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**METAL "KEY-PAD" DOME SWITCHES**



- Exceptional tactile feel for single or double-sided printed circuit boards
- Ideal for keypad arrays
- "Key-Pad" Domes float on PCB, no soldering recommended
- Supplied on tape and reel compatible with vacuum and mechanical pick and place systems
- Adhesive backed spacer material for creating custom "Key-Pad" arrays is also available
- Provides the proper spacing between the circuit board, the dome and the device graphic layer

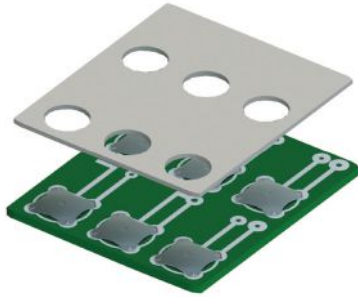


**Specifications:**

**Material:** Stainless Steel, Nickel Plated.  
 Gold plating available.  
**Operating Temperature:** -40°F to 220°F (-40°C to 104°C)  
**Storage Temperature:** -67°F to 257°F (-55°C to 125°C)

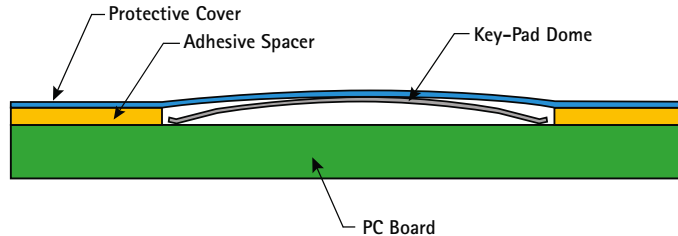
**Electrical:**

**Contact Resistance:** less than 100 mOhm  
**Switching Voltage:** 0.1 to 100VDC  
**Switching Current:** 5 µAmp to 100 mAmp DC  
**Switching Capacity:** 1 Watt



"Key-Pad" Domes are ideal for Keypad arrays that require long life or a sealed interface. These snap action switches provide positive feedback with an audible and tactile click. "Key-Pad" domes are made from nickel plated stainless steel which provides a very reliable user interface (over one million cycles). "Key-Pad" domes can be placed directly to a PCB which will save on assembly cost and increase reliability. Available on tape and reel for automated pick and place assembly applications, as well as packed stacked in tubes. For pack stacked in tubes, the contour of the dome keeps an air pocket in between each dome. The air pocket allows only one dome to be picked off the stack eliminating double stacked domes.

The "Key-Pad" dome is designed to be placed on the PCB, not soldered. The domes are held in place by using a "Key-Pad" adhesive spacer (Cat. No. 5200) which requires cut outs to be added in the proper locations. If the top sealing surface has an adhesive bottom side, it will help to keep the dome in the proper location (optional).



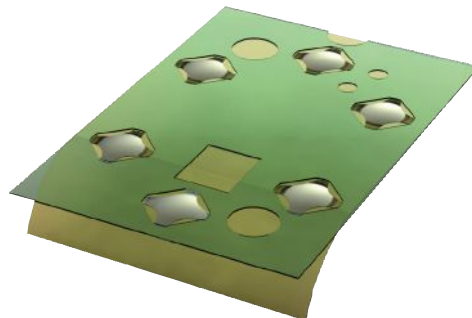
The low profile of the dome is ideal for thin, lightweight applications or applications that need to be sealed or easily cleaned. The domes can be activated from finger pressure thru a thin flexible membrane that can be sealed against the product chassis so cleaning fluids, dust or weather will not damage the circuitry.

If the device has a thicker or sculpted exterior package, the dome can be activated with an actuator. The actuator will give the "Key-Pad" dome a more conventional push button feel.

A "Key-Pad" Dome is available for almost any application with trip forces ranging from 8 oz. to 14 oz. and dome diameters from 8.4mm to 12.2mm. Trip forces are consistent from switch to switch per batch. This insures that a switch array will have a consistent feel from switch to switch. "Key-Pad" domes have a large sweet spot which allows the dome to be easily activated even though it was pushed off center. Gold plated domes are available upon request.



**COMPLETE  
 DOME ASSEMBLIES  
 AVAILABLE**

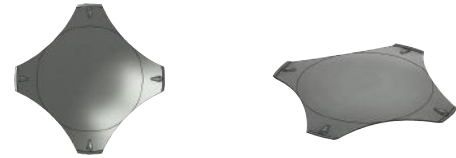
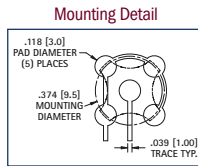
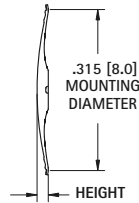
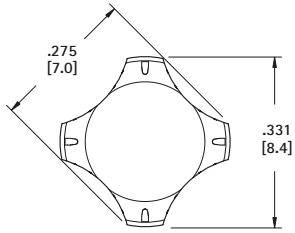


For quote, please forward dome sketch layout to:  
[sales@keyelco.com](mailto:sales@keyelco.com)

# METAL "KEY-PAD" DOME SWITCHES

## MINI SERIES KEY-PAD DOME SWITCHES - .331 (8.4) DIA

SUPPLIED ON TAPE AND REEL



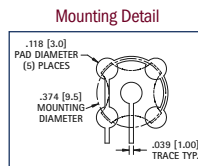
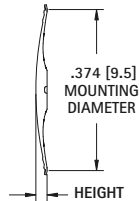
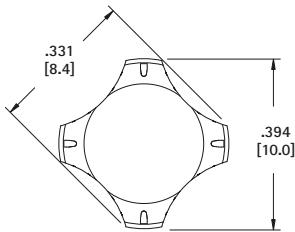
\* Key-Pad Domes are designed to be placed on board, not soldered

| TAPE & REEL (5000 PER) | MINI SERIES - .331 (8.4) DIAMETER |                |               |             |
|------------------------|-----------------------------------|----------------|---------------|-------------|
| CAT. NO.               | HEIGHT ±.004 (±0.10)              | TRIP FORCE     | REBOUND FORCE | CLICK RATIO |
| 5133TR                 | .018 (0.45)                       | 7.8 oz (220g)  | 3.2 oz (90g)  | 40%-70%     |
| 5134TR                 | .020 (0.50)                       | 9.9 oz (280g)  | 3.2 oz (90g)  | 50%-80%     |
| 5135TR                 | .022 (0.55)                       | 12.0 oz (340g) | 4.6 oz (130g) | 50%-80%     |
| 5136TR                 | .022 (0.55)                       | 14.1 oz (400g) | 5.3 oz (150g) | 50%-80%     |

Click Ratio: (Trip Force - Rebound Force)/Trip Force. Choose a higher click ratio for switches that will click or snap when activated. Use lower click ratios for a more conventional feeling switch.

## COMPACT SERIES KEY-PAD DOME SWITCHES - .394 (10.0) DIA

SUPPLIED ON TAPE AND REEL



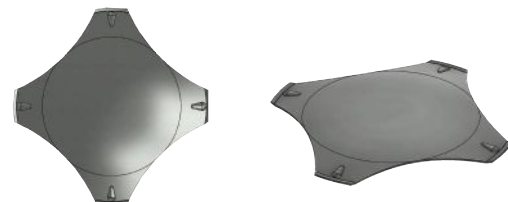
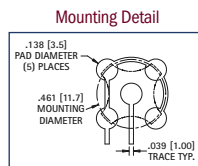
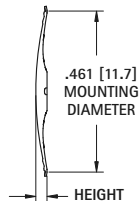
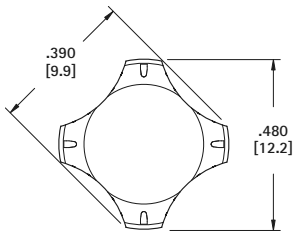
\* Key-Pad Domes are designed to be placed on board, not soldered

| TAPE & REEL (4000 PER) | COMPACT SERIES - .394 (10.0) DIAMETER |                |               |             |
|------------------------|---------------------------------------|----------------|---------------|-------------|
| CAT. NO.               | HEIGHT ±.004 (±0.10)                  | TRIP FORCE     | REBOUND FORCE | CLICK RATIO |
| 5153TR                 | .030 (0.75)                           | 7.8 oz (220g)  | 3.2 oz (90g)  | 40%-70%     |
| 5154TR                 | .030 (0.75)                           | 9.9 oz (280g)  | 3.2 oz (90g)  | 50%-80%     |
| 5155TR                 | .031 (0.80)                           | 12.0 oz (340g) | 3.5 oz (100g) | 60%-80%     |
| 5156TR                 | .031 (0.80)                           | 14.1 oz (400g) | 3.5 oz (100g) | 60%-85%     |

Click Ratio: (Trip Force - Rebound Force)/Trip Force. Choose a higher click ratio for switches that will click or snap when activated. Use lower click ratios for a more conventional feeling switch.

## MAXI SERIES - .480 (12.2) DIA

SUPPLIED ON TAPE AND REEL



\* Key-Pad Domes are designed to be placed on board, not soldered

| TAPE & REEL (4000 PER) | MAXI SERIES - .480 (12.2) DIAMETER |                |               |             |
|------------------------|------------------------------------|----------------|---------------|-------------|
| CAT. NO.               | HEIGHT ±.004 (±0.10)               | TRIP FORCE     | REBOUND FORCE | CLICK RATIO |
| 5173TR                 | .026 (0.65)                        | 7.8 oz (220g)  | 3.0 oz (85g)  | 40%-70%     |
| 5174TR                 | .030 (0.75)                        | 9.9 oz (280g)  | 3.2 oz (90g)  | 50%-80%     |
| 5175TR                 | .030 (0.75)                        | 12.0 oz (340g) | 3.5 oz (100g) | 50%-80%     |
| 5176TR                 | .031 (0.80)                        | 14.8 oz (420g) | 4.2 oz (120g) | 50%-80%     |

Click Ratio: (Trip Force - Rebound Force)/Trip Force. Choose a higher click ratio for switches that will click or snap.

## ADHESIVE SPACER



| ADHESIVE SPACER - SINGLE SIDED |             |             |              |
|--------------------------------|-------------|-------------|--------------|
| CAT. NO.                       | WIDTH       | LENGTH      | THICKNESS    |
| 5200                           | 36.00 (970) | 24.00 (610) | .009 (235µm) |

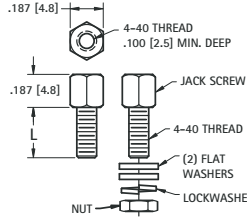


# JACK SCREWS

- Equivalent to AMP, CANNON & TRW Jack Screws
- "D" subminiature connector mounting screw
- Custom lengths available
- Hardware supplied unassembled and in bulk

**SPECIFICATIONS:** **YELLOW:** Steel, Zinc Plate and Yellow Chromate; **CLEAR:** Steel, Zinc Plate and Clear Chromate; **STAINLESS:** Stainless Steel

## STANDARD JACK SCREWS

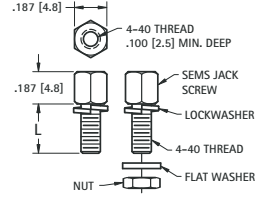


| JACK ONLY          |                   |                       | L<br>LENGTH | JACK WITH HARDWARE* |                   |                       |
|--------------------|-------------------|-----------------------|-------------|---------------------|-------------------|-----------------------|
| YELLOW<br>CAT. NO. | CLEAR<br>CAT. NO. | STAINLESS<br>CAT. NO. |             | YELLOW<br>CAT. NO.  | CLEAR<br>CAT. NO. | STAINLESS<br>CAT. NO. |
| 7226               | 7226-5            | 7246                  | .187 (4.8)  | 7227                | 7227-5            | 7247                  |
| 7228               | 7228-5            | 7248                  | .250 (6.4)  | 7229                | 7229-5            | 7249                  |
| 7230               | 7230-5            | 7250                  | .312 (7.9)  | 7231                | 7231-5            | 7251                  |
| 7241               | 7241-5            | 7252                  | .375 (9.5)  | 7242                | 7242-5            | 7253                  |
| 7243               | 7243-5            | 7254                  | .500 (12.7) | 7244                | 7244-5            | 7255                  |
| 7232               | 7232-5            | 7256                  | .625 (15.9) | 7233                | 7233-5            | 7257                  |

\*Hardware supplied unassembled in bulk

## SEMS JACK SCREWS

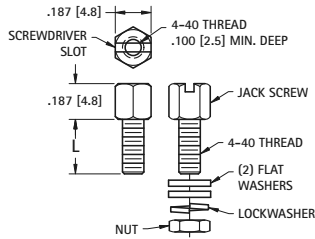
- Captivated helical spring lockwasher, simplifies use



| SEMS JACK ONLY    |             | L<br>LENGTH | SEMS JACK WITH HARDWARE* |
|-------------------|-------------|-------------|--------------------------|
| CLEAR<br>CAT. NO. | LENGTH      |             | CLEAR<br>CAT. NO.        |
| 7235              | .285 (7.2)  | 7236        |                          |
| 7237              | .347 (8.8)  | 7238        |                          |
| 7239              | .660 (16.8) | 7240        |                          |

\*Hardware supplied unassembled in bulk

## SLOTTED JACK SCREWS

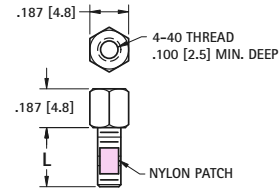


- Slot provides ability to install jack with a screwdriver.

| JACK ONLY          |                   |             | L<br>LENGTH | JACK WITH HARDWARE* |                   |
|--------------------|-------------------|-------------|-------------|---------------------|-------------------|
| YELLOW<br>CAT. NO. | CLEAR<br>CAT. NO. | LENGTH      |             | YELLOW<br>CAT. NO.  | CLEAR<br>CAT. NO. |
| 7270               | 7275              | .250 (6.4)  | 7290        | 7295                |                   |
| 7271               | 7276              | .312 (7.9)  | 7291        | 7296                |                   |
| 7272               | 7277              | .375 (9.5)  | 7292        | 7297                |                   |
| 7273               | 7278              | .500 (12.7) | 7293        | 7298                |                   |
| 7274               | 7279              | .625 (15.9) | 7294        | 7299                |                   |

\*Hardware supplied unassembled in bulk

## JACK SCREWS WITH NYLON PATCH

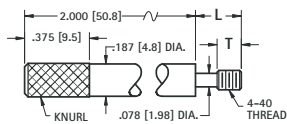


- Nylon patch holds jack firmly in vibration applications.

| JACK WITH NYLON PATCH |                   |                       |             |
|-----------------------|-------------------|-----------------------|-------------|
| YELLOW<br>CAT. NO.    | CLEAR<br>CAT. NO. | STAINLESS<br>CAT. NO. | L<br>LENGTH |
| 7260                  | 7261              | 7262                  | .250 (6.4)  |
| 7263                  | 7264              | 7265                  | .312 (7.9)  |
| 7266                  | 7267              | 7268                  | .375 (9.5)  |

# TURNABLE JACK SCREWS

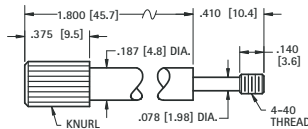
## DIRECT ACCESS



MATERIAL: Steel, Black Oxide

| WITHOUT SLOT<br>CAT. NO. | WITH SLOT<br>CAT. NO. | T<br>DIM.  | L<br>DIM.   |
|--------------------------|-----------------------|------------|-------------|
| 2064                     | 2065                  | .125 (3.2) | .250 (6.4)  |
| 2066                     | 2067                  | .250 (6.4) | .437 (11.1) |

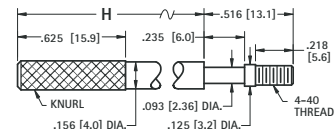
## STRAIGHT KNURL



MATERIAL: Steel, Zinc Plate & Clear Chromate

| WITHOUT SLOT<br>CAT. NO. | WITH SLOT<br>CAT. NO. |
|--------------------------|-----------------------|
| 2072                     | 2073                  |

## SLIM-LINE



MATERIAL: Steel, Nickel Plate

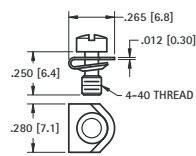
| WITHOUT SLOT<br>CAT. NO. | WITH SLOT<br>CAT. NO. | H<br>DIM.    |
|--------------------------|-----------------------|--------------|
| 2068                     | 2069                  | 1.250 (31.8) |
| 2070                     | 2071                  | 1.750 (44.5) |

# PANEL MOUNTING HARDWARE

## "U" CLIP



Supplied Unassembled



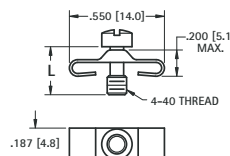
MATERIAL:  
Clip & Screw: Steel, Zinc Plate & Yellow Chromate

CAT. NO. 2062

## "BOW TIE" RETAINING CLIP



Supplied Unassembled



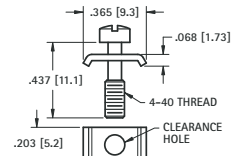
MATERIAL:  
Clip & Screw: Steel, Zinc Plate & Yellow Chromate

| CAT. NO. | L          |
|----------|------------|
| 2060     | .250 (6.4) |
| 2061     | .281 (7.1) |

## SADDLE WASHER



Supplied Unassembled

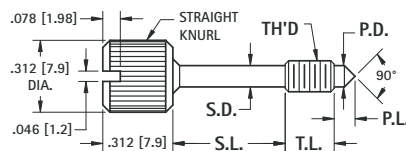
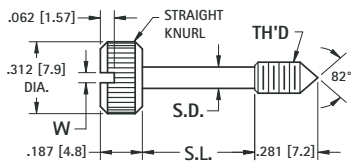


MATERIAL:  
Clip & Screw: Steel, Zinc Plate & Yellow Chromate

CAT. NO. 2063

# CAPTIVE PANEL SCREWS

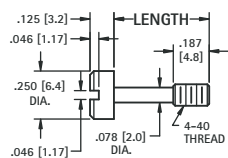
MATERIAL: Stainless Steel per ASTM-A581/A-582



| CAT. NO. | THREAD | S.D.<br>± .005 (.13) | S.L.<br>± .010 (.25) | W<br>+ .015 (+.38)-.000 |
|----------|--------|----------------------|----------------------|-------------------------|
| 8700     | 4-40   | .078 (2.0)           | .375 (9.5)           | .036 (.91)              |
| 8701     | 4-40   | .078 (2.0)           | .500 (12.7)          | .036 (.91)              |
| 8702     | 4-40   | .078 (2.0)           | .625 (15.9)          | .036 (.91)              |
| 8703     | 6-32   | .095 (2.4)           | .375 (9.5)           | .045 (1.14)             |
| 8704     | 6-32   | .095 (2.4)           | .500 (12.7)          | .045 (1.14)             |
| 8705     | 6-32   | .095 (2.4)           | .625 (15.9)          | .045 (1.14)             |

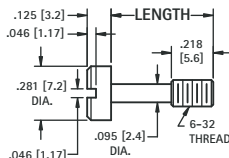
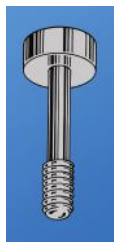
| CAT. NO. | THREAD | T.L.<br>± .015 (.38) | S.D.<br>± .005 (.13) | S.L.<br>± .010 (.25) | P.D.<br>+0.00, -.016 (-.40) | P.L.<br>± .015 (.38) |
|----------|--------|----------------------|----------------------|----------------------|-----------------------------|----------------------|
| 8706     | 4-40   | .125 (3.2)           | .078 (2.0)           | .171 (4.3)           | .078 (2.0)                  | .078 (2.0)           |
| 8707     | 4-40   | .125 (3.2)           | .078 (2.0)           | .296 (7.5)           | .078 (2.0)                  | .078 (2.0)           |
| 8708     | 4-40   | .125 (3.2)           | .078 (2.0)           | .421 (10.7)          | .078 (2.0)                  | .078 (2.0)           |
| 8709     | 6-32   | .218 (5.5)           | .095 (2.4)           | .187 (4.7)           | .095 (2.4)                  | .093 (2.36)          |
| 8710     | 6-32   | .218 (5.5)           | .095 (2.4)           | .312 (7.9)           | .095 (2.4)                  | .093 (2.36)          |
| 8711     | 6-32   | .218 (5.5)           | .095 (2.4)           | .437 (11.1)          | .095 (2.4)                  | .093 (2.36)          |

## 4-40



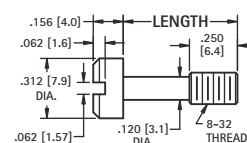
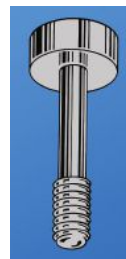
| CAT. NO. | LENGTH      |
|----------|-------------|
| 2413     | .469 (11.9) |
| 2414     | .531 (13.4) |

## 6-32



| CAT. NO. | LENGTH      |
|----------|-------------|
| 2415     | .531 (13.5) |
| 2416     | .593 (15.1) |
| 2417     | .656 (16.7) |

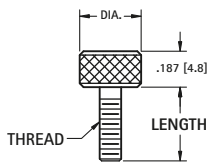
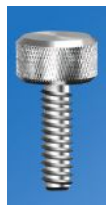
## 8-32



| CAT. NO. | LENGTH      |
|----------|-------------|
| 2418     | .656 (16.7) |
| 2419     | .718 (18.2) |
| 2420     | .781 (19.8) |

# THUMB SCREWS

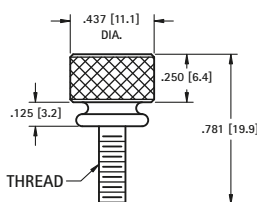
## STAINLESS



MATERIAL: Stainless Steel

| CAT. NO. | LENGTH      | THREAD | DIA        |
|----------|-------------|--------|------------|
| 2400     | .312 (7.9)  | 4-40   | .312 (7.9) |
| 2401     | .375 (9.5)  |        |            |
| 2402     | .437 (11.1) |        |            |
| 2403     | .500 (12.7) |        |            |
| 2404     | .312 (7.9)  | 6-32   | .312 (7.9) |
| 2405     | .375 (9.5)  |        |            |
| 2406     | .437 (11.1) |        |            |
| 2407     | .500 (12.7) |        |            |
| 2408     | .375 (9.5)  | 8-32   | .375 (9.5) |
| 2409     | .437 (11.1) |        |            |
| 2410     | .500 (12.7) |        |            |

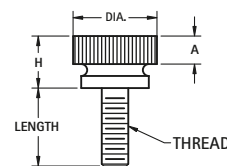
## BRASS



MATERIAL: Brass, Nickel Plate

| CAT. NO. | THREAD |
|----------|--------|
| 1708     | 6-32   |
| 1709     | 8-32   |
| 1710     | 10-32  |

## NYLON

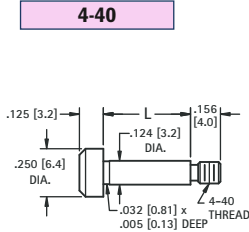


MATERIAL: Nylon 6/6, UL Rated 94V-2

| CAT. NO. | LENGTH      | THREAD | DIA.        | H          | A          |
|----------|-------------|--------|-------------|------------|------------|
| 2500     | .250 (6.4)  | 4-40   | .300 (7.6)  | .280 (7.1) | .125 (3.2) |
| 2501     | .375 (9.5)  |        |             |            |            |
| 2502     | .500 (12.7) |        |             |            |            |
| 2503     | .250 (6.4)  | 6-32   | .360 (9.1)  | .275 (7.0) | .125 (3.2) |
| 2504     | .375 (9.5)  |        |             |            |            |
| 2505     | .500 (12.7) |        |             |            |            |
| 2506     | .250 (6.4)  | 8-32   | .425 (10.8) | .305 (7.7) | .140 (3.6) |
| 2507     | .375 (9.5)  |        |             |            |            |
| 2508     | .500 (12.7) |        |             |            |            |

# PRECISION GROUND SHOULDER SCREWS

Shoulder ground to  $+.000/-0.001$  Dia,  $+.002/-0.000$  Length. **Material:** Stainless Steel, ASTM A581/A582

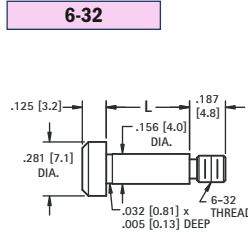


SLOTTED



SOCKET

| CAT. NO. | LENGTH      | CAT. NO. |
|----------|-------------|----------|
| 2421     | .125 (3.2)  | 2441     |
| 2422     | .250 (6.4)  | 2442     |
| 2423     | .375 (9.5)  | 2443     |
| 2424     | .500 (12.7) | 2444     |

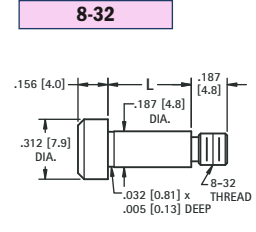


SLOTTED



SOCKET

| CAT. NO. | LENGTH      | CAT. NO. |
|----------|-------------|----------|
| 2425     | .125 (3.2)  | 2445     |
| 2426     | .250 (6.4)  | 2446     |
| 2427     | .375 (9.5)  | 2447     |
| 2428     | .500 (12.7) | 2448     |



SLOTTED



SOCKET

| CAT. NO. | LENGTH      | CAT. NO. |
|----------|-------------|----------|
| 2431     | .125 (3.2)  | 2451     |
| 2432     | .250 (6.4)  | 2452     |
| 2433     | .375 (9.5)  | 2453     |
| 2434     | .500 (12.7) | 2454     |
| 2435     | .625 (15.9) | 2455     |

## INSTRUMENTATION POINTER KNOBS

All knobs supplied with brass insert and two set screws to hold knob securely to shaft

| SPECIFICATIONS<br>Knob: ABS<br>Inlay: Spun Aluminum<br>Insert: Brass, Nickel Plate | CAT. NO. | SHAFT (DIA.) | D (DIA.)     | H (HEIGHT)   | M (MAX.)     | SHAFT ATTACHMENT DETAILS |             | NUT CLEARANCE |                  |
|--|----------|--------------|--------------|--------------|--------------|--------------------------|-------------|---------------|------------------|
|  |          |              |              |              |              | L (LOCATION)             | B (DEPTH)   | I.D. (DIA.)   | C (C'BORE DEPTH) |
|  | 8554     | .125 (3.2)   | .500 (12.7)  | .660 (16.8)  | -            | .320 (8.1)               | .570 (14.5) | .360 (9.1)    | .170 (4.3)       |
|  | 8555     | .250 (6.4)   | .700 (17.8)  | .780 (19.8)  | -            | .360 (9.1)               | .680 (17.3) | .500 (12.7)   | .180 (4.6)       |
|  | 8556     | .250 (6.4)   | .920 (23.4)  | 1.010 (25.7) | -            | .460 (11.7)              | .910 (23.1) | .640 (16.3)   | .330 (8.4)       |
|  | 8557     | .250 (6.4)   | 1.250 (31.8) | .828 (21.0)  | -            | .400 (10.2)              | .700 (17.8) | 1.010 (25.7)  | .250 (6.4)       |
|  | 8558     | .125 (3.2)   | .500 (12.7)  | .660 (16.8)  | .915 (23.4)  | .320 (8.1)               | .570 (14.5) | .360 (9.1)    | .170 (4.3)       |
|  | 8559     | .250 (6.4)   | .700 (17.8)  | .780 (19.8)  | 1.150 (29.2) | .357 (9.1)               | .660 (16.7) | .480 (12.2)   | .180 (4.6)       |
|  | 8560     | .250 (6.4)   | .920 (23.4)  | 1.010 (25.7) | 1.520 (38.6) | .500 (12.7)              | .910 (23.1) | .640 (16.3)   | .240 (6.1)       |
|  | 8561     | .250 (6.4)   | 1.250 (31.8) | .920 (23.4)  | 1.860 (47.2) | .470 (11.9)              | .800 (20.3) | .780 (19.8)   | .350 (8.9)       |
|  | 8562     | .125 (3.2)   | .500 (12.7)  | .500 (12.7)  | .610 (15.5)  | .160 (4.0)               | .405 (10.3) | .410 (10.4)   | .030 (0.8)       |
|  | 8568     | .250 (6.4)   | .700 (17.8)  | .625 (15.9)  | .820 (20.8)  | .210 (5.3)               | .480 (12.2) | .468 (11.9)   | .030 (0.8)       |
|  | 8569     | .250 (6.4)   | .920 (23.4)  | .780 (19.8)  | 1.090 (27.7) | .240 (6.1)               | .660 (16.8) | .640 (16.3)   | .100 (2.5)       |
|  | 8565     | .250 (6.4)   | .700 (17.8)  | .630 (16.0)  | 1.187 (30.2) | .210 (5.3)               | .510 (13.0) | .570 (14.5)   | .030 (0.8)       |
|  | 8566     | .250 (6.4)   | .920 (23.4)  | .640 (16.3)  | 1.510 (38.6) | .260 (6.6)               | .540 (13.7) | .730 (18.5)   | .120 (3.1)       |

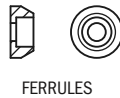
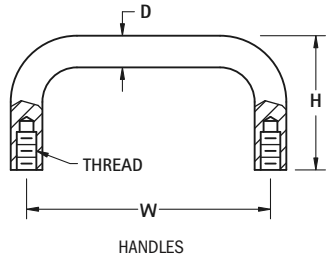
| SPECIFICATIONS<br>Material: Colored Polypropylene hub. Thermoplastic Elastomer (TPE) - Soft-Touch gripping surface<br>Insert: Brass, Nickel Plate | CAT. NO. | COLOR   |        | KNOB DIMENSIONS |             |             | NUT CLEARANCE |                  |
|---|----------|---------|--------|-----------------|-------------|-------------|---------------|------------------|
|   |          | OUTSIDE | INSIDE | SHAFT (DIA.)    | D (DIA.)    | H (HEIGHT)  | I.D. (DIA.)   | C (C'BORE DEPTH) |
|   | 8570     | Black   | Yellow | .250 (6.4)      | .610 (15.5) | .550 (14.0) | .430 (10.9)   | .090 (2.3)       |
|   | 8571     | Black   | Red    |                 |             |             |               |                  |
|   | 8572     | Black   | Gray   |                 |             |             |               |                  |
|   | 8573     | Black   | Black  |                 |             |             |               |                  |

# INSTRUMENTATION HANDLES

**ROUND**



**MATERIAL:**  
**Brass:** ASTM-B16, Nickel Plate  
**Aluminum:** 6061-T6, Black Anodized

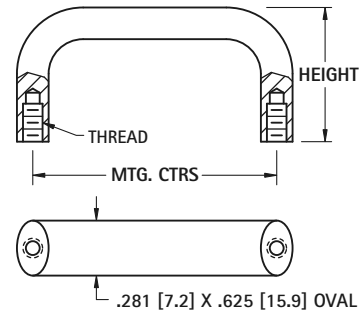


| HANDLES        |                   |               |              | FERRULES |            |                |                   |       |            |      |      |
|----------------|-------------------|---------------|--------------|----------|------------|----------------|-------------------|-------|------------|------|------|
| BRASS CAT. NO. | ALUMINUM CAT. NO. | W MTG. CTRS.  | H HEIGHT     | THREAD   | D DIAMETER | BRASS CAT. NO. | ALUMINUM CAT. NO. |       |            |      |      |
| 7140           | 7170              | 1.250 (31.8)  | 1.000 (25.4) | 4-40     | .156 (4.0) | 7176           | 7192              |       |            |      |      |
| 7141           | 7171              | 2.000 (50.8)  | 1.000 (25.4) |          |            |                |                   |       |            |      |      |
| 7142           | 7172              | 3.000 (76.2)  | 1.000 (25.4) |          |            |                |                   |       |            |      |      |
| 9100           | 9110              | 1.250 (31.8)  | .625 (15.9)  | 4-40     | .187 (4.7) | 9120           | 9122              |       |            |      |      |
| 9101           | 9111              | 1.500 (38.1)  | .625 (15.9)  |          |            |                |                   |       |            |      |      |
| 9104           | 9114              | 1.500 (38.1)  | .750 (19.1)  |          |            |                |                   |       |            |      |      |
| 9102           | 9112              | 1.750 (44.5)  | .625 (15.9)  |          |            |                |                   |       |            |      |      |
| 9105           | 9115              | 1.750 (44.5)  | .750 (19.1)  |          |            |                |                   |       |            |      |      |
| 9103           | 9113              | 2.000 (50.8)  | .625 (15.9)  |          |            |                |                   |       |            |      |      |
| 9106           | 9116              | 1.250 (31.8)  | 1.000 (25.4) |          |            |                |                   |       |            |      |      |
| 9107           | 9117              | 1.500 (38.1)  | 1.000 (25.4) | 6-32     | .187 (4.7) | 9121           | 9123              |       |            |      |      |
| 9108           | 9118              | 2.000 (50.8)  | 1.000 (25.4) |          |            |                |                   |       |            |      |      |
| 9109           | 9119              | 3.000 (76.2)  | 1.000 (25.4) |          |            |                |                   |       |            |      |      |
| 7143           | 7173              | 3.000 (76.2)  | 1.500 (38.1) | 8-32     | .250 (6.4) | 7163           | 7193              |       |            |      |      |
| 485            | 515               | 3.000 (76.2)  | 1.750 (44.5) |          |            |                |                   |       |            |      |      |
| 480            | 510               | 3.500 (88.9)  | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 7144           | 7174              | 4.000 (101.6) | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 486            | 516               | 4.000 (101.6) | 1.750 (44.5) |          |            |                |                   |       |            |      |      |
| 481            | 511               | 4.500 (114.3) | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 487            | 517               | 4.500 (114.3) | 1.750 (44.5) |          |            |                |                   |       |            |      |      |
| 482            | 512               | 5.000 (127.0) | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 488            | 518               | 5.000 (127.0) | 1.750 (44.5) |          |            |                |                   |       |            |      |      |
| 483            | 513               | 5.500 (139.7) | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 484            | 514               | 6.000 (152.4) | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 489            | 519               | 6.000 (152.4) | 1.750 (44.5) |          |            |                |                   |       |            |      |      |
| 7145           | 7175              | 3.000 (76.2)  | 1.500 (38.1) |          |            |                |                   | 10-32 | .312 (7.9) | 7164 | 7194 |
| 7146           | 7176              | 4.000 (101.6) | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 493            | 523               | 4.000 (101.6) | 1.750 (44.5) |          |            |                |                   |       |            |      |      |
| 490            | 520               | 4.500 (114.3) | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 494            | 524               | 4.500 (114.3) | 1.750 (44.5) |          |            |                |                   |       |            |      |      |
| 7147           | 7177              | 4.562 (115.9) | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 491            | 521               | 5.000 (127.0) | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 495            | 525               | 5.000 (127.0) | 1.750 (44.5) |          |            |                |                   |       |            |      |      |
| 492            | 522               | 5.500 (139.7) | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 7148           | 7178              | 6.000 (152.4) | 1.500 (38.1) |          |            |                |                   |       |            |      |      |
| 496            | 526               | 6.000 (152.4) | 1.750 (44.5) |          |            |                |                   |       |            |      |      |
| 7149           | 7179              | 6.437 (163.5) | 1.750 (44.5) | 10-32    | .375 (9.5) | -              | -                 |       |            |      |      |
| 7150           | 7180              | 4.000 (101.6) | 1.375 (34.9) |          |            |                |                   |       |            |      |      |
| 7151           | 7181              | 6.000 (152.4) | 1.375 (34.9) |          |            |                |                   |       |            |      |      |

**OVAL**



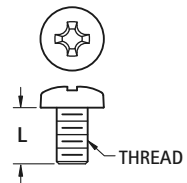
**MATERIAL:**  
**Aluminum:** 6061-T6, Black Anodized



| CAT. NO. | MTG. CTRS.    | HEIGHT       |
|----------|---------------|--------------|
| 7186     | 4.000 (101.6) | 1.750 (44.5) |
| 544      | 4.000 (101.6) | 2.000 (50.8) |
| 540      | 4.500 (114.3) | 1.750 (44.5) |
| 545      | 4.500 (114.3) | 2.000 (50.8) |
| 541      | 5.000 (127.0) | 1.750 (44.5) |
| 546      | 5.000 (127.0) | 2.000 (50.8) |
| 542      | 5.500 (139.7) | 1.375 (34.9) |
| 547      | 5.500 (139.7) | 2.000 (50.8) |
| 7187     | 6.000 (152.4) | 1.375 (34.9) |
| 543      | 6.000 (152.4) | 1.750 (44.5) |
| 548      | 6.000 (152.4) | 2.000 (50.8) |
| 7188     | 6.437 (163.5) | 1.750 (44.5) |

## HANDLE MOUNTING SCREWS

Phillips drive pan head machine screws



**MATERIAL:** Stainless Steel

| CAT. NO. | L LENGTH    | THREAD |
|----------|-------------|--------|
| 9900     | .250 (6.4)  | 4-40   |
| 9901     | .375 (9.5)  |        |
| 9902     | .500 (12.7) |        |
| 9903     | .250 (6.4)  | 6-32   |
| 9904     | .375 (9.5)  |        |
| 9905     | .500 (12.7) | 8-32   |
| 9906     | .375 (9.5)  |        |
| 9907     | .500 (12.7) |        |
| 9908     | .750 (19.1) | 10-32  |
| 9909     | .375 (9.5)  |        |
| 9910     | .500 (12.7) |        |
| 9911     | .750 (19.1) |        |

## PLASTIC FAN FILTER ASSEMBLIES

A unique package consisting of guard, filter media and retainer. The guard and retainer are manufactured with UL Rated 94V-HB material. The filter media is made of polyester foam and aluminum mesh which allows free passage of air (24 CFM) with minimum air resistance and pressure drop. A major feature of this assembly is that when the filter media requires maintenance you simply remove the snap-fit retainer to clean or replace the filter, leaving the guard and fan in place. This assures protection to the fan blades and eliminates damage to the fan or equipment during cleaning.

### RETAINER

**MATERIAL:** Glass filled Nylon 6/6, UL Rated HB

- Snap-fit construction
- Designed for minimum air restriction

### MEDIA

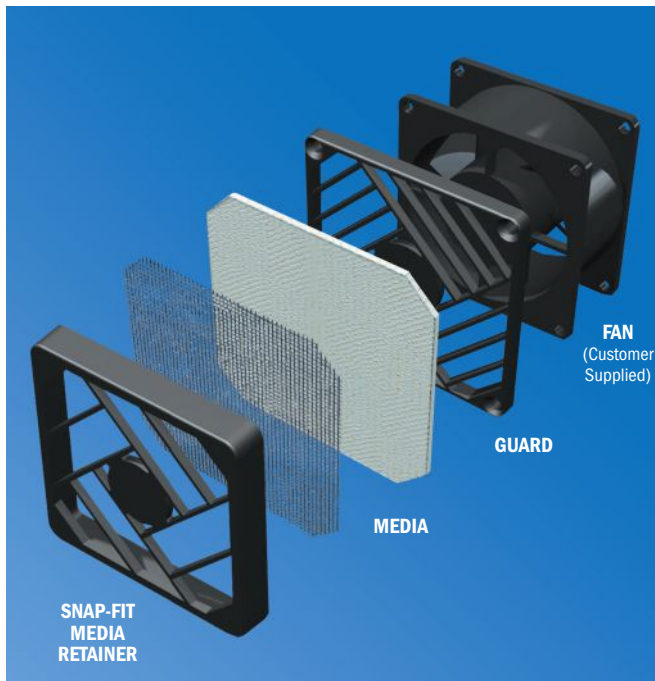
**MATERIAL:** White Polyester foam and Aluminum screen

- Constructed to allow free passage of air with minimum resistance and pressure drop (24 CFM)
- Has a high surface-area contact for impingement of dust particles
- Helps reduce external fan noise
- Easily cleaned by vacuuming or washing with mild soap, detergent or cleaning solvent
- Replacement media available

### GUARD

**MATERIAL:** Glass filled Nylon 6/6, UL Rated HB

- .250 (6.4) maximum ring spacing
- Decreased noise level
- Countersunk mounting holes (4)
- Withstands high impact



## FAN GUARD & FILTER ASSEMBLIES

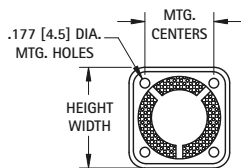


Fig. 1

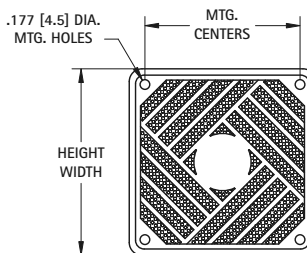


Fig. 2

| ASSEMBLY CAT. NO. | FIG. NO. | FOR FAN SIZE | HEIGHT/WIDTH  | THICKNESS   | MTG. CENTERS  | FILTER MEDIA ONLY CAT. NO. |
|-------------------|----------|--------------|---------------|-------------|---------------|----------------------------|
| 8443              | 1        | 1.50 (40mm)  | 1.839 (46.7)  | .327 (8.3)  | 1.260 (32.0)  | 8443-MO                    |
| 8444              | 2        | 2.50 (60mm)  | 2.559 (65.0)  | .488 (12.4) | 1.970 (50.0)  | 8444-MO                    |
| 8487              | 2        | 3.12 (80mm)  | 3.408 (86.6)  | .488 (12.4) | 2.840 (72.0)  | 8487-MO                    |
| 8488              | 2        | 3.62 (92mm)  | 3.815 (96.9)  | .488 (12.4) | 3.250 (82.5)  | 8488-MO                    |
| 8489              | 2        | 4.50 (120mm) | 4.961 (126.0) | .496 (12.6) | 4.130 (105.0) | 8489-MO                    |

## FAN GUARDS

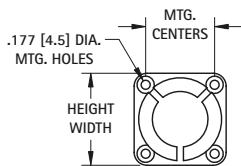


Fig. 3

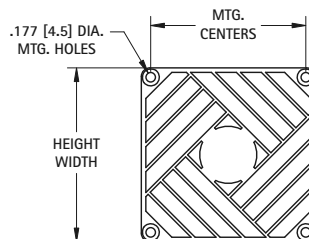


Fig. 4

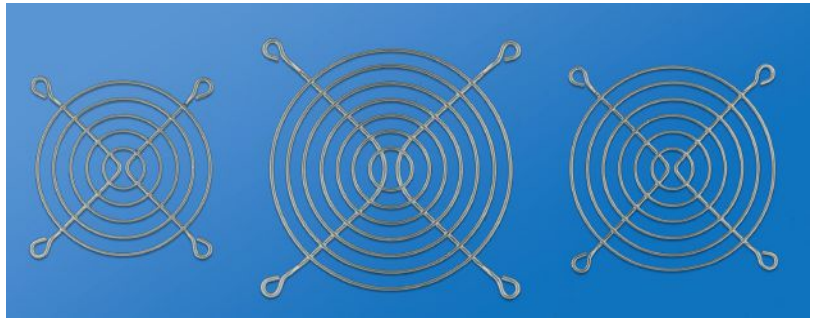
| GUARD CAT. NO. | FIG. NO. | FOR FAN SIZE | HEIGHT/WIDTH  | THICKNESS  | MTG. HOLE CENTER SPACING |
|----------------|----------|--------------|---------------|------------|--------------------------|
| 8445           | 3        | 1.50 (40mm)  | 1.681 (42.7)  | .169 (4.3) | 1.260 (32.0)             |
| 8446           | 4        | 2.50 (60mm)  | 2.378 (60.4)  | .236 (6.0) | 1.970 (50.0)             |
| 8497           | 4        | 3.12 (80mm)  | 3.177 (80.7)  | .236 (6.0) | 2.840 (72.0)             |
| 8498           | 4        | 3.62 (92mm)  | 3.634 (92.3)  | .236 (6.0) | 3.250 (82.5)             |
| 8499           | 4        | 4.50 (120mm) | 4.741 (120.4) | .244 (6.2) | 4.130 (105.0)            |



# METAL FAN GUARDS

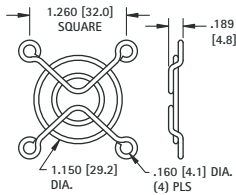
Made of high quality steel wire which combines strength with superior forming. The units offer clean, strong butt welds with minimum flash and have consistent guard diameters to enhance maximum air-flow and venting.

- Available for most popular size fans
- Protects fingers as well as fan blades
- Same mounting hole pattern as standard fans
- Chrome Plate offers a high luster finish



**MATERIAL:** Steel, Nickel Chrome Plate

### FITS 1.50" (40mm) FANS

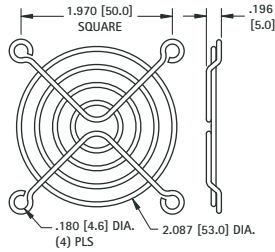


#### CONSTRUCTION

Rings: .063 (1.60) wire diameter  
Ribs: .063 (1.60) wire diameter

**CAT. NO. 8447**

### FITS 2.50" (60mm) FANS

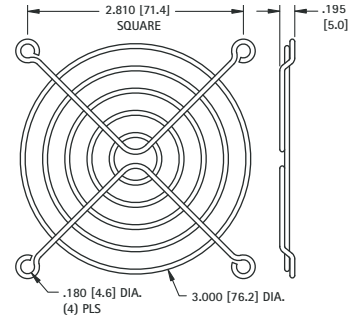


#### CONSTRUCTION

Rings: .063 (1.60) wire diameter  
Ribs: .063 (1.60) wire diameter

**CAT. NO. 8449**

### FITS 3.12" (80mm) FANS

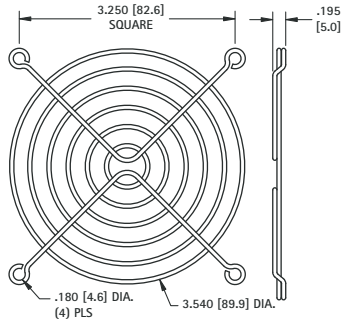


#### CONSTRUCTION

Rings: .063 (1.60) wire diameter  
Ribs: .063 (1.60) wire diameter

**CAT. NO. 8450**

### FITS 3.62" (92mm) FANS

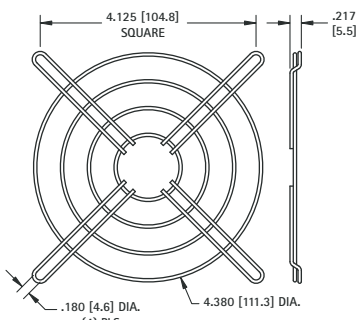


#### CONSTRUCTION

Rings: .063 (1.60) wire diameter  
Ribs: .063 (1.60) wire diameter

**CAT. NO. 8451**

### FITS 4.50" (120mm) FANS

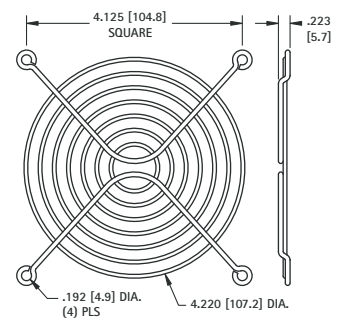


#### CONSTRUCTION

Rings: .063 (1.60) wire diameter  
Ribs: .063 (1.60) wire diameter

**CAT. NO. 8448**

### FITS 4.50" (120mm) FANS

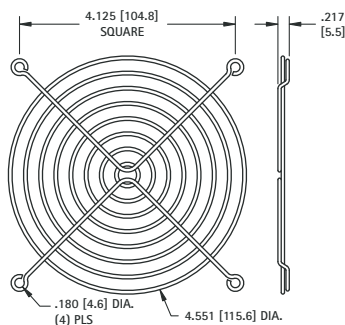


#### CONSTRUCTION

Rings: .071 (1.80) wire diameter  
Ribs: .091 (2.31) wire diameter

**CAT. NO. 8452**

### FITS 4.50" (120mm) FANS

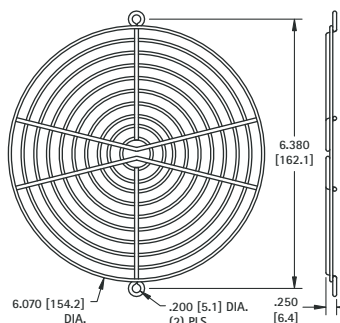


#### CONSTRUCTION

Rings: .071 (1.80) wire diameter  
Ribs: .071 (1.80) wire diameter

**CAT. NO. 8453**

### FITS 6.00" (150mm) FANS

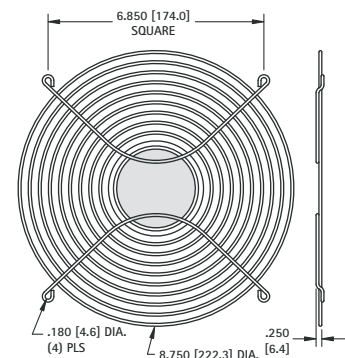


#### CONSTRUCTION

Rings: .071 (1.80) wire diameter  
Ribs: .091 (2.31) wire diameter

**CAT. NO. 8455**

### FITS 10.00" (250mm) FANS



#### CONSTRUCTION

Rings: .091 (2.31) wire diameter  
Ribs: .091 (2.31) wire diameter

**CAT. NO. 8457**

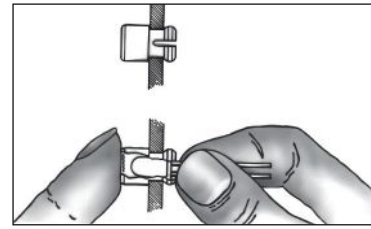
# LED LENS CAPS

Designed for use with T-1 or T-1 3/4 LEDs, these Lens Caps are available in round or square configurations. They snap-mount through the front panel for easy, light-finger pressure, installation. The LED is inserted into the cap from behind the panel and held securely in place.

The Lens Cap protects the LED from physical damage while guarding the components from electrostatic discharge (ESD), up to 16KV. More economical than indicator light assemblies, the caps feature striated lines and fresnel rings which permit up to 180 viewing angles with either diffused or non-diffused LED's. They provide exceptionally high contrast and visibility.



**MATERIAL:** Polycarbonate  
Available in Red, Green, Yellow and Clear



## ROUND CAPS

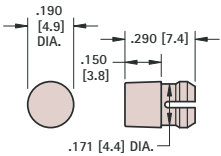


FIG. 1 T-1

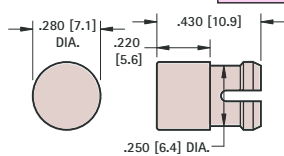


FIG. 2 T-1 3/4

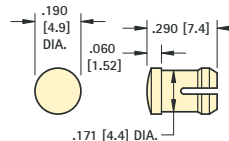


FIG. 3 T-1

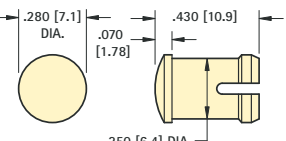


FIG. 4 T-1 3/4

### STANDARD HEIGHT

| CAT. NO. | COLOR  | FIG. NO. | LED SIZE | MTG. HOLE SIZE | MIN. MTG. CENTERS | PANEL THICKNESS         |
|----------|--------|----------|----------|----------------|-------------------|-------------------------|
| 8650     | RED    | 1        | T-1      | .171 (4.3)     | .250 (6.4)        | .031 - .062 (.79/1.57)  |
| 8651     | GREEN  |          |          |                |                   |                         |
| 8652     | YELLOW |          |          |                |                   |                         |
| 8653     | CLEAR  | 2        | T-1 3/4  | .250 (6.4)     | .375 (9.5)        | .062 - .125 (1.57/3.18) |
| 8662     | RED    |          |          |                |                   |                         |
| 8663     | GREEN  |          |          |                |                   |                         |
| 8664     | YELLOW |          |          |                |                   |                         |
| 8665     | CLEAR  |          |          |                |                   |                         |

### LOW PROFILE

| CAT. NO. | COLOR  | FIG. NO. | LED SIZE | MTG. HOLE SIZE | MIN. MTG. CENTERS | PANEL THICKNESS                     |
|----------|--------|----------|----------|----------------|-------------------|-------------------------------------|
| 8656     | RED    | 3        | T-1      | .171 (4.3)     | .250 (6.4)        | .062 - .125 (1.57/3.18)             |
| 8657     | GREEN  |          |          |                |                   |                                     |
| 8658     | YELLOW |          |          |                |                   |                                     |
| 8659     | CLEAR  | 4        | T-1 3/4  | .250 (6.4)     | .375 (9.5)        | .031 - .250 (.79/6.4)<br>(See Note) |
| 8668     | RED    |          |          |                |                   |                                     |
| 8669     | GREEN  |          |          |                |                   |                                     |
| 8670     | YELLOW |          |          |                |                   |                                     |
| 8671     | CLEAR  |          |          |                |                   |                                     |

## SQUARE CAPS

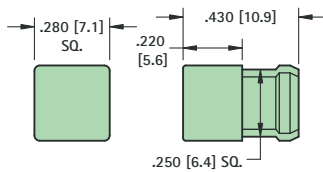


FIG. 5 T-1 3/4

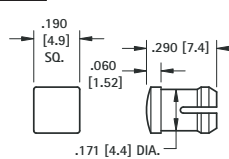


FIG. 6 T-1

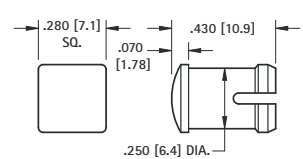


FIG. 7 T-1 3/4

### STANDARD HEIGHT

| CAT. NO. | COLOR  | FIG. NO. | LED SIZE | MTG. HOLE SIZE    | MIN. MTG. CENTERS | PANEL THICKNESS         |
|----------|--------|----------|----------|-------------------|-------------------|-------------------------|
| 8680     | RED    | 5        | T-1 3/4  | .250 (6.4) SQUARE | .375 (9.5)        | .062 - .125 (1.57/3.18) |
| 8681     | GREEN  |          |          |                   |                   |                         |
| 8682     | YELLOW |          |          |                   |                   |                         |
| 8683     | CLEAR  |          |          |                   |                   |                         |

### LOW PROFILE

| CAT. NO. | COLOR  | FIG. NO. | LED SIZE | MTG. HOLE SIZE | MIN. MTG. CENTERS | PANEL THICKNESS                     |
|----------|--------|----------|----------|----------------|-------------------|-------------------------------------|
| 8674     | RED    | 6        | T-1      | .171 (4.3)     | .250 (6.4)        | .062 - .125 (1.57/3.18)             |
| 8675     | GREEN  |          |          |                |                   |                                     |
| 8676     | YELLOW |          |          |                |                   |                                     |
| 8677     | CLEAR  | 7        | T-1 3/4  | .250 (6.4)     | .375 (9.5)        | .031 - .250 (.79/6.4)<br>(See Note) |
| 8686     | RED    |          |          |                |                   |                                     |
| 8687     | GREEN  |          |          |                |                   |                                     |
| 8688     | YELLOW |          |          |                |                   |                                     |
| 8689     | CLEAR  |          |          |                |                   |                                     |

Note: When mounting T-1 3/4 Low Profile Caps (Fig. 4 or Fig. 7) in panels .125 (3.2) thick or less a spacer must be used. **Spacer CAT. NO. 8692 MATERIAL:** White Nylon .360 (9.1) O.D. x 1/4 I.D. x 1/8 Lg.

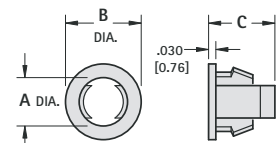
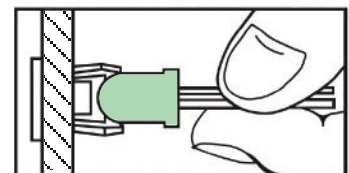
## "SNAP-IN" T-1 & T-1 3/4 LED HOLDERS

Designed for use with T-1 or T-1 3/4 LED's in .060 (1.52) - .070 (1.78) thick panels. The holder snaps into the front panel with easy, light-finger pressure. The LED snaps into the holder from behind the panel and is held securely in place.



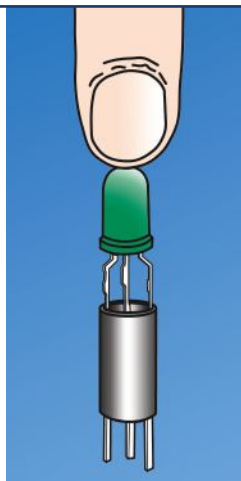
**MATERIAL:** Nylon 6/6, Black

| CAT. NO. | LED SIZE | A          | B          | C          | MTG. HOLE SIZE |
|----------|----------|------------|------------|------------|----------------|
| 8309     | T-1      | .114 (2.9) | .232 (5.9) | .188 (4.8) | .171 (4.3)     |
| 8310     | T-1 3/4  | .200 (5.0) | .315 (8.0) | .274 (6.9) | .250 (6.4)     |

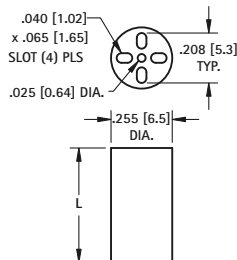


# "UNIVERSAL" FOR T-1 & T-1 3/4

- Unique design separates leads and retains Tri-Lead and Bi-Lead components
- Designed for PC board mounting of Tri-Lead and Bi-Lead T-1 and T-1 3/4 LEDs
- Provides height control, lead retention and stability
- Also suitable for mounting lamps, resistors, transistors, diodes, capacitors, etc.



**T1 & T-1 3/4**



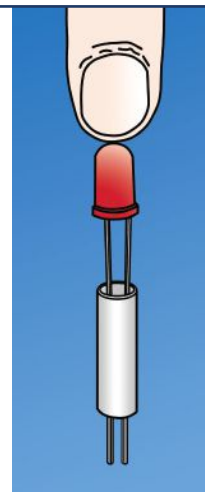
**MATERIAL:** Black PVC, UL Rated 94V-0

| FOR T-1 and T-1 3/4 |            |          |             |
|---------------------|------------|----------|-------------|
| CAT. NO.            | L LENGTH   | CAT. NO. | L LENGTH    |
| 8900                | .120 (3.0) | 8916     | .400 (10.2) |
| 8901                | .140 (3.6) | 8917     | .420 (10.7) |
| 8902                | .160 (4.1) | 8918     | .440 (11.2) |
| 8903                | .180 (4.6) | 8919     | .450 (11.4) |
| 8904                | .200 (5.1) | 8920     | .460 (11.7) |
| 8905                | .220 (5.6) | 8921     | .480 (12.2) |
| 8906                | .240 (6.1) | 8922     | .500 (12.7) |
| 8907                | .250 (6.4) | 8923     | .550 (14.0) |
| 8908                | .260 (6.6) | 8924     | .600 (15.2) |
| 8909                | .280 (7.1) | 8925     | .650 (16.5) |
| 8910                | .300 (7.6) | 8926     | .700 (17.8) |
| 8911                | .320 (8.1) | 8927     | .750 (19.1) |
| 8912                | .340 (8.6) | 8928     | .800 (20.3) |
| 8913                | .350 (8.9) | 8929     | .850 (21.6) |
| 8914                | .360 (9.1) | 8930     | .900 (22.9) |
| 8915                | .380 (9.7) | 8931     | .925 (23.5) |

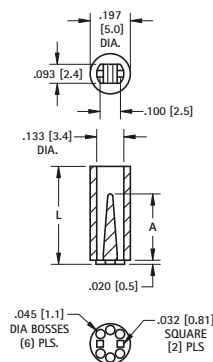
# "SELF-ALIGNING" FOR BI-LEAD T-1 & T-1 3/4

## KEY FEATURES

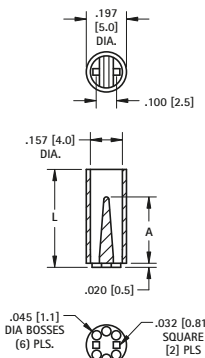
- Positive self-alignment of leads on .100 (.25) centers.
- No special tools required
- This features an internally tapered barrier which guides the leads and eliminates crimping or shorting
- The bottom bosses serve the dual purpose of heat dissipation and easy post soldering cleanup



**T-1**



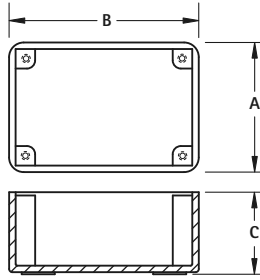
**T-1 3/4**



**MATERIAL:** Natural Nylon, UL Rated 94V-2

| T-1      | T-1 3/4  | L          | A          | T-1        | T-1 3/4  | L           | A           |  |             |
|----------|----------|------------|------------|------------|----------|-------------|-------------|--|-------------|
| CAT. NO. | CAT. NO. | LENGTH     | REF.       | CAT. NO.   | CAT. NO. | LENGTH      | REF.        |  |             |
| 7351     | 8311     | .120 (3.0) | .075 (1.9) | 7367       | 8327     | .400 (10.2) | .325 (8.3)  |  |             |
| 7352     | 8312     | .140 (3.6) |            | 7368       | 8328     | .420 (10.7) |             |  |             |
| 7353     | 8313     | .160 (4.1) |            | 7369       | 8329     | .440 (11.2) |             |  |             |
| 7354     | 8314     | .180 (4.6) |            | 7370       | 8330     | .450 (11.4) |             |  |             |
| 7355     | 8315     | .200 (5.1) |            | 7371       | 8331     | .460 (11.7) |             |  |             |
| 7356     | 8316     | .220 (5.6) |            | 7372       | 8332     | .480 (12.2) |             |  |             |
| 7357     | 8317     | .240 (6.1) |            | 7373       | 8333     | .500 (12.7) |             |  |             |
| 7358     | 8318     | .250 (6.4) |            | 7374       | 8334     | .550 (14.0) |             |  |             |
| 7359     | 8319     | .260 (6.6) |            | 7375       | 8335     | .600 (15.2) |             |  |             |
| 7360     | 8320     | .280 (7.1) |            | 7376       | 8336     | .650 (16.5) |             |  |             |
| 7361     | 8321     | .300 (7.6) | .190 (4.8) | 7377       | 8337     | .700 (17.8) | .450 (11.4) |  |             |
| 7362     | 8322     | .320 (8.1) |            | 7378       | 8338     | .750 (19.1) |             |  |             |
| 7363     | 8323     | .340 (8.6) |            | 7379       | 8339     | .800 (20.3) |             |  |             |
| 7364     | 8324     | .350 (8.9) |            | 7380       | 8340     | .850 (21.6) |             |  |             |
| 7365     | 8325     | .360 (9.1) |            | 7381       | 8341     | .900 (22.9) |             |  |             |
| 7366     | 8326     | .380 (9.7) |            | 7382       | 8342     | .925 (23.5) |             |  |             |
|          |          |            |            | .200 (5.1) |          |             |             |  | .575 (14.6) |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            | .325 (8.3) |            |          |             | .690 (17.5) |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |
|          |          |            |            |            |          |             |             |  |             |

## PHENOLIC INSTRUMENT CASES



**MATERIALS:**

**Phenolic Panels:** .062 (1.57) Glossy Black Phenolic, MIL-P3115C  
**Aluminum Panels:** .062 (1.57), 5052-H34 per QQ 318 C; Bright finished surface with pressure sensitive protective covering tape

**MATERIALS:**

**Phenolic Cases:** .125 (3.2) Wall thickness, Molded Glossy Black Phenolic, MIL-M-14, CFG

- Cases and panels are sold separately
- Covers available in Phenolic or Aluminum
- Covers can be machined to accept dials, switches, displays
- Panel mounting screws available - Refer to page 131
- Sturdy case can be machined for wiring access
- Ideal for prototype or lab use

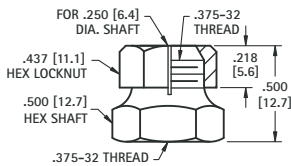
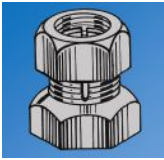
| COVER PANEL    |                |
|----------------|----------------|
| PHENOLIC PANEL | ALUMINUM PANEL |
| CAT. NO.       | CAT. NO.       |
| 2050           | 2051           |
| 2042           | 2044           |
| 2043           | 2045           |
| 2037*          | 2046           |
| 2052*          | 2053           |
| 2038*          | 2047           |
| 2039*          | 2048           |

| PHENOLIC CASE |               |               |              |                           |
|---------------|---------------|---------------|--------------|---------------------------|
| CAT. NO.      | A             | B             | C            | THREAD SIZE AND TYPE      |
| 715           | 2.500 (63.5)  | 3.500 (88.9)  | 1.250 (31.8) | 4-40 TAPPED               |
| 703           | 2.875 (73.0)  | 4.000 (101.6) | 1.562 (39.7) | 4-40 TAPPED               |
| 705           | 2.875 (73.0)  | 4.000 (101.6) | 1.562 (39.7) | USE #4 SELF TAPPING SCREW |
| 704           | 3.125 (79.4)  | 5.875 (149.2) | 2.250 (57.2) | 4-40 TAPPED               |
| 700           | 3.750 (95.3)  | 6.250 (158.8) | 2.000 (50.8) | 6-32 BRASS INSERT         |
| 716           | 4.250 (108.0) | 5.000 (127.0) | 1.750 (44.5) | 6-32 BRASS INSERT         |
| 701           | 5.250 (133.4) | 6.812 (173.0) | 2.312 (58.7) | 6-32 BRASS INSERT         |
| 702           | 7.375 (187.3) | 8.375 (212.7) | 3.000 (76.2) | 6-32 BRASS INSERT         |

\*.093 (2.36)

## SHAFT LOCKS

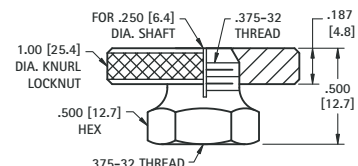
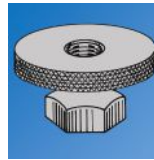
For .250 (6.4) SHAFT



**MATERIAL:** Brass, Nickel Plate

**CAT. NO. 1701**

For .250 (6.4) SHAFT



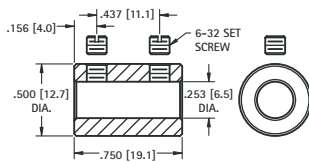
**MATERIAL:** Brass, Nickel Plate

**CAT. NO. 1702**

## .250 (6.4) SHAFT COUPLING



Two set screws hold shaft securely

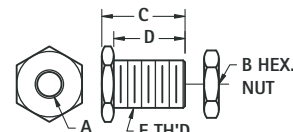


**MATERIAL:** Brass, Nickel Plate  
 Set Screws: Steel, Zinc Plate  
 Supplied unassembled

**CAT. NO. 1453**

## PANEL BEARINGS

STANDARD and MINIATURE



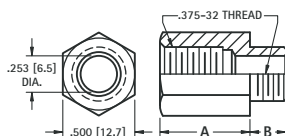
**MATERIAL:** Brass, Nickel Plate  
 Supplied unassembled

| CAT. NO. | A          | B (HEX)     | C           | D           | E THREAD          |
|----------|------------|-------------|-------------|-------------|-------------------|
| 1705     | .253 (6.4) | .437 (11.1) | .500 (12.7) | .437 (11.1) | .375-32 Standard  |
| 1706     | .128 (3.3) | .343 (8.7)  | .437 (11.1) | .375 (9.5)  | .250-32 Miniature |

## VOLUME CONTROL EXTENDERS



For .250 (6.4) volume control shafts having .375-32 threaded bushings.



| CAT. NO. | A           | B           |
|----------|-------------|-------------|
| 1464     | .625 (15.9) | .250 (6.4)  |
| 1465     | .625 (15.9) | .375 (9.5)  |
| 1466     | .687 (17.4) | .500 (12.7) |
| 1467     | .750 (19.1) | .250 (6.4)  |

**MATERIAL:** Brass, Nickel Plate

## PANEL NUTS



For Volume Controls, Switches, Tip Jacks, etc.

| CAT. NO. | FOR           | THREAD   | DIAMETER     | THICKNESS   |
|----------|---------------|----------|--------------|-------------|
| 1448     | Mounting      | 1/4-32   | .375 Hex     | .093 (2.36) |
| 1449     | Mini. Control | 1/4-32   | .312 Hex     | .078 (1.98) |
| 1456     | Vol. Control  | 3/8-32   | .500 Hex     | .093 (2.36) |
| 1458     | Switch        | 15/32-32 | .562 Hex     | .078 (1.98) |
| 1459     | Switch Ring   | 15/32-32 | .625 Knurled | .062 (1.57) |
| 1472     | Filter        | 5/16-32  | .375 Hex     | .093 (2.36) |

**MATERIAL:** Brass, Nickel Plate



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