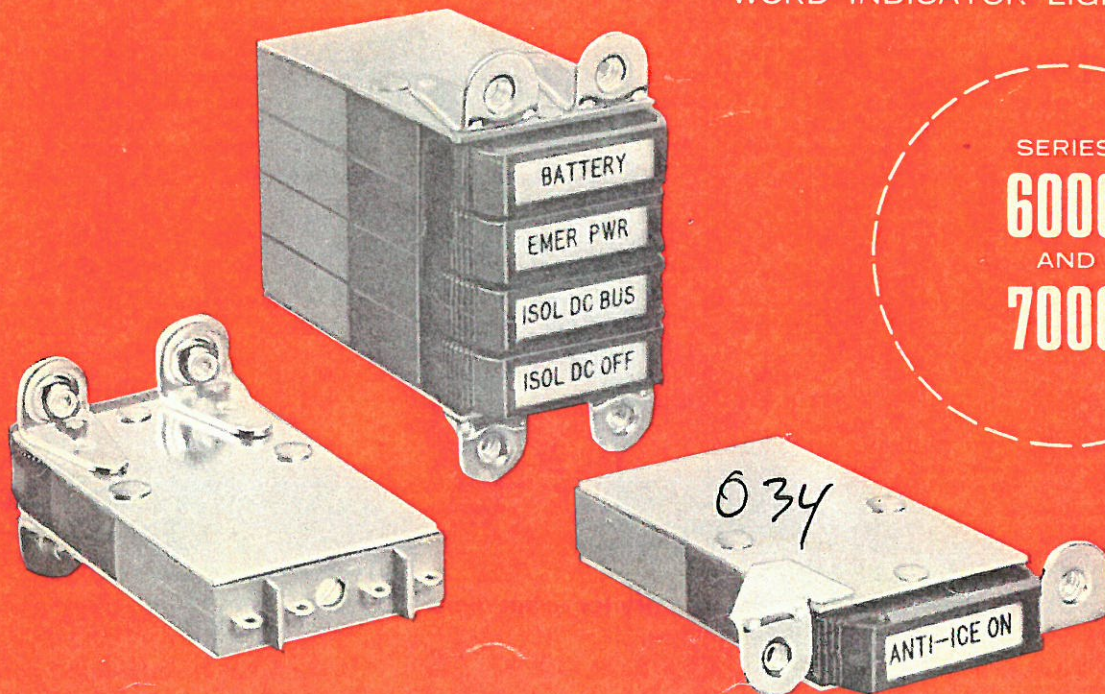


MSC PRODUCTS

ROTO-TELLITE[®]

WORD INDICATOR LIGHTS



SERIES
6000
AND
7000

ROTO-TELLITE® WORD INDICATOR LIGHTS

SERIES 6000 AND 7000

The Series 6000 and 7000 Roto-Tellite® units are two lamp word indicator lights that mount flush with the panel front. The rectangular front lens and lamps are contained in a rotatable light capsule which permits front-of-panel relamping, as well as legend or color change without requiring the use of tools. The basic units may be grouped for mounting in many different configurations providing for vertical stacks, horizontal rows, or matrices. A choice of mounting brackets is provided to allow installation of units in close proximity to other components on the panel.

The Series 7000 is wider than the Series 6000, providing additional lens area for legends. The small size, low cost, and high quality of both these units make them particularly well suited for aircraft cockpit applications as well as numerous industrial, commercial, and military requirements. Also available with built-in control capsules for master lamp test or diode dimming.

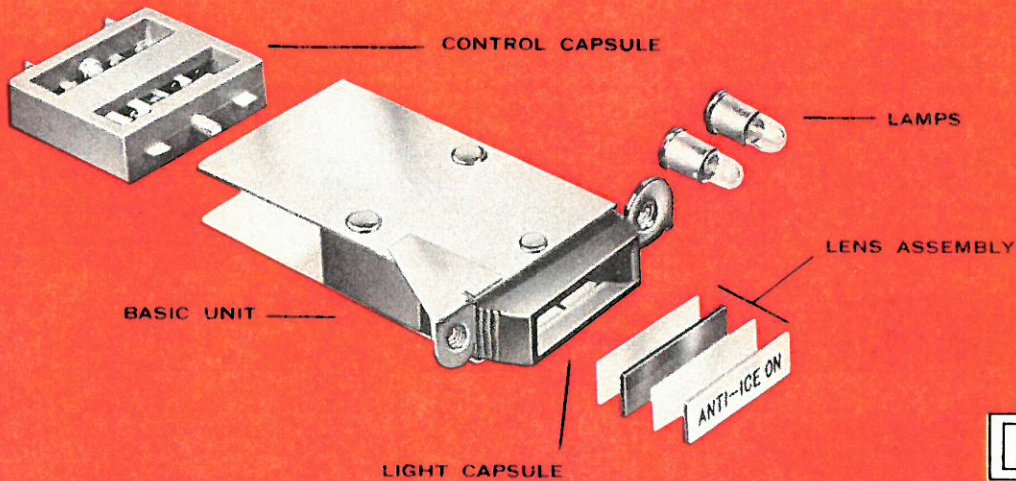
SERIES 6000

NO TOOLS
TO RELAMP

REMOVABLE
LEGEND

FLUSH MOUNTING

SERIES 7000



SERIES 6000

ACTUAL SIZE

SERIES 7000

Note: All dimensions are approximate. Contact factory for exact dimensions.

RELAMPING AND POSITIVE INDEXING

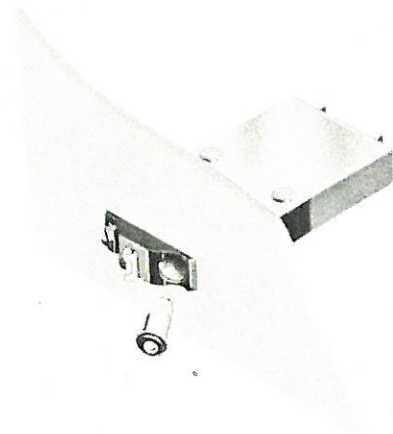


Fig. 1 RELAMPING AND POSITIVE INDEXING

Relamping is accomplished without tools by depressing either side of the lens face, which causes the light capsule to rotate. Continuing to rotate the capsule 180° exposes the lamps for replacement. The capsule is permanently connected to the basic unit, therefore nothing becomes detached during the operation, except the lamp. This prevents inadvertent exchanging of capsules with adjacent units. See Figure 1.

REMOVABLE LEGENDS

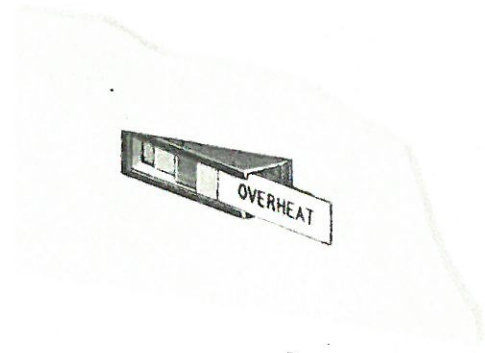


Fig. 2 LEGEND REMOVAL

The lens assembly is held captive within a frame at the front of the light capsule by a nylon gate, which may be opened with one finger when the light capsule is rotated, as in relamping. This operation permits legend or color change from the panel front without tools. See Figure 2.

LAMPS

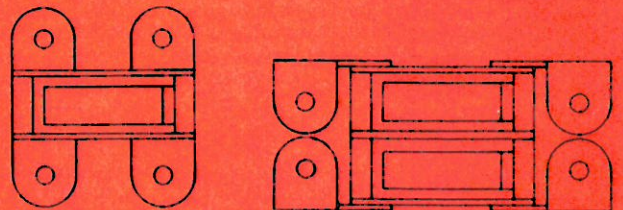
Each light capsule accepts two MS 25237 or equivalent lamps which are available in 6, 12, or 28 VDC incandescent or 115 V.A.C. neon. Neon lamp recommended for use with red or amber color filters only. Lamp circuit terminals are solder type and will accept two No. 20 (AWG) wire leads. See Page 5 for choice of lamp circuits.

CODE NUMBER FOR LAMP TYPES

6 Volt	12 Volt	28 Volt	115 Volt Neon with Resistor	115 Volt Neon without Resistor
D1	D2	D3	D4	D10

EDGE-LITE PANELS

Series 6000 and 7000 units have been installed in numerous edge-lite panel applications. In such applications, the units are normally mounted to a standard 1/16" metal panel with a 3/16" edgelite panel installed over the metal panel. The edgelite panel therefore covers the mounting screws so that only the lens is visible through the cutout.



CHOICE OF MOUNTING BRACKETS

Two types of mounting brackets are offered, as illustrated above. Units may be ordered with either type or any combination of these brackets in whatever positions are specified. This choice of brackets is offered for customer convenience to allow for mounting in close proximity to other components on the panel.

FRONT LENS AND LEGEND INFORMATION

LENS TYPES

The following standard type lenses are available with the Series 6000 and 7000.

TYPE 1

Lighted Letters: Letters appear white on a black background until illuminated and then letters appear in color.

TYPE 2

Lighted Background: Letters appear black on a white background until illuminated and then background appears in color.

TYPE 3

Lighted Letters: Letters are not legible until illuminated and then letters appear in color. Background is black.

TYPE 4

Lighted Background: Letters are not legible until illuminated and then background appears in color and letters in black.

LEGEND AREA AND LETTERING

SERIES 6000

The visible legend area is $9/32$ " high x $27/32$ " wide, and it will accommodate two rows of $.125$ " high letters with a maximum of 11 letters and spaces wide.



Fig. 3a: Example of $.125$ " high letters in Series 6000 lens area

SERIES 7000

The visible legend area is $7/32$ " high x $1 - 1/4$ " wide, and it will accommodate one row of $.125$ " high letters with a maximum of 14 letters and spaces wide.

Fig. 3b: Example of $.125$ " high letters in Series 7000 lens area

DIVIDED LIGHT

The primary purpose of the divided light feature is to provide two indications in the space normally required for one. A divider is added forming two distinct lens areas for engraved legends. Different color filters also may be used behind each lens area, providing two separate color indications, one for each legend. Each lens area has its own separate lamp.

The Series 6000 divided lens Roto-Tellite provides a visible legend area of $9/32$ " high x $25/64$ " wide for each half. This space will accommodate the following amount of lettering: Two rows of $.125$ " high letters, five letters and/or spaces wide.

The Series 7000 divided lens Roto-Tellite provides a visible legend area of $7/32$ " high x $19/32$ " wide for each half. This space will accommodate the following amount of lettering: One row of $.125$ " high letters, six letters and/or spaces wide.

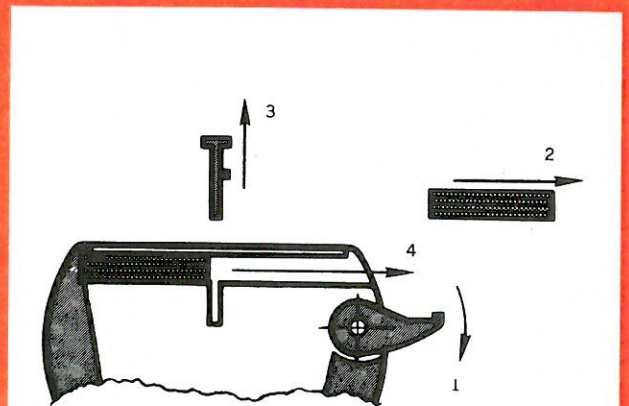
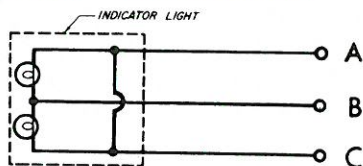


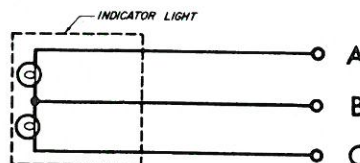
FIGURE 4

1. ROTATE TAB
2. REMOVE FIRST LENS
3. REMOVE DIVIDER
4. REMOVE SECOND LENS

BASIC LAMP CIRCUITS



CIRCUIT NO. 1
PARALLELED LAMPS



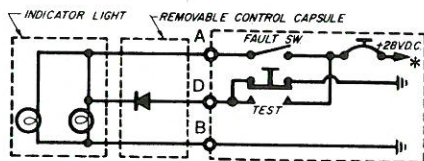
CIRCUIT NO. 2
SEPARATE LAMPS

OPTIONAL CONTROL CAPSULES

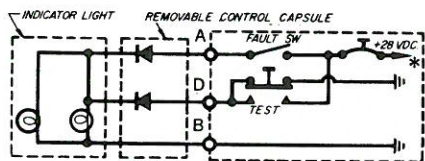
(FOR USE WITH FULL DISPLAY FACE UNITS ONLY)

Removable control capsules, which are integral with the basic unit may be ordered as an optional feature to provide master lamp test and/or diode dimming capabilities. These control capsules are modular in design and may be changed or replaced without disassembling the indicator unit itself, providing ease of maintenance and flexibility of design. Master lamp test circuits permit testing

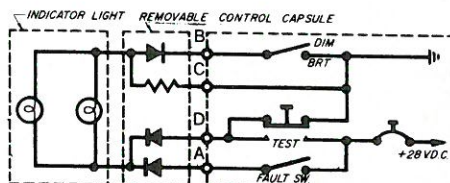
of all lights on a panel with the use of one switch. Diodes may also be provided to prevent current feed-back when required. Circuits for both positive and negative D.C. inputs are available. Standard circuits are illustrated below and should be specified when ordering unit with control capsules. (Other control capsules available on special request.)



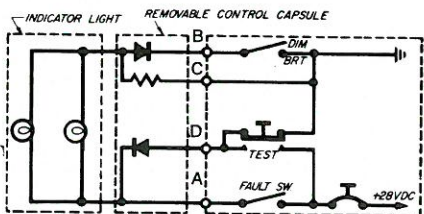
CIRCUIT NO. 5 (F5)
TEST, D. C. POSITIVE INPUT



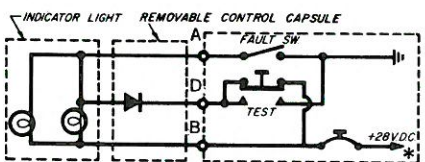
CIRCUIT NO. 6 (F6)
TEST WITH BLOCKING DIODE,
D. C. POSITIVE INPUT



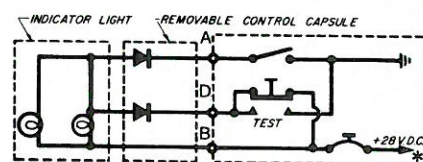
CIRCUIT NO. 10 (F10)
TEST WITH BLOCKING DIODE & DIODE
DIMMING, D. C. POSITIVE INPUT



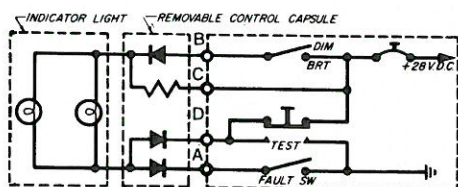
CIRCUIT NO. 11 (F11)
TEST & DIODE DIMMING,
D. C. POSITIVE INPUT



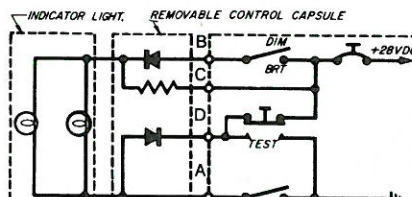
CIRCUIT NO. 12 (F12)
TEST, D. C. NEGATIVE INPUT



CIRCUIT NO. 13 (F13)
TEST WITH BLOCKING DIODE,
D. C. NEGATIVE INPUT



CIRCUIT NO. 17 (F17)
TEST WITH BLOCKING DIODE & DIODE
DIMMING, D. C. NEGATIVE INPUT

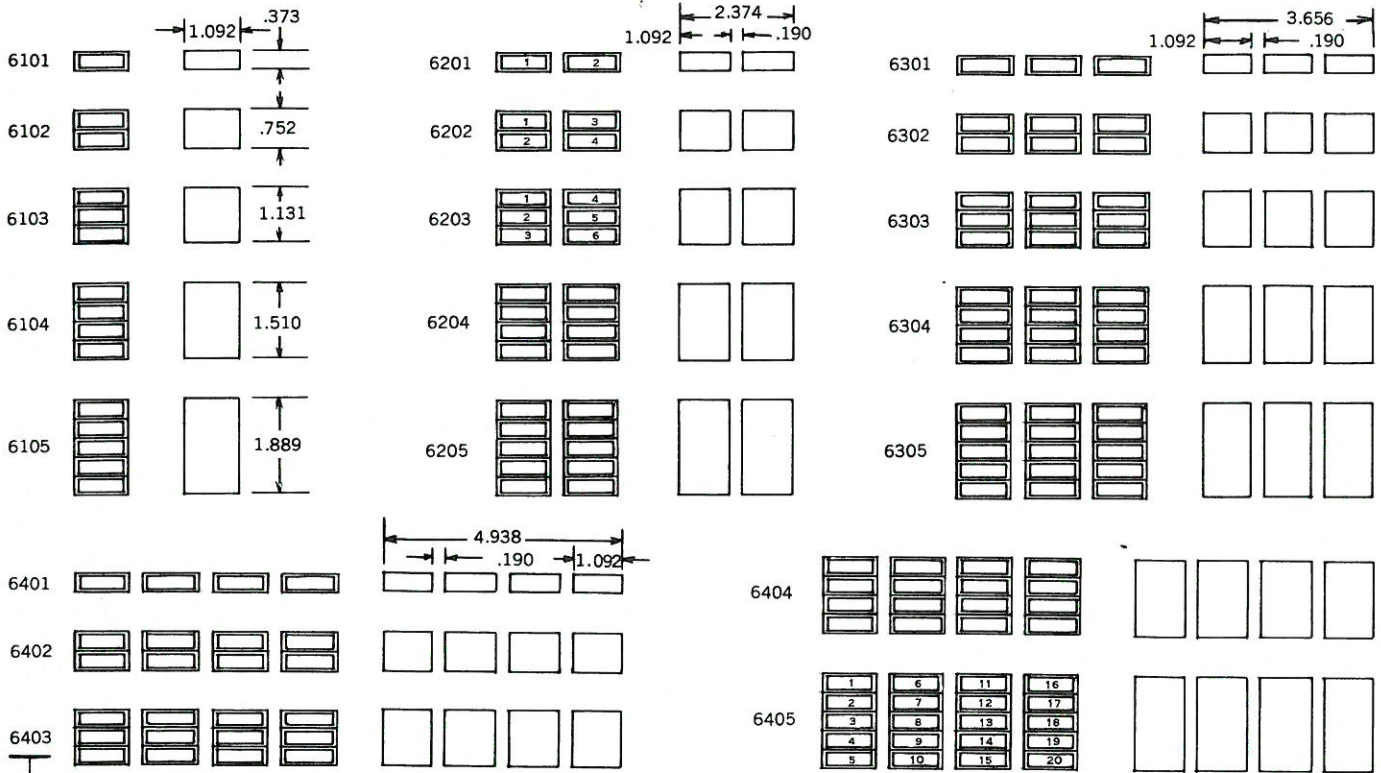


CIRCUIT NO. 18 (F18)
TEST & DIODE DIMMING,
D. C. NEGATIVE INPUT

* Also available for 6 and 12 volts.

SERIES 6000

BASIC PART NUMBER & PANEL CUTOUT DIMENSIONS



BASIC PART NUMBER

This number is descriptive. First digit indicates series number, second digit is number of units horizontal, third and fourth digits indicate number of units vertical. All assemblies including 2, 3, and 4 units wide are grouped together as one complete assembly ready for panel mounting.

BEVELLED EDGE FOR PANEL CUTOUT

The vertical edge of the panel cutout must be tapered back 30° to permit rotation of light capsule. See illustration below.

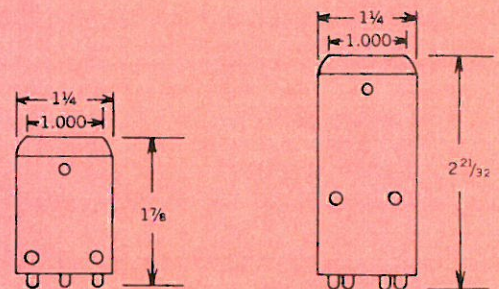
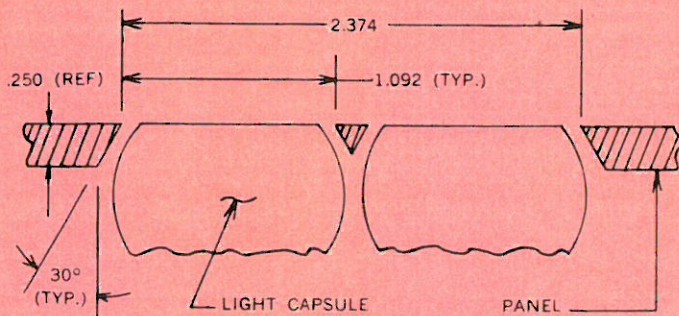


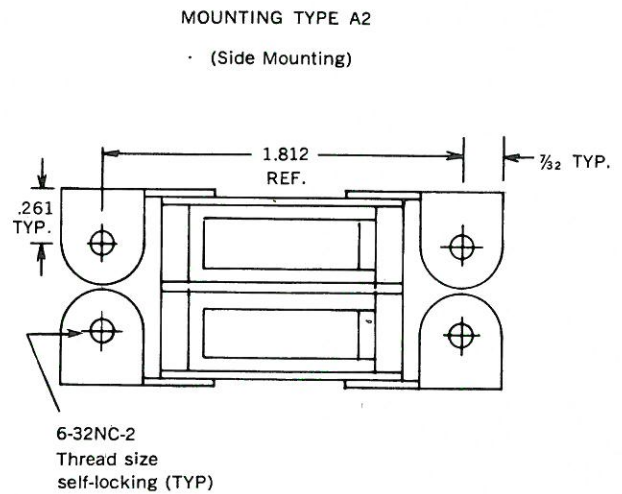
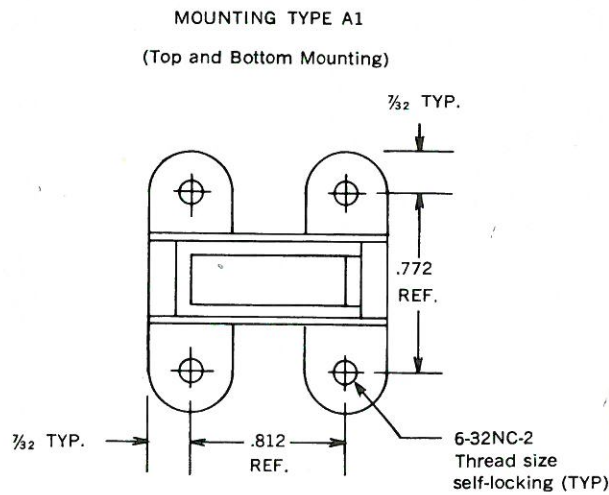
Illustration above shows unit depth when Circuit Nos. 1 or 2 are utilized.

Illustration above shows unit depth when Circuit Nos. 5 through 18 are utilized.

SERIES 6000 POSITION OF MOUNTING BRACKETS & LOCATION OF MOUNTING HOLES

CHOICE OF MOUNTING BRACKETS

Two types of mounting brackets are offered, as illustrated below. This choice of brackets is offered for customer convenience to allow for mounting in close proximity to other components on the panel.

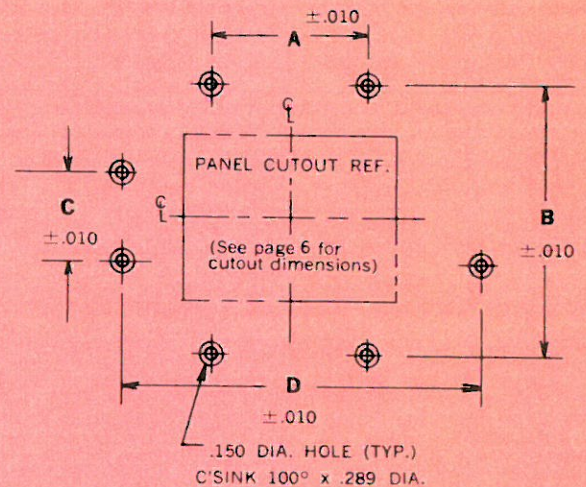


NOTE: Mounting brackets are set for mounting on 1/4" panels. Shim washers should be used for mounting on thinner panels. (Use 1/16" thick, 3/8" O.D. aluminum anodized washers, MS15795-706 type.)

NOTE: All assemblies with type A2 mounting have 4 tabs per assembly, except assemblies one unit high, which have only 2 tabs per assembly, upper left and lower right.

LOCATION OF MOUNTING HOLES

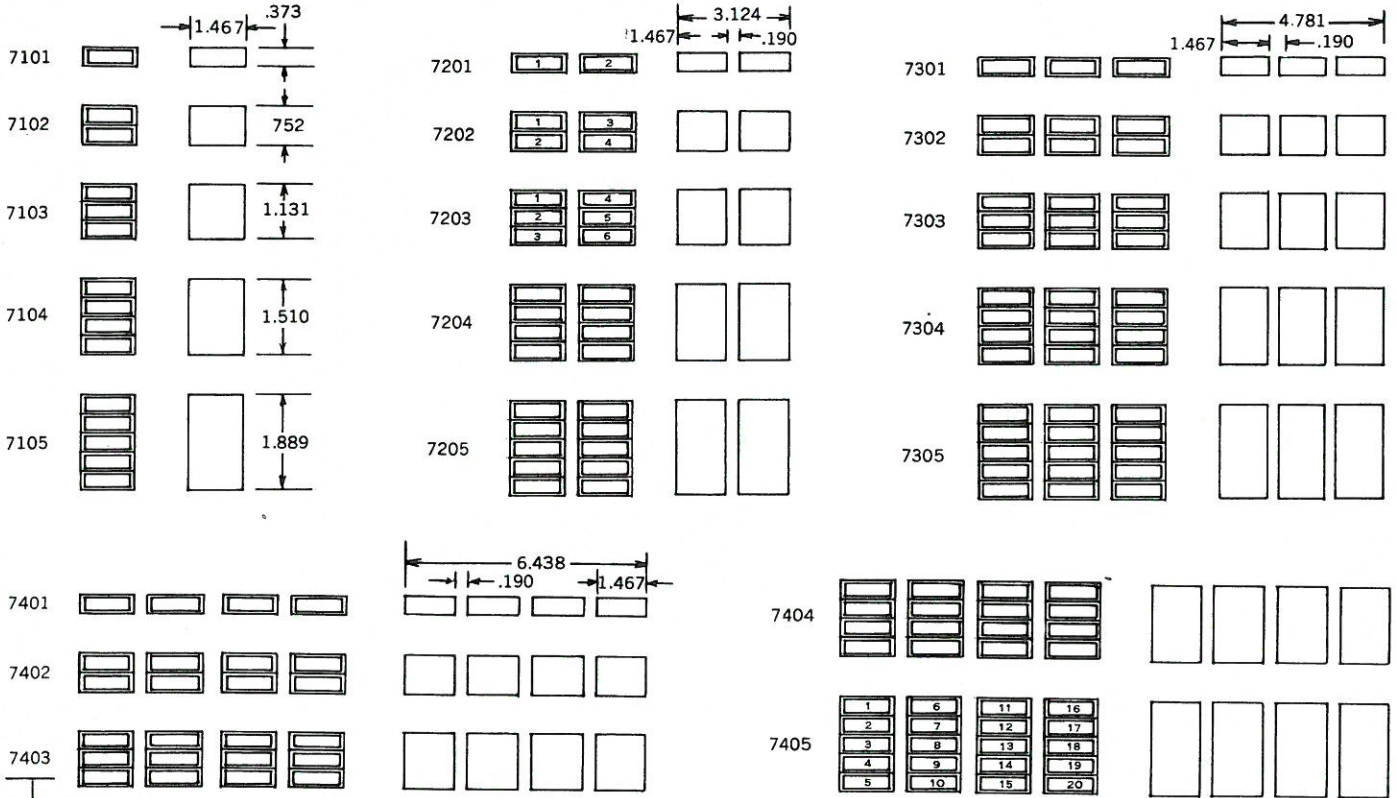
UNIT TYPE	HOLE DIMENSIONS FOR "A1" TYPE MTG. BRACKET		HOLE DIMENSIONS FOR "A2" TYPE MTG. BRACKET	
	DIMENSION A	DIMENSION B	DIMENSION C	DIMENSION D
6101	.812	.774	.000	1.812
6102	.812	1.152	.348	1.812
6103	.812	1.530	.726	1.812
6104	.812	1.908	1.104	1.812
6105	.812	2.286	1.482	1.812
6201	2.094	.774	.000	3.094
6202	2.094	1.152	.348	3.094
6203	2.094	1.530	.726	3.094
6204	2.094	1.908	1.104	3.094
6205	2.094	2.286	1.482	3.094
6301	3.376	.774	.000	4.376
6302	3.376	1.152	.348	4.376
6303	3.376	1.530	.726	4.376
6304	3.376	1.908	1.104	4.376
6305	3.376	2.286	1.482	4.376
6401	4.658	.774	.000	5.658
6402	4.658	1.152	.348	5.658
6403	4.658	1.530	.726	5.658
6404	4.658	1.908	1.104	5.658
6405	4.658	2.286	1.482	5.658



NOTE: Holes to be located symmetrically around center lines for panel cutout.

SERIES 7000

BASIC PART NUMBER & PANEL CUTOUT DIMENSIONS



BASIC PART NUMBER

This number is descriptive. First digit indicates series number, second digit is number of units horizontal, third and fourth digits indicate number of units vertical. All assemblies including 2, 3, and 4 units wide are grouped together as one complete assembly ready for panel mounting.

BEVELLED EDGE FOR PANEL CUTOUT

The vertical edge of the panel cutout must be tapered back 30° to permit rotation of light capsule. See illustration below.

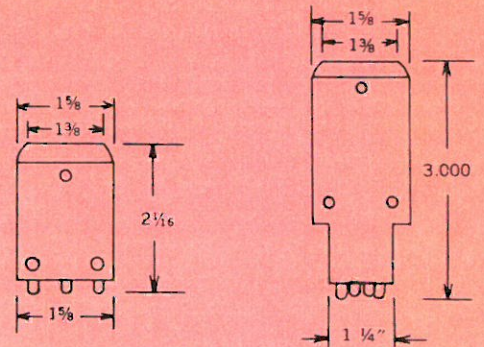
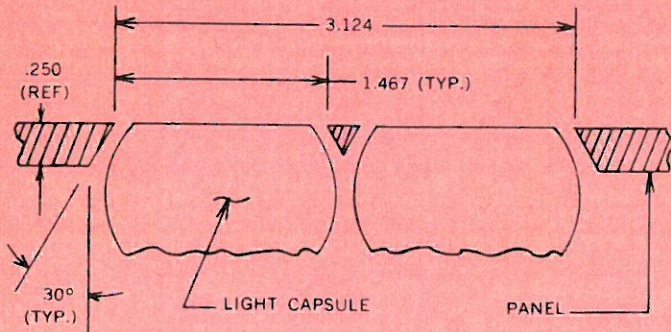


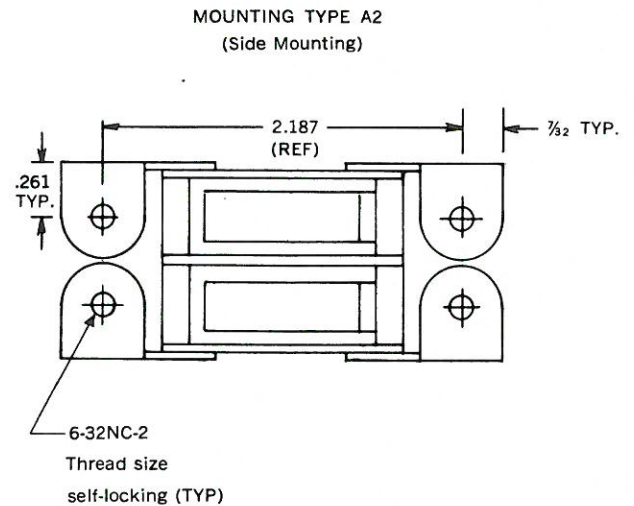
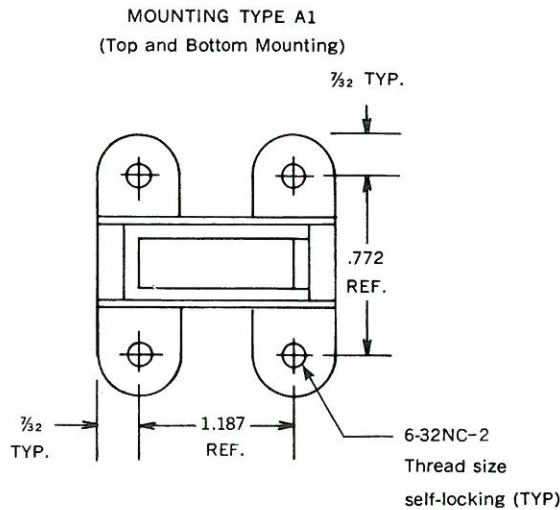
Illustration above shows unit depth when Circuit Nos. 1 or 2 are utilized.

Illustration above shows unit depth when Circuit Nos. 5 through 18 are utilized.

SERIES 7000 POSITION OF MOUNTING BRACKETS & LOCATION OF MOUNTING HOLES

CHOICE OF MOUNTING BRACKETS

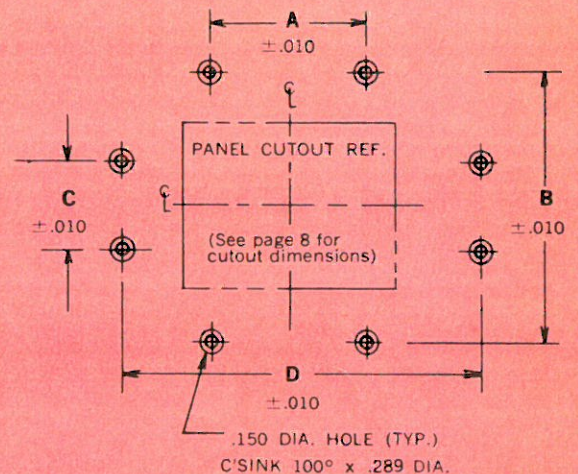
Two types of mounting brackets are offered, as illustrated below. This choice of brackets is offered for customer convenience to allow for mounting in close proximity to other components on the panel.



NOTE: Mounting brackets are set for mounting on 1/4" panels. Shim washers should be used for mounting on thinner panels. (Use 1/16" thick, 3/8" O.D. aluminum anodized washers, MS15795-706 type.)

NOTE: All assemblies with type A2 mounting have 4 tabs per assembly, except assemblies one unit high, which have only 2 tabs per assembly, upper left and lower right.

UNIT TYPE	HOLE DIMENSIONS FOR "A1" TYPE MTG. BRACKET		HOLE DIMENSIONS FOR "A2" TYPE MTG. BRACKET	
	DIMENSION A	DIMENSION B	DIMENSION C	DIMENSION D
7101	1.187	.774	.000	2.187
7102	1.187	1.152	.348	2.187
7103	1.187	1.530	.726	2.187
7104	1.187	1.908	1.104	2.187
7105	1.187	2.286	1.482	2.187
7201	2.844	.774	.000	3.844
7202	2.844	1.152	.348	3.844
7203	2.844	1.530	.726	3.844
7204	2.844	1.908	1.104	3.844
7205	2.844	2.286	1.482	3.844
7301	4.501	.774	.000	5.501
7302	4.501	1.152	.348	5.501
7303	4.501	1.530	.726	5.501
7304	4.501	1.908	1.104	5.501
7305	4.501	2.286	1.482	5.501
7401	6.158	.774	.000	7.158
7402	6.158	1.152	.348	7.158
7403	6.158	1.530	.726	7.158
7404	6.158	1.908	1.104	7.158
7405	6.158	2.286	1.482	7.158



NOTE: Holes to be located symmetrically around center lines for panel cutout.

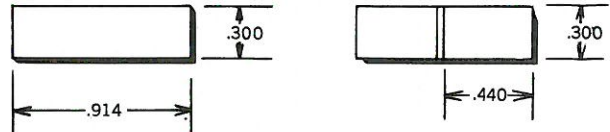
REPLACEMENT LENSES SERIES 6000 OR 7000

The front lens assembly is held captive within the lite capsule by a nylon gate which may be opened when the lite capsule is rotated, as in relamping. This operation is accomplished from the front of the panel and requires no tools.



OUTLINE DIMENSIONS FOR SPARE LENSES.

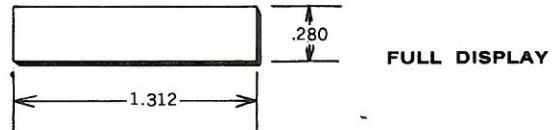
SERIES 6000



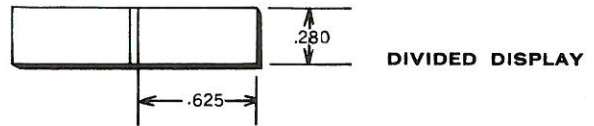
FULL DISPLAY

DIVIDED DISPLAY

SERIES 7000



FULL DISPLAY

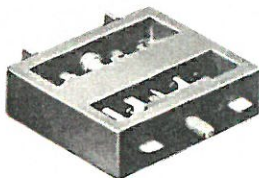


DIVIDED DISPLAY

LENS TYPE	SERIES 6000		SERIES 7000	
	FULL DISPLAY	DIVIDED DISPLAY	FULL DISPLAY	DIVIDED DISPLAY
1 FRONT LENS DISPERSER COLOR FILTER DIFFUSER	6101-FD-1 6101-FD-2 6101-FD-8 <input type="checkbox"/> 6101-FD-4	6101-DD-1 6101-DD-2 6101-DD-8 <input type="checkbox"/> 6101-DD-4	7101-FD-1 7101-FD-2 7101-FD-8 <input type="checkbox"/> 7101-FD-4	7101-DD-1 7101-DD-2 7101-DD-8 <input type="checkbox"/> 7101-DD-4
2 FRONT LENS DISPERSER COLOR FILTER DIFFUSER	6101-FD-1 6101-FD-3 6101-FD-8 <input type="checkbox"/> 6101-FD-4	6101-DD-1 6101-DD-3 6101-DD-8 <input type="checkbox"/> 6101-DD-4	7101-FD-1 7101-FD-3 7101-FD-8 <input type="checkbox"/> 7101-FD-4	7101-DD-1 7101-DD-3 7101-DD-8 <input type="checkbox"/> 7101-DD-4
3 FRONT LENS COLOR FILTER DISPERSER DIFFUSER	6101-FD-6 6101-FD-5 <input type="checkbox"/> 6101-FD-3 6101-FD-4	6101-DD-6 6101-DD-5 <input type="checkbox"/> 6101-DD-3 6101-DD-4	7101-FD-6 7101-FD-5 <input type="checkbox"/> 7101-FD-3 7101-FD-4	7101-DD-6 7101-DD-5 <input type="checkbox"/> 7101-DD-3 7101-DD-4
4 FRONT LENS COLOR FILTER DISPERSER DIFFUSER	6101-FD-6 6101-FD-7 <input type="checkbox"/> 6101-FD-3 6101-FD-4	6101-DD-6 6101-DD-7 <input type="checkbox"/> 6101-DD-3 6101-DD-4	7101-FD-6 7101-FD-7 <input type="checkbox"/> 7101-FD-3 7101-FD-4	7101-DD-6 7101-DD-7 <input type="checkbox"/> 7101-DD-3 7101-DD-4

ADD COLOR REQUIRED

G = Green R = Red A = Amber W = White (*White color is produced by light blue color filter.) B = Blue



REPLACEMENT CONTROL CAPSULES

In ordering replacement control capsules add the Circuit Number found on page 5 to the Basic Part No. 6101 or 7101.