## **INSTALLATION MANUAL**



## MA 3 TRANSFORMER KITS

TF 407 & TF 410

#### Description

Up to three optional 70.7 V or 100 V constant-voltage distribution transformers may be mounted inside the MA 3 with no external wiring or mounting required.

- The **TF 407** is a 40W, **70.7** V transformer with 0.5 dB insertion loss at rated power and a frequency response of 50 Hz to 15 kHz, ±1 dB.
- The **TF 410** is a 40W, **100 V** transformer with 0.5 dB insertion loss at rated power and a frequency response of 50 Hz to 15 kHz, ±1 dB.

**Installation** *WARNING* — Only authorized service personell should perform this upgrade.

- 1. Unplug the MA 3 amplifier!
- 2. Remove the top cover (12 screws).
- 3. Capacitors C63, C61, C62 and C65 need to be laid toward the rear of the unit (Figure 1). *Don't* press on parts, just gently lay them over.
- 4. Stand the MA 3 up on one end with the power transformer toward the bench (Figure 2).
- 5. Locate the transformer mounting holes along the rear panel of the MA 3 (Figure 2).
- 6. Place one of the two supplied #8 screws in the "top" mounting hole of the pair of holes associated ( with the channel receiving the transformer (Figure 2).

The "bottom" two holes are for Channel 3.

The "center" two holes are for Channel 2.

The "top" two holes are for Channel 1.

- 7. With the transformer primary (WHT & BLK) wires facing the PCB, "hang" the transformer on the #8 screw and nylock nut. Hold the screw and transformer in place with one hand. Use your other hand to rotate the supplied #8 nut onto the threads. Use a nut driver and #2 Phillips driver to snug the hardware. Install the second #8 screw and nylock nut. Make sure hardware is tight.
- 8. Repeat for additional Channels if more than one transformer is required. When installing more than one, start at the bottom (Channel 3).





Figure 2. Transformer mounting holes for each channel.

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10. See Figure 3. The + (hot) jumper *must be cut* when a transformer is installed. The – (gnd) jumper may be cut for a fully isolated secondary *or* left in for a ground referenced secondary. There are two wire jumpers for each Channel:

Ch 1	+ (hot) W6	– (gnd) W9
Ch 2	+ (hot) W8	– (gnd) W10
Ch 3	+ (hot) W13	– (gnd) W14

- 11. Cut the required jumper(s).
- 12. Locate the BLK/WHT primary pair. Twist the wires together.
- 13. Connect the BLK primary wire:

Ch 1: J8 Ch 2: J15 Ch 3: J25

14. Connect the WHT primary wire:

Ch 1: J20	Ch 2: J11	Ch 3: J22
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- 15. Locate the BLK/RED secondary pair. Twist the wires together.
- 16. Connect the BLK secondary wire:

Ch 1: J10	Ch 2: J14	Ch 3: J21			
17. Connect the RED secondary wire:					
Ch 1: J9	Ch 2: J16	Ch 3: J17			

- 18. Use the supplied tie raps to "dress" wires along the rear of the chassis and away from power transformer and circuit board.
- 19. Place the supplied Label on the outside of MA 3 to indicate the location and type of transformer installed.
- 20. Re-install the top cover.



Figure 3. Jumpers

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