

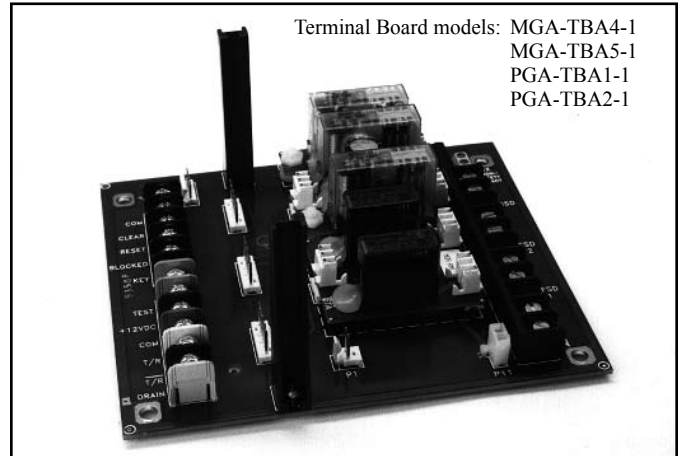
MGA-TBA Series Replacement Terminal Boards

For "A" Series MACHINE-GUARD and PERIMETER-GUARD Control Boxes



These are replacement terminal boards for "A" Series MACHINE-GUARD or PERIMETER-GUARD control boxes. New relay modules are included. These terminal boards may also be used to upgrade older control box models to the "A" revision. This replacement procedure covers the following terminal boards:

Board Model	REPLACEMENT for control box models	UPGRADE for control box models
MACHINE-GUARD		
MGA-TBA4-1	MGCA-4A, MGCB-4A	MGCA-4, MGCB-4
MGA-TBA5-1	MGCA-5A, MGCB-5A	MGCA-5, MGCB-5
PERIMETER-GUARD		
PGA-TBA1-1	PGCA-1A, PGCB-1A	PGCA-1, PGCB-1
PGA-TBA2-1	PGCA-2A, PGCB-2A	PGCA-2, PGCB-2



WARNING!

Before performing any work inside the control box, always remove all power from the control box and from the machinery to which the control box is connected. Failure to do so can result in electrical shock and serious injury or death.

Removing the old terminal board

- 1) Before opening the control box cover, remove all power to the control box and to the machinery to which the control box is connected. Open the control box cover. Refer to Figures 1 and 2, below.
- 2) Loosen the two captive screws (one at each end) that hold the controller board to the terminal board. Remove the controller module by pulling it vertically out of its guides. Pull gently and evenly.
- 3) Remove all wires from barrier strips P2, P3, P5, P6, and the ground lug for the ac mains connection.
- 4) Refer to Figure 2 and remove the interconnecting cables at connectors P1, P9, and P11. Before pulling, first release the locking mechanism on each connector.
- 5) Remove the six screws that hold the terminal board to the control box (see Figure 2; mounting screws are shaded gray).

Installing the new terminal board

- 1) Place the MGA-TBA terminal board into the control box and align the six mounting holes. Then follow steps 2 through 5 (left) in reverse order. NOTE: A spare set of six screws is provided.

Insert and tighten the six mounting screws.

Reconnect cable ends at P1, P9, and P11.

Reconnect wiring at barrier strips P2, P3, P5, and P6.

Slide the controller module back into position**.

**When reinstalling the controller module, it may be necessary to realign one or both of the card guides. Guide(s) may be loosened temporarily by loosening the screw at their base.

If you have any problems or questions, contact the Banner Applications Department at (612) 544-3164.

Figure 1. Component Identification

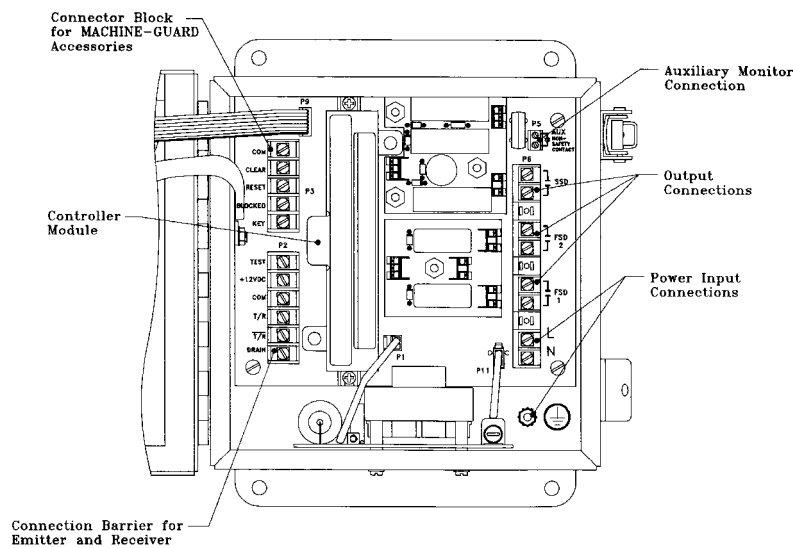
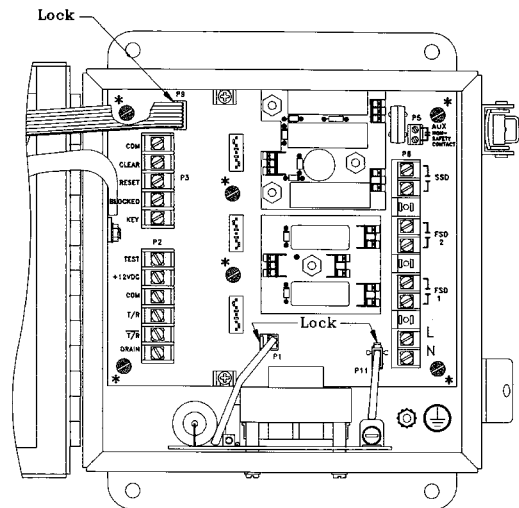


Figure 2. Interconnecting Cable Connectors and Mounting Screw Locations*



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