Matrix 3 Troubleshooting & How-To Guide
No Signal/No RF Signal

General Overview

Matrix 3 is a software-based Fluid Management System that runs on one or more of your facilities computers (PC's). This guide only applies to the Graco Matrix 3 Fluid Management System and walks you through issues and the solutions to remedy them.

Throughout this guide, there will be colored text entries, they are:

Links – These are links to other support resources that may be needed to accomplish the task you are working on.
Green Text – These are navigational commands directing you to skip to or reference another section in the guide. If the command is underlined, it will direct you to the location it describes.
Red Text – These are STOP points where you will need assistance from IT, Graco or your Graco distributor.

Specific troubleshooting topics can be found in the instruction manuals below. This guide will provide more theory of operation and detail on addressing specific issues. Click the links or type the numbers into the Graco.com search box.

313046 - Meters
313008 - Transceivers
312964 - Tank Level Monitors
312417 - Pump Air Controls
313013 - Matrix 3 Oil Bars
313104 - Basic Software
313106 - Professional Software (includes 3rd Party Interface capability)
313108 - Premier Software (includes 3rd Party Interface capability)
313112 - Premier Software with CDK Interface
313114 - Premier Software with Reynolds & Reynolds Interface
334786 - Premier Software with Procede/Excede Interface
3A4999 - Premier Software with DealerTrack Interface (As an addendum to the Premier Software Manual)

Notes:

- All PC related references used in this guide are based on the Microsoft Windows 10 Operating System conventions, other versions of Windows operating systems may vary.
- Troubleshooting efforts may require help from your IT/IS staff or vendor. Having them available is highly recommended.
- If you need Matrix software, contact Graco and they will get you a direct download link. All PC's must be running the same version of Matrix software, delete or destroy any different versions you have.
- Check for new and updated content by visiting graco.com/matrixsupport, scroll down to the "Guides" section.
- If you find you still need help, contact a Graco Tech Assistance Agent by using the information found at the bottom of each page of this guide.

No Signal/No RF Signal

Overview

This error message can appear when you try to use a Matrix 3 Meter. This guide will provide a list of the most common reasons for the message as well as suggestions for troubleshooting them.

For reference, there are 3 separate error messages that can show up on a Meter.
1. No Signal
2. No RF Signal (Radio Frequency)
3. No PC Signal - visit graco.com/matrixsupport and find the "No PC Signal" guide for help with that message

Note: Items 1 & 2 above are the same error. Earlier versions of the Meters display "No Signal" while newer versions were updated to display "No RF Signal" for clarity. There is no need or benefit to upgrade the Meter because of this.

Operation

Every time a Meter is turned on, it tries to make contact with the Matrix software to make sure it's profile settings are current first (if not, it will download the updated profile), then it is ready to perform dispenses.

In order for a Meter to successfully communicate with Matrix, all components and the entire path of communication must be intact or unimpeded, this includes:

- The Meter's radio and electronics
- The airspace between the Matrix Meter and the Matrix Transceiver (the wireless part)
- The Transceiver's radio and electronics
- The wiring from the Transceiver to the RS422 Converter (if used)
- The RS422 Converter itself (if used)
- The USB cable from the Transceiver (or RS422 Converter) to the PC
- The PC's USB port
- The facilities network cabling and associated gear (if the Transceiver is plugged into a Matrix Client PC)
- The Matrix Server PC's Ethernet port (also, if the Transceiver is plugged into a Matrix Client PC)
- Matrix software is confirmed running on the Matrix Server PC

If the Meter displays "No PC Signal, that means that the Meter did communicate with the Transceiver, but not the Matrix software, this means the Transceiver is working, but other parts of the path may need attention, visit graco.com/matrixsupport and find the "No PC Signal" guide for help with that instead.

If the Meter displays "No Signal/No RF Signal", that means it did not get a response back from the Transceiver. This is usually easier to figure out since there only a few things that can cause it. The possible reasons are listed in the table on the next page.

Possible Reasons (No Signal/No RF Signal)	Corrective Actions
Transceiver not powered up (no lights)	• Check that power supply is plugged in ○ Verify 120 VAC at the receptacle • Test power supply output for 9 VDC
Transceiver faulty	Determine if any nearby devices talk to the same Transceiver, if they do, then the Transceiver is good.
Network ID or Transceiver ID set incorrectly on Meter Network ID or Transceiver ID set incorrectly in software	Check Meter ID and make sure it matches the PC ID settings. Compare nearby meters to find out which most likely changed and correct whichever is wrong.
Out of RF range (signal loss)	Check or verify, compare to nearby Meters or TLMs.
RF interference	• Check for other devices that use 2.4GHz • Check for nearby high current devices (welders, transformers, etc.).
Physical "line of sight" obstruction	Move device (Meter) to a location closer to the Transceiver and try again. Relocate Transceiver and try again.