Matrix 3 Troubleshooting & How-To Guide
Overriding Matrix

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, clicking 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 discard 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.

Overriding Matrix

Overview

There are times where you will encounter communication issues with your Matrix system. When this occurs and a solution is not quickly found, there are ways to override the system so that you can dispense until the issue is resolved. Before you attempt to override your system, you need to determine the type of issue you are having so you can override the correct components. This will help you determine the best path to take.

Symptoms:
1. Matrix devices lose communication with Matrix software: (Emergency Mode)
    o At Meters & Tank Level Monitors, you will see a "No PC Signal", "No RF Signal" or "No Signal" message.
    o At Pump Air Controls, there is no display, but illuminated numbers may be flashing or flashing with "E 3".
    o At the software, there may also be "(Device) communication failure" messages.
2. Matrix works, but loses communication with your Dealer Management System (if used): (Turning off the DMS Interface)
    o At Meters, you will get a "Rejected" or "Invalid PIN" message (if technicians initiate dispenses from the Meters).
    o At the software, there may be a "Failed validation" type of message (if dispenses are initiated from software).

Emergency Mode

Emergency Mode is a Matrix Meter mode that allows anyone to get fluid freely, the Meter will only display what is dispensed on it's screen for each dispense, NO details are recorded or kept. For this reason, it may be worth considering whether to bypass all of them or just a few so you can keep an eye on dispenses that occur until the issue is resolved.

At Each Meter:
1. Push and hold down the right arrow button.
2. Then, also push and hold down the center green button until the main menu displays.
3. With the up/down arrow keys, navigate to "EMERGENCY" and push the green button.
    a. If you do not see "Emergency" in the menu, the Meter is in Emergency Mode already.
4. You will be prompted for the "EMERGENCY MODE" number, it can be found in the software.
    a. If the software is not running, visit graco.com/matrixsupport for some support guides or contact Graco for assistance if nothing helps.
5. Enter this number by using the up/down arrow keys to change the values and the green button to lock in each value until all 4 numbers are entered.
6. When done, a box should be surrounding the word "ENTER" at the bottom left side of the screen. If not, you will have to navigate to it first and then press the green button.
7. You should hear a "click" and see a "0.00" on the screen.
    a. If you have Pump Air Controls (PACs) installed, they will need to be put in override also, skip to "Notes" below.
    b. If you don't have PACs, you should be able to dispense now.
    c. If you are not sure, visit graco.com/matrixsupport and find the "Identifying Matrix 3 Components" guide.

Notes:
- After the issue is fixed, you will need to put Meters back in Matrix Mode. This is done by "Registering" the Meter, repeat steps 1&2 above except choose "Register" instead. Reference Meter manual links above if needed.

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- After Meters are registered and a valid dispense is performed, you will see an additional dispense show up following it. This is the total of all fluid dispensed through that specific Meter while it was in Emergency Mode, this may be a large amount, the details for each dispense are not kept.
- Tank Level Monitors do not have an override mode, they can be viewed by manually pressing the button and taking note of the readings. When the communication issue is resolved, they will start reporting to Matrix again automatically.

Pump Air Control Override

If Pump Air Controls are used, they must be bypassed in addition to the Meters so technicians can get fluids. On the PAC press the "Mode" button for a few seconds until the "Override" light illuminates (the "Valve On" light should also illuminate at this time). You should now be able to dispense fluids at all "Emergency Mode" enabled meters for the fluid that PAC serves. Reference the appropriate Matrix manual links above for instructions if needed.

Notes:
1. If putting a PAC into "Override" does not open air to the pump(s), there is a secondary manual "Override" available. Find the slotted stainless steel screw located on the side of the black housing of the solenoid valve itself. Turn the screw clockwise approximately 1/8-1/4 turn. Do NOT force or turn manual override screw more than 1/4 turn as it may break.
2. Graco recommends putting all PACs back to "Matrix" mode when no one is in the building to protect from spills if a line ruptures when no one is there (unless other measures that remove air from the pumps are in place).

Turning off the DMS interface

If you have determined that the Matrix software DOES communicate with the Matrix devices but the message; "Rejected" or "Invalid PIN" are showing up at the Matrix Meters, then the problem is usually a communication issue between Matrix and your DMS. Graco recommends only turning of the "Global" switch. If you still continue to have issues at the Meters, then apply both methods. Until that issue is resolved, there are two places to turn off the CDK interface:

The Global Interface Switch:
1. Open Matrix.
2. Click "Go To>Setup & Reports" and log in (upper left corner of Matrix screen).
3. Click and highlight "Interface" (lower left column).
4. Click "Modify Interface" (upper right corner of Matrix screen).
5. Click "Off" radio button.

Meter specific Interface Switches:
1. Open Matrix.
2. Click "Go To>Setup & Reports" and log in (upper left corner of Matrix screen).
3. Click and highlight "Meters" (middle of left column).
4. Click and highlight the top Meter Profile in the list and click the "Modify" button (bottom of screen).
   a. Alternately - you can double click a Meter Profile.
5. In the "Edit Meter Profile" dialog box, change the "Interface Validation" drop down menu to "No".
6. Click "OK" (bottom of the screen).
7. The Meter Profile will turn green.
8. Repeat for additional Meters if needed.
9. As users wake the Meters, they will change from green back to white and now run with the changes applied.
10. Reverse all processes once the issue is resolved.

Note: When an Interface is disabled, Matrix WILL continue to record and save all dispense history, you will need to bill all dispenses manually until the issue is resolved.

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