

MSC PRODUCTS

100 & 1100



ROTO-TELLITE



FRONT LENS AND ENGRAVING INFORMATION

ORDER CODE NUMBERS FOR TYPE OF LENS

LENS TYPE

The following are standard type lenses:

- 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 the background appears in color.

- L3—Lighted Letters, letters are not legible until illuminated and then letters appear in color.
- L4—Lighted Background, letters are not legible until illuminated and then background appears in color.

LEGEND AREA AND LETTERING

Series 100

FULL DISPLAY

Series 100

The visible legend area is 5/16" x 1 1/4", and will accommodate the following types of lettering:

The visible legend area is 15/32" x 1 1/4", and will accommodate the following types of lettering:

OUT OF ACTION

ONE ROW OF .125" HIGH CHARACTERS, 14 MAX.

2ND STAGE

ONE ROW OF .188" HIGH CHARACTERS, 10 MAX.

**EMERGENCY
DESTRUCTOR
READY**

ONE, TWO, OR THREE ROWS OF .125" HIGH CHARACTERS, 14 PER ROW MAX.

DISARM

ONE ROW OF .250" HIGH CHARACTERS, 7 MAX.

**ENGINE FUEL
PUMP FAILURE**

TWO ROWS OF .125" HIGH CHARACTERS, 14 PER ROW MAX.

SURFACE

ONE ROW OF .250" HIGH CHARACTERS, 7 MAX.

**TOWER
UNSAFE**

ONE OR TWO ROWS OF .188" HIGH CHARACTERS, 10 PER ROW MAX.

FIRE

ONE ROW OF .375" HIGH CHARACTERS, 4 MAX.

DIVIDED LIGHT

The primary purpose of the divided light is to provide two indications in the space normally required for one. A divider is added, forming two distinct engraved legends, and two separate color indications. Each half has its own independent lamp. This divided lens feature is available for all Roto-Tellite units. The 100 Series divided Roto-Tellite gives a visible legend area of 5/16" x 9/16" for each half. The 1100 Series divided Roto-Tellite gives a visible legend of 15/32" x 9/16" for each half.

Divided lights are available with circuits #2, 7, 8, 14, or 15 (as shown on pages 6 & 7).

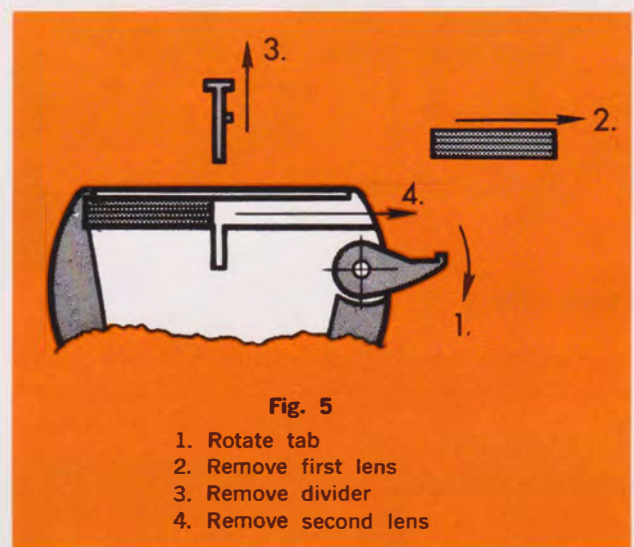


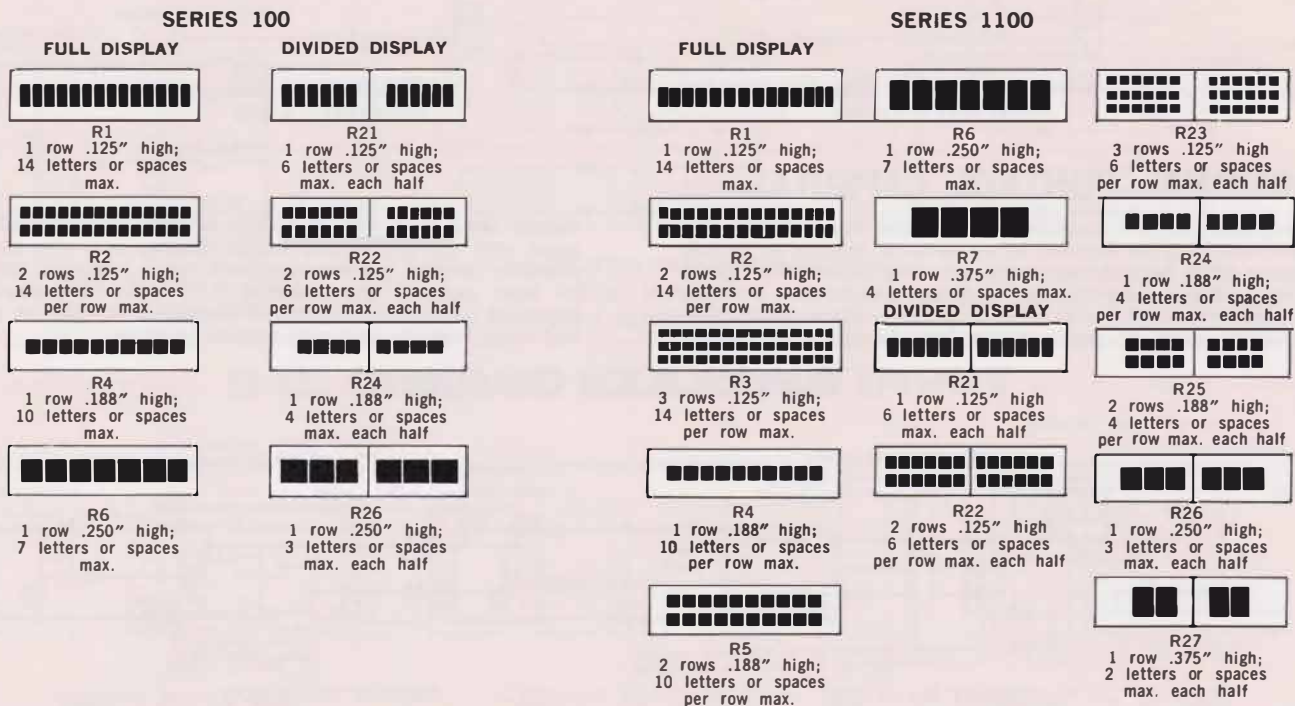
Fig. 5

1. Rotate tab
2. Remove first lens
3. Remove divider
4. Remove second lens

ORDER CODE NUMBER FOR LEGEND CONFIGURATION

When ordering legends for the Series 100 and 1100 Roto-Tellite word indicator lights, specify the desired legend configuration number, as illustrated below. After the legend

configuration number, indicate the exact wording desired, using commas between rows of letters and a vertical slash (/) to indicate the other side of a divided display.



TWO COLOR LIGHT

The primary purpose of the two-color light is to provide two different colored indications where the legend or function is common to both colors. Such as a legend reading "FUEL MIXTURE" which illuminates green when operation is correct, and will illuminate red or amber when a malfunction occurs. This is accomplished by incorporation of a very simple prism, shaped to produce an even, uniform light dispersion over the entire legend area. This feature is available in the standard 100 Series, and in the 1100 wide legend Series.

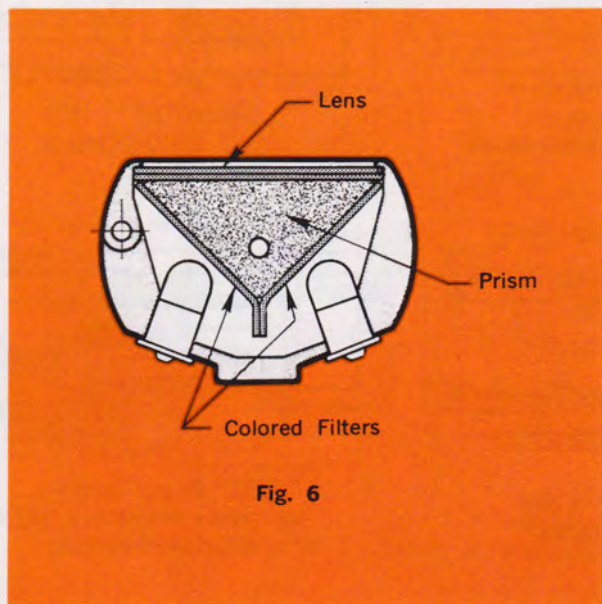


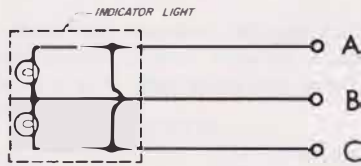
Fig. 6

SPECIAL CIRCUIT NUMBERS are used to designate a two-color light. These circuits are similar and operate in the same manners as Circuit #8, the only exception being an additional terminal to allow testing of one bulb at a time. Circuit #20 (similar to #8) for Test with blocking diodes, positive input. Circuit #21 (like #7) for Test, positive input. Circuit #22 (like #15) Test with blocking diode, negative input. Circuit #23 (like #14) for Test, negative input. For a two-color light with the base circuit, order Circuit #2.

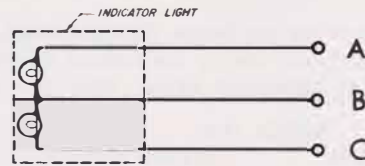
Two-color lights are available only with Lens Type 2, i.e. lighted background: letters appear black on a white background until illuminated, and then the background appears in color. Colors available are red, green, amber, and white.

BASIC CONTROL CIRCUIT

Basic Circuits



CIRCUIT No. 1 (F1)
PARALLELED LAMPS



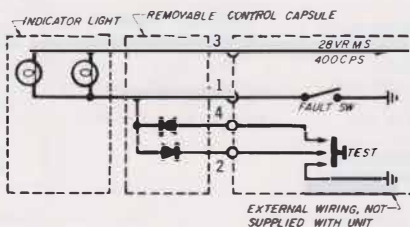
CIRCUIT No. 2 (F2)
SEPARATE LAMPS

OPTIONAL CONTROL CAPSULES

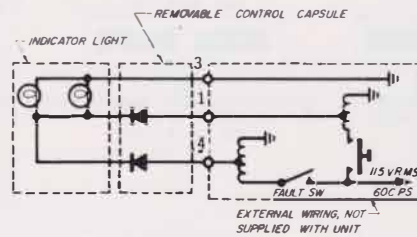
Removable control capsules, which are integral with the basic unit may be ordered as an optional feature to provide master lamp test and/or diode dimming capabilities. These control capsules are modular in design and may be changed or replaced without disassembling the indicator unit itself, providing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

Basic .A.C. Circuit

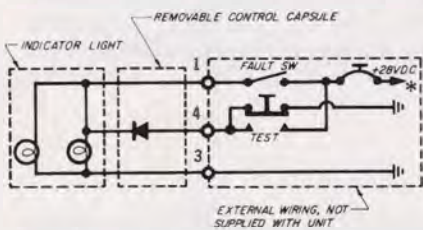


CIRCUIT No. 3 (F3)
A.C. TEST

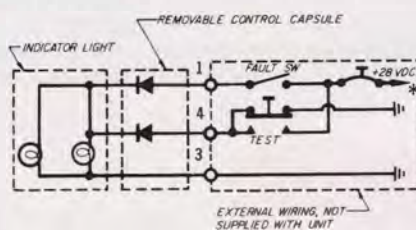


CIRCUIT No. 4 (F4)
A.C. TEST WITH BLOCKING DIODE

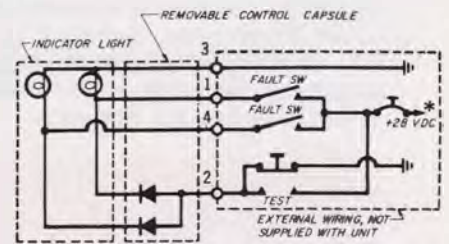
D.C. CIRCUIT POSITIVE INPUT



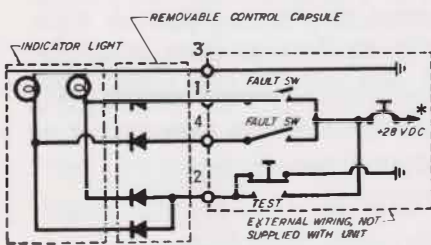
CIRCUIT No. 5 (F5)
TEST



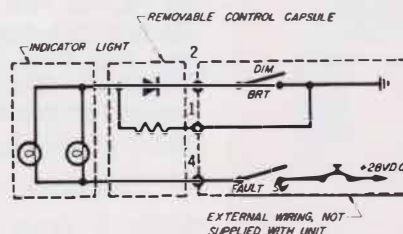
CIRCUIT No. 6 (F6)
TEST WITH BLOCKING DIODE



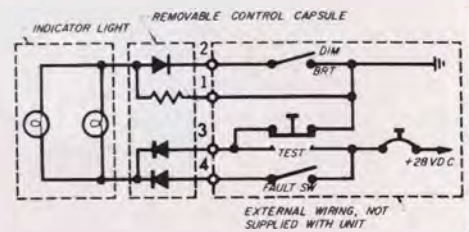
CIRCUIT No. 7 (F7)
TEST DIVIDED LIGHT



CIRCUIT No. 8 (F8)
TEST DIVIDED LIGHT WITH
BLOCKING DIODE



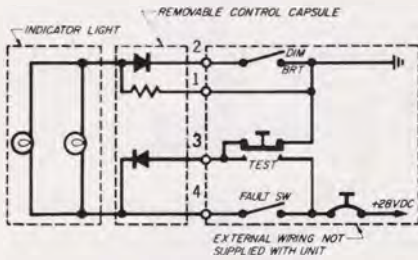
CIRCUIT No. 9 (F9)
DIODE DIMMING



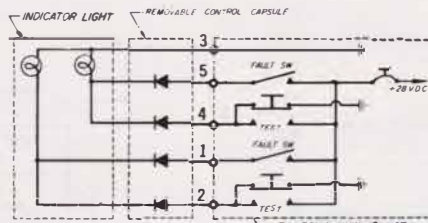
CIRCUIT No. 10 (F10)
TEST WITH BLOCKING DIODE
& DIODE DIMMING

Basic Control Circuit (cont.)

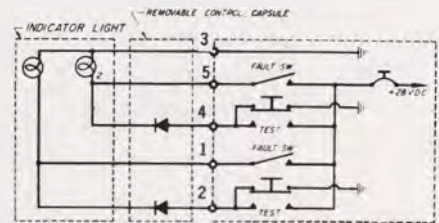
CONTINUATION OF D.C. CIRCUITS — POSITIVE INPUT



CIRCUIT No. 11 (F11)
TEST & DIODE DIMMING

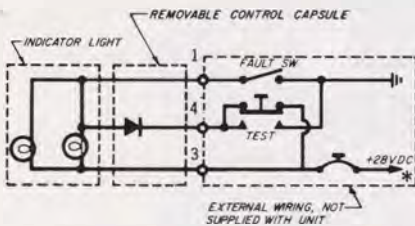


CIRCUIT No. 20 (F20) TWO COLOR DIVIDED
(POS. INPUT)
TEST WITH BLOCKING DIODE

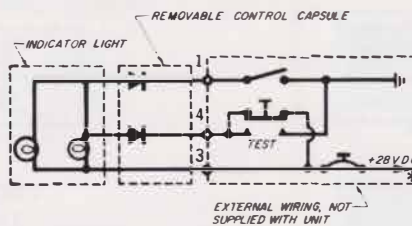


CIRCUIT No. 21 (F21)
POS. INPUT TWO COLOR TEST

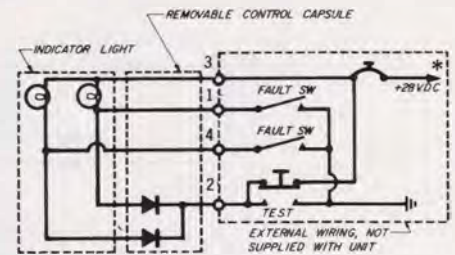
D.C. CIRCUIT NEGATIVE INPUT



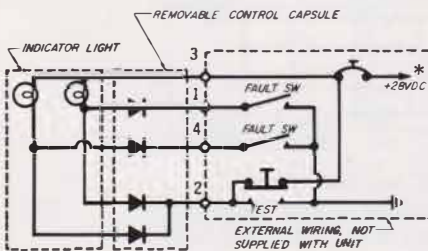
CIRCUIT No. 12 (F12)
TEST



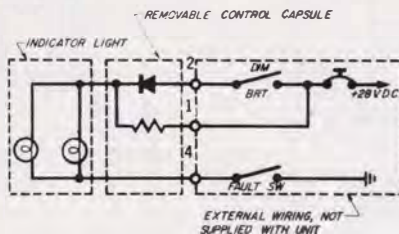
CIRCUIT No. 13 (F13)
TEST WITH BLOCKING DIODE



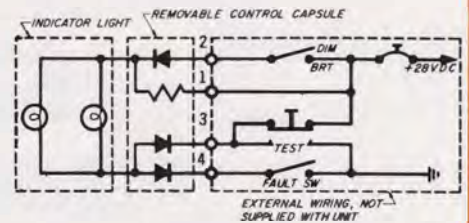
CIRCUIT No. 14 (F14)
TEST DIVIDED LIGHT



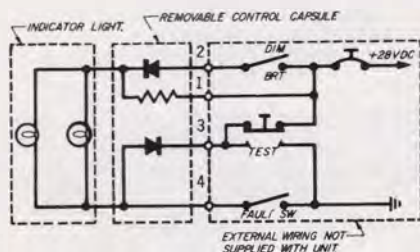
CIRCUIT No. 15 (F15)
TEST DIVIDED LIGHT WITH
BLOCKING DIODE



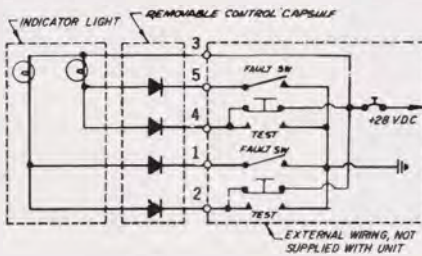
CIRCUIT No. 16 (F16)
DIODE DIMMING



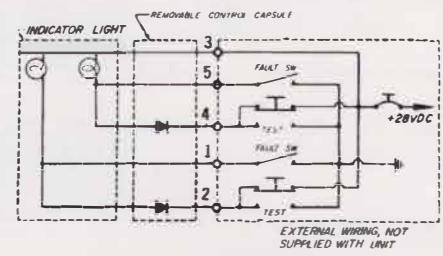
CIRCUIT No. 17 (F17)
TEST WITH BLOCKING DIODE
& DIODE DIMMING



CIRCUIT No. 18 (F18)
TEST & DIODE DIMMING



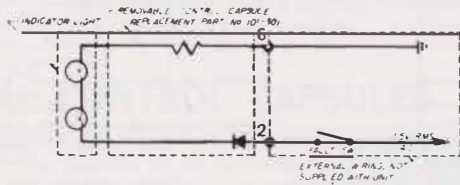
CIRCUIT No. 22 (F22)
TWO COLOR OR DIVIDED
TEST WITH BLOCKING DIODE (NEG. INPUT)



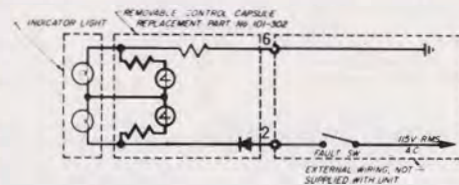
CIRCUIT No. 23 (F23)
NEG. INPUT
TWO COLOR TEST

*Also available for 6 and 12 volt.

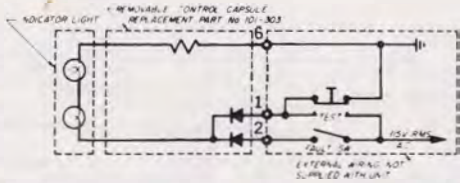
Basic Control Circuit (cont.) 115 V.A.C. Test Circuit



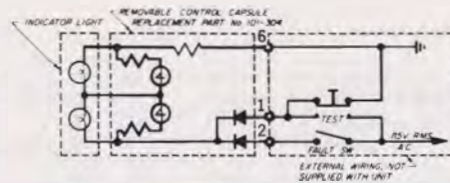
CIRCUIT No. 301 (F301)
115V.A.C.



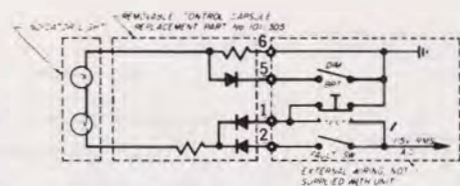
CIRCUIT No. 302 (F302)
115V.A.C. TWO BULB RELIABILITY



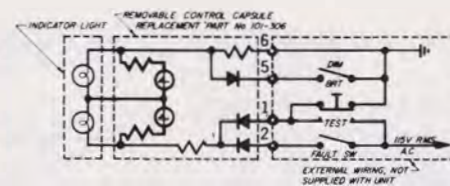
CIRCUIT No. 303 (F303)
115V.A.C. TEST



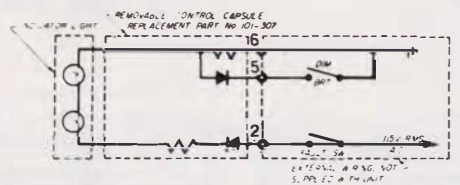
CIRCUIT No. 304 (F304)
115V.A.C. TEST WITH
TWO BULB RELIABILITY



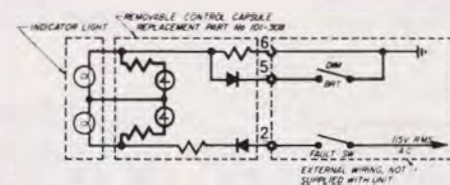
CIRCUIT No. 305 (F305)
115V.A.C. TEST & DIM



CIRCUIT No. 306 (F306)
115V.A.C. TEST & DIM WITH
TWO BULB RELIABILITY

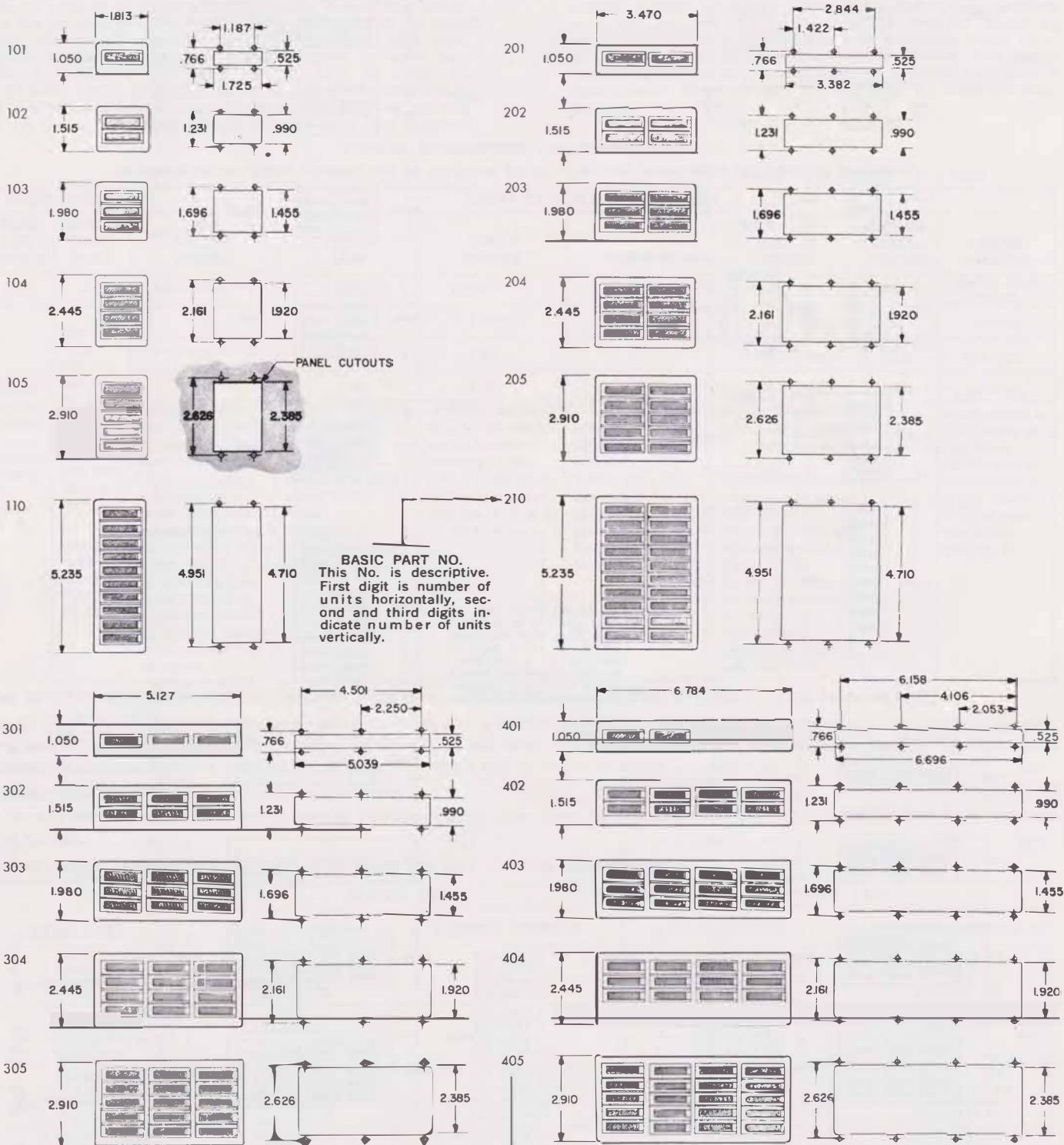


CIRCUIT No. 307 (F307)
115V.A.C. DIM



CIRCUIT No. 308 (F308)
115V.A.C. DIM WITH
TWO BULB RELIABILITY

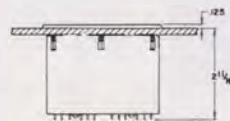
Outline and Mounting Dimensions Series 100



1 5/16" depth applies when only circuits 1 or 2 are utilized.

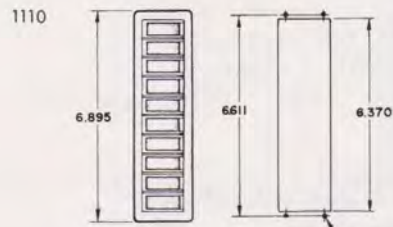
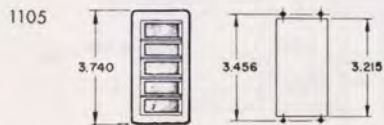
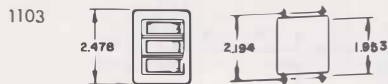
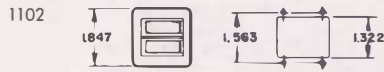
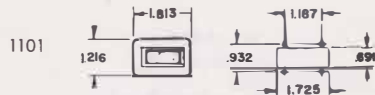


2 5/16" depth applies when circuits 3 thru 18 are required.



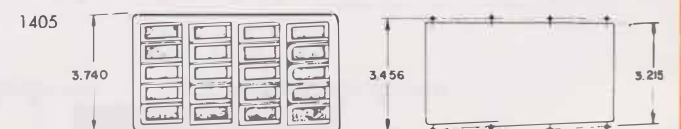
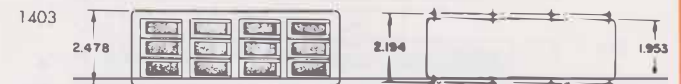
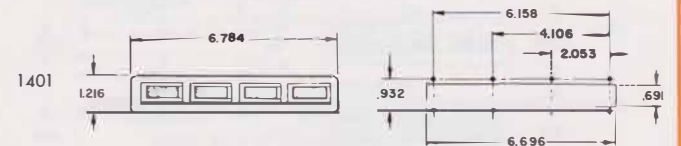
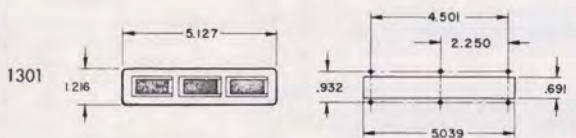
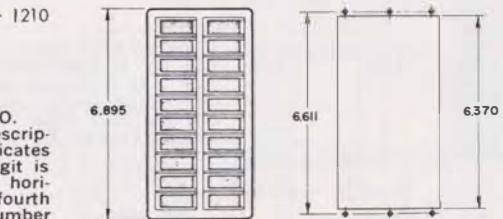
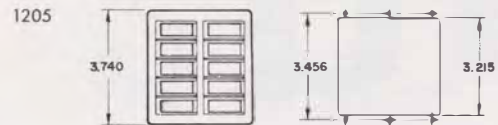
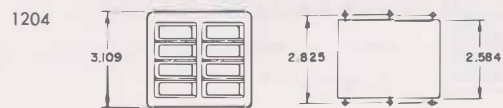
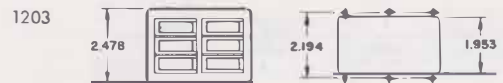
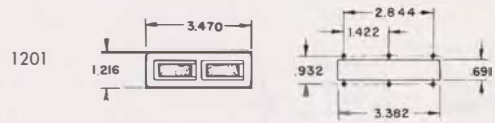
2 11/16" depth applies when circuits 20 thru 23 and 301 thru 308 are required.

Outline and Mounting Dimensions Series 1100



.150 DIA HOLES
TYP ON ALL UNITS

BASIC PART NO.
This number is descriptive. First digit indicates series. Second digit is number of units horizontally. Third and fourth digits indicate number of units vertically.



ALL DIMS. ± .010

ORDERING INFORMATION

A complete Series 100 or 1100 single or multi-unit assembly may be ordered by using a coded number callout that identifies the number of units in the matrix, the color of the front plate, the lamps required, the circuit desired, lens type, display screen arrangement, and the 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 (2 or more channels), the coded callout number, as shown below, is for descriptive purposes only and will be transferred to a Specification Sheet by Master Speicalties Company and a Specification Sheet number will be issued to cover the entire assembly. This Specification Sheet number is then used for ordering purposes. A Specification Sheet number may be obtained from the MSC factory.

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	COLOR OF FRONT PLATE	LIGHT CAPSULE NUMBER	TYPE OF LAMP	CIRCUIT NUMBER	LENS TYPE	DISPLAY SCREEN	LEGEND CONFIGURATION	LEGEND WORDING
202	A1	C1	D3	F10	L2	N1 (R)	R2	ENGINE PUMP FAILURE
Indicates Series No. & number of units in matrix configuration. (See pgs. 9 & 10).	A1—Black (MIL-TT-L-20 FED. STD. 595 color No. 27038) A2—Gray (MIL-TT-L-20 FED. STD. 595 color No. 36492) A3—Gray (MIL-TT-L-20 FED. STD. 595 color No. 36118)	C2	D3	F2X*	L2	N3 (RG)	R6	POWER
		C3	D3	F10	L2	N2 (AB)	R24	HOT/COLD
		C4	D3	F2X*	L2	N3 (RG)	R4	VALVE #3
		Individual Units or light capsules within the matrix are numbered (for identification purposes only) numerically top to bottom, left to right. See examples on pgs. 9 & 10, numbers 305 & 1305. The "C" is the identifying letter for the light capsule & the number following it is the number of the 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 pg. 3) (2 lamps required per lamp capsule.)	"F" is the identifying letter for the circuit and the number following it is the number of the circuit for that light capsule. (See pgs. 6, 7, & 8).	"L" is the identifying letter for lens types and the number following it is the number of the lens type used in that light capsule. (See pg. 4) Type L2 is the most commonly used.	N1—Full Display N2—Divided Display N3—Two Color Full Display. Letter(s) in () indicates color unit is to display when lighted. Priority is left to right for divided display & 2 color R—Red, G—Green, A—Amber, B—Blue, W—White (White color is produced by a light blue color filter).	See Page 4	Actual wording as it will appear on face of unit. Commas used to separate rows of letters; Slash (/) indicates other side of split. (See Page 4).

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

*When an F1 or F2 circuit is called out (which does not use a control capsule), you may specify a dummy control capsule by adding an "X" after the callout. The dummy control capsule will bring the lamp terminals out flush with the back of the other units containing control capsules, so that these lamp terminals will be easier to reach.

ELIMINATION OF ITEMS

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

REPLACEMENT LENSES may be ordered by using the part numbers shown below:

LENS TYPE	SERIES 100		SERIES 1101	
	FULL DISPLAY	DIVIDED DISPLAY	FULL DISPLAY	DIVIDED DISPLAY
1 FRONT LENS DISPERSER COLOR FILTER DIFFUSER	101-0536-1 101-0536-7-4 101-0536-□ 101-0536-97	101-0535-1 101-0535-7-4 101-0535-□ 101-0535-97	1101-0410-1 1101-0410-7-4 1101-0410-□ 1101-0410-97	1101-0411-1 1101-0411-7-4 1101-0411-□ 1101-0411-97
2 FRONT LENS DISPERSER COLOR FILTER DIFFUSER	101-0536-1 101-0536-7 101-0536-□ 101-0536-97	101-0535-1 101-0535-7 101-0535-□ 101-0535-97	1101-0410-1 1101-0410-7 1101-0410-□ 1101-0410-97	1101-0411-1 1101-0411-7 1101-0411-□ 1101-0411-97
3 FRONT LENS COLOR FILTER DISPERSER DIFFUSER	101-0536-3-1 101-0536-□-4 101-0536-94 101-0536-97	101-0535-3-1 101-0535-□-4 101-0535-94 101-0535-97	1101-0410-3-1 1101-0410-□-4 1101-0410-94 1101-0410-97	1101-0411-3-1 1101-0411-□-4 1101-0411-94 1101-0411-97
4 FRONT LENS COLOR FILTER DISPERSER DIFFUSER	101-0536-3-1 101-0536-□ 101-0536-94 101-0536-97	101-0535-3-1 101-0535-□ 101-0535-94 101-0535-97	1101-0410-3-1 1101-0410-□ 1101-0410-94 1101-0410-97	1101-0411-3-1 1101-0411-□ 1101-0411-94 1101-0411-97

□ Add color required R—Red; G—Green; A—Amber; B—Blue; W—White. (White color produced by light blue color filter).



REPLACEMENT CONTROL CAPSULES

In ordering replacement control capsules, add the circuit number found on pages 6, 7, and 8 to the Basic Part No. 101 or 1101.

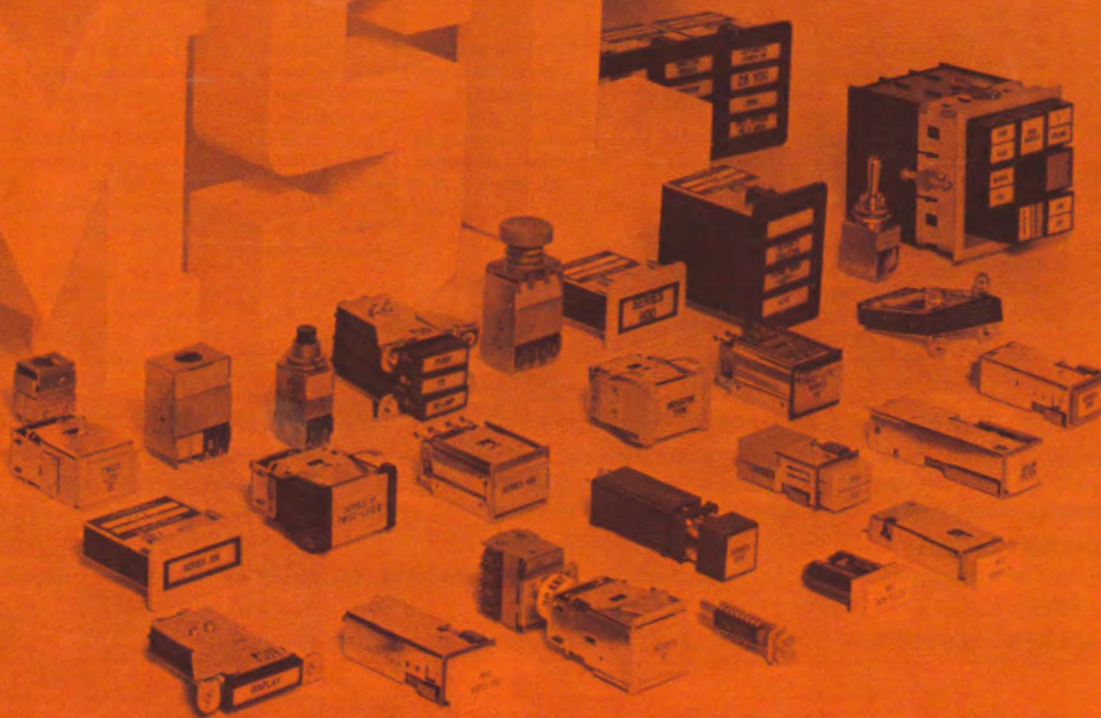
First with the finest
in illuminated
switching/indicating devices

Products

- ILLUMINATED PUSHBUTTON SWITCHES
- PILOT LIGHTS
- WORD INDICATORS
- UNLIGHTED SWITCH ASSEMBLIES
- FIBER-OPTIC READOUTS
- INFORMATION DISPLAYS
- CONTROL DEVICES
- AUDIO/VISUAL ANNUNCIATORS
- WARNING SYSTEMS

Applications

- AEROSPACE
- INDUSTRIAL CONTROLS
- COMPUTERS
- DATA PROCESSING



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MSC PRODUCTS

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