



4MX Series Transmitters

Power Supply Module D29 Removal Application Guide

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1 Removal of D29 from Power Supply Modules

1.1 Overview

Customers who have recently upgraded their 4MX transmitters with software version 39.9.9.2.2.5 or greater may notice that all of the high Voltage power supply module temperatures read low now. To more accurately display the power supply temperatures, a software and hardware upgrade was incorporated in the 4MX transmitters. In conjunction with the software upgrade, the power supplies will need to be modified as well. The modification consists of removing a surface mount diode (D29).

1.2 Tools / Items Needed

Supplied By Customer:

- No. 2 Phillips Screwdriver
- 3/8" Nut Driver
- General Soldering Tools

1.3 Estimated Time for Power Supply Module Modification

Providing that you have the tools listed and items listed above, it will take approximately 2 hours to remove the D29 from all Power Supply Modules.

2 Turn the Transmitter's RF Output to OFF

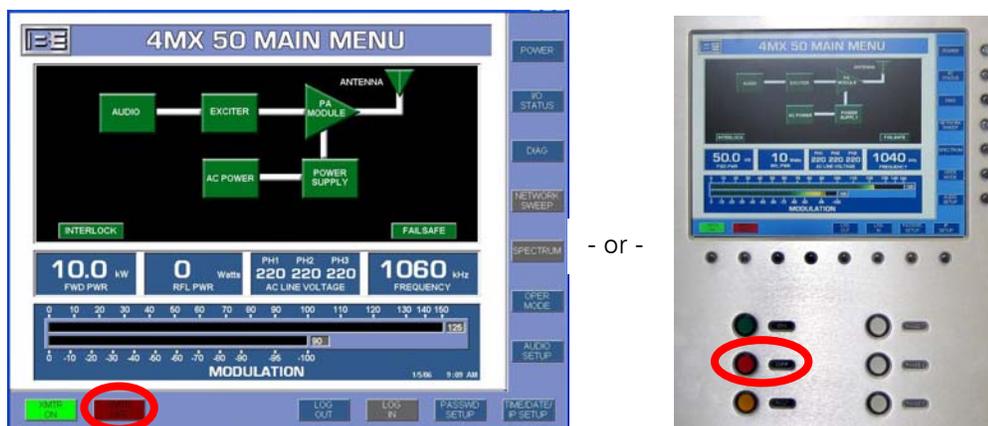


Figure 1 – Turning RF Output Power OFF

3 Turn the Transmitter's AC Breaker to OFF

Next, turn the 4MX AC Breaker to its OFF position.



Figure 2 – 4MX Rear Panel AC Breaker

4 Turn the Primary AC Service Entrance Breaker to OFF

5 Remove D29 from Power Supply Modules

5.1 Removal of Power Supply Modules from Transmitter

NOTE: Prior to removal of the Power Supply Modules, it is recommended that the modules be tagged to ensure that they are installed into their original locations to maintain integrity with the original factory test data.

Step 1 – Tag Power Supply Modules with their number as noted.

Step 2 – Use a No. 2 Phillips Screw Driver and remove the (2) screws that hold the top Retaining Bracket in place.

Step 3 – Remove the top row of PS Modules

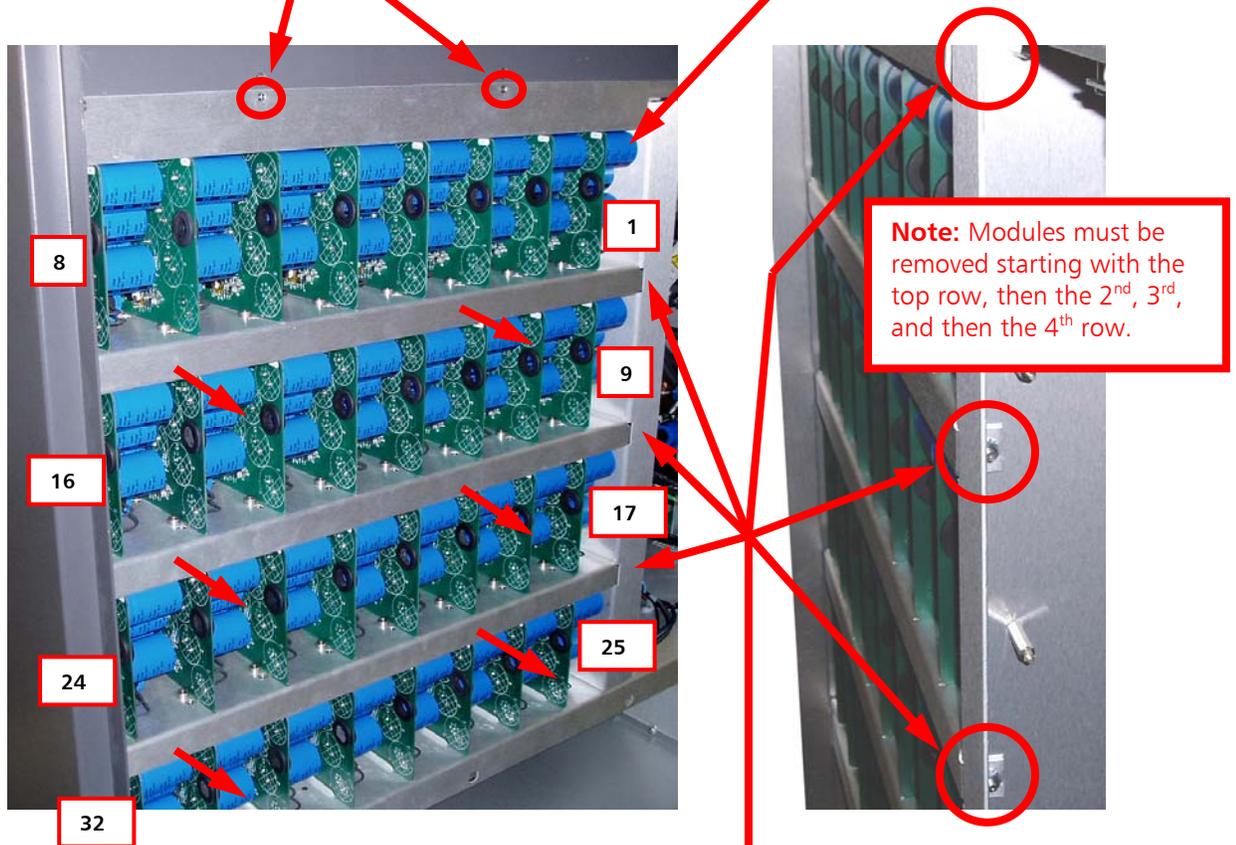


Figure 3 – Power Supply Module Retaining Brackets (4MX 50 shown in illustration)

Step 4 – Use a 3/8" Nut Driver and remove the kepnuts that secure the retaining brackets in place.

Step 5 – Pull to slide the Retaining Brackets out as indicated by the arrows above.

Step 6 – Remove all of the Power Supply Modules.

5.2 Remove D29 From Power Supply Modules

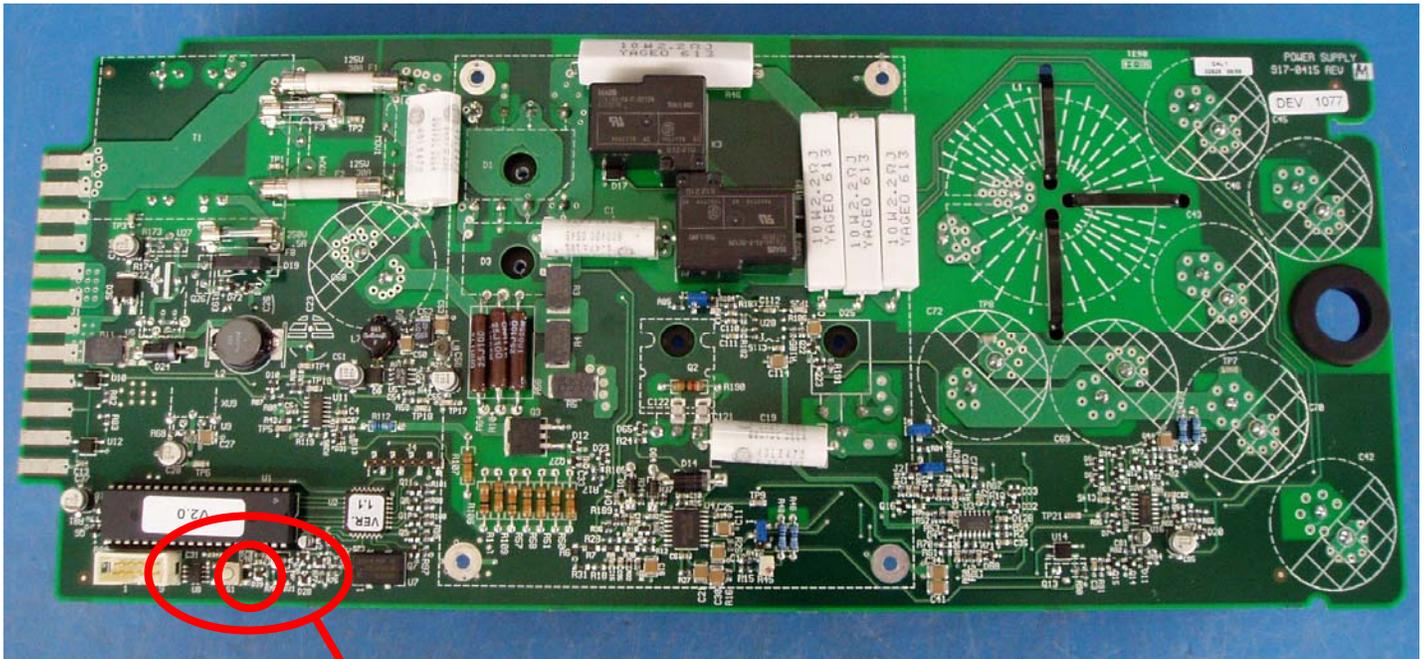


Figure 4 – Power Supply Module

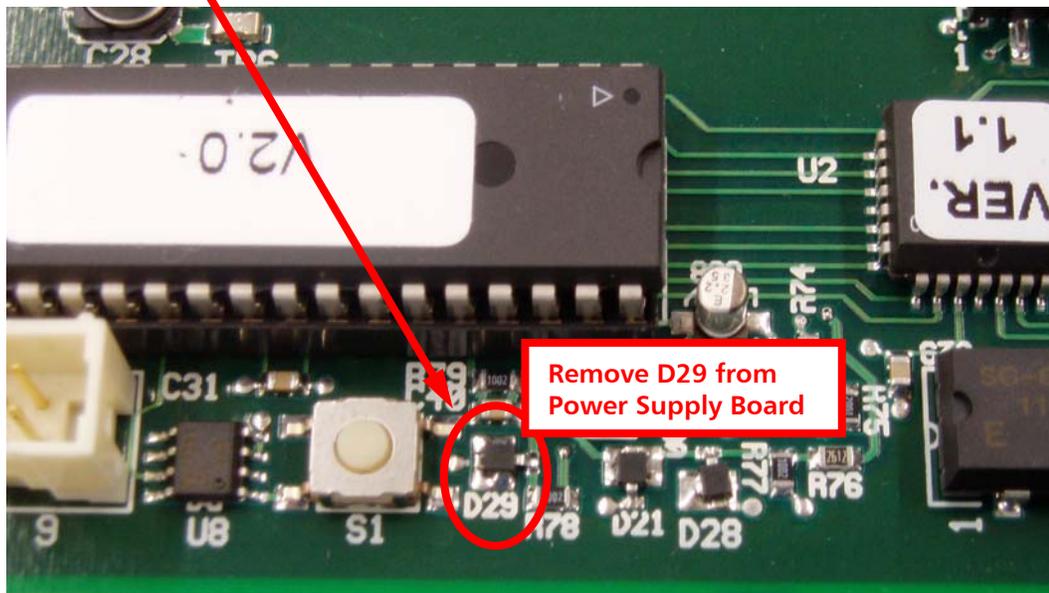


Figure 5 – D29 Removal

5.3 Install the Power Supply Modules Into Transmitter

Install the Power Supply Modules starting at the bottom row and work your way up. After installation of each row of Power Supply Modules, install the row's retaining bracket.

Step 4 - Use a No. 2 Phillips Screw Driver to install the (2) screws that hold the top Retaining Bracket in place (4MX 50 only)

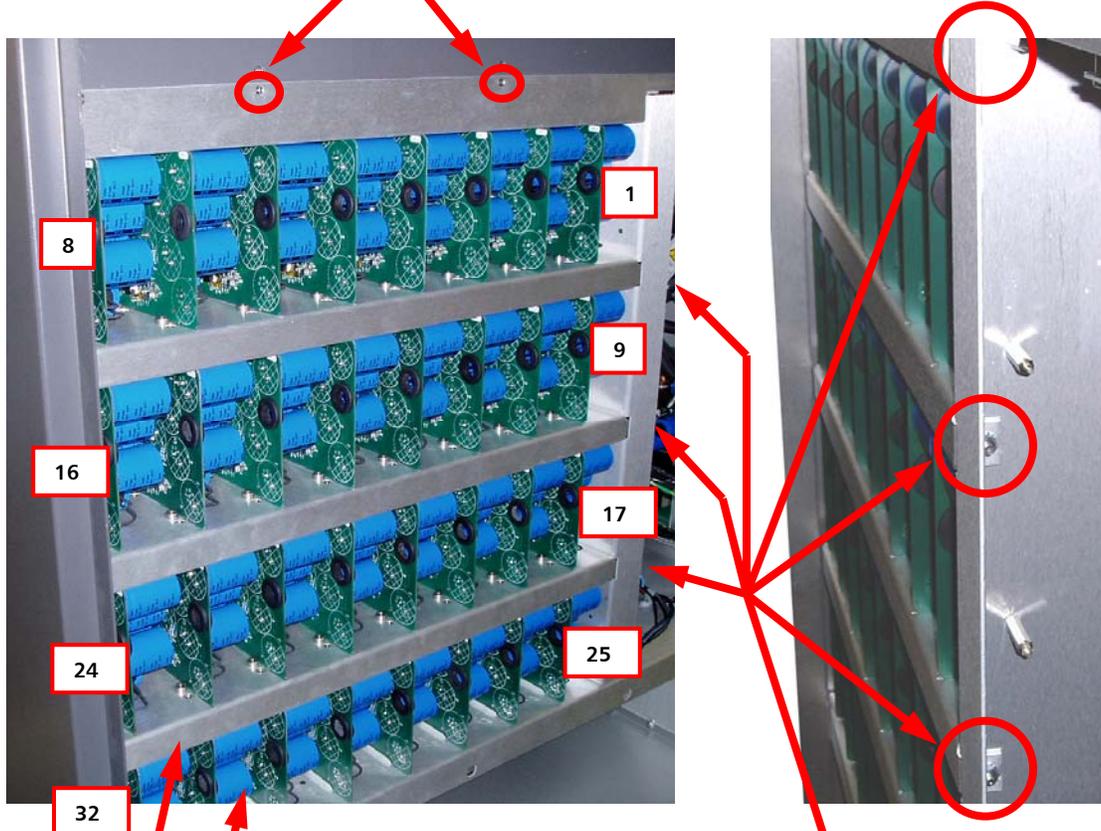


Figure 6 – Install Power Supply Modules (4MX 50 shown in illustration)

Step 1 – Install the bottom row of modules first (25 - 32 tagged prior to removal)

Step 2 – Install the Retaining Bracket. Use a 3/8" Nut Driver to tighten the kepnuts that secure the retaining brackets in place.

Step 3 – Repeat Steps 1 and 2 for the remaining rows of Power Supply Modules.

6 Turn the Primary AC Service Entrance Breaker to ON

7 Turn the Transmitter's AC Breaker to ON

Turn the 4MX AC Breaker to its ON position.



Figure 7 – 4MX Rear Panel AC Breaker

8 Turn the Transmitter's RF Output to ON

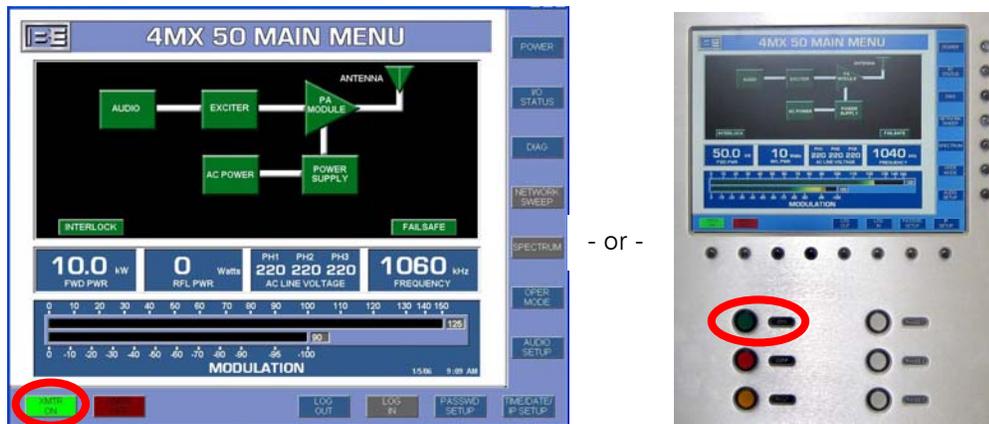


Figure 8 – Turning RF Output Power ON

9 Verify PS Module Temperatures Have Changed

From the Main Menu select **DIAG** and the following menu will appear.

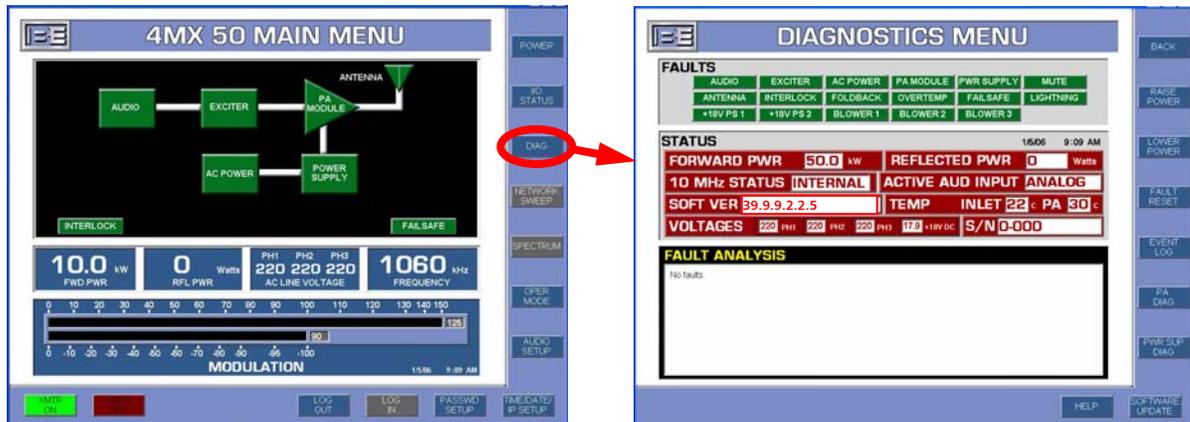


Figure 9 – Diagnostics Menu

From the Diagnostics Menu select **PWR SUP DIAG**.

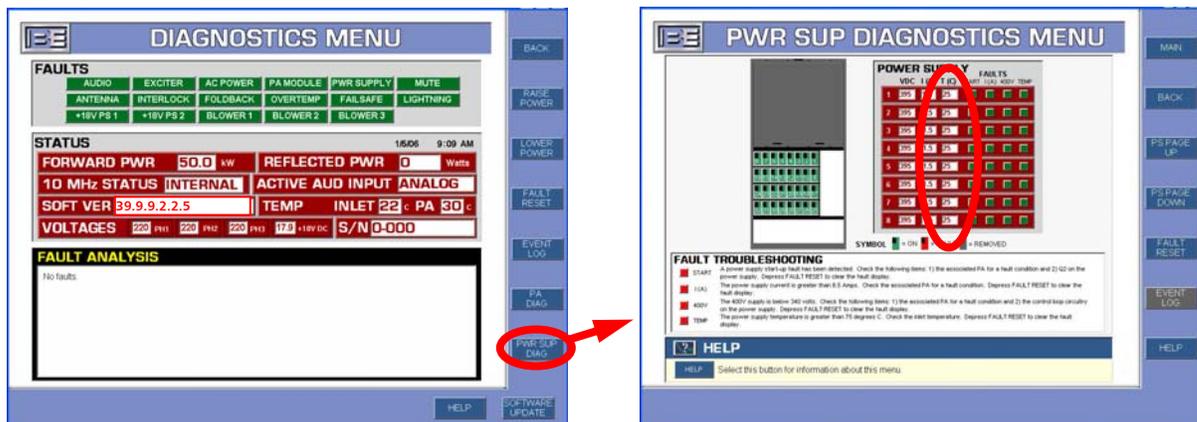


Figure 10 – Power Supply Diagnostics Menu

10 RF Customer Service Contact Information

RF Customer Service -

Telephone: (217) 224-9617

E-Mail: rfservice@bdcast.com

Fax: (217) 224-9607