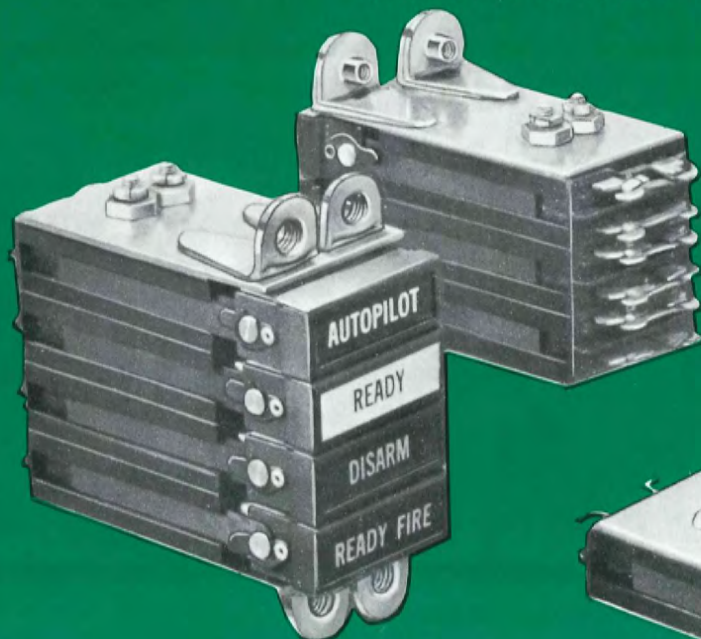
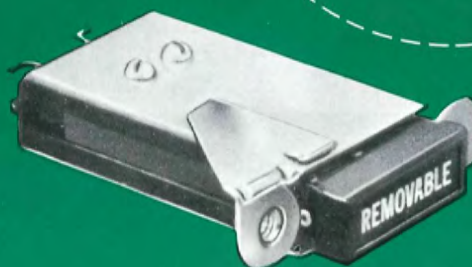


MASTER SPECIALTIES COMPANY PUSH-TO-RELAMP

TELLITE SERIES WORD INDICATOR LIGHTS



SERIES
4000
AND
5000



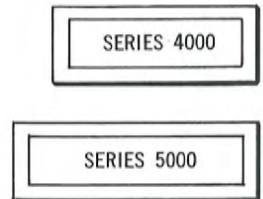
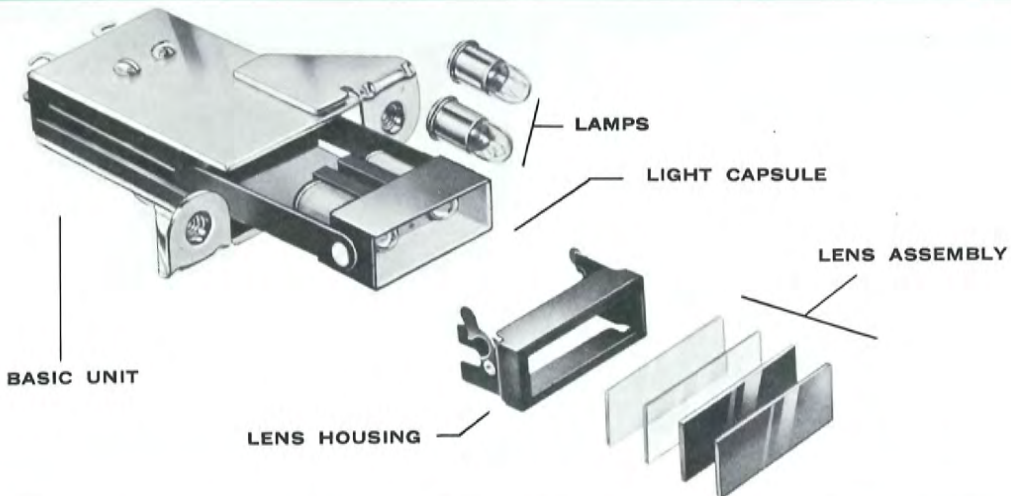
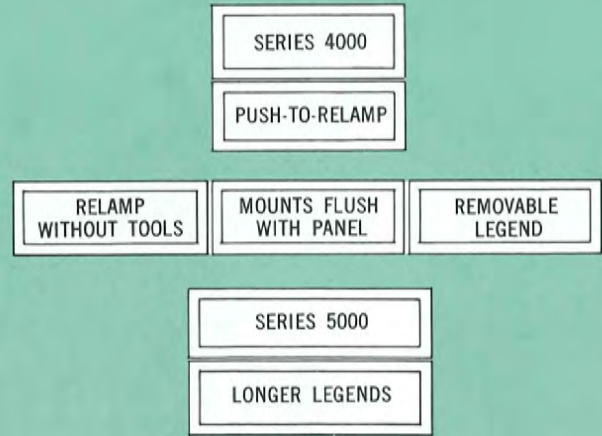
Push-to-Relamp TELLITE®

WORD INDICATOR LIGHTS

SERIES 4000 and 5000

The Series 4000 and 5000 Push-To-Relamp units are two lamp word indicator lights that mount flush with the panel front. The front lens assembly and lamps are contained in a rectangular light capsule that can be unlatched by depressing the display face and then pulled forward on captive runners through the panel cutout and tilted down for access to lamps and easy replacement without tools. Legends and color filters may also be changed in this manner without 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 5000 is 1/4 inch wider than the Series 4000, providing additional lens area for legends. Both units are ideally suited for numerous industrial, commercial, and military applications requiring visual communications.

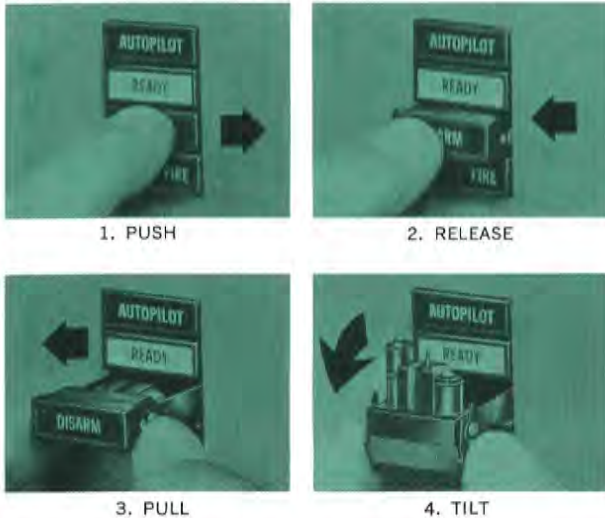


ACTUAL SIZE

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

RELAMPING AND POSITIVE INDEXING

FIG. 1



Relamping is accomplished without tools by depressing the face of the display screen, which releases a latch mechanism and springs the light capsule forward so that it extends out, slightly beyond the panel front. The light capsule can now be grasped with two fingers and pulled forward on captive runners. At the end of its travel, the light capsule can be swung down to expose the lamps for easy replacement without tools. The light capsule is permanently connected to the basic unit by the sliding runners, which prevents inadvertent exchanging of capsules with adjacent units. See Figure 1.

REMOVABLE LEGENDS

FIG. 2

1. LIFT LATCH ON EACH SIDE OF LENS HOUSING



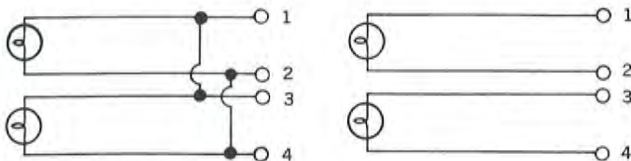
2. REMOVE LENS HOUSING AND PUSH OUT LENSES



The lens assembly is held captive within a frame or lens housing at the front of the light capsule by two hinged latches. These latches may be opened with a finger to remove the lens housing, which permits legend or color change from the panel front without tools. See Figure 2.

LAMPS AND LAMP CIRCUITS

FIG. 3



CIRCUIT NO. 1
PARALLELED LAMPS

CIRCUIT NO. 2
SEPARATE LAMPS

Each light capsule accepts two T-1¾ midget flange base incandescent lamps (MS 25237 or equivalent). These are available in 6 volts, 12 volts, 28 volts and 115 volts, neon. Neon lamp recommended for use with red or amber colors only. Lamp circuit terminals are solder type and will accept two No. 20 (AWG) wire leads. A choice of two lamp circuits is offered, as illustrated in Figure 3.

CODED NUMBERS FOR LAMP TYPES

6 VOLT	12 VOLT	28 VOLT	115 VOLT With Resistor	115 VOLT Without Resistor
D1	D2	D3	D4	D10

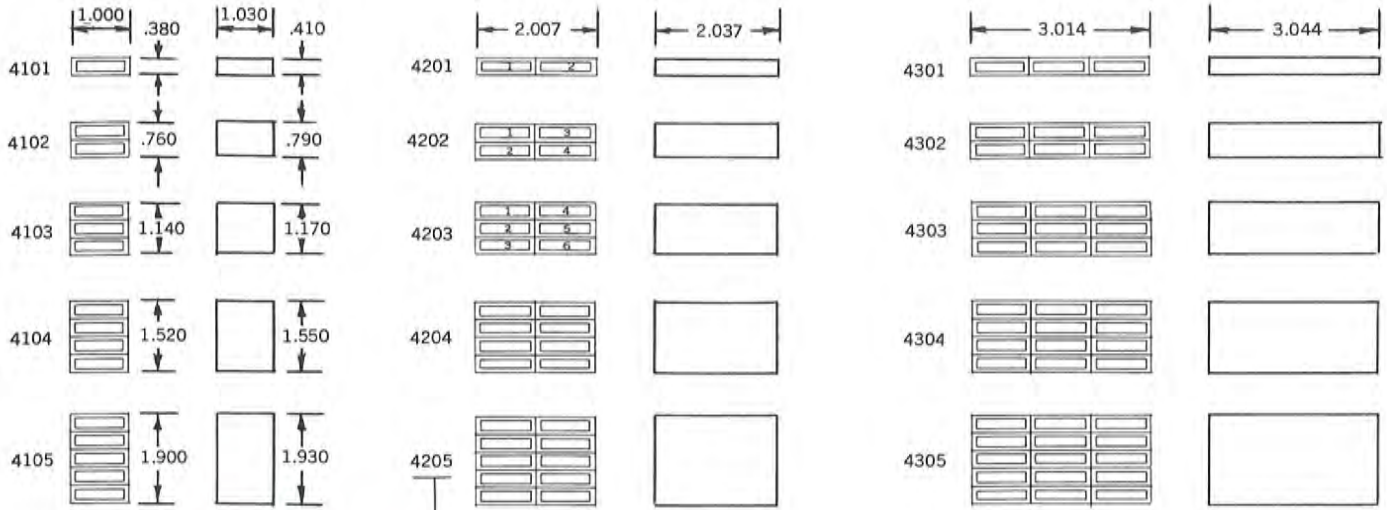
LENS TYPES

There are four types of standard lenses available:

- L1 = LIGHTED LETTERS** — Letters appear white on a black background until illuminated and then letters appear in color.
- L2 = LIGHTED BACKGROUND** — Letters appear black on a white background until illuminated and then background appears in color.
- L3 = LIGHTED LETTERS** — Letters are not legible until illuminated and then letters appear in color. Background is black.
- L4 = LIGHTED BACKGROUND** — Letters are not legible until illuminated and then background appears in color and letters in black.

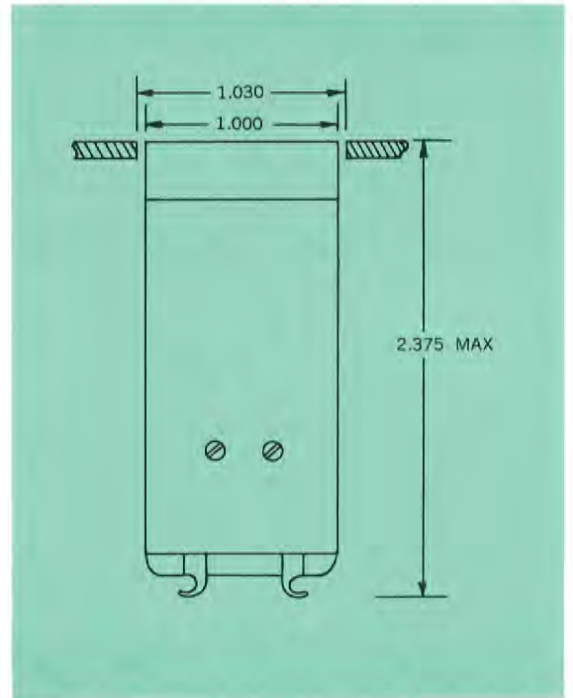
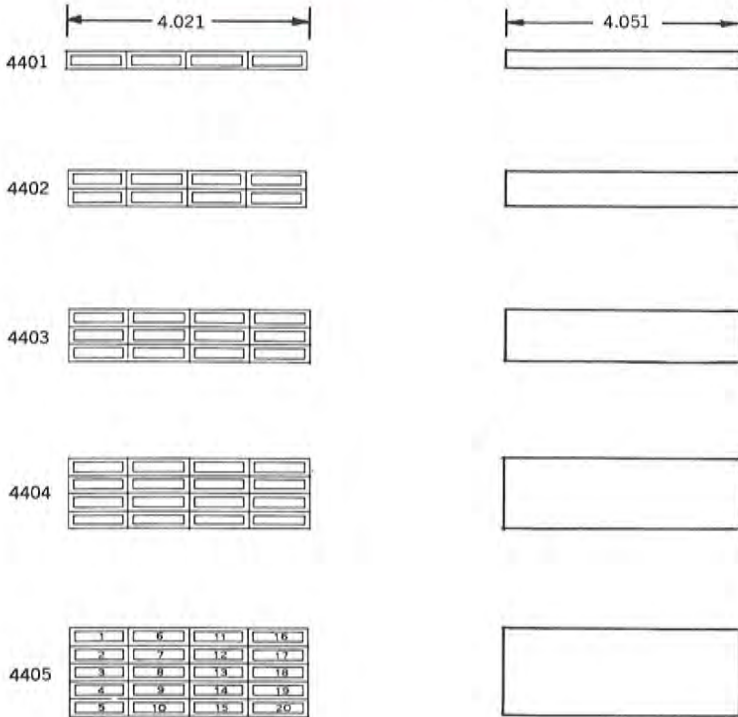
SERIES 4000

BASIC PART NUMBER AND PANEL CUTOUT DIMENSIONS



BASIC PART NUMBER

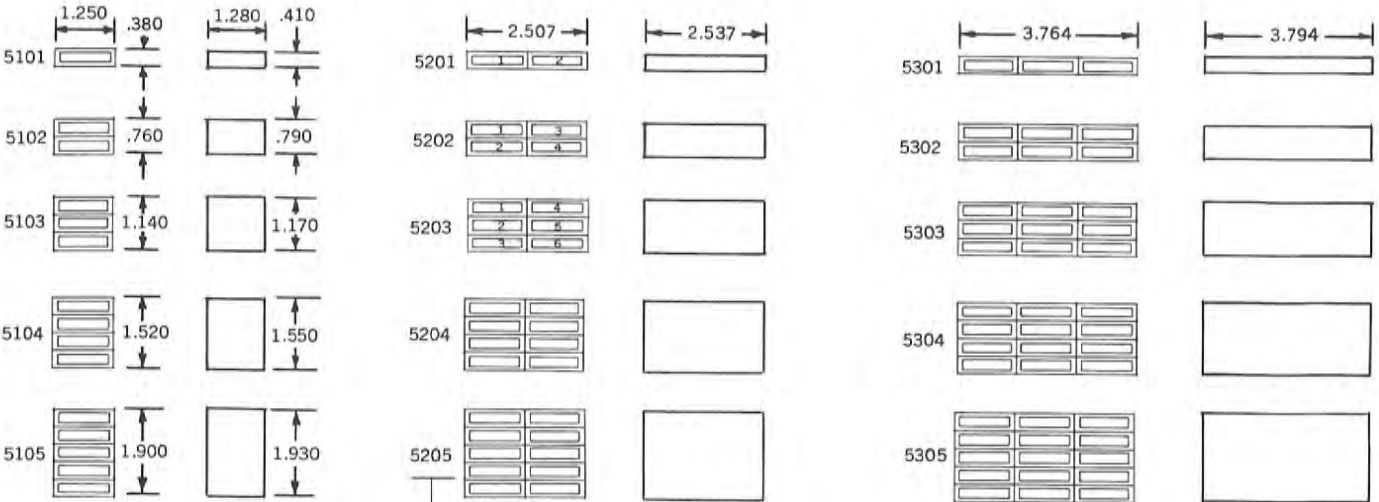
This number is descriptive. First digit indicates series number, second digit is number of units horizontal, third and fourth digits is number of units vertically. Groupings of units not shown on this page may be ordered by applying this same numbering system to number of units desired.



Tolerance on all dimensions is $\pm .010$

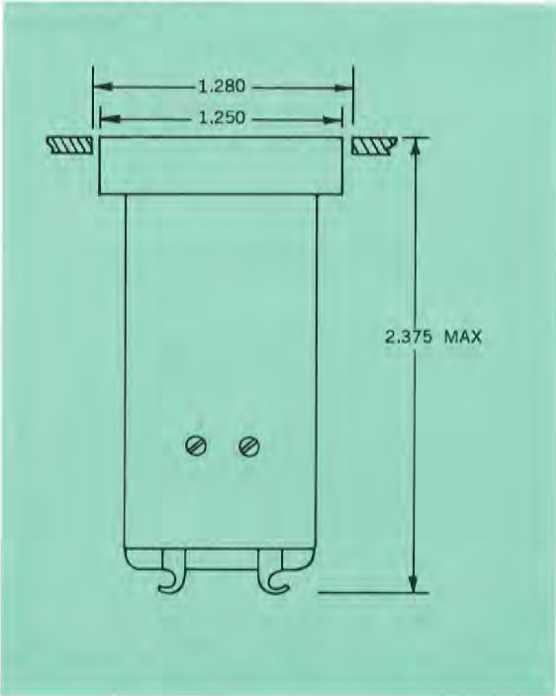
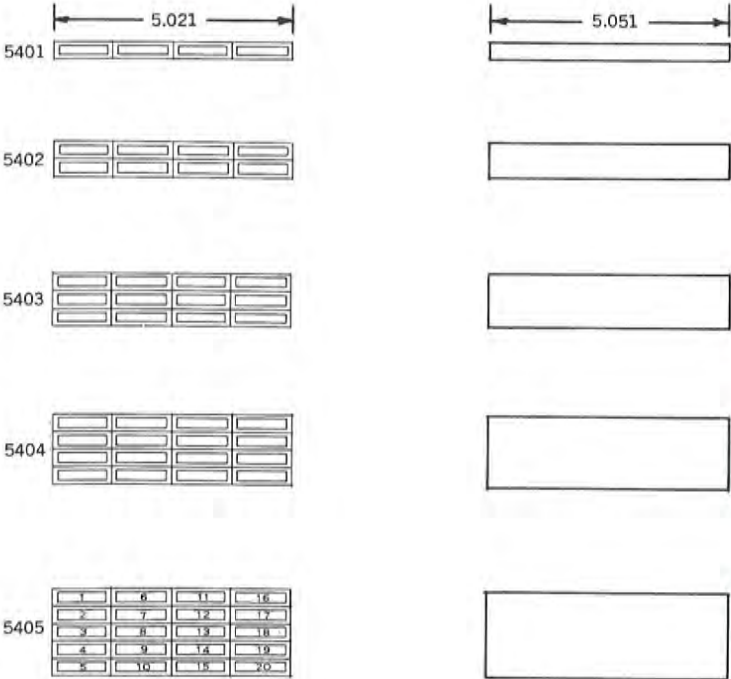
SERIES 5000

BASIC PART NUMBER AND 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 is number of units vertically. Groupings of units not shown on this page may be ordered by applying this same numbering system to number of units desired.



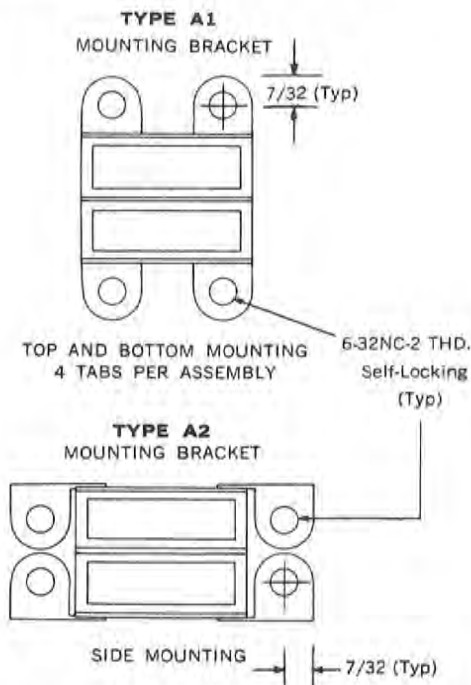
Tolerance on all dimensions is $\pm .010$

MOUNTING BRACKETS

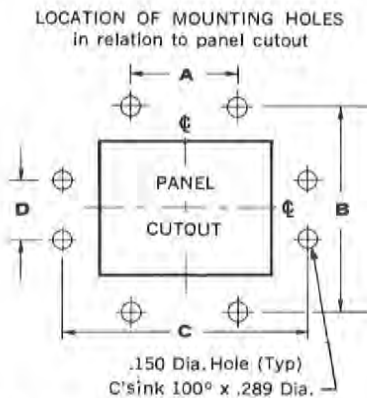
TYPE OF MOUNTING BRACKETS AND LOCATION OF MOUNTING HOLES

CHOICE OF MOUNTING BRACKETS

Two types of mounting brackets are offered as illustrated below. This choice of brackets is offered to permit the customer to select the type best suited to his installation requirements, should it be necessary to mount the units in close proximity to other components on the panel.



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.



NOTE: Holes to be located symmetrically around center lines of panel cutout. Tolerance on all dimensions are $\pm .010$

SERIES 4000

UNIT	HOLE DIMENSIONS FOR "A1" TYPE MOUNTING BRACKETS		HOLE DIMENSIONS FOR "A2" TYPE MOUNTING BRACKETS	
	A	B	C	D
4101	.562	.802	1.562	.000
4102	.562	1.182	1.562	.378
4103	.562	1.562	1.562	.758
4104	.562	1.942	1.562	1.138
4105	.562	2.322	1.562	1.518
4201	1.569	.802	2.569	.000
4202	1.569	1.182	2.569	.378
4203	1.569	1.562	2.569	.758
4204	1.569	1.942	2.569	1.138
4205	1.569	2.322	2.569	1.518
4301	2.576	.802	3.576	.000
4302	2.576	1.182	3.576	.378
4303	2.576	1.562	3.576	.758
4304	2.576	1.942	3.576	1.138
4305	2.576	2.322	3.576	1.518
4401	3.583	.802	4.583	.000
4402	3.583	1.182	4.583	.378
4403	3.583	1.562	4.583	.758
4404	3.583	1.942	4.583	1.138
4405	3.583	2.322	4.583	1.518

NOTE: Mounting brackets are set for mounting on $\frac{3}{4}$ " panels. Shim washers should be used for mounting on thinner panels. (Use $\frac{1}{16}$ " thick, $\frac{3}{8}$ " O.D. aluminum anodized washer, MS 15795-706 type.)

SERIES 5000

UNIT	HOLE DIMENSIONS FOR "A1" TYPE MOUNTING BRACKETS		HOLE DIMENSIONS FOR "A2" TYPE MOUNTING BRACKETS	
	A	B	C	D
5101	.562	.802	1.812	.000
5102	.562	1.182	1.812	.378
5103	.562	1.562	1.812	.758
5104	.562	1.942	1.812	1.138
5105	.562	2.322	1.812	1.518
5201	1.819	.802	3.069	.000
5202	1.819	1.182	3.069	.378
5203	1.819	1.562	3.069	.758
5204	1.819	1.942	3.069	1.138
5205	1.819	2.322	3.069	1.518
5301	3.076	.802	4.326	.000
5302	3.076	1.182	4.326	.378
5303	3.076	1.562	4.326	.758
5304	3.076	1.942	4.326	1.138
5305	3.076	2.322	4.326	1.518
5401	4.333	.802	5.583	.000
5402	4.333	1.182	5.583	.378
5403	4.333	1.562	5.583	.758
5404	4.333	1.942	5.583	1.138
5405	4.333	2.322	5.583	1.518

NOTE: Mounting brackets are set for mounting on $\frac{3}{4}$ " panels. Shim washers should be used for mounting on thinner panels. (Use $\frac{1}{16}$ " thick, $\frac{3}{8}$ " O.D. aluminum anodized washer, MS 15795-706 type.)

ORDERING INFORMATION

MASTER SPECIALTIES COMPANY



A complete Series 4000 or 5000 single or multi-unit assembly may be ordered by using a coded number callout that identifies the number of units in the matrix, the type of mounting brackets to be used, the lamps required, lens type, display screen arrangement and legend for each capsule.

A SEPARATE LINE IN THE CALLOUT IS USED TO DESCRIBE EACH CAPSULE IN A MULTI-UNIT ASSEMBLY, AS SHOWN BELOW.

A single channel unit may be ordered by using the descriptive callout number as a part number. On all multi-unit assemblies (two or more channels), the coded callout number, as shown below, is for descriptive purposes only and will be transferred to a Specification Sheet by MSC and Specification Sheet number will be used to cover the entire assembly. This Specification Sheet number may be obtained from MSC factory or from your nearest MSC Regional Sales Office listed on the back cover of this catalog.

TYPICAL DESCRIPTIVE CALLOUT NUMBER

(A Specification Sheet Number will be assigned for all multi-unit assemblies for ordering purposes)

BASIC UNIT		LIGHT CAPSULE DESCRIPTION				
BASIC PART NUMBER	TYPE OF MOUNTING BRACKET	LIGHT CAPSULE NUMBER	LAMPS	LENS TYPE	DISPLAY SCREEN	LEGEND (.125" High Letters)
4202	A1	C1	D3	L2	N1 (R)	STOP
		C2	D3	L2	N1 (G)	START
		C3	D3	L2	N2 (AB)	HOT/COLD
		C4	D3	L3	N1 (R)	RECYCLE
Indicates Series Number and number of units in matrix configuration. (See Pages 4 and 5.)		Individual Units or light capsules within the matrix are numbered (for identification purposes only) numerically top to bottom, left to right. See example on page 4, basic part numbers 4201, 4202, 4203. The "C" is the identifying letter for the light capsule and the number following it is the number of that capsule in the matrix.	"D" is the identifying letter for the lamps and the number following it is the number of the lamp desired for that capsule. (See page 3.)	"L" is the identifying letter for the lens types and the number following it is the number of the lens type used in that light capsule. (See page 3.) (Type L2 is the most commonly used.)	N1 = FULL DISPLAY. (Uses Lamp Circuit No. 1. See page 3.) N2 = DIVIDED DISPLAY. (Uses Lamp Circuit No. 2. See page 3.) Letter(s) in () indicate color unit is to display when lighted. Priority is left to right for divided display. R = Red, G = Green, A = Amber, B = Blue, W = White, (White color is produced by a light blue color filter.)	Actual wording as it will appear on face of unit. Slash indicates other side of split. SERIES 4000 Full Display will accept one row of 11 letters and spaces. Divided Display will accept one row of 5 letters and spaces in each area. SERIES 5000 Full Display will accept one row of 14 letters and spaces. Divided Display will accept one row of 6 letters and spaces in each area.

ELIMINATION OF ITEMS

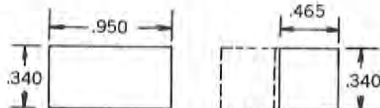
Units may be ordered without lamps, or any other item by simply eliminating the callout for that item from the total callout.

FOR SPECIAL REQUIREMENTS NOT COVERED BY THIS NUMBERING SYSTEM . . . CONSULT FACTORY.

REPLACEMENT LENSES

Replacement parts for the lens assembly may be ordered individually by using the part numbers shown below:

SERIES 4000



LENS TYPE 1

Front Lens
Disperser
Color Filter
Diffuser

FULL DISPLAY

4101-FD-1
4101-FD-2
4101-FD-8
4101-FD-4

DIVIDED DISPLAY

4101-DD-1
4101-DD-2
4101-DD-8
4101-DD-4

LENS TYPE 2

Front Lens
Disperser
Color Filter
Diffuser

4101-FD-1
4101-FD-3
4101-FD-8
4101-FD-4

4101-DD-1
4101-DD-3
4101-DD-8
4101-DD-4

LENS TYPE 3

Front Lens
Color Filter
Disperser
Diffuser

4101-FD-6
4101-FD-5
4101-FD-3
4101-FD-4

4101-DD-6
4101-DD-5
4101-DD-3
4101-DD-4

LENS TYPE 4

Front Lens
Color Filter
Disperser
Diffuser

4101-FD-6
4101-FD-7
4101-FD-3
4101-FD-4

4101-DD-6
4101-DD-7
4101-DD-3
4101-DD-4

SERIES 5000



LENS TYPE 1

Front Lens
Disperser
Color Filter
Diffuser

FULL DISPLAY

5101-FD-1
5101-FD-2
5101-FD-8
5101-FD-4

DIVIDED DISPLAY

5101-DD-1
5101-DD-2
5101-DD-8
5101-DD-4

LENS TYPE 2

Front Lens
Disperser
Color Filter
Diffuser

5101-FD-1
5101-FD-3
5101-FD-8
5101-FD-4

5101-DD-1
5101-DD-3
5101-DD-8
5101-DD-4

LENS TYPE 3

Front Lens
Color Filter
Disperser
Diffuser

5101-FD-6
5101-FD-5
5101-FD-3
5101-FD-4

5101-DD-6
5101-DD-5
5101-DD-3
5101-DD-4

LENS TYPE 4

Front Lens
Color Filter
Disperser
Diffuser

5101-FD-6
5101-FD-7
5101-FD-3
5101-FD-4

5101-DD-6
5101-DD-7
5101-DD-3
5101-DD-4

ADD COLOR REQUIRED

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

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- INFORMATION DISPLAYS
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- INDUSTRIAL CONTROLS
- COMPUTERS
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