, 320 Ohm coil. S.P.D.T. contacts rated 1 Amp @ 28Vdc resistive or 0.5 Amp @ 30 Vac resistive. 0.65" x 0.46" x 0.42" high. UL, CSA.

CAT# RLY-461 \$1.00 each • 10 for 85¢ ea.



MICROMINIATURE

12 VDC SPDT RELAY

Fujitsu #FBR21D12. Subminiature pc mount relay, 7.5 x 10 x 10mm high. 12Vdc 534 Ohm coil. SPDT contacts rated 1A @ 24Vdc, 0.5A @ 120VAC. Maximum carry current, 2A. Note: PC leads are not as stiff as those on other relays. Not suitable for automatic insertion.

CAT# RLY-616 80¢ each
10 for 65¢ each • 100 for 50¢ each



12VDC SPDT RELAY

Hasco # SSD 103PU DC12V Miniature sealed relay. 12Vdc, 320 Ohm coil. S.P.D.T., 3A contacts. 0.90" x 0.70" x 0.55" high. PC leads, UL.

CAT# RLY-498 75¢ each
10 for 70¢ each • 100 for 50¢ each



12 VDC SPST N.O. PC RELAY

MSD Inc (Magnecraft)# 276AXXH-12D 12 Vdc S.P.S.T., normally-open, pc mount relay. 720 Ohm coil. Contacts rated 10A @ 120/250Vac 30Vdc. 20 x 13 x 10mm (0.78" x 0.50" x 0.38"). PC leads. UL, CSA.

CAT# RLY-557 \$1.75 each
12 for \$1.60 each



12 VDC SPDT PC MOUNT RELAY

Taiko #CX-10N. 12 Vdc, 500 Ohm coil. S.P.D.T. contacts rated 5A 14 Vdc (motor load) 10A (switching), 20A (carry current for 10min. max). 22 x 16 x 16mm high. PC pins. Sealed.

CAT# RLY-555 \$1.30 each
10 for \$1.20 each



12VDC 10A SPDT RELAY, PC MOUNT

Song Chuan #812H-1C-S. 12Vdc, 400 Ohm coil. S.P.D.T. Contacts rated 10A/125Vac. Sealed case, 21 x 16 x 16mm high. PC leads. UL, CSA.

CAT# RLY-560 \$1.25 each
10 for \$1.10 each



MINIATURE 12 VDC RELAY

Potter & Brumfield # T81H5D312-12. 12Vdc, 700 Ohm coil. S.P.D.T. Contacts rated 1A 120VAC/24VDC. Miniature sealed case, 0.61" x 0.41" x 0.46" high. PC pins. UL, CSA.

CAT# RLY-516 90¢ each
25 for 80¢ each • 100 for 65¢ each



12 VDC DPDT RELAY

OEG # OMI-SS-212L. 12VDC, 270 Ohm coil. D.P.D.T., 5A contacts. 1.15" x 0.50" x 0.80" high sealed case. PC leads. UL, CSA.

CAT# RLY-497 \$2.50 each
100 for \$2.00 each



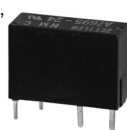
12VDC SPST N.O. RELAY

Song Chuan # 892HN-1AH-S Small, 12Vdc S.P.S.T., normally-open, sensitive pc mount relay. 12Vdc, 720 Ohm coil. Contacts rated 10 Amps/ 125Vac. Sealed case, 20 x 10 x 16mm high. PC leads. CSA, CUR, TUV. **CAT# RLY-531** \$1.10 each
25 for 95¢ each • 100 for 80¢ each



24VDC SPST N.O. MINI-RELAY

Zettler # AZ695-24. 24VDC, S.P.S.T., normally-open contacts. Sensitive sub-miniature relay. 2880 Ohm coil. Contacts rated 5 Amps @ 30Vdc or 250Vac. 17.0 x 6.5 x 12.5mm high. PC pins. UL. **CAT# RLY-535**
\$1.00 each • 10 for 85¢ each



24 VDC DPDT RELAY

Potter & Brumfield # KU-6269. KU-style, 8-pin relay. 24Vdc, 475 Ohm coil. D.P.D.T. contacts industrial rated 3A, 1/2HP, 600VAC. 1/3 HP, 120 Vac, 10A, 240 Vac. UL, CSA. Clear polycarbonate case, 52 x 38 x 35mm. 0.187" QC/solder terminals or socket mount in standard KU-style socket.

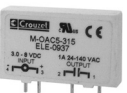
CAT# RLY-550 \$4.00 each



SOLID STATE RELAYS

1 AMP

Crouzet M-OAC5-315. Input: 3 - 8 Vdc. Output: 1 Amp, 24-140 Vac. PC mount, solid-state relay. 1.70" x 1.03" x 0.38". UL, CE. **CAT# SRLY-19** \$3.25 each



ALUMINUM DIN RAIL

Screw terminal sockets. An easy way to attach multiple relay sockets. Sockets snap-on and off of rail. DIN rails come in 1 meter (39") lengths with pre-drilled mounting holes every inch. Can be cut to shorter lengths. **CAT# C102P** \$5.00 each • 10 for \$47.50



RELAY SOCKETS

KH RELAY SOCKETS

Fits all KH and KHU style, 14 pin relays except PC mount style (most relays starting with CAT# 4PRLY).

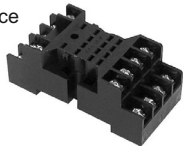
Solder-loop terminals. Note: Terminals and contacts may be discolored.

CAT# PRLY-S 2 for \$1.00
100 for 40¢ each



Screw terminals. Can be surface mounted or snap-mounted to aluminum DIN rail and CSA. 1.17" X 2.44" X 0.98".

CAT# MT14-PC
\$5.50 each • 10 for \$50.00



PC pins for PC board mount.

CAT# PRLY-SC
75¢ each

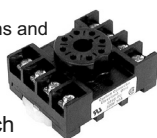


8 PIN OCTAL SOCKETS

PC mount socket for round base 8 pin relays and vacuum tubes. **CAT# OCT-PC** \$1.25 each
10 for \$1.10 each • 100 for 95¢ each



Screw terminals for easy connections and changes. Can be surface mounted or used with aluminum DIN rail. UL listed. **CAT# OT08-PC**
\$2.90 each • 10 for \$2.75 each



8-PIN DPDT RELAY SOCKETS

For 8-pin, DPDT relays with rectangular base. Fits our CAT#s RLY-2012, RLY-2024, RLY-2120, RLY-453 and RLY-556. UL, CSA.

PC PINS

CAT# RST-2PC

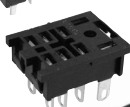
\$1.20 each



SOLDER TERMINALS

CAT# RST-2SL

\$1.35 each



SCREW TERMINALS

Bulkhead, surface mount.

2.6" x 0.87" x 1" high.

CAT# RST-2 \$6.45 each



AUTO RELAY SOCKETS

Pre-wired sockets for use in automotive alarms, door-locks, starter-interrupt, light circuits and other auto applications. Color-coded leads. Will fit our relay, CAT# RLY-351.

5 WIRE SOCKET

with two 18 AWG leads and three 14 AWG leads. Sockets can be interlocked side-to-side.

CAT# SRLY-2 \$2.25 each • 10 for \$17.50



DUAL RELAY SOCKET

Dual 5 wire sockets designed for door-lock applications.

CAT # SRLY-4 \$3.25 each

10 for \$27.50



SOLENOIDS

MINIATURE 12VDC PUSH-TYPE SOLENOID

Ledex™. 0.5" dia. x 1" long tubular solenoid with 3/8" dia. threaded bushing for mounting. 1/16" dia. x 1/2" long plunger. 40 Ohm coil. Operates on 12 Vdc. 1" wire leads.

CAT# SOL-102 \$2.75 each

10 for \$2.50 each



24 VDC SOLENOID, INTERMITTENT DUTY

Potter & Brumfield # S28-25-D-24. 24Vdc, 48 Ohm coil.

Intermittent duty. 1.18" x 1.00" x

1.17" box solenoid. 0.312" diameter

slotted plunger with hole for pin. Solder-lug/ 0.187"

qc terminals. UL. Made in USA.

CAT# SOL-140 \$4.75 each



SOLENOID VALVE

12 Vdc, 100mA solenoid

valve. Open when

activated. Body: 24mm

diameter x 31mm long.

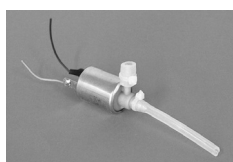
62mm overall length,

including inlet and outlet

ports and terminals. 0.19" diameter ports.

Used, removed from equipment.

CAT# SOL-132 \$2.50 each



HEAT SINKS

31 X 16 X 11MM HEATSINK

Black anodized aluminum heatsink, 31 x 16 x 11mm high. The middle 16 x 16mm underside surface is prepped with thermal compound. Designed for a device, 16mm wide.

CAT# HS-154 45¢ each



COPPER HEATSINK FOR TO-220

THM 6030. Vertical mount, tin coated copper heatsink for TO-220 device.

30 x 25.5 x 12mm.

CAT# HS-6030 \$1.50 each

10 for \$13.30 each



TO-220 CLIP-ON HEATSINK

Aavid Thermalloy #7139D

Copper heat sink with integrated slide-on mounting clip. Tin plated.

19.81 x 13.21 x 13.08mm (0.780" x 0.520" x 0.515").

CAT# HS-7139 3 for \$1.00 • 100 for \$25.00



TO-220 HEATSINK

Thermalloy # THM6079.

Black anodized heatsink.

0.75" x 0.52" 0.5" h. With PC pin.

CAT# HS-325

25¢ each • 100 for \$20.00



HEATSINK FOR TO-220/TO-202

Thermalloy# THM 6047.

Clip-on black anodized aluminum heatsink for TO-220/TO-202, tab-type semiconductor. 20.5 x 21.5 x 8.0mm.

CAT# HS-6047 4 for \$1.00

100 for 20¢ each



HEATSINK FOR TO-220 / TO-202

Thermalloy# THM 6038. Black

anodized aluminum heatsink.

Spring-clip holds TO-220/

TO-202, tab-type semiconductor

in place. Three mounting legs.

Overall dimensions, 1.2" x 1.0" x 0.5" (31 x 26 x 13mm).

CAT# HS-6038 3 for \$1.00



1.47" X 1.47" X 0.24"

Aavid # 028086. Green

anodized aluminum heat sink.

37.4mm x 37.4mm x 6mm high

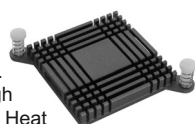
with 59mm mounting centers.

Heat sink originally configured for BGA package sizes,

includes plastic push pins that are standard for

1.5mm pc board and 2.5mm thick BGA packages.

CAT# HS-28 50¢ each • 10 for 45¢ each



HEATSINK FOR TO-3 AND TO-220

Black anodized aluminum

heatsink with holes for

one TO-3 device and

eight TO-220 devices.

46 x 46 x 34mm high.

CAT# HS-29 \$1.50 each



RECHARGEABLE BATTERIES

RECHARGEABLE NICKEL METAL HYDRIDE

Nickel Metal Hydride batteries have double the capacity of standard nickel cadmium cells and can be charged faster without the "memory problems" associated with nickel cadmium batteries.

NI-MH AAA CELL W/ SOLDER TABS

Rechargeable Ni-Mh AAA cell with solder tabs. 1.2V 600 mAh.

CAT# NMH-AAAT \$2.75 ea. • 10 for \$25.00

AAA CELL 1.2 Volt, 1000 mAh. 0.4" dia. X 1.74" long.

CAT# NMH-AAA \$2.50 each • 10 for \$21.00

AAA NIMH

Sanyo "eneloop"

1.2V 750-800mAh rechargeable battery. According to the literature, the key-advantage of the eneloop compared to conventional rechargeable batteries is its extremely low self-discharge. Once charged eneloop keeps 75 percent of its charge after 3 years. Older date code. Special price.

CAT# NMH-R3 \$1.60 each
10 for \$1.25 each

NI-MH AA CELL, W/ SOLDER TABS

1.2 Volt, 2000 mAh.

CAT# NMH-AAT \$3.25 each

AA CELL, 2500 mAh

ULTRA-HIGH CAPACITY 1.2 Volt, 2500 mAh. 0.56" diameter x 1.99" long.

CAT# NMH-AA \$2.95 each
8 for \$2.75 each • 60 for \$2.40 each

C-CELL, 5000 MAH

1.2V. 26mm dia. x 50mm long. Standard charge, 16 Hours @ 300mA. Rapid charge, 2 Hours @ 3000 mA.

CAT# NMH-C \$5.95 each

D-CELL, 10,000 MAH

1.2V. 33mm dia. x 60mm long. Standard charge, 15 Hours @ 800mA. Rapid charge, 3 Hours @ 4000 mA. Weight, 0.36 lbs per cell.

CAT# NMH-D \$10.85 each

9V 250 MAH

CAT# NMH-925

\$6.35 each • 10 for \$5.85 each

RECHARGEABLE NICKEL-CAD

AA CELL 1.2 Volt, 800 mAh

CAT # NCB-AA \$2.25 each
10 for \$2.00 each • 100 for \$1.50 each

NICKEL-CAD CELLS W/ SOLDER TABS

1.2 Volt cells with solder tabs. For building or re-building battery packs.

Type	CAT #	Dimensions
Capacity		1-9 10+
AA	NCB-SAA	0.56" x 1.90"
900 mAh		2.75 2.50
Sub-C	NCB-SC	0.90" x 1.69"
1800 mAh		4.95 4.75

RECHARGEABLE PACKS FOR CORDLESS PHONES

NCB-300 and NCB-600 below have a "universal" connector that can be configured to fit most phones. Pictures and instructions available on our web site.

2/3 AA PACK

3.6 Volts, 300 mAh.

Three 2/3 AA cells. Nickel cad.

CAT# NCB-300

\$3.45 each • 10 for \$3.10 each

AA PACK

3.6 Volts, 800 mAh. Three AA cells.

Nickel cad. **CAT# NCB-600**

\$6.25 each • 10 for \$6.00 each

2.4V, 800 mAh Nickel Metal Hydride.

Two AAA cells with 2-conductor female JST connector. 1.85" x 0.81" x 0.43".

CAT# NMH-JST2 \$6.00 each

3.6V, 800 mAh Nickel Metal

Hydride . Three AAA cells with 2-conductor female JST connector. 1.85" x 1.23" x 0.43".

CAT# NMH-JST3 \$6.50 each

3.6V, 800 mAh, Nickel Metal Hydride

Three AAA cells with 2-conductor female MS connector. 1.85" x 1.23" x 0.43".

CAT# NMH-MS \$6.50 each

CHARGER FOR NIMH OR NICAD

For AA, AAA, C, D and 9V batteries

For Nickel Metal Hydride or Nickel Cadmium rechargeable batteries. Slow and fast charge settings. LED indicators to monitor charge. UL. **CAT# BC-26** \$13.95 each

PLUG-IN NICAD & NI-MH BATTERY CHARGER

Charge 2 or 4 AA/AAA batteries. Input 120 Vac. Red LED indicates charging. AC plug folds into case for ease of storage. UL.

CAT# BC-33 \$6.95 each

FOR 9V NIMH/NICD BATTERIES

Vanson #V-228. 9VDC 16mA. Compact wall charger charges one or two 9V Nickel-metal-hydride or Nickel-cadmium batteries. Full charge in 8-20 Hours, depending on capacity of battery and state of discharge. cULus.

CAT# BC-916 \$4.95 each



SEALED LEAD ACID BATTERIES

Maintenance-free, rechargeable sealed lead-acid batteries. Can be used in any position and can be trickle charged for long periods of time. Excellent for alarms, communications and back-up applications. **WILL NOT LEAK.**



6 VOLT 1.2 AH 3.82" x 0.96" x 2.22" 0.64 lb
CAT# GC-612 \$8.00 each

6 VOLT 4.5 AH 2.76" x 1.85" x 4.17" 1.83 lb
CAT# GC-64 \$10.00 each

6 VOLT 12 AH 5.94" x 1.94" x 3.82" 4.06 lb
CAT # GC-610 \$19.50 each

12 VOLT 1.2 AH 3.82" X 1.68" X 2.07" high.
 1.32 lb **CAT # GC-1212** \$12.50 each

12 VOLT 2.3 AH 7.00" x 1.38" x 2.50" 2.20 lb
CAT# GC-1223 \$15.00 each

12 VOLT 5 AH 3.54" x 2.76" x 4.21" 3.09 lb
CAT# GC-125 \$17.50 each

12 VOLT 7.5 AH 5.94" x 2.56" x 3.94" 4.96 lb
CAT# GC-1270 \$23.50 each

12 VOLT 12 AH 5.94" x 3.88" x 4.00" 8.38 lb
CAT# GC-1214 \$43.00 each

12 VOLT 18 AH 7.13" x 3.01" x 6.57" 11.90 lb
CAT# GC-217 \$59.00 each

12V CHARGERS FOR LEAD ACID

12 VDC DUAL-STAGE CHARGERS

Dual stage output and regulated current control to insure that no damage occurs while battery remains on charger. "Fast-charge" cycle of 15Vdc, brings battery to fully charged state at which point the float-charge takes over, maintaining the battery at a constant 13.8 Vdc. LED indicators; red indicates fast-charge, green indicates power-on and float-charge. Screw terminals allow user to attach desired cable and connector. UL.



<u>Charge Rate</u>	<u>CAT#</u>	<u>each</u>
500 mA	BC-212	\$14.00
1A	BC-201	\$19.00

2A BATTERY CHARGER/MAINTAINER

Peak® # PKC0AF. Ideal for cars, motorcycles, snow mobiles, rc models and toys. Three stage, integrated circuit controlled charging cycle for 12V sealed lead acid batteries, 5 -20 AH capacity. Charges and maintains batteries at peak stand-by-level until needed. Short circuit, over current, over voltage battery polarity protection. Three quick-connect adapters with ring terminals, alligator clips and cigarette lighter plug. UL.

CAT# BC-80 \$21.95 each



24 VDC 3 AMP BATTERY CHARGER

Soneil 2408S33-B. Charges 24 Volt gel, sealed or wet, lead-acid batteries to a full charge and maintains a float charge during periods of inactivity.



Solid-state circuitry prevents overcharging. LED lamps indicate charging cycle. Fuse protected. 2' output cord with 4-pin polarized connector. Detachable power cord included.

CAT# BC-240 \$35.95 each

RECHARGEABLE CR123 BATTERY

RCR123A 3.0V 750mA Rechargeable LiFePO4 battery. 16.5mm dia. x 34mm long. Rechargeable replacement for CR123 lithium cells used in flashlights and cameras. Charger for this battery - CAT# BCR-123.

CAT# LCR-123 \$3.75 each



CHARGER FOR RCR123A 3.0V CELL

Lightweight charger for rechargeable CR123 (RCR123A) lithium batteries. IC control prevents overcharging. LED status lamp: Red = charging, Green = fully charged. Charger output 3.6Vdc / 360mA.



Includes cords for home or automobile charging.

CAT# BCR-123 \$21.00 each

BATTERIES NON-RECHARGEABLE

INDUSTRIAL ALKALINE BATTERIES

DURACELL® PROCELL®

AA CELL, 1.5 VOLT 2100 mAh
CAT # PRC-1500 75¢ each

AAA CELL, 1.5 VOLT 1000 mAh
CAT # PRC-2400 75¢ each

C CELL 1.5 VOLT 7000 mAh
CAT # PRC-1400 \$ 1.75 each

D CELL 1.5 VOLT 14000 mAh
CAT# PRC-1300 \$1.75 each

9 VOLT BATTERY 565 mAh
CAT # PRC-1604 \$ 2.75 each



HEAVY-DUTY CARBON-ZINC BATTERIES

The economical choice for low drain devices like remote controls, clocks, smoke alarms, radios and flashlights.



AAA CELL	CAT# HD-AAA	4 for \$1.00	100 for \$20.00
AA CELL	CAT# HD-AA	4 for \$1.00	100 for \$20.00
C CELL	CAT# HD-C	2 for \$1.00	96 for \$34.56
9 VOLT	CAT# HD-9V	85¢ each	96 for \$54.72

12 VOLT ALKALINE BATTERIES FOR REMOTES

12V 27A MN27. For remote controls, lighters and other electronic devices. Also known as G27A / MN27A / A27 / L828 / EL812 / EL-812 / CA22 / VR22 / CN22 / CN23A / Bronica B-1. 0.3" diameter x 1.08" long.

CAT# BAT-27 \$1.75 each

0.41" dia. x 1.13" long cylindrical cell used in keychain alarm remotes and photo apps. **CAT # BAT-12**
\$1.25 each • 10 for \$ 10.00



6 VOLT ALKALINE BATTERY

4LR44, L1325, 28A, A544, PX28A. 25mm long x 13mm diameter.

CAT# BAT-44 \$2.00 each
5 for \$1.75 each



LITHIUM BATTERIES

Lithium batteries have a very long shelf life, typically ten years or more. They are not rechargeable.

3 VOLT, 40 mAh

CR1220. 12.5mm diameter x 2mm thick.

CAT# LBAT-62 \$1.50 each



3 VOLT, 50 mAh

CR1616. 16mm diameter x 1.6mm thick.

CAT# LBAT-28 \$1.00 each

3VOLT, 70 mAh

CR1620 16mm dia. x 2mm thick.

CAT# LBAT-58 85¢ each • 10 for 75¢ each

3 VOLT, 75 mAh

CR2016. 0.787" diameter X 0.06" thick.

CAT# LBAT-21 75¢ each
10 for \$6.50 • 100 for \$45.00

3 VOLT 150 mAh

CR2025. 0.8" diameter x 0.1" thick.

CAT# LBAT-44 \$1.00 each • 10 for 75¢ ea.

3 VOLT, 180 mAh

Toshiba# CR2032. 3 volt, 180 mAh. 0.8" diameter.

CAT # LBAT-20 \$1.00 each
10 for \$8.50 • 100 for \$70.00

CR2450 3V 24.5mm dia. x 5mm thick. 3V.

CAT# LBAT-2450 \$1.50 each

3V LITHIUM CELL, CR-2

High-energy Reliant Lithium Battery. Replaces CR2, DLCR-2, EL1-CR2, RCLR2, 5046LC batteries. 0.6" dia. x 1.06". Long-life power source used in high-performance flashlights, cameras and digital electronics. Best if used by 2015. **CAT# LBAT-2** 85¢ each
10 for 75¢ each • 200 for 50¢ each



LITHIUM BATTERY CR123A

3V, 1300 mAh. Long-life power source used in high-performance flashlights, cameras and digital electronics. 1.34" long x 0.65" diameter. Replaces: Energizer EL123APB2, Duracell DL202, Panasonic CR123A, Kodak K123LA, GE Sanyo CR123A.

CAT# LBAT-123 \$2.00 each
10 for \$1.85 each



ER 9V 1200MAH LITHIUM BATTERY

9V, 1200 mAh Lithium Manganese Dioxide (Li-MnO₂) battery. High-energy density, long-lasting replacement for 9V alkaline or carbon-zinc batteries. Wide operating temperature range, -40C to 60C. Lasts up to 5X longer than alkaline, 10X longer than carbon zinc. Ideal for medical, music, audio, safety and communication devices. Maximum recommended continuous current, 400mA. Nickel-plated steel housing. Not rechargeable. UL.



CAT# LBAT-92 \$6.75 ea. • 10 for \$6.50 ea.

3.6V 1/2AA-SIZE BATTERY W/ WIRE LEADS

3.6V, 1200mAh

non-rechargeable lithium battery with wire leads. 14mm diameter x 24mm long.

CAT# LBAT-125 \$3.00 each



3.6V AA SIZE BATTERY W/LEADS

3.6V, 2400mAh, non-rechargeable

lithium battery with wire leads. 14mm dia. x 51mm long.

CAT# LBAT-124 \$4.00 each



1.5V BUTTON CELLS

AG-13 11.5mm diameter x 5.5mm.

Cross to 357, AG-13, A-76, LR-44, V13GA and RW-82. Alkaline.

CAT# BAT-7 75¢ each • 10 for \$5.00



AG10/L1131

Vinnic® L1131. Cross to LR54, 189, RW89, AG10. 11.6mm diameter x 3mm high.

CAT# BAT-11 75¢ each
10 for 50¢ each

AG-3 Cross to AG-3, 392A, SR41, CX41, LR41W and others. 7.9mm diameter x 3.6mm. Alkaline.

CAT# BAT-3 50¢ each • 10 for 40¢ each

SG-4 replaces AG-4, 626A, 377A, CX66W and others. 6.8mm diameter x 2.6mm. Silver oxide.

CAT# BAT-4 75¢ each • 10 for 50¢ each

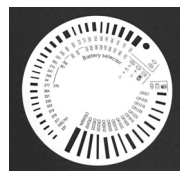
386S (silver oxide) replaces SG12/G12/SR43/ 386/ 548/6/RW24, 44 button cell. 0.45" dia. x 0.15" thick. For watches, cameras, games etc.

CAT # BAT-8 95¢ each • 10 for \$7.00

BATTERY SELECTOR

Quickly identify all kinds of button cell batteries. Common numerical designation is next to the slot that fits the battery.

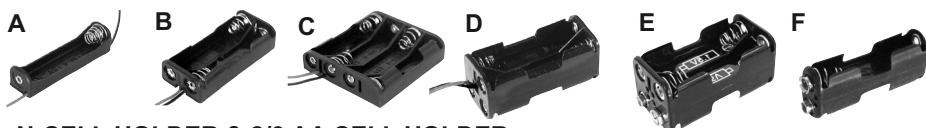
CAT# BS-3 \$2.00 each



MANUFACTURERS

**We Purchase
Excess Inventories.
CALL, WRITE, E-MAIL
or FAX your list.**

BATTERY HOLDERS



N-CELL HOLDER & 2/3 AA CELL HOLDER

# OF CELLS	CAT#	TERMINATION	STYLE	EACH	10	100
1	BH-50	Solder terminals	A	50¢	45¢	32¢

AAA BATTERY HOLDERS

1	BH-41	6" wire	A	85¢	75¢	60¢
2	BH-42	6" wire	B	90¢	80¢	70¢
4	BH-44	6" wire	C	\$1.10	95¢	80¢
4	BH-442	6" wire	D	95¢	80¢	70¢

AA BATTERY HOLDERS

1	BH-31	Solder tabs	A	75¢	65¢	50¢
1	BH-311	6" wire	A	75¢	65¢	50¢
2	BH-32	6" wire	B	85¢	75¢	60¢
2	BH-321	9V battery snaps	F	85¢	75¢	60¢
4	BH-342	6" wire	D	\$1.10	95¢	80¢
4	BH-341	6" wire	C	\$1.10	95¢	80¢
4	BH-443	9V battery snaps	F	\$1.00	85¢	70¢
NEW 4	BH-445	* see below		\$2.50	\$2.35	\$2.25
6	BH-361	9V battery snaps	E	\$1.75	\$1.55	\$1.10
NEW 8	BH-38	9V battery snaps	E	\$2.25	\$2.10	\$1.85

C BATTERY HOLDERS

4	BH-241	8" wire	B	\$1.90	\$1.75	\$1.20
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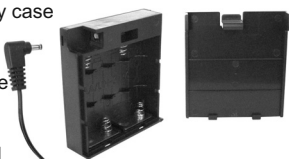
D BATTERY HOLDERS

2	BH-142	8" wire leads	B	\$1.95	\$1.75	\$1.35
2	BH-143	9V battery snaps	B	\$1.85	\$1.70	\$1.25
4	BH-141	6" wire leads	B	\$2.00	\$1.80	\$1.40
4	BH-144	6" wire leads	B	\$2.00	\$1.80	\$1.40

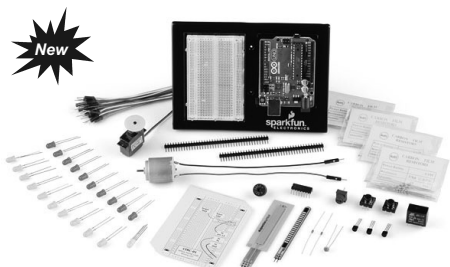
* BATTERY CASE FOR 4 AA CELLS

Four AA cell battery case with latching lid and detachable 5" cord. Right-angle coax plug mates with socket inside battery case. Cord cannot be removed when lid is on case. 2.50" x 2.79" x 0.75", overall.

CAT# BH-445 \$2.50 each



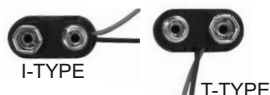
INVENTOR'S KIT FOR ARDUINO



The SparkFun Inventor's Kit for Arduino is a box of goodies to get the very beginner started with programmable electronics. It includes the Arduino Uno R3, a solderless breadboard and all the bits you need to build 12 basic circuits. No soldering required. Recommended for ages 10 and up. 36 page color starter guide.

CAT# SFA-22 \$99.95 each
10 for \$89.96 each

9 VOLT BATTERY SNAPS



WITH VINYL COVERS

I-TYPE 3" wire leads.

CAT# BST-3 4 for \$1.00 • 100 for \$15.00

T-TYPE 6" leads

CAT # BST-61 2 for \$1.00 • 100 for \$30.00

I-TYPE 5" leads.

CAT# BST-51 2 for \$1.00 • 100 for \$30.00

WITH PLASTIC COVERS

I-TYPE 6" leads

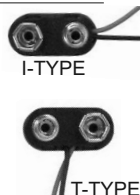
CAT# BST-7 2 for \$1.00

T-TYPE 7" leads

CAT# BST-81 55¢ each

I-TYPE 11.5" leads

CAT# BST-12 60¢ each



COIN CELL HOLDERS

12.5mm For 12.5 mm coin cells, like our CAT# LBAT-62 (CR-1220). Surface mount solder tabs. Overall dimensions, 0.71" dia. x 0.18" h.

CAT # BH-15 4 for \$1.00
100 for \$20.00 • 1000 for \$100.00



CABLES, CONNECTORS & ADAPTERS

VIDEO/AUDIO DUBBING CABLES

VIDEO CABLES W/ RCA PLUGS



length	CAT#	each	100
6'	VMC-6	75¢	45¢
12'	VMC-12	\$2.25	\$1.50
25'	VMC-25	\$3.50	\$2.60

STEREO VIDEO CABLES

75 ohm video cable with two audio cables for stereo dubbing.



Gold tipped RCA plugs. Suitable for DSS.

3'	CAT# AVS-31	\$ 2.25 each
6'	CAT# AVS-61	\$ 3.75 each
12'	CAT# AVS-212	\$ 5.95 each
25'	CAT# AVS-251	\$ 8.85 each

CAMCORDER / IPOD A/V CABLES

High-performance video and audio cables for iPods and camcorders .

6 ft cable - 3.5mm (4-conductor) right-angle plug -- three, color-coded RCA plugs. **CAT# CB-219**
\$3.50 each • 10 for \$3.00 each



3 ft cable - 3.5mm (4-conductor) plug - three, color-coded RCA jacks. **CAT# CB-218** \$3.00 each
100 for \$2.20 each



A/V CABLE, 3.5MM TO RCA

6' combination audio and video cable with 3.5mm phone plugs (one mono, one stereo) on one end and three RCA plugs on the other.

CAT# CB-222 \$4.50 each



CABLES F CONNECTORS



75 Ohm, RG-6U high-definition cable. AWG 18 solid copper-clad steel center. Double Aluminum foil shield plus 67% tinned-copper braid shield. UL-AWM style 1354 80° C, 300V.

FEET	COLOR	CAT#	each	10	100
14"	White	VHR-14W	0.75	0.65	0.50
31"	Black	VHR-31B	1.00	0.90	0.70
3'	Black	VHR-3B	1.20	1.00	0.80
6'	Black	VHR-6B	1.60	1.35	1.15
25'	White	VHR-25W	4.00	3.60	3.20
50'	Black	VHR-50B	8.00	7.00	6.20

S-VIDEO PATCH CABLE



Miniature 4 pin mini DIN plugs both ends.

6' **CAT# CB-376** \$1.75 each



TOSLINK OPTICAL CABLE

Precision audio link between DVD, CD players, and A/V Receivers.



3 Foot Cable	CAT# OCB-3	\$2.50 each
6 Foot Cable	CAT# OCB-6	\$4.50 each
12 Foot Cable	CAT# OCB-12	\$5.50 each

HDMI CABLES & ADAPTERS

State-of-the-art connectivity for HDTV sets, DVD players/ recorders.



3'	CAT# HDM-3	\$6.75 each
6'	CAT# HDM-6	\$8.50 each
10'	CAT# HDM-10	\$14.35 each
15'	CAT# HDM-15	\$17.00 each
30'	CAT# HDM-30	\$24.95 each

HDMI FEMALE TO FEMALE COUPLER

Join two HDMI cables. Female to female cord coupler. **CAT# AD-57** \$6.95 each



HDMI RIGHT-ANGLE ADAPTER

HDMI male to HDMI female. Accommodate tight spaces behind flat panel TVs and monitors. **CAT# AD-62** \$4.50 each



HDMI MALE to DVI FEMALE ADAPTER

Converts one end of HDMI or DVI cable to dual-link DVI to HDMI. **CAT# AD-56**

\$10.95 each



MINI-HDMI CABLES

Sometimes called Micro-HDMI, found on many digital cameras and camcorders to input directly to HDMI television inputs.



3' CABLE HDMI-M / MINI-HDMI-M **CAT# HDM-231** \$6.50 each

10' CABLE HDMI-M/ MINI-HDMI-M **CAT# HDM-233** \$8.00 each

8" ADAPTER CABLE – Converts mini-HDMI-M to Standard HDMI-F **CAT# HDM-230** \$6.50 each

MICRO-HDMI CABLE

Micro-HDMI (Type D) to standard HDMI (Type A) connector. Compatible with Droid and Evo phones, Samsung and Olympus cameras & others.



CAT# HDM-232 \$9.95 each

F CONNECTORS AND ADAPTERS

CAT#	price	100
 F-56 connector with heavy-duty attached ring. For RG-6U cable. F-56R	10 for \$2.50	\$17.00
 Twist-on F-56 for RG-6 cable FTO-56R	4 for \$1.00	\$15.00
 Twist-on F-59 for RG-59 cable FTO-59R	4 for \$1.00	\$20.00
 Push-on F-59. Makes threaded F connector into a quick connect POF-SW	90¢ each	\$75.00
 Right-angle F connector FRT-2	1.95 each	\$170.00
 75 ohm terminator FTER	3 for \$1.00	\$25.00
 F-61. Chassis mount female F-61	40¢ each	\$25.00
 Splicer, female. Connects 2 male connectors F-81	4 for \$1.00	\$20.00
 Splicer, male. Connects 2 female connectors F-71	\$1.20 each	\$65.00

For grounding two coaxial cables from an outdoor antenna or satellite dish. Two F-connectors, one ground screw. **CAT# GB-20**
85¢ each • 10 for 75¢ each



COAX CRIMP TOOLS

COMPRESSION TOOL FOR F-CONNECTORS

Economical, easy-to-use compression tool for coax compression connectors. Two-way adjustable nesting fixture works with most series 6, 59 compression connectors. Makes a permanent, professional connection that never comes loose.

CAT# CT-56 \$11.95 each



HEX-CRIMP TOOL FOR COAX CONNECTORS



For F, BNC, UHF, TNC, SMA connectors. Creates a solid, even hex crimp on coax fittings and RG59 and RG6 cable.

CAT# CT-007 \$18.00 each



CO-AX CONNECTORS

BNC CONNECTORS

CAT#	#1-9	10-99	100+
 MALE CRIMP-ON	3-piece		
BNC-59	RG-59/62 Cable		
	.85	.70	.55
BNC-6	RG-6		
	.85	.70	.55
BNC-58	RG-58 Cable		
	.85	.70	.55
MALE TWIST-ON			
 UG-260TW	RG-59/62 Cable		
	\$1.00	.85	.70
UG-6TW	RG-6 Cable		
	\$1.00	.85	.70
UG-88TW	RG-58 Cable		
	\$1.75	\$1.60	1.25



50 OHM BNC RECEPTACLE

Tyco (AMP) 414284-1. Right-angle, pc / panel mount decoupled BNC RF receptacle. 50 Ohm impedance. 0.5" threaded plastic bushing.
CAT# BNC-149 \$1.85 each



DUAL BNC JACK, RIGHT ANGLE PC MOUNT

Amphenol Connex # 112660. Dual BNC jacks, 75 ohm. Stacked vertically on 16mm centers. Overall dimensions, 14.40 x 36.20 x 29.25mm high. PC mount.
CAT# BNC-150 \$3.75 each



BNC RECEPTACLE UG-1094U









Front-mount BNC receptacle. 50 ohm. Teflon dielectric. Gold-plated terminal. Threaded bushing.
CAT# BNC-19 \$1.75 each
10 for \$1.65 each






BNC JACK ISOLATED PANEL MOUNT CONNECTOR

3/8" diameter nylon threaded feed-thru bushing
CAT# BNC-148 \$1.85 each
10 for \$1.50 each

BNC ADAPTERS

CAT#	#1-9	10-99	100+
 UG-914 MALE COUPLER	Female both ends		
UG-914	.90	.75	.60
 BNC COUPLER thru chassis	Female both ends		
UG-492	2.10	1.75	1.40
 UG-491A/U FEMALE COUPLER	Males both ends		
BNC-BNC	1.80	1.50	1.20
 UG-306 RIGHT ANGLE ADAPTER			
UG-306	2.40	2.00	1.60
 UG-274 BNC SPLITTER			
BNC-T	1.50	1.25	1.00
 BNC-T ADAPTER (3 female fittings)			
BNC-T2	2.10	1.75	1.40
 50 OHM BNC TERMINATOR			
BNC-50	1.20	1.00	.80
 75 OHM BNC TERMINATOR			
BNC-75	1.20	1.00	.80

75 OHM CABLE SPLITTERS

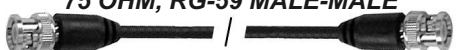
 2 WAY SPLITTER 5-900 MHZ CAT# TWS-2 \$1.00 each	
 3 WAY SPLITTER 5-900 MHZ CAT# TWS-3 \$1.50 each	
 4 WAY SPLITTER SPECIAL!!! 5-900 MHZ CAT# FWS-4 \$1.00 each 10 for 85¢ ea. • 100 for 65¢ ea.	

BNC CABLES



50 OHM, RG-58 MALE-MALE

length	CAT#	each	10	100
3 foot	CBL-27	2.50	2.00	1.75
6 foot	CBL-28	3.25	2.75	2.25
15 foot	CBL-29	4.25	3.75	3.25
25 foot	CBL-25	6.50	6.00	5.20
50 foot	CBL-45	8.65	8.30	7.50



75 OHM, RG-59 MALE-MALE

	CAT#	1-9	10-99	100+
6 foot	CBL-30	3.25	2.75	2.25
25 foot	CBL-35	5.50	5.00	4.25

UHF CONNECTORS

	CAT#	1-9	10-99	100+
	PL-259 PLUG			
	PL-259	1.00	.90	.80

	REDUCER for RG-58 cable (Fits PL-259)			
	UG-175	.30	.25	.20

	REDUCER for RG-59 cable (Fits PL-259)			
	UG-176	.40	.35	.30

	MALE COUPLER PL-258			
	UHF-UHF	1.50	1.25	.90

	SO-239 CHASSIS MOUNT			
	SO-239	1.00	.90	.80

PL-259 EXTENSION CABLE



10' RG-58U coax cable with PL-259 male one end, female on other end.

	CB-336	2.25	2.00	1.65
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ADAPTERS

	CAT#	1-9	10-99	100+
	F FEMALE to RCA MALE			
	F-RCA	.75	.65	.50

	F FEMALE to BNC MALE			
	F-BNC	1.30	1.10	.90

	RCA FEMALE to F MALE			
	RCA-F	1.00	.80	.60

	RCA FEMALE to BNC MALE			
	RCA-BNC	.80	.70	.55

	UHF FEMALE to BNC MALE			
	UHF-BNC	1.80	1.25	1.20

	BNC FEMALE to F MALE			
	BNC-F	1.50	1.25	1.00

	BNC FEMALE to RCA MALE			
	BNC-RCA	1.00	.80	.60

	BNC FEMALE to UHF MALE			
	BNC-UHF	2.00	1.75	1.40

	UHF(SO-239) FEMALE TO N MALE			
	UHF-N	5.85	5.50	—

AUDIO / POWER / SIGNAL PLUGS & JACKS

RCA PLUGS

	CAT#	1-9	10-99	100+
	RED PLASTIC HANDLE			
	PPRP-R	.50	.45	.35
	BLACK PLASTIC HANDLE			
	PPRP-B	.50	.45	.35
	SHIELDED, METAL			
	MPRP	.85	.75	.50

RCA JACKS

	CAT#	1-9	10-99	100+
	SINGLE HOLE CHASSIS MOUNT (threads from back)			
	RCMJ	.40	.35	.25
	IN-LINE RED PLASTIC			
	PIRP-R	.50	.45	.35
	IN-LINE BLACK PLASTIC			
	PIRP-B	.65	.55	.40
	IN-LINE METAL			
	MIRJ	.80	.70	.50
	With N.C. switch. Plain bushing.			
	RCJ-65	.20	.15	.10
	RIGHT ANGLE, PCB MOUNT RCA JACK. Mounting legs on 7mm centers. Yellow insert.			
	RCJ-6Y	.10	.09	.06



3.5mm JACKS

	CAT#	1-9	10-99	100+
	MONO JACK Two-conductor. 6mm diameter threaded bushing.			
	MMJ	.75	.65	.50
	3.5MM STEREO JACK 6mm dia. threaded bushing. Solder loop terms.			
	SMJ-2	.85	.75	.50
	STEREO 3.5MM MINI-PHONE JACK. Two normally-closed shunts - open when plug is inserted. 6mm diameter threaded bushing. PC leads - can be wrapped and soldered.			
	SMJ-6	.85	.75	.50
	MONO PLASTIC, IN-LINE			
	MJI	.90	.80	.60
	STEREO PLASTIC, IN-LINE			
	SJI	1.00	.90	.70


3.5mm PLUGS


	CAT#	1-9	10-99	100+
	MONO, PLASTIC			
	PMP	.85	.75	.60
	MONO, METAL			
	MMP	1.00	.85	.70
	STEREO, PLASTIC			
	SMP	1.25	1.15	.95
	STEREO, METAL			
	SMPM	1.50	1.35	1.25


1/4" PLUGS

	CAT#	1-9	10-99	100+
	CAT# MONO, PLASTIC SPH			
		1.00	.85	.60
	MONO, METAL MPH	1.35	1.20	.95
	MONO, METAL - thick wall MPH-5	4.00	3.80	
	MONO, METAL Gold plated plug and solder terminals MPH-11	1.50	1.35	
	MONO, METAL, Right angle MPH-13	2.50		
	STEREO, PLASTIC PHPS	.75	.65	.55
	STEREO, METAL MPHS	1.50	1.35	1.10

1/4" JACKS - Reduced Prices!

	CAT#	1-9	10-99	100+
MONO, 2-CONDUCTOR				
	N.C. switch. PHJ-S	1.05	.95	.70

MONO, IN-LINE				
	Plastic PHJ-6	1.25	1.10	.90

STEREO, 3-CONDUCTOR W/ N.C. SWITCHES				
	SPHJ-S	1.20	1.00	.75

STEREO, IN-LINE				
	Plastic SPJ-17	1.25	1.10	.90

BANANA JACKS / BINDING POSTS


	CAT#	each	10	100
	RED PLASTIC CHASSIS MOUNT BJL-R	.60	.50	.35
	BLACK PLASTIC CHASSIS MOUNT BJL-B	.60	.50	.35


Heavy-duty, gold-plated, banana-jack binding posts. No lower insulator. Must fasten through a non-conductive material.


	CAT#	color	each	10	100
	BP-B	Black	1.10	.95	.70
	BP-R	Red	1.10	.95	.70

BANANA PLUGS







	CAT#	each	10	100
	RED PLASTIC BPL-R	.50	.45	.30
	BLACK PLASTIC BPL-B	.50	.45	.30









	Heavy-duty with set screw RED PLASTIC BP-26R	.90	.75	
	BLACK PLASTIC BP-26B	.90	.75	

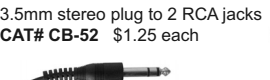

	DUAL BANANA PLUGS, STACKABLE 0.75" plug centers. 0.15" cable opening for up to 8 gauge wire. Red plastic body. Color-coded, knurled binding screws. Gold plated. CAT# BP-23	\$3.00 each		
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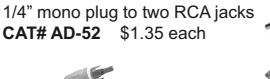
	DUAL BANANA PLUG 0.75" spacing. Black or red plastic... Color Subject to Availability. BP-2	1.70	1.50	1.25
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RCA / PHONE PLUG ADAPTERS

	RCA jack to RCA jack CAT# AD-3	75¢ each
	Dual RCA Jack Couplers CAT# AD-203	\$1.50 each
	RCA plug to RCA plug CAT# AD-33	75¢ each
	RIGHT-ANGLE RCA JACK ADAPTER Gold-plated. CAT# RCA-RT	\$1.00 ea. 10 for 85¢ each • 100 for 65¢ each
	RCA plug to two RCA jacks CAT# AD-4	\$1.00 each
	RCA jack to two RCA plugs CAT# AD-4M	\$1.00 each

	RCA jack to 3.5mm mono plug CAT# RCA-3.5	75¢ each
	3.5 mm stereo plug to 1/4" stereo jack CAT# ADMP-2	75¢ each
	3.5 mm mono to 3.5 mm stereo CAT# ADMP-4	75¢ each
	2.5mm stereo plug to 3.5mm stereo jack. CAT# AD-21	\$1.75 each
	3.5 mm stereo plug to 2.5 mm stereo jack CAT# AD-25	\$1.00 each
	1/4" mono jack to RCA plug CAT# 54-421	\$1.00 each
	1/4" mono plug to RCA jack CAT# AD-5	75¢ each
	1/4" stereo plug to 3.5 mm stereo jack CAT# ADMP-1	75¢ each
	3.5mm mono plug to 1/4" jack. CAT# AD-26	\$1.00 each

	3.5mm stereo plug to 2 RCA jacks CAT# CB-52	\$1.25 each
	1/4" stereo plug to two RCA plugs CAT# AD-55	\$1.85 each

	1/4" mono plug to two RCA jacks CAT# AD-52	\$1.35 each
	3.5mm stereo jack to 2 RCA plugs CAT# AD-18	\$1.25 each

XLR ADAPTERS

	XLR Coupler Male to Male CAT# XLR-320	\$4.25 each
	XLR Coupler Female to Female CAT# XLR-310	\$4.50 each
	XLR Male To 1/4 Plug CAT# XLR-340	\$3.75 each
	XLR Female To 1/4 Plug CAT# XLR-330	\$5.60 \$3.90 each

REDUCED PRICE!

3 PIN XLR CONNECTORS



CAT#	1-9	10-99	100+
CHASSIS MOUNT FEMALE			
Metal 1.42" x 1.05" mounting flange. Mounts in 0.94" dia. hole. Solder lugs.			
MIKE-3CF	2.00	1.75	1.50



CHASSIS MOUNT MALE			
Metal 1.41" x 0.86" mounting flange. Mounts in 0.75" dia. hole. Solder lugs.			
MIKE-3CM	1.75	1.50	1.25



XLR FEMALE RECEPTACLE			
Neutrik NC3FAH. Horizontal PCB mount.			
XLR-3FC	0.65	0.50	



XLR MALE RECEPTACLE			
Neutrik NC3MAH. Horizontal PCB mount.			
XLR-3MC	0.85	0.65	

INLINE XLR CONNECTORS



CAT#	1-9	10-99	100+
IN-LINE FEMALE			
MIKE-3F	2.50	2.35	2.00



IN-LINE MALE			
MIKE-3M	2.00	1.80	1.60



3-Pole, female. Neutrik # NC3FX			
XLR-3FX	3.00	2.85	2.65



3-Pole, female, black. Neutrik # NC3FX-B			
XLR-3FXB	3.75	3.60	3.35

MICROPHONE EXTENSION CABLES



3-pin XLR plug to 3-pin XLR jack. Nickel-plated zinc-alloy connectors. Fully Shielded low-loss cable. Flexible black rubber jacket.

		each	10
20' Cable	CAT# CB-295	\$8.50	7.50
60' Cable	CAT# CB-298	\$16.75	

MICROPHONE CABLE XLR - 1/4"



16', good-quality, fully-shielded low-loss cables. Flexible black jacket. 1/4" phone plug to XLR female.

CAT# CB-289 \$4.75 each • 10 for \$4.50 each

HYBRID XLR & 1/4" STEREO JACK

Neutrik # NCJ9FI-H. Space saving combination of two connectors, 3-pole XLR receptacle and a switching 1/4" stereo phone jack, in one plastic housing. XLR latch. Rear panel mount, 29mm dia. hole. Horizontal pc mount.

CAT# XLR-14J
\$1.85 each • 10 for \$1.60 each



CABLES WITH 1/4" PHONE PLUGS

MONO 1/4" PLUGS BOTH ENDS

10' SPECIAL
CAT# MCB-10 \$2.75 ea. • 10 for \$2.50 ea.

STEREO 1/4" PLUGS BOTH ENDS

6' CABLE
CAT# MCB-6S \$4.00 ea. • 10 for \$3.60 ea.

15' CABLE
CAT# MCB-15S \$6.00 ea. • 10 for \$5.40 ea.

CABLES WITH 1/4" MONO PLUG & JACK

6' cable

CAT# MCB-6M
\$3.50 each
10 for \$3.00 each



15' cable

CAT# MCB-15M \$5.00 ea. • 10 for \$4.50 ea.

25' cable

CAT# MCB-25M \$7.50 ea. • 10 for \$7.00 ea.

5 PIN DIN PLUGS / JACKS 240°



5-PIN DIN PLUG
CAT# DIN-524 \$1.00 each



5-PIN DIN SOCKET
CAT# DIN-524C \$1.25 each



5 PIN DIN PLUGS / JACKS 180°



Switchcraft # 05BL5M.
CAT# SWC-5BL \$3.50 each



CAT# DIN-5 \$1.25 each
10 for \$1.10 each



CAT#	each	10	100+
5 PIN CHASSIS MOUNT			
DIN-5C	1.60	1.45	1.25



5 PIN DIN JACK, PC MT.			
DIN-5PC	.50	.45	.30

8 PIN MATING CONNECTORS

8-contact male in-line connector fits cables up to 0.25" diameter. Chassis-mount female connector with threaded bushing. Mounts in 0.58" diameter hole. Solder-cup style terminals. The mating connectors have a positioning key way and screw securely together.

CAT# CON-800 \$5.75 each



2.5MM PLUGS



MONO, PLASTIC PMMP			
	.40	.35	.30

MONO PLUG 14' CABLE
22 AWG stranded wire

CAT # CB-119 Large quantity available.
\$1.10 ea. • 10 for 85¢ ea. • 100 for 55¢ ea.

2.5MM JACKS

Mono. 4mm (0.15") threaded bushing. Normally-closed shunt (shunt opens when plug is inserted). Solder/pc terminals.

CAT# MJS-2 75¢ each
10 for 65¢ each • 100 for 50¢ each

Mono. 4mm (0.15") threaded bushing. Normally-closed shunt (shunt opens when plug is inserted). Solder terminals.

CAT# MJS-3 75¢ each
10 for 65¢ each • 100 for 50¢ each

For 3-conductor stereo, 2.5mm sub-mini phone plug. 5mm diameter, plain, non-threaded bushing. PC leads.

CAT# MJS-1 50¢ each • 100 for 40¢ each



SHIELDED AUDIO CABLES

SINGLE RCA CABLES

Shielded one conductor audio cable with RCA style phone plug both ends.



	CAT#	1-9	10-99	100+
6 feet	ACB-6	1.10	1.00	.70
10 feet	ACB-10	1.30	1.15	.85
25 feet	ACB-25	2.25	2.00	1.65

DUAL SHIELDED RCA CABLES

Shielded cables with molded color coded RCA pin plugs both ends. Used for stereo/audio hook-up.



	CAT#	1-9	10	100
3 FT	DCB-36	\$1.00	85¢	75¢
6 FT	DCB-72	\$1.30	\$1.10	85¢
12 FT	DCB-144	\$2.50	\$2.00	\$1.50
25 FT	DCB-300	\$3.50	\$3.00	\$2.60
50 FT	DCB-600	\$7.35	\$7.00	\$6.75

3.5MM STEREO PLUG TO TWO RCA PLUGS

Commonly used to connect portable audio players to home stereos and to connect speakers to computers.

Length	CAT#	1-9	10	100
5 feet	CB-42	1.50	1.25	1.00
6 feet	CB-390	1.75	1.55	1.30
12 feet	CB-406	2.25	2.05	1.55

CABLES W/ 3.5MM STEREO PLUGS

Ideal for connecting iPods, MP3 players and other audio devices. Molded 3.5mm stereo phone plugs at each end.

3.5MM STEREO PLUGS BOTH ENDS

	CAT#	1-9	10	100
1 foot	CB-424	\$1.20	\$1.05	90¢
6 foot	CB-121	\$1.50	\$1.25	\$1.05
12 foot	CB-389	\$2.00	\$1.65	\$1.35

24" DUAL-SHIELDED CABLE W/ 3.5MM PHONE PLUGS

CAT# CB-461
\$1.25 each • 10 for \$1.00 each



3' CABLE W/ 3.5MM STEREO PHONE PLUG
2-conductors w/ shield. Right-angle 3.5mm stereo phone plug.
CAT# CB-223 \$1.00 each
10 for 85¢ each



6' CABLE W/ 3.5MM STEREO PHONE PLUG
3-conductor, 24 AWG cable. Right-angle 3.5mm stereo phone plug. Strain-relief at end.
CAT# CB-220 \$1.25 ea. • 10 for \$1.00 ea.



EXTENSION CORDS, 3.5MM STEREO PHONE PLUGS

10' 3.5MM EXT. CABLE W/ 1/4" PLUG ADAPTER
CAT# CB-423 \$2.50 each
10 for \$2.25 each



3.5mm stereo plug to 3.5mm stereo jack.



6' CABLE CAT# CB-333 \$1.60 each
10 for \$1.45 each • 100 for \$1.25 each

10' CABLE CAT# CB-371 \$2.00 each
10 for \$1.80 each 100 for \$1.60 each

25' CABLE CAT# CB-188 \$3.50 each

10' COILED EXTENSION CORD CAT # CB-185

\$2.65 each
10 for \$2.20 each
100 for \$1.80 each



Y-CABLE, 6 INCH

3.5mm stereo phone plug to two 3.5mm stereo phone jacks.
CAT# AD-54 \$1.35 each

CABLES W/ 3.5MM MONO PLUGS

3.5 MM MONO PLUG BOTH ENDS

Shielded cables with molded plugs.

	CAT#	1-9	10	100
2 foot	CB-352	1.00	.90	.65
6 foot	CB-3561	1.25	1.00	.80
10 foot	CB-3510	1.50	1.25	.95

3.5 MM MONO PLUG TO RCA PLUG

6 foot shielded cable.
CAT# CB-364 \$1.55 each
10 for \$1.40 each • 100 for \$1.05 each



3' SHIELDED CABLE / 3.5MM MONO PLUG

Actually an antenna for Sirius SV3/SV4 radio. 3' cable with antenna bead connected to 3.5mm mono plug. Only the shield is connected to the plug tip. Center conductor is not connected. **CAT# CB-145**
2 for \$1.00 • 100 for 35¢ each



CO-AX POWER PLUGS & JACKS

CO-AX POWER PLUGS

CAT#	1-9	10-99	100+
2.1mm I.D. - 5.5mm O.D.			
DCSID	1.00	.90	.85
2.5mm I.D. - 5.5mm O.D.			
DCLID	1.00	.90	.85
1.7mm I.D. - 5.0mm O.D.			
DCP-17	1.00	.90	.85
1.3mm I.D. - 3.5mm O.D.			
DCP-13	1.00	.90	.85

2.1mm coax power jack with 10" color-coded leads. 2.1mm id x 5.1mm od. **CAT# CB-209** \$1.75 each



Coax power plug, 2.1mm id x 5.1mm od. 10" color-coded leads.
CAT# CB-213 \$1.65 each



2' CABLE with 2.1MM CO-AX PLUGS

Plugs both ends. Red/Black zip cord.

CAT# CB-204

\$2.35 each • 100 for \$1.95 each

2.1MM POWER Y-ADAPTER

Use one power source for two devices.

Two 2.1mm coax plugs

to one 2.1mm coax jack.

CAT# CB-207 \$2.25 each

100 for \$2.00 each

2.1 MM D.C. "CO-AX" POWER JACKS

Mates with CAT# DCSID. All jacks have a normally closed shunt that opens when plug is inserted.

CAT# 1-9 10-99 100+

solder lugs. --- **Quantity Special!**

CAT# DCJ-1 .35 .30 .19

500 for 16¢ each • 1000 for 12¢ each



Panel mount

DCJ-21

2.20 2.00 1.70

6' cable with molded

2.1mm co-ax jack.

CAT# CB-216 \$3.00 each

10 for \$2.75 each • 100 for \$2.25 each

Molded 2.1mm coax

power jacks on each end.

Two ft. red/black zip cord.

CAT# CB-208 \$3.50 each

2.5 MM D.C. "CO-AX" POWER JACKS

Mates with CAT# DCLID. All jacks have a normally closed shunt that opens when plug is inserted.

CAT# 1-9 10-99 100+

Panel mount

DCJ-25

2.20 2.00 1.70



PC mount. Large quantity available.

DCJ-17

.10 .08 .05

1000 for 3¢ each

6' cable w/ 2.5mm

co-ax power jack

CAT# CB-296 \$2.25 each

10 for \$2.15 each • 100 for \$2.05 each

1.3MM COAX POWER JACK

Normally closed shunt opens when plug is inserted. Fits coax plugs with 3.5mm od, 1.3mm id.

CAT# DCJ-27 35¢ each

10 for 30¢ each • 100 for 20¢ each



6' CABLE W/ 1.7MM COAX PLUG

Right-angle coax power

plug, 4mm o.d. x

1.7mm i.d., on 6' cable with strain relief.

Plug fits many "netbook" computers & GPSs.

CAT# CB-224 \$2.50 each



WEATHER-RESISTANT CONNECTORS



Mating, weather-resistant polarized connectors. 12" red and black. Stranded wire leads.

10 gauge **CAT# CON-321** \$3.00 each

10 for \$2.75 each • 100 for \$2.25 each

14 gauge **CAT# CON-319** \$2.40 each

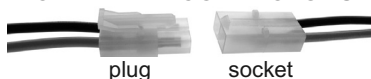
10 for \$2.20 each • 100 for \$1.75 each

18 gauge **CAT# CON-320** \$1.85 each

10 for \$1.70 each • 100 for \$1.25 each

RC MODEL CONNECTORS

2 CONDUCTOR, RC BATTERY CONNECTORS



15 Amp, two-conductor locking nylon connectors.

Industry standard for remote control cars. 5.5" silicone-rubber-insulated leads (16 AWG) are very flexible and heat-resistant.

PLUG **CAT# CON-210P** \$1.25 each

10 for \$1.10 each • 100 for 95¢ each

SOCKET **CAT# CON-210S** \$1.25 each

10 for \$1.10 each • 100 for 95¢ each

BEC-JST TRANSMITTER CONNECTORS

Red & black leads. Flexible silicone rubber insulation. 22 AWG stranded wire. BEC-JST

Male, battery end, 6" leads.

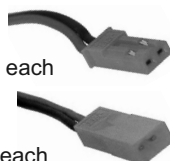
CAT# CON-230P

\$1.75 each • 20 for \$1.50 each

Female -- Motor end, 6" leads.

CAT# CON-230S

\$1.75 each • 20 for \$1.50 each



2-CONDUCTOR MINI BATTERY CONNECTORS

With 7.5" red and black leads.

Frequently used on rechargeable battery packs like those found in cordless phones. Mating headers for pc mounting also available.



CONNECTOR, 0.1" SPACING (Beige)

CAT# SBC-2 60¢ each

10 for 50¢ each • 100 for 35¢ each

0.1" HEADER, PC MOUNT CAT# SBH-2

30¢ each • 10 for 25¢ each • 100 for 15¢ each

CONNECTOR, 2MM SPACING (White)

CAT# SBC-1 60¢ each

10 for 50¢ each • 100 for 30¢ each

2MM HEADER, PC MOUNT CAT# SBH-1

30¢ each • 10 for 25¢ each • 100 for 15¢ each

3 CONDUCTOR SERVO EXTENSION

Universal connectors fit both Futaba and Hi-Tec/JR(S). Male to female. Very flexible, 22 AWG stranded wire. Black, red, white silicone rubber insulation.



Length	CAT#	Price	20+
4"	CON-404	\$2.60	\$2.30
6"	CON-406	\$2.75	\$2.40
12"	CON-412	\$3.25	\$2.85
18"	CON-418	\$3.65	\$3.20
24"	CON-424	\$3.95	\$3.45
36"	CON-436	\$4.50	\$3.95

12" long. Universal, Fits both Futaba and Hi-Tec/Jr connectors. Brown, red, orange leads.

CAT# CON-412B \$2.85 ea. • 10 for \$2.50 ea.

RC BATTERY HARNESS

On-off slide switch with universal (Hi-Tec/Jr) connectors for battery and charger. Switch has a removable faceplate, 28 x 10.5mm with two screws on 20mm centers.

6.75" leads. **CAT# SSW-74**

\$5.00 each



MULTI-PIN CONNECTORS

MATING CONNECTORS



Male / female ends connected with 10" wires

# of Cond.	CAT#	1-9	10-99	100
2	CON-20	2.00	1.75	1.30
3	CON-30	2.40	2.10	1.50
4	CON-40	2.50	2.25	1.60
6	CON-60	2.65	2.40	2.00
9	CON-90	3.00	2.75	2.20

LOCKING CONNECTORS

Mating pairs of polarized multi-pin connectors with wire leads. Pins on 2.5mm centers. Black nylon housing with release on male side of connector. Female side of connector can be snap-mounted into a rectangular chassis mounting hole. 12" color-coded leads, 22 AWG stranded wire on both connectors.



CAT# CON-240 2-CONDUCTOR
\$1.35 ea. • 10 for \$1.20 ea. • 100 for 95¢ ea.

CAT# CON-340 3-CONDUCTOR
\$1.45 ea. • 10 for \$1.30 ea. • 100 for \$1.05 ea.

CAT# CON-440 4-CONDUCTOR
\$2.10 ea. • 10 for \$1.85 ea. • 100 for \$1.35 ea.

CAT# CON-540 5-CONDUCTOR
\$2.40 ea. • 10 for \$2.10 ea. • 100 for \$1.85 ea.

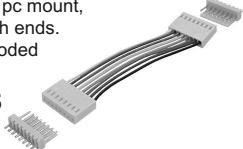
CAT# CON-640 6-CONDUCTOR
\$2.60 ea. • 10 for \$2.20 ea. • 100 for \$1.85 ea.

JUMPERS W/ MATING HEADERS

3" jumpers with matching pc mount, snap-lock headers on both ends. 0.1" pin spacing. Color-coded leads. 24 AWG.

5 pin **CAT# CON-55**
\$1.50 per set

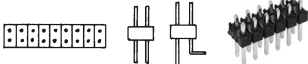
8 pin **CAT # CON-88** \$2.40 per set



0.1" SNAPPABLE HEADERS

.025" square header pins on 0.1" centers

DOUBLE ROW



DESCRIPTION	CAT#	1-9	10-99	100+
2 X 6 straight	DHS-6	25¢	20¢	15¢
2 X 14 straight	DHS-14	45¢	40¢	25¢
2 x 14 right-angle	DHR-14	45¢	40¢	30¢
2 x 16 right-angle	DHR-16	50¢	45¢	35¢
2 X 40 straight	DHS-40	\$1.50	\$1.35	\$1.20

SINGLE ROW



DESCRIPTION	CAT#	1-9	10-99	100+
32 pin straight	SHS-32	.45	.40	.30
40 pin straight	SHS-40	.85	.75	.60
40 pin right angle	SHR-40	1.50	1.32	1.20

SHORTING JUMPERS FOR HEADERS

Designed for use with above double and single row headers. Used to short out adjoining posts on headers.

CAT#	1-9	10-99	100+
SJ-1	.10	.08	.07



PRE-WIRED CONNECTORS WITH MATING HEADERS

Nylon connectors and mating pc mount, snap-lock headers.



Female socket connector is pre-wired with 11" long color-coded stranded wire.

CAT#	pins	AWG	spacing	price
CON-232	2	18	0.156"	75¢ per set
CON-242	2	22	0.1"	70¢ per set
CON-233	3	18	0.156"	\$1.20 per set
CON-243	3	22	0.1"	\$1.00 per set
CON-234	4	18	0.156"	\$1.50 per set
CON-244	4	22	0.1"	\$1.30 per set
CON-236	6	18	0.156"	\$2.25 per set
CON-238	8	18	0.156"	\$3.00 per set
CON-2310	10	18	0.156"	\$3.65 per set
CON-2410	10	22	0.1"	\$2.90 per set

SNAPPABLE SIP SOCKETS, 0.10" CENTERS

Single-row, machine-contact socket. Pins on 0.10" centers. Snappable - can be cut to shorter lengths.



30-PIN	CAT# SIP-30	\$1.20 ea.	10 for \$1.05 ea.
40-PIN	CAT# SIP-40	\$2.35 ea.	10 for \$2.05 ea.

PEEL-A-WAY® MACHINE PIN SOCKET STRIP

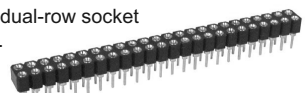
Advanced Interconnection KSS-80. Pins on flexible strip insert into pc board. Strip peels away after the sockets are soldered in place. Use instead of DIP or SIP sockets. Standard 0.10" spacing. Eighty pins per strip. Cuts easily to any length.



CAT# PSIP-80 \$2.50 each

48-PIN DUAL-ROW MACHINED PIN SOCKET

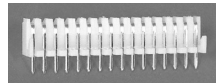
Machine contact, dual-row socket strip. 0.10" matrix. Snappable to smaller lengths. 48 Contact (2 x 24).



CAT# DHP-48 \$2.45 ea. • 100 for \$2.15 ea.

16-PIN IN-LINE SOCKET HEADER

16-contact female header. 0.1" spacing. Accepts pins of approximately 0.2" length. 1.41" x 0.30" x 0.32" high.



CAT# SKT-16 2 for \$1.00

60 PIN (2 X 30) IN-LINE SOCKET

Samtec #

CES-130-01-T-D.

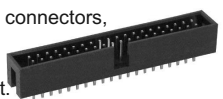
Dual row low-profile pc mount socket strip. Pins on 0.1" x 0.1" centers.

CAT# DSP-60 \$1.00 each

10 for 95¢ each • 100 for 80¢ each

SHROUDED DUAL ROW HEADERS

Mates with dual row socket connectors, pins on 0.1" centers. Key-way in center for polarity. Gold-plated pins. PC mount.



14 PIN (2 X 7) HEADER	CAT# STH-14
20 PIN (2 X 10) HEADER	CAT# STH-201
40 PIN (2 X 20) HEADER	CAT# STH-401
50 PIN (2 X 25) HEADER	CAT# STH-501
3 for \$1.00 • 100 for 20¢ each	

IDC SOCKET CONNECTORS

Mates with double row posts on .100" centers.
0.100" x 0.100" for 0.050" pitch cables. Press mount
on standard flat ribbon cable.

DESCRIPTION	CAT#	1-9	10+
10 pin (2 X 5)	RCSC-10	.55	.35
14 pin (2 X 7)	RCSC-14	.65	.55
16 pin (2 X 8)	RCSC-16	.75	.65
20 pin (2 X 10)	RCSC-20	.75	.65
26 pin (2 X 13)	RCSC-26	.75	.65



SPECIAL 10-PIN IDC SOCKET CONNECTOR
3M series 89. Non-polarized
version of RCSC-10.

CAT# RCSC-10S 50¢ each
10 for 30¢ each • 50 for 25¢ each



FRICTION LOCK HEADERS 0.1" SPACING

3-Pin Right-angle.

CAT# CON-63RT 25¢ each

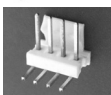
4-Pin

CAT# CON-64
25¢ each



4-Pin Right-angle.

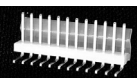
CAT# CON-64RT 25¢ each



HEADERS - 0.156" SPACING

Friction-lock headers. 0.045" posts on 0.156" centers

5-PIN	CAT# HR-5	25¢ each
6-PIN	CAT# HR-6	40¢ each
7-PIN	CAT# HR-7	40¢ each
8-PIN	CAT# HR-8	40¢ each
9-PIN	CAT# HR-9	45¢ each
10-PIN	CAT# HR-10	45¢ each
15-PIN	CAT# HR-15	50¢ each
16-PIN	CAT# HR-16	65¢ each



12-PIN RIGHT-ANGLE **CAT# HR-12**

40¢ each • 10 for 35¢ each • 100 for 25¢ each

HEADER SOCKETS, 0.156"

4-contacts **CAT# SKT-4**

30¢ each • 100 for 20¢ each

6-contacts **CAT# SKT-60**

35¢ each • 100 for 25¢ each



D-SUBMINIATURE CONNECTORS

I.D.C. D-SUB CONNECTOR

Insulation Displacement Connector
Press fit on flat ribbon cable.



DESCRIPTION	CAT#	1-9	10-99	100+
9 pin PLUG	IDC-9P	\$2.25	\$2.00	\$1.65
9 pin SOCKET	IDC-9S	\$2.25	\$2.00	\$1.65

SOLDER STYLE



SOCKET
(female)



PLUG
(male)

DESCRIPTION	CAT#	1-9	10-99	100+
9 pin PLUG	DB-9P	.45	.35	.27
9 pin SOCKET	DB-9S	.49	.39	.29
Hood for DB-9	DB-9H	.39	.29	.22
DB-9 backshell	DB-9HS	1.00		
15 pin PLUG	DB-15P	.59	.45	.35
15 pin SOCKET	DB-15S	.69	.49	.38
Hood for DB-15	DB-15H	.39	.29	.22
25 pin PLUG	DB-25P	.69	.50	.35
25 pin SOCKET	DB-25S	.75	.55	.40
Hood for DB-25	DB-25H	.39	.29	.25

Hi-Density (note: same size as DB-9)
15 pin male **HDB-15P** .79 .69 .59

D-SUB GENDER CHANGERS



9	M-M	GND-9M	\$2.95 each
9	F-F	GND-9F	\$2.95 each
25	M-M	GND-25M	\$3.25 each
25	F-F	GND-25F	\$3.95 each

DB-15 HD GENDER CHANGERS

High-density DB-15 gender
changer. 15-pin, HD.

F-F **CAT# GND-15F**

\$2.75 each

10 for \$2.50 each



M-M **CAT# GND-15M**

\$2.75 each

10 for \$2.50 each



D-SUB ADAPTER, 9 TO 25 CONTACT

DB-9 female on one end -
DB-25 male on other end.

CAT# AD-24

\$3.75 each



4" RIBBON CABLE



14-pin (7x2) socket connectors,
0.10" spacing, on each end.

CAT# CBL-39 \$1.75 each

COMPUTER CABLES AND ACCESSORIES

VGA CABLES

Fully foil-shielded male-male cables. DB15 HD
molded connectors with thumbscrews.

length	CAT#	each
6'	VGA-6	\$5.75
10'	VGA-10	\$9.95
25'	VGA-25	\$18.00
50'	VGA-50	\$30.00



USB

USB GENDER CHANGERS



AD-530



AD-532

	CAT#	EACH	10
A (M) to A (M)	AD-530	\$2.75	\$2.25
A (F) to A (F)	AD-532	\$2.75	\$2.25

A-A USB CABLES

For standard
USB peripherals.



3'	CAT # CB-384	\$2.00 each	10 for \$15.00
10'	CAT# CB-124	\$4.50 each	10 for \$37.50

A-B USB CABLES

For standard
USB peripherals.



3'	CAT# CB-126	\$1.85 each	10 for \$17.00
6'	CAT# CB-347	\$2.50 each	10 for \$22.50
10'	CAT# CB-125	\$4.50 each	10 for \$37.50

IPOD, IPAD, IPHONE CABLE, 36"

Standard iPod docking connector one end, USB connector on the other end.

36" cable.

CAT# IPD-36

\$5.00 each



USB EXTENSION CABLES

USB 2.0 A

Male - Female extension cables.



3' **CAT# CB-407** \$2.75 each

6' **CAT# CB-408** \$3.00 each

10' **CAT# CB-409** \$3.25 each

30" USB 1.1 TO SERIAL (DB-9) ADAPTER CABLE

The USB to Serial Adapter provides an external serial DB-9 male. Standard USB-A plug on other end. 30" cable.



CAT# CB-394 \$17.00 each

USB-B JACK, SURFACE MOUNT

Wieson. Shielded jack for USB-B plug. Surface mount. 1mm pin spacing.

CAT# USB-8 \$1.00 each



DUAL USB JACK, PC MOUNT

Type-A, dual USB jack for pc board. 8 pc pins with 4 bend-tabs for stability.

CAT# USB-6 85¢ each

10 for 70¢ each • 100 for 60¢ each



USB MINI TO USB MICRO CONVERTER

USB mini female to USB micro male.

Convert mini-USB to micro-USB.

For charging only. Data pins not connected.

CAT# AD-61 \$1.75 each



USB 2.0 ACTIVE REPEATER CABLES

An active device allowing you to extend other USB cables. Recommended if you're using a USB device at a distance of more than 15ft.



16' **CAT# CB-155** \$16.95 ea.

30' **CAT# CB-153** \$23.55 each

50' **CAT# CB-157** \$31.95 each

80' **CAT# CB-158** \$39.95 each

SD CARD READER/WRIter, USB 2.0

If your computer doesn't have a slot for SD memory cards, this is a simple solution. Plug it into a USB port, and you're ready to go. (Memory card not included)

CAT# SDR-1 \$4.00 each



MINI AND MICRO USB CABLES



mini-USB



micro-USB



USB-A

Used with many digital cameras, cellphones and PDAs for charging and exchanging information between the device and a personal computer.

MINI-USB (B) TO USB-A, 3' CABLE

CAT# CB-422 \$2.25 each

MINI-USB (B) TO USB-A, 5' CABLE

CAT# CB-378 \$2.95 each

10 for \$2.75 each • 100 for \$2.25 each

MICRO-USB (B) TO USB-A, 6' CABLE

CAT# CB-416 \$3.25 each

MICRO-USB (B) TO USB-A, 10' CABLE

CAT# CB-417 \$3.75 each

Y-CABLE WITH MINI-USB (B) AND 2 STANDARD USB-A

7" and 15" leads

CAT# CB-419

\$2.95 each



SERIAL CABLES

6' DB-9 Male to DB-9 Female extension cord.

CAT# CB-397

\$4.00 each



25' DB-9 male to DB-9 female.

CAT# CB-405 \$7.95 each

50' HI-TEMP PLENUM CABLE

Clear Teflon outer jacket, with Teflon insulated individual conductors. DB-9P male connectors on each end with metal back shells.

CAT# CB-81 \$16.85 each

SERIAL ATA (SATA) CABLE

180 degree. 7-conductor.

20" leads.

CAT# CB-156

\$2.15 each

10 for \$1.95 each



SATA POWER CABLE

Serial ATA

(SATA) cable

with 4-pin

molex power connector and standard SATA connector. 4" leads.

CAT# CB-161 \$1.65 each

10 for \$1.45 each



PHILIPS DSL FILTER

Philips# PH60861. Eliminate interference between your DSL line and analog telephone lines. Works with all standard phones, fax and answering machines.

CAT# FTR-861

\$2.00 each • 10 for \$1.75 each



INTEGRATED CIRCUITS

VOLTAGE REGULATORS

POSITIVE REGULATORS

CAT#	DESCRIPTION	CASE	each
7805T	+5 VOLT 1 AMP (LM340T-5)	TO-220	.50
TL780-05	+5V 1.5 WATT	TO-220	.70
78M05	+5 VOLT 500 MA (1/2 A)	TO-220	.50
7806T	+6 VOLT 1 AMP (LM340T-6)	TO-220	.50
7808T	+8 VOLT 1 AMP (LM340T-8)	TO-220	.50
7812T	+12 VOLT 1 AMP (LM340T-12)	TO-220	.50
7815T	+15 VOLT 1 AMP (LM340T-15)	TO-220	.50
78L05	+5 VOLT 100 MA	TO-92	.40
78L12	+12 VOLT 100 MA	TO-92	.40
S81250	+5 VOLT 100 MA	TO-92	.25

NEGATIVE REGULATORS

7905T	-5 VOLT 1 AMP (LM320T-5)	TO-220	.50
7908T	-8 VOLT 1 AMP	TO-220	.65
7912T	-12 VOLT 1 AMP (LM320T-12)	TO-220	.50

ADJUSTABLE REGULATORS

LM317T	ADJ. POSITIVE (1.2-37V)	TO-220	.70
LM317LZ	ADJ. POSITIVE (1.2-37V)	TO-92	.65
LM337T	ADJ. NEGATIVE (1.2-37V)	TO-220	1.50
LM350T	ADJ. POSITIVE 3 AMP	TO-220	3.50

LOGIC

CAT#	DESCRIPTION	pins	each
74HC86	QUAD 2-IN EXCL. OR GATE	(14)	.60
74HC126	QUAD 3-STATE BUS BUFFER	(14)	.25
74HC573	OCT D-TYPE LATCH	(20)	.45
74HC574	OCT D FLIP FLOP	(20)	.45
4001	QUAD NOR GATE	(14)	.35
4013	FLIP FLOP	(14)	.35
4017	DECADE COUNTER / DIVIDER	(16)	.60
MC14049	HEX INVERTING BUFFER	(16)	.40

LOGIC - SURFACE MOUNT

CAT#	DESCRIPTION	pins	each
74AHC574PWR			
	TRI STATE OCTAL FLIP-FLOP	(20)	.50
74HC08DR	QUAD 2-IN POS-AND GATES	(14)	.40

LINEAR SERIES

CAT#	DESCRIPTION	pins	each
TLO82	J-FET IN DUAL OP AMP	(8)	.70
ADM202EAN	LINE DRIVER RECEIVER	(16)	.75
LM311	COMPARATOR	(8)	.50
LM324	QUAD OP AMP	(14)	.50
LM339	QUAD COMP	(14)	.60
LF353	DUAL BI-FET OP AMP	(8)	.50
LM358	DUAL OP AMP	(8)	.30
LM380	2 WATT AUDIO AMP	(14)	1.25
LM386N	AUDIO AMP .25 W	(8)	1.25
LM393	LOW POWER DUAL COMP	(8)	.30
LM555	TIMER	(8)	.75
ICM7555	CMOS TIMER "555"	(8)	1.00
LM556	DUAL (555) TIMER	(14)	.45
LM567	TONE DECODER	(8)	.90
LM741	OP AMP (MC1741)	(8)	.90
MC1458	DUAL OP AMP (MC4558)	(8)	.50
MC14568	PHASE COMPARATOR & PROGRAM. COUNTER	(16)	.50
LM3914	BARGRAPH DIS. DRIVER	(18)	2.75
ULN2003	DARLINGTON ARRAY	(16)	.75
NE5532	DUAL LOW-NOISE OP AMP	(8)	.32
75451	DUAL PERIP. AND DRIVER	(8)	.40
75452	DUAL PERIP. NAND DR.	(8)	.40
75453	DUAL PERIP. OR DRIVER	(8)	.40

LINEAR - SURFACE MOUNT

CAT#	DESCRIPTION	pins	each
TL082C	DUAL OP AMP	(8)	.25
LM311D	COMPARATOR	(8)	.50
LM339D	QUAD COMPARATOR	(14)	.30
LM361M	HI-SPEED DIFF. COMP.	(14)	1.20
MC33079D	LOW NOISE DUAL OP-AMP	(14)	.35
NE5532D	DUAL LOW NOISE OP-AMP	(8)	.32
TL084C	J-FET QUAD OP AMP	(14)	.20

ICS FOR SPECIALIZED APPLICATIONS

Specifications / hook-up sheets available on our website

FAHRENHEIT TEMPERATURE SENSOR

National Semiconductor # LM34DZ. Precision temperature sensor. Voltage is linearly proportional to the Fahrenheit temp. Operates on 5-30 Vdc. TO-92 package. **CAT# LM34DZ** \$3.30 each

LIQUID LEVEL ALARM

ST Microelectronics# L4620. Designed for liquid level control in automotive applications. 8-pin DIP. **CAT# L4620** 45¢ ea. • 50 for 30¢ ea.

30 VDC REVERSIBLE MOTOR DRIVER

Rohm # B6886N. Drive small DC motors. 6.5 - 28 Vdc supply voltage. Two control logic inputs allow switching of four output states, forward, reverse, stop and braking. Interfaces with TTL and CMOS devices. SIP-10 package. **CAT# BA6886N** \$2.00 each

22CV10AP PEEL™

Programmable Electrically Erasable Logic (PEEL™) CMOS device. 15nS. 24 pin (narrow) DIP package.

CAT# 22CV10AP ~~\$2.25~~ \$1.25 each

LCD DRIVER

National Semiconductor # MM145453V. Can drive 4 1/2 digit, 7-segment display with minimal interface between the display and data source. Drives up to 33 LCD segments and can be paralleled to increase this number. 44-pin, surface-mount PLCC package.

CAT# MM145453V ~~\$3.00~~ \$2.00 each

IC SOCKETS

SOLDERTAIL

PINS	CAT#	1-49	50-99	100+
6	ICS-6	.20	.15	.10
8	ICS-8	.20	.15	.10
14	ICS-14	.20	.15	.10
16	ICS-16	.25	.20	.15
18	ICS-18	.30	.25	.20
20	ICS-20	.40	.35	.30
22	ICS-22	.40	.35	.30

Special Reduced Price!

24	ICS-24	.15	.12	.10
1000 for \$50.00 (5¢ each)				

28	ICS-28	.45	.40	.35
40	ICS-40	.55	.50	.45
48	ICS-48	.65	.60	.50

HIGH RELIABILITY (MACHINED PINS) SOLDERTAIL

PINS	CAT#	1	10	100+
8	HRICS-8	.50	.45	.35
14	HRICS-14	.65	.60	.50
16	HRICS-16	.75	.70	.60
22	HRICS-22	.50	.45	.35
32	HRICS-32	.95	.85	.70
40	HRICS-40	1.20	1.15	1.05

24-PIN ZIF SOCKET

3M Textool #224-3344. Zero Insertion Force (ZIF) test and burn-in socket for 24 pin DIP devices. Lever actuated grab and release mechanism. For DIP parts with 0.1" x 0.6" lead spacing. **CAT# ZIF-24** \$4.00 each

FULL WAVE BRIDGE RECTIFIERS

MINI-DIPS Fits 8-pin DIP socket.

1/2 AMP 400V **CAT# FWB-48**
35¢ each • 100 for 20¢ each



1 AMP 100 PIV **CAT# FWB-11**
35¢ each • 100 for 20¢ each

1 AMP 600V **CAT# FWB-16**
40¢ each • 100 for 30¢ each

1 1/2 AMP BRIDGES

TO-5 case 3/8" dia.

1.5A 200V **CAT# FWB-14** 40¢ each
1.5A 400V **CAT# FWB-15** 50¢ each



2 AMP 800 VOLT BRIDGE

2W08G, round epoxy case.

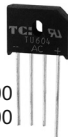
CAT# FWB-28 65¢ each
100 for 50¢ each



IN-LINE BRIDGE RECTIFIERS

Four leads on 0.2" centers.

Amps	Volts	CAT#	Price	100
4	600	FWB-46	2/\$1.00	\$35.00
6	400	FWB-64	.85 ea	\$65.00



25 AMP BRIDGES 1 1/8" square.

200 P.I.V. **CAT# FWB-252** \$2.50 each
400 P.I.V. **CAT# FWB-254** \$3.00 each
600 P.I.V. **CAT# FWB-256** \$3.50 each

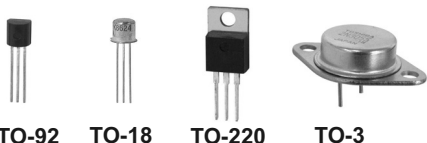


35 AMP BRIDGES 1 1/8" square.

200 P.I.V. **CAT# FWB-352** \$2.50 each
10 for \$22.50 • 100 for \$175.00
400 P.I.V. **CAT# FWB-354** \$4.00 each
600 P.I.V. **CAT# FWB-356** \$4.50 each
800 P.I.V. **CAT# FWB-358** \$4.75 each



TRANSISTORS



TO-92 TO-18 TO-220 TO-3

J FETS

J176 P-CHANNEL TO-92
CAT# J176 5 for \$1.00

TRIAC

CAT#	AMP	VOLT	CASE	PRICE	10
Q6015L5	15	600	TO-220	1.60	1.40

BILATERAL TRIGGER (DIAC)

CAT # DB-3 28-36 volt **3 for \$1.00 100/\$27.00**

PROGRAMMABLE UNIUNCTION

40 volts, 300 mW. TO-92

CAT# 2N6028 3 for \$1.00 • 100 for 25¢ each

DARLINGTON TRANSISTORS

CAT#	Desc	Ea	100+
BU941ZP	NPN, TO-218	\$1.75	
GES-5307	NPN, TO-92	5 for 50¢	.08
MPSA13	NPN, TO-92	5 for 50¢	.08
TIP112	NPN TO-220	.50	.40
TIP120	NPN, 5A 60V, TO-220	.75	.65

TRANSISTORS

CAT#	Description	Each	100
D33D30	NPN, TO-92	5 for \$1.00	.16
D45H5	PNP, TO-220	.75	.65
2SC1775A	NPN, TO-92	5 for \$1.00	.16
PN2222A	NPN, TO-92	5 for .80	.15
2N2222A	NPN, TO-18	2 for 1.00	.40
PN2905	PNP, TO-92	10 for .50	.04
2N2906	PNP, TO-18	2 for \$1.00	.35
PN2907	PNP, TO-92	5 for .75	.10
2N3055	NPN, TO-3	1.25	.95
PN3646	NPN, TO-92	5 for .75	.08
2N3904	NPN, TO-92	5 for .75	.13
2N3906	PNP, TO-92	5 for .75	.13
2N4124	NPN, TO-92	5 for .75	.13
2N4400	NPN, TO-92	5 for .50	.08
2N4401	NPN, TO-92	5 for .75	.13
2N4403	PNP, TO-92	10 for .80	.05
2SC2352	NPN, TO-92	3 for 1.00	.29
KSP8599	PNP, TO-92	5 for .50	.08
MPS8599	PNP, TO-92	5 for .50	.08
MPSA43	NPN, TO-92	5 for \$1.00	.16
MPSA55	PNP, TO-92	5 for .75	.10
MPSA92	PNP, TO-92	3 for \$1.00	.28
TIP30C	PNP, 1A 100V, TO-220	4 for \$1.00	.20
TIP31C	NPN, 3A 100V, TO220	.45	.35
TIP32C	PNP, 3A 100V, TO220	.35	.30
TIP35	NPN, 5A 40V, TO220	\$1.25	.90
TIP42C	PNP, 6A 100V, TO220	.45	.30
ZTX651	NPN, 2A, 80V, TO-92	.35	.30

PHOTO-DIODES

Ledtech # LT4W55-2120-EA

Black, side-looking photo diode.

CAT # PD-2 2 for \$ 1.30 • 50 for \$ 25.00

QSE773, side-looking photo-diode.

CAT# PD-7 2 for \$1.00

100 for 35¢ each

Perkin Elmer VTP8651. Two pin dip package.

Arrays can be formed by positioning devices side by side. 4.62mm x 4.11mm x 1.07mm deep.

CAT# PD-6 3 for \$1.00 • 100 for 24¢ each

N-CHANNEL MOSFETS, TO-220

BUZ11A 26 Amp, 50 Volt, 0.055 Ohms.

With right-angle pre-formed leads.

CAT# BUZ11A 75¢ each

10 for 65¢ each 100 for 55¢ each

BUZ101S SIPMOS Power Transistor Vds. 55V, 22A, 0.06 Ohms **CAT# BUZ101S** 55¢ each

10 for 50¢ each • 100 for 35¢ each

FS7KM 16A 7013, N-Channel Power Mosfet.

High speed switching use, 250V 7A.

CAT# FS7KM 55¢ each

10 for 50¢ each • 100 for 35¢ each

IRF734 1.2 Ohms (max.). 450 V (min.). 4.9 A (max.). 62 deg C.

CAT# IRF734 65¢ each

10 for 55¢ each • 100 for 45¢ each

IRFZ40 50 Amp 50 Volt **CAT# IRFZ40**

\$1.25 each • 10 for \$1.10 each

MTP75N03HDL 75Amp 25V power

CAT# MTP75N03HDL \$1.75 each

10 for \$1.50 each

TO-92 SOCKET

CAT# STR-92

4 for \$1.00 • 100 for \$20.00



PHOTO-TRANSISTORS

Ledtech # LT9593-91-0125.
Water-clear T 1 3/4 with flat face.

CAT # PTR-1 2 for \$1.30 • 50 for \$25.00

EETP140. Three-lead side looking optoelectronic device. 0.14"x 0.16" x 0.11" thick. Raised 0.05" diameter lens.

CAT# PTR-2 4 for \$1.00

Rohm #RPT-38PB3F. Top-view NPN silicon planar phototransistor. Visible light filter to minimize stray light interference. T1, 3mm dia. package.

CAT# PTR-4 2 for 80¢

OPTOISOLATORS

6 pin DIP package

CAT#	Description	1	10	100
IL2	NPN transistor output	.35	.30	.25
4N25	NPN transistor output	.45	.40	.35
4N26	NPN transistor output	.40	.35	.30
4N27	NPN transistor output	.45	.40	.30
4N33	NPN darlington output	.50	.45	.35
4N35	NPN transistor output	.60	.50	.40
H11D1	NPN transistor output	.60	.50	.40
MOC3022	Triac output	1.00	.90	.70

DIODES

HIGH VOLTAGE RECTIFIER

CAT#	VOLT	AMP	PRICE	100	1000
R6000	6000	0.2	.50	40.00	300.00

RECTIFIER DIODES

CAT#	VOLT	AMP	PRICE	100	1000
1N4001	50	1	15 / \$1.00	5.00	40.00
1N4002	100	1	12 / \$1.00	6.00	50.00
1N4003	200	1	10 / \$1.00	8.00	70.00
1N4004	400	1	9 / \$1.00	9.00	75.00
1N4005	600	1	8 / \$1.00	10.00	85.00
1N4007	1000	1	6 / \$1.00	12.00	100.00
1N4937	600	1	10 / 90¢	6.00	45.00
1N5400	50	3	3 / 60¢	12.50	100.00
1N5402	200	3	3 / 70¢	15.00	110.00
1N5404	400	3	3 / 80¢	17.00	130.00
1N5406	600	3	4 / \$1.00	20.00	150.00
1N5408	1000	3	3 / \$1.00	30.00	250.00
D620	200	6	2 / 90¢	40.00	350.00
D660	600	6	2 / \$1.00	45.00	400.00
GI851	600	3	4 / \$1.00	15.00	110.00

Special - cut and bent leads

1N5406S	600	3	5 / \$1.00	12.00	80.00
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1A RECTIFIERS – AMMO PACK SPECIALS

1N4001 50V

CAT# 1N4001-TR

100 for \$3.00 (\$0.03 each)

1000 for \$20.00 (\$0.02 each)

3000 for \$45.00 (\$0.015 each)

1N4004 400V

CAT# 1N4004-TR

100 for \$3.75 (\$0.0375 each)

1000 for \$25.00 (\$0.025 each)

5000 for \$75.00 (\$0.015 each)

1N4006 800V

CAT# 1N4006-TR

100 for \$5.00 (\$0.05 each)

1000 for \$40.00 (\$0.04 each)

3000 for \$105.00 (\$0.035 each)

SCHOTTKY DIODES

CAT#	amp	PIV	price	100
1N5817	1	20	3/\$1.00	27.00
1N5819	1	40	3/\$1.00	27.00
1N5822	3	40	3/\$1.25	35.00
MBR2545CT	25	45	\$1.20 ea.	95.00
STPS30L40CW	30	40	\$2.00 ea.	170.00

40 AMP 600 VOLT RECTIFIERS

DO-5 case,
stud-mount rectifier.

1N1190A Cathode case \$ 3.50 each

1N1190AR Anode case \$ 3.50 each

0.4 AND 0.5 WATT ZENER DIODES

CAT#	VOLTAGE	WATTS	
1N957B	6.8	0.4	4 OF ONE VALUE \$1.00
1N5242	12	0.5	100 OF ONE VALUE \$20.00
1N5244	14	0.5	

1 WATT ZENER DIODES

All Zeners listed are 5 OF ONE VALUE \$1.00
100 OF ONE VALUE \$15.00

CAT#	VOLTAGE	CAT#	VOLTAGE	CAT#	VOLTAGE
1N4728	3.3	1N4734	5.6	1N4742	12
1N4729	3.6	1N4735	6.2	1N4744	15
1N4730	3.9	1N4737	7.5	1N4745	16
1N4731	4.3	1N4739	9.1		
1N4733	5.1	1N4740	10		

5W ZENER DIODES

CAT#	VOLTS	PRICE	100
1N5349B	12V	4 for \$1.00	\$20.00
1N5354B	17V	4 for \$1.00	\$20.00
1N5358B	22V	4 for \$1.00	\$20.00

SWITCHING DIODES

CAT#	PRICE	100	1000
1N914	15 for \$1.00	\$5.00	\$35.00
1N916	15 for \$1.00	\$5.00	\$35.00
1N4148	15 for \$1.00	\$5.00	\$35.00
1N4448	15 for \$1.00	\$5.00	\$35.00

ULTRAFAST RECTIFIERS

16 Amp 200V TO220AB

CAT# GI2404 90¢ each

100 for 70¢ each

DUAL ULTRAFAST

200V 10A,
TO-220F plastic package.

CAT# BYQ28X-200

75¢ each • 100 for 55¢ each

1N4936 1A 400V

FAST RECOVERY DIODE

Axial leaded, DO-41 package.

CAT# 1N4936 15 for \$1.00

100 for \$4.00 • 1000 for \$35.00

3A 1000V ULTRA-FAST RECTIFIER

Vishay UF5408.

Soft recovery, ultrafast rectifier. DO-201AD package. Tape & reel (E3/54) packaging.

CAT# UF5408 10 for \$3.00

100 for 25¢ each • 1400 for 15¢ each

4A 600V ULTRAFAST RECTIFIER

Motorola# 460 9909, 4A 600V.

CAT# MUR460

10 for \$3.50 100 for 27¢ each

MAGNETS

POWERFUL NEODYMIUM RARE EARTH MAGNETS

Nickel-plated neodymium (NdFeB) magnets have ratings into the 45MGOe range far exceeding the Samarium Cobalt in the 32MGOe range and Alnico or Ceramics in the 8MGOe range. **CAUTION! Because of the high strength of Neodymium magnets, and to prevent injury to people or equipment, care must be taken when handling these around other magnets or metal objects.**

SQUARE 4.6 x 4.6 x 2mm

CAT# MAG-82

4 for \$1.00 • 100 for \$18.00

BAR 5 x 10.2 x 2.7mm

CAT # MAG-74 2 for \$ 1.00

100 for 35¢ each

BAR 25 X 15 X 2mm

CAT# MAG-144

\$1.75 each

BAR 50 x 14.5 x 5.3mm

CAT# MAG-132

\$7.50 each

CYLINDER 6.35mm dia. x 5.1mm long

CAT # MAG-76 60¢ each

100 for 45¢ each

DISC 9.1mm diameter x 1.5mm

CAT# MAG-141 4 for \$1.00

BUTTON 9.5mm dia. x 5.1mm

CAT # MAG-80 75¢ each

15 for 65¢ each • 105 for 50¢ each

DISC 10mm diameter x 2mm thick.

CAT# MAG-143 5 for \$1.00

100 for \$16.00

CYLINDER W/ HOLE

12.1mm dia. x 9.5mm, 6.4mm hole.

CAT# MAG-116 \$3.00 each

DISC W/ HOLE 15mm diameter x

3mm, 4mm hole. **CAT# MAG-134**

\$1.00 each • 100 for 85¢ each

RING 19mm o.d. x 12mm i.d. x 3mm thick

CAT# MAG-133 \$1.55 each

100 for \$1.40 each

DISC 25.4mm dia. x 3.2mm thick

CAT# MAG-115

\$3.75 each

MAGNETIC NEODYMIUM SPHERES

Dia.	CAT#	Price
4.8mm	MAG-101	\$1.50 each
25.4mm	MAG-104	\$18.75 each

Because of its high strength, use caution when handling the largest magnet around metal objects or other magnets.

CERAMIC MAGNETS

0.5" DIA. X 0.15"

CAT# MAG-122 10 for 80¢

96 for 6¢ each • 960 for 5¢ each

0.5" DIAMETER X 0.2"

0.1" hole in the center. **CAT # MAG-68**

10 for \$1.00 • 100 for \$7.50

0.72" DIA. X 0.16" CAT# MAG-121

10 for 90¢ • 100 for \$6.50

500 for 6¢ each • 1000 for 5¢ each

1.86" x 0.87" x 0.18"

magnetic ferrite bar.

CAT# MAG-119

2 for \$1.00 • 30 for 40¢ each

CERAMIC RING MAGNET

37mm o.d. x 22mm i.d. x 4mm thick.

CAT# MAG-142

3 for \$1.00

50 for 28¢ each

CABINET LATCH MAGNET

Ceramic magnet sandwiched between two metal plates.

0.95" x 0.62" x 0.27" overall.

Striker plate is 2" x 0.5" x 0.1" thick.

Metal parts may have some discoloration. No screws included.

CAT# MAG-123 3 for \$1.00

ALARM SWITCH MAGNETS

New, unused magnets for Amseco #AMS-17 alarm switches. Plastic encased, Alnico-5 magnet designed to be press-fit into 3/8" dia. hole. Available in ivory and brown.

Ivory magnet **CAT# MAG-170I**

35¢ each • 10 for \$2.50

Brown magnet **CAT# MAG-170B**

35¢ each • 10 for \$2.50

MAGNETIC RUBBER SHEET

Flexible magnetic sheet,

7.37" x 7.37" x 0.08" thick.

Two corners cut off.

Easy to cut or punch.

Can be written on; printable.

CAT# MAG-145

\$2.75 each

VACTEC OPTOISOLATOR

VTL5C4. Provides low noise, infinitely variable resistor as

output element. Resistance is inversely proportional to input drive current. Applications include, audio limiting and compression, automatic gain control.

Linear and DC isolators, SCR and Triac drives, logic interfacing and noiseless switching. 0.38"D x 0.40" L. No. of Channels:1. Isolation Voltage:

2500Vrms. Optocoupler Output Type:Resistor.

Input Current Max:10mA. Output Voltage Max: 30V.

CAT# VTL5C4 \$3.95 each

10 for \$3.75 each

CRYSTALS

HC49/U (HC18/U) case. 0.52" x 0.43" x 0.18". 0.2" lead spacing.



14.745 MHz
14.7456 MHz
24.576 MHz
40 MHz
40.320 MHz
44.545 MHz

CAT# CRY-147
CAT# CRY-1474
CAT# CRY-245
CAT# CRY-401
CAT# CRY-4032
CAT# CRY-4454

All of one value 5 for \$1.00 • 100 for \$15.00

50.000 MHz CRYSTAL OSCILLATOR

KDS# DOC-70ZA, KDS-3F
50.000 MHz. 0.8" x 0.5" x 0.21" high.
Four pc leads on 0.3" x 0.6" centers.



CAT# CRX-503 \$1.25 each
100 for \$1.00 each

10 MHz CRYSTAL OSCILLATOR

CX0829Z. 12.5 x 12.5 x 5.5mm
metal package. Four leads on
8mm centers.



CAT# CRX-103 \$1.00 each

7.372800 MHZ CRYSTAL

Seiko Epson# MA-505.
13.46 x 5.06 x 4.6mm surface
mount package. **CAT# CRY-737**
\$1.00 each • 10 for 85¢ each



CERAMIC RESONATORS

4 Mhz **CAT# CER-4** \$1.00 each
12 Mhz **CAT# CER-12** \$1.00 each
16 Mhz **CAT# CER-16** \$1.00 each
20 Mhz **CAT# CER-20** \$1.00 each



INDUCTORS

0.676 MICRO HENRY ADJUSTABLE

CHOKE 0.375" X 0.375" X 0.75" high coil
with adjustable ferrite. PC leads on 0.38"
(10mm) centers. **CAT# RC-676**
3 for \$1.00 • 100 for \$25.00



100 UH AXIAL CHOKE

RFE International
LGA-X1123-101K. 0.43" diameter x 0.79" long.
CAT# ACB-101 \$1.00 each
100 for 70¢ each



345 UH TOROIDAL INDUCTOR

0.6" diameter x 0.415" high.
Two pc leads on 0.38" centers. 345 uH.
Max. DCR: 0.2. Large quantity available.
CAT# CR-345 3 for \$1.00
240 for 20¢ each • 1680 for 15¢ each



FERRITE BEADS

Fair Rite # 2643054201.
43 shield bead for 20-300MHz.
14.5mm long x 9.5mm o.d. x 6mm i.d.
RoHs. **CAT# FB-94** 2 for \$1.00
100 for 45¢ each • 300 for 35¢ each



29mm long x 14mm O.D. x 6.5mm I.D.
Broadband Frequencies 25-300 MHz
CAT# FB-96 65¢ each
10 for 50¢ each



0.86" O.D. x 0.54" I.D. x 0.26"
CAT# TOR-61 45¢ each



28.5mm x 16mm O.D. x 8mm I.D.

CAT# FB-97 65¢ each
10 for 50¢ each



FERRITE BEAD-ON-LEAD

Leaded ferrite
suppression bead. For broadband
frequencies 25-300MHz (43 material).



Fair-rite # 2743002112
4mm diameter x 9mm long bead. Tape & reel.
CAT# FB-73 5 for 50¢ • 100 for 7¢ each
500 for 6¢ each • 1000 for 5¢ each

Fair-rite # 2743001111.
3.5mm diameter x 4.5mm long.
CAT# FB-82 5 for 50¢ • 100 for 7¢ each
500 for 6¢ each • 1000 for 5¢ each

WOUND FERRITE BEAD

Fair-rite # 2943666671.
2 1/2 turns, 24 AWG wire in a 43 Ferrite bead.
43 material frequency range, 25-300MHz.
40mm leads. **CAT# FB-93** 4 for \$1.00



FERRITE SPLIT BEAD WITH SNAP SLEEVES

Used to suppress
RFI, EMI and
unwanted
spurious signals.
Easy to install.
Self-locking plastic snap
sleeve holds ferrite form in place.



0.20" I.D. TDK # ZCAT1325-0530A.
100-500 mHz frequencies. 50 ohm impedance.
Case size, 25 x 13mm diameter.
CAT# FB-98 75¢ each
10 for 65¢ each • 100 for 50¢ each

0.20" I.D. Fair-Rite # 0444173951.
#44 ferrite material for broadband frequencies,
25-300 MHz. Case size, 24.5 x 12.5mm diameter.
CAT# FB-99 75¢ each
10 for 65¢ each • 100 for 50¢ each

0.32" I.D. Case size, 33 x 20 x 20mm.
CAT# FB-86 \$2.00 each
10 for \$1.80 each • 100 for \$1.60 each

0.36" I.D. Case size 35 x 18 x 20mm.
CAT# FB-100 \$2.00 each
10 for \$1.80 each • 100 for \$1.60 ea.



0.41" I.D. Case size, 34 x 23 x 23mm.
CAT# FB-87 \$2.00 each
10 for \$1.80 each • 100 for \$1.60 each

0.4" I.D. 1.55" x 1.18" x 1.00"
CAT# FB-80 \$2.00 each
10 for \$1.80 each • 100 for \$1.60 each

0.43" I.D. 1.39" x 0.80" x 0.83"
CAT# FB-83 \$2.00 each
10 for \$1.80 each • 100 for \$1.60 each

0.5" I.D. 36mm long x 25mm diameter.
CAT# FB-90 \$2.00 each
10 for \$1.85 each • 100 for \$1.60 each

0.52" I.D. 36mm long x 23mm diameter.
CAT# FB-89 \$2.00 each
10 for \$1.85 each • 100 for \$1.60 each

WALL TRANSFORMERS



STYLE D
Screw
Terminals



STYLE C
Wall Type



STYLE B
Table Top



co-ax plug

phone plug

A.C. WALL TRANSFORMERS

VOLTS	AMPS	TERMINATION	STYLE	CAT#	PRICE	100 +
8 Vac	300 ma	Screw terminals	D	ACTX-831	\$4.95	\$4.35
9 Vac	13.5VA	3.5mm phone plug	C	ACTX-915	\$5.95	\$5.25
9 Vac	700 ma	bare wires	C	ACTX-970	\$4.50	\$4.00
16 Vac	20VA	Screw terminals	D	ACTX-1620	\$7.00	\$6.00
16 Vac	40VA	Screw terminals	D	ACTX-1640	\$9.25	\$8.50
24 Vac	12VA	2.1mm right-angle	C	ACTX-2412	\$6.00	\$5.00
24 Vac	750 mA (18VA)	pigtail leads	C	ACTX-2418	\$6.50	\$5.50
24 Vac	830 mA (20VA)	Screw terminals	D	ACTX-2420	\$8.95	\$7.70
24 Vac	1.6 amp (40VA)	Screw terminals	D	ACTX-2440	\$9.50	\$8.75
24 Vac	2000 mA	2.1mm co-ax	B	ACTX-2422	\$11.50	\$10.85

A Note on Wall Transformers: A.C. and D.C. Wall Transformers are not regulated unless otherwise stated. They provide a specified voltage at a specified load. If the load is lower than specified, the voltage will be higher than specified. With a higher load, the voltage will drop below that specified. For example, a 12 volt 500 ma. wall transformer may read 20 volts with no load or 9 Volts with a 600 ma. load.

D.C. WALL TRANSFORMERS

VOLTS	AMPS	TERMINATION	CENTER	STYLE	CAT#	PRICE	100+
3 Vdc	100 ma	2.5mm phone plug	negative	C	DCTX-31	\$1.35	\$1.00
3 Vdc	300 ma	3.5mm phone plug	positive	C	DCTX-331	\$2.50	\$1.65
6 Vdc	200 ma	1.3mm co-ax	positive	C	DCTX-620	\$2.65	\$2.20
6 Vdc	300 ma	1.3mm co-ax	positive	C	DCTX-634	\$3.00	\$2.50
6 Vdc	500 ma	1.3mm co-ax	positive	C	DCTX-650	\$2.75	\$2.00
6 Vdc	800 ma	2.5 mm co-ax	positive	C	DCTX-681	\$3.50	\$2.25
7.5 Vdc	1 amp	2.1mm co-ax	positive	C	DCTX-751	\$4.85	\$4.15
7.5 Vdc	500 ma	1.3mm co-ax	positive	C	DCTX-755	\$3.50	\$2.50
9 Vdc	150 ma	1.7mm co-ax	positive	C	DCTX-9150	\$2.50	\$1.65
9 Vdc	300 ma	1.3 mm co-ax	positive	C	DCTX-936	\$2.85	\$2.10
9 Vdc	700 ma	1.5 mm co-ax	positive	C	DCTX-970	\$4.00	\$3.00
12 Vdc	800 ma	2.1mm co-ax	positive	C	DCTX-1280	\$6.50	\$5.85
13 Vdc	1 amp	2.5mm co-ax	positive	C	PS-131	\$5.00	\$4.00

NEW

For regulated plug-in-wall switching power supplies see pages 58 and 59

DC POWER PLUG CONVERTERS

If your wall transformer doesn't have the correct coax power plug, these adapters may help. They will change the plug size, not the polarity. If you need to change polarity, cut off the plug, reverse the wires and resplece it.

CAT# DCA-1
CAT# DCA-2
CAT# DCA-3
CAT# DCA-4
CAT# DCA-6

Changes 2.5mm to 2.1mm
Changes 2.1mm to 2.5mm
Changes 2.1mm to 1.3mm
Changes 2.1mm to 1.7mm
Changes 2.1mm to 3.5mm phone plug



CAT# DCA-7

Converts 2.1mm coax plugs to 2.5mm.



Any of the adapters above \$2.00 each

CURRENT TRANSFORMERS

WICC # MW1003. 0.66" window, 1.90 O.D., 1.42" high. 2.05" square mounting base with holes in four corners. 24" leads. 0.6 KV. 50-400Hz. Ratio: 150/1. Burden: 5 @ 60Hz. UL.

CAT# TXC-3 \$6.50 each



Instrument Transformers, Inc.

#19SHT-202

Ratio: 2000:5 A.

RF 1.33 ACC CLASS B0.5 0.3.

50-400Hz. 600V Insulation.

Class 10KV. BIL 5.87" x 5.87" x 1.11".

4.25" dia. window. Brass studs. cULus.

CAT# TXC-1 ~~\$35.00~~ \$20.00 each

REDUCED
PRICES !



Instrument Transformer #19SHT-152-1.

Ratio: 1500:1A. 50-400Hz 600V Ins. Class 1

0KV BIL. 6.0" x 6.0" x 1.2". 4.25" window. UL, CSA.

CAT# TXC-2 ~~\$35.00~~ \$20.00 each

BOBBIN

Ho Sung International. EI-2820 nylon bobbin.

Core is 10 mm x 13 mm x 10 mm high.

Top is 18.5 mm x 21.5 mm. Base is

22 mm x 26 mm. Four leads, 15 mm and

20 mm spacing. **CAT# BN-1**

200 pieces for \$5.00 • 1000 pieces for \$20.00



IF TRANSFORMER

Cord Electronics# Y5117A. Adjustable

mini-transformer. 10 x 10 x 12mm high.

CAT# IF-5117

3 for \$1.00 • 100 for 25¢ each



RUBBER SHOCK MOUNT

Rubber shock-mount or damper.

28mm o.d. x 15.5mm high x 7mm i.d.

CAT# SHK-1 35¢ each

100 for 25¢ each

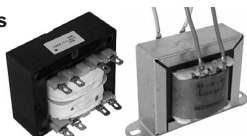


ORDER TOLL FREE 1-800-826-5432

TRANSFORMERS

POWER TRANSFORMERS

All power transformers have 115 vac 50/60 hz primaries unless otherwise noted.



12 V.C.T. @ 1 AMP 1.98" h. x 2.32" x 1.80".
CAT# TX-121 \$10.00 each

12 V.C.T. @ 2 AMP 1.96" x 1.60" x 1.67" high.
CAT# TX-122 \$12.00 each

12 V.C.T. @ 3 AMP
 2.33" x 1.75" x 1.98" high.
CAT# TX-123 \$18.00 each

12VCT 4A 2" high X 2 11/32" x 2".
 115 vac 50/60 hz primaries.
CAT# TX-124 \$19.75 each

12 V.C.T. @ 5 AMP 3.03" x 2.70" x 2.53" h.
CAT# TX-125 \$28.00 each

24V 1.67A Triad Magnetics # TCT40-01E07AB.
 Secondary: 24V 40VA. Class 2 control transformer.
 2.62" x 2.17" x 2.23". Mounting flanges with holes
 on 3.06" centers. 1/4" qc/ solder terminals. UL, CSA.
CAT# TX-2440 \$7.75 each

24 V.C.T. @ 2 AMP
 2.33" x 1.90" x 1.97" h.
CAT# TX-242 \$18.00 each

24 V.C.T. @ 3 AMP
 3.1" x 2.64" x 2.63" high. Solder lugs.
CAT# TX-243 \$26.00 each

24 V.C.T. @ 5 AMP
 2.83" high x 3.43" x 3.23". 117 Vac 60 Hz.
 Solder lugs.
CAT# TX-245 \$40.00 each

36 V.C.T. 0.8 AMP
 Shielded case. 2.5" x 2.37" x 2.13" high.
 Mounting holes on 80mm centers. 8" leads.
CAT# TX-36 \$6.00 each

39.8V AND 22.5V @ 2.25A
 Primary: 120V 60Hz. Secondary: 22.5VCT and
 39.8VCT @ 2.25A (see diagram online) 88 x 91 x
 77mm high. Shielded on four sides. Built-in thermal
 fuse. Mounting holes on 75 x 70mm centers. Pri-
 mary leads 3.25". 6" leads on secondary. Removed
 from new equipment in good condition.
CAT# TX-398 \$20.00 each

24V 20A TRANSFORMER, 230 VAC 50 HZ PRIMARY (12V 40A @ 115 VAC)

Lenco Electronics, Inc.
 Primary: 230VRMS 50Hz.
 Secondary: 24VRMS @ 500VA.
 5.26" x 4.76" x 4.39" high.
 Mounting holes on 4.38" x
 3.38" centers. Threaded/
 solder-lug terminals. UL.
 Weight, 15.20 lbs.
CAT# TX-24500 \$65.00 each



PC MOUNT TRANSFORMERS

6V/1A OR 12VCT/5A

MCI # 4-01-4012.
 Primary: 115V 50/60Hz.
 Secondary: Series 12.6Vct @
 0.5A / Parallel 6.3V @ 1A. 41.5 x 33.5 x
 33.0mm high. PC pins. UL, CSA.
CAT# PCTX-612 \$5.35 ea. • 10 for \$4.85 ea.



16VCT @ 0.35A OR 8V @ 0.70A

MCI #4-05-2016
 Primary: 115V 230Vacs
 Secondary: Series 16VCT @
 0.35A Parallel 8V @ 0.70A
 Low-profile pc mount transformer.
 48 x 39 x 21mm high. PC pins. UL, CSA.
CAT# PCTX-816 \$6.90 each



COUPLING TRANSFORMER

Designed to reflect 600 Ohms on
 Primary with 365 Ohm load on
 secondary. 30 x 20 x 14mm.
 Four pc leads on 10 x 25mm centers.



CET Technology # CT-AXF5013
CAT# TCTX-16 \$1.00 each

Atech # ATS-166
CAT# TCTX-17 \$1.00 each

VARIACS

Input: 110 vac
 Output: 0 - 130 vac
 Fully enclosed variable
 transformers in ventilated
 steel cases with 6" power cord,
 3 prong grounded receptacle,
 output voltage meter, on/off
 switch, fuse and power cord.
 Portable or mountable.



3 AMP VARIABLE TRANSFORMER
 5.35" X 4" X 5.5" high. Weight: 6.5 lbs.
CAT # SC-3M \$64.00 each

5 AMP VARIABLE TRANSFORMER
 4.75" X 7" X 6" high. Weight: 8 lbs.
CAT # SC-5M \$120.00 each

10 AMP VARIABLE TRANSFORMER
 6.5" x 9" x 6" high. Weight: 20 lbs.
CAT # SC-10M \$155.00 each

20 AMP VARIABLE TRANSFORMER
 6.5" x 9" x 7.5" high. Weight: 22 lbs.
CAT # SC-20M \$198.00 each

30 WATT SOLDERING IRON

Inexpensive craft
 and hobby iron for
 occasional use.
 For 120 VAC.

CAT# IR-330
 \$7.95 each



Extra tips for IR-330 -
 two pointed tips, two screwdriver
 tips (one straight, one angled).
CAT# PL-330 \$2.00 per set



POWER SUPPLIES

0-30VDC +5VDC +12VDC LAB POWER SUPPLY/LCD DISPLAY

0-30 Vdc, 3 Amp -- adjustable voltage and current. 12 Vdc, 1.2-1.6 A. 5 Vdc, 1.2-1.6 A

Digital LCD displays for Voltage and Current (for adjustable supply). Current limit indicator. Ripple and noise < 5 mV. Short circuit protected. Fused 6" x 5.75" x 12" 4.5 Kg.

CAT# PS-613 \$184.95 each



VARIABLE POWER SUPPLY, 0-30 VOLT / 0-3 AMP

HQ Power # PS3003U.

Compact, single output lab power supply. Dual LCD displays. Coarse and fine adjustments for voltage and current. Settable voltage and current limits with LEDs to indicate when current or voltage limits are operational.

Size: 6" H x 5 1/2" W x 11 1/2" D
Weight: 11 lbs. 1 year warranty.

CAT# PS-3003 \$179.75 each



MULTI-OUTPUT SWITCHERS

SWITCHING POWER SUPPLIES MUST BE TESTED UNDER LOAD!

Regulated switching power supplies. Ideal for a variety of portable appliances and breadboard projects. Selectable voltages: 3/ 4.5/ 6/ 7.5/ 9/ 12 Vdc. Includes a variety of connectors that fit popular home electronics. Available in 1A and 2.2A sizes.

1 Amp Max. current

CAT # PS-10 \$13.95 each

2.2 Amp Max. current

CAT# PS-22 \$21.95 each



12VDC/2A, 5VDC/2A POWER SUPPLY

Input: 100-240Vac
Output: 12Vdc @ 2A, 5Vdc @ 2A

Table-top supply with detachable power cord. Output is 29" cord with 6-pin mini-DIN plug. CE.

CAT# PS-0512 \$14.95 each



POWER SUPPLY: 5V/12A, 16V/3A, -5V/0.8A, -15V/0.8A

EOS # VLT100-4002

Input: 100 - 240 VAC

Outputs: 5VDC @ 12A, 16VDC @ 3A, -5VDC @ 0.8A, -15VDC @ 0.8A

* 100W convection cooled rating

* 3x5x1 inch package

* UL, DVE, CE

* Power good and power fail signal

CAT# PS-4002 \$14.75 each



SINGLE OUTPUT SWITCHING POWER SUPPLIES

Ideal for scanners, cameras and sensitive equipment requiring a constant, regulated output. All of the following power supplies operate on 120-240 Vac. UL, CSA.

5 VDC 1 AMP

Ericsson # BMLU101001-4. 6 foot cord terminated with 8-pin modular phone plug. Four color coded 22 gauge stranded conductors. Red and black leads are +5 Vdc; the yellow and white are ground. **CAT# PS-513** \$4.50 each
10 for \$ 4.00 each • 100 for \$ 3.00 each



5 VDC 2 AMP

Input: 100-240Vac, 0.3A.

Output: 5Vdc, 2A.

5' cord with coax power plug, 2.1mm id, center positive. Small, lightweight package, 2.22" x 1.61" x 1.20" (excluding plug). RoHS. cULus.

CAT# PS-529 \$6.85 each



5 VDC 4A

OpenPeak(R) # OP-20004.

5Vdc, 6' cord with 2.1mm i.d.

coax power plug, center positive. cULus. RoHS.

CAT# PS-541 \$9.50 each



6 VDC 1.6A

SEZMI #KSAC0600160W1US

Input: 100-240 VAC 50/60Hz 0.4 A.

Output: 6 Vdc @ 1.6 A.

5' cord with in-line ferrite bead noise suppressor and 2.5 mm coax power plug, center positive. cULus

CAT# PS-616

\$9.50 each



8.4 VDC 0.6A

Canon CA-590.

5' cord. Plug cut off.

CAT# PS-846

\$4.00 each



9 VDC 600MA

PHC # SW-9600

2.1mm x 5.5mm coax power plug.

Center positive. UL.

CAT# PS-961 \$9.75 each



9 VDC 1A

APS #HK-C109-A09.

Input: 100-240 Vac,

50/60 Hz, 0.35A.

Output: 9Vdc @ 0-1.2A (set at 1.0A).

4' output cord with 1.3mm coax power plug. Tip positive. cULus, FCC.

CAT# PS-912 \$10.50 each



12 VDC 500 MA REGULATED POWER SUPPLY

Model: PS120V0500.

Input: 100-240V,

50/60 Hz, 0.35A max.

Output: 12 Vdc, 500 mA.

Green indicator LED. 5' cable with 2.1mm coax plug. Center positive. cULus.

CAT# PS-1251 \$8.50 ea. • 10 for \$8.00 ea.



12 VDC 700 MA

ITE #26092.

2.1mm coax power plug, center positive. UL listed

CAT# PS-1270

~~\$8.50~~ \$7.50 each

REDUCED
PRICE!



12VDC 750MA POWER SUPPLY

LiteOn #PA-1090-1.

2.5mm coax power plug, center positive. Detachable, 2-conductor power cord. cULus, CE.

CAT# PS-12751

~~\$8.50~~ \$7.50 each

REDUCED
PRICE!



12VDC 1A POWER SUPPLY

Switching power supply.

Input: 100-240V, 50-60Hz, 0.3A.

Output: 12Vdc, 1Amp.

Right-angle coax power plug. 5.5mm od, 2.1mm id, center positive. cULus, CE.

CAT# PS-1219

~~\$8.95~~ \$7.95 each

REDUCED
PRICE!



12 VDC 1A

Input: 100-240V

50/60Hz 0.35A.

Table-top type power supply. 6' SPT-1 zipcord

output cord. Standard detachable IEC input cord included. cULus, CE.

CAT# PS-1239 \$7.95 each



12 VDC 1.25A

CUI STACK# DSA-0151A-12.

Input: 100 - 120 Vac, 50/60 Hz, 0.4 A.

Output: 12 Vdc 1.25 A.

6' output cord with 2.1mm coax power plug. Tip positive. FCC cULus.

CAT# PS-12125 \$9.95 each



12 VDC 1.25A

Globtek, Inc.

#GTM21089-1512-W2.

Input: 100-240V 50-60Hz.

Output: 12Vdc, 1.25A 15W.

Wall plug-in switching power supply designed for medical use. 72" SPT-1, 18AWG output cord with coax power plug, 5.5 x 2.5 x 11mm, center positive. cULus, VDE, TUV

CAT# PS-12225 \$9.95 each

50 for \$9.35 each



12 VDC 1.5 AMP

Regulated 12Vdc 1.5A power supply. Input: 100-240Vac.

4' cord with 2.1mm coax power plug. Tip positive.

CAT# PS-1228 \$10.50 each



12VDC 2A

UEtech# 1024E1200082.

Input: 100-240 Vac, 50-60 Hz, 0.8 A.

Output: 12V, 2A.

2.5mm co-ax power plug.

Center positive. 5' cable. cETLus, CE.

CAT# PS-1223 \$12.95 each



REGULATED

12 VDC 2 AMP

Input: 100-240Vac. 4' cord with 2.1mm coax power plug.

Tip positive.

CAT# PS-1227

\$13.75 each



12 VDC 3 AMP

Model: PS120V3000-D. Input: 100-240 Vac, 50/60 Hz, 0.8A.

Output: 12V 3000 mA. 117 x 48 x 34mm. 5' cable with 2.5mm coax plug. Center positive. Detachable IEC power input cord. cULus.

CAT# PS-1260 \$16.00 each



12 VDC 5 AMP

Model: FY1205000.

Input: 100-240 Vac, 50 Hz, 200 VA.

Output: 12 Vdc 5A.

119 x 54 x 31mm. 5' cord with ferrite split bead and 2.5mm coax power plug. Center positive.

Detachable 3-conductor laptop style power cord. cULus, CE.

CAT# PS-1262 \$18.75 each



12 VDC 5.83 AMP

Phihong Model PSA80U-120.

Input: 100-240V 50-60Hz 2.0A.

Output: 12.1V 5.83A. Table-top model, 5.93" x 2.78" x 1.54".

46" output cord two ferrite bead EMI suppressors.

4-pin mini-DIN connector.

Detachable grounded IEC power cord.

cULus, CE, TUV. **CAT# PS-12583** \$18.50 each • 10 for \$17.00 each



13.5VDC 500MA

Input: 100-240Vac 50/60Hz 0.3A.

6' cord w/ 2.1mm coax power plug, Center positive. CE

CAT# PS-1355

\$6.75 each



15VDC 2.5A

Symbol Technologies Inc.

Model ADP-5002-15V.

Input: 100-240V 50-60Hz.

Output: 15Vdc 2.5A. Switching power supply. 4.80" x 2.85" x 1.64" case with rubber feet.

Standard 3-prong IEC input connector (cord not included).

Output is 6-pin connector (see diagram). May require some modification to access output. cULus.

CAT# PS-1525 \$6.75 each



15 VDC 4A

Model # SPU-45. Input: 100-240V 50/60Hz, 1.2A Max.

6' cord with right-angle

2.1mm coax power plug,

center+. 123 x 61 x 38mm.

Detachable IEC power input cord. cULus, ATE, CE.

CAT# PS-154 \$16.00 each



18 VDC 5.6 AMP

Elpac# MWB100018A.
Input: 100-240V 50/60Hz,
2.3A. Enclosed table-top
switching supply, 127 x 77 x
35mm. 6' output cord with
8-pin male DIN plug. Includes
detachable IEC power cord.
CE, RoHS.

CAT# PS-1856 \$19.00 each



24 VDC 1.67 AMP

Elpac #MTA040024A
Input: 100-240Vac
102 x 51 x 26.5mm
(4"x 2" x 1") open frame
switching supply. CE, RoHS

CAT# PS-2467 \$11.50 each



24 VDC 2.71 AMP

Elpac# MW6524F.
Input: 100-240V 50/60Hz,
1.75A. Enclosed table-top
switching supply, 130 x
77 x 34mm. Enclosure is
white. 6' output cord with
5-pin male DIN plug.
Includes detachable
IEC power cord. CE, TUV, RoHS.

CAT# PS-2427 \$14.75 each



FLASHLIGHTS

9 LED FLASHLIGHT

Compact, bright
flashlight. Push-on,
push-off button at
back of flashlight.
Aluminum shell,
3.86" long x 1.19" dia.
Comes in blue, red,
aluminum and black.
No choice of colors.
Box of 12 contains three of each color.
Operates on three AAA cells.

CAT# FL-912 \$3.95 each
12 for \$ 3.75 each



24 LED UTILITY LAMP

24 ultrabright white LEDs provide
a nice field of illumination for home or auto-
motive needs. Rubberized, hand-held light
stick is 8.25" x 2.30" x 1.10". Neodymium,
rare-earth magnet on back of lamp for
attachment to tool box, car or refrigerator.
Convenient 360 Degree swivel hook enables
hanging when necessary. Operates on
three AA batteries (not included).

CAT# FL-240 \$9.00 each



19 LED HEADLAMP W/ ADJUSTABLE STRAP

High intensity, long-lasting
LED light with adjustable
headstrap for "hands-free"
illumination. 3 light levels
and flash mode. Adjustable
beam angle. Requires 3 AAA batteries
(not included). LED lifetime of 100,000 hours.

CAT# HL-2 \$12.95 each



HIGH-BRIGHTNESS 3W LED FLASHLIGHT

Bright 3W LED flashlight.
Black, machined aluminum
case, 4.8" long x 1.4" diameter,
it's a copy of a more expensive
and tougher Tactical Flashlight.
Still, it's very bright and fairly rugged, a good flash-
light for every day use. Rear mounted on-off
switch. Webbed nylon wrist strap. Operates on
three AAA cells (batteries not included).

CAT# FL-606 \$9.95 each



EXTENDABLE GOOSENECK LED FLASHLIGHT

High-brightness, 3-LED flashlight is perfect for see-
ing behind, under or around whatever is in your
way. 6-section handle gives the flashlight a 21"
reach. Last section is a bendable gooseneck, so
you can put the light where you need it. 6.5" col-
lapsed length. Three AG13 batteries included.

CAT# FL-318 \$8.50 each

UV FLASHLIGHT, 16-LED

Ultraviolet light reveals the security
strips in US currency, water-
marks hidden in bank
notes and fluorescent
ink and dyes used as
anti-counterfeiting
measures in credit cards.

Illuminate scorpions, check hand stamps at
clubs, scan a crime scene for foreign materials.
Solid aluminum body. Long-life LEDs emit 380-
385nm. Operates on 3AAA batteries (not included).

CAT# FL-UV2 \$11.50 each



POCKET UV LAMP

Inspect paper currency,
ultra-violet hand stamps, look
for small fluorescent creatures in the
dark. Pocket-size UV light fits on key ring.
Operates on three LR-44 button cells (included).
13mm dia. x 62mm long.

CAT# UVL-3 \$3.00 each



HIGH-INTENSITY LED KEYCHAIN LIGHT

Slide-switch style. Keyring
and batteries included.

CAT# GL-2 \$3.50 each
10 for \$3.00 each • 100 for \$2.35 each



LITTELFUSE MEGA® HIGH- CURRENT FUSE HOLDER

Littelfuse# 298100. Bolt-down
fuse holder for Mega® fuses
up to 500 Amps. Ideal for
battery and alternator
connections and other heavy
gauge cables requiring ultra high
current protection. Includes protective
cover. Interlocking tabs on side of fuse block enable
secure multiple block configurations. M8 threaded
studs and hex nuts with lock washers. Nylon block
and cover. Overall length, including mounting holes,
119.4mm x 38.1mm wide x 38.9mm high with cover.

CAT# FHP-298 \$8.00 each



METERS

PM89 SERIES PANEL METERS

3.15" x 2.5" x 2" depth.
2.5% accuracy. Large clear
scale, black lettering on white
background. Available in a variety of ranges.



DC MICROAMMETERS

	CAT #	EACH	10+
0 - 50 uA DC	PMD-50UA	\$12.00	\$10.00
0 - 100 uA DC	PMD-100UA	\$12.00	\$10.00

DC MILLIAMMETERS

	CAT #	EACH	10+
0 - 1 mA	PMD-1MA	\$12.00	\$10.00
0 - 25 mA	PMD-25MA	\$12.00	\$10.00
0 - 50 mA	PMD-50MA	\$12.00	\$10.00
0 - 100 mA	PMD-100MA	\$12.00	\$10.00
0 - 300 mA	PMD-300MA	\$12.00	\$10.00
0 - 500 mA	PMD-500MA	\$12.00	\$10.00

DC AMMETERS

	CAT #	EACH	10+
0 - 1 A	PMD-1A	\$12.00	\$10.00
0 - 3 A	PMD-3A	\$12.00	\$10.00
0 - 5 A	PMD-5A	\$12.00	\$10.00
0 - 10 A	PMD-10A	\$12.00	\$10.00
0 - 15 A	PMD-15A	\$12.00	\$10.00
0-25A *	PMD-25A	\$12.00	\$10.00
0-30A *	PMD-30A	\$12.00	\$10.00
0-50A *	PMD-50A	\$12.00	\$10.00
0-100A *	PMD-100A	\$12.00	\$10.00
0-200A *	PMD-200A	\$12.00	\$10.00

*SHUNTS REQUIRED FOR ALL METERS 25 AMPS
AND GREATER. Under 25A, shunts are included.

DC VOLTMETERS

0 - 10 V	PMD-10V	\$12.00	\$10.00
0 - 15 V	PMD-15V	\$12.00	\$10.00
0 - 30 V	PMD-30V	\$12.00	\$10.00
0 - 50 V	PMD-50V	\$12.00	\$10.00
0 - 100 V	PMD-100V	\$12.00	\$10.00
0 - 150 V	PMD-150V	\$12.00	\$10.00

AC AMMETERS

0 - 1 A	PMA-1A	\$12.00	\$10.00
0 - 3 A	PMA-3A	\$12.00	\$10.00
0 - 5 A	PMA-5A	\$12.00	\$10.00
0 - 10 A	PMA-10A	\$12.00	\$10.00
0 - 15 A	PMA-15A	\$12.00	\$10.00

AC VOLTMETERS

0 - 10 V	PMA-10V	\$12.00	\$10.00
0 - 25 V	PMA-25V	\$12.00	\$10.00
0 - 50 V	PMA-50V	\$12.00	\$10.00
0 - 100 V	PMA-100V	\$12.00	\$10.00
0 - 300 V	PMA-300V	\$12.00	\$10.00

SHUNTS

For use with DC Ammeters
where external shunts are required.
Adjusted for 50 mV drop.



25 AMP	CAT# SNT-25	\$10.00
30 AMP	CAT# FL-30A	\$10.00
50 AMP	CAT# SNT-50	\$12.00
100 AMP	CAT# SNT-100	\$13.50
200 AMP	CAT# SNT-200	\$16.00

WATT METER 3750W=FS @ 125 VAC

Prime Instrument Model 60
Part # 60-579. Edge-style panel meter.
Full-scale=3750 Watts @ 125 Vac.
Mounts in 1.85" x 0.76" cut out.
Held in place with behind-panel
spring clip. 1.7" behind-panel length
including 0.25" qcf solder terminals.

CAT# PM-375 \$2.50 each



DIGITAL PANEL METERS

LOW COST 3 1/2 DIGIT LCD DISPLAYS

LCD display size: 1.84" x 0.78".

Character height: 0.5".

Bezel dimensions: 2.65" x 1.60".

Flat-black bezel and body are one unit.

Snap-mounts from front into 2.12" x 1.50" chassis
cutout. 9 Vdc operation. Auto polarity indication.



0.2 V	CAT# PM-200	\$9.00 each
20 V	CAT # PM-21	\$9.00 each
200 V	CAT # PM-22	\$9.00 each

3 1/2 DIGIT LED PANEL METERS

Features: 5 Vdc operation.

Common Ground - Can monitor

own voltage. 0.56" figure height.

Automatic Polarity Indication Zero

reading for 0 Volt input. Automatic

Polarity Indication. High input

impedance (>100M Ohm). Measuring Method:

Dual Slope Integration. A-D converter system.

Reading rate time: 2-3 readings per second.

Accuracy: 0.5%. Bezel: 2.75" x 1.26" x 0.25"



200 mVDC	CAT # PM-122	\$15.00 each
20 VDC	CAT # PM-120	\$15.00 each
200 VDC	CAT # PM-121	\$15.00 each

LIQUID CRYSTAL DISPLAYS (LCDs)

8 CHARACTER X 2 LINE LCD

Crystallfontz # CFAH0802A-NYG-JT

STN Positive, Yellow/Green,

Reflective. Module size:

58 x 32.0 x 8.9mm.

Viewing area: 38.0 x 16.0mm.

Character size: 2.96 x 5.56mm.

RoHS Compliant. CAT# LCD-8002

~~\$4.50~~ \$3.25 each • 10 for \$3.00 each



16 X 1 LCD W/ LED BACKLIGHT, SMALL CHARACTER

Vikay 2316STLDYGTN.

Module size: 60 x 33mm.

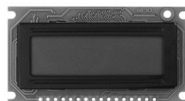
Overall depth, 11mm.

Characters, 4.35 x 2.10mm

(5 x 8 dot). LED backlight.

CAT# LCD-2161 \$3.00 each

10 for \$2.50 each



16 CHARACTER X 1 LINE LCD W/ LED BACKLIGHT

Picvue Electronics Ltd.

PVC160101BYL04.

16 character x 1 line LCD module

with LED backlight. STN yellow. Character size:

3.07 x 6.56mm. Viewing area: 64.5 x 14.0mm.

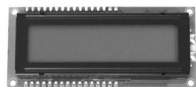
Module size: 80.0 x 36.0 x 13.5mm.

CAT# LCD-161 \$7.85 ea. • 10 for \$7.35 ea.



16 X 2 LCD W/ LED BACKLIGHT

Phico #16252-11.
Module size: 80 x 36mm.
Overall depth, 14mm. LED
backlight, grey. Prepped
with 16-pin header.



CAT# LCD-226 \$6.00 each

16 X 2 LCD W/ LED BACKLIGHT, LARGE CHARACTER

Samsung # UC-16225
GLCT7-A. Module size:
100 x 42mm. Overall depth,
12mm. LED backlight.
Prepped with 16 pin header.



REDUCED
PRICE!

CAT# LCD-3162 ~~\$7.50~~ \$5.95 each

16 X 4 ALPHANUMERIC LCD

Optrex # DMC16433.
Module Size: 87 x 60 x 11mm.
Viewing Area: 61.8 x 25.2mm.
5 x 8 dot characters, 2.95 x
4.75mm. Dot size: 0.55 x
0.55mm. TN reflective. 5V.



CAT# LCD-164 ~~\$9.00~~ \$6.00 each

REDUCED
PRICE!

20 CHARACTER X 2 LINE LCD W/ LED BACKLIGHT

HYeLCD# HC20216NYU-LYV0-03
Module size:
146 x 42 x 13mm.

Display area:
124 x 24mm.

Prepped w/ 16 pin female socket (16 x 1, 0.1" spacing). Green LED backlight operates on 7.5Vdc.

CAT# LCD-2021 \$6.25 each



24 CHARACTER X 1 LINE

Wintek # WDC2401P-1GNNA.
Module size: 4.25" x 0.79" x 0.3"
Display size: 3.5" x 0.4"

Built-in driver. 14 pin
male header, pins on
0.05" centers. Includes hook-up diagram.

CAT# LCD-111 \$1.85 ea. • 10 for \$1.50 ea.



40 X 4 ALPHANUMERIC LCD

Samsung
UC-40401-GNAR5-1.

Module Size:
190 x 55 x 10mm.
Display Area: 147 x 29.5mm.

CAT# LCD-404 ~~\$7.50~~ \$6.50 each



REDUCED
PRICE!

640 X 400 LCD DISPLAY W/ EL BACKLIGHT

Matsushita
#EDM-LG64AA44D.
8.25" x 5.2" graphic
display module with
electroluminescent
backlight. Monochrome display was originally built
for a military application. 9.64" x 5.95" module size.
Includes hook-up diagram.

CAT# LCD-103 \$5.50 each



640 X 480 LCD W/ CCFL BACKLIGHT AND INVERTER

Seiko Epson
ECM-A0526.
7.07" x 5.3" graphic
display module with
2-lamp CCFT (cold

cathode fluorescent tube) backlight. Includes inverter
to drive the backlight. Module size: 10" x 6.25"

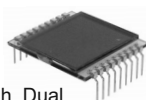
CAT# LCD-104 \$7.50 each



2-DIGIT LCD

Two 0.5" high characters with
decimals. Overall dimensions of
glass display, 1.11 wide x 1.20" high. Dual
row 9x2 pc pins, 0.1" centers x 1.32" between rows.

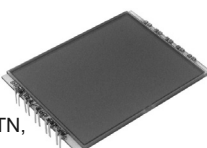
CAT# LCD-200 \$1.00 each



SINGLE DIGIT LCD, 2.21" CHARACTER

Lumex # LCD-H101D22TF.
Single digit glass LCD.
2.21" character height. 5V, TN,
Gray, Transflective. 20 pins.
Overall dimensions 76.20 x 55.88mm.

CAT# LCD-221 \$2.00 each



VIDEO ACCESSORIES

AUDIO / VIDEO RF MODULATOR W/ S-VIDEO INPUT

Philips / Magnavox
#PH 61159.

Allows connection
of video cameras and devices,
games and DVD players to TVs with F-connector input
or S-Video input. Automatically switches from TV to
connected component when power for that component
is turned on. Accepts stereo sound inputs. Operates
on 120Vac. Selectable channel 3 or 4 output. cULus.

CAT# AVM-159 \$18.95 each



VIDEO BALUN

Allows use of CAT5 cable, twisted-pair,
to transmit CCTV video up to
600M. BNC male one end. Balun
with screw clamp terminals other end.
3" wire lead for easier access.

CAT# BAL-7 \$3.75 each



RCA UNIVERSAL REMOTE

RCA# RCR412BN. Replace or consolidate
your remotes with this four device universal
remote. This easy to set up and easy to
use remote works with over 325 brands,
and programming is a breeze. Perfect for
HDTV, DVR's and DVD players. It also
controls digital TV converter boxes.
Its backlit feature allows you to see
the keys in the dark.

CAT# REM-412 \$7.95 each



SONY/WESTINGHOUSE TV REMOTE

TV remote control appears to operate all Sony
TVs. No programming necessary; just point
and press the button. Works on old and new
Sony's, flat-screens and CRTs. It's a Westing-
house brand, probably made by Sony and
branded for Westinghouse. Requires two AAA
batteries (not included).

CAT# REM-4 \$2.00 each



POTENTIOMETERS

LINEAR POTS WITH 1/4" DIA. SHAFT

All of the following pots have 1/4" dia. shafts and 3/8" dia. (3/8-32) or 7mm threaded bushings, unless otherwise specified. Shafts may be full-round, half-round or knurled.

10 meg **CAT# LTP-10M** 75¢ each
15 meg **CAT# LTP-15M** 75¢ each

25K OHM LINEAR TAPER POT

10mm long x 1/4" diameter
full-round shaft.

CAT# LTP-253 85¢ each

75K LINEAR TAPER POT

1/4" diameter flatted nylon shaft,
1/2" long. 3/8" diameter threaded
nylon bushing. Prepped with three
6.5" leads.

CAT# LTP-75K 75¢ each

AUDIO TAPER POTS W/ 1/4" DIA. SHAFT

5K AUDIO TAPER POT W/ SWITCH

1/2 moon shaft. 9mm non-threaded bushing.
Tabs, approximately 1" apart, snap-mount into
chassis. On-off switch, rated 3A/125Vac,
activates at end of counter-clockwise
rotation. Solder terminals.

CAT# ATPS-5K 75¢ each

All of the following pots have 1/4" dia. shafts and 3/8" dia. (3/8-32) or 7mm threaded bushings, unless otherwise specified. Shafts may be full-round, half-round or knurled.

50K **CAT# ATP-50K** 75¢ each

50K **CAT# PT-50KA** 75¢ each
7mm threaded bushing

250K **CAT# ATP-254** 85¢ each

1M **CAT# ATP-105** 85¢ each

PC MOUNT POTS

No mounting bushing.
Bend tabs for support.

50K AUDIO POT

6mm split knurled shaft is 16mm long.

CAT# APP-50KA 50¢ each

500 OHM LINEAR TAPER

1/4" knurled split shaft, 0.63" long.

CAT# LPP-500 50¢ each • 10 for 45¢ each

2 MEG OHM AUDIO POT

1/4" flatted nylon shaft is 0.87" long.

CAT# APP-2M 50¢ each

50K AUDIO POT

1/4" flatted nylon shaft, 0.91" long.

CAT# APP-50K 50¢ each

POTS WITH 6MM DIA. SHAFT

1K LINEAR TAPER POT

with 6mm dia. knurled split shaft,
15mm long. 7mm threaded bushing.
PC pins, can be wrapped and soldered.

CAT# LPP-1K 75¢ each

10K LINEAR PRECISION POT

Tokos / Cosmos# RV Q24YN 15F B 103.

High-quality, 10K Ohm, 1/4W carbon
film potentiometer designed for long-life.

Very smooth, precise rotation, designed
for 500,000 cycles. 6mm diameter x 5mm
long flatted shaft. 9mm threaded bushing.
24mm diameter body. Solder-lug terminals.

CAT# LPT-10K \$2.00 each

10 for \$1.75 each • 100 for \$1.60 each

500K TAPER POT, 6MM SHAFT

6mm diameter x 10mm split
knurled shaft. 8mm diameter x
10mm threaded bushing.

AUDIO **CAT# ATP-500K** 75¢ each

LINEAR **CAT# LPP-500K** 75¢ each

100K LINEAR TAPER POT

6mm split knurled shaft is 8mm long.
3/8" threaded mounting bushing on top
of a 0.7" long brass hex spacer.

CAT# LTP-100KL 65¢ each

1.2K OHM AUDIO TAPER POTS

6mm diameter shaft. 8mm diameter threaded
bushing. Solder-loop terminals. Shaft is
44mm long; 17mm end is nylon, half-moon.

CAT# ATP-1.2K 75¢ each

Center-detent

CAT# ATP-1.2KD 75¢ each

50K AUDIO TAPER POT

6mm split knurled shaft,
10mm long. 7mm threaded bushing.

CAT# PTT-50K 85¢ each

250K DUAL AUDIO TAPER POT

Dual element potentiometers.
6mm diameter split knurled shaft,
10mm long. 3/8-32 threaded bushing.
Solder-lug terminals.

CAT# PA-250K 95¢ each

250K AUDIO POT W/ SWITCH

250K Ohm, audio taper pot with
DPDT, push-pull switch. 6mm
knurled, split shaft. 8mm dia. threaded
bushing is 13mm long. New pots - prepped
with wires and a 9V battery snap.

CAT# ATPS-250K \$1.00 each

POTS W/ 6MM DIA. SHAFT

6mm flatted shaft. 7mm threaded bushing.

DUAL 10K AUDIO TAPER

CAT# DPA-10K \$1.00 each

DUAL 10K LINEAR TAPER

CAT# DPL-10K \$1.00 each

POTS W/ 1/8" DIA. SHAFT

100K LINEAR TAPER POT

Centralab miniature potentiometer.
0.20" long shaft. 0.25" threaded
bushing. Solder-loop terminals.

CAT# MLP-100K 75¢ each

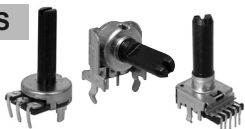
50K AUDIO TAPER POT

Allen Bradley Type W #2100-4-14. 50K Ohm, audio taper. 1/8" dia. x 1/4" long shaft. 1/4" dia. threaded bushing. 1/2" dia. body. Gold-plated solder terminals.
CAT# ATP-503 \$1.50 each



PC MOUNT POTS

6mm diameter shafts, 0.5" long minimum. Non-threaded bushing.



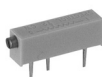
Resistance	Taper	Other desc	CAT #
10K	Audio	Dual pot	APD-10K
10K	Linear	Dual pot	NDLP-10K
100K	Audio	Dual pot	APD-100K
500K	Audio	Dual pot	PA-500KD
1M	Audio	Dual pot	PA-1MD

All pots above are 4 pcs of one CAT# for \$1.00
 100 pcs of one CAT# \$15.00 (no mixing)

PRECISION MULTI-TURN TRIMMERS

RECTANGULAR TRIMMER

0.75" X 0.19" high. 3/4 watt. Comparable to Bourns 3006P, Beckman 89PR, Weston 830P, AB 94P 200, 500, 2.2K, 10K, 20K
CAT# RTP-xxx \$1.25 each (xxx = resistance)



15K 15 TURN TRIMMER

Weston 503 1009. 3/8" square, side-adjust, 15-turn precision trimmer. In-line pc pins on 0.1" centers.
CAT# PTR-15K \$1.25 each



MULTITURN TRIMMER POT

Precision 20-turn trim pot. 3/8" square, top-adjust. Leads in straight row on 0.10" centers. 500, 10K, 20K, 50K
CAT# MTPS-XXX \$1.25 each (xxx = resistance)



SINGLE TURN TRIMMERS

10K ALLEN BRADLEY TRIMMER

Allen Bradley Type E. 10K Ohm, single-turn trimmer potentiometer. 10mm square. PC leads in triangular pattern, 5mm centers w/ wiper lead in middle.
CAT# TRP-10K 2 for \$1.00



SINGLE TURN TRIMMER POTS

7mm square trimmer. Two leads are on 5mm centers. Middle (wiper) lead is 5mm from the center of the other leads. Available values: 500, 5K, 10K, 50K, 100K, 150K, 500K
CAT# TPS-XX or XXX (no mixing values)
 XXX=value in ohms, ie TPS-10K
 4 for \$1.00 • 100 for 18¢ each



1K VERTICAL ADJUST TRIMMER

Piher #PT10LV0 1K 20%. 10mm dia. cermet trimmer. Outer PC pins on 5mm centers.
CAT# TPR-1K 5 for \$1.00 • 100 for 15¢ ea.



TOP ADJUST

3/8" square X 3/16" high. 1/2 watt. Comparable to Bourns 3386P, Beckman 72PR and Spectrol 63P. 500, 50K
CAT# STP-xxx 75¢ each



TRIMMERS

3-pins, triangular pattern. 0.2" between outer pins.

10K	CAT# TPT-10K
2.2K	CAT# VTP-2.2K
4.7K	CAT# VTP-4.7K



10 for \$1.00 • 100 for \$7.00

100 OHM TRIMMER POT

0.26" square, screwdriver adjust potentiometer. Unusual lead configuration. The two outside leads are 0.82" long while the center lead is a standard length pc lead. The two rear leads are on 0.15" centers.
CAT# TP-100 10 for \$1.00 • 100 for \$7.00



200 OHM TRIMMER POT

Old-style pc style trimmers. 0.6" dia. thumbwheel adjuster. Two pc leads on 0.30" centers with two bend-tab wiper terminals.
CAT# TPT-201 10 for \$1.00



1 MEG OHM THUMBWHEEL TRIM POT

0.7" dia., old-style trim pot. PC leads on 0.4" centers. Center wiper terminal is on opposite side from other leads.
CAT# TPT-1M 10 for \$1.00
 100 for 6.5¢ each • 500 for 4¢ each



32 OHM WIRE-WOUND TRIMMER POT

20mm dia. Screwdriver adjust. Two mounting ears with holes on 1" centers.
CAT# TPW-32 50¢ each



5K WIRE-WOUND TRIMMER

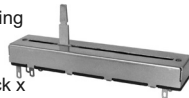
Screwdriver adjust. Horizontal pc mount. 19.5mm dia. x 11mm thick. Pins on 0.25" centers.
CAT# TPW-5K 3 for \$1.00



SLIDE POTS

SLIDE POTS, 65MM TRAVEL

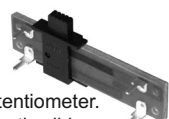
Slide potentiometers with mounting holes on 80mm centers. Slide travel, 65mm. Overall length, 88mm. Metal sliders, 1.2mm thick x 3.5-4mm at tip. Single-element if not otherwise noted. "C-detent" indicates a center-detent, a tactile bump in the center of slide travel.



Res.	Taper	Desc	CAT#	Price	10+
10K	Linear	4-element	SLP-10K4	\$1.00	80¢
20K	Linear	C-detent	SLP-20KS	\$1.00	80¢
20K	Linear		SLP-20KL	\$1.00	80¢
50K	Linear	2-ele., C-det.	SLP-50K	\$1.00	80¢
50K	Linear	C-detent	SLP-50KS	\$1.00	80¢
100K	Audio	4-element	SLP-100K4A	\$1.00	80¢
100K	Audio	2-element	SLP-100KA	\$1.00	80¢

20K LINEAR SLIDE POT, OPEN FRAME

Bourns # SSHA20B20300. Low-profile, unenclosed slide potentiometer. 20K Ohms, linear taper. Black plastic slider, 0.85" travel. 0.2" overall thickness when mounted. Four pc leads on 1.17" x 0.33" centers.
CAT# SP-20K 2 for \$1.00



20K OHM SLIDE POTENTIOMETER

Stackpole Slide-trol 119. 20K Ohm, audio taper slide pot. 35mm slide travel. Mounting tabs on 52mm centers. 19mm long x 2.5mm x 3.5mm slider. PC leads.
CAT# SPA-20K 3 for \$1.00 • 100 for 20¢ ea.



5K AUDIO MINI-SLIDE POTENTIOMETER

Small 5K Ohm, audio taper slide pot.
Body dimensions, 30 x 8 x 7mm high. Tapped
mounting holes on 26mm centers. Slide travel,
17mm. PC terminals. **CAT# SP-5KA** \$1.00 ea.



KNOB

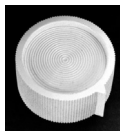
KNOB FOR 1/4" SHAFT

Black plastic knob for 1/4" round shaft with
raised red face, serrated circumference
and raised white pointer line down one
side. 0.52" diameter x 0.60" high. Brass
insert and set screw. **CAT# KNB-124**
75¢ each • 10 for 65¢ each



1.1" WHITE POINTER KNOB FOR 1/4" FLATTED SHAFT

1.1" dia, x 0.53" off-white knob.
Serrated circumference.
Shank extends 0.25" below knob.
Metal insert fits 1/4" dia. flatted shaft.
CAT# KNB-245 60¢ each



33MM KNOB FOR FLATTED 1/4" SHAFT

33mm diameter x 12mm high
off-white plastic knob for 1/4" flatted
shaft. Metal insert. **CAT# KNB-239**
50¢ each • 10 for 45¢ each



1.5" GOLD PAINTED KNOB FOR 1/4" HALF-MOON D-SHAFT

Shiny, golden-painted instrument knob for
1/4" half-moon D-shaft. 1.5" diameter x
0.39" thick. May have some scratches.
CAT# KNB-256 4 for \$1.00



KNOB FOR 6MM FLATTED SHAFT

Good-looking aluminum knob with plastic
insert for flatted 6mm shaft. 15mm dia. x
16mm high. Fluted circumference.
Brushed aluminum face with pointer
groove. **CAT# KNB-243** 65¢ each
10 for 50¢ each • 100 for 40¢ each



KNOB FOR 1/8" SHAFT

Black plastic knob with raised white pointer
line. Brass inserts and set screws. 0.45" dia.
skirt at base, 0.31" dia. at top, 0.40" high.
CAT# KNB-127 \$1.10 each
10 for 95¢ each



18mm dia. x 15.5mm high black phenolic
knob with serrated edge and brushed
aluminum face. Brass insert w/ set screw.
CAT# KNB-250 \$1.25 each



Dark-brown plastic knob with metal
insert. Fits 1/8" dia. half-round shaft.
0.9" diameter x 0.53" high.
Serrated circumference.
CAT# KNB-218 65¢ each



0.5" black aluminum knob.
Apem # MKCB-500B-1/8-7. Black, machined
aluminum control knob. Base is 0.5" dia. x
0.32" high. Top portion of knob is rectangular,
0.49" x 0.22" x 0.44" high. A black pointer groove
is etched into one side of knob. Two set screws.
CAT# KNB-231 \$1.50 each
25 for \$1.35 each • 100 for \$1.15 each



18MM DIAMETER x 19mm high serrated
black plastic knob. Brushed aluminum
face with black pointer line. Brass insert
with two set screws.

CAT# KNB-252 \$1.15 each



18MM DIAMETER x 15mm high serrated
black plastic knob. Black face with white
pointer line. Brass insert with set screw.

CAT# KNB-253 \$1.00 each



KNOB FOR 6MM KNURLED SHAFT

SOFT TOUCH KNOB

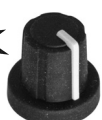
Dark gray rubberized pointer knob for
6mm knurled shaft. Light grey raised
pointer line and base. 0.40" diameter top,
0.52" diameter skirt, 0.70" high.

CAT# KNB-126 65¢ each • 10 for 50¢ each



Black rubberized pointer knob for
6mm knurled or 1/2 moon shaft. **New**
16mm diameter skirt. 10.5mm
diameter at top. 15mm high. Raised,
gray plastic pointer line.

CAT# KNB-257 65¢ each
10 for 50¢ each



KNOB W/ POINTER LINE

Black plastic with fluted circum-
ference, 19mm diameter at base,
14mm diameter at top, 21mm high. Face
with pointer line is a separate disc which can
be positioned before or after the knob is in place.

CAT# KNB-251 50¢ each
10 for 40¢ each



BLACK PLASTIC KNOB

Raised red face with black pointer line.
0.38" dia. top, 0.52" dia. base, 0.65" high.

CAT# KNB-125 50¢ each
10 for 45¢ each



SERRATED BLACK KNOB FOR 6MM KNURLED SHAFT

18mm diameter x 15mm high flat-black
plastic knob. Serrated circumference.
Flat, plain face. **CAT# KNB-248** 55¢ each



KNOB W/ POINTER LINE

0.71" diameter x 0.68" high black plastic
knob with white pointer line on face.
Ribbed circumference. **CAT# KNB-219**
60¢ each • 10 for 50¢ each



SILVER POINTER KNOB

Silver plastic pointer knob. 20mm dia.
at bottom, 18mm dia. at top, 15mm high.
CAT# KNB-234 50¢ each



SLIDE POT KNOBS

For slide pots with 1.2mm thick x 3.5-4mm sliders.

20MM X 17MM CURVED FACE

Black plastic. Curved, ribbed face.
White center-indicator line.

CAT# KNB-246 65¢ each
10 for 50¢ each



Chrome knob with flat black
rectangular face. Mounts vertically.
0.58" X 0.31" X 0.65" high.
CAT# KNB-247 40¢ each



UTILITY CASES

LEATHERETTE BELT POUCH

Black leatherette pouch with belt loop is ideal for small test equipment, audio/video accessories, tools, cameras. Velcro® pocket flap. 1.6" square interior pocket for memory sticks or lenses.

Exterior dimensions: 4" x 3.5" x 1.5"

CAT# CSE-70 95¢ each
10 for 85¢ each • 100 for 65¢ each



BALLISTIC NYLON CASE W/ VENTILATED PANEL

Zippered ballistic nylon case with ventilated mesh panel on one side. Probably designed for a medical application, a company logo is stitched in the back panel. Good-quality ballistic nylon on four sides, the front panel is a stretchy blue material with small ventilating holes. Webbed nylon welt reinforcement on zipper and all edges. 9.0" x 8.0" x 2.0".

CAT# CSE-113 \$3.00 each



PADDED CARRYING CASE

Carrying case, padded on all sides. Interior compartmentalized with 2 larger compartments approximately 2.5" x 5" x 4.5" and three smaller compartments. Webbed nylon handle. Clear plastic business card holder on outside top. The case zips closed. Made of weather-resistant material with reinforced edges. 6.5" x 5" x 5.5" high.

CAT# CSE-114 \$3.75 each



FORM FIT PROTECTIVE HARD CASE

Originally designed to carry 8.9" ASUS EeePC 900 series mini-laptops. Well constructed, hard-shell, zippered case for lasting protection. Webbed storage compartment. Velcro™ strap to hold device securely in place. Outside dimensions approximately 10" x 7.5" x 1.5" deep, so it should also be okay for other small tablets and eBook readers up to 8.9" x 6.7".

CAT# CSE-352 \$5.00 each



PROTECTIVE CASE FOR LAPTOP COMPUTER

Safely and securely carry and store your laptop computer. Padded 600 denier triple layer ballistic polyester. Custom fitted inner neoprene sleeves. Ultra soft lycra prevents scratching. Adjustable shoulder strap.

Fits 13" MacBook Pro® & other low-profile laptops.

CAT# CSE-013 \$7.95 each

Fits 15" MacBook Pro® & other low-profile laptops.

CAT# CSE-015 \$8.50 each



POUCH FOR GLASSES

Cotton pouch with a spring-steel automatic closure.

Dark gray cloth with medium-gray writing, "A. Eagle Co. 1977." **CAT# CSE-62** \$1.00 each



PADDED MINI-POUCH

Ballistic nylon mini-pouch with keyring. Zipper closure. Interior elastic strap. Carry and store small items like removable memory cards, thumb-drives, stereo in-ear earphones, plug and jack adapters. Internal dimensions 2.5" x 1.6" x 0.6".

CAT# CSE-83 50¢ each
50 for 40¢ each • 100 for 35¢ each



RUBBER BUMPERS / FEET

CLEAR SELF-ADHESIVE BUMPERS / FEET

Self-adhesive polyurethane bumpers apply quickly and easily wherever protection is needed against scratches, slippage or noise.

0.8" diameter x 0.4" high clear feet with 0.35" dia. recessed center.

Sold in sheets of 24 pcs.

CAT# RF-32

1 sheet (24 pcs) for \$4.50 per sheet
12 sheets (288 pcs) for \$3.80 per sheet

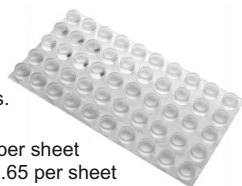


Solid cylindrical clear bumper, 0.4" dia. x 0.25" high.

Sold in sheets of 50 pcs.

CAT# RF-33

1 sheet (50 pcs) \$3.50 per sheet
10 sheets (500 pcs) \$2.65 per sheet

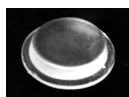


0.7" diameter x 0.15" high.

Clear. 49 per sheet.

CAT# RF-53

\$3.50 per sheet
10 sheets (490 pcs) \$2.65 per sheet



1.46" DIA. RUBBER FEET

Hard rubber equipment foot. Countersunk, metal reinforced hole for #8 screw. Black.

1.46" diameter x 0.59" high

CAT# RF-615 4 for \$1.80 • 100 for \$30.00

1.46" diameter x 0.41" high

CAT# RF-605 4 for \$1.70 • 100 for \$28.00



STORAGE CONTAINERS

See-through ABS plastic storage container with dividers. For hardware, hobby, fishing, automotive. 15" x 12.25" x 2.3" 21 compartments with movable dividers.

CAT# SB-11 \$12.95 each



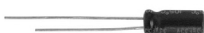
10.15" x 7" x 1.7" plastic organizer. 18 compartments with removable dividers allowing the compartments to expand for larger items. Snaps shut.

CAT# SB-7 \$5.75 each



CAPACITORS

RADIAL ELECTROLYTIC



UF	Volts	1+	10+	100+	1000
.22	50	.10	.06	.04	
.47	50	.15	.13	.10	
1	50	.15	.10	.06	
2.2	50	.15	.10	.06	
2.2	160	.20	.16	.12	
3.3	50	.12	.08	.05	
4.7	50	.10	.08	.05	
4.7	100	.15	.10	.07	
10	16	.10	.06	.04	
10	35	.10	.08	.05	
10	50	.12	.10	.06	.04
22	16	.13	.10	.08	
22	25	.16	.14	.11	
22	50	.10	.08	.05	
22	400	.45	.40	.30	.23
33	16	.12	.10	.07	.04
33	25	.18	.14	.10	
33	35	.19	.15	.11	
33	50	.18	.09	.06	.04
47	16	.15	.10	.07	
47	35	.17	.15	.13	
47	50	.16	.11	.07	
100	16	.15	.12	.09	
100	25	.20	.18	.15	
100	35	.27	.25	.22	
100	50	.30	.25	.20	
120	400	1.60	1.40	1.20	
220	25	.23	.20	.18	.11
220	35	.25	.22	.21	
220	50	.25	.14	.12	
330	50	.27	.25	.22	
470	10	.11	.10	.06	
470	16	.25	.18	.10	.06
470	25	.30	.25	.15	.11
470	35	.30	.25	.18	
470	50	.45	.40	.26	
1000	16	.40	.30	.25	.15
1000	25	.45	.35	.30	
1000	35	.48	.45	.40	
1000	50	.80	.70	.55	
2200	10	.20	.15	.08	
2200	16	.60	.55	.45	
2200	35	1.00	.85	.65	
2200	63	1.40	1.15	.90	
3300	16	.70	.65	.50	
3300	35	1.45	1.30	1.20	
3300	50	1.60	1.45	1.30	
4700	25	1.25	1.10	.95	
4700	63	1.65	1.55	1.20	

To order radial electrolytic capacitors CAT# uf R v
i.e. 10uf @ 35v = CAT# 10R35

SNAP-IN CAPACITORS

47 UF 250 V

25mm x 22mm dia. 105C.

10mm lead spacing.

CAT# EC-47250

35¢ each • 100 for 20¢ each



68 UF 400V

Nichicon CE 105°C GQ (M).

26mm x 23mm dia. 10mm lead

spacing. CAT# EC-6840

75¢ each • 10 for 65¢ each

180UF 400V

Matsushita (Panasonic)

Type UQ 85°C.

22mm diameter x 31.5mm long.

Snap-in leads on 10mm centers.

CAT# EC-1840 \$1.75 each

10 for \$1.60 each



220 UF 350V

Nippon Chemi-con 75Q068.

30mm x 30mm dia., 105°C.

10mm lead spacing.

CAT# EC-22350

\$1.50 each • 10 for \$1.25 ea.

220 UF 450V

Rubycon CE, 85°C. 30mm dia. x

36mm high. Leads on 0.4" centers.

CAT# EC-2245 \$2.00 each

10 for \$1.75 each

420UF 500V Panasonic CE

TUP, 40mm dia. x 52mm long. 85°C.

CAT# EC-4250 \$3.60 each

470 UF 200V

Nichicon CE 105C GX (M).

30mm diameter x 31mm high.

Snap-in pc leads 10mm centers.

CAT# EC-4720 75¢ each

1200 UF 200V

Nichicon CE 85°C LU (M). 49mm x

25mm dia. 10mm lead spacing.

CAT# EC-1220 \$1.50 each

2700 UF 200 V

Panason. CE THA 200V 2700uF(M)

35mm dia. x 62mm high. 105°C.

Four leads - two are for support.

CAT# EC-2027

~~\$2.15~~ \$1.50 each



4700 UF 35V

SMH 85°C. 22mm diameter x

31mm long. Snap-in leads

on 10mm centers.

CAT# EC-4735 \$1.25 each

6800 UF 63 V

Nippon Chemi-con 11H01L.

SMH 85°C. 30.5mm dia. x 41.5mm

long. PC terminals, 0.4" centers.

CAT# EC-6863 \$2.50 each

15,000 UF 50V

Matsushita (Panasonic)

CE 85°C. 30mm dia. x 51mm high.

CAT# EC-1550 \$3.30 each

HIGH VOLTAGE CAPS

4.7 UF 250 VOLT

CAT# 4.7-250R

30¢ each • 10 for 25¢ ea.

100 for 15¢ each



22UF 200 VOLT

CAT# 22-200R 35¢ each

10 for 30¢ ea. • 100 for 20¢ ea.

22UF 400 VOLT RADIAL

16mm diameter x 27mm long.

8mm lead spacing.

CAT# 22R400 45¢ each

100 for 30¢ each

1000 for 23¢ each

22UF 400V RADIAL

20mm dia. x 16mm long.

Pre-cut, 5mm long pc leads.

CAT# 22R400S

55¢ each • 100 for 40¢ each



47UF 450V RADIAL

ELECTROLYTIC

Nichicon PB(M) 105C.

0.8" dia. x 1.03" high.

Cut leads, 0.15".

CAT# 47R450S

\$1.00 each • 100 for 80¢ each

200 for 75¢ each



120 UF 400V RADIAL

ELECTROLYTIC

16mm dia. x 35mm long.

6mm lead spacing. 105°C.

CAT# 120R400 \$1.60 each

10 for \$1.40 each

150 UF 250 VOLT RADIAL

CAT# 150R250

60¢ each • 100 for 45¢ each

1000UF 100V RADIAL

ELECTROLYTIC

Nichicon PW(M) 105°C. 18 mm dia.

x 42mm long. Radial leads,

8mm centers.

CAT# 1000R100 \$1.40 each

100 for \$1.15 each

ELECTROLYTIC SPECIALS

33UF 50V RADIAL

0.21" dia. x 0.4" long

CAT# 33R50 10 for 9¢ each

100 for 6¢ ea. • 1000 for 4¢ ea.



22UF 35V AXIAL

6.3mm

diameter x 13mm long. 85°C.

CAT# 22A35 15¢ each

10 for 13¢ each

100 for 9¢ each



470 UF, 25V RADIAL

10.0mm diameter x 17.5mm.

5mm lead spacing. 85C.

CAT# 470R25S 10 for \$1.50

100 for 12¢ ea. • 600 for 6¢ ea.



COMPUTER GRADE CAPACITOR

33,000UF 50V

Nippon Chemi-con
U32D 105°C.

35mm dia. x 123mm high
(excluding terminals).

Screw terminals.

CAT# EC-335 \$4.75 each

10 for \$4.50 each



PHOTOFLASH CAP

270 uF, 330 WV. 0.6" dia. x
1.77" h. Lead length, 0.45".

Removed from new equip.

CAT# PPC-273

\$1.00 each • 10 for 85¢ each

100 for 70¢ each



MEMORY BACK-UP "SUPERCAPS"

High-capacitance capacitors. Slowly
release charge to provide back-up power
in temporary shut-down situations.

0.22 FARAD, 5.5V

Panasonic # EEC-S0HD224H
10mm dia. x 5mm high.

PC leads on 11mm centers

CAT# CBC-19 \$1.10 each

200 for 90¢ each



1 FARAD 2.5V

8mm dia. x 10.5mm long.

Crimped radial leads on
5mm centers.

CAT# CBC-22 65¢ each

100 for 50¢ each



4.7 FARAD, 2.5 VOLT

0.50" diameter x 1.26" high.

Leads on 0.2" centers.

CAT# CBC-18

~~\$3.95~~ \$2.50 each

10 for \$2.25 each



120 PIECE ELECTROLYTIC CAP SET 10 VALUES 1UF-1000UF

120 radial electrolytic
capacitors. Values

from 1 uf to 1000 uf.

15 pieces of 1uf, 2.2uf,

4.7uf, 10uf, 22uf, 47uf,

100uf (50 Vdc). 5 pieces of 220uf,

470uf, 1000uf (25Vdc)

CAT# CK-2 \$19.50 each



1000 PF CAPACITOR-TYPE NOISE SUPPRESSOR

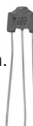
Murata # DSS6NC52A102Q91A.

3-leaded, EMIFIL® 1000pf filter.

Rated 6A, 100V. 8 x 2.54 x 7mm h.

CAT# NCP-102 5 for \$1.00

100 for 10¢ each



CERAMIC DISC CAPACITORS

CAT #	Capacitance	Voltage	10	100	1000
5D3K	5 pf	3000	.10	.08	.06
100D50	10 pf	50	.06	.05	.035
150D1K	15 pf	1000	.06	.05	.035
220D50	22 pf	50	.06	.05	.035
470D50	47 pf	50	.06	.05	.035
101D50	100 pf	50	.06	.05	.035
201D1K	200 pf	1000	.10	.08	.06
221D1K	220 pf	1000	.10	.08	.06
271D50	270 pf	50	.06	.05	.035
331D50	330 pf	50	.06	.05	.035
471D50	470 pf	50	.06	.05	.04
561D50	560 pf	50	.06	.05	.035
561D2.5K	560 pf	2500	.10	.08	.06
821D50	820pf	50	.09	.07	.06
102D50	.001 uf	50	.06	.05	.035
152D50	.0015 uf	50	.06	.05	.035
222D50	.002 uf	50	.06	.05	.035
332D50	.0033 uf	50	.06	.05	.035
332D1K	.0033 uf	1000	.10	.08	.06
472D50	.0047 uf	50	.06	.05	.035
103D50	.01 uf	50	.06	.05	.035
103D1K	.01 uf	1000	.18	.12	.10
223D50	.022 uf	50	.08	.07	.06
473D50	.047 uf	50	.08	.07	.06
104D50	.1 uf	50	.10	.08	.065

10 piece per item minimum

RADIAL CERAMIC CAPACITORS

Minimum order, 10 pieces of one value.

value	volt	CAT#	each	100	500	1000
100 pf	50	CM-101	.06	.04	.03	.025
680 pf	50	RM-681	.065	.045	.035	.03
1000 pf	100	CM-102	.08	.07	.06	.05
4700 pf	50	CM-472A	.075	.05	.04	.035
4700 pf	100	CM-472	.09	.08	.07	.06
0.01 uf	50	CM-103	.08	.07	.06	.05
0.1 uf	50	RM-104	.08	.07	.06	.05
0.1 uf	500	RM-104C	1.25	1.00		
1 uf	50	RM-105	.25	.18	.16	.15

AXIAL CERAMIC CAPS

	CAT#	Price	100
33pF	100V	SA-330	10 for \$1.00 .07
100pF	100V	SA-101	10 for \$1.00 .07
150pF	100V	SA-151	10 for \$1.00 .07
820pF	100V	SA-821	10 for \$1.00 .07
0.015uF	100V	SA-153	10 for \$1.20 .08
0.01uF	50V	SA-103	10 for \$1.00 .07
0.1uF	50V	AM-104	10 for 90¢ .06
0.1uF	100V	SA-104	5 for 75¢ .12
0.22uF	50V	SA-224	10 for \$1.00 .07
56,000pF	50V	SA-563	10 for \$1.00 .07

0.1MFD 25V AXIAL MONOLITHIC CAP

0.15" diameter X 0.39" long.

CAT# MCB-104 10 for 80¢ • 100 for \$5.00

DIPPED TANTALUM

MFD	VDC	CAT#	Price	100
1	35	DT-25	3 for \$1.00	25¢ each
3.3	10	DT-35	5 for \$1.00	13¢ each
4.7	16	DT-40716	4 for \$1.00	17¢ each
4.7	25	DT-40725	35¢ each	25¢ each
10	16	DT-1016	3 for \$1.00	25¢ each
10	25	DT-1025	2 for 80¢	30¢ each
10	35	DT-1035	90¢ each	65¢ each
15	25	DT-1525	2 for \$1.00	40¢ each
22	16	DT-2216	50¢ each	40¢ each
33	10	DT-3310	65¢ each	50¢ each
100	6	DT-4	2 for \$1.00	40¢ each



100 VOLT POLYESTER



(RADIAL)

MFD	CAT#	1+	10+	100+	1000
.001	RMC-102	.10	.08	.06	.05
.0047	RMC-472	.10	.08	.06	.05
.022	RMC-223	.12	.09	.07	.06
.033	RMC-333	.15	.11	.08	.07
.047	RMC-473	.15	.11	.08	.07
.068	RMC-683	.17	.12	.09	.08
.082	RMC-823	.17	.12	.09	.08
.22	RMC-224	.25	.19	.17	.15
.47	RMC-474	.40	.32	.29	.25

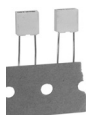
MINI-METALLIZED POLYESTER CAPACITORS

Tape and reel packaging.

0.001 uF (1nF) 100V. 7 X 2 X 6mm high.

CAT# MMC-102

6 for \$1.00 • 100 for 10¢ each



0.01 uF, 400 Volt 10%

CAT# MMC-103 6 for \$1.00

100 for 10¢ each • 500 for 9¢ each

1000 for 8¢ each • 2500 for 6¢ each

0.1 uF, 100 Volt 5%

CAT# MMC-104

4 for \$1.00 • 100 for 21¢ each

500 for 19¢ each • 1250 for 15¢ each

POLYPROPYLENE FILM CAPACITORS

100 pF 250V radial.

7.5 x 7.5 x 2.5mm. 5mm lead spacing.

CAT# FC-100 10 for \$1.00

100 for \$8.00



0.0047uF, 100V

1% axial capacitor. 10mm long x 3.5mm dia.

CAT# AFC-472 25¢ each

.01 uF 100V 5% radial

CAT# FC-103 10 for 9¢ each

100 for 7¢ each • 1000 for 6¢ each



1500 pF 100V 5% radial

CAT# FC-152 10 for 8¢ each

100 for 6¢ each • 1000 for 5¢ each



2.2 UF 275 VAC EMI SUPPRESSION CAP

Meritek MEX/MKP EN132400. Metallized polypropylene capacitor. 32 x 15 x 30mm high. 27mm lead spacing. UL, CSA.

CAT# CP-22 \$1.00 each



POLYSTYRENE CAPACITORS

	PF	CAT#	Price	100
NPC 4000J	4000	CS-402	5 for 50¢	\$7.00
NPC 4700J	4700	CS-472	5 for 50¢	\$8.00
NPC 5000J	5000	CS-502	5 for 50¢	\$7.00
	10000	CS-153	5 for 60¢	\$7.50
	18000	CS-183	5 for 75¢	\$8.00



MYLAR CAPACITORS

(AXIAL STYLE)



MFD	VOLT	CAT#	EACH	100
.0015	100	AMC-3	10¢	\$6.00
.0022	100	AMC-5	10¢	\$6.00
.0047	200	AMC-8	10¢	\$6.00
.0068	200	AMC-10	10¢	\$6.00
.082	100	AMC-25	10¢	\$6.00
.18	160	AMC-49	10¢	\$6.00
.68	50	AMC-72	10¢	\$6.00
.68	100	AMC-90	12¢	\$7.00

RADIAL MYLAR CAPACITORS

MFD	VOLT	CAT#	EACH	100
68pf	50	RMC-1	10¢	\$6.00
.002	100	RMC-339	15¢	\$8.00
.0022	800	RMC-324	20¢	\$15.00
.0033	100	RMC-45	10¢	\$6.00
.0068	50	RMC-1682	20¢	\$15.00
.0068	400	RMC-337	20¢	\$15.00
.0299	50	RMC-315	10¢	\$6.00
.033	100	RMC-333	15¢	\$8.00
.039	50	RMC-100	10¢	\$6.00
.056	50	RMC-340	12¢	\$9.00
.1	NA	RMC-341	20¢	\$15.00
.15	250	RMC-326	20¢	\$15.00
.22	50	RMC-336	17¢	\$14.00
.33	100	RMC-321	20¢	\$17.00
2.2	250	RMC-225	\$1.00	\$80.00



NEW

METALLIZED POLYESTER FILM CAP

		CAT#	each	100
0.01 uF	400V	RMF-103	.20	.12
0.1 uF	400V	RMF-104	.50	.35
0.22 uF	250V	RMF-224	.20	.12
0.47 uF	250V	RMF-474	.40	.29



Tape & Reel Special!

1uF	250V	RMF-105A	.65	.55
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600+ pieces for 45¢ each

MOTOR CAPACITORS

3.5uF, 250V

50/60Hz, CBB61. Max temp 85°C.

37.0 x 11.0 x 22.5mm.

0.187" qc/solder terminals. UL.

CAT# MPC-3.5 \$1.30 each



11UF 170 VAC

Tecate #M72533.

-25°C/+85°C.

25mm diameter x 60mm long. 4" pigtail leads. UL.

CAT# MPC-11 \$1.35 each



TRIM CAPACITOR

E.F. Johnson #189-503-5. PC mount air variable cap. 1.4 - 9.2 pF @ 650V. 8 plates.

0.010" air gap. 11.3mm square, 13mm high.

CAT# TCP-503 \$3.00 each

10 for \$2.75 each



DIP MICA CAPACITORS

PF	Volts	Dimensions	Lead Spacing	CAT#	Price	100
6.8	100	10 x 7 x 2	6mm	DMCP-6.8	5 for \$1.00	15¢ each
82 10%	100	11 x 8 x 4	6mm	DMCP-82	4 for \$1.00	20¢ each
150 5%	100	11 x 6 x 3	6mm	DMCP-150	4 for \$1.00	20¢ each
200 5%	500	15 x 12 x 3mm	10.6mm (cut leads)	DMCP-201	2 for \$1.00	35¢ each
470 5%	500	18 x 10 x 4mm	11mm (cut leads)	DMCP-471	40¢ each	30¢ each
1100 5%	100	11 x 8 x 8mm	6mm	DMCP-1121	30¢ each	25¢ each
2400 2%	100	18 x 11 x 5mm	11mm	DMCP-242	40¢ each	30¢ each

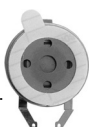


SPEAKERS

20 MM, 32 OHM SPEAKER

Hosiden # HDR0990. 20mm (0.80") dia. x 0.10" thick. 32 Ohms. Peel-off adhesive ring of tape on speaker face. Solder leads. Large quantity available.

CAT# SK-230 2 for \$1.00 • 100 for 40¢ ea. 700 for 30¢ each • 1400 for 20¢ each



20 MM, 150 OHM SPEAKER

Hosiden HDR960. 20mm, 150 ohm dynamic element. 0.79" diameter x 0.1" thick. Large quantity available.

CAT# SK-215 2 for \$1.00 100 for 40¢ each • 1000 for 25¢ each



MINIATURE FULL RANGE SPEAKER

VECO 40RE08-1. Amazing sound from a 40mm speaker. 8 Ohm 3W. 40mm diameter x 18.6mm in depth. Paper cone with soft surround. Metallized center cone. Solder terminals.

Specs: SPL 85 dB

Operating Temp. -20...+60°C

Lowest Resonant Frequency 190 Hz

Frequency Range 100 - 20000 Hz

CAT# SK-408 \$2.25 each



300 OHM, 40MM SPEAKER

40mm diameter x 8mm thick. Solder spot connections.

CAT# SK-300 \$1.50 each



50MM, 40 OHM SPEAKER

40 Ohm, 0.2W speaker. 50mm dia. x 10mm thick. Prepped with 5" leads and a 0.1uf capacitor bridging the speaker terminals.

CAT# SK-400 \$1.30 ea. • 100 for \$1.05 ea.



50MM 4 OHM SPEAKER

4 Ohm, 2 Watt speaker. 50mm overall diameter. 17mm thick.

CAT# SK-504 \$1.25 each 100 for \$1.00 each



8 OHM 40MM SPEAKER

40mm diameter x 6mm thick. 8 Ohm, general purpose speaker. 2" leads with 2-conductor female connector, 2mm centers. Large quantity available.

CAT# SK-840 75¢ each 10 for 70¢ each • 100 for 60¢ each



2" 8 OHM SHIELDED SPEAKER

GTECH 24-1626-02

2" dia. cone with rolled poly edge. Mounting holes on two 3/8" centers. Shielded magnet. Overall, behind-panel depth, 1.33". Two 3.5" leads with connector.

CAT# SK-201 \$2.10 each



2" 4 OHM SPEAKER

Boston Acoustics# 304-050001-00

2" cone with soft rolled edge. 4 Ohm impedance. Shielded magnet. Overall depth, 1.61".

CAT# SK-304 \$2.00 each 10 for \$1.75 each



2 1/4" SPEAKER,

8 OHM 0.2W

2.25" (57mm) speaker.

8 ohm @ 0.2 W. 19.40mm deep.

CAT# SK-288 \$1.10 each



2-1/4" 63 OHM SPEAKER

63 Ohm, 0.25W speaker.

Square frame,

2.27" x 2.27" x 0.72" thick.

CAT# SK-63 \$1.25 each

100 for 90¢ each



TWEETER

3.5" ROUND PIEZO

3.5" dia., wide dispersion piezo

tweeter. 60 Watts RMS @ 5 KHz.

Frequency response, 3.5 - 30 Khz.

96 db @ 1W/ 1m.

CAT# GT-1056 \$3.50 each



SATELLITE SPEAKERS W/ BRACKET

Compact, wall-mount satellite speakers. Good quality, mid to high-range shielded drivers with 2" diameter, soft-edge cones. 4 Ohm impedance. Matte-black, sealed cabinet with sound-damping material inside. Each speaker is 2.9" square x 4.4" long. Adjustable wall-mount swivel brackets.

CAT# SK-331 \$9.00 pair

20 for \$8.00 per pair



PAGING HORN

Universal# SP-20B.

Horn-type communication

speaker. 20 Watt 8 Ohms.

5.25" diameter x 6" long.

3-hole adjustable mounting

bracket. 12" leads.

CAT# PHS-20 \$9.95 each



COMMUNICATION SPEAKERS

Motorola # FTN6078A.

Compact external

speaker designed for

discontinued Motorola

M800 CDMA phone.

4 ohm speaker in a solid

plastic enclosure, 106mm x 62mm x

48mm with adjustable mounting bracket.

6.5' 2-conductor cable terminates to 2 pin socket connector.

CAT# SK-607 \$7.95 each



Extension speaker for Ham, CB,

marine or business

communications.

Improves clarity in

noisy environments.

4 ohms. Black case and

grill. Adjustable mounting bracket with

hardware. 6.5' cord with 3.5 mm mini

plug. 2.90" x 2.70" x 1.28" deep,

not including bracket.

CAT# SK-256 \$3.50 each



PROJECT ENCLOSURES



HAMMOND
MANUFACTURING...

MINI-ABS CASES



Black or gray ABS plastic with interlocking lid. Integral standoffs for pc board mounting. Lid held in place with self-tapping #4 screws (included).

1.97" x 1.38" x 0.8"

CAT # 1551-GGY	Gray	\$ 1.90 each
CAT # 1551-GBK	Black	\$ 1.90 each

2.36" x 1.38" x 0.8"

CAT # 1551-HGY	Gray	\$ 2.25 each
CAT # 1551-HBK	Black	\$ 2.25 each

3.15" x 1.57" x 0.8"

CAT # 1551-KGY	Gray	\$ 2.35 each
CAT # 1551-KBK	Black	\$ 2.35 each

GENERAL PURPOSE CASES

Black ABS cases with countersunk lid secured with self-tapping screws. Slots for mounting pc boards.



CAT #	Dimensions w/o lid	1-9	10+
1591-MSBK	3.3" x 2.2" x 0.8"	3.50	3.25
1591-ASBK	3.9" x 2.0" x 0.8"	3.75	3.50
1591-BSBK	4.4" x 2.4" x 1.1"	4.30	4.10
1591-CSBK	4.7" x 2.6" x 1.4"	4.65	4.35

INSTRUMENT CASES

Gray ABS plastic. Two piece tongue and groove construction. 0.064" brushed aluminum front and rear panels. Integral pc standoffs. Front and rear vertical pc board guides.



CAT #	Dimensions	1-9	10+
1598-ASGY	6.1" x 3.65" x 1.36"	9.10	8.50
1598-BSGY	5.26" x 5.3" x 2"	10.00	9.60

CASES w/ BATTERY COMPARTMENTS

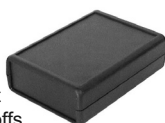
Black ABS plastic cases with removable front panels and panel for battery compartment. Integral pc board standoffs. Includes self-tapping screws. 9V batteries won't fit in CAT#s 1593-SBK & TBK.



CAT #	Dimensions	1-9	10+
1593-PBK	2.6" x 3.54" x 1.1"	4.15	3.95
1593-QBK	2.6" x 4.4" x 1.1"	4.75	4.55
1593-SBK	2.6" x 3.6" x 0.83"	4.10	3.85
1593-TBK	2.6" x 4.35" x 0.83"	4.50	4.30
1593-YBK	2.6" x 5.45" x 1.1"	5.10	4.85

ABS PROJECT BOX

Hammond # 1593LBK
2.6" x 1.06" x 3.59" black ABS plastic case with removable front panels. Integral pc board standoffs. Includes self-tapping screws.



CAT# 1593-LBK
\$4.25 each • 10 for \$3.90 each

DIECAST ALUMINUM ENCLOSURES

Aluminum enclosure with countersunk lid that machine screws into drilled and tapped holes. Lap joint construction provides protection from dust and water.



1.99" x 1.99" x 1.23"

CAT# 1590-LB \$7.25 each
10 for \$6.80 each

3.64" x 1.52" x 1.23"

CAT# 1590-A \$7.05 each
10 for \$6.65 each

4.39" X 2.34" X 1.23" **CAT# 1590-B**
\$8.40 each • 10 for \$7.90 each

4.67" x 3.68" x 1.33" **CAT# 1590-BB**
\$11.00 each • 10 for \$10.50 each

4.67" x 3.68" x 1.33". Black finish.
CAT# 1590-BBBK \$12.75 each
10 for \$12.25 each

ECONOMY PROJECT BOXES

Black ABS plastic project enclosure. Interlocking lid secured with self-tapping screws. Interior slots for pc boards. Includes hardware.



2.51" x 1.73" x 1.25"

CAT# MB-131 \$2.50 ea. • 10 for \$2.25 ea.

3.97" X 2.12" X 1.72"

CAT# MB-132 \$3.00 ea. • 10 for \$2.75 ea.

4" x 3" x 1.6"

CAT# MB-173 \$3.00 ea. • 10 for \$2.65 ea.

5.3" x 3" x 1.9"

CAT# MB-113 \$4.50 ea. • 10 for \$4.00 ea.

SNAP-TOGETHER PROJECT BOXES

Two or three piece black ABS enclosures.

1.46" X 1.06" X 0.67"

Black ABS plastic project box, 1.46" x 1.06" x 0.67" high. Bottom snap-fits tightly into place. 0.71" x 0.22" slot in one side of box.



CAT# MB-95 \$1.25 each • 10 for \$1.10 each

2.1" x 1.61" x 0.89"

3-pieces. Bottom and one (long) side snap-fit in place. Mounting ears with holes on 2.6" centers.



CAT# MB-96 \$1.55 each
10 for \$1.35 each

3.56" x 1.50" x 1.20"

Bottom snap-fits into place. Mounting ears with holes on 3.9" centers. 0.25" x 0.43" opening near the bottom of one long side.



CAT# MB-97 \$1.95 each
10 for \$1.70 each

UTILITY ENCLOSURE

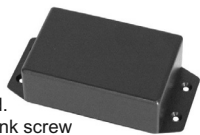
Flame retardant ABS UL94-VO. 2.74" x 1.99" x 0.83". Four screws.



CAT# MBU-906
\$3.00 each • 10 for \$2.85 each

BOXES WITH MOUNTING FLANGES

High-impact ABS plastic utility boxes. Black textured finish. Interlocking lid held in place with screws. Interior card guides for 1.6mm thick pc board. Mounting flange has counter-sunk screw holes and adds 1" to 1.25" to overall length of box. Three sizes available:



<u>Interior Dimensions</u>	<u>CAT#</u>	<u>Price</u>
3.1" x 2.0" x 1"	MBF-20	\$2.75 each
4.9" x 2.5" x 1.6"	MBF-22	\$3.50 each
6.0" x 3.5" x 1.9"	MBF-24	\$5.45 each

ALUMINUM CHASSIS BOXES

Diecast aluminum alloy chassis box with mounting flanges. Lap joint construction. Interior card slots. Self-adhesive gasket provides protection against dust and moisture.



<u>Outside Dimensions</u>	<u>CAT#</u>	<u>each</u>
114 x 64 x 30mm	MBX-13	\$13.00
114 x 89 x 55mm	MBX-25	\$19.00
171 x 121 x 106mm	MBX-39	\$35.00
222 x 146 x 55mm	MBX-11	\$39.00

ENCLOSURES W/ ALUMINUM COVERS

Heavy-duty 3/32" molded plastic boxes with brushed aluminum covers. Built in stand-offs for P.C. or perf boards. Includes screws. Solderable perf boards PC-1, 2, 3, 4 listed below fit these cases.



2.7" x 1.7" x 1.2" H		
CAT# TB-1	\$1.90 each	10 for \$1.75 each
3.3" x 2.1" x 1.4" H		
CAT# TB-2	\$2.25 each	10 for \$2.10 each
4.2" x 2.7" x 1.6" H		
CAT# TB-3	\$2.75 each	10 for \$2.50 each
5.3" x 3.3" x 1.6" H		
CAT# TB-4	\$3.50 each	10 for \$3.20 each

SOLDERABLE BREADBOARDS

Perf board with mounting holes designed to fit our project enclosures TB-1,2,3 and 4. Boards have holes on 0.1" matrix to fit most standard components and have copper solder rings on one side.

1 1/2" X 1 3/4". Fits TB-1 enclosure.

CAT# PC-1 75¢ each

1 7/8" X 2 1/4". Fits TB-2 enclosure.

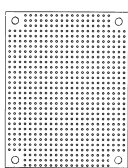
CAT# PC-2 \$1.00 each

2 1/2" X 3 1/8". Fits TB-3 enclosure.

CAT# PC-3 \$1.50 each

3" X 4 1/4". Fits TB-4 enclosure.

CAT# PC-4 \$2.00 each



SOLDERABLE PERF BOARDS WITH SOLDER PADS & BUSS STRIPS

160 X 100mm (except for CAT# ECS-6) multilayer epoxy boards with copper pattern on one side. Five useful patterns for SIP and DIP components. Holes on 0.1" centers.

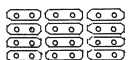
SINGLE HOLE PADS

CAT # ECS-1 \$5.00 each



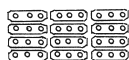
TWO HOLE PADS

CAT # ECS-2 \$5.00 each



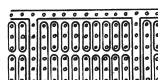
THREE HOLE PADS

CAT # ECS-3 \$5.00 each



IC PATTERN WITH PADS AND BUSS STRIPS

CAT # ECS-5 \$5.00 each



SOLID LINE PATTERN

CAT # ECS-4 \$5.00 each



SOLID LINE PATTERN

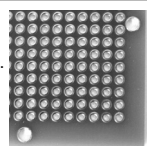
80 x 100mm

CAT # ECS-6 \$3.50 each



6" X 9" SOLDERABLE PERFBORD

Vector # 8016. 6" x 9" x 0.062" double sided solderable perf board. Isolated holes on 0.100" x 0.100" grid. 0.080" dia. solder pads around each hole on both sides of board. FR4 Epoxy Glass (MIL - P13949 type Gf).



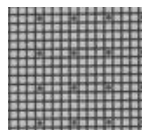
CAT# SB-8016 \$18.00 each

BREADBOARDS FOR SURFACE MOUNT PARTS

A solid ground plane on the back of the board provides an easy way to make ground connections and helps lower noise for RF and high-speed circuits. Unplated holes are provided at regular intervals for easy connection to the ground plane. Just insert wire and solder both sides. Standard Eurocard/VME size, 100 x 160mm. 0.8mm thick. High-quality, double-sided FR4 glass-epoxy pc board.

SMT PADS

Grid of 42 mil square pads on 50 mil centers allows SMT components of various sizes and pitches to be mounted. SOIC (50 mil pitch) and DIP (100 mil pitch) ICs can be soldered directly to the pads without adapters.



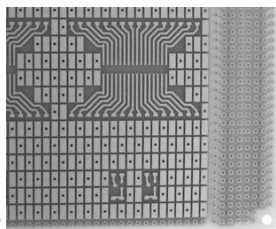
CAT# SB-3T \$12.50 each

SMT PATTERNS AND PADS

For 0805, 1206, SOIC, SOT and other SMT parts. It has three SOIC-32 footprints, each routed to 32 pads. The SMT rectangle pads are spaced for 0805 and 1206 components.

A through-hole area is provided for power connectors and DIP ICs.

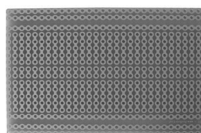
CAT# SB-SMT \$12.50 each



SOLDERABLE BREADBOARDS

Same pattern and spacing as our solderless breadboards, CATs# PB-400 and PB-840.

Transfer your parts and wires, keeping the same layout to get a long-lasting prototype with reliable solder connections. High-quality FR4 glass epoxy PC board. CAT# SB-300 has the same pattern as SB-400 without the bus strips on each side.



300 point	CAT# SB-300	\$4.00 each
400 point	CAT# SB-400	\$5.00 each
800 point	CAT# SB-800	\$6.50 each

SOLDERLESS BREADBOARDS

Design and change circuits quickly and cleanly. Breadboards accommodate all sizes of dips and discrete components with lead diameters up to 0.032". Interconnect with solid hook-up wire (#22 AWG recommended). Wires and components can be used and re-used many times without damage to board or components.

400 tie points. 300 contacts on main board and 50 contacts on each of two power distribution strips.

Distribution strips are removable.

CAT # PB-400 \$4.00 each

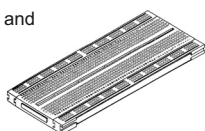


840 contacts. 1 terminal strip and two power buss strips.

2 5/8" X 6 7/8" X 3/8" high

CAT# PB-840

\$7.65 each



1680 contacts. 2 terminal strips,

4 buss strips, 3 binding posts

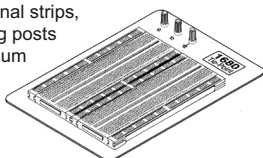
mounted on an aluminum

back plate 5 1/8" X

6 7/8" X 3/8" high.

CAT# PB-1680

\$15.95 each



3260 contacts. 4 terminal

strips, 7 buss strips,

4 binding posts

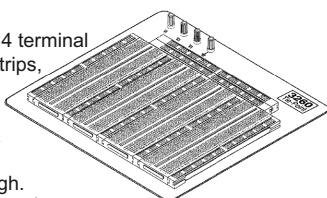
mounted on an

aluminum back

plate 7 7/8" X

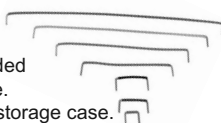
8 3/4" X 3/8" high.

CAT# PB-3260 \$32.00 each



JUMPER WIRE SETS

Pre-formed jumper wires for use with solderless breadboards. 14 color-coded lengths. AWG 22 solid wire. Unbreakable clear plastic storage case.



140 PIECE ASSORTMENT

10 of each size **CAT # JW-140 \$ 6.25 each**

350 PIECE ASSORTMENT

25 of each size **CAT # JW-350 \$ 12.95 each**

POWERED BREADBOARD

Simplify projecting and prototyping with this triple-output power supply and solderless 2420 tie point breadboard. One fixed and two adjustable supplies, five bus strips and three plug-in strips for DIP and other components.



Features:

DC power supplies:

5Vdc @ 1.5 Amp fixed

0-15Vdc @ 500mA adjustable

0-15Vdc @ 500mA adjustable

Input: 120/ 240Vac @50-60Hz

Overload and short-circuit protection.

Detachable AC power cord.

10.75" x 8.75" x 3.25". 6 lbs.

CAT# PB-4060 \$127.00 each

SOLDERING IRONS AND ACCESSORIES

SOLDERING IRONS AND STATIONS

VARIABLE TEMPERATURE 16-30 WATT SOLDERING IRON

Xytronic Model 258

Professional soldering iron with temperature control on handle. Temperature can be adjusted from 250-450 degrees C (500-800 deg.F), 16-30 Watts. LED hi/ low temperature indicator. Includes long-lasting, chrome plated, iron-clad, pretinned tip (PL-404). 3-conductor grounded power cord. UL.

CAT# IR-258 \$28.95 each



30 WATT SOLDERING IRON

Xytronic 200GX series. Thermally balanced, professional iron with hi-efficiency nichrome heating element. Fast heat-up and recovery time. Comfortable silicone rubber grip. Includes long-lasting chrome-plated, iron-clad, pretinned tip (PL-404). 3-conductor grounded power cord. 480 DEG. C (900 DEG. F). UL.

CAT # IR-230 \$26.95 each



20 WATT ECONOMY SOLDERING IRON

Xytronics 200GX 20W.

An inexpensive soldering iron for both professional and D.I.Y. applications. 720F/380C Degrees. 3-wire grounded power cord. Includes standard conical tip and iron rest.

CAT# IR-23 \$18.95 each



60W TEMPERATURE CONTROLLED SOLDER STATION

XYTRONIC

168-3CD.

Soldering iron

assembly with

nichrome heating

element and

44-415404 tip

and iron stand. 3-digit LED

readout indicates tip temperature in Centigrade

and Fahrenheit. Calibration control on face of unit

allows for quick and convenient fine tuning of the

temperature from 150C to 480C (300F-800F).

Precision-wound nichrome heating element. Rapid

heat-up time - approximately 45 seconds.

Heat-resistant, impact-resistant housing complies

with DOD, MIL Spec and CE regulations.

CAT# IR-361 \$105.00 each



SOLDERING TIPS

For Xytronic irons and station above.

1.6 MM PENCIL TIP **CAT# PL-404 \$7.00 each**

5 MM CHISEL TIP **CAT# PL-410 \$7.00 each**

0.8 MM PENCIL TIP **CAT# PL-401 \$7.00 each**

3.2 MM CHISEL **CAT# PL-405 \$7.00 each**

50W TEMPERATURE-CONTROLLED SOLDER STATION

Velleman # VTSS5U
Adjustable solder station,
175-480C degrees.

Protective iron holder
with sponge. LED
power indicator.

Grounded power cord.

195 x 100 x 90mm.

Includes CAT# PL-50 pointed tip.

Other tips available. CE, RoHS.

CAT# IR-50 \$24.75 each



Extra Tips for IR-50 solder station

CAT# PL-50

CONICAL TIP, 2MM (included w/ IR-50) \$2.75 ea.

CAT# PL-51 CHISEL TIP, 3MM \$3.00 each

CAT# PL-52 CHISEL TIP, 2MM \$3.00 each

CAT# PL-53 CONICAL TIP, 1.5MM \$3.00 each

TEMPERATURE CONTROLLED SOLDER STATION

Xytronics # LF-369D.

Desktop electronically-
controlled solder
station for lead or lead-free
soldering. Digital temperature display. 45W output.
150-480C / 302-896F temperature range.
105 x 90 x 90mm (W x H x D). Includes
replaceable tip, our CAT# PL-601.

Features:

Energy Saver Mode: When left idle for 20 minutes
- automatically resets temperature to 150C from
previous setting.

Temperature Lock with password.

Heater/Sensor Failure Detection - shuts-down
when failure is detected.

Iron Holder and Tip Cleaner

CAT# IR-369 \$69.95 each

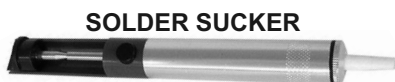


ACCESSORIES

SOLDER SUCKER

Extra-
powerful
desoldering pump with Teflon nozzle. Lightweight,
large capacity spring-loaded cleaning tool offers
excellent suction for solder removal.

CAT# SSR-1 \$4.50 each



SOLDER SUCKER

High performance cleaning tool which offers
excellent suction for solder removal.

CAT# 50B-410 \$5.00 each

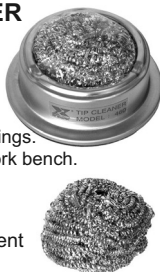
SOLDERING TIP CLEANER W/ METAL STAND

An effective method for cleaning
solder iron tips quickly, without
heat loss. Weighted stainless steel
holder with low-abrasive brass shavings.
Rubber foot pad stays put on the work bench.
Doesn't rust.

CAT# TC-460 \$9.00 each

Replacement brass shaving element

CAT# TC-459 \$3.00 each



HELPING HAND with MAGNIFIER

Allow both hands freedom
to work. Magnifying lens
makes work easy to see.

CAT# HELPH-M

\$5.75 each



SOLDER STAND

Spring steel soldering iron
holder. Includes replaceable
pad for cleaning iron tip.

CAT# 50B-205

\$4.00 each



SOLDERING PASTE / FLUX

Water soluble, no-clean flux paste.

ROHS compliant. 50G (1.75oz).

CAT# SP-44 \$6.50 each



DE-SOLDERING WICK

For easy removal of parts from
P.C. boards. Top quality solder wick.
5 feet per spool. 1/16" wide.

CAT# SWK \$1.15 per spool



60/40 ROSIN-CORE SOLDER

Sn60/Pb40. Water soluble, no-clean flux.

TUBE DISPENSER

7' 18 GA (1mm)

CAT# TS-110

\$2.35 each

10 for \$2.15 each



1 LB ROLL 1mm

CAT# SOL-064 \$30.00 per roll

1/2 LB ROLL 1mm

CAT# SOL-564 \$18.00 per roll

1 LB ROLL 0.6mm

CAT# SOL-644 \$31.00 per roll

1/2 LB ROLL 0.6mm

CAT# SOL-642 \$18.50 per roll



63/37 ROSIN-CORE SOLDER

Sn63/Pb37. Water soluble, no-clean flux.

1 LB ROLL 1 mm

CAT# SOL-0637 \$33.50 per roll

1/2 LB ROLL 1mm

CAT# SOL-5637 \$16.40 per roll

1 LB ROLL 0.6mm

CAT# SOL-1637 \$34.50 per roll

1/2 LB ROLL 0.6mm

CAT# SOL-2637 \$17.00 per roll



LEAD-FREE SOLDER, 0.5 LB

SN99.3/CU 0.7. 18 ga. (1mm).

Lead-free solder, 0.5 Lb. roll.

1mm diameter. Rosin-core,

no-clean flux, compatible with

leaded and lead-free solder.

Suitable for hand-soldering
electronic components and terminals.

CAT# LFS-532 \$24.50 per roll



TOOLS

HEMOSTATS

Hemostats are great for clamping onto small components while soldering or desoldering. Stainless steel.

5" STRAIGHT TIP

CAT# HM-1 \$1.65 each



5" CURVED TIP

CAT# HM-2

\$1.65 each



CUT-N-STRIP TOOL

Platinum Tools 10503. Great combination of a self-adjusting wire stripper and flush cutter. Patented stripper self-adjusts to wire sizes 26 AWG to 14 AWG. Catch, hold and strip wire in one quick motion. Stainless steel flush cutter with insulated handles.

CAT# WS-503 \$13.50 each



WIRE STRIPPER

Stripper and cutting tool. Stripper adjusts from 24 to 12 ga wire. Spring-loaded to open after each usage. Plastic grips

CAT# WS-150 \$4.00 each



5" FLUSH CUTTER

Trim leads on PC boards. Thin cutting edge for hard to reach areas. Insulated handle. Spring return.

CAT # FC-14 \$4.50 each



TELESCOPING MAGNET

Facilitates retrieval of small metal parts. Adjustable. Extends to 23" overall length.

CAT # MAG-31 \$2.50 each



0.017" CARBIDE DRILL BIT

Reconditioned carbide drill bit.

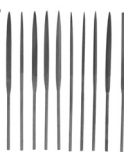
CAT# DB-4 \$1.00 each • 20 for \$18.00



10 PIECE NEEDLE FILE SET

Assortment of 10, 5 1/2" long needle files including round, flat, triangular and half-round files. Includes handy pocket-size storage pouch.

CAT# FSET-2 \$6.00 per set



6-PIECE MINI-PHILLIPS SCREWDRIVER SET

Kronus # 64-2969.

Miniature Phillips screwdriver set. Durable alloy steel. Rubberized rotating handles for one-handed operation and greater control.

Convenient storage case.

Includes Phillips™ 1.4, 1.6, 2, 2.4, 3 & 3.5mm.

CAT# PSS-63 \$3.50 each



6 1/2" DIAGONAL CUTTER PLIERS

Drop forged High Carbon Steel, Heat treated, Matte finished, cushion grips

CAT# PLR-651

\$3.00 each



4 1/2" MINI LINESMAN PLIERS

Drop forged, heat treated, fully polished pliers with matte finished cushion grips.

CAT# PLR-405 \$2.50 each



CORDLESS ROTARY TOOL

9.6Vdc rechargeable, cordless, variable-speed rotary tool. Originally marketed as a doggie pedicure tool, it has plenty of power for many sanding and grinding applications.

Includes sanding shaft, three sanding discs and a chuck wrench. Can be used with other attachments with 1/8" shafts, like those in our rotary tool kit, CAT# DK-91. Rotary dial controls speed from 8,000 to 20,000 RPM. Includes charger stand, and instructions.

CAT# RT-96 \$9.95 each



CORDLESS SCREWDRIVER

A good quality cordless screwdriver with plenty of torque. Reversible.

130 RPM, no-load. Operates on 4 AA cells, rechargeable or standard. Uses standard 1/4" hex bits. Hex bits and batteries not included.

CAT# SDR-3 \$6.00 each



6 IN 1 SCREWDRIVER

6 in 1 quick change screwdriver.

Set includes Phillips #1 and #2 screwdriver, 3/16" and 1/4" slotted screwdriver, 5/16" and 1/4" nutdriver. Ball and spring retention shaft with positive snap-fit locking, cushioned handle.

CAT# ND-6 \$4.75 each



UTILITY BRUSH

Double-headed utility brush. Brass metal bristles on one side and nylon bristles on the other. 5" handle, over-all size 7".

CAT# BSH-17 \$1.50 each



CLEANING BRUSHES, 3-PIECE SET

Set includes one each, steel, brass and nylon bristle brush. Plastic handles, 7" long.

CAT# BSH-15 \$2.25 per set



SMALL CLEANING BRUSH

3" brush with medium-stiff bristles. Cut on a diagonal to provide a pointy cleaning edge. Great for cleaning parts or equipment or detailing cars. Probably designed for a dental application, vinyl covered handle is engraved with "Plaque Checker."

CAT# BSH-14 5 for 75¢



MODULAR PLUG CRIMP TOOL

Strips flat phone wire and crimps modular plugs.

For 4 or 6 pin modular plug.
CAT# MPCPT-6 \$14.00 each

For 8 pin RJ-45 modular plug.
CAT# MPCPT-8 \$10.50 each



NYLON SPRING CLAMPS

Hold down your work-in-progress with these rugged nylon spring clamp. Swivel jaws stay parallel on materials of varying thickness.



3.75" long **CAT# SCL-20** 2 for \$1.00
 4.75" long **CAT# SCL-40** \$1.00 each
 6.50" long **CAT# SCL-60** \$1.50 each

HEAD-MOUNTED MAGNIFIER

Keeps your hands free while enhancing your vision. 3-level acrylic lens system provides a variety of magnification levels up to 4.8x. 2.2x fixed lens. 1.1x interior flip-down lens and 1.5x swivel loupe. Magnifier assembly can be flipped up out of your way when not in use. Wide body allows for glasses. Adjustable hook-and-loop headstrap. **CAT# HD-MAG** \$6.50 each



TEST CABLES & CLIPS

ECONOMY TEST LEADS

Red and black lead set with banana plug on one end and pin probe on other end. 3 ft. long.

CAT# TL-100 \$2.50 per set



TEST LEADS, BANANA PLUG TO MINI-GRABBERS

Red and black lead set with banana plug on one end and mini-grabbers on other end. 36" long. Mini-hooks provide a firm, insulated connection to small terminals and wires in high-density areas.

CAT# TL-5 \$3.75 each



TEST PROBES W/ DETACHABLE ALLIGATOR CLIPS

Red and black multimeter test leads. Shrouded right-angle banana plugs fit recessed jacks found on most meters. Test probes on other end are threaded to accommodate alligator clips. 33" long leads. **CAT# TL-4** \$5.75 each



ALLIGATOR CLIP TEST LEADS

Flexible, heat-resistant silicon rubber test leads with stacking banana plugs on one end, insulated alligator clips on the other end. 40" long. 1-red, 1-black.

CAT# TL-7 \$9.50 set



MINI-HOOK JUMPERS

Mini-hooks are great for connection to parts in high-density areas. They give a firm, insulated connection

SET OF TWO 1 1/2" MINI HOOK JUMPERS

Two 18" long mini-hook patch cords. One black, one red, with 1.5" long mini-hooks on each end.

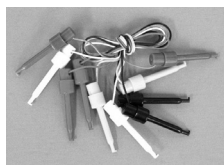
CAT# MTC-2 \$3.25 each



2" MINI-HOOK JUMPERS

Five 18" long mini-hook patch cords. Black, red, white, green and yellow.

CAT# MTC-5
 set of 5 for \$6.50



MINI-GRABBER TEST CLIPS, BLACK/RED

1.65" mini-clips. Mini-hooks provide a firm, insulated connection to small terminals and wires in high-density areas.

CAT# MTC-7 \$1.80 per pair



MICROGRABBER TEST CLIP W/ 0.025" (.64MM) PIN

Pomona Grabber® 4521-0 Black 1.73" glass-filled Nylon test clip. 0.025" (0.64mm) square pin. Mates with patch cords equipped with appropriate receptacle.

CAT# MTC-9B \$2.00 each
 10 for \$1.75 each



CLIP JUMPERS

MINI JUMPERS

10 TEST LEADS - 1" CLIPS
 2 each of 5 colors.

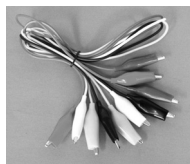
CAT# MTL-10
 \$2.95 per set



REGULAR JUMPERS

5 TEST LEADS -

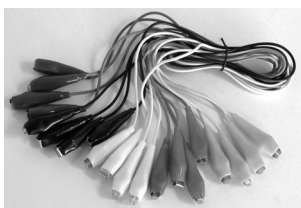
2" CLIPS
CAT# HDTL-5
 \$2.50 each



HEAVY-DUTY JUMPERS

10 jumpers,
 5 colors, 32" long.
 1.75" clips with
 stronger jaws.

CAT# HDTL-10
 \$5.40 each



ALLIGATOR CLIPS

1.20" INSULATED ALLIGATOR CLIPS

1.20" (31mm) alligator clip with red and black vinyl boots.

Sold in pairs. **CAT# ALG-36**
 85¢ per pair • 20 pairs for \$14.00



1.4" INSULATED ALLIGATOR CLIPS

1.4" (35mm) alligator clip with red and black vinyl boots.

Sold in pairs. **CAT# ALG-37** \$1.00 per pair
 20 pairs for \$16.00



2" CLIP W/ SCREW

2" (50mm) uninsulated alligator clip with screw.

CAT# ALG-M 4 for \$1.00
 20 for \$4.40 • 100 for \$17.00



BATTERY CLIPS

Electrical test/charge clips.
Screw terminal and crimp
tab connection.

40mm **CAT# ALG-41** 50¢ ea. • 10 for \$4.00
50mm **CAT# ALG-26** 65¢ ea. • 10 for \$5.00



25A TEST CLIPS, 2 PCS

3" spring-action clips for
automotive and other
heavy-duty applications.
Screw and crimp connection.

CAT# ALG-93

\$2.00 per pack



70MM BATTERY CLIPS

70mm spring clips with
insulated handles. Electrical
and charging applications.
Crimp tabs. Set consists of
one red and one black
insulated clip.

CAT# ALG-40 \$1.75 pair



TEST EQUIPMENT AND ACCESSORIES

1MHZ POCKET FUNCTION GENERATOR

Velleman HPG1.

A complete
function genera-
tor in pocket
format! 3 wave-
forms can be
selected. Set the
output voltage or frequency and select signal wave-
form using the on the screen menu. A powerful
sweep function is also included.



Features

- DDS type generator (Direct Digital Synthesis)
 - DAC resolution: 10 bits
 - frequency range: 1Hz to 1,000,000Hz ($\pm 0.01\%$)
 - freq. steps: 1Hz, 10Hz, 100Hz, 1kHz and 10kHz
 - waveforms: sine, square and triangle
 - sweep function with bi-direction option
 - output voltage: max. 8Vpp
 - real output level measurement: dBm / Vrms or Vpp readout ($\pm 3\%$)
 - typical sine wave distortion (THD): $< 0.1\%$ @ 0dB / 600 ohms
 - square wave rise/fall time: typ. 0.2µs
 - output impedance: 50 ohms
 - multi-language menu (Eng / Fre / Dut / Ge / Es)
 - white LED backlight
 - charging power supply: 9Vdc/200mA
 - NiMH rechargeable battery pack (included)
 - dimensions: 2.9" x 4.5" x 1.14"
 - includes: getting started manual, BNC adapter, BNC male to RCA female, BNC male to 2x 4mm banana jacks, USB power supply adaptor
- CAT# HPG-1** \$149.95 each

CAPACITANCE METER

GME #C350. Portable capacitance
meter with large LCD readout.
9 capacitance ranges for values
from 0.1pF to 20,000µF. Less than
5 second sampling time. Includes
alligator test leads, instructions and
9 Volt battery.

CAT # CP-350 \$45.00 each



LCD MULTIMETER WITH BACKLIGHT

For features, accuracy
and ruggedness, this
is a great, inexpensive
multimeter.

DC current (10 A),
DC and AC voltage
(600 V), resistance
(2 M ohm), diode,
transistor tester,
audible continuity
and hold button.

Protective rubber shell and test leads included.

CAT # DVM-850BL \$17.95 each



3 1/2 DIGIT LCD MULTI-METER

Velleman

DVM890

An incredible

array of
features at a
great price. 20A
DC current,
1000 DC Volts.
20A AC current,
700 AC volts.

Resistance to 20 M. Capacitance from 2000pF to
20µF. Frequency measurement to 20kHz.

Temperature measurement: -58° F to 1832° F with
K-type thermocouple. Low battery indication,
overload protection and auto power off function.
Protective rubber shell, test leads and
thermocouple included.

CAT# DVM-890 \$45.00 each



DIGITAL CLAMP METER W/ TYPE K THERMOCOUPLE

3 1/2 digit LCD clamp meter with Type K
thermocouple probe. Tests AC current to
1000 Amps, AC voltage to 750V,
DC voltage to 1000V and resistance to
20K Ohm. Data Hold button. Includes
padded carrying case, test probes,
thermocouple probe and instructions.
Powered by 9V battery (included).

CAT# CLM-266 \$19.00 each



INEXPENSIVE MULTIMETER

A great little digital meter for
school, home workshop or
toolbox, with most of the
ranges and features you need
for everyday use. DC, AC Volts,
DC Amps, Ohms, hFE, diode
test, square wave, transistor
checker, continuity buzzer.

Test leads and 9V battery
included. 4.95" x 2.75" x 0.90"

CAT# DVM-830 \$7.75 each



TACHOMETER

Non-contact tachometer. Micro
computer technology with laser
beam gives accurate and fast,
once per second, readings.

Stores and recalls the last,
maximum and minimum RPM
readings. Readings remain in memory until the
next measurement. 2.5 to 99,999 RPM range.
Large 5-digit LCD display. CE certified. Operates
on 4 AA cells, included. Storage case included.

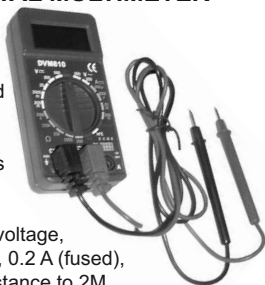
CAT# TCH-4 \$47.75 each



ECONOMY DIGITAL MULTIMETER

Economical and compact multimeter with a 3 1/2 digit LCD for measuring DC and AC voltages, DC currents, resistance, diodes and transistors (hFE). Features overload protection. Ranges: DC and AC voltage, 500 volts, DC current, 0.2 A (fused), 10 A (not fused), resistance to 2M. Ideal for hobbyists, for use in the field and workshops. Test leads, instruction book included. 3.70" x 1.81" x 1.03" high.

CAT# DVM-810 \$7.95 each



SCOPE PROBE SET

Probe with BNC connector. Comes with ground lead, retractable hook tip, pin tip with IC lead cover and standard cover.

60 MHz **CAT # PR-60** \$19.50 ea.



CONTINUITY TESTER

GB Instruments™ GCT-304A. Simple continuity tester for all kinds of circuits, switches and fuses. Pointy probe lights when continuity exists. Flexible 34" cable with alligator clip. Requires 2 AA batteries (not included).

CAT# CT-19 \$2.95 each



LOW VOLTAGE TESTER

NuTone # RCDT900. Convenient test light for 5-30 Volts AC or DC. Marketed as a Door Chime Diagnostic Tool, consists of an enclosed light bulb with two test leads. Light glows, brightness varying with voltage, when power is present. Leads snap into back of unit for compact storage.

CAT# LVT-2 \$2.50 each



AC OUTLET TESTER W/ GFCI TEST

GB Instruments "Sure Wire"™ #GRT-800. Plugs into grounded electrical receptacle and tests for unsafe ground and branch wiring. Red, yellow, green LEDs indicate wiring status. Push-button GFCI tester trips GFCI if functional.

CAT# GRT-800 \$6.95 each

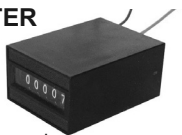


COUNTER

24 VDC 5-DIGIT COUNTER

Durant # 5-Y-41492-404-MEU 24Vdc 3W. Non-resettable impulse counter. 40 x 25 x 55mm long. Two tapped holes in rear plate. Two 14" leads prepped with crimp pins. CSA.

CAT# CTR-11 \$2.25 each



DIP IC EXTRACTOR TOOL

CAT# EX-1

\$2.50 each



THERMAL SWITCHES

THERMAL FUSES

Miniature, heat-sensitive devices designed for over temperature protection of electrical appliances and equipment. Rated to 15A. UL, CSA.

CAT#	Cutoff Temp
TCF-194	194°C
TCF-216	216°C
TCF-228	228°C

All thermal fuses 2 for \$1.00

THERMAL CIRCUIT PROTECTOR, 75C

Klixon - 7A M202. Bimetal disc calibrated to open at 75° C. 0.70" x 0.41" x 0.16." 1.75" leads. UL, CSA, KEMA.

CAT# THSW-75 \$1.00 each
10 for 85¢ each • 100 for 65¢ each



THERMAL CIRCUIT PROTECTOR, 100C

Klixon - 7A M027A5. Bimetal disc calibrated to open at 100° C. 0.70" x 0.41" x 0.16." Crimp terminals. UL, CSA, KEMA.

CAT# THSW-100 \$1.00 each
10 for 85¢ each • 100 for 65¢ each



RESETTABLE CIRCUIT PROTECTORS

GENERAL PURPOSE CIRCUIT PROTECTOR, 0.65 - 1.3 AMP

Raychem "Polyswitch" # RXE-065S-1 Automatically reset when fault condition is cleared. Can be paralleled for higher ratings. Current: 0.65 Amps. Trip Current: 1.3 Amps. Max Voltage: 60 Volts. 0.33" diameter. UL, CSA. **CAT# RXE-065** 3 for \$1.00 • 100 for \$20.00 500 for \$85.00 • 1000 for \$150.00



BATTERY PACK PROTECTOR

Raychem Polyswitch™ # LTP100S. 1 Amp, 24 Volt max. Hold: 1 Amp. Trip: 2.5 Amp. Resettable device provides overcurrent protection for rechargeable batteries. 0.9" long x 0.2" wide x 0.03" thick. UL, CSA, TUV. **CAT# CPX-100S** 4 for \$1.00 • 100 for 15¢ ea. 1000 for 10¢ each • 2000 for 8¢ each



THERMISTORS

10K OHM NTC THERMISTOR

5mm epoxy coated disc. 500mW max power rating. -20 to 125C operating temperature. **CAT# TNR-103** 65¢ each 10 for 55¢ each • 100 for 40¢ each



NTC THERMISTOR, 10 OHM 6A

Ametherm # SL15-10006. Negative Temperature Coefficient (NTC) thermistor. 10 Ohms, 20%. 6A Max. steady-state current. Inrush current limiting device. 14mm diameter x 4mm. Leads on 8mm centers. **CAT# THM-15** 2 for \$1.00 • 100 for 40¢ ea.



DUST BLOWER WITH NOZZLE

Save the canned air! This rubber dust blower has a metal nozzle that focuses the air for precision cleaning of parts and equipment. Also useful for desoldering.

CAT# DB-1 \$3.50 each



DC MOTORS

MINI-VIBRATING MOTORS

Tiny motor with offset weighted shaft. Designed to vibrate in mobile communications devices. Operate on 1.5-4.5Vdc.

15mm – length including shaft.
4mm dia. without rubber. Rubber casing is 5 x 6.5 x 11mm. Gold contacts.

CAT# DCM-371 \$1.25 each

10 for \$1.10 each 100 for 95¢ each

13mm – length including shaft.
4mm diameter without rubber. Rubber casing is 5 x 6 x 8mm. Gold contacts.

CAT# DCM-372 \$1.25 each

10 for \$1.10 each • 100 for 95¢ each

Mini pancake vibrator motor.

10mm diameter x 3mm thick.

Operates on 1.5 to 4.5Vdc.

21mm long flexi-ribbon cable has two easily accessible solder spots for voltage connection.

Motor has a thin rubber pad on one face and peel-off adhesive patch on other side.

CAT# DCM-373 \$1.00 ea. 100 for 75¢ ea.

1.5 - 6 VDC MOTOR

Mabuchi #RF-280RA 02142.

24.0mm diameter x 30.5mm body.

4200-7600 RPM. 2mm diameter x 8.5mm long shaft. 58mA @ 3Vdc, no-load. Prepped with 95mm (3.5") leads. **CAT# DCM-406** \$1.75 each

100 for \$1.60 each • 400 for \$1.45 each

6 VDC MOTOR

Nissei Denki. 29.4mm long x

20.0mm diameter. Shaft, 10mm long x

1.5mm diameter. No-load specs:

12,000 RPM @ 6 Vdc, 40mA. Operates on 1-8 Vdc range. Two threaded mounting holes on motor face on 12mm centers.

Solder-lug terminals. **CAT# DCM-410**

\$1.35 each • 100 for \$1.05 each

3-18 VDC MOTOR

Nichibo PC-280P (P-571).

No-load specs,

9,100 RPM @ 12Vdc, 100mA. Operates well on 3-18Vdc range. 30.5mm long x 24.2mm x 18.3mm (excluding shaft). Serrated shaft, 13.5mm long x 2.0mm diameter. Solder terminals.

CAT# DCM-411 \$1.25 ea. • 100 for \$1.05 ea.

3-20VDC MOTOR

Mabuchi #RS-555PH.

12Vdc (9-20V) motor.

Approximately 4500RPM @ 12Vdc, 0.15A (no load rating).

37mm diameter x 58mm long. 3.2mm diameter x 13mm long flattened shaft. Solder-lug terminals.

CAT# DCM-330 \$3.50 each

12VDC MOTOR

Source Engineering, Inc.

#360S-10420-LV. No-load spec:

4,000 RPM @ 12Vdc, 0.06A.

At maximum efficiency: 35 g-cm @

3000 RPM @ 0.16A, 1.1W. 27.7mm diameter x 33.0mm long. 2.3mm diameter x 21.5mm long shaft. Prepped with wire leads.

CAT# DCM-405 \$2.30 each

8-24 VDC MOTOR

Johnson Motor #64823 3C4921

36mm diameter x 50mm long.

3mm dia. shaft x 14mm long.

0.187" QC / solder terminals.

Operates smoothly over 8 -24 Vdc range.

5200 RPM @ 14Vdc, 200 ma, no-load rating.

CAT# DCM-398 \$3.25 each

8 - 16 VDC MOTOR

Mabuchi #FC-280PT-20150.

24.2 x 18.3 x 30.5mm long,

excluding shaft. 2mm diameter x 9mm long splined shaft. No-load rating: 11,800 RPM @ 12Vdc,

0.56A. Push-in-style terminals. Push wire into slots to make connection. **CAT# DCM-374**

\$1.25 ea. • 10 for \$1.15 ea. • 100 for 95¢ ea.

1.5-6VDC MOTOR

Mabuchi #RC-260RA.

24mm diameter x 27mm long.

2mm diameter x 7mm long shaft.

Solder-lug terminals.

CAT# DCM-409 \$1.40 each

10 for \$1.30 each • 100 for \$1.15 each

DC MOTOR ASSEMBLY, USED

A small, good-quality DC motor and a metal wheel in a plastic assembly with a spring-loaded arm that somehow connects the two. We're not sure of its motion or function but, worst-case scenario, when you remove the

Phillips screws and take it apart, you have a pretty decent little motor that operates on 3-13Vdc.

Motor is 10 x 12 x 15mm long. Shaft is 3 x 2mm, flattened on two sides x 4mm long. 24.5mm dia. wheel is metal with a rubber outer rim. Assembly was removed from equipment. **CAT# DCM-399** \$1.95 each

6 - 24 VDC HIGH-SPEED MOTOR

High speed permanent magnet

motor 6-24VDC with tach

output. 10,000 RPM @

20Vdc, 150mA (no-load).

34mm dia. x 55mm long.

3mm dia shaft with pulley. Four

90mm leads w/ 4-pin female connector (0.1").

CAT# DCM-408 \$6.25 ea. • 10 for \$5.85 ea.

12/24 VDC MOTOR

Buehler # 1.13.022.232.00.

No load ratings: 4500 RPM @

12Vdc/80mA. 10000 RPM @ 24Vdc/

100mA. 31.2mm dia. x 54.73mm long.

Shaft 2.47mm diameter x 25 mm long

with 11.8mm diameter plastic worm gear.

5 inch leads with 2-pin molex-type connector.

Four tapped mounting holes on face of motor.

CAT# DCM-445 \$6.00 each

12 VDC 3W PRECISION MOTOR, USED

Pittman #8224C106-R5.

No-load ratings: 1700 RPM @

6Vdc / 0.8Amp, 3700 RPM @

12Vdc / 1Amp. 30mm dia. x

61.7mm long. 2.5mm dia. x

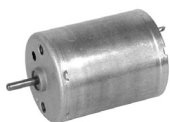
5.9mm flattened shaft. Motor face has 4 tapped

mounting holes. 90mm leads with Molex-type

connector. Used, removed from equipment in good condition. **CAT# DCM-704** \$5.50 each

12 - 30 VDC MOTOR

Mabuchi #RK 370CA.
24.4mm dia. x 30.8mm long.
2mm diameter x 8mm shaft.
Optimum performance around
18-24Vdc. Operates as low as 4Vdc. Two M3.0x0.5
tapped holes in motor face. Solder terminals.
CAT# DCM-375 \$1.75 each
10 for \$1.65 each • 100 for \$1.50 each



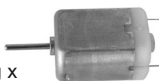
12-24 VDC MOTOR

Igarashi Motor
3657-070-GF-5.
8100RPM @ 24VDC, 0.2A
(no-load rating). 38mm diameter x 57mm long.
3.2mm diameter x 20.0mm long shaft. Two M3.0 x
0.5 tapped holes in motor face on 0.984" centers.
Solder lugs.
CAT# DCM-369 \$3.00 each



12-24 VDC MOTOR

Mabuchi motor. 30.5mm long x
18mm x 24mm. Shaft, 15mm long x
2mm diameter. Operates on 6-24Vdc range.
Flat-pin solder terminals.
CAT# DCM-413 \$1.85 each
100 for \$1.50 each



DC GEAR MOTORS

6 VDC GEAR MOTOR

Power Electric Distribution
21267-000 Rev.B. 6 Vdc gear
motor. No-load rating: 80 RPM @ 6 Vdc, 110mA.
Works well down to 1.5Vdc (12RPM). 61mm L x
20mm D. 4mm diameter x 11mm flattened shaft.
280mm leads with 2-pin female connector.
CAT# DCM-365 \$11.95 each
10 for \$11.50 each



24VDC 19RPM GEAR MOTOR

Source Engineering, Inc.
37JB270G (gear), 32ZYT30
(motor). No-load spec:
25 RPM @ 24Vdc, <60mA.
Torque: 0.94Nm @ < 300mA.
Gear ratio: 270:1. 37mm diameter gearbox.
32mm diameter motor. 57mm length overall length.
6mm diameter flattened shaft is 15.5mm long.
CAT# DCM-404 \$12.45 each



85 RPM 12 VDC GEAR MOTOR

33JPF-15380-50. Quality 12Vdc gear-
motor runs 85rpm @ 42mA (no-load),
but has input voltage range from
2 - 20Vdc. At 12vdc draws about
160ma typical under load. Overall
length excluding shaft - 50mm. Overall
diameter - 33mm. Flatted shaft length 6.5mm,
shaft diameter 4.0mm. Solder lugs. Ideal for
robotics, modelers, hobby projects.
CAT# DCM-416 \$15.00 each



62 / 124 RPM DC GEAR MOTOR

Buehler # 1.61.046.131.00.
No-load Ratings: 62 RPM @
12Vdc, 124 RPM @ 24Vdc.
Overall length, 65mm.
Gearbox dia., 35mm. 5mm dia. x 26mm long flattened
shaft. Three tapped mounting holes in gearbox face.
Recessed 2-pin female connector. Our connector,
CAT# CON-230P, though not ideal, will enable connec-
tion to the motor. **CAT# DCM-390** \$14.00 each



12VDC RIGHT-ANGLE GEAR HEAD MOTORS WITH WORM DRIVE

REDUCED
PRICE!

No-load rating: 180 RPM @ 12Vdc / 1.3A.
Overall length, 144mm (5.66"). Motor dia., 49mm
(1.91"). 12mm dia. worm shaft is 89mm (3.55") long.
The last 12mm of the shaft has a 6 x 1.0 reverse metric
thread. Heavy gauge U-bracket on back of gearhead,
1/4" holes with 7mm spacing. 3/16" quick-connect ter-
minals. Designed for power seat adjustment in autos.



CAT#
DCM-563
\$17.95 ea.

CAT#
DCM-697
\$17.95 ea.

3-24VDC GEAR MOTOR, USED

Timing-style gear motor, removed
from working equipment in good
condition. Operates over a 3-20Vdc
range, approximately 20ma @ 3Vdc,
80ma @ 20Vdc. 176RPM @ 12Vdc.
Pear-shaped gear box, 65 x 49mm,
two mounting holes on 47mm centers.
41.5mm long, excluding shaft. 20mm long
shaft with 4-prong, X-shaped gear on end. Two 170mm
leads with 2-conductor female connector (0.1" spacing).
CAT# DCM-395 \$4.75 each



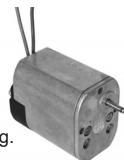
PRECISION DC GEAR MOTOR, USED

FAULHABER #1624 motor, 16/5 (22:1)
gearhead. Swiss-made precision
gear motor. Small, powerful-for-
its-size, very-low current.
No-load Ratings: 320 RPM @
12Vdc / 2.5mA. 545 RPM @ 20Vdc / 3.9mA.
17mm diameter x 40mm long overall.
2mm diameter x 10mm shaft with attached 11.7mm
diameter pulley for round, 2mm belt. Motor face has 4
tapped mounting holes. Two wire leads, 45mm. Used,
removed from equipment in good condition.
CAT# DCM-705 \$9.95 each



BUHLER DC GEAR MOTOR

Compact, relatively powerful DC gear
motor. 44 RPM @ 6Vdc / 70mA (no-load
rating). 40.0 x 28.5 x 48.5mm long
(1.57" x 1.12" x 1.90"), excluding shaft.
3mm (1/8") dia. flattened shaft x 10mm long.
8" pigtail leads.
CAT# DCM-401 \$12.50 each



3-12 VDC GEAR MOTOR

Compact DC gearhead motor.
Operates smoothly from
3-12Vdc. 60RPM @ 6Vdc,
110mA (no-load rating). Overall length, 53mm.
Diameter of gearhead, 33mm. 5mm diameter x
12mm long flattened shaft. Three tapped holes in
motor face. Two 50mm leads.
CAT# DCM-702 \$15.00 each



12/24 VDC GEAR MOTOR

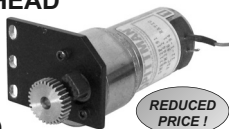
Buehler #1.61.046.503.06.
No load ratings: 110 RPM @
12Vdc/90mA. 250 RPM @
24Vdc/90 mA. Overall length,
excluding shaft, 75mm. Gear head dia.,
35mm. Flatted shaft, 5mm dia. x 19mm
long with 14.5mm diameter plastic gear.
Motor attached to metal bracket and has
12 inch leads with GMA inline fuse holder.
CAT# DCM-441 \$14.95 each



PRECISION GEARHEAD MOTOR, USED

Pittman # GM8712F191 / PM3662. 96:1 gear ratio. Rated 19.1Vdc. 80 RPM @ 19vdc, 100mA (no-load). 56 RPM @ 12Vdc (no-load). 35mm dia. gearhead. 30mm dia. motor. Overall length of motor and gearhead, 75mm. 4.5mm dia. x 20mm long shaft. Three mounting holes on face of motor. Prepped with 17mm dia. metal gear, collar and mounting plate. Removed from working equipment in very-clean condition.

CAT# DCM-518 ~~\$15.00~~ \$12.50 each



12 VDC 58 RPM MINI-MOTOR

Sayama #12SM-AT3. Compact, good-quality 12Vdc gearhead motor. 58RPM, @ 12Vdc, 20mA (no-load). 12mm dia. x 35mm long. Solder-lug terminals. 2mm dia. x 6mm long flattened shaft.

CAT# DCM-318 \$12.95 each



24 VDC GEAR MOTOR W/ TURNTABLE

Relatively powerful, low-current DC motor and gearbox with a 4.9" dia. plastic (nylon?) turntable with a rubber o-ring circumference that could be used to drive another wheel. Turntable can be removed from motor and rubber ring on turntable can be removed as well. Motor gearbox has a 3/8" dia. shaft that is flattened and splined.

Specifications:

45RPM @ 24 Vdc, 60mA - operates at 12Vdc at 1/2 speed.

Mabuchi motor RS-380SH. 1.1" dia. x 1.67".

Molon gearbox# CHM-2435-1. 2.75" x 3.00" x 0.57"

CAT# DCM-351 \$9.75 each



SERVO MOTORS

STANDARD RACING SERVO

Comparable to JR Z270 analog racing servo.

1.55" x 0.73" x 1.46"

(39.4 x 18.5 x 37.1mm).

49oz-in torque @ 6Vdc.

Speed: 0.23sec/ 60° @

4.8V, 0.19 sec/ 60° @ 6V.

6.5" leads with standard 3-conductor female connector. **CAT# DCS-110**

~~\$9.75~~ \$6.95 each • 5 for \$6.75 each



CONTINUOUS ROTATION

Parallax (Futaba) # 900-00008

0 to 50 RPM, with linear

response to PWM for easy

ramping. Power requirements:

4 to 6 VDC, 15 - 200 mA.

2.2 x 0.8 x 1.6" (55.8x 19 x

40.6 mm) excluding servo horn.

Torque: 38 oz-in @ 6 V.

CAT# PX-900 \$12.99 each



CONTINUOUS ROTATION

Fitec # FS5103R

Standard size, analog, continuous rotation servo.

Speed: 55 RPM @ 4.8V

(0.18 sec/60°) 62 RPM @

6V (0.16 sec/60°). Torque: 2.5kg-cm

(34.78 oz-in) @ 4.8V. 3.2kg.cm/44.52oz.in @

6V. Weight, 36g (1.27 oz). 30cm leads with JR connector. 40.8 x 20.1 x 38.0mm.

CAT# DCS-103R \$12.00 each



CONTINUOUS ROTATION

Fitec FS5106R

Higher torque, standard size,

analog, continuous rotation

servo. Speed: 55 RPM @

4.8V (0.18 sec/60 degrees)

62 RPM @ 6V (0.16 sec/60°).

Torque: 5.2kg-cm (72.34 oz-in) @ 4.8V.

6.3kg.cm/87.64oz.in @ 6V. Weight, 40g (1.41 oz).

30cm leads w/JR connector. 40.8 x 20.1 x 38.0mm.

CAT# DCS-106R \$15.75 each



STEPPER MOTORS

6-WIRE STEPPER

North American Phillips Controls #

504-0004. 12 Volts, 8 Watt

stepper motor. 2.25" dia. x 0.95".

0.25" dia. x 0.37" long shaft.

6" leads. Motors are unused,

but discolored from storage conditions.

CAT# SMT-358 \$2.00 each



8-WIRE STEPPER MOTOR, USED

Minebea Astrosyn Type 23LM-K255-03.

NEMA 23 bipolar stepper motor.

1.8° per step. 57 x 57mm mounting

plate. 57mm dia. x 40mm long,

excluding shaft. 6.5mm dia. x

23mm long shaft. Eight 6" leads

with 8-conductor female socket

connector (0.1" spacing).

Used, removed from equipment.

CAT# SMT-135 \$8.50 each



8-LEAD STEPPER MOTOR

Airpax® S57M048S02.

5V, 6.25 Ohms/coil, 7.5 Degrees per

step. 57mm diameter x 24mm long.

Mounting flange with tapped holes

on 67mm centers. 5mm diameter x 12mm long

shaft with nylon cogbelt pulley. Eight 270mm leads.

CAT# SMT-133 \$3.00 each



ROTARY STEPPER MOTOR

Nippon Pulse #PF55-48D1.

55mm dia. x 25mm 5V unipolar

stepper motor. 7.5 Deg. per step.

2-phase. 5 Ohms per phase.

Shaft is 3mm in dia. x 4mm long

with a small keyway on one side. Six 12" leads.

CAT# SMT-120 \$2.00 each



STEPPER MOTOR, 6-WIRE

Mabuchi # PF35T-48L4. Four phase,

unipolar stepper motor with 6 leads.

3.6 Degree step angle. 20 Ohms.

7V, 350mA. 1.38" dia. x 0.59" long.

Mounting flange has two holes on 1.68" centers.

Dual shaft, 0.078" dia. Brass gear on one side, 10

teeth, 0.25" dia. 2.75" leads with socket connector.

CAT# SMT-108 \$3.25 each



16 WIRE STEPPER MOTOR

Brand unknown - Made in

Belgium # PD 12. Code

number: 9904 112 12001.

3° 45' step angle. 175mA.

150 g/cm torque. 1.5" diameter x

2.48" long. 1.5" square mounting plate. 0.15" dia. x

0.40" long shaft. 16 leads, 11" long.

CAT# SMT-118 \$4.75 each

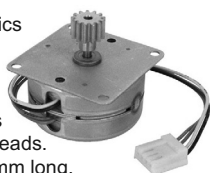


STEPPER MOTORS

Portescap #S42L048S02-M5
24V, 5 Ohm, 7.5 Degree per step.
42mm diameter x 22mm. Two
mounting holes on 51mm centers.
Four 3" leads. Shaft - 3mm diameter x
11mm long. 16 tooth, 9.75mm dia. brass gear.
CAT# SMT-356 \$2.50 each



Thomson Airpax Mechatronics
S42M048T52. 3.1Vdc,
3.6 Ohm, 7.5 Degree per
step. 42mm diameter x
22mm. Four mounting holes
on 36mm centers. Four 6" leads.
Shaft - 3mm diameter x 11mm long.
13 tooth, 12mm diameter brass gear.
CAT# SMT-355 \$2.50 each



4-LEAD, 1.8 DEG STEPPER MOTOR

Shinano Kenshi # STP 58D3004.
56 x 56 x 54mm stepper.
1.8 Degree per step. 0.48 Ohm.
Four mounting holes on 47mm
centers. Four 4" wire leads
prepped with 5-pin connector.
6.5mm (0.25") dia. shaft x 16mm
long. 25mm dia, gear with 23 teeth.
CAT# SMT-119 \$14.00 each



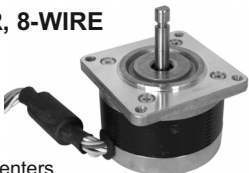
4-WIRE STEPPER MOTOR

Minebea # 23KM-K217-P2V.
56 x 56 x 42mm stepping motor.
Four mounting holes on 47.14mm
centers. 1.8 degrees per step.
8mm diameter x 25mm long
shaft with 20mm diameter cog gear.
4, 380mm wires with 4-pin connector. Motors are
new, prepped with a removable metal adapter.
CAT# SMT-363 \$12.00 each



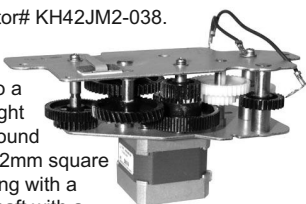
STEPPER MOTOR, 8-WIRE

Minebea-Matsushita
23LM-K255-08W
P/N 20-0253-01 REV.L.
57mm x 57mm square
mounting flange, tapped
mounting holes, 47.15 centers.
57mm diameter x 40.11mm body. 6.35mm diameter
flatted shaft 27.45mm long. 8-wire, two ferrites and
molex type connector on 6" leads. Unknown specs.
CAT# SMT-366 \$10.00 each



STEPPER MOTOR W/ GEAR TRAIN

Japan Servo Motor# KH42JM2-038.
6-pin connector,
1.8 Degree/ step
motor attached to a
gear train with eight
single and compound
gears. Motor is 42mm square
(1.63") x 1.57" long with a
5mm diameter shaft with a
brass gear attached. The gear train is 6" x 1.45"
overall and is removable. Requires an 11-pin socket
connector, 2mm pitch for connection.
CAT# SMT-107 \$10.00 each



115 VAC REVERSIBLE AC MOTORS

115VAC REVERSIBLE MOTOR W/ CAPACITOR

Oriental Motor# 4RJ20GB-AUL.
Capacitor-run, single-
phase motor with built-in
friction brake to improve
instantaneous reversing
characteristics. Suited for applications where the
motor must switch direction frequently. 115 Vac,
0.48A, 20W. Starting torque, 14.6 oz-in. Rated
Torque, 18.7 oz-in. 1500 RPM. 7mm diameter x
12.5mm long pinion shaft designed to mate with
gearbox. 80mm square mounting plate. Overall
length of motor, 77mm. Three 12" leads. UL, CSA,
CE. Includes 6 uF capacitor. We have some gear-
heads designed to fit this motor, Oriental
#4GB3.6KA - see CAT# GH-436. Motors and gear-
heads are new, in original boxes.
CAT# ACM-420 \$25.00 each



GEAR HEAD FOR REVERSIBLE MOTOR, ACM-420

Oriental # 4GB3.6KA.
Designed for use with
Oriental GB-series
motors, like our CAT#
ACM-420. Fits 80mm
square mounting plate on motor. 32.2mm thick.
5/16" (9mm) diameter flatted shaft is 30mm long.
When used with CAT# ACM-420, final no-load
speed is 500 RPM. New, in original box with hard-
ware and installation instructions.
CAT# GH-436 \$25.00 each



Elinco WH-1276. Low-noise,
capacitor-run reversible 115Vac,
0.2A, continuous-duty motor
with a 5mm dia. x 10mm toothed
shaft designed to mate with a
gear head. 1450 RPM.
61mm square mounting
plate with four holes. Motor
is 61mm dia. x 66mm long. Three 10" leads. In-
cludes 2.0 Uf 300V capacitor & hook-up instructions.
CAT# ACM-276 \$16.00 each



AC GEAR MOTORS

1.5 RPM GEAR MOTOR, 120 VAC

Hexin P/N 14011305.
1.5 RPM timing-type motor.
Clock-wise rotation. Operates on
120Vac, 60Hz, 3W. 0.25" (6.5mm)
flatted shaft is 0.75" long. Oval,
63 x 49 x 23mm deep. Two mounting
holes on 48mm (1.875") centers.
32" pigtail leads. cULus.
CAT# ACM-135 \$4.25 each



50 RPM AC MOTOR

Synchron# M945. 50RPM timing-
type motor. 120 Vac, 60Hz, 8W.
47mm dia. x 24mm. Gear box is
59mm x 47mm oval x 19mm.
3.5mm (1/8") diameter shaft with
brass gear attached. 7" pigtail leads.
CAT# ACM-93 \$5.00 each



24 VAC 4.1 RPM GEAR MOTOR

Airpax # S94-0200. 24VAC 60Hz, capacitor run, gear motor. 52.5mm diameter x 45mm. Shaft is 5.5mm diameter x 41mm long with a 9.5mm copper bushing on the lower 11mm of the shaft. Three tapped mounting holes in face of motor. Four 150mm pigtail leads.



Note: Motor specifies requirement of 10 uF capacitor. We don't currently have any in stock, but do have a 11uF, CAT# MPC-11. The capacitor is put in series with the windings, between one white lead and either the red or brown lead. Power is applied to the two unused leads.

CAT# ACM-200 \$6.50 each

LINEAR ACTUATOR FOR AUTO DOOR LOCK

12 Vdc motor-drive actuator for automotive door locks. Nylon plunger moves 0.75". Push or pull, depending on polarity. Includes mounting hardware and a 10" metal extension rod which fits through the hole in the end of the plunger. Overall dimensions of actuator assembly (retracted): 8.42" x 2.35" x 1.15". Rubber boot protects against moisture and dust. Pigtail leads.



CAT # DLA-1 \$5.50 each

GEARS & ROTATING PARTS

PLANETARY GEARHEAD, USED

Mates with Faulhaber 2342 and similar motors with four mounting holes on 26mm centers and an 11mm dia. mating gear with 18 teeth. Gearbox dimensions: 32mm x 32mm x 25mm. 6mm dia. shaft is 35mm long. Exact specs unknown. Final rotational speed was approximately 120RPM when used with Faulhaber 2342 motor at 12Vdc.



CAT# GH-2 \$3.75 each

GEAR ASSEMBLY

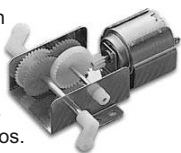
Made for a Kodak 35mm film scanner, this high-quality plastic gear train contains four gears. Three are identical dual gears with 36 and 10 teeth. The other has 18 and 22 teeth. The unit snaps together and apart. Overall dimensions: 63 x 34 x 26mm.



CAT# GR-131 \$2.25 each

GEARBOX 2 IN 1, MOTOR GEARS & ACCESSORIES

Velleman Kits # KNS7. Fun with gears and motors. Small 3 Vdc motor, metal bracket and axles, and an assortment of small plastic gears and collars to produce a gear train of various ratios.



CAT# GR-84 \$11.95 each

MINIATURE ROLLER CHAIN



Works with 1/4" pitch chain sprockets below.

CAT # CHN-25 \$ 2.50 per foot

MASTER LINK for # 25 roller chain

CAT # ML-25 \$1.00 each

MATING GEARS

All gears in this section mate with one another

5 GEAR

ASSORTMENT

Five matched break-resistant plastic gears ranging from 0.44" dia. (10 teeth) to 2.02" (50 teeth). Gears are molded with 0.15" (4mm) bores and come with inserts which reduce the bore to 0.065" (2mm) diameter.



CAT# GR-5 \$2.75 per set - includes 5 gears and 5 inserts • 10 sets for \$20.00

4 GEAR SET

Four matched unbreakable plastic gears. The three larger gears are beveled on one side and can mesh at 90° as well as the normal 180° angle. They have 5mm bores. Inserts are supplied to reduce the bore size to 3mm. The smallest gear has a 2mm bore. Gears are 41, 31, 21 and 13mm.



CAT# GR-86 \$2.25 each

2 GEAR SET

Two nylon gears:

26 cog.
1.08" diameter x 0.27" wide.
0.18" collar.
0.25" dia. bore.



34 cog.
1.41" diameter x 0.23" wide. 0.1" collar.
0.33" diameter flattened bore.

CAT# GR-109 \$1.75 per set

COMPOUND GEAR 21 & 14 COG

0.77" D x 0.46"
0.53" D x 0.28". 6mm bore.

CAT# GR-78 50¢ each



30 TOOTH

NYLON GEAR

32mm diameter x 11mm wide. 8mm bore.

CAT # GR-126 75¢ each



38 TOOTH METAL GEAR

40mm diameter x 8.0mm wide.
8mm flattened bore.

CAT # GR-127

\$1.50 each



SPROCKETS FOR #25 CHAIN

24 tooth, 2" diameter, metal sprocket.
13/32" (10mm) half-moon bore with 10mm collar.

CAT# GR-100 \$1.50 each



42 TOOTH ROLLER CHAIN SPROCKET

42 tooth sprocket for #25 roller chain. 3.5" diameter. Attaches to half-moon shaft.

CAT# GR-123 \$2.00 each



607Z BEARING

19mm O.D. x 7mm I.D. x 6mm
(0.75" O.D. x 0.29" I.D. x 0.24").
CAT# BR-21 \$2.50 each
10 for \$2.00 each



THRUST BEARINGS

39MM O.D.

Timken Torrington Needle
Bearing # NTA-1625.
39mm O.D., 25.5mm I.D., 2.0mm thick.
CAT# BR-19 \$1.75 each



31.5MM O.D.

31.5mm o.d. x 19.5mm i.d. x 2mm thick.
20 roller bearings in race with outer ring.
CAT# BR-18 \$1.00 each



3" O.D.

INA BEARING CO # FC66141.6
40 roller bearings in race with outer
ring. Dimensions including outer ring:
3.03" O.D. x 2.2" I.D. x 0.16" high.
CAT# BR-9 \$ 1.50 each



1.27" O.D.

Eleven 0.25" diameter ball
bearings. 1.27" O.D., 0.66" I.D.
CAT# BR-10 \$1.00 each



ALUMINUM ROLLER W/ BEARINGS



8" long x 1.05" diameter aluminum roller
on a 9.75" x 0.375" diameter metal axle. Ball
bearings at both ends, NMB # RI-1438D.
CAT# RW-7 \$4.95 each

MINI BEARING

11mm diameter x 15mm long roller assembly.
5.5mm diameter bore. Bearings at both
ends. One end has a slightly raised and
rolled 8mm diameter bushing.
CAT# BR-12 70¢ each

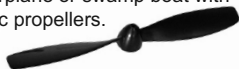


PLASTIC PROPELLERS

Make your own model airplane or swamp boat with
these unbreakable plastic propellers.

7.25" BLACK

black plastic propeller.
0.75" cone in center with 1/8" bore.
CAT# PRP-1 2 for \$1.00



7" RED

1/16" bore.
CAT# PRP-2
3 for \$1.00



500W DIMMER

Westek #FD-10
Foot or table-top
slider dimmer for
120Vac 500W
incandescent or halogen
lamps. 4" x 2.6" x 1.1" control box
with slider that can be foot
or hand actuated. 5'
2-conductor power cord
plugs into wall socket. 11' long, 2-conductor SPT-2
cord with pigtail ends attaches to lamp or device being
controlled. cULus. **CAT# DMR-12** \$8.95 each



MINI AUDIO

MP3 PLAYER W/ MICRO SD CARD AND READER

Sansa slotMusic Player.

An inexpensive, easy-to-use
MP3 player. Simply pop in a
MicroSD card, plug in head-
phones or external amplifier
into the standard 3.5mm stereo
jack, and hit play. You can play, pause,
skip through tracks and change volume using
buttons on the device. Pocket-sized device with a
durable feel. 36.3 x 72 x 15.3mm.



Includes 1GB MicroSD card and MicroSD card reader,
so you can load your own MP3 tracks via the USB port
to a computer. Operates on one AAA battery (not in-
cluded). Headphones not included.

CAT# MP3-1 \$8.95 each

MINI-STEREO AUDIO AMPLIFIER W/ SPEAKERS

Miniature 4V
(2 x 2W) stereo
amplifier with
speakers and
battery holder. 3.5mm stereo phone plug
input connects to many portable audio sources,
MP3s, iPods etc. The on-off switch and volume
control are in a 34mm square module attached to the
amplifier with a 29" flat cable. The speakers are 1.30" x
1.45" x 0.36" cone-less, flat-panel speakers with
narrow bandwidth. The amplifier sounds much better
with traditional 4 Ohm cone-type speakers. Operates
on four AA batteries, not included.



CAT# AMP-5 \$6.50 each

AMPLIFIED STEREO MINI-SPEAKERS

Crisp, clear amplified
sound for your iPod or
portable music player.
Requires a bit of minor
surgery. Cut off the pro-
prietary Sony-Ericsson plug, and attach a 3.5mm
stereo phone plug and a power source (batteries or
power supply). Color-coded wires in control cable are
easy to identify (see online spec sheet). Speaker
dimensions: 2.1" high x 1.8" wide x 1.2" deep.



CAT# AMP-8 \$7.50 per pair

REMOTE CONTROLS

KEYCHAIN RF REMOTE

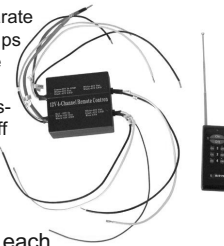
Ideal for automotive applications,
but can also be adapted to home
use with the addition of a
12 Volt relay. Black-box
receiver switches 12 Vdc loads when
prompted by two-button keychain
transmitter control. Receiver is 2.5" x
1.8" x 0.9" thick. Includes 2 keychain transmitters with
batteries (VR22/CN22/CN23A) and hook-up diagram.



6 Amp **CAT# RC-10** \$18.75 each
15 amp **CAT# RC-11** \$21.75 each

WIRELESS 4-CHANNEL RF REMOTE

Switch on and off four separate
12 Vdc devices, up to 6 Amps
each. Four receivers in one
package. 3.25" x 2.97" x
1.22" thick. Hand-held trans-
mitter has four sets of on-off
buttons and a telescoping
antenna. Transmitter
operates on 12V alkaline
battery (included).



CAT# RC-13 \$38.00 each

1/4 & 1/2 WATT RESISTORS 5% CARBON FILM

1.0	20	300	3.9 K	51 K	680 K
1.5	24	330	4.3 K	56 K	750 K
1.8	27	360	4.7 K	62 K	820 K
2.0	30	390	5.1 K	68 K	910 K
2.2	33	430	5.6 K	75 K	1.0M
2.4	36	470	6.2 K	82 K	1.1 M
2.7	39	510	6.8 K	91 K	1.2 M
3.0	43	560	7.5 K	100 K	1.3 M
3.3	47	620	8.2 K	110 K	1.5 M
3.6	51	680	9.1 K	120 K	1.6 M
3.9	56	750	10 K	130 K	1.8 M
4.3	62	820	11 K	150 K	2.0 M
4.7	68	910	12 K	160 K	2.2 M
5.1	75	1.0 K	13 K	180 K	2.4 M
5.6	82	1.1 K	15 K	200 K	2.7 M
6.2	91	1.2 K	16 K	220 K	3.0 M
6.8	100	1.3 K	18 K	240 K	3.3 M
7.5	110	1.5 K	20 K	270 K	4.7 M
8.2	120	1.6 K	22 K	300 K	5.1 M
9.1	130	1.8 K	24 K	330 K	5.6 M
10	150	2.0 K	27 K	360 K	6.2 M
11	160	2.2 K	30 K	390 K	6.8 M
12	180	2.4 K	33 K	430 K	7.5 M
13	200	2.7 K	36 K	470 K	8.2 M
15	220	3.0 K	39 K	510 K	9.1 M
16	240	3.3 K	43 K	560 K	10 M
18	270	3.6 K	47 K	620 K	

1/4 WATT RESISTORS

Minimum order is
10 PIECES OF
ONE VALUE.

10 PCS of 1 VALUE 65¢
100 PCS of 1 VALUE \$3.75
200 PCS of 1 VALUE \$6.00
1,000 PCS of 1 VALUE \$14.00

CAT# = 291-VALUE

for example... to create CAT# for resistors...

5.6K ohm 1/4 watt = CAT# 291-5.6K

10 ohm 1/2 watt = CAT# 293-10

1/2 WATT RESISTORS

Minimum order is
10 PIECES OF
ONE VALUE.

10 PCS of 1 VALUE 80¢
100 PCS of 1 VALUE \$4.50
200 PCS of 1 VALUE \$7.40
1,000 PCS of 1 VALUE \$18.00

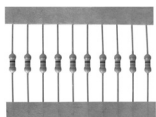
CAT# = 293-VALUE

610 PIECE 1/4 WATT RESISTOR ASSORTMENT

10 each of 61 resistance
values from 10 Ohms to 1 Meg.
5% tolerance.

CAT # RES-61

\$11.50 per package



ADJUSTABLE POWER RESISTORS

2250 OHM, 25 WATT

2.5" long x 0.65" diameter
ceramic power resistor
with slider for adjustment.

CAT# 2250-25A \$1.50 each



2500 OHM, 50 WATT

2500 Ohm ceramic resistor.
Resistance can be adjusted
down to approximately 1300 Ohms using the
adjustable slider. 4.0" long x 0.63" diameter.
Solder terminals.

CAT# 2500-50A \$2.50 each



POWER RESISTORS

ohms	watts	style	ohms	watts	style
.33	3	axial	200	5	sand
.5	3	axial	250	5	sand
.5	4	axial	300	5	sand
.5	5	axial	350	50	ceramic
.51	5	axial	390	7	sand
.75	5	axial	400	20	sand
.75	5	sand	1K	3	axial
1	5	sand	1K	5	sand
1.3	5	axial	1K	15	sand
1.5	2	axial	1.2K	5	sand
2	25	ceramic	1.4K	22	sand
10	25	ceramic	1.6K	3	sand
12	3	sand	2K	18	sand
25	50	ceramic	2.2K	3	axial
120	5	sand	4770	25	aluminum
120	40	ceramic			

POWER RESISTOR PRICING

1 - 5 watts **6 - 10 watts** **11 - 30 watts**
3 for \$1.00 2 for \$1.00 \$1.00 each

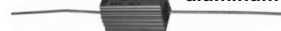
31-50 watts

\$2.00 each

sand



aluminum



axial



ceramic

ANTENNAS

2.4 GHZ DESKTOP ANTENNA

2.4GHZ desktop antenna for WLAN
terminal applications. 4" high.
3" diameter weighted rubber base.
SMA-R connector on 6' cable.

CAT# ANT-37

\$3.50 each



2.4 GHZ ANTENNA

Laird #WCR2400SMRP. 2.4-2.5 GHZ.
1/2 wave dipole antenna. 1 DBI gain.
50 ohm impedance. 95mm overall length.
Gold-plated, reverse polarity SMA connector.
-40 +80c temp. 90 Deg. knuckle.

CAT# ANT-36 \$3.00 each



916 MHZ 1/4 WAVE ANTENNA

Linx Technologies Inc. #ANT-916-JJB-RA
Embeddable 1/4-Wave Monopole Antenna,
916 MHz (901-931 MHz). 50 ohm impedance,
omnidirectional. 7mm diameter x 14.5mm high,
right-angle mount. Through-hole feedline can
attach directly to PC board. Okay for internal or
external mounting.

CAT# ANT-38 \$1.35 each



SIRIUS SV3/SV4 ANTENNA

3 foot cable with
3.5mm mono plug.

CAT# ANT-45

2 for \$1.00 • 100 for 35¢ each

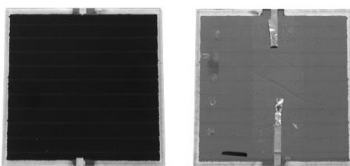


MANUFACTURERS
We Purchase Excess Inventories.
CALL, WRITE, E-MAIL
or FAX your list.

SOLAR CELLS

60MM SOLAR CELLS

Output:
approx-
imately
3 Volts @
40 mA.
60mm
square x

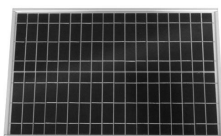


2.5mm thick epoxy-encapsulated silicon photo-voltaic cell. Solid, almost-unbreakable module with solderable foil strips on backside. Ideal for solar-powered battery chargers and other projects.

CAT# SPL-61 \$3.75 ea. • 100 for \$3.25 ea.

SOLAR PANELS

Rugged photovoltaic solar panels. Sealed to withstand rain, snow and wind. Multicrystalline silicon solar cells in a heavy-duty anodized aluminum frame. High-transparency, low-iron tempered glass. Junction box with screw or solder terminals. CE.



Watt	Volt	Dimensions	CAT#	each
3	12	188 x 195 x 17mm	SPL-003	\$17.95
5	12	265 x 220 x 18mm	SPL-005	\$28.95
10	12	302 x 357 x 30mm	SPL-010	\$52.00
15	12	428 x 357 x 30mm	SPL-015	\$75.00
20	12	567 x 357 x 30mm	SPL-020	\$94.35

SOLAR BATTERY CHARGERS

Water-proof, corrosion-proof solar cell arrays with adjustable mounting stands and alligator clip leads. UV-proof polycarbonate plastic case. Built-in blocking diode to prevent discharge at night.

6 VOLT

630 mW max power.
Maximum voltage,
9 Volts (no-load).
Current, 60-70 mA.
5.9" x 3.5" x 0.67"

CAT# SPL-606
\$19.95 each



12 VOLT

1260 Mw max power.
Max voltage,
18 Volts (no-load).
Current, 60-70 mA.
6.8" x 6.2" x 0.68"

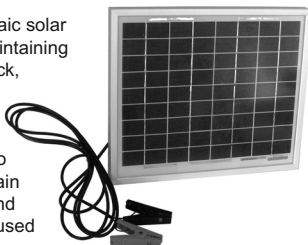
CAT# SPL-6012
\$27.95 each



10W 12VDC

Rugged photovoltaic solar panel ideal for maintaining charge on car, truck, motor-cycle and other vehicle or power machine batteries. Can also charge and maintain smaller devices and appliances when used with controller like our CAT# SCN-2 or SCN-3. Sealed to withstand rain, snow and wind. Multicrystalline silicon solar cells in a heavy-duty anodized aluminum frame. High-transparency, low-iron tempered glass. Built-in blocking diode. 3 Meter cable with red and black battery clamps. Panel dimensions: 302mm x 357mm x 30mm.

CAT# SPCK-10 \$65.85 each



DC VOLTAGE CONTROLLERS FOR SOLAR PANELS

Prevents battery from being overcharged and over-discharged. Coordinates the functioning of solar panel, battery and load.

3 AMP 12Vdc output. 2.53" x 11.78" x 1.05" **CAT# SCN-1** \$17.00 each

4 AMP 3, 6, and 12Vdc output.
On-off switch. 4.78" x 3.05" x 0.88"

CAT# SCN-2 \$37.95 each

10 AMP 12Vdc output. 4.04" x 3.75" x 1.50"

CAT# SCN-3 \$46.00 each



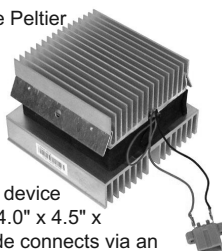
THERMOELECTRIC COOLERS

Using the Peltier effect these miniature solid-state heat pumps perform the same cooling or heating functions as freon based refrigerators, but they do it with no moving parts and are very reliable. Current applied to the device will produce heat on one side and cold on the other, up to 68C difference between the two sides. Modules can be mounted in parallel to increase the heat transfer or can be stacked to achieve high differential temperatures.

12 VDC HEATER/COOLER ASSEMBLY

Driven by a 40 mm square Peltier thermoelectric heat pump.

Operates on 13 Vdc @
5 Amps. Operating at
13 Vdc, we measured
the hot side at 190° F and
the cold side at 55° F.

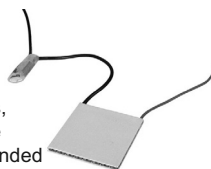


The hot side of the Peltier device is connected directly to a 4.0" x 4.5" x 1.5" heatsink. The cool side connects via an aluminum block to another heatsink that is 5.0" x 5.0" x 1.25". Overall thickness is 3.8". 8" wire leads. Weight: 2.6 lb. Spec sheet available in PDF format on our website.

CAT# PJT-10 \$35.00 each

40MM X 44MM THERMOELECTRIC COOLER

New thermoelectric devices, prepped with a temperature cutoff switch. Originally intended for 12Vdc use in picnic and automotive coolers/ heaters. 127 thermocouples per device. deltaTmax=79°C, Thot=50°C, Vmax=16.1V. 40MM x 44MM x 3.3MM. Qmax=80.6W, Imax=8.1A
CAT# PJT-7 \$14.75 each
10 for \$13.75 each



SOLAR POWERED CALCULATOR

Table-top, solar-powered calculator with tilt 8-digit display. Raised tactile keys. Comfortable to use and easy to read. 6.80" x 3.77" x 0.70" high. Individually boxed. Dual power; designed for battery or solar. Internal battery may be old, but the unit works fine on solar power alone. We include an extra, new battery if you wish to replace the old one. See spec sheets for battery replacement. **CAT# CALC-1** \$2.50 each
10 for \$2.25 each



AC POWER CORDS

18/3 IEC POWER CORDS

Standard IEC (SPH-386) power cords. IEC female connector one end, standard 3 prong grounded AC plug other end. SVT, UL, CSA.



3' **CAT# LCAC-303** \$2.50 each
10 for \$2.25 each • 100 for \$1.75 each

5' **CAT# LCAC-305** \$3.00 each
10 for \$2.75 each • 100 for \$2.00 each

6' **CAT# LCAC-60** \$3.50 each
10 for \$3.25 each • 100 for \$2.25 each

10' SVT **CAT# LCAC-310**
\$4.50 each • 10 for \$4.00 each

3 CONDUCTOR LAPTOP POWER CORD

Black, 6 ft., 3-conductor, grounded power cord. Frequently used with lap-top computers. SVT round cable. UL, CSA.



CAT# LCAC-187 \$3.00 ea.

2 CONDUCTOR DETACHABLE POWER CORD

Non-polarized. Sometimes referred to as "Panasonic-type" cord. 2 holes on 0.335" centers.



CAT# LCAC-390
\$2.70 each • 10 for \$2.50 each

2-CONDUCTOR POLARIZED CHEATER CORD

6' black 18/2, SPT-2 polarized cheater cord. Molded socket and plug. Rated 7A, 125V.



UL, CSA. **CAT# LCAC-400**
\$2.50 each • 10 for \$2.25 each



POWER CORD Y-CABLE

3-conductor 16AWG Y-cable. SJT 75C. Overall length, 14". UL.



CAT# LCAC-410
\$4.35 each • 10 for \$4.00 each

EURO POWER CORD

8' grey power IEC power cord. Molded 2-prong Euro right-angle plug one end, IEC 3-prong connector other end. Cords are new, but may have scuff marks from storage conditions.



CAT# LCAC-409
\$3.00 each • 100 for \$2.25 each

2-CONDUCTOR POWER CORDS WITH PIGTAIL LEADS

6' 18/2, SPT-1 black power cord. Polarized male plug. CSA.



CAT# LCAC-412
\$1.25 each

A.C. SOCKETS

3-PRONG GROUNDED SOCKET

Leviton # 114. Heavy-duty 3 prong socket for AC power cords. For 0.396" to 0.562" diameter cords. 18-14 AWG stranded conductors. Rubberized shell resists chemicals and remains flexible even in low temperatures. UL, CSA. **CAT # ACS-27** \$4.20 each
10 for \$3.85 each



15 AMP GROUNDED OUTLET

Leviton # 1374-001 or equiv. Black, three-conductor outlet. Snap-mounts in 1" square cutout. Rated 15 Amps @ 125Vac. Two 6" 14 AWG leads and one 6" 16 AWG ground lead. UL, CSA.



CAT# ACS-31 \$1.20 ea. • 100 for 95¢ ea.

GROUNDED AC PLUG

Leviton # 515PR.

Black 15 Amp grounding 3-wire AC plug. Rubber body is dirt and moisture resistant. Tough elastomeric husk. Built-in cord grip adjusts to 0.245" to 0.655" cords, 18-3 to 12-3. UL, CSA. **CAT# ACP-8**
\$2.75 each • 10 for \$2.50 each



AC ADAPTORS

3-WAY Hard rubber, 3-way grounded power tap. Rated 15 Amps @ 125 Vac. UL, CSA. **CAT# TPA-1** \$2.00 each
10 for \$1.85 each



2-TO-3 PRONG

Use a 3-prong plug in a 2-conductor outlet.

CAT# ACP-10 \$1.00 each



2-OUTLET PIGGYBACK

6" 16-gauge grounded power cord. Pass-thru outlet changes a standard outlet to two adapter ready outlets. Adds flexibility to a conventional power strip. cULus, RoHS.

CAT# LCAC-1020 \$2.75 each



SURGE PROTECTOR, 6-OUTLET

Protect computers, phone equipment, VCRs and other sensitive devices from electrical transients and glitches.

CAT# PW-101
\$5.95 each



INTERNATIONAL PLUG ADAPTERS

EURO TO USA Converts 2-pin round European plugs to 2-pin flat power plugs. **CAT# AP-USA**
\$1.50 each • 10 for \$1.25 each



USA TO EURO

Converts 2-pin flat USA plugs to 2-pin round Euro plugs. Can be used with 3-pin grounded USA plugs, but ground pin is voided. **CAT# AP-EU** \$2.00 each



RFI/EMI FILTERS

1 AMP RFI FILTER

Schurter #5110.0143.1.
Snap-in IEC power entry module with 1 Amp RFI filter.
Snap-mounts in 1.1" x 0.85" cutout.
New modules, prepped with wire leads. UL.
CAT# FTR-40 50¢ each



3 AMP POWER LINE FILTER

Corcom # 3EEA1. Compact single stage EMI filter with standard 3-prong IEC (60320-1 C-14) inlet.
Two element circuit provides basic attenuation. Mounting holes on 40mm centers. 0.25" qc/solder terminals. UL CSA.
CAT# FTR-33 \$2.50 each



IEC POWER INPUT

Mounting ears with holes on 1.575" (40mm) centers.
0.25" qc / solder connectors.
Rated 15A 250Vac. UL, CSA.
CAT# ACS-48 \$1.25 each
10 for \$1.10 each • 100 for 90¢ each



SNAP-IN IEC RECEPTACLE

Standard 3-conductor, grounded IEC input receptacle. Rated 10A 250V.
Snap-mounts in 20 x 28mm rectangular chassis cut-out, up to 2mm thick. 0.25" qc / solder terminals. UL, CSA.
CAT# ACS-50 85¢ each



SNAP-IN IEC RECEPTACLE, PC MOUNT

Schurter #6150-5515
15A 125/250V. PC terminals. UL, CSA.
CAT# ACS-52 85¢ each



RIGHT-ANGLE PC MOUNT

10 Amp / 250 Volt. Mounting holes on face and flange base on 40mm centers. Ground pin also has a solder-loop terminal. UL, CSA, VDE.
CAT# ACS-42 75¢ each
10 for 65¢ each • 100 for 50¢ each



MALE IEC RECEPTACLE

Arcolectric #0718-1-PW.
IEC power outlet. Rated 10A, 250V.
Snap-mounts in 1.29" x 1" chassis cutout. 1.25" behind-panel-depth.
0.25" qc / solder terminals. DVE.
CAT# ACS-46 75¢ each
10 for 65¢ each • 100 for 55¢ each



MALE IEC RECEPTACLE, PC MOUNT

Schurter # 6650-4515
15A 1125/250V. PC terminals. UL, CSA.
CAT# ACS-53 85¢ each
10 for 75¢ each



STRAIN RELIEFS



Prevent power cords from pulling, pushing, or twisting in chassis hole.

CAT#	WIRE TYPE	HEYCO# OF EQUIV.	HOLE SIZE	PRICE
SR-40	flat 18/2 SPT-1	4P-4	.45"	10/ \$1.00
SR-60	flat 18/2 SPT-2	4N-4	.50"	10/ \$1.00
SR-50	18/2, 18/3, SV, SVT round	5L-1	.50"	10/ \$1.00
SR-18	round, 0.2" dia.	5P3-4	0.5"	10/ \$1.00
SR-70	18/2, 18/3, 16/2, 6/3 SV, SVT, SJO round	6N-4	.65"	10/ \$1.50
SR-80	18/3, 16/3, SJ, SJT, SJO round	6N3-4	.625"	10/ \$1.50
SR-63	S, ST round. 14/2, 14/3, 12/2	8P-2	0.875"	10/ \$1.50
SR-34	flat up to 0.29" X 0.65"	SR34-2	0.875"	2/\$1.00
SR-54	Right-angle. For flat SPT-1.	SR 13-1	0.437"	10/\$1.00
SR-65	for round cables 0.30" - 0.36" (7.6 - 9.1mm).	HS2-2	9/16"	45¢ each

METAL OXIDE VARISTORS



TNR # 15G470KM. 15mm diameter. 47V.
CAT# 15G470KM 4 for \$1.00

7K180. 0.45" cut leads. **CAT# MOV-180C**
4 for \$1.00 • 100 for 17¢ each

1000 V RMS, 220 Joules, 4500 Watts Peak Current. 0.62" dia. x 0.30" thick radial package. UL.
CAT# MOV-80 2 for \$1.00 • 100 for 35¢ ea.

Littelfuse # V250LA10P. 10mm. 250V 40 Joules.
CAT# V250LA10P 5 for \$1.00

250V 65 joule 14mm.
Siemens/Matsushita #S14K250G5S5.
CAT# MOV-250 4 for \$1.00 • 100 for 20¢ ea.

General Electric # MOV 100Z15. Radial metal-oxide varistor. Low to medium voltage applications. 0.6" dia. x 0.23". **CAT# MOV-15** 4 for \$1.00

Littelfuse V420LA40B or equivalent. 20mm dia. 420Vac, 160 Joules. **CAT# MOV-420**
3 for \$1.00 • 100 for \$20.00

AXIAL STYLE

AVX# VA100014A300T.
Working voltage: 14Vdc. Clamping voltage: 32V.
CAT# VA-14 3 for \$1.00 • 100 for \$25.00

AVX# VA100005A150T
Working voltage: 5.6Vdc Clamping voltage: 18V
CAT# VA-5 3 for \$1.00 • 100 for \$25.00

P6KE8.2A. 600 Watt. 5.0 Watt steady state.
8.61V breakdown voltage. Maximum clamping voltage, 12.1V. **CAT# P6KE8.2A** 5 for \$1.00
100 for 15¢ each

PASSIVE DELAY LINE

ECC (Engineered Components Company)
EC2 WS-501. Miniature SIP passive delay line for use in analog applications. Also compatible with low level signal levels of TTL and ECL.
0.4" x 0.2" x 0.2" high. 3-pin SIP package. Delay Time, 1 ns +/- 0.2. Rise time, 1.2 ns. Impedance, 50 Ohms.
DCR, 0.2 Ohms. **CAT# DL-501** 50¢ each

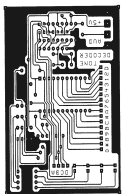


PC MATERIALS

MAKE PC BOARDS IN MINUTES
From PHOTOCOPIER or LASER PRINTER

PRESS-N-PEEL by Techniks.

The easiest and quickest way to transfer pc board patterns to copper-clad board. Works great with CAD and PCB layouts as well as artwork from magazines and books.



No need for photochemicals or darkroom; use a photocopier or laser printer to transfer your design to the special **PRESS-N-PEEL** film. Then, simply iron the design onto a clean copper-clad board with a household iron. Peel off the film, and the board is ready for etching (etchant solution not included).

Note: We are getting reports that PnP isn't working well with later model Brother brand copiers and laser printers.

PRESS-N-PEEL consist of five 8 1/2" X 11" sheets of transfer film and complete instructions.

CAT# TEK-5 \$11.95
2 packs (10 sheets) \$17.50
5 packs (25 sheets) \$37.50

DRY CONCENTRATED ETCHANT

1/4 lb. of anhydrous ferric chloride. Makes one pint of etch solution, enough to etch 200 square inches of copper-clad board.

CAT# ER-3 \$6.25 each

TINNIT BRIGHT TIN PLATE

Designed to plate bare copper circuit boards to enhance solderability. The material is supplied as a dry mixture with an indefinite shelf life. When mixed with water, it has a shelf life of approx. two months. No electricity required. Will plate up to 600 square inches. Makes 1 pint.

CAT# ER-18 \$9.50 each



COPPER CLAD BOARDS

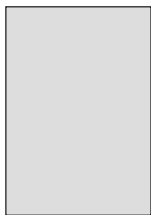
SINGLE-SIDED PC BOARDS

4" X 6" X 0.062" thick.

CAT# PCB-46
\$4.00 each

6" X 12" X 0.062" thick.

CAT# PCB-612
\$8.00 each



ETCH-RESIST PENS

Use to touch-up artwork or manually add a trace on copper pc boards. Lacquer ink resists etching. May also be used on clear films for positives. Black ink.

FINE POINT PEN

CAT# ER-15
\$2.50 each



EXTRA FINE POINT PEN

CAT# ER-25
\$2.50 each



PURETRONICS CLEANERS & SPECIALTY PRODUCTS

Aerosol chemicals, ground shipments only

CONTACT CLEANER

Quick penetrating, zero residue contact cleaner removes oils, greases, grime, dirt silicones, fluxes and other contaminants. Evaporates quickly. Safe on plastics and metal materials. Ozone friendly containing no CFCs or HCFCs.

5.5 oz **CAT# PTR-3000 \$6.10 each**

13.25 oz **CAT# PTR-3500 \$8.25 each**



CONTACT CLEANER AND LUBRICANT, 13 OZ

Removes oils, dirt and other contaminants and leaves a thin coating of silicone to lubricate and protect. Safe on plastics. Ozone friendly. 13 oz aerosol can.

CAT# PTR-5000 \$8.50 each



CIRCUIT FREEZE

Helps locate thermal intermittent defective resistors, capacitors and semiconductors. Helps locate cold solder joints and pc board cracks. 10 oz trigger-control spray can.

CAT # PTR-7400 \$ 13.75 each



FLUX REMOVER, 13 OZ CAN

Removes most types of flux including rosin and rosin based no-clean flux. Dissolves and flushes away fluxes, oils, grease, grime, dirt, silicones and other contaminants. Evaporates quickly. Safe on plastic and metal surfaces. 13 oz aerosol can.

CAT# PTR-6000 \$9.25 each



VALUE DUSTER, 10 OZ CAN

Moisture free, zero residue dusting gas. Removes dust, dirt, lint and other contaminants. Up to 70 psi. For general purpose applications. Excellent preventative maintenance tool for electronics, optical and mechanical components. Blend of 134A and DME. 10 oz trigger-control aerosol can.

CAT# PTR-7000 \$8.95 each



PLASTIC SYRINGE

60CC CAPACITY

Measurements markings for up to 2 oz and 60cc.

Includes removable/re-usable cap for storing liquids in syringe.

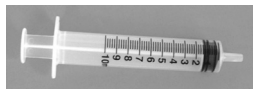
CAT# SYR-4 \$1.50 each



10CC CAPACITY SYRINGE

Allegiance® Luer Slip # SY35010LS. Plastic syringe with measurement markings for 1-10ml. Sterile. Disposable. Designed for single use.

CAT# SYR-5 75¢ each
10 for 60¢ each



CAIG CLEANERS, CHEMICALS and COATINGS

CONDUCTIVE SILVER/CARBON COATING CAIKOTE 44™

1 oz. Repair membrane buttons and keypads and other carbon and silver based surfaces. EMI/ESD shielding. Use on rubber, epoxy, glass and plastic surfaces. No mixing required.

CAT# CK-44 \$9.95 each



CIRCUIT WRITER™ CONDUCTIVE PEN

Draw traces on circuit boards, repair defective traces, make jumpers, shield electronics, design prototypes, repair rear window heater traces. Highly-conductive polymer for use on a variety of materials. EMI/ESD shielding.

CAT# CW-100P \$24.95 each



DEOXIDIZING SOLUTION

DeoxIT® D5 cleans, lubricates, protects and improves conductivity on metal connectors, contacts and surfaces. It is ideal for stationary and moving contact connectors. Stabilizes connections between similar and dissimilar metals. 5 oz.

CAT# D5S-6 \$16.95 each



DEOXIT (R) TIP TINNER

- For cleaning and protection of soldering iron tips.
- Prevents oxidation of tips.
- 14.2 grams

CAT# TPC-14 \$9.00 each



ADHESIVES

SUREHOLD® PYTHON GLUE

A high strength adhesive used to bond tough projects including wood, ceramics, stone, metal, brick, foam, fiberglass and more. Fully cures 72 hours. 2 fl. oz.

CAT# SH-352

\$4.25 each



SUPER GLUE DOUBLE PACK

Bonds non-porous surfaces in seconds. Easy to use. Works on artificial nails, ceramics, crafts, china, jewelry, rubber, leather, wood, metal, many plastics and more. Two tube net weight 0.14 oz (4g) total.

CAT# SH-375

\$1.99 pack



SUREHOLD® PERMANENT STRENGTH THREADLOCKER

For locking studs and press fits. Resealable, 15-25 applications per tube. Net weight 0.076 oz (2ml). Comparable to Loctite® 271.

CAT# SH-481 \$1.99 each



THREAD LOCKER

SAF-T-LOK T42 #24221 (10ml bottle). Blue, medium-strength, removable threadlocker. Prevents loosening of nuts and bolts due to vibration. Locks, seals, retains metal assemblies. Removable with normal tools. Chemical/oil resistant.

Note: 2012 exp. date.

CAT# SL-421 \$1.50 each

10 for \$1.30 each



CONDUCTIVE GLUE

An all-purpose, electrically conductive glue ideal for bonding all kinds of low-voltage connections. Makes a permanent bond without heat.

Lead-free. 0.3 fl.oz. jar.

CAT# WG-1 \$3.98 each



3/4" x 60' ELECTRICAL TAPE

Vinyl electrical tape. 3/4 inch x 60 feet.

Suitable for use at not more than

600V and not more than

80°C (176°F). UL listed.



BLACK CAT# PET-1 95¢ each • 10 for \$8.00

COLORS CAT# PET-XX (XX=color) \$1.25 each i.e. orange (OR), green (GN), brown (BR), blue (BL), grey (GY), red (RD), white (WT), yellow (YL)

TAPE AND SEALERS

COAX SEAL

A space-age plastic material which quickly and effectively seals all types of coax fittings from moisture and corrosion. Stays flexible for years. Allows you to disconnect fittings and reseal them with the same material. Adheres to vinyl and poly vinyl insulation. 60" x 1/2" wide roll suitable for 9 fittings.

CAT# COS-1 \$3.65 each



SELF-FUSING RUBBER TAPE

Stretch and wrap self-fusing rubber tape for a moisture-tight, insulating seal on electrical connections.

High resistance to salt water,

steam and oil. Stretch a 2-3" piece of

tape and wrap it spirally around the object

with a 50% overlap. In minutes the tape will react

with itself to provide protection from moisture, most

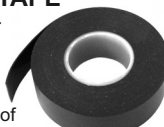
chemicals, and provide insulation to 490V per mil.

Since the tape does not use mastic or adhesive it can

be removed easily without leaving any residue.

1" x 16.4' roll. (0.8mm x 25mm x 5m).

CAT# SFT-5 \$4.50 each



THERMAL COMPOUNDS

1 gram white silicone thermal compound. Disposable cellophane package.

CAT# TG-200 3 packs \$1.00

100 packs 25¢ each



HEATSINK COMPOUND, 2.5 GRAM SYRINGE

Designed for a wide range of applications between modern high-power CPUs and GPUs and high-performance heatsinks or water-cooling solutions.

CAT# TG-25 \$6.20 each



MISCELLANEOUS

BLACK METAL CORNER

Heavy-duty black steel corner. Protects and supports cabinets and equipment. Three hole mounting.

CAT# COR-303 \$1.00 each



ADJUSTABLE TORQUE HINGE

Southco #E6-10-501-20.

Surface mount, adjustable torque hinge. Heavy-duty black plastic. 0.31" dia. mounting holes on 1.875" centers. Overall size of hinge: 2.5" x 2.23" x 0.75". Forward and reverse torque: 35 in lbs. Turn screw to adjust torque.

CAT# HNG-1 \$2.00 each



RETRACTABLE SNAP-SWIVEL DEVICE

"The Duck Strap"

Original application: Attach to the bottom of duck decoys. Attach a weight to the snap-swivel. The weight sinks to bottom of pond, keeping decoy in place. 8.5" long x 1.75" diameter, black (nylon?) construction with rubber band device providing retraction. 10' line length.

CAT# STR-7 Package of 6 for \$4.00



SPINAL COLUMN KEYRING

Miniature hard plastic replica of an anatomically correct spinal column with a key ring. 4" long. The perfect gift for aspiring or practicing chiropractors, physical therapists or massage therapists.

CAT# KR-5 \$1.50 each



180CC / 6.5 OZ. GRADUATED CUP

Graduated plastic cup for medical use. cc/ml and fl oz. Ideal for measuring and mixing. Pour spout.

CAT# CP-10 4 for \$1.00

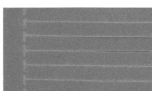
100 for 20¢ each



ABRASIVE STRIPS

Great for smoothing and cleaning, these double-sided emery boards have a fine abrasive on one side and a coarser one on the other side. Six 2.5" strips per card.

CAT# EB-2 5 for \$1.00 • 100 for 15¢ each



100 x 54MM RUBBER PAD W/ ADHESIVE BACKING

1.5mm thick black soft rubber pad with peel-off adhesive backing.

CAT# FP-3 5 for \$1.00 • 100 for 15¢ each



FLEXIBLE ACTUATOR CABLE

Like the brake cable on a bicycle, movement at one end of the cable produces movement over the same distance at the other end. Could be used for robotics or other mechanical control applications. 33.5" x 0.2" dia. sheath - 2.8" travel.

CAT# FAC-1 \$1.50 each

10 for \$1.25 each



4" ALUMINUM RACK HANDLE

4" x 2.25" high aluminum rack handle. Brushed satin finish. Tapped holes on 4" centers.

CAT# HDL-39 \$2.00 each



WALL-MOUNTABLE TUBE CLAMP, USED

Wall mount pipe support clamp. Heavy-duty aluminum saddle for up to 1" dia. pipes. 63 x 75mm aluminum wall plate with four recessed mounting holes. Clamp can be positioned horizontally or vertically on plate or used separately from plate. Note: clamps removed from used equipment.

CAT# CLMP-3 \$3.00 each



HOSE CLAMP, 2"

1/2" stainless steel hose clamp for marine and underground use.

1 9/16" minimum diameter, 2 1/2" max diameter. Made in USA.

CAT# CL-13 60¢ each

100 for 45¢ each



TIE POINT STRIPS

Single solder terminal with a single grounding/mounting strip.

0.75" long strip. Mounting/ground strip extends 0.67" beyond strip.

CAT# TP-110 5 for 75¢

Phenolic strip with 2 solder lugs, one mounting foot/ground. 1.14" long.

CAT# TP-25 4 for \$1.00

Phenolic strip with 4 solder lugs. One is a grounding lug/ mounting foot. 1.07" long.

CAT# TP-4 3 for \$1.00

Phenolic strip with 5 solder lugs, 1 mounting foot/ground lug. 1.55" long.

CAT# TP-5 45¢ each

Phenolic strip with 8 solder lugs, one mounting foot/ground. 2.79" long.

CAT# TP-8 55¢ each

80.5mm strip with three sets of tie points.

Two groups of four tie points and one dual tie point. Can be soldered or connected with 0.187" QC connectors. Mounting holes on 2.625" centers.

CAT# TPS-5 3 for \$1.00



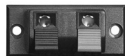
SPEAKER TERMINALS

DUAL SPRING-LEVER TERMINALS

Springloaded, surface mount terminals. Mounting tabs on 44mm centers. 20.33mm x 55mm x 14.5mm.

Solder terminals. **CAT# SLT-25** 2 for \$1.00

100 for 35¢ each



4-CONDUCTOR SPRING TERMINAL STRIP

Quick-release spring-loaded terminals. Accept to 12AWG wire. Red/black color-coded levers. 2.75" x 0.97" footprint. Mounting holes on 2.38" centers. Solder-loop terminals.

CAT# SLT-45 95¢ each

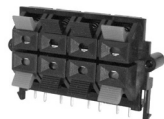
10 for 80¢ each • 100 for 70¢ each



SPRING LEVER TERMINALS

4-pair spring-lever terminals. Accepts wire up to 12 AWG. PC pin terminals (could be wrapped and soldered).

CAT# SLT-8 \$1.50 each



TERMINAL STRIPS

DUAL ROW TERMINAL STRIPS

UL94V-0 black thermoplastic.
Brass, tin-plated terminals.
Steel, Ni-plated screws.



DUAL ROW 20 AMP

Rated 20 Amps @ 300 Volts. Accepts wire from 22 to 14 AWG. 0.375" (9.5mm) centers. 0.85" wide x 0.52" high. Mounting holes on 8mm centers.

CAT#	Circuits	Length	Ea	25	100
TS-202	2	1.42"	.85	.74	.62
TS-203	3	1.79"	1.00	.87	.73
TS-204	4	2.16"	1.35	1.17	.97
TS-205	5	2.53"	1.66	1.44	1.22
TS-206	6	2.91"	2.00	1.74	1.45
TS-207	7	3.29"	2.14	1.86	1.70
TS-208	8	3.66"	2.66	2.31	1.95
TS-209	9	4.03"	3.00	2.61	2.20
TS-210	10	4.40"	3.31	2.88	2.45

JUMPER FOR TS-200 SERIES

Each jumper ties two consecutive terminals together. May be overlapped to tie more than two.



CAT# JMP-24 5 for 50¢ • 100 for \$8.00

3-POSITION, 10 AMP

Screw terminals on 9.5mm centers.
Rated 10A @ 300V. 45 x 22 x 12mm.

CAT# TS-323 65¢ each • 100 for 50¢ each

2-CIRCUIT, USED SPECIAL

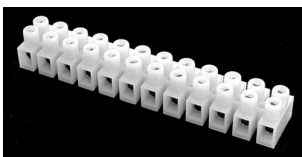
Removed from new equipment, each strip is missing two screws. Buy two to get one complete strip. 35 x 22 x 11mm high (1.38" x 0.86" x 0.43" high). These are similar to our CAT# TS-202 which sell for 85¢ each.



CAT# TS-22 2 for 60¢ • 100 for 25¢ each

EUROSTYLE TERMINAL STRIPS

For connecting stripped wires from 8-22 AWG depending on the block size. Flexible white (natural) Nylon



66 body, 94V2 rated for 105° C. 400 Volts. All metal parts are completely recessed in the housing to prevent shorts. Each strip has 12 circuits, with a mounting hole between each circuit. Can be easily shortened with a knife or saw.

7 AMP For 22-18 wire. 3.78" x 0.67" x 0.57" high. 0.32"(8mm) terminal centers. UL, CSA, VDE.

CAT # TB-7 \$2.00 each

10 for \$1.80 each • 100 for \$1.60 each

20 AMP For 18-14 wire. 4.6" x 0.80" x 0.67" high. 0.39"(10mm) terminal centers. UL, CSA, VDE.

CAT # TB-20 \$2.25 each

10 for \$2.10 each • 100 for \$1.80 each

35 AMP For 14-10 wire. 5.51" x 0.93" x 0.74" high. 0.47"(12.2mm) terminal centers. UL.

CAT # TB-35 \$2.70 each

10 for \$2.45 each • 100 for \$2.15 each

50 AMP For 20-8 wire. 6.25" x 1.00" x 0.99" high. 0.53"(13.5mm) terminal centers. UL.

CAT # TB-50 \$4.00 each

10 for \$3.85 each • 100 for \$3.60 each

SINGLE ROW TERMINAL STRIPS

5-POS. TERM. STRIP, PC MOUNT

0.4375" center-to-center spacing. 3.185" long x 0.625" wide x 0.825" high. Mounting holes on 2.65" centers.



CAT# TER-705 50¢ each

1-SCREW TERMINAL STRIP

Single screw on a 1.25" x 0.63" phenolic strip. Mounting holes on 0.75" centers.



CAT# TST-1 4 for \$1.00

3-SCREW TERMINAL STRIP

2.10" x 0.63" phenolic strip with three screws. Solder lugs. Mounting holes on 1.75" centers.



CAT# TST-3 2 for 90¢ • 100 for 35¢ each

INTERLOCKING PC MOUNT TERMINAL STRIPS

PC mount screw-clamp blocks with terminals on 5mm (0.197") centers. Interlock two or three position blocks to provide strips of any required length. Accepts up to 14 AWG wire. Rated 10A, 300 Volts.

Side wire entry.
0.55" high x 0.41" wide.
Green.



COND.	CAT#	EACH	100
2	TER-202	45¢	30¢ each
3	TER-203	60¢	45¢ each

Side wire entry.
0.40" high x 0.31" wide.
Blue.



2	TER-502	40¢	25¢
3	TER-503	55¢	40¢

2 & 3 POSITION TERMINAL STRIP

One 2-position and one 3-position interlocking, pc mount terminal strip. Accept up to AWG 14 wire.



Terminals on 7.5mm centers.
0.36" wide x 0.48" high. 2-position is 0.62" long. 3-position is 0.90" long.

CAT# TER-605 80¢ each • 100 for 60¢ each

2-TERMINAL "HIGH-BOY" INTERLOCKING STRIP

Weco Series 150. 2-screw, side entry terminal strips. "High-boy," 1.34" high x 0.40" x 0.42". Each 2-screw module interlocks with others to make strips of desired length. Screws clamp down on wire up to AWG 14.

CAT# TER-402 4 for \$1.00

100 for 20¢ each



4-POSITION PLUGGABLE TERMINAL STRIP AND HEADER

Riacon 4-position screw-clamp terminal block and mating friction-lock header. Terminals on 5mm centers. For 12-28 AWG wire. Rated 6A/125Vac. UL, CSA.

CAT# TER-104 \$1.25 each



KITS

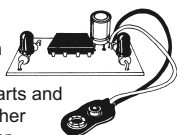
A NOTE ABOUT KITS....

Kits cannot be returned or exchanged once assembly has begun.

All parts supplied EXCEPT batteries.

L.E.D. FLASHER KIT

Two L.E.D.'s flash in unison when a 9 volt battery is attached. This kit includes a p.c. board, all the parts and instructions to make a simple flasher circuit. A quick and easy project for anyone with basic soldering skills.



CAT# LEDKIT

\$2.25 each • 100 for \$2.00 each

ADJUSTABLE LED FLASHER KIT

Two potentiometers adjust the flash rate of two LEDs.

9V operation.

Battery not included.

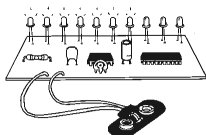
CAT# MK-1021

\$4.95 each



LED CHASER KIT

Build this variable speed led chaser. 10 leds flash sequentially at whatever speed you set them for. Easy to build kit includes pc board, parts and instructions. Ideal for special lighting effects, costumes, etc. Operates on 3 to 9 volts. PC board is 5" X 2.25".

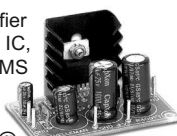


CAT# AEC \$6.50 each

10 for \$62.50 • 100 for \$600.00

7 WATT MONO AMPLIFIER KIT

Velleman # K4001. Small amplifier constructed around a TDA2003 IC, capable of delivering 4 Watts RMS at 4 Ohms. Music power: 7 W @ 4 ohms. RMS output: 3.5 Watts @ 4 Ohms / 2 Watts @ 8 Ohms. Frequency response: 20 Hz to 20 KHz (-3dB). Overload and short-circuit protected. Operates on 15 Vdc @ 0.5Amps (8-18 Vdc). Dimensions: 2.2" x 1.4"



CAT# MK-4001 \$19.95 each

TRAFFIC LED LIGHT KIT

Miniature traffic light as used on four-way junctions. Realistic operation with adjustable delay. 12 LEDs. Great for model railroads, exhibitions, and toys. Low power consumption: 15mA. Power supply: 9V battery (not included). ON/OFF switch. 2 x 1.4 x 4.5"

CAT# MK-131 \$9.00 each



ELECTRONIC CRICKET KIT

Drive your friends (or enemies) crazy. Automatically comes on when it gets dark. Adjustable chirp rate, light sensitivity and tone. 9V operation. Battery not included.

CAT# MK-104 \$8.95 each

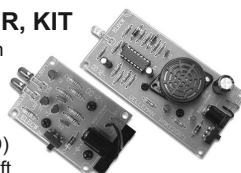


IR LIGHT BARRIER, KIT

Announce visitors, warn against burglars, set boundaries, for science projects, with audible (85dB) and visible (LED) alert. Range: 3.3ft to 13ft.

Power supply: transmitter: 9V DC / 50mA max. Receiver: 9V DC / 20mA max. 9V battery holder and adapter jack included. Transmitter: 2.2" x 1.6". Receiver: 3.9" x 2.0"

CAT# MK-120 \$8.35 each



DC TO PULSE WIDTH CONVERTER

Velleman # K8004.

Ideal for the accurate control of DC motors, lighting levels and small heaters as well as other applications.

The circuit converts DC voltage into a series of pulses, the duration of which is directly proportional to the voltage. Minimizes power loss in the control circuit. Overload and short circuit protection. Input Voltage: 2.5 - 35 VDC. Maximum output 8-35 Vdc, 6.5 Amps.

CAT # MK-804 \$28.95 each



INTERVAL TIMER KIT

Velleman # MK111. For intermittent operation of circuits and equipment.

Use for blinking light control,

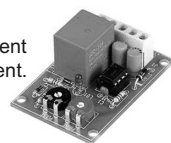
slide projector control etc. Pulse

time adjustable between 0.5 and

5 seconds. Pause time adjustable between 2.5

and 60 seconds. 3 Amp output relay. Power supply 12-15 Vdc @ 100 mA (not included).

CAT # MK-111 \$ 9.95 each



RELAY OUTPUT CARD KIT

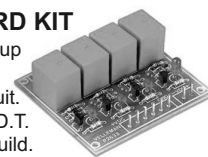
Velleman # K2633. Control up to four high-power circuits from a low power drive circuit.

Four 3 Amp / 240 Vac, S.P.D.T.

relays. Quick and easy to build.

LED status indicators. 3" x 1.7." Power supply, 9Vdc, 300mA (not included).

CAT# MK-2633 \$21.95 each



SIGNAL GENERATOR KIT

Signal output: sine wave, triangle, square wave and integrator (selectable through jumper). Signal frequency: about 1 KHz (fixed). Output level: adjustable from 0 to 100mVrms (LEVEL potentiometer).

CAT# MK-105 \$10.95 each



UNIVERSAL MONO PRE-AMPLIFIER KIT

This kit was developed as a pre-module for a number of audio applications where

the input signal is too weak. Applications as a microphone pre-amplifier or for level correction. Compact design. Lower power consumption.

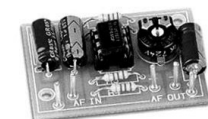
Excellent frequency response. Frequency range:

20 Hz to 20 kHz. Output impedance: 1K Ohm.

Maximum input level: 40 mV. Power supply:

10-30 Vdc / 10 mA. Dimensions: 1.2" x 1.7".

CAT# MK-1803 \$12.85 each



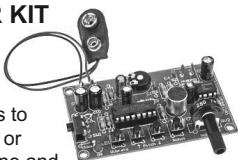
1W/3W HIGH-POWERED LED DRIVER

Power up to four 1W or two 3W high-power LEDs (not included). Delivers accurate constant current required by most high-power LEDs. High efficiency due to switch mode principle. Built-in rectifier for easy connection to AC source. Short-circuit protected. No heatsink required. Also suited as fixed current NiCd/NiMH battery charge circuit. 350mA or 700mA constant current source. Input voltage: 6-12Vac/9-18Vdc. Power consumption: 650mA max. 45 x 30 x 16mm.
CAT# MK-8071 \$16.95 each



VOICE CHANGER KIT

Velleman # MK-171.
Make your voice sound like a robot. Add vibrato effect. Use pitch buttons to make your voice higher or lower. Built-in microphone and power amplifier with volume control - just add a speaker. Speaker / line output. Maximum output power 1.5 W (4 Ohm). Operates on 9Vdc / 300 mA. 9 Volt battery not included.
CAT# MK-171 \$16.80 each



2X5W AMPLIFIER FOR MP3 PLAYER

Features big sound from a small unit. Low distortion. Stereo 3.5mm jack input. Volume adjust complete with attractive knob. Slide on/off switch. Blue indicator led. 2 x 5Wrms (10% THD @ 4ohm / supply 14V). Sensitivity: 400mVrms for full output. 30Hz-100kHz (-3dB / 8 ohm) frequency response. Requires 6-14 Vdc / 1A max. power supply (not included). Speaker impedance: 4-32 ohm speaker impedance. 66 x 53 x 25mm (2.59 x 2.08 x 0.98")
CAT# MK-190 \$19.95 each



12V CAR BATTERY MONITOR

Easy to build in, only 2 wires to connect (connect after ignition). Uses multi color 3mm LED... green: battery OK, Slow pulsing (green): battery OK or charging, red: battery voltage is low, red blinking: battery is being overcharged. Includes board to wire connector. 30 x 20mm (1.18 x 0.78" board).
CAT# MK-189 \$9.95 each



LOW VOLTAGE LIGHT ORGAN KIT

Operates at safe voltage level. Makes lamps flash to the rhythm of the music. Usable for halogen bulbs. Optically isolated speaker input. Adjustable sensitivity. Can be used in the car, if the lamps are isolated from the chassis.



Specifications

- input sensitivity: 2W to 60W
- maximum load: 50W / 12V or 100W / 24V
- power supply: 12V to 24V DC or AC
- dimensions: 1.8 x 3.5"

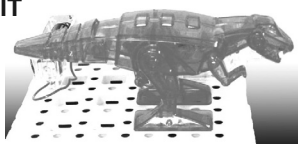
CAT# MK-114 \$13.95 each

SOLDERLESS KITS FOR KIDS

SOLDERLESS ELECTRONIC DINOSAUR KIT

A unique, inexpensive and simple to build kit.

Assemble the plastic dinosaur, connect the motor/gearbox, on/off switch and battery holder, and you've got an 6" long dinosaur that bobs up and down. All of the components attach to a 5.5" x 5.5" x 1.15" high plastic box. No need for tools or solder. The included components can easily be recycled for use in other motorized projects. Includes instructions. Requires one AA battery (not included).
CAT# KFK-1 \$5.95 each



6-IN-1 EDUCATIONAL SOLAR KIT

Educational solar kit is an excellent building kit for beginners, teaching children the benefits of solar energy while they create a toy that is fun to play with and requires no batteries.

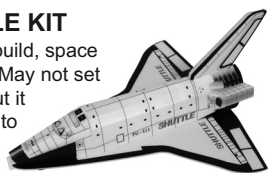
Children use the 21 snap-together plastic parts to build six different motorized working models including an airboat, windmill, puppy, car, and two different planes. No tools required for assembly. Diagonal cutter may be needed to initially separate plastic parts. Kit includes plastic parts, 75mA solar cell, 1.2V electric motor, wires, springs and instruction book. For children 10 years or older. May require adult assistance.

CAT# KFK-2 \$6.00 each



SPACE SHUTTLE KIT

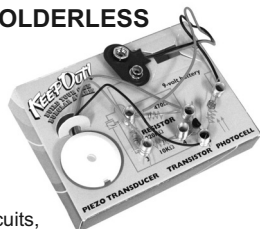
Relatively simple to build, space shuttle model glider. May not set any flying records, but it looks nice and is fun to put together. Made of light-weight, hard-shell styrofoam. No glue required. Approximately 7" long x 3.5" high.
CAT# KFK-4 \$1.00 each



EDUCATIONAL SOLDERLESS ALARM KIT

Designed for children, ages 8 and up, this alarm kit includes a simple to understand instruction booklet that teaches the basics of electricity, electrical circuits, resistors, transistors, piezo transducers, photocells and batteries. The finished alarm is a light sensor, which is meant to be used in a dark drawer. When an "intruder" opens the drawer, exposing the photocell to light, the alarm will sound. The kit includes everything you need for assembly, except the 9-volt battery (which must be purchased separately). No tools required.

CAT# KFK-3 \$3.95 each



ORDERING INFORMATION

NO MINIMUM ORDER

\$7.00 Shipping and Handling for most orders (see shipping instructions).

Phone Orders - You may use our **TOLL FREE NUMBER 1-800-826-5432** during our normal business hours, 6:30 AM to 5PM (Pacific Time) Monday - Friday and 9AM to 4 PM Saturday. Local callers may use 818-904-0524.

Mail Orders - and correspondence should be sent to
ALL ELECTRONICS CORP.
14928 Oxnard St.
Van Nuys, CA 91411-2610

FAX - You may FAX us your order 24 hours a day, 7 days a week. Our FAX number is
1-818-781-2653

Walk-In - Our Van Nuys, California store stocks all of the items in this catalog as well as many which are not of sufficient quantity to be included. Van Nuys store, 818-997-1806.

Internet - E-mail us at allcorp@allcorp.com
Shop ON-LINE www.allelectronics.com

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California Customers - Orders delivered within the state of California require us to collect California State Sales Tax unless we have a resale card on file. Please add applicable state sales tax for your county in California (7.5% outside Los Angeles County, 9% in Los Angeles County).

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Packages under 4 pounds may ship USPS.

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Continental United States (not including Alaska or Hawaii) must include a \$7.00 shipping and handling fee. This will cover shipping via U.P.S. (GROUND) or U.S. mail (Priority Mail) whichever is less (our choice). Shipments requiring special handling for residential delivery, P.O. Box delivery, lift gates or advance notification may incur extra charges. *Alaska, Hawaii, Puerto Rico, and the U.S. Territories* must include full shipping with the order (a \$7.00 minimum shipping charge applies per order). Please check with your local post office regarding charges..

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Customers outside the United States are responsible for all shipping and handling charges including but not limited to duties, import or export fees etc. Please check with your local agencies regarding rates. We will ship as per your instructions and will assist you in any way we can. If sufficient shipping is not included, your order will be returned.

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()

Name _____

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Address with Apt # (UPS can not deliver to P.O. Box Numbers) _____

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	Cat#	Qty.	Description	Pg#	Unit Price	Total Price
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
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