8271 and 8272 Ballast Lamp Panels

contents

figure 1. 8271 Ballast Lamp Panel

1. general description

1.01 The Tellabs 8271 and 8272 Ballast Lamp Panels (figure 1) each provide 14 mounting positions for Type 13 ballast lamps. Both panels are equipped with a ½ ampere GMT-type input fuse, and with 7 ballast lamps. Additional lamps (order number 30-7006) may be obtained.

1.02 Both the 8271 and 8272 panels are designed for relay rack installation. The 8271 mounts in a 19 inch rack, while the 8272 mounts in a 23 inch rack. Aside from this, the panels are identical. Each panel occupies one vertical rack mounting space (1¾ inches).

2. application

2.01 The 8271 and 8272 Ballast Lamp Panels may be used wherever it is desired that ballast lamps be used to ensure the continued operation of line circuits and associated equipment connected to the same ringing source when one such line circuit (or more) is shorted or overloaded. The ballast lamps also protect the ringing source from damage due to overloading.

3. installation

inspection

3.01 The 8271 or 8272 Ballast Lamp Panel should be visually inspected upon arrival to find possible damage incurred during shipment. If damage is noted, a claim should immediately be filed with the carrier. If stored, the panel should be visually inspected again prior to installation.

mounting

3.02 Four mounting holes are provided on each panel. The 8271 panel mounts in one vertical rack space (1¾ inches) on a 19 inch rack; the 8272 panel mounts in one vertical rack space on a 23 inch rack. Individual ballast lamps (which must be ordered separately) are inserted from the front of the panel and secured from the rear by a 6-32 x ½ inch pan head or binder head screw.

installer connections

3.03 In the most typical wiring arrangement (figure 2), the output of the ringing generator is connected to the input terminal of the fuse holder.

The output terminal of the fuse holder is connected via a common bus to one terminal of each ballast lamp. The other terminal of each ballast lamp is connected to the ringing generator input of each associated line circuit. Figure 2 also shows ground terminals attached to the ballast lamp mounting screws. These terminals are interconnected via a common bus and connected individually to ground. This arrangement is used for terminating ground returns from the line circuits and may be utilized if required locally.

3.04 Although the wiring arrangement shown in figure 2 and described above is typical, other arrangements may be used, depending upon local requirements.
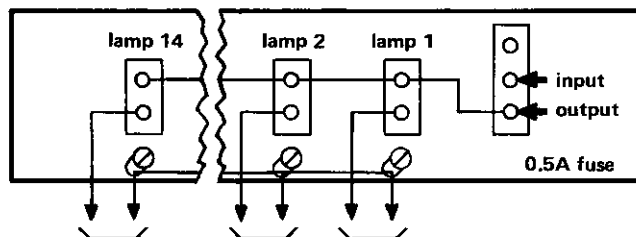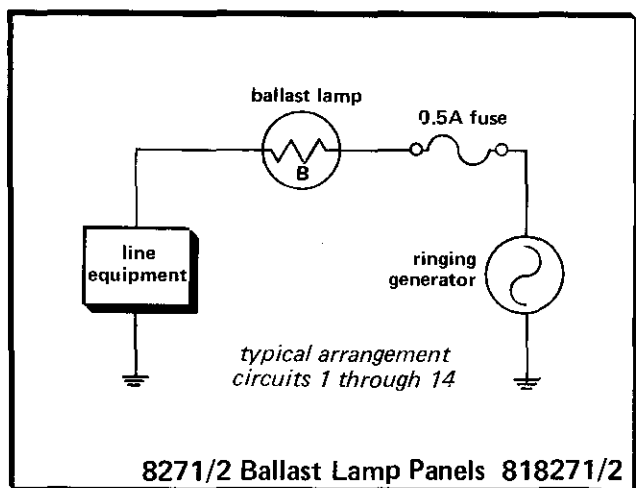

figure 2. Ballast Lamp Panel, rear view, typical wiring arrangement

4. circuit description

4.01 The 8271 and 8272 Ballast Lamp Panels are supplied without lamps or wiring. When a panel is equipped and wired as described in section 3 and shown in figure 2, the grounding of a telephone ringer lead causes the associated ballast lamp to light brightly. The lamp acts as a current limiter, protecting the ringing generator from overload, and also provides a visible indication that an overload condition exists in the external circuitry. All other ballast lamps remain unlit, and operation of their associated line equipment remains unaffected.

Note: Each ballast lamp, when lit, draws approximately 112mA. Thus, the simultaneous lighting of five or more lamps will cause the panel fuse to blow.

ballast lamp

0.5A fuse

line equipment

ringing generator

typical arrangement circuits 1 through 14

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5. functional schematic

6. specifications

dimensions

8271 panel: 1.72 inches (4.37cm) high
19.0 inches (48.26cm) wide
0.125 inch (0.32cm) deep
(Lamps extend approximately 3 1/8 inches in front of and 7/8 inch behind panel.)

8272 panel: 1.72 inches (4.37cm) high
23.0 inches (58.42cm) wide
0.125 inch (0.32cm) deep
(Lamps extend approximately 3 1/8 inches in front of and 7/8 inch behind panel.)

weight

8271 panel: 5.85 oz (165.8g)

8272 panel: 7.20 oz (204.1g)

mounting

8271 panel: 19 inch relay rack

8272 panel: 23 inch relay rack

ballast lamps

Sylvania 13C or equivalent

Tellabs part No. 30-7006 (7 each lamps included)

7. testing and troubleshooting

7.01 The testing guide may be used to assist in testing or troubleshooting of the 8271 or 8272 Ballast Lamp Panel after the panel is installed, equipped, and wired. If trouble is encountered with the ballast lamp circuitry or associated equipment, verify that all installer connections are made properly before referring to the testing guide.

7.02 If a situation arises that is not covered in the testing guide, contact Tellabs Customer Service, (312) 969-8800, for assistance.

7.03 If a panel is found to be defective, the problem may be remedied by either replacement or repair and return. Because it is more expedient, the replacement procedure should be followed if time is a critical factor.

replacement

7.04 If a defective 8271 or 8272 panel is encountered, notify Tellabs directly via telephone, letter, or twx. Notification should include all relevant information, including the 8X827X part number (from which the issue of the panel in question can be determined). Upon notification, Tellabs will ship a replacement panel to you (at no charge if the warranty interval has not lapsed). Repack the defective panel in the replacement panel's carton; sign the packing list included with the replacement panel and enclose it with the defective panel (this is your return authorization); affix the preaddressed label provided; and ship the panel prepaid to Tellabs.

repair and return

7.05 Return the defective 8172 or 8272 panel, shipment prepaid, to Tellabs. Enclose an explanation of the panel's malfunction. Follow your company's standard procedure with respect to administrative paperwork. Tellabs will repair the panel and ship it back to you. If the panel is in warranty, no invoice will be issued.

8271 and 8272 testing guide checklist

test or operation	procedure	normal result	if normal conditions are not met, verify:
verify operation of ringing generator	Set VOM to 250Vac. Connect one lead of VOM to ground and other lead to ballast lamp pin associated with ringing generator.	VOM indicates voltage of ringing generator, indicating that ringing generator is operating ☐.	Faulty fuse ☐. Ringing generator not operating ☐. Loose connection or broken wire from ringing generator to panel ☐. Loose connection or broken wire from output terminal of fuse to lamp under test ☐.
verify operation of ballast lamps	Remove VOM lead from ballast lamp pin associated with ringing generator and connect it to ballast lamp pin associated with line equipment.	VOM indicates ringing voltage, indicating that ballast lamp is operational ☐.	If VOM indicates zero, ballast lamp is open. Replace ballast lamp and retest ☐.