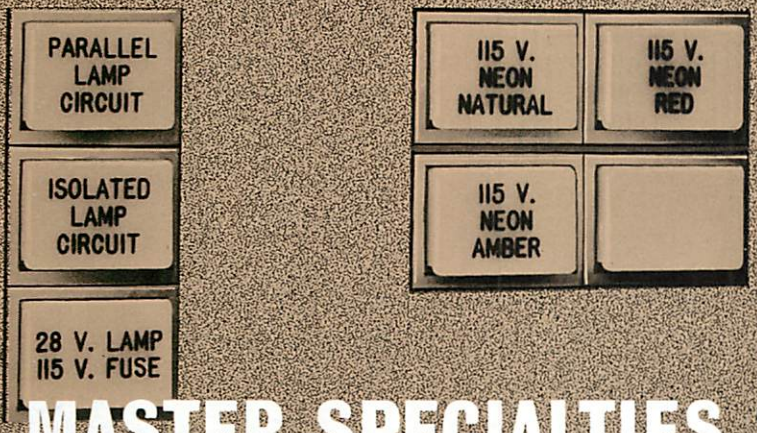
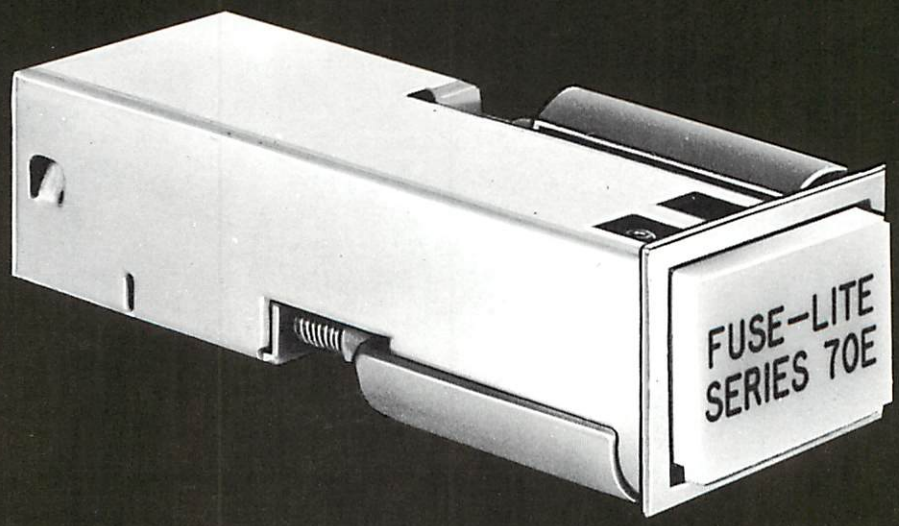
CATALOG No. 2005c



MASTER SPECIALTIES SERIES 70E

INDICATING FUSE HOLDER

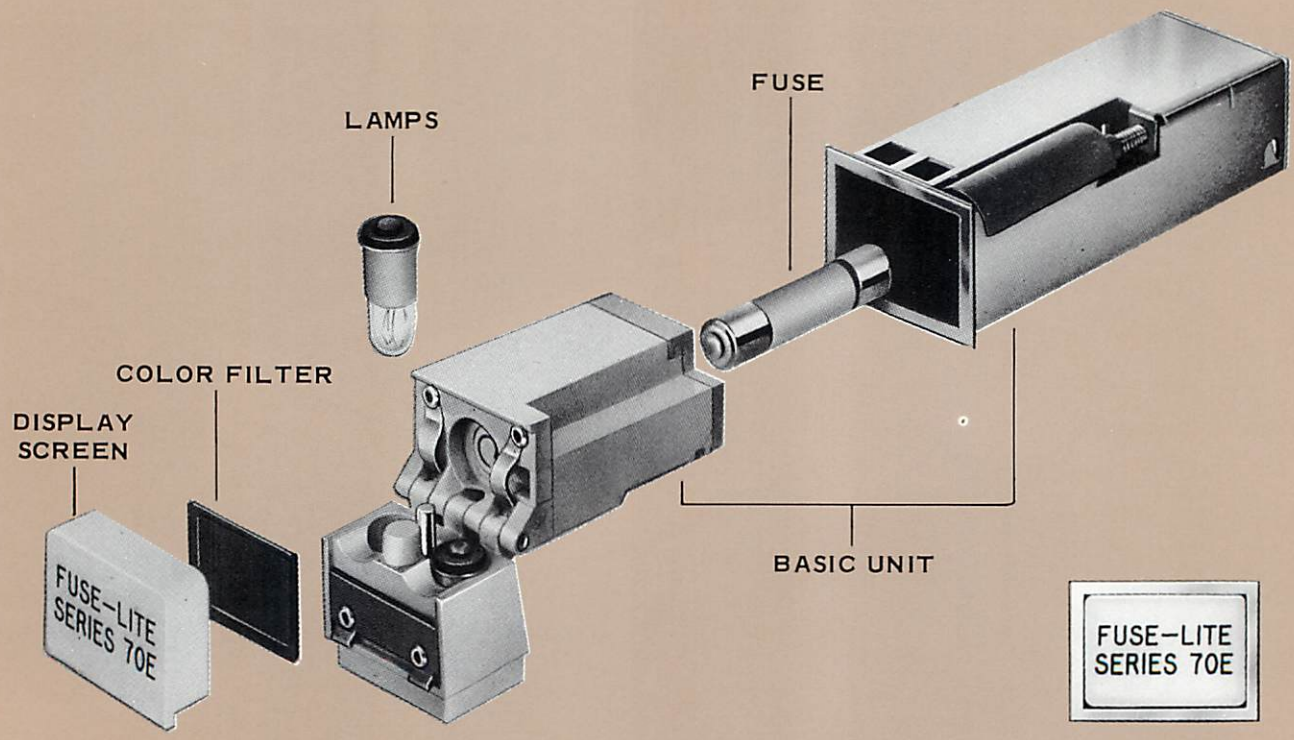
FUSE-LITE



FUSE-LITE
Indicating Fuse Holder

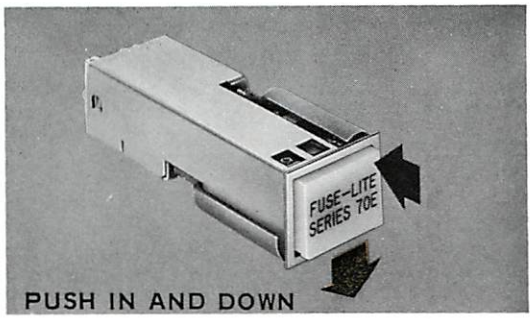
NO TOOLS TO REPLACE LAMP/FUSE	MODULAR DESIGN	TWO DIFFERENT CIRCUITS	EASY TO MOUNT

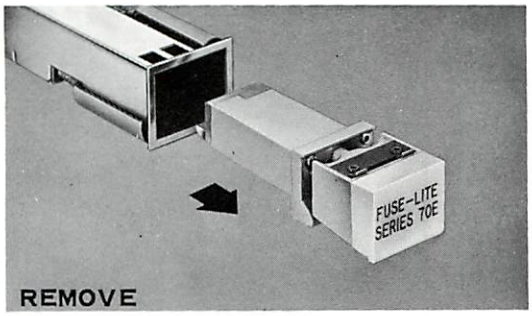
Panel and circuit designers are afforded maximum freedom of application in the use of the Master Specialties Fuse-Lite because of its basic design concept. Two lamp/fuse circuits offer a choice of parallel or isolated lamp/fuse operation. Two-lamp reliability is provided in either case, so that when the fuse "opens" illuminated word indication is assured. The fused circuit is easily identified by the engraved display screen, and a choice of color filters adds the possibility of color coding to indicate primary or secondary circuit failure. The operator is also afforded front-of-panel access for replacement of lamps and/or fuse with no tools required. Designers have unlimited freedom of unit arrangement in the form of horizontal rows, vertical stacks or matrix configuration.

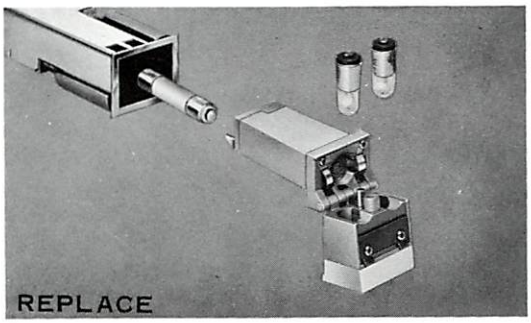


ACTUAL SIZE

Fuse and Lamp Replacement Is Easy



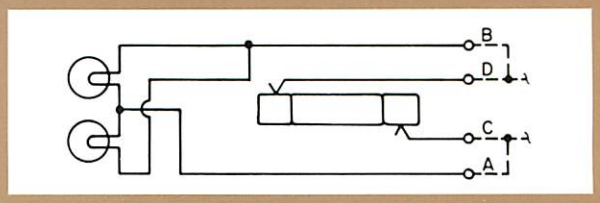




NO TOOLS REQUIRED FOR FUSE OR LAMP REPLACEMENT

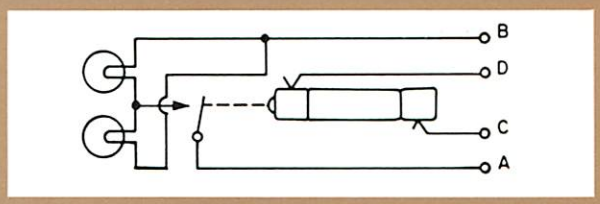
Lamp or fuse replacement is accomplished from the panel front without the use of any tools. The front end assembly, which accomodates the lamps and fuse, is removed by pressing the front lens down, which unlatches the assembly from the housing. The assembly is re-installed by pressing it straight in, which in turn latches it to the housing.

Select From Three Optional Circuits



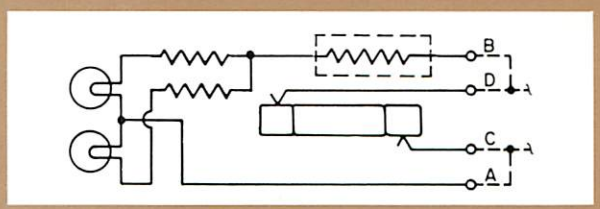
CIRCUIT "A": RESISTANCE LIMITER CIRCUIT FOR FUSES RATED TO 125 VAC, UP TO 20 AMPS

The resistance limiter circuit utilizes the industry standard fuses 1/4" diameter by 1 1/4" long. Fuse ratings to 125V and up to 20 amps may be used with this circuit.



CIRCUIT "B": ISOLATED LAMP/FUSE CIRCUIT FOR FUSES RATED TO 125 VAC, 3/4 TO 5 AMPS.

In addition to the resistance limiter circuit which is commonly used in existing indicating fuse holders, an isolated lamp/fuse circuit is also available. This circuit uses the GLD type "pop-out" fuse, which allows the lamp circuit to be completely isolated from the fuse circuit. Separate power supplies or different voltages may then be used to provide maximum design flexibility. The Fuse-Lite will accommodate GLD fuses rated to 125V, 3/4 to 5 amps.



CIRCUIT "C": RESISTANCE LIMITER CIRCUIT FOR FUSES RATED TO 250 VAC, UP TO 20 AMPS

This circuit utilizes industry standard fuses 1/4" diameter by 1 1/4" long, rated to 250 VAC and up to 20 amps.

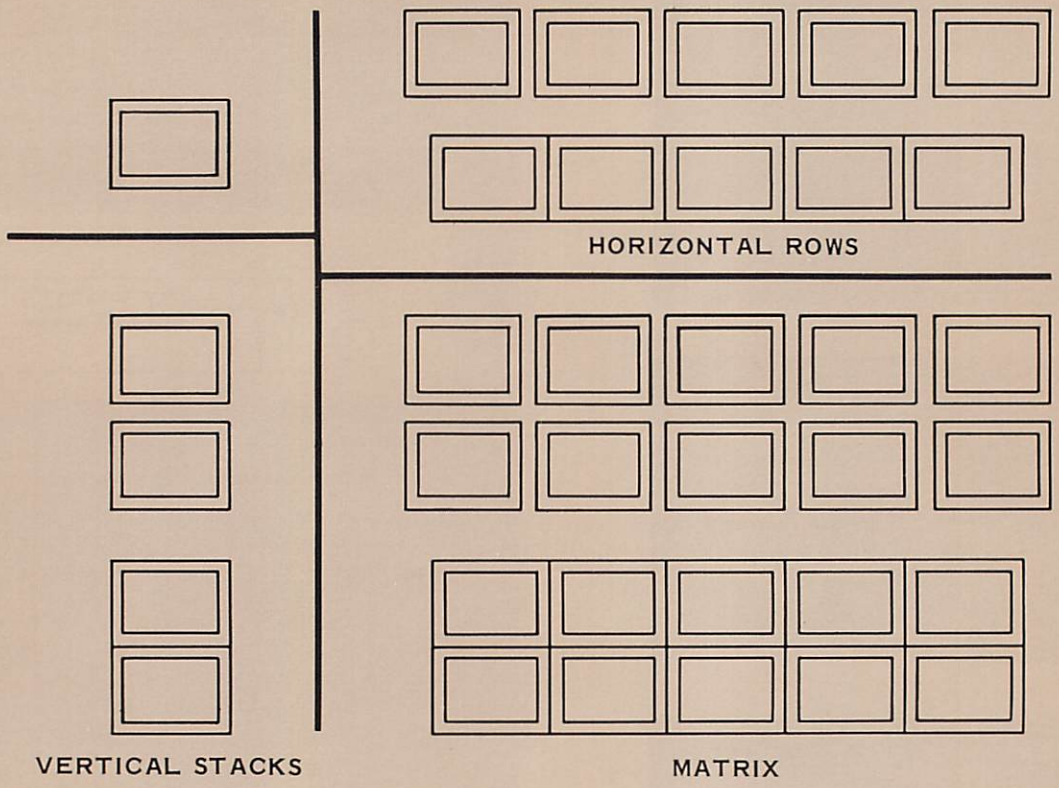
WIDE RANGE OF LAMPS

The unit accepts two type MS25237 lamps which provide two-lamp reliability. In addition to the conventional 6, 12 and 28 volt lamps, there are also special neon lamps available. These specially designed neon lamps incorporate a limiting resistor in the base of the assembly, thus providing for use in 115V AC circuits.

NOTE: RECOMMENDED FOR USE ONLY WITH THE C4 115 VAC NEON LAMP WITH RESISTOR, AND WITH AMBER F(A) OR RED F(R) COLORED FILTERS. SEE PAGE 6.

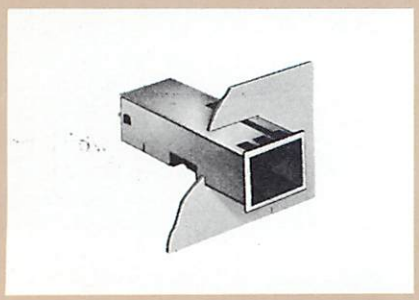
Unlimited Mounting Arrangements

Designers are afforded infinite flexibility in panel layout arrangements. The units may be mounted singularly with no limitation as to room required between other associated equipment. Vertical stacks or horizontal rows are readily accomplished and allow single elongated panel cutouts rather than individual cutouts for each unit. Any unit within a group may be installed or removed without the necessity of disturbing adjacent units. The unit has the further capability of being mounted in matrices.

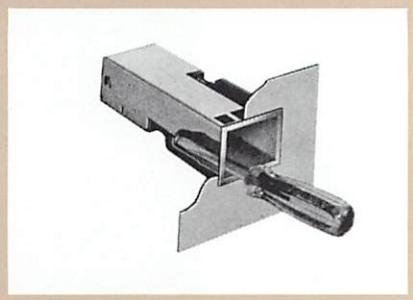


UNIQUE MOUNTING HAS NO LOOSE HARDWARE

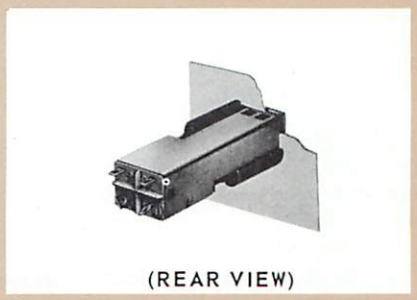
The mounting is designed as an integral part of the main housing and consists of special mounting sleeves located in opposite corners. Removing the front end assembly gives access to the screw heads which cam the mounting sleeves in position to contact the rear of the panel. Hard mounting is attained, yet no screw heads show from the panel front; there is no loose or special mounting hardware; and the mounting is completely contained within the outline dimensions of the unit's front face.



1. PASS UNIT THROUGH PANEL



2. TIGHTEN MOUNTING SCREWS

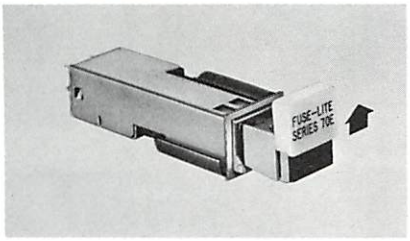


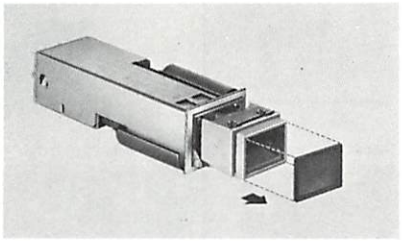
(REAR VIEW)

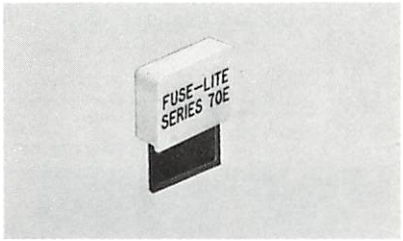
3. POSITIVE HARD MOUNT

Removable Display Screen and Color Filter

The display screen is securely held to the front-end assembly by mating slides and may be removed by sliding the screen off the assembly. This allows replacement of the screen or the color filter which is held captive between the screen and front-end assembly. For identification of the protected circuit, the translucent white display screen may be engraved so that the inscription is readable either before or during illumination.







Ordering Information

CODED CALL-OUT PROVIDES EASE OF ORDERING

The completed unit, including the engraved inscription, may be ordered by a single coded call-out. This system eliminates the need for individually ordering each item required for a completed unit, which in turn would necessitate the customer having to assemble the items once received. The engraving service eliminates the customer's need for in-house engraving equipment or additional sub-contracting.

CODED CALL-OUT SYSTEM

Each item required for a completed unit is assigned a code number. By selecting the code number call-out for each item required and then placing these in alphabetical sequence following the series number "70E," a completed unit call-out is derived. An example is shown below:

ITEMS COMPRISING COMPLETED UNIT

SERIES	BASIC UNIT	LAMPS	COLOR FILTER	DISPLAY SCREEN AND ENGRAVING
70E	A1	C3	F (A)	J1L13 MAIN,POWER
				
FUSE-LITE	RESISTANCE LIMITER CIRCUIT	2 EA. 28 VOLT LAMPS	AMBER	

For complete selection of items, refer to pages 6 and 7.

ELIMINATION OF ITEMS

Where one or more items comprising a completed unit are not required, omit the call-out for that item.

ORDERING SEPARATE ITEMS

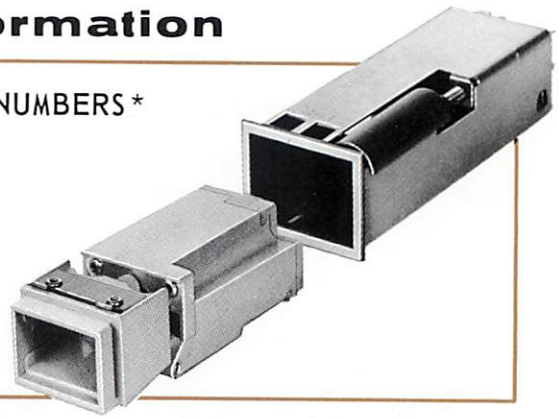
Where separate items are required, precede an item's call-out with the basic "70E" to obtain the correct order number for that item. Lamps, when ordered separately, are always considered 1 each rather than the 2 each as supplied with the unit. Where 2 each lamps are required, for example, order as follows: "2 each, 70EC3."

ALTERNATE ORDERING METHOD

An alternate ordering method is available wherein all items required for a completed unit are included on a specification sheet which is maintained by MSC. Each completed unit is assigned a dash number following the basic specification number set up for each customer. This method reduces the size of the completed unit part number to seven digits; however, this method is not coded.

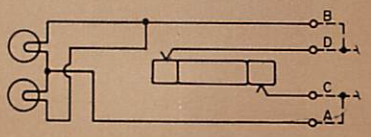
Ordering Information

BASIC UNIT CODE NUMBERS*

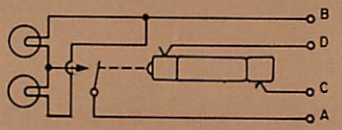


CIRCUIT A:	A1
CIRCUIT B:	A2
CIRCUIT C:	A3

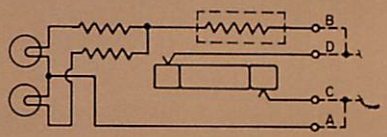
*When ordering as a separate item, precede the above code number by the basic "70E."



CIRCUIT "A"
RESISTANCE LIMITER
FOR FUSES RATED
TO 125 VAC, UP TO 20 AMPS



CIRCUIT "B"
ISOLATED LAMP/FUSE
FOR FUSES RATED
TO 125 VAC, ¾ TO 5 AMPS.



CIRCUIT "C"
RESISTANCE LIMITER
FOR FUSES RATED
TO 250 VAC, UP TO 20 AMPS.

LAMP CODE NUMBERS*

C1	6 Volt
C2	12 Volt
C3	28 Volt
C4	115 Volt AC Neon W/Resistor
C10	115 Volt AC Neon, No Resistor

COLORED FILTER CODE NUMBERS*

F (A)	Amber	F (R)	Red
F (B)	Blue†	F (W)	White†‡
F (G)	Green†	F (Y)	Yellow†

†Not recommended for use with 115 VAC neon lamp.
‡Light blue for white illumination.

*When ordering as a separate item, precede the above code number by the basic "70E."

The display screen with required engraving is ordered by following the callout "J1L" with the engraving configuration number as selected from page 7. After this, the actual wording is added, using commas between rows of wording. An example is shown below.

ENGRAVING SPECIFICATIONS

Letters are engraved .110 high with .017 stroke and filled with a special black filler. The engraving is done on the face of the display screen.

J1L13-MAIN,LINE

J1L14-AUX.,POWER,SUPPLY

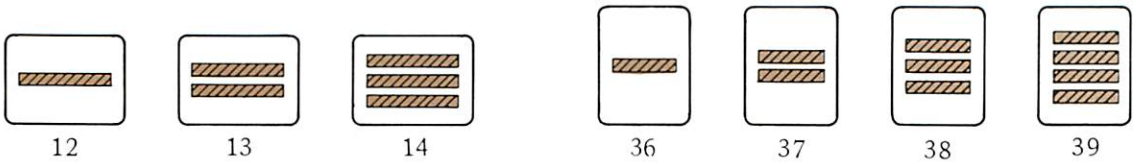
NON-ENGRAVED DISPLAY SCREEN

When a non-engraved display screen is required, the code number "J1" is used, eliminating the remaining part of the engraved display screen callout.

SEPARATE ENGRAVED DISPLAY SCREENS

Where separate engraved screens are required, precede the display screen and engraving code number callout with the basic "70E."

Engraving Configurations

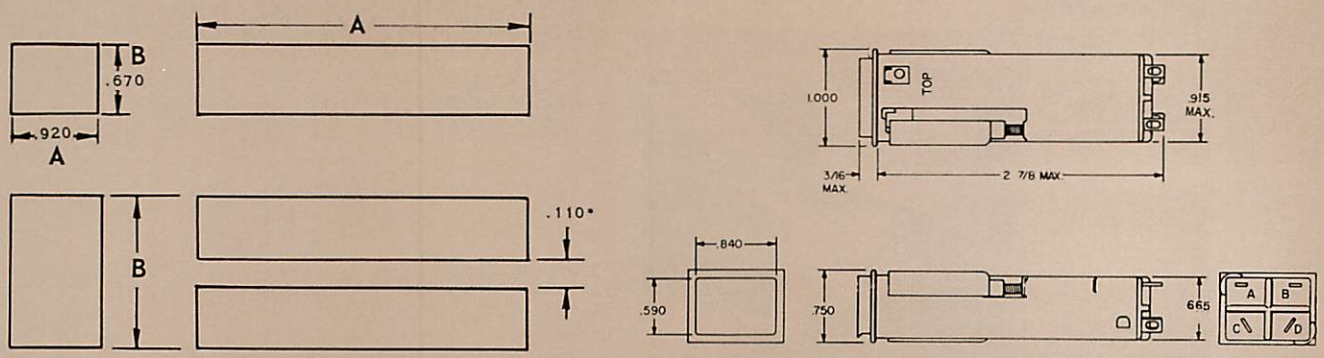


FULL DISPLAY
(9 LETTERS/ROW)

FULL DISPLAY ON END
(6 LETTERS/ROW)

When mounting unit 90° from normal, top of unit shall appear on left side as viewed from the panel front.

Basic Unit Outline Dimensions and Panel Cutout



NOTES:

1. Lamp terminals A and B will accept three No. 20 (AWG) wire leads. Fuse terminals C and D will accept up to one No. 12 (AWG) wire lead.
2. The unit will mount in panels .031 to .250 thick.

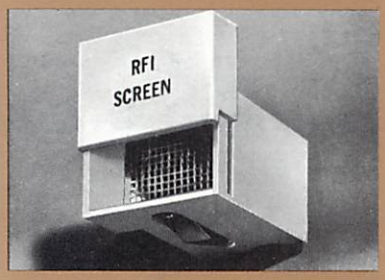
PANEL CUT-OUT DIMENSIONS IN INCHES (±.010)								
NO. OF UNITS IN ROW	1	2	3	4	5	6	7	8
HORIZONTAL ROW "A"	.920	1.925	2.930	3.935	4.940	5.945	6.950	7.955
VERTICAL STACK "B"	.670	1.425	2.180	2.935	3.690	4.445	5.200	5.955

*For matrix arrangement, allow .110" in panel between cut-outs for adjacent horizontal or vertical rows.

OPTIONAL ACCESSORIES FOR THE SERIES 70E FUSE-LITE

RFI SCREENS

The passage of radiated and/or conducted RFI thru panel cutouts can be reduced by the fine mesh, metal RFI screen which is mounted between the lamps and display screen of the light capsule. RFI is grounded by electrical contact from the screen to the unit housing to the panel.



HOW TO ORDER: To order RFI screens for complete units, insert the part number shown below, (according to the screen configuration) into the complete part number as described on Page 5. It should appear between the designations for Color Filters and Display Screens, per this example:

70E A1C3 F(A) H1 J1L 13 MAIN, POWER
RFI SCREEN PART NUMBER

TO ORDER AS A SEPARATE UNIT, CONTACT FACTORY FOR DETAILS.

DRIP-PROOF SEAL

An easily installed, effective barrier that prohibits the entrance of liquids, or foreign matter through panel openings, without affecting visibility of legends. Assembly consists of a diaphragm which slips over the basic unit from the back, and a seal that fits over the front of the unit to provide an effective seal.

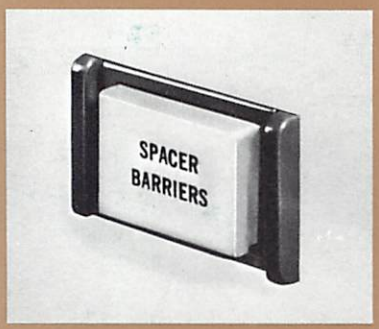
HOW TO ORDER: To order a Drip-Proof Seal as part of a complete unit, insert the part number "11" into the part number for a complete unit as detailed on Page 5. The number "11" should appear between the Series number and the code for the basic unit, as shown in this example:

70E 11 A1C3 F(A) J1L 13 MAIN, POWER
2 Piece Drip Proof Seal Assembly

TO ORDER AS A SEPARATE OR SPARE PART, specify 70E-502.

SPACER BARRIERS

Spacer Barriers are available for vertical or horizontal mounting of MSC Series 70E Fuse Lites to provide for design continuity in applications where 80E units are incorporated into rows or stacks of matching 90E Tellite Switches that utilize spacer barriers for switching safety. Spacer Barrier colors are identical to those offered for use with the 90E switch units.



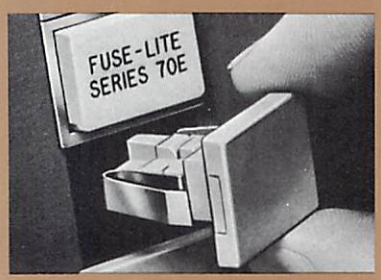
HOW TO ORDER: Select vertical (short) or horizontal (long) barriers from the tables below, according to the desired colors. Two are required for one unit (and one for each additional unit if rows are used).

VERTICAL BARRIERS FOR HORIZONTAL ROWS (Mount on Sides)		HORIZONTAL BARRIERS FOR VERTICAL ROWS (Mount on Top and Bottom)	
PART NUMBER	COLOR	PART NUMBER	COLOR
70E572G	GRAY	70E573G	GRAY
70E572B	BLACK	70E573B	BLACK
70E572W	WHITE	70E573W	WHITE
70E572R	RED	70E573R	RED

NOTE: Barriers are 0.125" thick. The added space required for barriers must be allowed for in the preparation of panel cutouts as detailed on Page 7. Allow 0.340 for the first unit and 0.125 for each additional unit in a matrix.

PANEL PLUGS

Neat, trim covers for panel cutouts not in use. Since plugs are the same size as the front end of 70E housings, they can be used in place of single units or units in rows. Spring clips may be placed at optional points according to panel thickness or vertical/horizontal mounting of unit.



HOW TO ORDER: Panel plugs may be ordered in various colors by using the part numbers shown below.

BLACK	542-1	WHITE	542-4
RED	542-2	BLUE	542-5
GRAY	542-3	YELLOW	542-6
		GREEN	542-7

HOW TO INSTALL. Panel plugs will fit any single cutout (0.920" x 0.670") for the 70E, and occupy the same overall space in rows or stacks as a 70E unit. (1" x ¾"). Spring clips can be placed at the top and bottom of the plug or at each side to avoid interference with adjacent units in rows or stacks. Clip position permits mounting in panels over 0.125" thick.

MSC
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