

INSTRUCTIONS

CR2940 PUSH-BUTTON AND SIGNAL STATION



Stations should be installed in a vertical position on a substantial supporting surface, as free from vibration as possible, and with the proper end up as indicated by nameplates on the cover or escutcheon plate. Where the cover is reversible with respect to the box, and the station contains units of the type shown in Fig. 1, the station should be mounted so

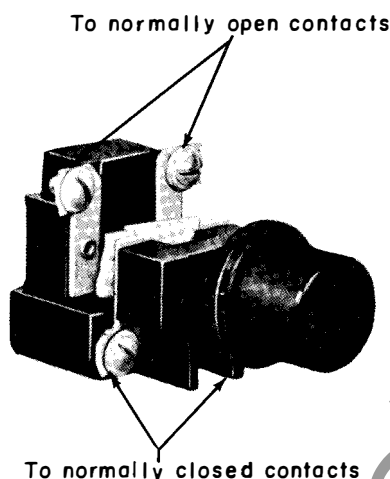


Fig. 1

that the units are in the position shown in Fig. 1; except where the arrangement of the station, as for example a foot-operated station, suggests a modification of this rule.

Connections to the binding screws should be made in accordance with the wiring diagram. Examine the push-button switch units before making connections. Do not depend on the relative position of the binding screws being the same as shown in the wiring diagram. Make sure that the connections to the contacts shown as normally open on the diagram are made to normally open contacts on the unit. In the same way connections shown on the diagram as normally closed must be made to the normally closed contacts on the unit. Tighten all binding screws snugly. To avoid trouble do not leave loose strands of wire. See that

wires are placed so as not to interfere with the operation of the buttons.

Buttons should be operated by the thumb or finger; not by striking with hammer, screw driver, or other objects. Keep the station reasonably clean inside and out. If contacts become roughened by heating or arcing, they should be smoothed with a fine file.

Panel-mounted Stations

An outline and drilling plan are shipped with the station when the station is to be mounted with the mechanism on the back of the panel. Drill the panel according to the drilling plan. Install the station so the subbase on which the units are mounted is parallel with the panel, and by means of nuts on the mounting screws adjust the distance of connection board from the front of the panel. Line up the station so the buttons work freely.

Dust-tight and Watertight Stations

When installing watertight stations use a sealing compound on all threaded conduit connections. Sealing compound may be used on both surfaces of the gasket between the box and cover although usually it is not necessary. Tighten all the cover screws. Where the operating shaft passes through the stuffing gland see that the gland is kept reasonably tight at all times, but use care so that it does not bind on the shaft and prevent free movement of the buttons.

Stations Containing Indicating or Pilot Lights

Stations Containing 18-volt Lamps

These lamps are MAZDA T4, 18-volt, with a candelabra screw base. With 18 volts impressed on the lamp the current is 0.11 amp. When the station contains a resistor unit connected in series with the lamp, both the lamp voltage and the lamp-circuit voltage are

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.

stamped on the nameplate. When the station does not contain a resistor, the lamp voltage is stamped on the nameplate and a separately mounted resistor must be connected in series with the lamp. Recommended resistors are shown in the following tables:

**For Stations with One Lamp
A.C. or D.C.**

Volts	CR9158-2 Resistor or CR9158 Resistor (See Note)		Ohms
110-125	Cat. 2241180G6	Cat. 2880121G45	1200
208-250	Cat. 2241180G7	Cat. 3887729G66	2600
440	Cat. 2241180G8	Cat. 2880121G54	5000
500-600	Cat. 2241180G9	Cat. 2880121G55	6000

**For Stations with Two Lamps
A.C. or D.C.**

Volts	CR9158-2 Resistor or CR9158 Resistor (See Note)		Ohms (per unit)
110-125	Cat. 2241180G2	Cat. 2880122G45	1200
208-250	Cat. 2241180G3	Cat. 3887730G47	2600
440	Cat. 2241180G4	Cat. 2880122G54	5000
500-600	Cat. 2241180G5	Cat. 2880122G55	6000

Stations Containing 125-volt Lamps

These lamps are MAZDA S6, 125-volt, with a candle-screw base. With 125 volts impressed on the lamp the current is 0.045 amp. Where the station contains resistor unit or capacitor connected in series with the lamp, both the lamp voltage and the lamp-circuit voltage are stamped on the nameplate. Where the station does not contain a resistor or capacitor the lamp voltage is stamped on the nameplate, and a

separately mounted resistor must be connected in series with the lamp if used on voltages above 125. Recommended resistors are shown in the following tables:

**For Stations with One Lamp
A.C. or D.C.**

Volts	CR9158-2 Resistor or CR9158 Resistor (See Note)		Ohms
208-250	Cat. 2241180G29	Cat. 3887729G95	2800
440	Cat. 2241180G30	Cat. 2880141G24	7500
500-600	Cat. 2241180G31	Cat. 3887729G86	11000

**For Stations with Two Lamps
A.C. or D.C.**

Volts	CR9158-2 Resistor or CR9158 Resistor (See Note)		Ohms (per unit)
208-250	Cat. 2241180G32	Cat. 3887750G55	2800
440	Cat. 2241180G26	Cat. 3887750G56	7500
500-600	Cat. 2241180G33	Cat. 3887750G57	11000

Stations with Illuminated Buttons

The lamps used in these units are MAZDA No. 46. It is recommended that these be operated at about 5 volts. At this voltage the lamp will draw 0.192 amp. Transformers are regularly supplied to provide correct operating voltage for the lamps, but for direct current, series resistors will be required. The resistance values are as follows:

110 to 125 volts— 500 ohms
208 to 250 volts—1000 ohms

These lamps should not be used on circuits of more than 250 volts with series resistor.

NOTE:—The CR9158-2 resistors have an enclosure similar to a push-button station box with enclosed terminals. The CR9158 resistors have a cage-type enclosure with exposed terminals. Either type may be used.

GENERAL PURPOSE CONTROL DEPARTMENT

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