

FC-25/50DA Main Circuit Board Replacement Product Installation Document

Document 51875 Rev A 10/12/01 ECN 01-506

This Product Installation Document outlines the replacement of the Main Circuit Board for the Fire•Command•25/50DA Distributed Audio Panel. Proper grounding, of the individual performing the replacement and the work area, is essential to prevent circuit board damage due to Electrostatic Discharge. Accepted industry practices must be employed.

Note: All hardware, (screws, nuts, standoffs, etc.) required to mount the main circuit board and option modules, is included in the main circuit board replacement kit, in the event any of the original hardware is misplaced during the circuit board removal and installation. This hardware is not required if the original hardware is removed from the old circuit board.

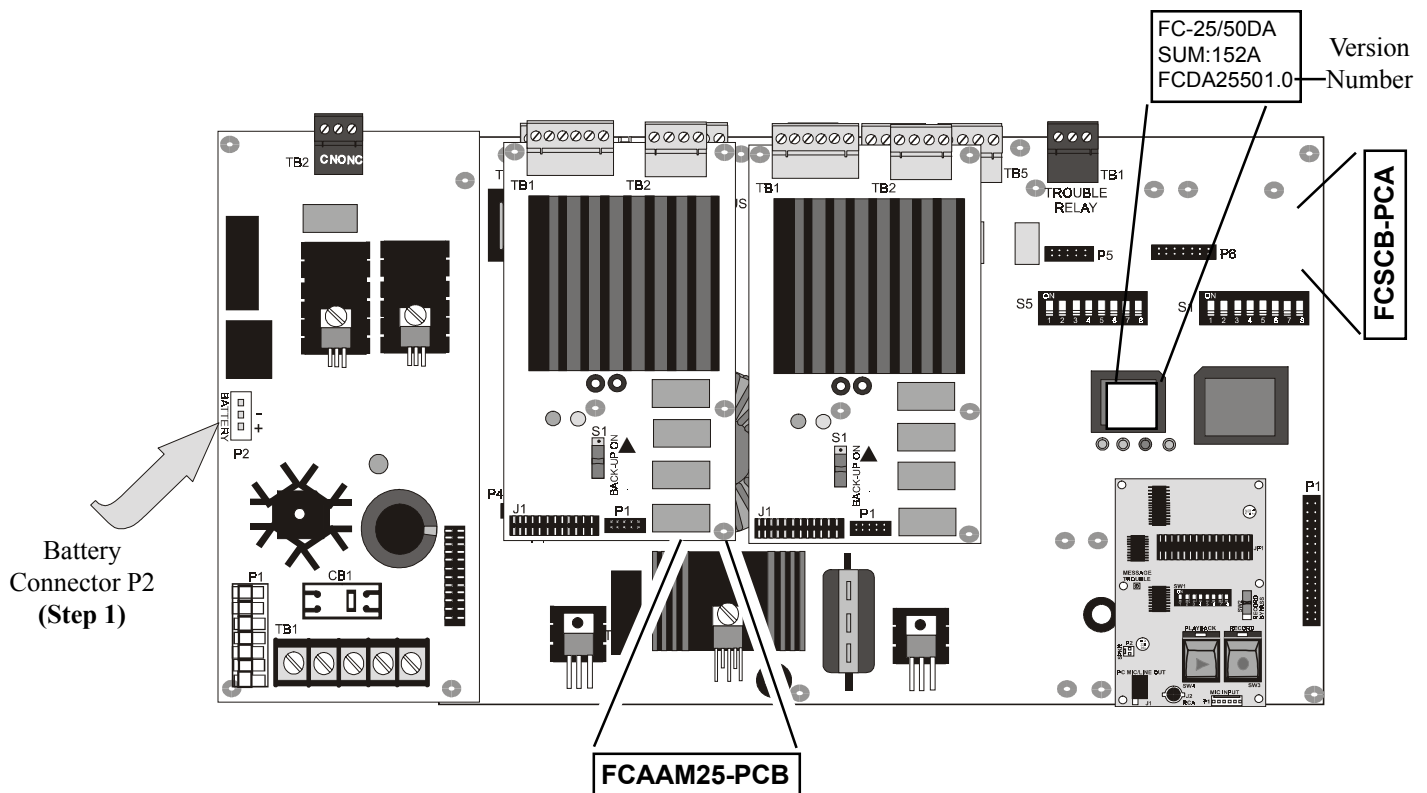
IMPORTANT! Verify that the printed circuit boards and software revisions are the same as those shown in the following illustration, or higher.

CAUTION! Make certain all power (AC and DC) is removed before any replacement work is performed.

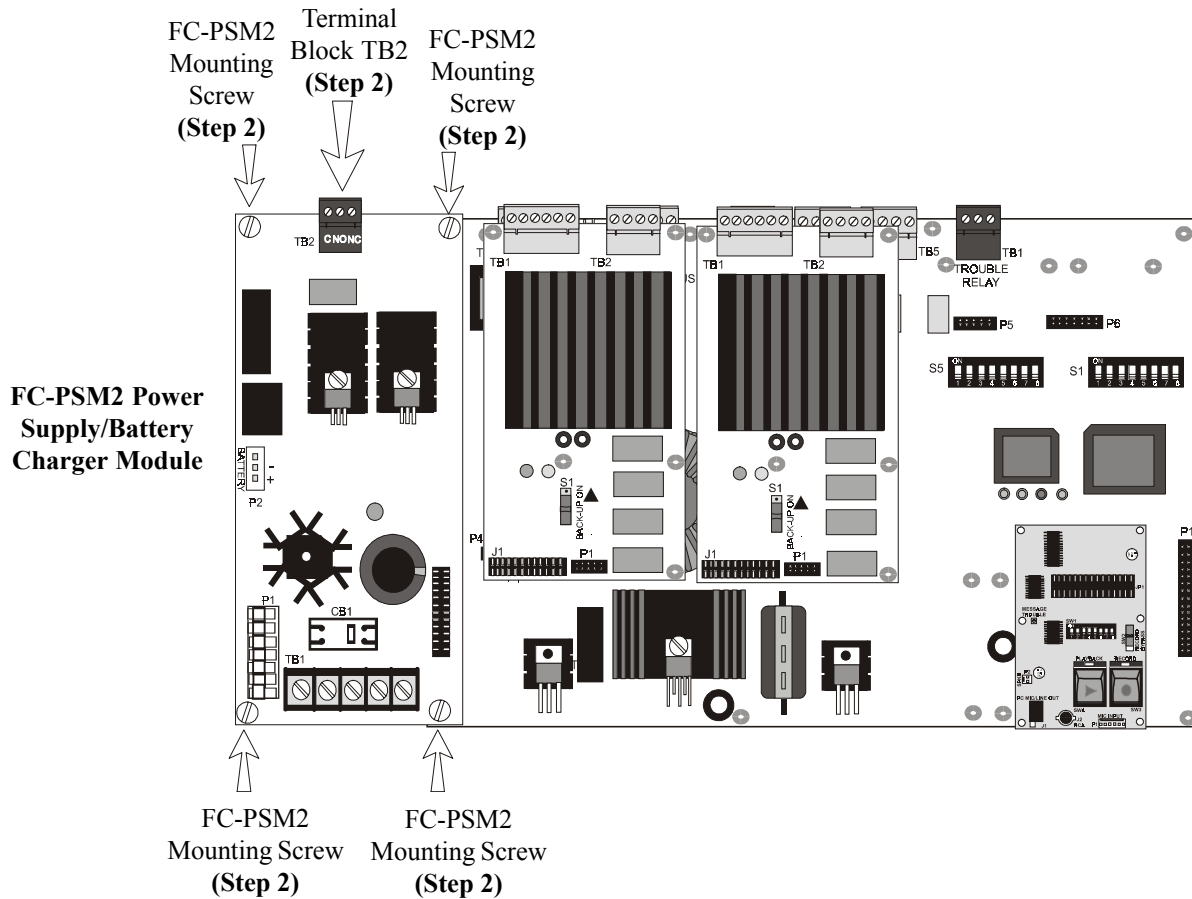
Fire•Command•25/50DA Distributed Audio Panel (FC-25/50DA) Main Circuit Board Removal

Note that the following steps assume that all optional modules are installed. If one or more optional modules are not installed, skip the corresponding step(s) and proceed to the next step.

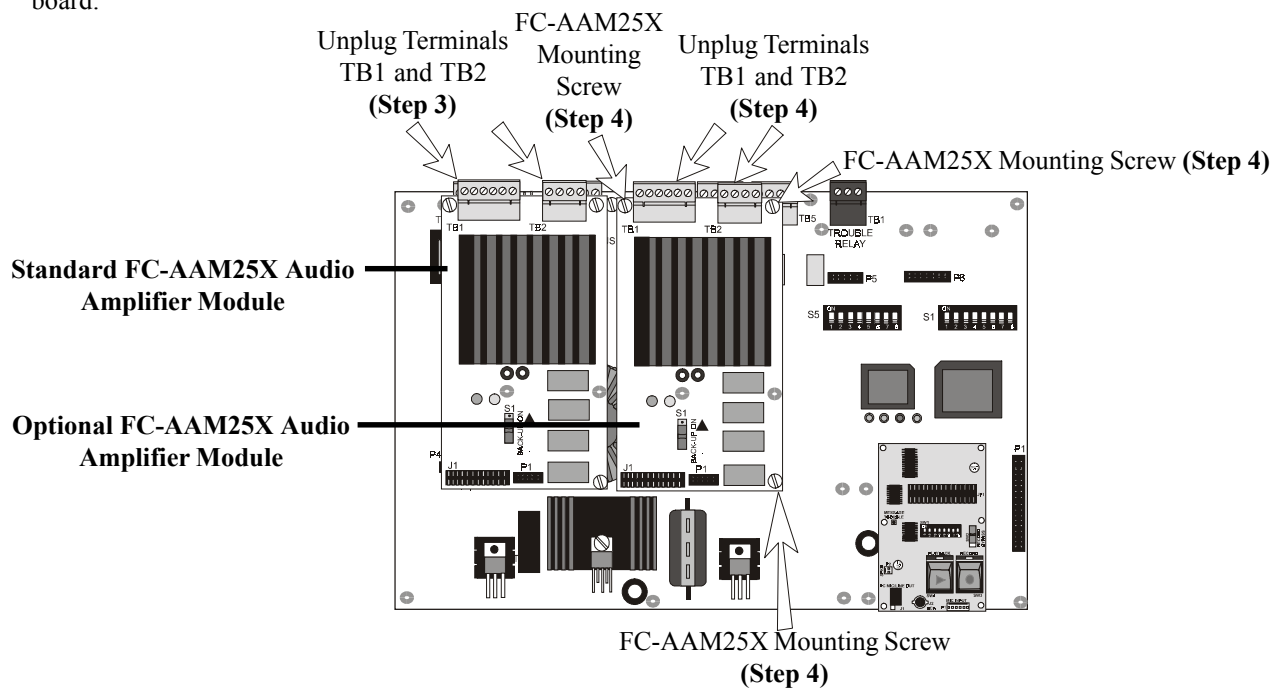
1. Make certain AC power has been turned off at the main service circuit breaker and the battery cable has been disconnected from connector P2 of the FC-PSM2 Power Supply Module.



- Unplug the field wiring terminal block from connector TB2 of the FC-PSM2 Power Supply Module. Remove and retain the four screws and washers from the corners of the module. Carefully unplug the FC-PSM2 module from the main circuit board and place it in the bottom of the cabinet. It is not necessary to disconnect the AC wiring (circuit breaker was turned off in Step 1) or transformer cable.



- Unplug the field wiring terminals from TB1 and TB2 of the standard FC-AAM25X Audio Amplifier Module which is plugged into connector P4 of the main circuit board. Do not remove this FC-AAM25X module at this time.
- Unplug the field wiring terminals from TB1 and TB2 of the optional second FC-AAM25X Audio Amplifier Module which is plugged into connector P3 in the center of the main circuit board. Remove and retain the screws and washers from the corners of the module. Carefully unplug the module from the main circuit board. Set module aside for installation on the new main circuit board.



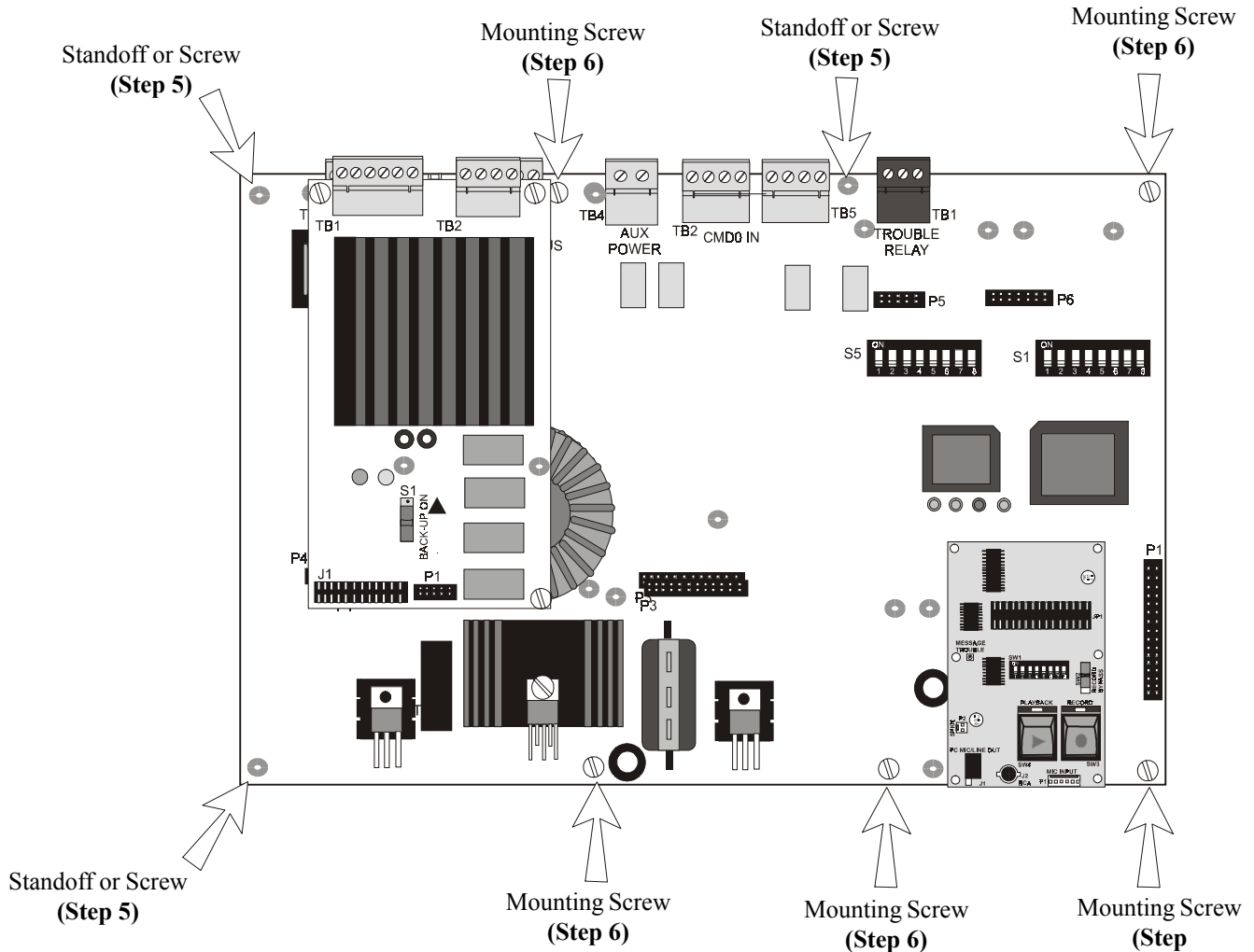
5. Remove three threaded metal standoffs from the main circuit board by grasping and rotating in a counterclockwise direction. Refer to the illustration below for the location of the three standoffs. Retain the standoffs for reinstallation on the new circuit board.

Notes:

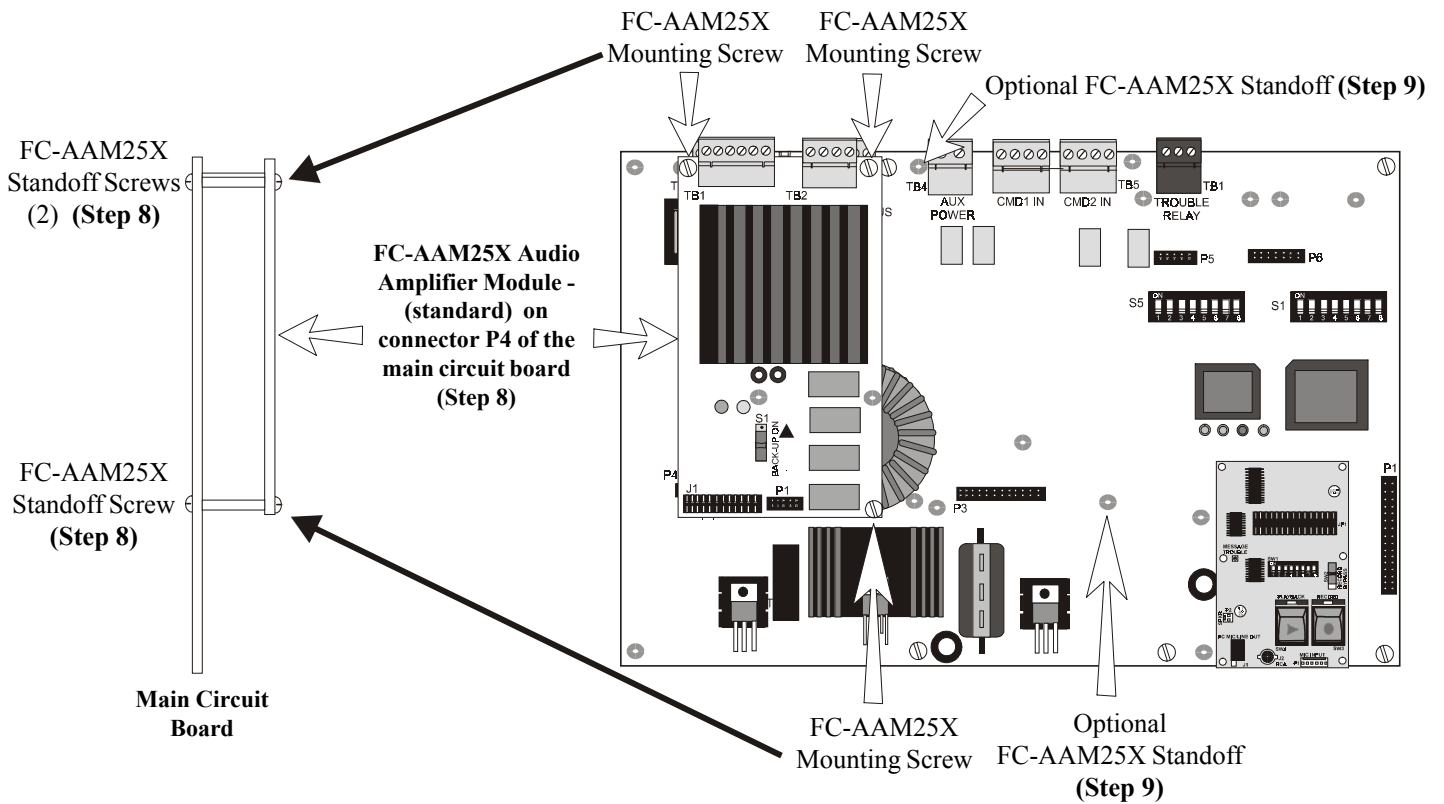
1) If no option modules were previously installed, three screws will be removed instead of three standoffs

2) If only the optional FC-AAM25X module was previously installed, one standoff and two screws will be removed

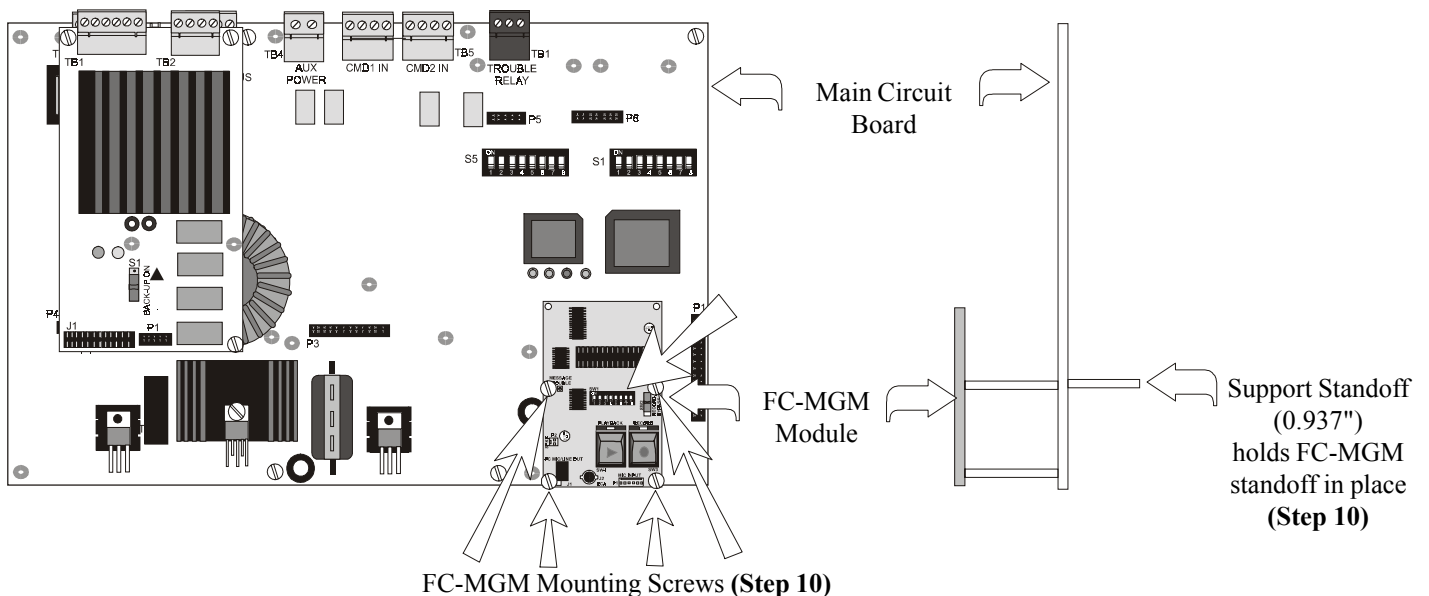
6. Remove the remaining mounting screws and washers from the main circuit board and retain for installation of the new circuit board. A total of eight (8) standoffs and/or screws are used to mount the main circuit board.



7. Remove the main circuit board from the cabinet.
8. Remove the standard FC-AAM25X Audio Amplifier Module from the main circuit board by removing three screws and washers from the back of the main circuit board where the FC-AAM25X module is mounted. These screws secure the module standoffs to the main circuit board. Carefully unplug the module from the main circuit board and set aside for installation on the new main circuit board.
9. Remove the standoffs, which were used to secure the upper left and lower right corners of the optional FC-AAM25X module, from the main circuit board by removing the screws from the back of the main circuit board.



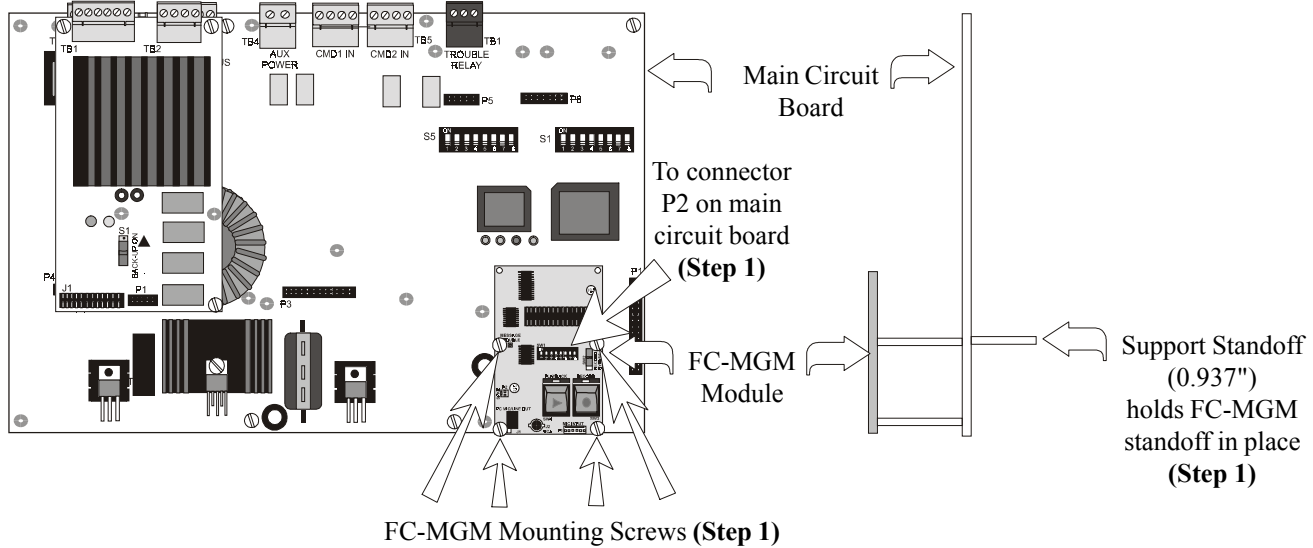
10. Remove and save the four screws which secure the FC-MGM module to the main circuit board, then carefully unplug the FC-MGM module from connector P2 of the main circuit board. Note that a metal standoff is attached to the back of the main circuit board at the FC-MGM location and is used to support the circuit board against the backbox. Remove this standoff and set aside for installation on the new circuit board. This standoff with one male and one female end is slightly shorter (0.937" length) than the other male/female standoffs (1" length). *Be certain to use the standoff just removed in the same position on the new circuit board.*



Main Circuit Board Installation

Note that the following steps assume that all optional modules are to be reinstalled. If one or more optional modules are not reinstalled, skip the corresponding step(s) and proceed to the next step.

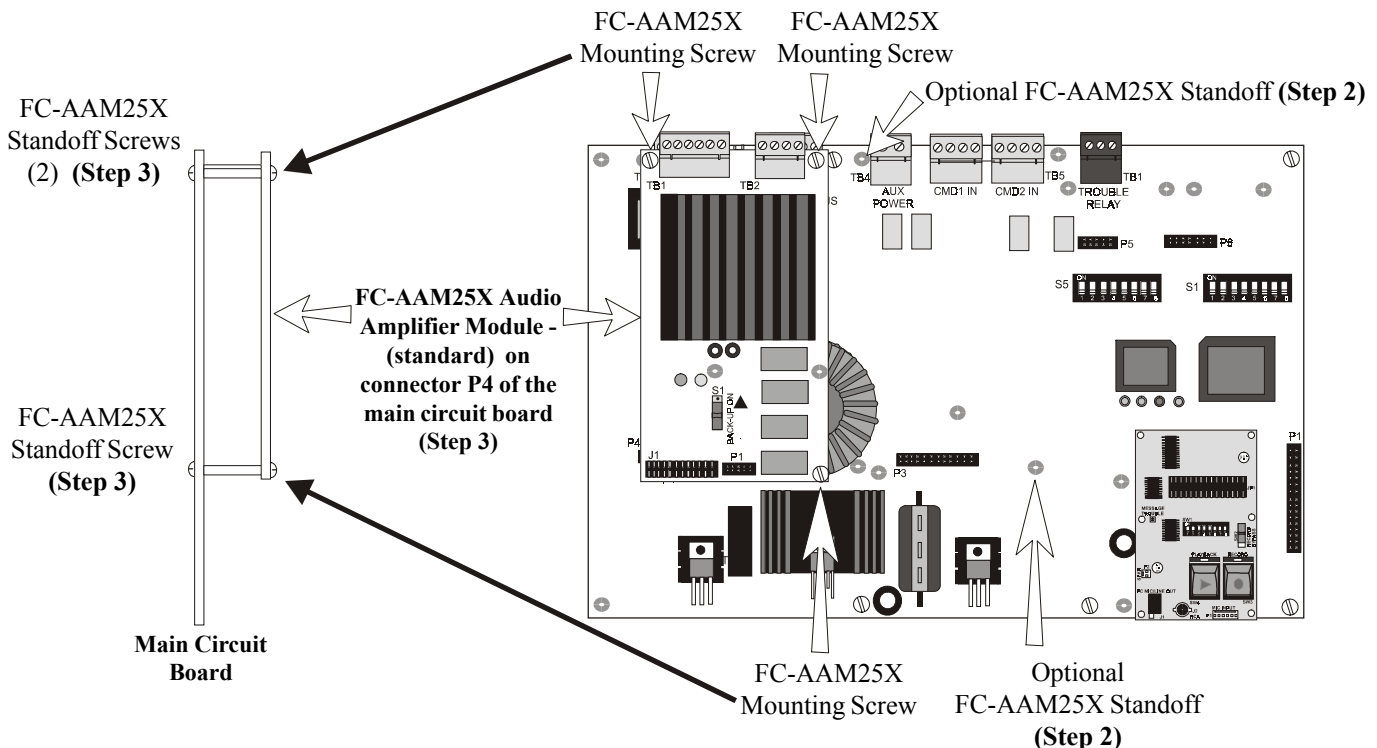
1. A screw is attached to the back of the new main circuit board and is used to hold one of the FC-MGM standoffs in place during shipment. Remove and discard the screw and insert the support metal standoff which was removed from the old main circuit board. Make certain to use the 0.937" standoff removed in step 10. Install the FC-MGM module by plugging it into connector P2 on the main circuit board. Secure to the standoffs with the screws previously removed.



2. Install the standoffs, which are used to secure the upper left and lower right corners of the optional FC-AAM25X module, on the main circuit board by positioning the standoffs over the mounting holes and securing in place with screws through the back of the Main Circuit Board.

Note that if option modules are being reinstalled, there will be two different lengths of screws. The shorter screws are used to secure the main circuit board directly to the back box and the longer screws are used to attach standoffs to the main circuit board and option modules to the standoffs. Be certain to use the correct length screw.

3. Install the standard FC-AAM25X Audio Amplifier Module on the main circuit board by carefully aligning connector P4 on the main circuit board with J1 on the FC-AAM25X and pressing into place, being careful not to bend any pins. Secure the FC-AAM25X standoffs to the main circuit board with three screws inserted through the back of the main circuit board.

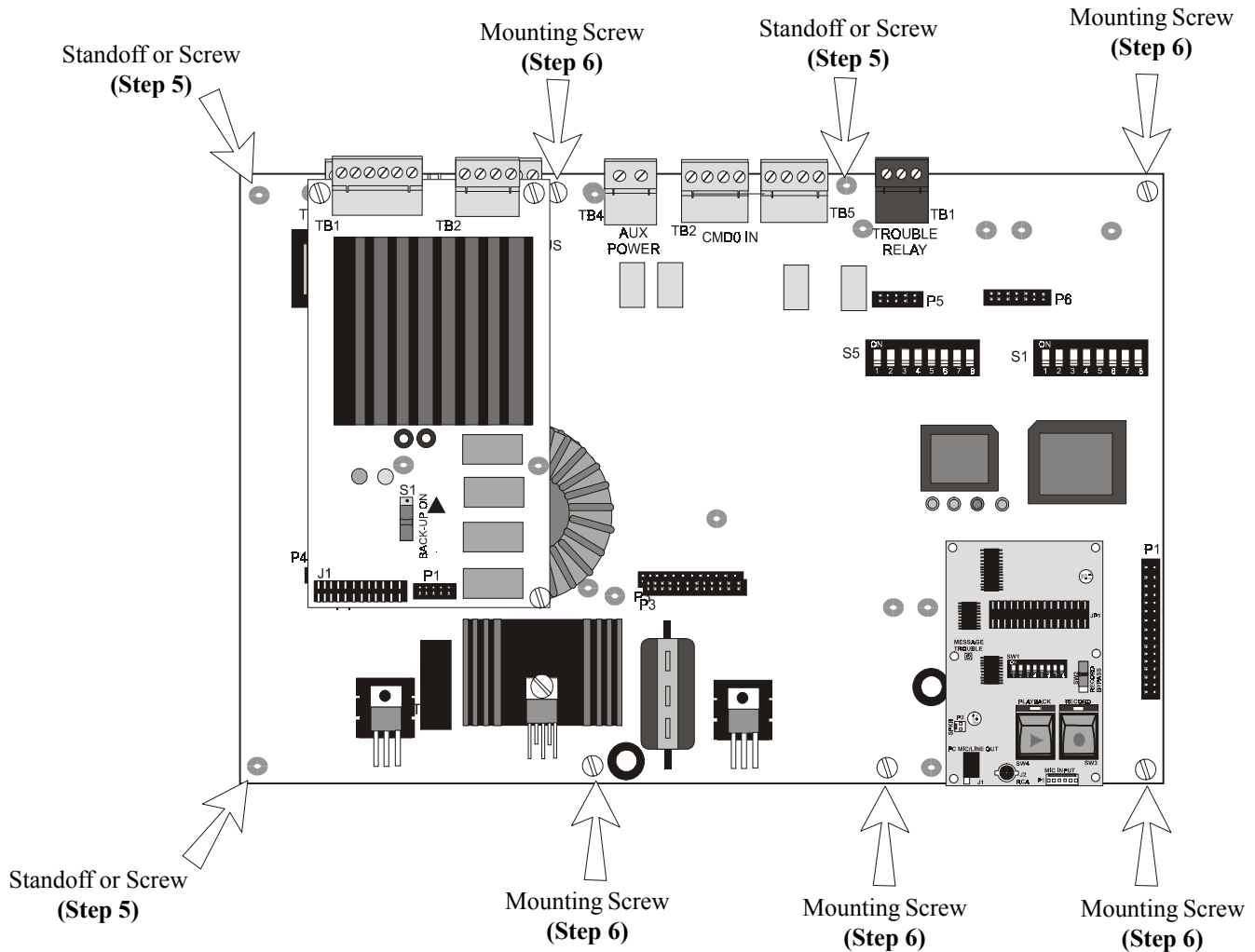


4. Position the main circuit board in the cabinet so the mounting holes line up with the mounting studs on the cabinet rails.
5. Install three threaded metal standoffs in the main circuit board by grasping and rotating in a clockwise direction. Refer to the illustration below for the location of the standoffs.

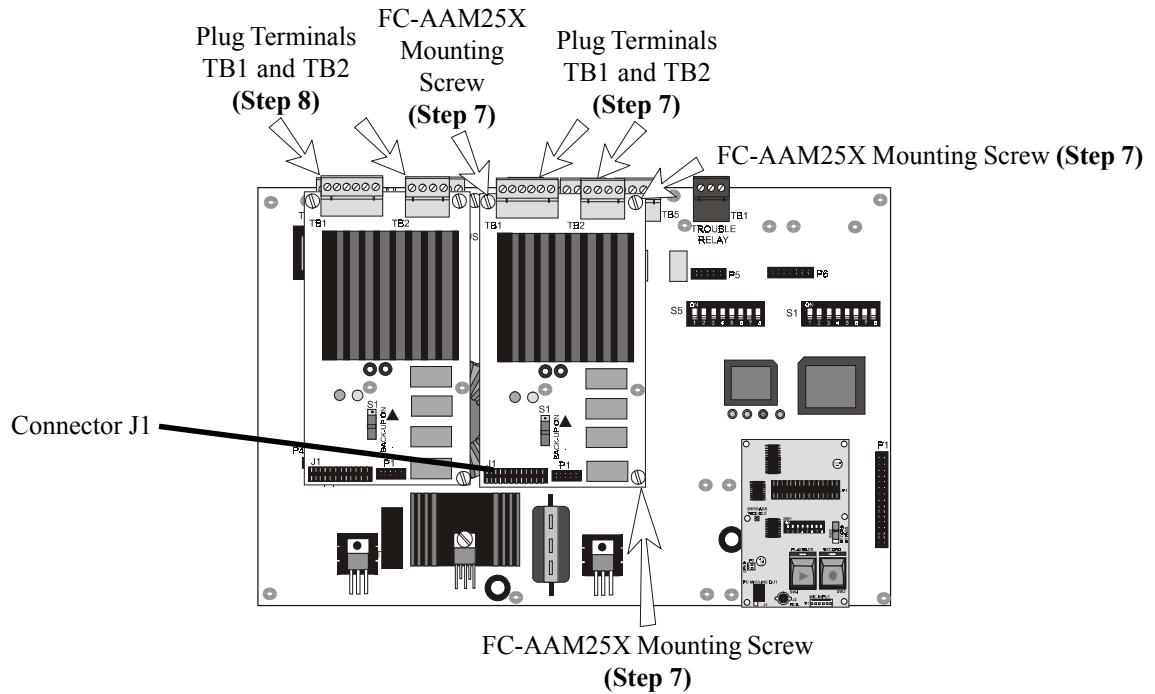
Notes:

- 1) If no option modules are being installed, three screws will be installed instead of three standoffs
- 2) If only the optional FC-AAM25X module is being reinstalled, one standoff and two screws will be installed

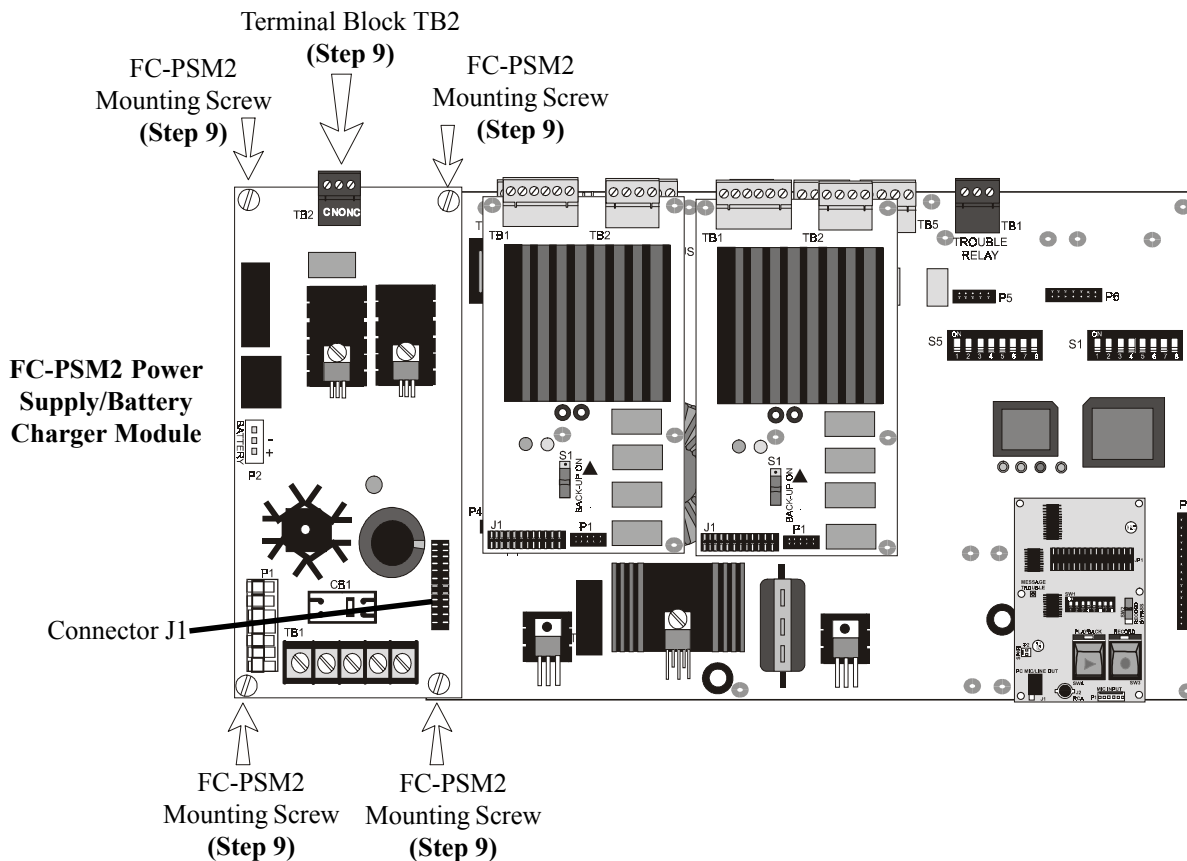
6. Finish securing the main circuit board to the backbox by installing the mounting screws and washers in the positions indicated in the illustration below.



7. Install the optional FC-AAM25X module by carefully aligning connector P3 on the main circuit board with connector J1 on the FC-AAM25X module and pressing the module into place making certain not to bend any pins on the connector. Secure the module into place by inserting screws and washers in the positions indicated in the illustration below. Plug the field wiring terminals into TB1 and TB2 of the FC-AAM25X.
8. Plug the field wiring terminals into TB1 and TB2 of the standard FC-AAM25X Audio Amplifier Module which is plugged into connector P4 of the main circuit board.



9. Install the FC-PSM2 module by carefully aligning connector P7 on the main circuit board with connector J1 on the FC-PSM2 module and pressing the module into place. Secure the FC-PSM2 to the four standoffs with screws and washers which were previously removed. Plug the field wiring terminal block into connector TB2 of the FC-PSM2 Power Supply Module.



10. After confirming that all connections have been properly made, reapply AC power to the panel and reconnect the battery cable to connector P2 of the optional FC-PSM2 Power Supply Module.
11. Test the Voice Panel completely to ensure proper operation.

