

313386F

ΕN

ProMix[®] 2KS/3KS Web Interfaces

Installation and program setup instructions to allow communication between a PC and the ProMix[®] 2KS/3KS Electronic Proportioner, via an Ethernet. For professional use only.

Not for use in explosive atmospheres.

Basic Web Interface (supplied with ProMix 2KS/3KS EasyKey software)

Advanced Web Interface Kit 15V337 (Accessory)



Important Safety Instructions

Read all warnings and instructions in this manual and in your proportioning system manual. Save these instructions.



Contents

Set the Network Configuration
AWI Screens
Network Tab27
Materials Tab
Settings Tab
System Setup Screens
Replace AWI Board 42
Parts
15V337 Advanced Web Interface Module 44
15V336 Advanced Web Interface Server Hub 45
Electrical Schematic46
Dimensions
Graco Standard Warranty 48
Graco Information48

Related Manuals

Component Manuals in English

Manual	Description
312775	ProMix 2KS Manual System Installation
312776	ProMix 2KS Manual System Operation
312777	ProMix 2KS Manual System Repair-Parts
312778	ProMix 2KS Automatic System Installation
312779	ProMix 2KS Automatic System Operation
312780	ProMix 2KS Automatic System Repair-Parts
313881	ProMix 3KS Installation (All Systems)
313882	ProMix 3KS Manual System Operation
313883	ProMix 3KS Repair-Parts (All Systems)
313885	ProMix 3KS Automatic System Operation
312781	Fluid Mix Manifold
312782	Dispense Valve
312783	Color Change Valve Stacks
312787	Color Change Module Kit
312784	Gun Flush Box Kits
310745	Gun Air Shutoff Kit
312786	Dump Valve and Third Purge Valve Kits
312785	Network Communication Kits
308778	G3000/G3000HR/G250/G250HR Flow Meter
310696	Coriolis Flow Meter
313212	Gun Flush Box Integration Kit
313290	Floor Stand 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 symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

	 EQUIPMENT MISUSE HAZARD Misuse can cause death or serious injury. Do not operate the unit when fatigued or under the influence of drugs or alcohol. Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See Technical Data in all equipment manuals. Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. For complete information about your material, request MSDS forms from distributor or retailer. Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only. Do not alter or modify equipment. Use equipment only for its intended purpose. Call your distributor for information. Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not kink or over bend hoses or use hoses to pull equipment. Keep children and animals away from work area. Comply with all applicable safety regulations.
<u>A</u>	 ELECTRIC SHOCK HAZARD Improper grounding, setup, or usage of the system can cause electric shock. Turn off and disconnect power at main switch before disconnecting any cables and before servicing equipment. Connect only to grounded power source. All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

ProMix 2KS/3KS Basic Web Interface (BWI)

Installation

- 1. Before connecting your computer to the EasyKey, verify you have the most up to date ProMix Application Interface software.
 - a. The application interface software can be downloaded from Graco's Advanced Web Interface's (AWI) software page. See FIG. 1.

NOTE: Screen views in this manual are shown using Microsoft Windows 7.



FIG. 1: Graco Advanced Web Interface (AWI) Software Files Download Page

b. Open the zip file and extract the application.

00-11+							arch Pro,
Organize 👻 Extract all	files				-	•	
🔆 Favorites	^	Name	Туре	Compressed size	Password	Size	
🧮 Desktop		ProMix Application Interface_1_0_4	Application	109,928 KB	No		109,923
📙 Downloads	E						
Recent Places							
🗃 Libraries							
Documents							
J Music							
E Pictures							
Videos			111				
ProMix Applica	ation Interfac	re_1_0_4.exe Compressed size: 107 MB Size: 107 MB		Ratio: 0% te modified: 5/27/2015 1:52 PM	Type: Applicat	ion	

FIG. 2: ProMix Application Interface Zip File

c. Run the exe. This will start up an installation wizard.

Follow all steps until the installation is complete.



FIG. 3: ProMix Setup Wizard

Pay attention to where the files are installed. The default location is the following file path:

C:\Program Files (x86)\Graco\ProMix Application Interface

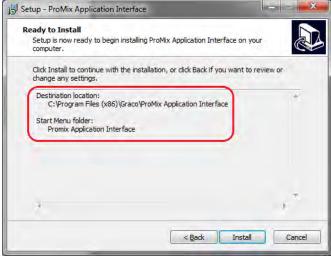


FIG. 4: ProMix File Installation Path

d. Check your Start Menu for the "Promix Application Interface" folder.

Promix Application Interface
ProMix Application Interface
ProMix Property File Editor

NOTE: If the folder and files are not present, follow the destination location from the installation screen to find the files.

Organize 🔻 Include in	library 🔻	Share with 👻 Burn New folder	₩ •	
🔆 Favorites	*	Name	Date modified	Туре
📃 Desktop	I	🍶 Graco ProMixEZ Log 1.01	1/18/2017 8:58 AM	File folde
📕 Downloads		🕕 Graco ProMixII Log 1.01	1/18/2017 8:58 AM	File folde
Recent Places		ProMix Application Interface	1/18/2017 8:38 AM	File folde
		<		

FIG. 5: ProMix Application Interface Folder

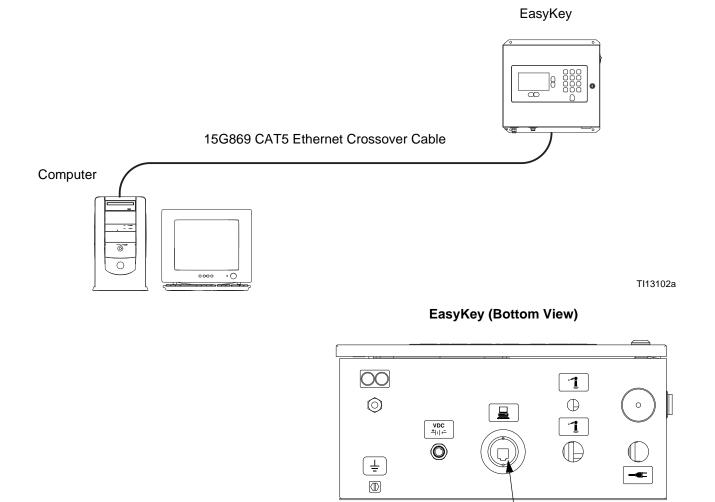
Open the ProMixClient folder.

Organize 🔻 🛛 🛜 Open	Include in library 💌	Share with 🔻 🛛 Burn	New folder	
🖳 Computer	* Name	^	Date modified	Туре
🏭 Local Disk (C:)	📕 Java		1/18/2017 8:38 AM	File folde
Program Files	Logs		1/18/2017 8:38 AM	File folde
Program Files (x86)	📄 🥥 ProMixClie	nt	1/18/2017 8:42 AM	File folde
IN PTC	unins000.d	at	1/18/2017 8:38 AM	DAT File
	🔂 unins000.es	e .	1/18/2017 8:24 AM	Applicati
	+ 4	III		

FIG. 6: ProMix Client Folder Location

Here you will find the application software.

2. After installing the ProMix Application Interface connect the computer directly to the EasyKey, using the 15G869 CAT5 Ethernet crossover cable supplied with the EasyKey. See Fig. 7.



CAT5 Cable Connector

FIG. 7. ProMix 2KS/3KS Basic Web Interface Connection

- 3. Before running the ProMix Application Interface software you must manually assign an IP address to your computer:
 - a. On your computer, click the Start button to open the menu, then click on Control Panel.
 - b. Open Control Panel and select the Network and Sharing Center.

TI12638a

Adjust your computer's settings			View by: Large icons 🔻
Action Center	Administrative Tools	AutoPlay	Backup and Restore
Color Management	Credential Manager	Date and Time	Default Programs
Desktop Gadgets	Device Manager	Devices and Printers	Display
Ease of Access Center	Flash Player (32-bit)	Folder Options	Fonts
Getting Started	HomeGroup	Indexing Options	Intel(R) Graphics and Media
Reference Options	Java	🧼 Keyboard	Lenovo - Airbag Protectio
Lenovo - Microphone Mute	Lenovo - Power Controls	Lenovo - Update and	Lenovo - Web Conferencing
Location and Other Sensors	J Mouse	Network and Sharing Center	Notification Area Icons
NVIDIA Control Panel	Performance Information and Tools	Personalization	Phone and Modem
Power Options	Programs and Features	Realtek HD Audio Manage	r 🥰 Recovery
Region and Language	RemoteApp and Desktop Connections	Sound	Speech Recognition
Sync Center	System	Taskbar and Start Menu	Troubleshooting
User Accounts	Windows CardSpace	Windows Defender	Windows Firewall

c. Click on change adapter settings.

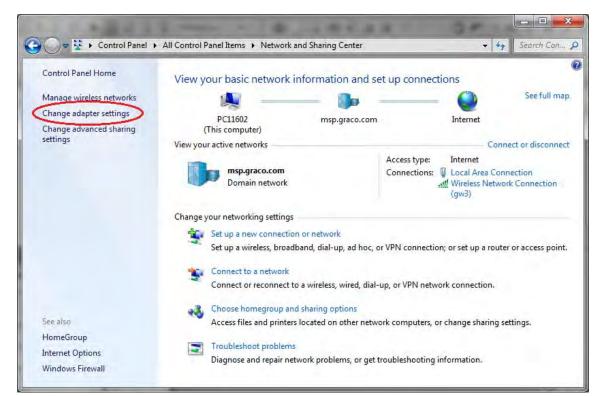
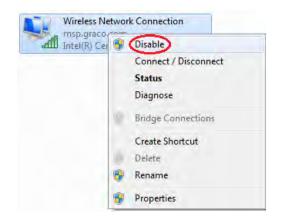
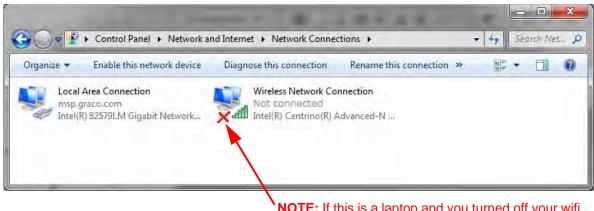


FIG. 9: Change Adapter Settings

d. If you have a wireless adapter on the computer, right click and disable the adapter. This is to prevent the computer from trying to find the Pro-Mix 2KS on the wireless network instead of the local area network.



e. Double click the Local Area Connection.



NOTE: If this is a laptop and you turned off your wifi, you will see a red "X" by your wireless connection.

FIG. 10: Network Connections

f. Select Properties, then Internet Protocol Version 4 (TCP/Pv4). Then click Properties.

General		Networking Sharing	
Connection		Connect using:	
IPv4 Connectivity:	Internet	Intel(R) 82579LM Gigabit Network	Connection
IPv6 Connectivity:	No Internet access		Configure
Media State: Duration:	Enabled 07:11:24	This connection uses the following items	
Speed: Details Activity	1.0 Gbps	Client for Microsoft Networks Sophos Client Firewall NDIS pa OoS Packet Scheduler OoS Packet Scheduler File and Printer Sharing for Micro A Internet Protocol Version 6 (TCF A Internet Protocol Version 4 (TCF A Internet	osoft Networks 2/IPv6) 2/IPv4) Mapper I/O Driver
Bytes: 1,336,563,099	1,619,382,821	Install	Properties
Properties Disable	Diagnose	Description	OK Cancel

FIG. 11: Local Area Connection Properties

g. Select the Alternate Configuration tab, select User Configured, and enter the following data:

IP address: 192.168.178.100

Subnet Mask: 255.255.255.0

Default gateway: 192.168.178.1

NOTE: If the Alternate Configuration tab is not present apply these values to the General tab.

eneral Alternate Configuration		General Alternate Configuration	
If this computer is used on more t settings below.	han one network, enter the alternate IP		automatically if your network supports ed to ask your network administrator
Automatic private IP addres	s		
User configured		Obtain an IP address automa	atically
IP address:	192 . 168 . 178 . 100	Use the following IP address	
-		IP address:	A 4 141
Subnet mask:	255.255.255.0	Subriet mask:	
Default gateway:	192.168.178.1	Default gateway:	8 8 B
Preferred DNS server:	7 4 4	Obtain DNS server address a	
Alternate DNS server:			and the second sec
Alcological to a st		O Use the following DNS server	addresses:
Preferred WINS server:		Preferred DNS server:	
Alternate WINS server:		Alternate DNS server:	* * *
Validate settings, if change	d, upon exit	Validate settings upon exit	Ad <u>v</u> anced

FIG. 12: Alternate Configuration and General Tabs

NOTE: To reconnect to the user network, change the setting back to "Obtain an IP Address Automatically."

- h. Click OK to accept the changes and close the Internet Protocol (TCP/IP) Properties window.
- i. Click Close to close the Local Area Connection window.
- j. Close the Network Connections window.
- 4. On the EasyKey, go to System Configuration Screen 5 and write down the IP number assigned to that EasyKey (1-99).

Special Outputs	2	Ť
Solvent Monitor	Meter 📕	5
Web Browser IP	192.168.178.	5

		+			
Configure	Options	Home			
Fig. 13: System Configuration Screen 5					

5. Select and run the PropertyEditor.exe



or

Organize 🔻 🛛 Include in lil	brary 🔻	Share with 👻 Burn New folder		1	- 🗖 (
🚖 Favorites	*	Name	Date modified	Туре	Size
🧮 Desktop		conf	1/18/2017 8:38 AM	File folder	
📕 Downloads		📕 images	1/18/2017 8:38 AM	File folder	
🔄 Recent Places		lib	1/18/2017 8:38 AM	File folder	
词 Libraries		📗 messages	1/18/2017 8:38 AM	File folder	
Documents		G ProMixAppInterface.exe	5/27/2015 1:50 PM	Application	256 KB
J Music	Ħ	ProMixAppInterface.jar	5/27/2015 1:50 PM	Executable Jar File	78 KE
E Pictures		PromixAppInterface.vmoptions	5/27/2015 1:50 PM	VMOPTIONS File	1 KB
Videos		PropertiesFileEditor.vmoptions	5/27/2015 1:50 PM	VMOPTIONS File	1 KB
Computer		E PropertyEditor.exe	5/27/2015 1:50 PM	Application	273 KB
🚢 Local Disk (C:)					
Program Files					
Program Files (x86)					

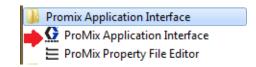
FIG. 14: ProMix Property Editor Icon

 The Property Editor allows you to edit the IP address of the ProMix 2KS that you want to communicate with. Modify this address to match the address setup in step 3.

File	GRAC
Property Name	Property Value
Client IP Address	192.168.178.100
Connection Timeout (Seconds)	4
ProMix IP Address	192.168.178.1
Retries	3
A short explanation of the system pro	operty will appear here when selected i

FIG. 15: Property Editor

6. Open the ProMix Application Interface from the Start menu or open the file from Program files. See step 1d for more details.



7. Click on the Interface option and select the Local Area Connection that this program has been assigned to.

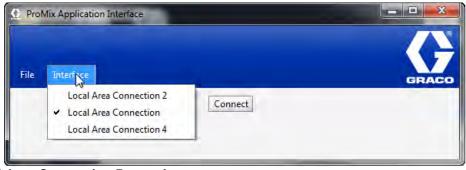


FIG. 16: Local Area Connection Properties

8. Then select the Connect button, and you should be connected to the ProMix 2KS, through the BWI.

GR
onnect
Version 2.05.001 MM Reports
Display material usage report
Clear material usage report
Download job log
Download error log
Display job log
Display error log
Clear job log

FIG. 17. Main BWI Screen

ProMix Application Navigation Screens

From the main BWI screen (see FIG. 17) the operator can select Setup, Software/Resets, or Reports.

NOTE: Before running the BWI program, check the EasyKey Status screen to ensure that the system is in Standby.

Setup

Download setup values - saves the ProMix 2KS/3KS configuration to the PC. This file can be opened and edited using Microsoft Excel, or used to set up multiple systems.

- 🗈 🏠 🎬 🗄

FIG. 18: Download Setup Values

Restore setup values - allows files to be uploaded and restored to the ProMix 2KS/3KS.

Display setup values - indicates what values are currently being used for the system. Allows the operator to verify that the right values are being used. See Fig. 19.

🔬 Data for Display setup	values	
DisplayUnits	0	
RunMode	0	
DumpValveA	0	
DumpValveB	0	
ThirdFlushValve	0	
DoseSize 3		
DoseTime	40	
NumberGuns	0	
GunFlushBox	0	
AutoDump	2	
SolventMonitor	0	
NumSpecials	0	
FlowControl	0	
FlowSetpointSource	0	
ProportioningSource	0	
Gun1TriggerSource	2	
Gun2TriggerSource	2	
FlowControlMeter	1	
RegManualPercent	0	
MinimumFillVolume	0	
ExtColorChange	0	
PotlifeVolumeGun1	50	
PotlifeVolumeGun2	350	
ElowRange)	

FIG. 19: Display Set Up

Download custom language - saves the current system language to the PC. See Fig. 20. This file is opened and a custom language added to the B column of the Excel file.

NOTE: Custom languages are limited to Ascii and Ascii extended characters and a maximum of 32 characters. Save the Excel file as a tab delineated file for uploading purposes.

Restore custom language - allows the custom language file to be uploaded to the ProMix 2KS/3KS.

Download cus	tom language	X
Save In: 🧰 D	ocuments	- 🗈 🖄 🐸 🗄
Data		
File <u>N</u> ame:		
Files of <u>Type</u> :	All Files	-
		Save Cancel

FIG. 20: Download Custom Language

End current job - ends a job and adds material to usage report. The screen will prompt for confirmation. See FIG. 21.

0			
	Are you sure yo	ou want to end currer	nt job
-	_		
	OK	Cancel	

FIG. 21: End Current Job

Software/Resets

Install EasyKey software - installs firmware for the current device (approximately 6 minutes). See FIG. 22.

NOTE: If using the Graco Gateway in your system, disconnect its cable from the EasyKey before updating the ProMix 2KS/3KS software.

Look In: 🗀 🕻	Documents	- 🗈 🙆 🍱 🗄
🔁 Data 🗀 Projects		
File <u>N</u> ame:		
Files of <u>T</u> ype:	All Files	Open Cancel

Reset settings - places system back to factory default mode. The screen will prompt for confirmation. See Fig. 23.

0	Are you sure you want to reset settings to factory defau
-	
	OK Cancel

Reset password - clears password if lost or forgotten. The screen will prompt for confirmation. See FIG. 24.

×	and	Confirm
password?	you sure you	
	ОК	
	ОК	

FIG. 24: Reset Password

Reports

NOTE: Display material usage report - shows the material sprayed from the ProMix 2KS/3KS. See Fig. 25.

Material Usag	e		•
Start Time:	31-12-2365	23:13:04	
End Time:	26-10-2999	23:30:47	
Valve	Total (cc)	Description	
0	0	Error0	
1	90	Color1	- 19
2	0	Color2	書
3	0	Color3	1.00
4	0	Color4	
5	0	Color5	
6	0	Color6	
7	0	Color7	
8	0	Color8	
9	0	Color9	
10	0	Color10	
11	0	Color11	
12	0	Color12	
13	0	Color13	
14	0	Color14	
15	0	Color15	
16	0	Color16	
17	0	Color17	
18	0	Color18	
10	0	Color19	*

FIG. 25: Display Material Usage Report

Clear material usage report - deletes the material usage from the display.

0			
	Are you sure you wa	int to clear material	usage report
-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	OK	Cancel	

FIG. 26: Clear Material Usage Report

Download job log - downloads the job log to the PC.

Save In: 🔯	Documents	- 🛍 🕍 👪 🖛
🗀 Data		
Projects		
File <u>N</u> ame:	1	
File <u>N</u> ame: Files of <u>T</u> ype:	[All Files	

FIG. 27: Download Job Log

Download error log - downloads the error log to the PC.

Save In:	Documents	- 🖻 🏠 🍱 🖽 🖿
🗀 Data		
🗀 Projec	cts	
	1	
File <u>N</u> ame	a [
File <u>N</u> ame		

FIG. 28: Download Error Log

Display job log - displays the job number, date, time, recipe, ratio, target, volumes, grand totals, and any errors that occurred during the job. See FIG. 32.

Display error log - displays the number of alarms, date, time, recipe and what the error was. See Fig. 29.

Alarm	Date	Time	Recipe	Error
001	12-31-2999	23:59:30	61	E17
002	12-24-2999	23:51:42	1	E17
003	12-31-2999	23:59:30	61	E17
004	12-31-2999	23:59:53	1	E17
005	12-31-2999	23:59:30	61	E17
006	12-31-2999	23:59:02	1	E17
007	12-31-2999	23:59:30	61	E17
008	12-31-2999	23:59:50	1	E17
009	12-31-2999	23:59:30	61	E17
010	12-31-2999	23:45:48	1	E17
011	12-31-2999	23:59:30	61	E17
012	12-31-2999	23:59:33	61	E17
013	12-31-2999	23:59:30	61	E17
014	12-31-2999	23:59:18	61	E17
015	12-31-2999	23:59:30	61	E17
016	12-10-2999	23:55:23	61	E17
017	12-31-2999	23:59:30	61	E17
018	12-10-2999	23:42:09	1	E17
019	12-31-2999	23:59:30	61	E17
020	12-31-2999	23:05:13	61	E17
021	12-31-2999	23:59:30	61	E17
022	12-31-2000	23-41-12	61	F17

FIG. 29: Display Error Log

Clear job log - deletes the jobs from the display. The screen will prompt for confirmation. See Fig. 30.

(?)	Are you sure you want to clear job lo
0	
	OK Cancel

Clear error log - deletes the errors from the display. The screen will prompt for confirmation. See FIG. 31.

\bigcirc	Are you sure you want to clear error log
	OK Cancel

	Date	Time	Recipe	Ratio	Target	Vol A (cc)	Vol B (cc)	Vol S (cc)
00000010	12-26-2999	23:41:34	5	0.00	1.0	0	0	0
00000009	12-26-2999	23:40:48	4	0.00	1.0	0	0	0
00000008	12-24-2999	23:12:09	7	0.00	1.0	0	0	0
00000007	12-24-2999	23:09:21	7	0.00	1.0	0	0	0
00000006	12-24-2999	23:06:47	7	0.00	1.0	0	0	0
00000005	12-24-2999	23:05:15	10	0.00	1.0	0	0	0
00000004	12-24-2999	23:00:49	10	0.00	1.0	0	0	0
00000003	12-24-2999	23:59:53	12	0.00	1.0	0	0	0
00000002	12-24-2999	23:58:36	2	0.00	1.0	0	0	0
000000000	12-31-2999	23:59:25	1	0.00	1.0	0	0	0
								column
					Scroll to ri	ght to view	Grand Tota	lls and Erro
	000000009 00000008 00000007 00000006 00000005 000000004 000000003 000000002	00000009 12-26-2999 00000008 12-24-2999 00000007 12-24-2999 00000006 12-24-2999 000000005 12-24-2999 000000004 12-24-2999 000000003 12-24-2999 000000004 12-24-2999 000000003 12-24-2999 000000003 12-24-2999 000000002 12-24-2999	00000009 12-26-2999 23:40:48 00000008 12-24-2999 23:12:09 00000007 12-24-2999 23:09:21 00000006 12-24-2999 23:06:47 000000005 12-24-2999 23:05:15 000000004 12-24-2999 23:06:49 000000003 12-24-2999 23:05:15 000000004 12-24-2999 23:00:49 000000003 12-24-2999 23:59:53 000000002 12-24-2999 23:58:36	00000009 12-26-2999 23:40:48 4 00000008 12-24-2999 23:12:09 7 000000007 12-24-2999 23:09:21 7 000000006 12-24-2999 23:06:47 7 000000005 12-24-2999 23:05:15 10 000000004 12-24-2999 23:00:49 10 000000003 12-24-2999 23:59:53 12 000000002 12-24-2999 23:58:36 2	00000009 12-26-2999 23:40:48 4 0.00 00000008 12-24-2999 23:12:09 7 0.00 000000007 12-24-2999 23:09:21 7 0.00 000000006 12-24-2999 23:06:47 7 0.00 000000005 12-24-2999 23:05:15 10 0.00 000000004 12-24-2999 23:00:49 10 0.00 000000003 12-24-2999 23:59:53 12 0.00 000000002 12-24-2999 23:58:36 2 0.00	00000009 12-26-2999 23:40:48 4 0.00 1.0 00000008 12-24-2999 23:09:21 7 0.00 1.0 00000006 12-24-2999 23:09:21 7 0.00 1.0 00000006 12-24-2999 23:06:47 7 0.00 1.0 00000005 12-24-2999 23:05:15 10 0.00 1.0 00000004 12-24-2999 23:09:49 10 0.00 1.0 000000003 12-24-2999 23:59:53 12 0.00 1.0 000000002 12-24-2999 23:59:53 12 0.00 1.0 000000002 12-24-2999 23:59:25 1 0.00 1.0 000000000 12-31-2999 23:59:25 1 0.00 1.0	00000009 12-26-299 23:40:48 4 0.00 1.0 0 00000008 12-24-299 23:09:21 7 0.00 1.0 0 00000006 12-24-299 23:09:21 7 0.00 1.0 0 00000006 12-24-299 23:06:47 7 0.00 1.0 0 00000005 12-24-299 23:05:15 10 0.00 1.0 0 000000004 12-24-299 23:09:49 10 0.00 1.0 0 000000003 12-24-299 23:59:53 12 0.00 1.0 0 000000002 12-24-299 23:58:36 2 0.00 1.0 0 000000000 12-31-2999 23:59:25 1 0.00 1.0 0	00000009 12-26-299 23:40:48 4 0.00 1.0 0 0 00000008 12-24-2999 23:12:09 7 0.00 1.0 0 0 00000007 12-24-2999 23:09:21 7 0.00 1.0 0 0 00000006 12-24-2999 23:06:47 7 0.00 1.0 0 0 000000005 12-24-2999 23:05:15 10 0.00 1.0 0 0 000000005 12-24-2999 23:00:49 10 0.00 1.0 0 0 000000004 12-24-2999 23:59:53 12 0.00 1.0 0 0 000000003 12-24-2999 23:58:36 2 0.00 1.0 0 0

FIG. 32: Display Job Log

Install the Advanced Web Interface (AWI) Module

Overview

The Graco Advanced Web Interface (AWI) Accessory allows communication between multiple ProMix 2KS/3KS and a PC over an Ethernet, enabling users to monitor the ProMix 2KS/3KS, view and change system setup parameters, and create reports.

NOTE: Screen views in this manual are shown using Microsoft Windows XP.

Location

The AWI module may be installed in a local ProMix network (see FIG. 35) or in a LAN network (see FIG. 36).

Do not	install e	quipmer	nt approv	ved only	for non-	hazard-
ous loo	ation in	a hazar	dous are	ea.		

Install the module near the EasyKey, in a non-hazardous area.

Mounting

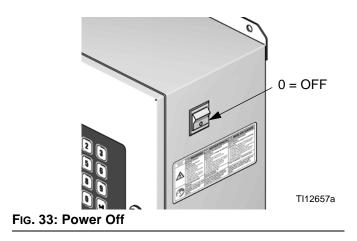
- 1. See **Dimensions**, page 47.
- 2. Ensure that the wall and mounting hardware are strong enough to support the weight of the equipment, fluid, hoses, and stress caused during operation.
- 3. Using the equipment as a template, mark the mounting holes on the wall at a convenient height for the operator and so equipment is easily accessible for maintenance.
- 4. Drill mounting holes in the wall. Install anchors as needed.
- 5. Bolt equipment securely.

Connect Module to EasyKey and PC

NOTICE

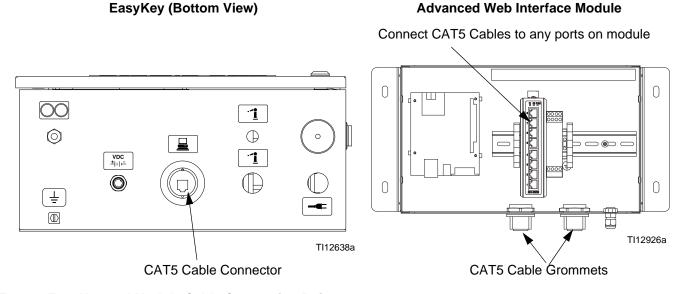
To avoid damaging circuit board when servicing, wear grounding strap on wrist and ground appropriately.

Shut off ProMix 2KS/3KS power (0 position). FIG.
 33. Also shut off power at main circuit breaker.



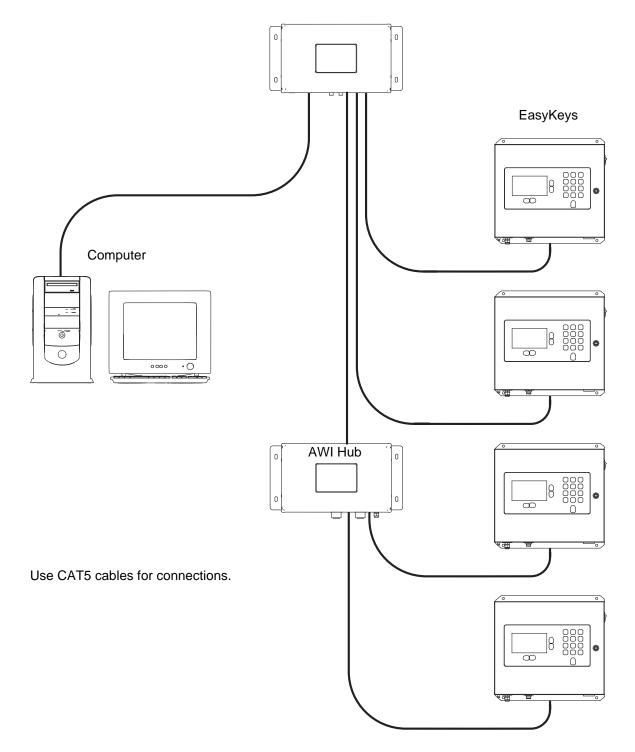
- 2. Run a CAT5 cable from the EasyKey connector through the grommet and connect it to any port in the AWI module. Connect another CAT5 cable from the AWI module to the PC. See FIG. 34.
- 3. Plug in the module power cord.

NOTE: Multiple AWI server hubs can be connected to the AWI master module in series. See FIG. 35. Order Part No. 15V336 Hub, see page 45.



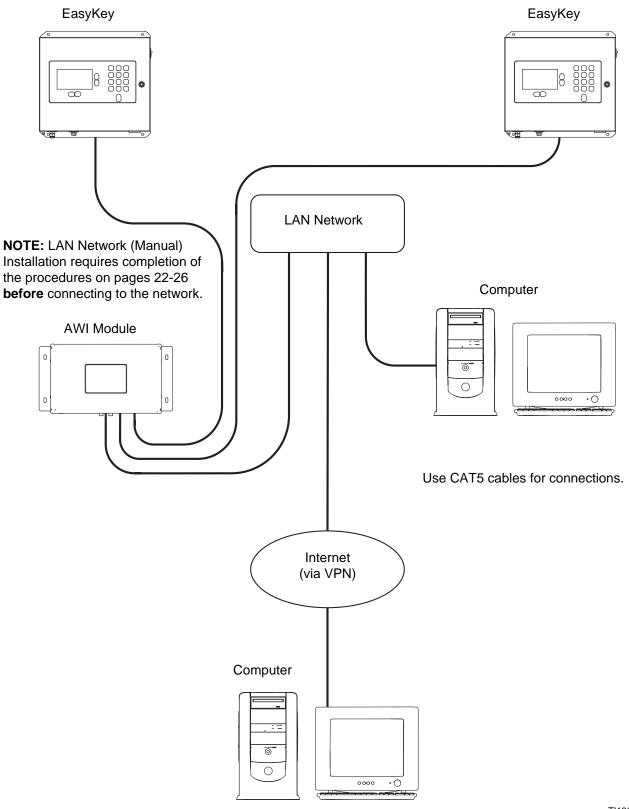


AWI Master Module



TI13065a

FIG. 35: ProMix Network Typical Installation



TI13064b

FIG. 36: LAN Network (Manual) Typical Installation

Computer Configuration

Set up an Automatic IP Address

See FIG. 37. On your computer, go to Control Panel>Network Connections>Local Area Connection>Properties>Internet Protocol (TCP/IP). Verify that "Obtain an IP address automatically" is selected in the TCP/IP Properties window. If not, set it as shown. Click OK and close out of the Control Panel.

net Protocol (7CP/IP) Prop	perties
eral Alternate Configuration	
u can get IP settings assigned s capability. Otherwise, you new e appropriate IP settings.	l automatically if your network supports ed to ask your network administrator fo
 Obtain an IP address autom 	natically
Use the following IP addres	38:
IP address.	
Subnet mask:	
Dehault gateway	1
Obtain DNS server address	automatically
O Use the following DNS serv	ver addresses:
Preferred DNS server	-
Alternate DNS, server	<u> </u>
	Advanced

FIG. 37. Set Automatic IP Address

System Initialization

NOTE: System initialization must be done by an administrator. This process is only required when the system is first started.

NOTE: Verify that the wireless connection is turned off (disabled) before performing step 1.

- 1. Open a browser. Firefox 3.0 or above is preferred. Microsoft Internet Explorer 6.0 or above is also acceptable.
- Applies to Firefox only: To operate in a ProMix 2KS/3KS network with Firefox, you must turn off the Proxy setting on your browser. In your Firefox browser, go to Tools>Options>Advanced>Network tab>Connection Settings. Click "No proxy." See FIG. 38.

General Network U	odate Encryption		
Connection			
Configure how Fi	onnection Settings		
- Offline Stor ge	Configure Proxies to Access the	ne Internet	
Use up to 50	No proxy Auto-detect proxy setting	as for this potwork	
Tell n when	C Manual proxy configuration	the second second second second	
The following we	HTTP Proxy:	Port:	0 2
		this proxy server for all protocols	0.0
	SSL Proxy:	Port:	0 -
	ETP Proxy:	Port	0.4
	Gopher Proxy	Porti	0 +
· · · · · · · · · · · · · · · · · · ·			
	SOCKS Host:	Por <u>b</u> :	0 -
		GKS V4 € SOCKS V5	
	No Proxy for: Iocalho	st, 124 u.u.1 9. mozilia.org. met.nz, 192,168,1.	n/24
	C Automatic proxy configur		S(~-)
	http://proxy:8080/	11.4	Reload

FIG. 38. Turn Off Proxy Setting (Firefox only)

3. Type **http://gracoawi:** in the browser address bar, and press Enter.

4. The Welcome screen will appear. See FiG. 39. Click Next.



FIG. 39. System Initialization Step 1

5. The Security screen will appear. See FIG. 40. The administrator must fill in all fields. Click Next.

Welcome to Advanced Web In	have a shun unased
	iteriace semily misarin
Login	
Password	
Password	
Secret Question	
Answer	
Answer	Next »

6. Initialization is complete. See FIG. 41. Click Finish.

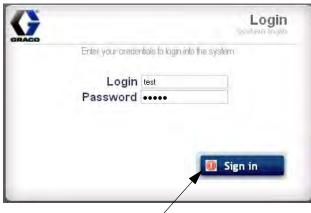


 The Login screen will appear. See FIG. 42. Type in the login name and password you entered in step 5. Click Sign in. The Network screen will appear. See page 27.

Enter your credei	and a second as a s	
Login		
Password		
		Sign in
2. Login Scree		-

Password Recovery

1. If you type in the wrong password, sign in will be blocked. See FIG. 43. Click on the block icon 🕛 to initiate the password recovery sequence.



Click on block icon

FIG. 43. Sign in Blocked

2. See FIG. 44. The system will prompt you for your login name. Type in the name you entered in step 5 on page 23, then click Next.

Password R Step 1 > 3	Step 2 > Step 3
Password recovery wizard	
Login	
	ext »

FIG. 44. Password Recovery Step 1

3. The system will then ask the secret question you entered in step 5. Type in the answer, then click Next.

 Step 1 > Step 2 > Step
Password recovery wizard
Secret question?
Next »
NEAL *

4. If the answer matches the one entered in step 5, the system will prompt you for a new password. Enter the new password twice, then click Next. The system will return to the Login screen, FIG. 42.

Password	recovery wizard
New password	
New password	
	Next »

Set the Network Configuration

ProMix 2KS/3KS Network Configuration

In a ProMix 2KS/3KS network, the AWI module is connected to an EasyKey and a personal computer. Up to 100 EasyKeys may be connected in the network. See FIG. 35. To select a ProMix 2KS/3KS network, go to the Settings tab and select ProMix network. See FIG. 47.

Click Save.

Turn off the Proxy setting (Firefox only). See page 22.

dvanced Web terface (AWI) Version: 1.02.010	Network Materials Se System Setting Configure main system setting	ttings S ggs	
GRACO	O System Time Day Month	13 July 🗸	Clid password
	Year Time (24 hrs)	2009 16 : 6 \$ Sync Save	New password
	Language	English	Promix network Manual configuration Save
	Upgrade AWI	Save Browse	

FIG. 47. ProMix 2KS/3KS Network Setting

LAN Network (Manual) Configuration

See FIG. 36. A LAN network (manual) configuration enables you to work through a local network. Up to 100 EasyKeys may be connected in the network. The EasyKeys and AWI Module **must** be on the same subnetwork. The EasyKeys can be connected to any LAN drop.

NOTE: To change to a LAN (manual) configuration, you must first connect to the AWI via the ProMix 2KS/3KS network. See pages 22-23 for instructions and FIG. 35 for cable connections.

To select a LAN (manual) configuration, go to the Settings tab and select Manual configuration. You will be required to enter IP, gateway, and Netmask addresses. Contact your IS system administrator for assistance. See Fig. 48.

NOTE: Use a new IP address to access the AWI; this replaces gracoawi (for LAN network systems only).

NOTE: Once Save is clicked, the AWI will disconnect the user computer. Reconnect the AWI and computer as shown in FIG. 36. Reconfigure the user computer to match the new LAN configuration. You can then login to the AWI using the newly assigned IP address.

© System Time		Sedit account	R
Day	13	Old password	
Month	July	 New password 	
Year	2009	New password	
Time (24 hrs)	16 : 6		Save
	Sync I Sara	Network	
Language	/	 Promix network Manual configuration 	
Language	English 🗸		10.33.131.223
	Save	Gateway	10.33.1.1
Upgrade AWI		Netmask	255.255.0.0

Click Save to apply the change.

FIG. 48. LAN Network Setting

AWI Screens

This section describes how to use the AWI screens to access and make changes to system settings and recipes. For complete information about these settings and their effects, see the Setup section in the system operation manual.

Network Tab

Use the Network tab to select the desired EasyKey. See FIG. 49.

Each EasyKey must have a unique name and IP address. See the Configuration Screen in Fig. 56 to set the Station name (1-99).

Click on the desired EasyKey to access the setup screens for that device.



FIG. 49. Network Tab

Materials Tab

Use the Materials tab to enter information on Volatile Components (VOC) and Hazardous Air Pollutants (HAP) for each material being used in your system, for material reporting. This information, and the manufacturer's part no., are available on the MSDS sheet provided by the material manufacturer. See FIG. 50.

VOC values may be set at Lbs/Gal or Gram/Liter as desired, using the pulldown menu.

To add a new material, click the Plus O button. Enter the values in the new data fields.

To delete a material, click the Minus 🥯 button.



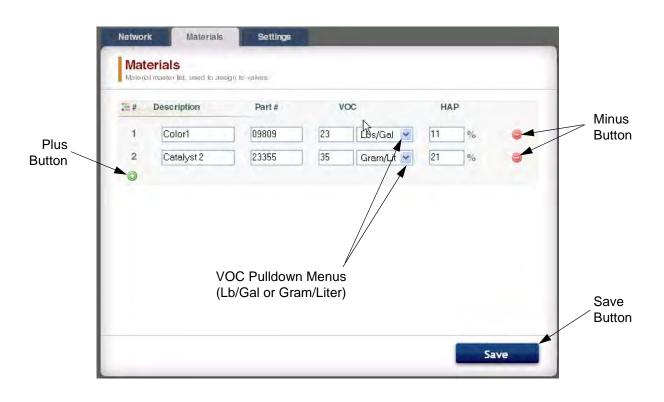


FIG. 50. Materials Tab

Settings Tab

Use the Settings tab to configure the main system settings (Time, Language, Upgrade AWI, and Edit Accounts).

NOTE: FIG. 51 shows the Settings screen when you log in as a user. FIG. 52 shows the Settings screen when you log in as a system administrator.

Set Time

To synchronize the time settings on all networked Pro-

Mix 2KS/3KS devices, click the Sync Sync button. The change will take place in approximately one minute.

Set Language

Set the desired language of the screen text, using the pulldown menu. Select English (default), Spanish, French, German, Italian, Dutch, Japanese (Kanji), Korean, and Chinese (Simplified).

Upgrade AWI Software

To upgrade AWI, first download the latest version of AWI software to your computer. Contact your Graco distributor for information.

Use the Browse Browse... button to locate the file on your computer. Highlight the filename.

Click on the Upgrade Upgrade button to start the upgrade.

	Network Materials Settings	Sync Button	
Advanced Web Interface (AWI) Version: 1.02.010	System Settings Conligue main system settings		
173	System Time	Sedit account	<u> </u>
GRACO	Day 13	Old password	
	Month July	New password	
	Year 2009	New password	
	Time (24 hrs)	: 6	Save
	≵ Sync I	Save Network	
	Canguage	 Promix network Manual configurati 	on
	Language		10.33.131.223
		Gateway	10.33.1.1
	Upgrade AWI	Netmask	255.255.0.0
	Browse		Save
		Upgrade	
	Browse	\ Upgrade	

FIG. 51. System Settings Tab (User Screen Shown)

Edit Account Information

NOTE: Account information can only be entered by a system administrator. See FIG. 52.

• To add a new account, click the Add User Abb button. Enter the information in the data fields. Click

A checkmark (✓) will appear in the top right corner when the save is complete.

 To edit an existing account, click the Edit User button. Enter the information in the data fields. Click

Save . A checkmark (✓) will appear the top right corner when the save is complete.

• To delete an existing account, click the Delete User

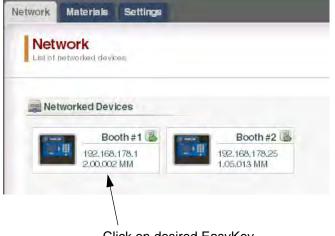
👵 button.

			Edit user: admi User name Asct. type	n admin admin 🖋
			Secret Question	who am i
	Latest Software Version	Sync Button	Answer	myself
,	/	/	Password	xeology
/				Save
	Network Materials Settings			
Advanced We Interface (AWI Version: 1.02.010	System Settings Conligure main system settings			
13	O System Time	Accounts		
GRACO	Day 13	User name Acct. type	+	
	Month July	admin admin	812	
		pnd user	212	
	2004	graco admin	818	
	Time (24 hrs) 16	14 test user	D 1 2	
	a Sync I	Save 🙈 Add user		
	Language	Network		
	Language	 Manual configuration 		
		Save	3.131.223	
	Upgrade AWI	Gateway 10.3	3.1.1	
	Browse	Netmask 255.	255.0.0	
		Upgrade	Save	
		$\overline{\}$		×
	/	\mathbf{h}	User name	
	Browse	Upgrade	Password	
			Password Secret Question	
			Answer	
				add

FIG. 52. System Settings Tab (Admin Screen Shown)

System Setup Screens

To view the system setup screens, go to the Network tab and click on the desired EasyKey to access the setup screens for that device. See Fig. 53.



Click on desired EasyKey

FIG. 53. Open Device

Active Data	a		Active Levels	
Active recipe Target ratio (Actual ratio Potlife 1 rem	x:1) 3:1 3:1	nin	Material Color 0 (Valve # 0) Catalyst 0 (Valve # 0) Solvent	Level 20 lit 10 lit 100 lit
📄 Material Da	ata		alarms	
Material A = B = A + B = Solvent = Job #	Job total 100 cc 33 cc 133 cc 500 cc 1721	Grand total 1000 lit 330 lit 1330 lit 5000 lit	Alarm Date Time Recipe Err 001 11-08-2008 14:37:30 0 002 11-08-2008 14:42:13 0 003 11-08-2008 14:33:40 0) E17 PowerOn) E16 Setup Changed
Flow Data				

FIG. 54. Monitor Tab

Monitor Tab

Select the Monitor tab to view data from the EasyKey Status screen, in real time. See FIG. 54.

Material Setup Tab

Go to the Material Setup tab to assign a catalyst, color, reducer (on 3KS) and flush material for the valves of the active device, using the pulldown menus. For 2KS, each device may include up to 30 color valves, 4 catalyst valves, and solvent flush valves. For 3KS, each device may include up to 25 color valves, 4 catalyst valves, 4 reducer valves, and solvent flush valves. The materials listed in each pulldown menu were established under the **Materials Tab** on page 28. See FIG. 55.

To save your changes, click Save . A

checkmark (\checkmark)will appear when the save is complete.

Monitor	Material Setup	System Setup	Reports	Level Control	
	al assignmen näls hom the master list	t Io the valves of the cur	ent device		
决 Catalys	st		🆞 Flush		
Catalyst		select 💌	Flush		select 💌
Colors					
Color		select 💌			
					Save
					Jave

FIG. 55. Material Setup Tab

System Setup Tab

The Setup tab has three editable screens:

- The Configuration screen corresponds to the System Configuration screens of the EasyKey. See FIG. 56. For complete information about these settings and their effects, see the Setup section in the system operation manual.
- The Advanced screen corresponds to the Advanced Setup screens of the EasyKey. See FIG.
 57. For complete information about these settings and their effects, see the Setup section in the system operation manual.
- The **Recipe** screen corresponds to the Recipe Setup screens of the EasyKey. See FIG. 58. For complete information about these settings and their effects, see the Setup section in the system operation manual.

Use the arrow buttons $\triangleleft 1$ \triangleright to view the previous or the next recipe, or enter the recipe number and press Enter.

Click on the Chart button **Chart** to create a timing chart of the active recipe. See Fig. 59.



NOTE: Changes made on the EasyKey screen before

clicking Save will be overwritten by the AWI data.

Configuration ProMix main configuration			0	nfiguration I	Advanced	nec
System Settings			Contro	Settings		
Language	English	~	Run mod	e	Semi-aut	torr 👻
Password	0		Dump val	ve A	On	~
Display units	cc/lit	~	Dump val	ve B	On	~
Month	January	V	3rd flush	valve	Off	~
Day	11		Dose size	9	50 cc	*
Year	2008		Dose tim	e alarm (sec)	1	
Date format	mm/dd/yy	y. 💙	Number o	of guns	1	~
Hour (24 hrs)	11		Gun flush	box	Off	*
Minute	14		Solvent n	nonitor	Solventr	net 👻
Station name	Demo		Special o	utputs	2	~
Destination of the second seco	-		WebBrow	serIP	2	
5 Options			Multi stat	ion ID	1	
Flush volume check	Off	~	Comm	unication Sources		
Flush & fill input	Recipe	~				
K-Factor input	Recipe	~	Proportion	ning	Discrete	*
Min material fill volume (cc)	100		Gun 1 trig	Iger	Discrete	~
External color change	On	~	Control n	etwork ID	1	
Auto dump	On	~				
Flow rate monitor	Off	~				

FIG. 56. System Setup Tab, Configuration Screen

Monitor	Material Setup	System Setup	Reports	Level Control
Advan Pro Mix adv	noitarugilnos beona		Cor	nfiguration I <mark>Advanced</mark> I Recipe
Advan	ced Settings			
Manual o Gun 1 po	verride tlife volume (cc)	On 💌		
				Save

FIG. 57. System Setup Tab, Advanced Screen

ProMix recipe setup			
Settings 1		Purge & Fill Time	
Target ratio (x:1) Ratio tolerance (%)	0.5 5	Gun 1. Gun 2 First purge time (sec) 30	
Settings 2 Potlife time (min) Premixe purge time (sec) Premix fill time (sec)	2 2 10	Total chop time (sec) 10 Final purge time (sec) 15 Mix fill time (sec) 19 Meter K-Factors (cc/pulse)	
Purge Source/Time		K-Factor A. 0.001	
First purge source Chop type Final purge source Air chop time (sec) Solvent chop time (sec)	Air Air/Solvent Air 1.0 2.0	K-Factor B 0.001 K-Factor solvent 0.001 Special Outputs 1 2 0n1 0 5 5 Length 10 15 20	Click to create a / recipe timing cha See FIG. 59.

FIG. 58. System Setup Tab, Recipe Screen



FIG. 59. Sample Recipe Timing Chart

Reports Tab

The Reports tab enables you to produce three reports:

- Material Report
- Job Report
- Alarm Report

Select which of the three reports you want to create.

Click the desired output format \odot SV \bigcirc TXT for the report:

- CSV (can be imported into Microsoft Excel).
- TXT (straight text).

Click the Create button **Create** to generate the report.

Material Report

See FIG. 60. The Material Report compiles VOC and HAP data for all recipes and jobs using a material, and the total amount of material used. The material must be assigned to a valve to be included in the report (see page 33).

Click the Reset button Reset to begin a new report cycle (usually monthly).

Ionitor	Material Setup	System Setup	Reports	Level Control
Report Generate Pro				
Materi Create report	ial Report total material usage	Job Report List of details completed jo	d information on	Alarm Report Listall biggered alarms
😐 Materiak	8	Include HAP VOC lbs		Reset
			•	CSV O TXT Create

FIG. 60. Material Report Screen

Job Report

See FIG. 61. The Job Report provides detailed information on all completed jobs within a designated time period.

Select the information desired by clicking on the box to the left of each parameter.

Set the time frame by using the Calendar buttons 📰 to the right of each date box.

NOTE: The dates use the day/month/year format.

Material Report Create total material usage	Job Report		rm Report tall triggered alarms
report	completed jobs		
		-	
Time frame (dd/mm/yyyy)			
	Recipe	Volume A	Alarm
From 📰	Ratio	 ✓ Volume B ✓ Volume S. 	

FIG. 61. Job Report Screen

Alarm Report

See FIG. 62. The Alarm Report lists all alarms triggered within a designated time period.

Set the time frame by using the Calendar buttons 📰 to the right of each date box.

NOTE: The dates use the day/month/year format.

onitor	Material Setup	System Setup	Reports	Leve	Control
Report Generate P	S roMix reports				
O Mater	ial Report	O Job Repor	rt		arm Report
Create report	total material usage	List of detai completed j	iled information on jobs	Li	stall triggered alarms
		C	-		
Time fue	ime (dd/mm/yyyy)				
From To					
			6		
				CSV C	TXT Create

FIG. 62. Alarm Report Screen

Level Control Tab

See FIG. 63. The Level Control Tab allows you to input the supply tank volume of the materials and the level at which an alarm should be triggered.

The alarm function may be turned on or off for each material valve.

Walve	Material		Alarm	Alarm Level	Tank Volume	
Color		n/a Perk #1 ofe	On 🗸	0.0	5.0	8
						80
Catalys	t	n/a Herri #1 mia	On 💙	0.0	0.0	
Flush		n/a Part & nis	On 🗸	0.0	0.0	

FIG. 63. Level Control Tab

Sidebar

See FIG. 64. The Sidebar relates to the EasyKey being monitored. It has four links to related screens:

- Save saves the current device configuration into a file.
- Restore restores configurations of the device from a file.
- Copy (Sync Settings)- copies the configuration of this device into other devices.
- Install Firmware install firmware for the current device (approximately 5 minutes).

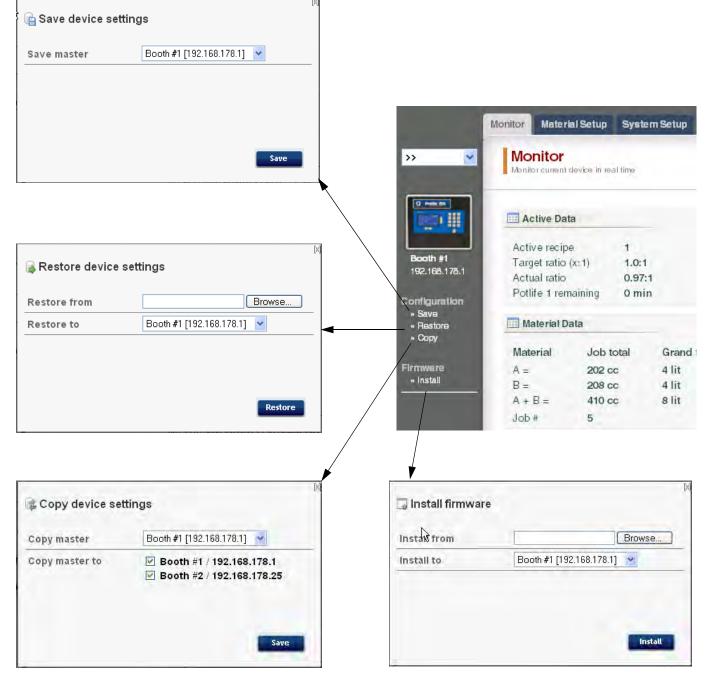


FIG. 64. Sidebar and Related Screens

Replace AWI Board



- To avoid electric shock, turn off EasyKey power before servicing.
- Shut off power at main circuit breaker.
- All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.
- Read Warnings, page 3.

NOTICE

To avoid damaging circuit board when servicing, wear Part No. 112190 grounding strap on wrist and ground appropriately.

- 1. Shut off ProMix 2KS/3KS power (0 position).
- 2. Shut off power at main circuit breaker.
- 3. Open the AWI module.
- 4. Disconnect the cable (15) and wires (17, 18) from the board (22). FIG. 65.
- 5. Remove the screws (21) and board (22).
- 6. Install the new board. Reconnect the cable (15) and wires (17, 18).

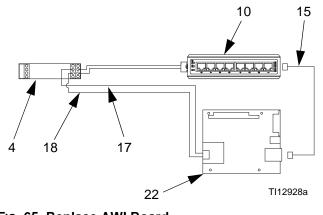


FIG. 65. Replace AWI Board

Parts

13 7, 9, 12 ٥ 3 Screw Location (item 28) $\left[\right]$ 8 10 TI12926a 12 21 22 11 1, 2 5 4 5 6 17 10 15 To 4 Wiring Diagrams To 10 17 18 V1+ +24 V1-DC +24 +24 COM DC 18 17 18 22 **D** To 4 To 22 17 18 . TI12928a TI12927a **Power Supply Wiring Detail** L1+ OUT - \bigcirc 6 \bigcirc \bigcirc \bigcirc NC DC - \bigcirc \bigcirc NC \bigcirc 24V + + \bigcirc \bigcirc N - \bigcirc 1A + DC OK Ref. Ref. Part No. Description Qty No. Description Qty No. Part No. 12 103833 SCREW, machine 4 15V339 PANEL, back 1 1 13 112443 BLOCK, terminal, ground 1 2 15T752 COVER 1 15 121994 CABLE, CAT5 1 3 n/a **DIN RAIL** 1 17 n/a WIRE, copper, 16 ga.; 9 in. (230 mm) 1 120369 POWER SUPPLY, 24 Vdc 4 1 18 WIRE, copper, 16 ga; 9 in. (230 mm) n/a 1 5 15V345 GROMMET, cable entry 2 STANDOFF, board 21 15V340 4 6 111987 CONNECTOR, strain relief 1 22 258355 BOARD, server 1 7 n/a WIREWAY 1 SCREW, machine, serrated 186620 28 n/a 4 8 LABEL, ground 1

1

1

2

15V337 Advanced Web Interface Module

Parts labeled n/a are not available separately.

hex-head

9

10

11

n/a

15V342

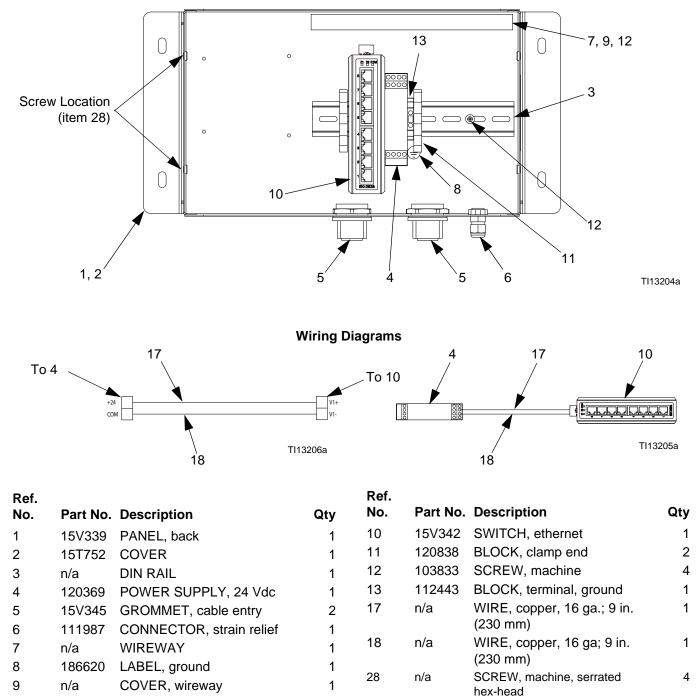
120838

COVER, wireway

SWITCH, ethernet

BLOCK, clamp end

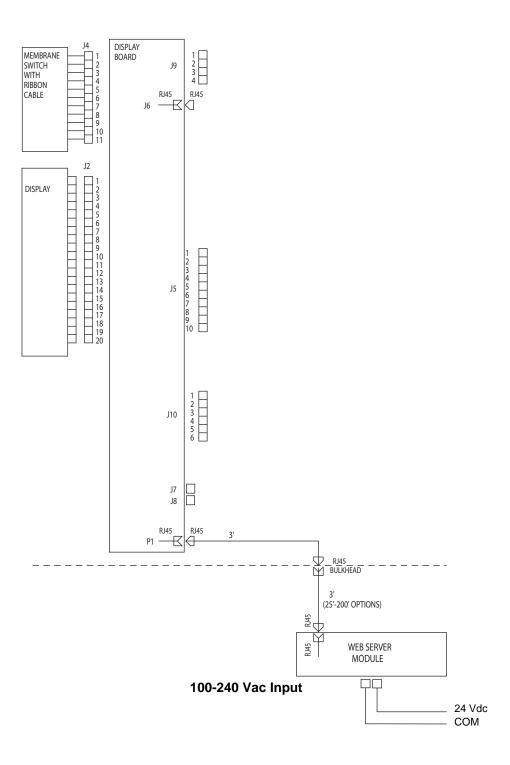
15V336 Advanced Web Interface Server Hub



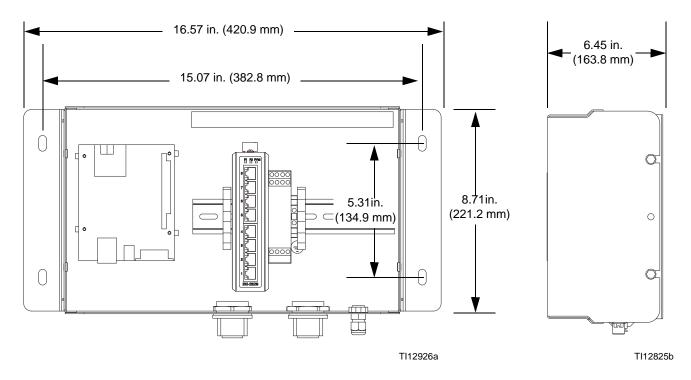
Parts labeled n/a are not available separately.

Electrical Schematic

Non-Hazardous Area



Dimensions



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.

FOR GRACO CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

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

All written and visual data contained in this document reflects the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Original instructions. This manual contains English. MM 313386

Graco Headquarters: Minneapolis International Offices: Belgium, China, Japan, Korea

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS, MN 55440-1441 • USA

Copyright 2008, Graco Inc. All Graco manufacturing locations are registered to ISO 9001. www.graco.com

Revision F, June 2019