

Replacement Boards

Models	Part Number	Used with Controller Models	Description
USDA-RM-1	50001	All with two outputs	Replacement power supply and relay board, 2-output
USDA-RM-2	55707	All with four outputs	Replacement power supply and relay board, 4-output
USDAB-1	50002	USDINT-1T2, -1T4	Replacement controller board No Fixed Blanking, Trip output
USDAB-2	50003	USDINT-2T2, -2T4	Replacement controller board with Fixed Blanking, Trip output
USDAB-1D	52245	USDINT-1T2D, -1T4D	Replacement controller board for DeviceNet No Fixed Blanking, Trip output
USDAB-2D	52246	USDINT-2T2D, -2T4D	Replacement controller board for DeviceNet Fixed Blanking, Trip output
USDAL-1	55624	USDINT-1L2, -1L4	Replacement controller board No Fixed Blanking, Latch output
USDAL-2	55626	USDINT-2L2, -2L4	Replacement controller board with Fixed Blanking, Latch output
USDAL-1D	55625	USDINT-1L2D, -1L4D	Replacement controller board for DeviceNet No Fixed Blanking, Latch output
USDAL-2D	55627	USDINT-2L2D, -2L4D	Replacement controller board for DeviceNet with Fixed Blanking, Latch output

Board Removal (figures 1 - 3)

- 1) Remove the wiring barriers (leaving the wires connected to them, if possible) by gently prying each barrier up and off using a flat-blade screwdriver (**Figure 1**)
- 2) Remove the module cover by placing the blade of a small flat-blade screwdriver in the slot located at either end of the cover, and gently prying the cover open (**Figure 2**). The cover is not hinged. It will come completely off.
- 3) The controller board must be removed, first. Gently push the sides of the module housing outward (at the top corners) to dislodge the two locking tabs on the controller board from the slots on the sides of the housing (**Figure 3**). Pull the controller board straight out of the module housing, and disconnect the two ribbon cables where they connect at the relay/power supply board.
- 4) To unlock and remove the relay/power supply board, gently push the sides of the housing (as in step 3), and pull the board straight out of the module.



Figure 1.



Figure 2.

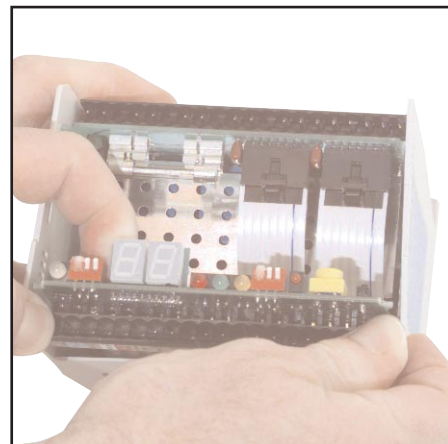


Figure 3.

MICRO-SCREEN™ DIN-style Controller Board Replacement

Installing the Replacement Boards (figures 4- 6)

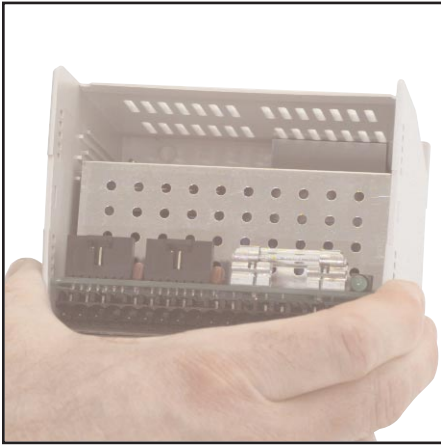


Figure 4.

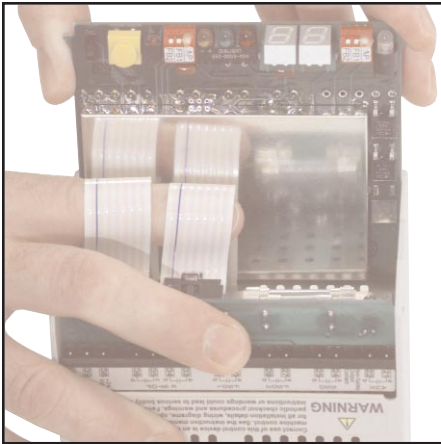


Figure 5.



Figure 6.

- 1) The boards install in reverse order: first the relay/power supply board, and then the controller board.
- 2) Align the board edges with the slots on the inside of the module walls - use the slots which are closest to the vented module walls. Slide the relay/power supply board into the module. Apply pressure on the top edge of the board until the locking tabs on the board engage the slots on the sides of the housing. Squeeze the sides of the housing to fully engage the tabs into their slots (**Figure 4**).
- 3) Connect the two ribbon cables from the controller board. Double-back the ribbon cables before sliding the controller board in the module housing (**Figure 5**). Install the controller board as in Step 2.
- 4) Replace the module cover by positioning the windows of the cover over the LEDs of the controller board, and engaging one of the locking tabs on the cover with the mating slot on the module side wall (**Figure 6**). Push down the opposite end of the cover until its locking tab aligns with its slot. Squeeze the sides of the housing to fully engage the tabs into their slots.
- 5) Re-mount the module and replace the wiring barriers by simply pushing them down into their receptacles. Take care to match the terminal labels on the wiring barriers with the terminal labels on the board headers.



the machine safety specialist

WARRANTY: Banner Engineering Corporation warrants its products to be free from defects for one year. Banner Engineering Corporation will repair or replace, free of charge, any product of its manufacture found to be defective at the time it is returned to the factory during the warranty period. This warranty does not cover damage or liability for the improper application of Banner products. This warranty is in lieu of any other warranty either expressed or implied.