# MINI-ABS CASES

Black or gray ABS plastic with inter-locking lid. Integral standoffs for pc board mounting. Lid held in place with self-tapping #4 screws (included).

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
<th>1-9</th>
<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1551-FBK</td>
<td>3.3” x 2.2” x 0.8”</td>
<td>$1.90 each</td>
<td></td>
</tr>
<tr>
<td>1551-GGY</td>
<td>3.9” x 2.0” x 0.8”</td>
<td>$1.90 each</td>
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</tr>
<tr>
<td>1551-GBK</td>
<td>4.4” x 2.4” x 1.1”</td>
<td>$2.25 each</td>
<td></td>
</tr>
<tr>
<td>1551-KGY</td>
<td>4.7” x 2.6” x 1.4”</td>
<td>$2.35 each</td>
<td></td>
</tr>
</tbody>
</table>

## 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.

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1598-ASGY</td>
<td>6.1” x 3.65” x 1.36”</td>
<td>$2.75 each</td>
<td>$2.50 each</td>
</tr>
<tr>
<td>1598-BSGY</td>
<td>5.26” x 5.3” x 2”</td>
<td>$3.00 each</td>
<td>$2.75 each</td>
</tr>
</tbody>
</table>

## 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.

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
<th>1-9</th>
<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1593-PBK</td>
<td>2.6” x 3.54” x 1.1”</td>
<td>4.58</td>
<td>4.35</td>
</tr>
<tr>
<td>1593-QBK</td>
<td>2.6” x 4.4” x 1.1”</td>
<td>5.16</td>
<td>4.90</td>
</tr>
<tr>
<td>1593-SBK</td>
<td>2.6” x 3.6” x 0.83”</td>
<td>4.28</td>
<td>4.07</td>
</tr>
<tr>
<td>1593-TBK</td>
<td>2.6” x 4.35” x 0.83”</td>
<td>4.86</td>
<td>4.62</td>
</tr>
<tr>
<td>1593-YBK</td>
<td>2.6” x 5.45” x 1.1”</td>
<td>5.96</td>
<td>5.66</td>
</tr>
</tbody>
</table>

## GENERAL PURPOSE CASES

Black ABS cases with countersunk lid secured with self-tapping screws. Slots for mounting pc boards.

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
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<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1591-MSBK</td>
<td>3.3” x 2.2” x 0.8”</td>
<td>3.78</td>
<td>3.59</td>
</tr>
<tr>
<td>1591-ASBK</td>
<td>3.9” x 2.0” x 0.8”</td>
<td>3.75</td>
<td>3.50</td>
</tr>
<tr>
<td>1591-BBK</td>
<td>4.4” x 2.4” x 1.1”</td>
<td>4.40</td>
<td>4.20</td>
</tr>
<tr>
<td>1591-KBK</td>
<td>4.7” x 2.6” x 1.4”</td>
<td>4.80</td>
<td>4.60</td>
</tr>
</tbody>
</table>

## PROJECT ENCLOSURES

### 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.

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
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<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1590-LB</td>
<td>1.99” x 1.99” x 1.23”</td>
<td>$7.25 each</td>
<td>$6.80 each</td>
</tr>
<tr>
<td>1590-A</td>
<td>3.64” x 1.52” x 1.23”</td>
<td>$7.05 each</td>
<td>$6.65 each</td>
</tr>
<tr>
<td>1590-B</td>
<td>4.39” x 2.34” x 1.23”</td>
<td>$8.40 each</td>
<td>$7.90 each</td>
</tr>
<tr>
<td>1590-XX</td>
<td>5.76” x 4.79” x 1.55”</td>
<td>$11.20 each</td>
<td></td>
</tr>
</tbody>
</table>

## ALUMINUM BOXES W/ MOUNTING FLANGES

6.01” x 3.24” x 2.05”

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
<th>1-9</th>
<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1590-P1F</td>
<td>3.00</td>
<td>$27.82 each</td>
<td></td>
</tr>
<tr>
<td>1590-R1F</td>
<td>3.50</td>
<td>$40.24 each</td>
<td></td>
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</tbody>
</table>

## ECONOMY PROJECT BOXES

ABS plastic project enclosure. Inter-locking lid secured with self-tapping screws. Interior slots for PC boards. Includes hardware. Boxes are black, except CAT#s with “G” are grey.

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
<th>1-9</th>
<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1590-P</td>
<td>2.51” x 1.73” x 1.25”</td>
<td>3.00</td>
<td>2.75</td>
</tr>
<tr>
<td>1590-Q</td>
<td>2.53” x 1.75” x 1.37”</td>
<td>2.65</td>
<td>2.45</td>
</tr>
<tr>
<td>1590-P</td>
<td>2.96” x 1.94” x 1.05”</td>
<td>3.00</td>
<td>2.75</td>
</tr>
<tr>
<td>1590-Q</td>
<td>3.95” x 3.02” x 1.60”</td>
<td>3.00</td>
<td>2.75</td>
</tr>
<tr>
<td>1590-P</td>
<td>4” x 3” x 1.6”</td>
<td>3.75</td>
<td>3.50</td>
</tr>
<tr>
<td>1590-Q</td>
<td>3.97” x 2.12” x 1.72”</td>
<td>3.00</td>
<td>2.75</td>
</tr>
<tr>
<td>1590-P</td>
<td>4.33” x 2.24” x 0.83”</td>
<td>3.75</td>
<td>3.50</td>
</tr>
<tr>
<td>1590-Q</td>
<td>5” x 3” x 1.9”</td>
<td>4.85</td>
<td>4.60</td>
</tr>
<tr>
<td>1590-P</td>
<td>5.30” x 3” x 1.9”</td>
<td>4.50</td>
<td>4.00</td>
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</tbody>
</table>

## PROJECT BOXES W/ 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.

<table>
<thead>
<tr>
<th>Model</th>
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<th>10+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1590-P</td>
<td>3.25” x 2.10” x 1.20”</td>
<td>2.75</td>
<td></td>
</tr>
<tr>
<td>1590-P</td>
<td>5.12” x 2.68” x 1.72”</td>
<td>3.50</td>
<td></td>
</tr>
<tr>
<td>1590-P</td>
<td>6.18” x 3.78” x 2.10”</td>
<td>5.45</td>
<td></td>
</tr>
</tbody>
</table>
PROJECT BOXES WITH 9V BATTERY COMPARTMENTS
ABS plastic enclosures with 9V battery compartment with removable access panel. Interlocking lid secured with self-tapping screws. Interior slot for pc board.

RED -- 4.10" x 2.61" x 1.50"
CAT# MB-221 $3.95 each
BEIGE -- 5.63" x 3.25" x 1.54" Serpac # 251
CAT# MB-251 $6.75 each
BLACK -- 6.88" x 4.88" x 1.54" Serpac # 271
CAT# MB-271 $9.15 each

SOLDERABLE BREADBOARDS
Perf board with mounting holes designed to fit our project enclosures TB-1, 2, 3 & 4. Boards have holes on 0.1" matrix to fit most standard components. Copper solder rings on one side.

1 1/2" X 1 3/4". Fits TB-1.
CAT# PC-1 75¢ each
1 7/8" X 2 1/4". Fits TB-2.
CAT# PC-2 $1.00 each
2 1/2" X 3 1/8". Fits TB-3.
CAT# PC-3 $1.50 each
3" X 4 1/4". Fits TB-4.
CAT# PC-4 $2.00 each

METAL ENCLOSURE, HOLES ON ONE SIDE, 6" X 3.5" X 1"
Nice-looking, very solid metal enclosure with matte-black crinkle finish. 6" x 3.5" x 1". Four 7/16" diameter holes in one side. Four holes in bottom for press-fit, rubber feet (not included). Top and bottom of box snaps together very tightly, so screws are not necessary.
CAT # MB-632 $3.00 each

ENCLOSURES WITH ALUMINUM COVERS
Heavy-duty 3/32" molded plastic boxes with brushed aluminum covers. Built in stand-offs for PC or perf boards. Includes screws. Solderable perf boards. Our CAT#s PC-1, 2, 3, 4 (right) fit these cases.

Dimensions CAT# 1-9 10+
2.7" x 1.7" x 1.2" H TB-1 1.90 1.75
3.3" x 2.1" x 1.4" H TB-2 2.50 2.30
4.2" x 2.7" x 1.6" H TB-3 2.95 2.75
5.3" x 3.3" x 1.6" H TB-4 3.75 3.50

SURFACE-MOUNT ENCLOSURE
• Serpac WM072-I
• Outside: 6.88" x 4.88" x 1.60", 7.87" across flanges
• Interior: 6.43" x 4.43"
• Black ABS plastic box and lid
• Circuit board mounting bosses
• Self-tapping screws
• Includes PS17 gasket for IP67, NEMA 4X
CAT # MB-742 $7.75 each

SNAP-TOGETHER BOXES
Two or three piece black ABS enclosures.
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 $2.35 ea. • 10 for $2.00 ea.
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 ea. • 10 for $1.70 ea.

SOLDERABLE PERF BOARD WITH SOLDER PADS AND BUSS STRIPS
Multilayer epoxy boards. Holes on 0.1" centers for SIP and DIP components.

SINGLE HOLE PADS
double sided with plated through-holes
50 x 80mm CAT# SB-24 $4.00 each
80 x 100mm CAT# SB-48 $6.60 each

TWO HOLE PADS
copper pads one side
50 x 80mm CAT# SB-2H1 $3.25 each

SOLID LINE PATTERN

SMT PADS
Grid of SMT pads on 0.05" centers allows SMT components of various sizes & pitches to be mounted. Larger components can span pads. Solid copper ground plane on bottom of board. Every 4th SMT pad has an unplated hole for easy connection to the ground plane.
50 x 80mm CAT# SB-5050 $4.00 each
100 x 160mm CAT# SB-3T $12.50 each

ORDER TOLL FREE 1-800-826-5432 79
SNAPPABLE BREADBOARD
Solderable, double-sided breadboard that can be used as a single proto board or snapped into four smaller boards for tiny projects. 2-hole strips and 4-hole strip areas. Four power rails. Centerline pads. High-quality FR4 glass epoxy PCB. Lead-free. Anti-tarnish coating. 0.042” holes drilled on 0.1” centers. Size: 2.5” x 3.8” (63.5 x 96.5mm).
CAT# SBB-4 $5.50 each

SOLDERLESS BREADBOARDS
Design and change circuits quickly & cleanly. Bread-boards 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 & components can be used and re-used many times without damage to board or components.

170 Contacts.
1.80” x 1.40” x 0.375” high.
CAT# PB-170 $2.50 each
10 for $2.00 each

400 contacts. 300 contacts on main board & 50 contacts on each of two power distribution strips. Distribution strips are removable. White.
CAT # PB-400 $4.00 ea. • 10 / $3.75 ea.
Same specs as PB-400 above, but made of clear plastic.
CAT # PB-400C $3.65 each
10 for $3.40 each

470 contacts plus two 70 contact buss strips, for a total of 610 contacts. 3 binding posts mounted on aluminum back plate, 5.92” x 3.75” x 0.43” high.
CAT# PB-610 $12.50 each

840 contacts. Dual row of buss terminals on each side of terminal strip. Double-sided adhesive tape backing. Holes for screw mounting. 2.2” x 6.5” x 0.38” high.
CAT# PB-840 $8.25 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 $18.25 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 $36.00 each

BREADBOARD POWER SUPPLY
Module plugs into our solderless breadboards and provides 5V and/or 3V to the rails as well as other useful functions. Works with our breadboard, CAT# PB-400 (sold separately). 32 x 54 x 25mm (1.26” x 2.08” x 0.86”).
CAT# MB-PS $4.75 each

BREADBOARD ACCESSORIES
Terminated with machine pins for insertion into breadboards and sockets.

ALLIGATOR CLIP JUMPERS
6-piece set.
CAT# TL-14 $6.95 per set

MINI-GRABBER JUMPERS
2-piece set. Red and black mini-grabbers.
CAT# TL-15 $5.95 per set

BATTERY BOXES FOR BREADBOARDING
Completely enclosed with slide-off cover. Integrated On-Off switch. 6” leads with machined male pins for use with solderless breadboards.

Holds three AAA batteries for 4.5Vdc power. 2.49” x 1.45” x 0.62”.
CAT # BH-33A $3.65 each

Holds three AA batteries for 4.5Vdc power. 2.69” x 1.90” x 0.72”.
CAT# BH-AA3 $4.50 each

Holds four AAA batteries for 6 Vdc power. 2.44” x 1.90” x 0.62”.
CAT # BH-43A $4.20 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 $3.75 each

350 PIECE ASSORTMENT 25 of each size
CAT # JW-350 $13.50 each

24” ALLIGATOR TEST LEADS, RED / BLACK PAIR
Better-than-average quality test leads.
18AWG stranded copper wire. 2” alligator clips with insulators and strain reliefs. Pair of 24” leads. red and black.
CAT # ALG-201 $3.00 pair