

Instructions



# ProMix<sup>®</sup> PD2K Advanced Web Interface

3A3170B

EN

*Installation and program setup instructions to allow communication between a PC and the ProMix<sup>®</sup> PD2K Proportioner, via an Ethernet. For professional use only.*

**Not approved for use in explosive atmospheres or hazardous locations.**

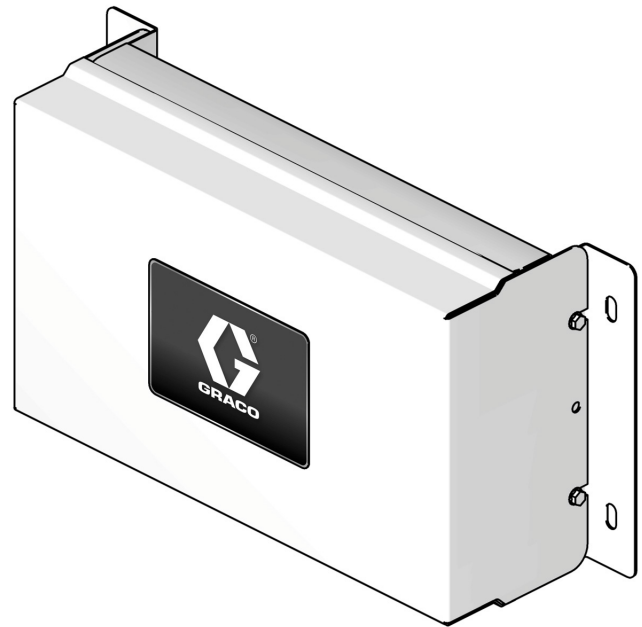
*Kit 24T805, ProMix<sup>®</sup> PD2K Advanced Web Interface (AWI)*

*Kit 15V337, Advanced Web Interface (AWI)*



### **Important Safety Instructions**

Read all warnings and instructions in this manual and in your PD2K Proportioner manual. Save all instructions.



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## Related Manuals

### Component Manuals in English

Manual	Description
332562	ProMix PD2K Electronic Proportioner
332459	Advanced Web Interface Kit
3A3180	ProMix <sup>®</sup> PD2K Modbus TCP Installation Kit

# Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <h1 style="margin: 0;">WARNING</h1>	
   	<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Flammable fumes, such as solvent and paint fumes, in the work area can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> <li>• Use equipment only in a well-ventilated area.</li> <li>• Eliminate all ignition sources such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).</li> <li>• Keep the work area free of debris, including solvent, rags, and gasoline.</li> <li>• Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.</li> <li>• Ground all equipment in the work area. See Grounding instructions.</li> <li>• Use only grounded hoses.</li> <li>• Hold the gun firmly to the side of a grounded pail when triggering into a pail. Do not use pail liners unless they are antistatic or conductive.</li> <li>• <b>Stop operation immediately</b> if static sparking occurs or you feel a shock. Do not use the equipment until you identify and correct the problem.</li> <li>• Keep a working fire extinguisher in the work area.</li> </ul>
 	<p><b>EQUIPMENT MISUSE HAZARD</b></p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> <li>• Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>• Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See <b>Technical Specifications</b> in all equipment manuals.</li> <li>• Use fluids and solvents that are compatible with equipment wetted parts. See <b>Technical Specifications</b> in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from your distributor or retailer.</li> <li>• Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.</li> <li>• Do not alter or modify equipment.</li> <li>• Make sure all equipment is rated and approved for the environment in which you are using it.</li> <li>• Use equipment only for its intended purpose. Call your distributor for information.</li> <li>• Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.</li> <li>• Do not kink or over bend hoses or use hoses to pull equipment.</li> <li>• Keep children and animals away from the work area.</li> <li>• Comply with all applicable safety regulations.</li> </ul>

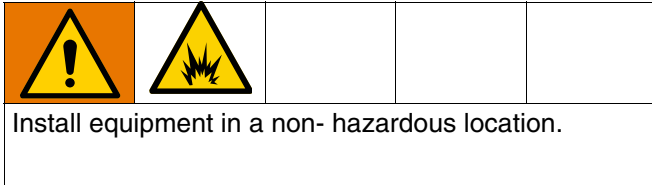
# Install the Advanced Web Interface (AWI) Module

## Overview

The Graco Advanced Web Interface (AWI) Accessory allows communication between multiple ProMix PD2Ks and a PC over an Ethernet, enabling users to monitor the ProMix PD2K, view and change system setup parameters, and create reports.

## Location

The AWI module may be installed in a local ProMix network or in a Local Area Network (LAN).



## Mounting

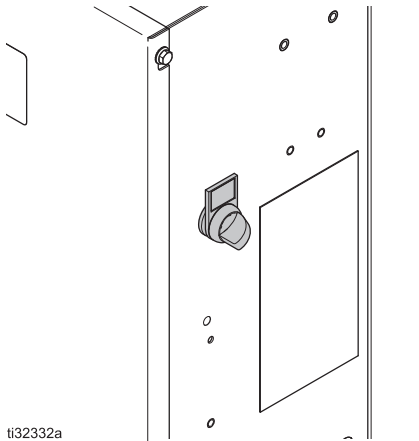
1. Ensure that the wall and mounting hardware are strong enough to support the weight of the equipment, fluid, hoses, and stress caused during operation.
2. Using the equipment as a template, mark the mounting holes on the wall at a convenient height for the operator to ensure that the equipment is easily accessible for maintenance.
3. Drill mounting holes in the wall.
4. Install anchors as needed.
5. Bolt the equipment securely.

## Connecting the AWI Module to the PD2K and PC

### NOTICE

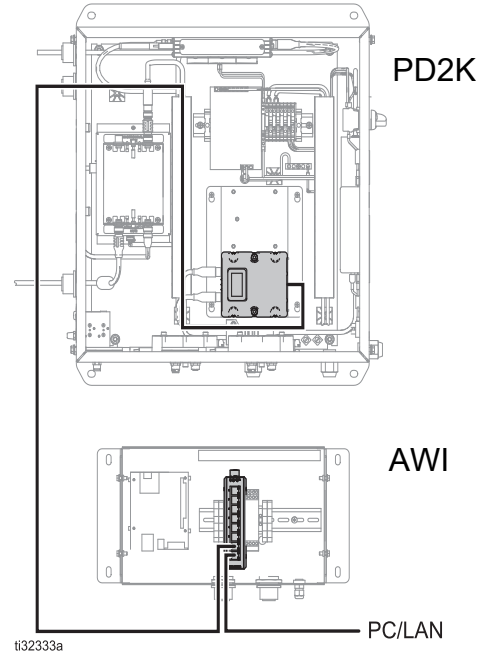
To avoid damaging the circuit board when servicing, wear a grounding strap on your wrist and ground appropriately.

1. Shut off the ProMix PD2K power (0 position) and shut off the power at the main circuit breaker.



2. Install the Modbus TCP module, Kit 24T805. For instructions, see the ProMix PD2K Modbus TCP Installation Kit manual 3A3180.
3. Install the AWI module, Kit 15V337. For instructions, see the Advanced Web Interface Kit manual 332459.

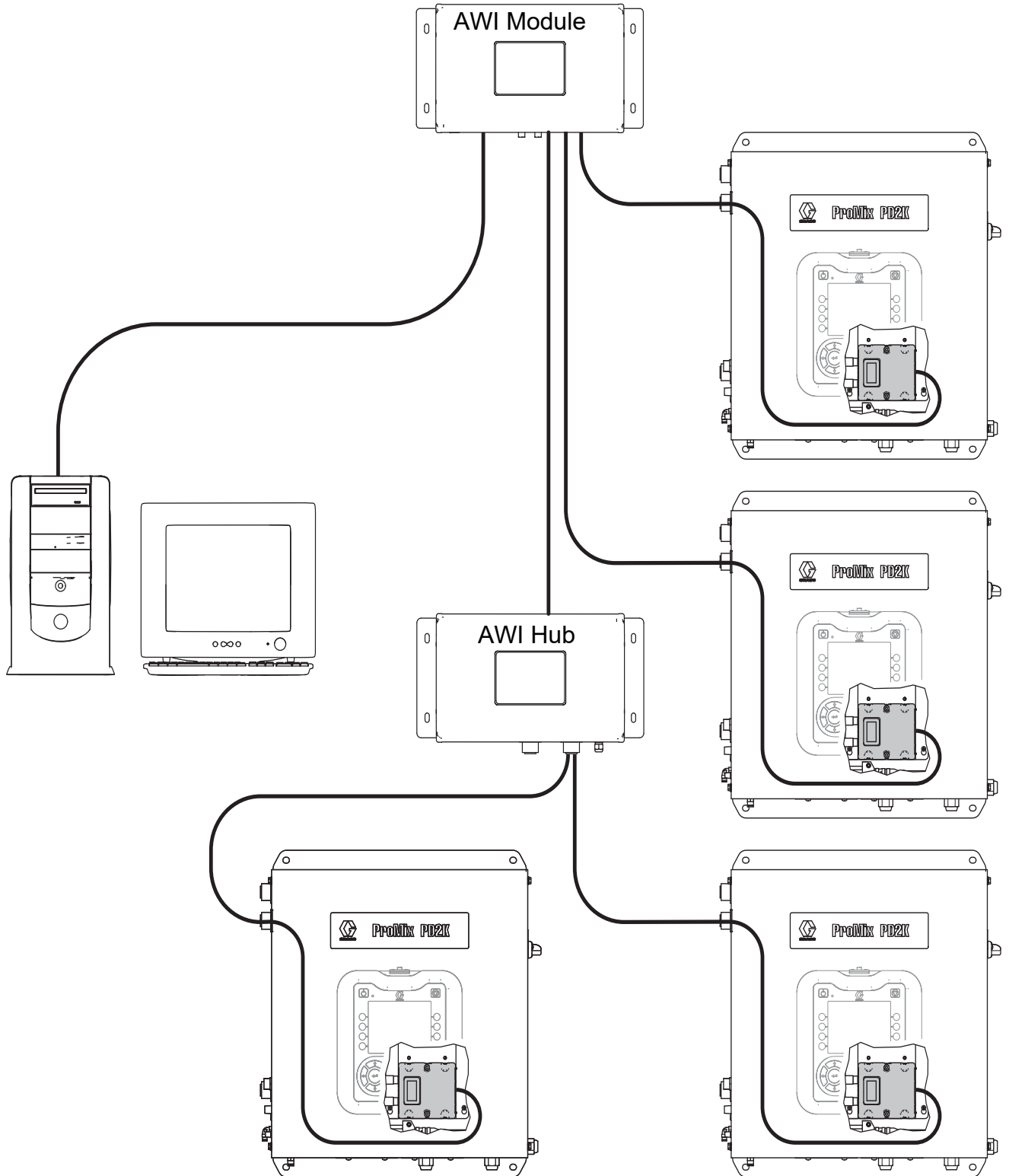
4. Run a CAT5 cable from the Modbus TCP module and connect it to any port in the AWI module. Connect another CAT5 cable from the AWI module to the PC or LAN.



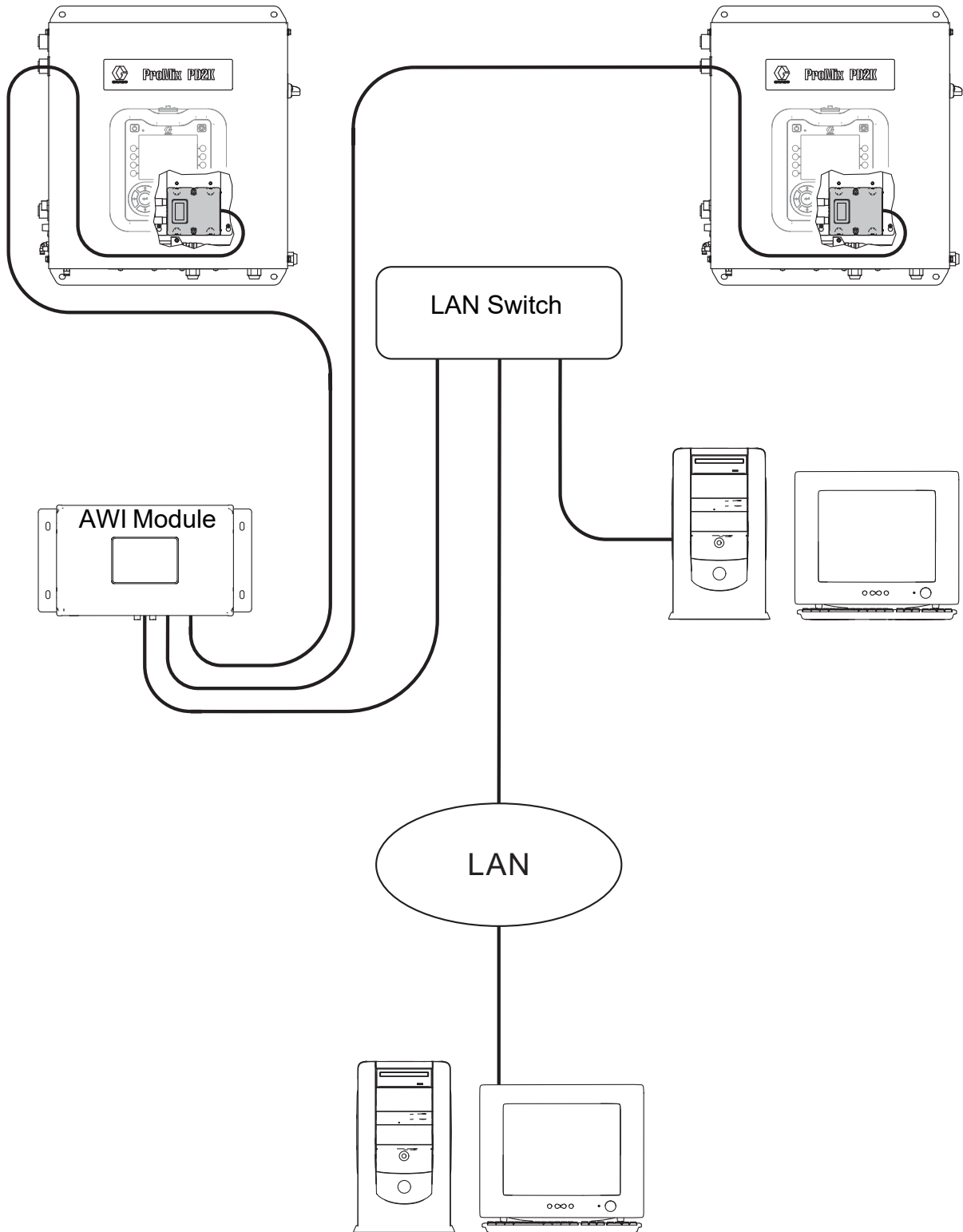
5. Power up the AWI module. For instructions, see the Connections section of the Advanced Web Interface Kit manual 332459.

**NOTE:** Multiple AWI server hubs can be connected to the AWI master module in the series.

Install the Advanced Web Interface (AWI) Module



**FIG. 1: ProMix Network Typical Installation**



**FIG. 2: Local Area Network (Manual) Typical Installation**

# Configuration

## Setting Up PD2K

1. Follow the system configuration steps in the Advanced Web Interface Kit manual 332459.
2. Connect the Graco Modbus TCP gateway in a series with the PD2K system. For instructions, see the ProMix PD2K Modbus TCP Installation Kit manual 3A3180.
3. On the PD2K ADM, go to System Screen 4 (Gateway Setup) and configure your gateway. For more information, see System Screen 4 in the ProMix PD2K Electronic Proportioner manual 332562.
  - a. Before setting the IP, subnet, gateway, or DNS information, clear the **Enable** check box.
  - b. Set the network configurations.

If your network contains PD2K and AWI only, use the following default settings:

- IP: 192.168.178.5
- Subnet: 255.255.255.0
- Gateway: 192.168.178.200. The last number must be within a range of 200 and 210.

If you are configuring AWI on your existing Local Area Network, use the settings for your network IP, subnet, and gateway. Contact your network administrator for these settings.

- c. After you update the settings on System Screen 4, verify that the **Enable** check box is selected.

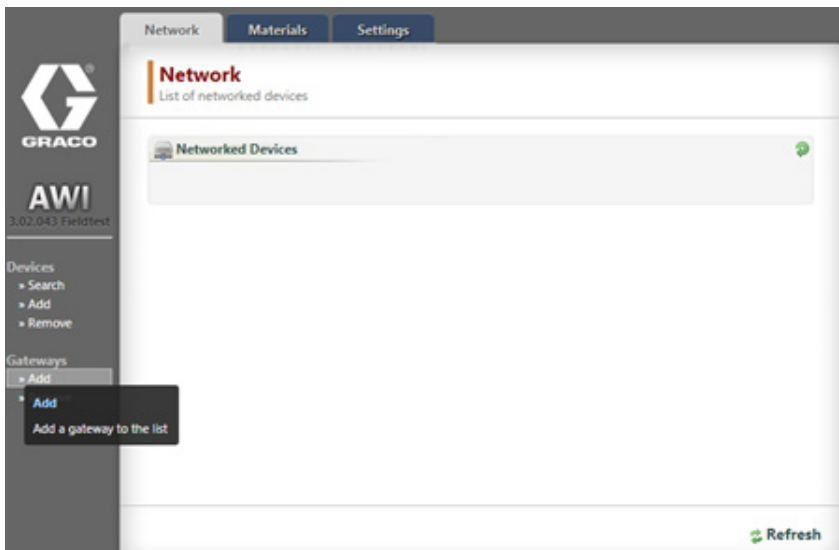
**NOTE:** If you change the IP address on the PD2K system, make sure that you cycle power on the PD2K and AWI systems.



## Setting Up AWI

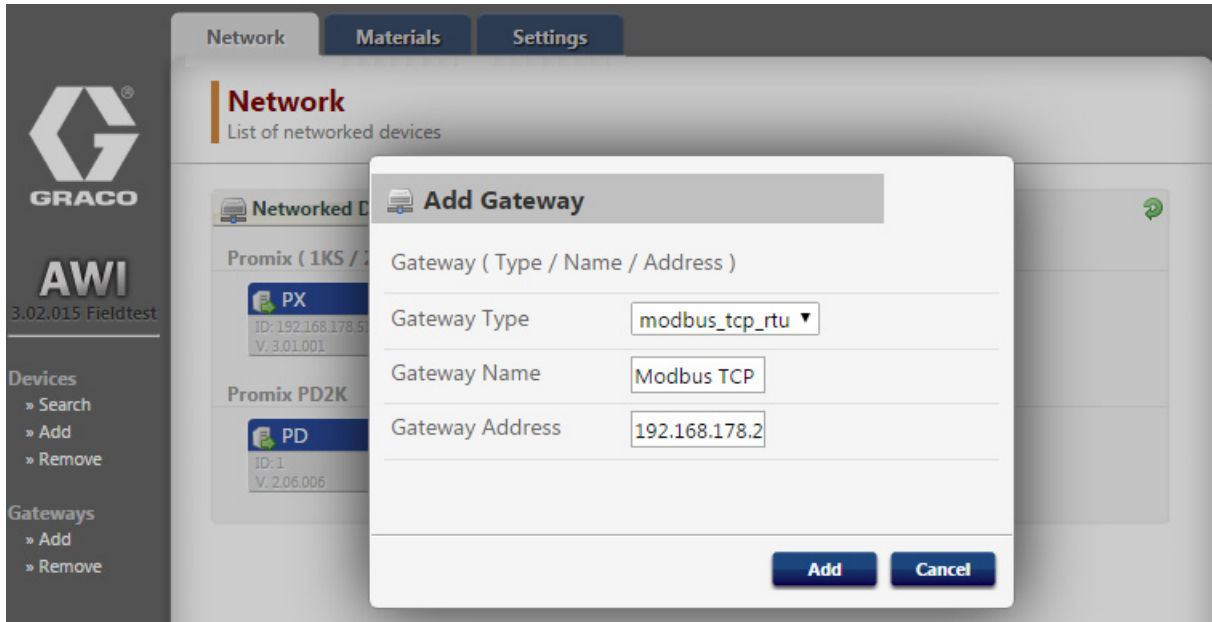
Follow these steps to set up AWI for each PD2K.

1. Verify that you are using AWI version 3.02.009 or later.
2. Add a new gateway.
  - a. On the **Network** tab, under **Gateway**, click **Add** to add a new gateway. For more information, see Add or Remove Gateways in the Advanced Web Interface Kit manual 332459.



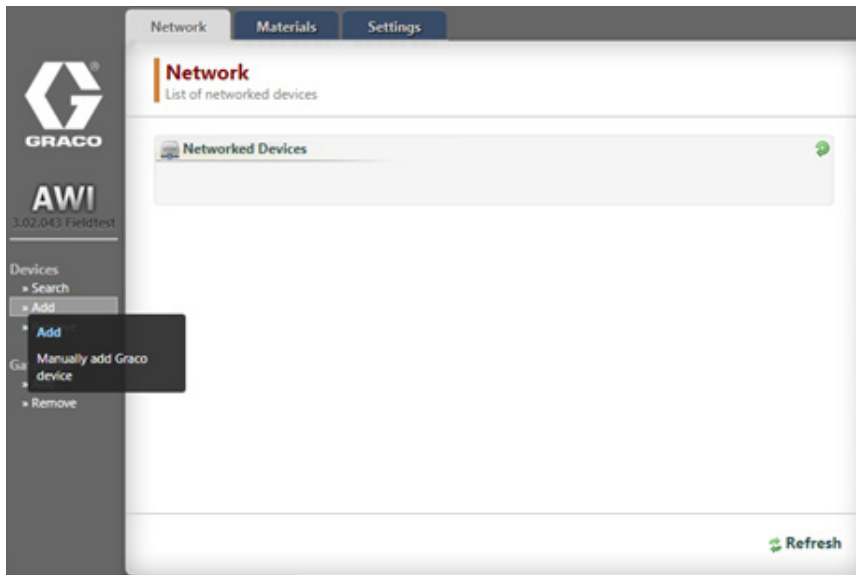
- b. From the **Gateway Type** list, select **modbus\_tcp\_rtu**.
- c. In the **Gateway Name** field, type a name for the gateway (for example, PD2K Gateway).

- d. In the **Gateway Address** field, type the IP address from System Screen 4 of the PD2K. See step 3 in the Setting Up PD2K section.



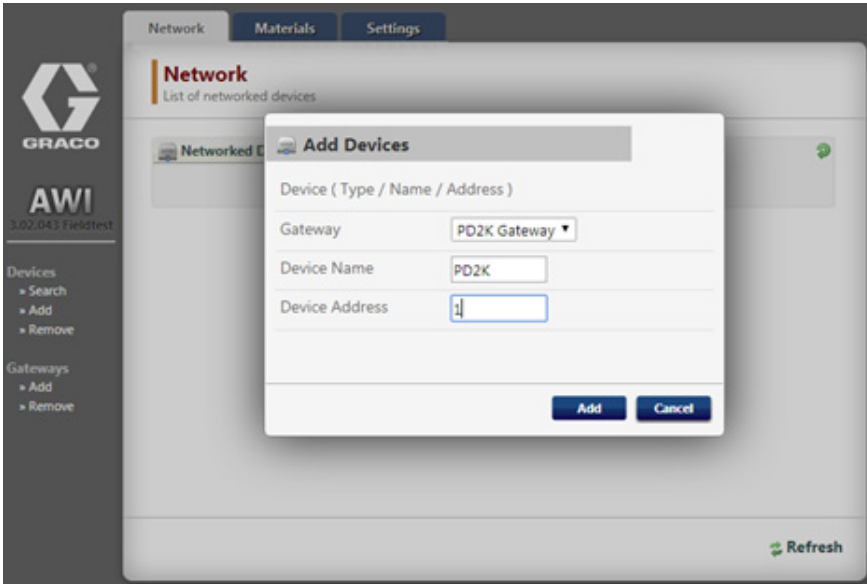
- e. Click **Add**.

3. Add the PD2K device.
  - a. On the **Network** tab, under **Devices**, click **Add**.

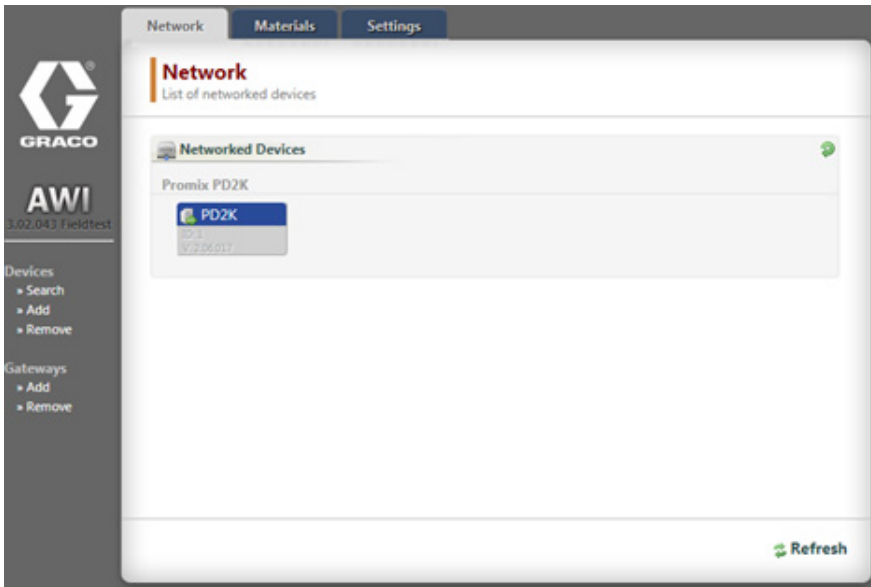


- b. From the **Gateway** list, select your gateway (for example, PD2K Gateway).

- c. In the **Device Address** field, type 1.



- d. Click **Add**. The newly added PD2K system appears on the **Network** window.



- 4. Click the device icon to navigate to the PD2K AWI.

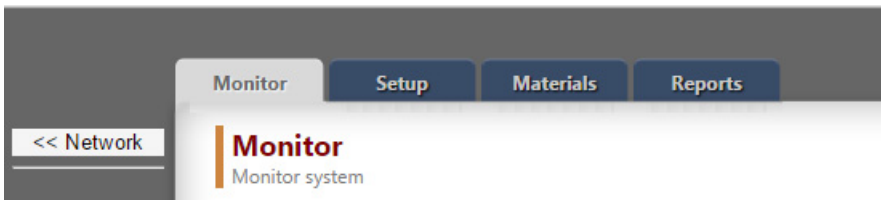
# Operation

## Navigation Overview

### Top Navigation

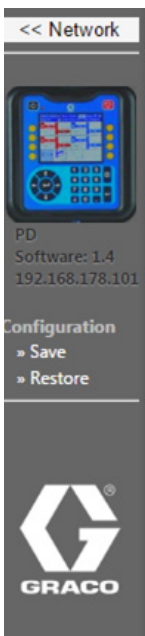
Tabs at the top of the screen provide quick access to various PD2K options.

- **Monitor** – Click this tab to access the real time PD2K system monitor, which is similar to the ADM run screen.
- **Setup** – Click this tab to access system configuration screens.
- **Materials** – Click this tab to access the material-valve assignment screen.
- **Reports** – Click this tab to generate reports on materials, jobs, and events.



### Side Navigation

- Click **Network** to navigate back to the **Network** screen.
- Under the icon for the device, the system displays the device name, software version, and the IP address.
- Under **Configuration**, click **Save** or **Restore** to save or restore PD2K device configurations.



# Monitor Screen

The **Monitor** screen displays real-time system information such as pump modes, flow rates, materials, and pressure.

For more information, see the Run Mode Screens section of the ProMix PD2K Electric Proportioner manual 332562.

The screenshot shows the 'Monitor' screen of a ProMix PD2K Electric Proportioner. The interface includes a navigation menu on the left with options like '<< Network', 'Configuration', 'Save', and 'Restore'. The main area is titled 'Monitor System Monitor' and features several data tables and sections.

**Navigation:** Monitor (selected), Setup, Materials, Reports

**System Information:** PD, Software: 2.6, 192.168.178.206

**Configuration:** » Save, » Restore

**GRACO Logo**

Pump	A <sub>1</sub>	B <sub>2</sub>	—	—
Inlet	1	1	-	-
Outlet	1	1	-	-
Flow Rate (cc/min)	0	0	-	-
Inlet Pressure (psi)	0	0	-	-
Outlet Pressure (psi)	0	0	-	-

	Job Sprayed (cc)	Job total (cc)	Grand Total (L)
A	0	0	0
B	0	0	0
S		0	0

**Active Recipe Data**

Recipe	61
Potlife Remaining	-
Actual Ratio	0
Actual Flow	0 cc/min
Actual Pressure	0 psi
Volume	0 cc
Target Pressure	0 psi

**System**

System State	Pump Off
Events	CADX - ALARM

## Setup Screens

The setup screens allow you to configure general and advanced system information along with recipes and flush sequences. To change numerical configuration values, type the value and press ENTER. To change list values, select the item from the list.

### System Configuration Screen

The system configuration screen allows you to configure system setup information such as tolerances, hose settings, and flow control. The system configuration screen appears as the default screen when you click the **Setup** tab.

For more information, see the sections for System Screens 1, 2, and 3 in the ProMix PD2K Electric Proportioner manual 332562.

Monitor Setup Materials Reports

<< Network

**Setup** System configuration

System | Recipe | Flush | Advanced

#### General

Diagnostic Mode

Color Pumps

Catalyst Pumps

Non-Mix Pressure  psi

Solvent Meter

Solvent K-Factor

Gun Flush Box

Autodump

#### Threshold

Mix Pressure Tolerance  %

Stall Test Pressure  psi

Pump Stall Test  seconds

Max Leak Rate  cc/min

Mix Idle Timeout  seconds

Mix No Flow Timeout  seconds

Low Flow Tolerance  %

Low Flow Timeout  seconds

#### Hose

Gun Hose Length  cm

Gun Hose Diameter  cm

Mix At Wall

Hose Length A  cm

Hose Diameter A  cm

Hose Length B  cm

Hose Diameter B  cm

#### Flow Control

Fluid Control  ▼

Gun Trigger  ▼

Flow Control  ▼

Max Set Point  psi

Max Set Point  cc/min

#### Multiple Guns

Multiple Guns

Number

Gun Hose Length (1)  cm

Gun Hose Diameter (1)  cm

Gun Hose Length (2)  cm

Gun Hose Diameter (2)  cm

Gun Hose Length (3)  cm

Gun Hose Diameter (3)  cm

PD  
Software: 2.6  
192.168.178.206

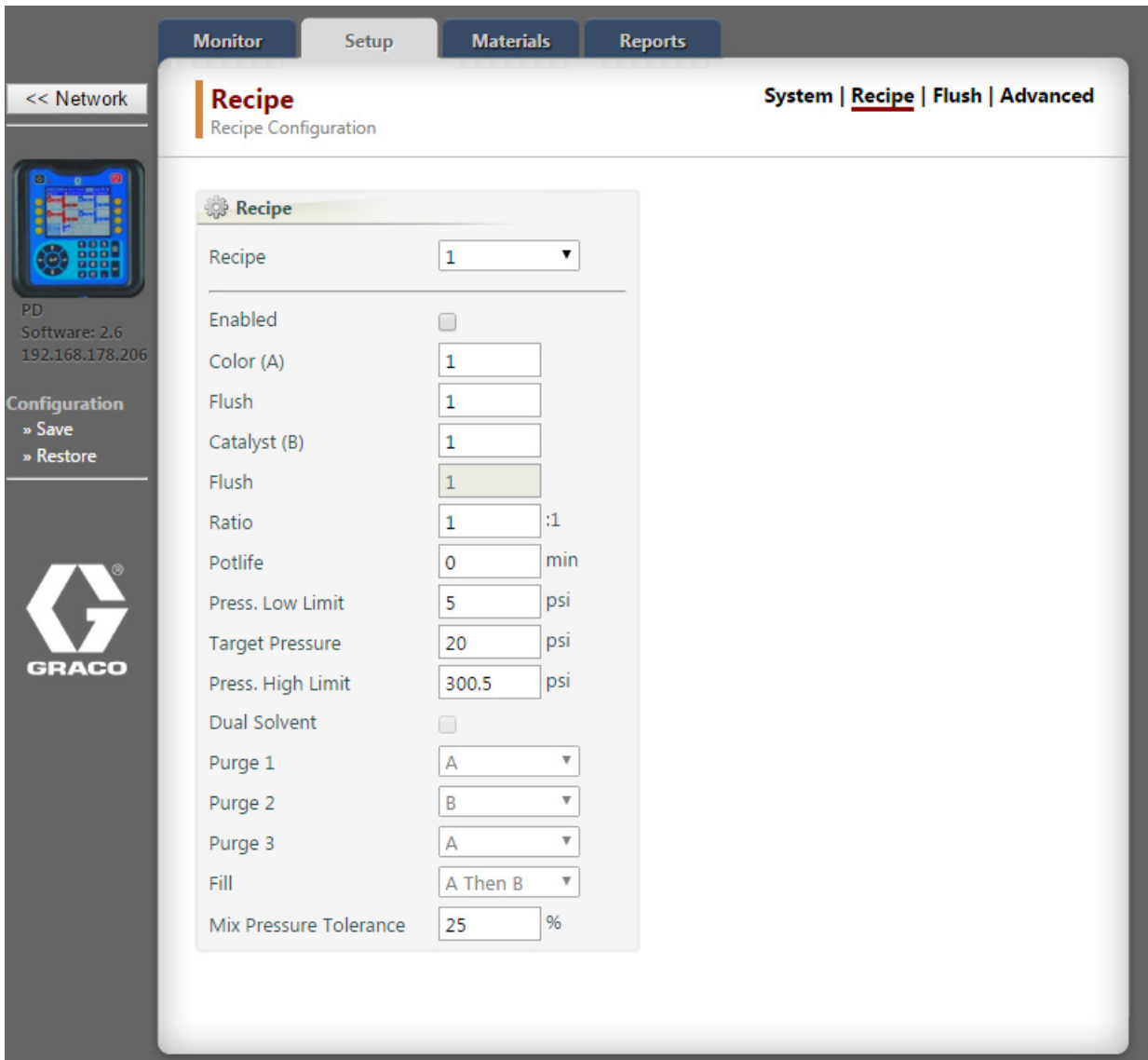
Configuration  
» Save  
» Restore

## Recipe Configuration Screen

The recipe configuration screen allows you to configure information for a recipe, such as color, flush, catalyst, pressure, ratio, and potlife time.

To access the recipe configuration screen, click the **Setup** tab and then click **Recipe**.

For more information, see the Recipe Screens section of the ProMix PD2K Electric Proportioner manual 332562.

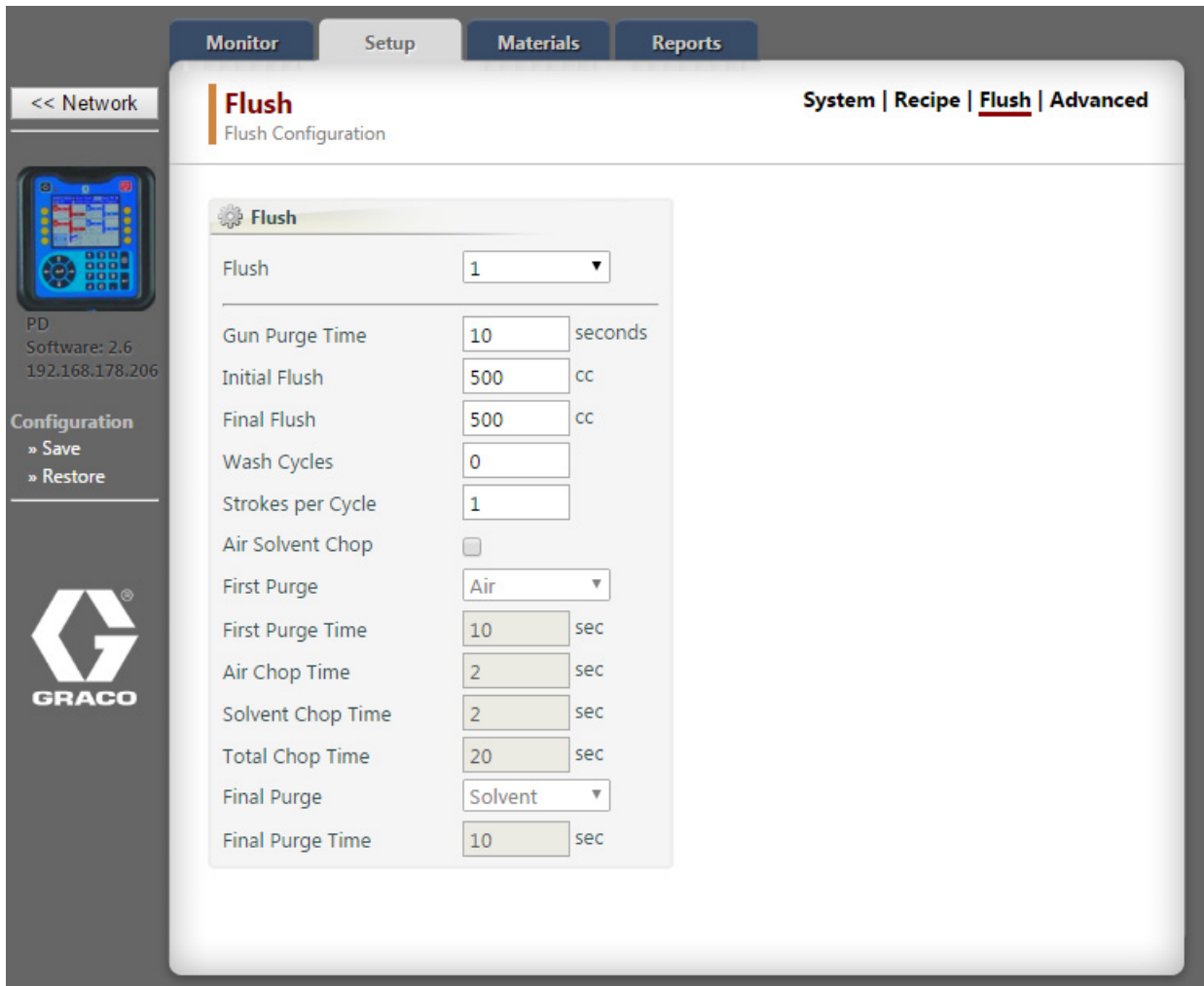


## Flush Sequence Configuration Screen

The flush sequence configuration screen allows you to configure information for a flush sequence, such as gun purge time, initial flush, final flush, wash cycles, and strokes per cycle.

To access the recipe configuration screen, click the **Setup** tab and then click **Flush**.

For more information, see the Flush Screen section of the ProMix PD2K Electric Proportioner manual 332562.



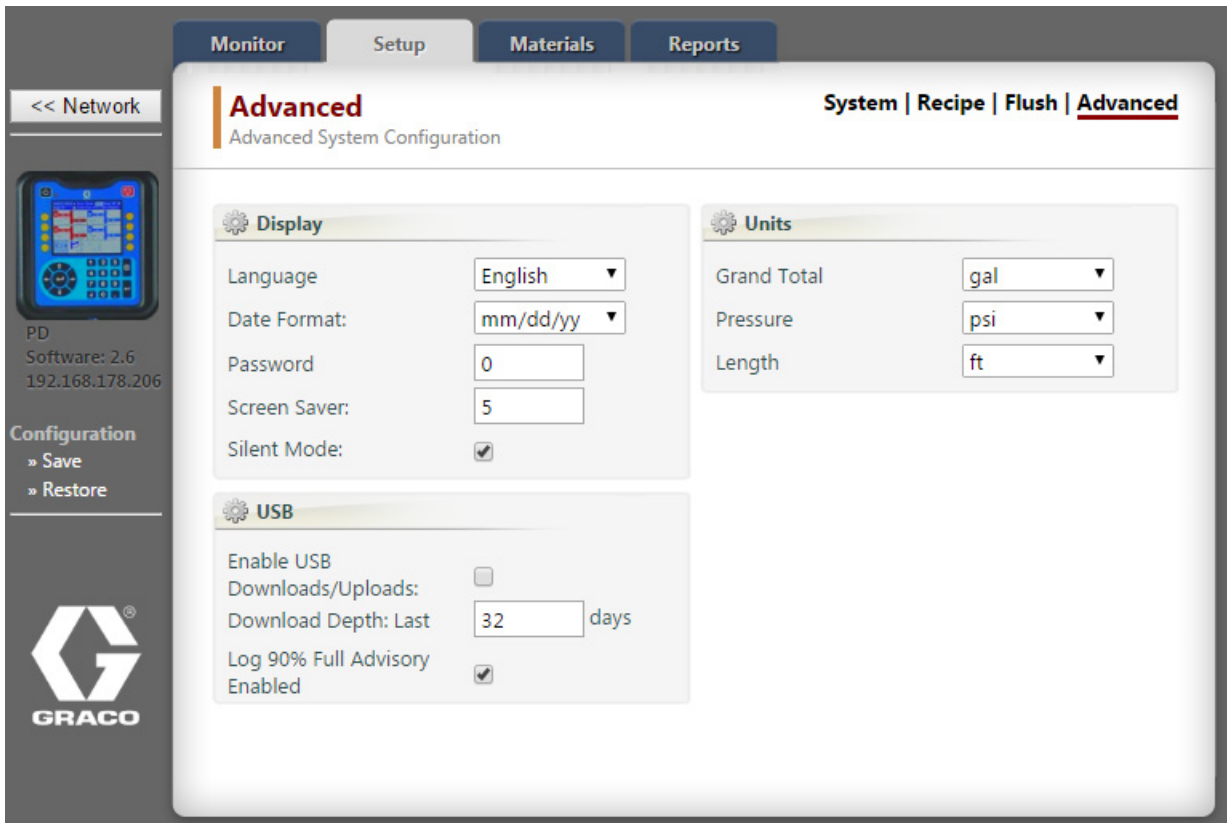


## Advanced System Configuration Screen

The advanced system configuration screen allows you to configure data for display, units, and USB.

To access the recipe configuration screen, click the **Setup** tab and then click **Advanced**.

For more information, see the sections for Advanced System Screens 1, 2, 3, and 4 in the ProMix PD2K Electric Proportioner manual 332562.



## System Material-Valve Assignment Screen

The material-valve assignment screen associates a PD2K valve to a material in master material list. This association is required for material reports.

To enter information for each material in your system, see the Materials Tab section in the Advanced Web Interface Kit manual 332459.

The screenshot shows the 'Material' configuration screen with the following data:

Color	Catalyst	Flush
1 Color 1-CO0	1 Catalyst 1-C.	Reducer 1-R
2 Color 1-CO0	2 Catalyst 2-C.	
3 Color 3-CO0	3 Catalyst 3-C.	
4 Color 4-CO0	4 Catalyst 4-C.	
5 Color 5-CO0		
6 Color 6-CO0		
7 Color 7-CO0		
8 Color 9-CO0		
9 Color 10-CO		
10 -		
11 -		
12 -		
13 -		
14 -		
15 -		
16 -		
17 -		
18 -		
19 -		
20 -		
21 -		
22 -		
23 -		
24 -		
25 -		
26 -		
27 -		
28 -		

# Reports

The AWI can pull material and job information from the system and combine this information into three reports: material-based reports, job-based reports, and event-based reports.

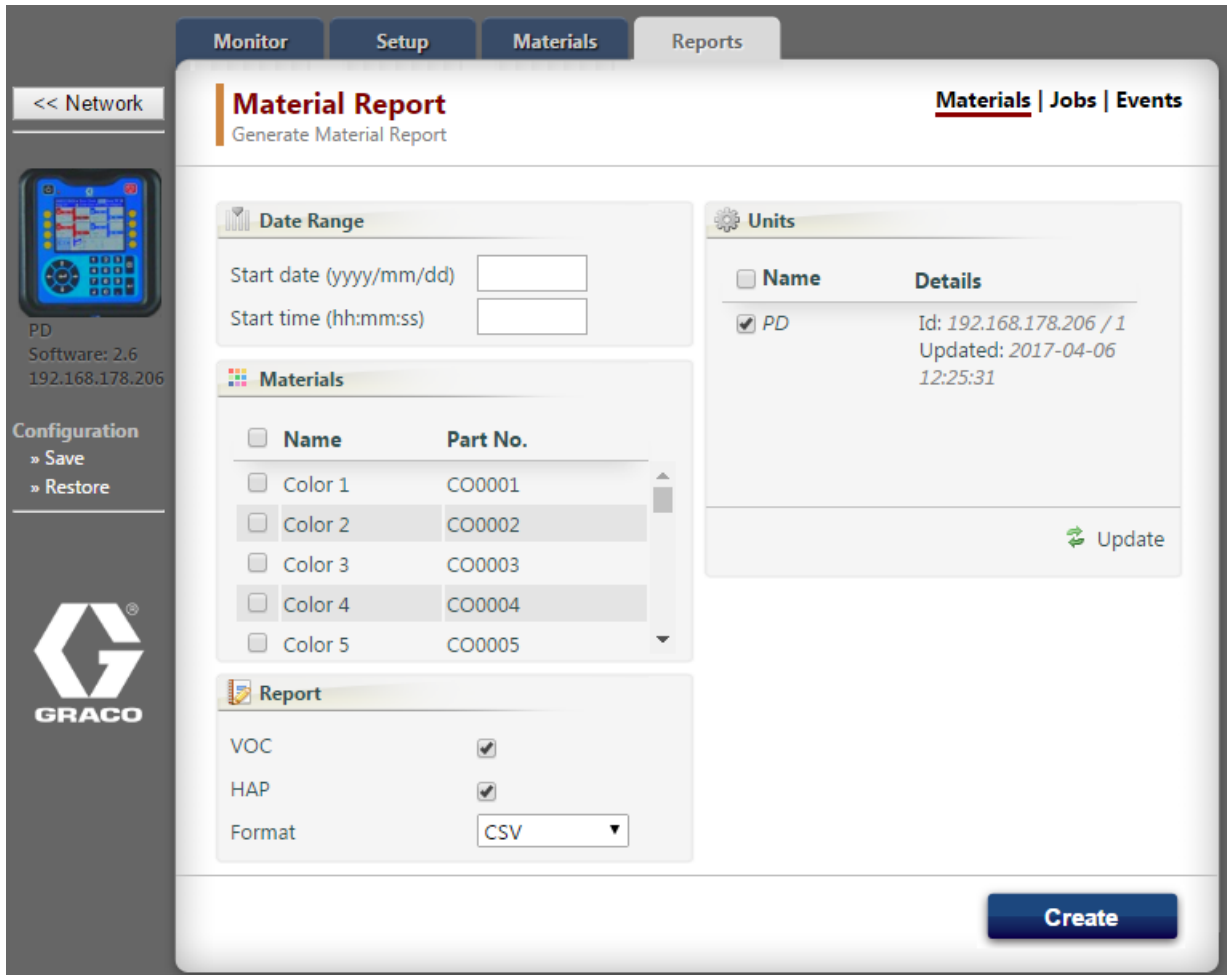
## Material-Based Reports

Material-based reports contain information on material used within the system. Reports can be aggregated from multiple PD2K systems.

**NOTE:** If you changed any recipe configuration, click **Update** before creating the report.

Select the following report filters and then click **Create**.

- **Date Range:** Enter the date and time you want the report to start. The report runs from that date until the current date and time.
- **Materials:** Select the materials to include in the report.
- **Report:** Select VOCs and HAPs to include in the report. Select the report format (CSV or JSON).
- **Units:** Select the PD2K units to include in the report.



## Operation

Material-based report columns include the following:

- Material ID
- Material name
- Material part number
- Sprayed amount (in CCs)
- Total amount (in CCs)
- Sprayed VOCs (in CCs)
- Total VOCs (in CCs)
- Sprayed HAPs (in CCs)
- Total HAPs (in CCs)

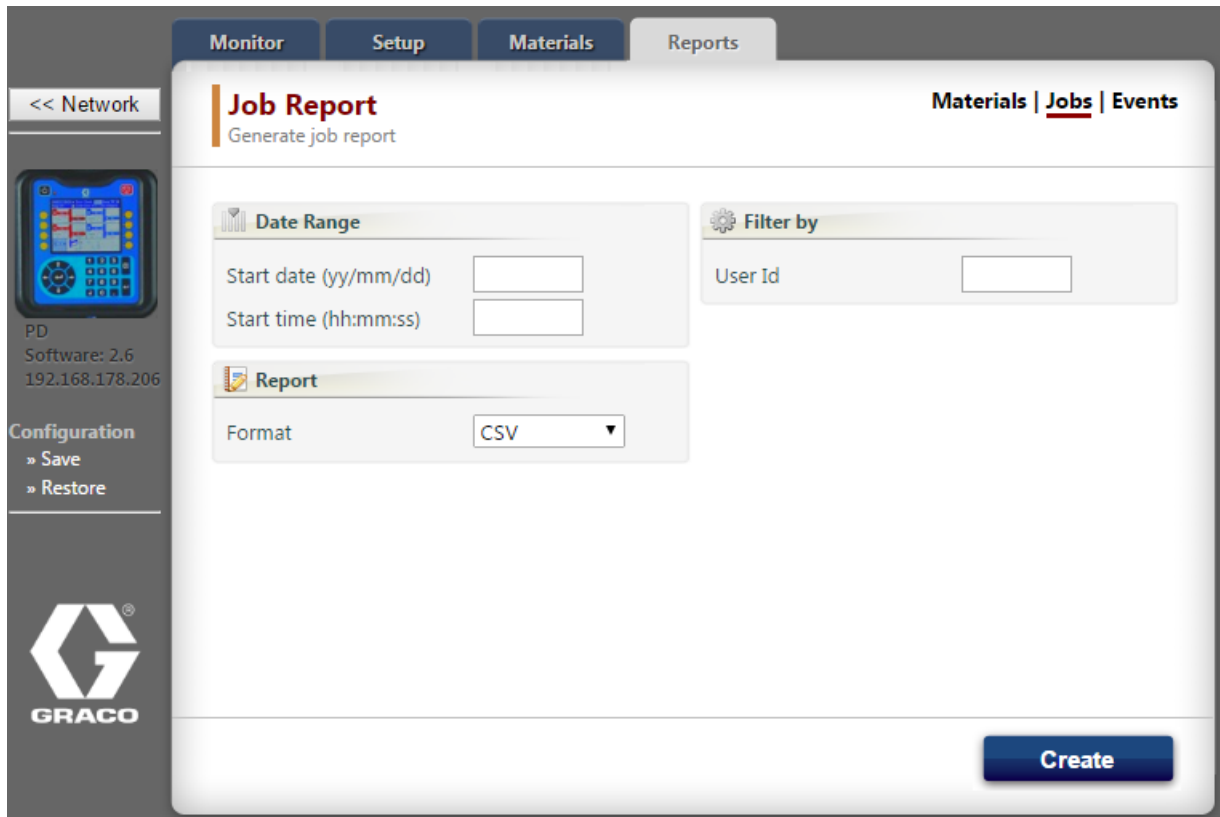
**NOTE:** If the date range is too large, the results are limited to the last 1000 jobs. Narrow the filters to view less information in the report.

## Job-Based Reports

Job-based reports include logs of completed PD2K jobs.

Select the following report filters and then click **Create**.

- **Date Range:** Enter the date and time you want the report to start. The report runs from that date until the current date and time.
- **Report:** Select the report format (CSV or JSON).
- **Filter by:** Enter a user ID to include information for a specific user in the report.



Job-based report columns include the following:

- Date
- Time
- Job number
- Part number
- Recipe number
- Ratio
- Material A sprayed amount (in CCs)
- Material B sprayed amount (in CCs)
- Material A total amount (in CCs)
- Material B total amount (in CCs)
- Solvent total (in CCs)
- Error (Y if an error is present or N if an error is not present)

**NOTE:** If the date range is too large, the results are limited to the last 1000 jobs. Narrow the filters to view less information in the report.

## Event-Based Reports

Event-based reports include logs of all the events in the system.

Select the following report filters and then click **Create**.

- **Date Range:** Enter the date and time you want the report to start. The report runs from that date until the current date and time.
- **Report:** Select the report format (CSV or JSON).
- **Filter by:**
  - Select the type of event (alarm, deviation, advisory, or record) to include in the report.
  - Enter an event code to include in the report. See the Events Screen section of the ProMix PD2K Electronic Proportioner operation manual 332562 for instructions to access a list of events.
  - Enter the job number to include in the report. Leave this field blank to include all jobs.

The screenshot shows the 'Event Report' configuration screen. At the top, there are tabs for 'Monitor', 'Setup', 'Materials', and 'Reports'. Below these is a breadcrumb trail: '<< Network'. The main content area is titled 'Event Report' with the subtitle 'Generate event report'. On the right side of this area, there are links for 'Materials | Jobs | Events'. The interface is divided into three main sections:
 

- Date Range:** Contains two input fields: 'Start date (yy/mm/dd)' and 'Start time (hh:mm:ss)'.
- Report:** Contains a 'Format' dropdown menu currently set to 'CSV'.
- Filter by:** Contains three input fields: 'Events Type' (a dropdown menu with a '-' symbol), 'Events Code' (a text box), and 'Job Number' (a text box).

 At the bottom right of the main area is a blue 'Create' button. On the left sidebar, there is a device image, the text 'PD Software: 2.6 192.168.178.206', and 'Configuration' options: '» Save' and '» Restore'. The GRACO logo is at the bottom left of the sidebar.

Event-based report columns include the following:

- Date
- Time
- Event code
- Event type

- Event action
- Event job

**NOTE:** If the date range is too large, the results are limited to the last 1000 jobs. Narrow the filters to view less information in the report.



# Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

**THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

**GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO.** These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

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# Graco Information

For the latest information about Graco products, visit [www.graco.com](http://www.graco.com).

**TO PLACE AN ORDER**, contact your Graco distributor or call to identify the nearest distributor.

**Phone:** 612-623-6921 **or Toll Free:** 1-800-328-0211 **Fax:** 612-378-3505

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Original instructions. This manual contains English. MM

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