

## Xtreme Mix™, Xtreme Mix™ 185, and ProMix Easy™ Data Download Kit

309623 rev. F

### Part No. 246322

For use with Xtreme Mix units located in a non-hazardous location.

Includes data download software CD (15B734) and RS-232 cable (15A926).

### Part No. 246397

For use with Xtreme Mix units located in a hazardous location.

Includes data download software CD (15B734) and RS-232 cable with barrier (15B816).

### Part No. 248404

For use with ProMix Easy and Xtreme Mix 185 units located in a non-hazardous location.

Includes data download software CD (15E074) and RS-232 cable (15A926).

### Part No. 248403

For use with ProMix Easy and Xtreme Mix 185 units located in a hazardous location.

Includes data download software CD (15E074) and RS-232 cable with barrier (15B816).



#### WARNING



To reduce the risk of fire and explosion, which could cause serious injury and property damage, the PC must be in a non-hazardous location.

If connecting RS-232 cable to a unit used in a hazardous location, a safety barrier must be installed between the PC and unit. Use Kit 246397/248403 and see FIG. 2 for installation requirements.



Except as noted, instructions in this manual apply to both ProMix Easy and Xtreme Mix units, which are referred to as "the unit".

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## Installing Software

 The program was tested on Microsoft® Windows 98 and Windows XP.

1. Run Setup.exe from the CD and follow the setup prompts.
2. Click **Finish** to complete the installation.

## Connecting Unit to PC

1. With the unit turned off, connect the RS-232 cable to the unit's data port (A). FIG. 1.

If connecting RS-232 cable to a unit used in a Hazardous location, use Kit 246397/248403 and see FIG. 2 for installation requirements.

2. Turn on air to start the unit.

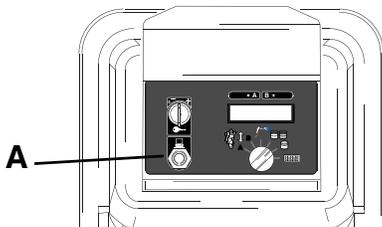


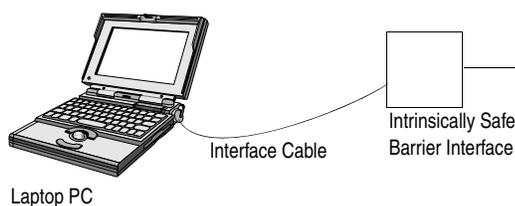
FIG. 1

## Changing the Serial/COM Port

 If a serial port is not available, use a USB-to-serial port adapter (available at most retail electronics stores). Instructions for setup using an adapter begin on page 4.

1. After installing the software, start the XtremeMX or ProMixEZ Setup program from your Start menu.
2. Tera Term window opens, showing the current COM port being used.
3. Click Setup > Serial Port.
4. The Serial Port Setup window opens. Click the desired COM port in the Port list.
5. Click OK.
6. Press **Enter** on the PC keyboard and verify that the "Welcome to Graco... appears. If it does not appear, refer to Software Troubleshooting on page 7.
7. Click Setup > Save Setup.
8. Save the file as **teraterm.ini**. Xtreme Mix in directory:  
C:\Program Files\Graco\Graco XtremeMX log 1.02.  
or ProMix Easy in directory:  
C:\Program Files\Graco\Graco ProMixEZ log 1.01.

### Non-hazardous Area Only



### Hazardous Area Class I, Div 1, Group D

#### Input Entity per:

$V_{max}(U_i) = 16\text{ V}$   
 $I_{max}(I_i) = 20\text{ mA}$

$P_{max} = 320\text{ mW}$   
 $L_i = 1\text{ mH}$   
 $C_i = 1.9\text{ }\mu\text{F}$

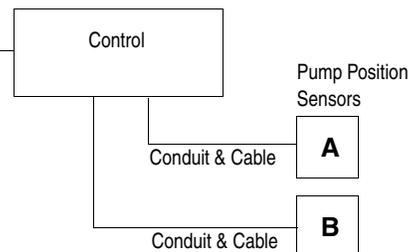


FIG. 2

## Using a USB-to-Serial Port Adapter

If your computer does not have a serial port to connect the RS-232 cable to the PC, purchase a USB-to-serial port adapter (available at most retail electronics stores). Graco has tested the Edgeport/1 converter from B&B electronics but other adapters may be used.

After installing the converter and the software you must confirm the COM port. On a computer using Windows XP operating system, perform the following steps.

1. From the “Start” menu, open “Control Panel” and double click “System”. See FIG. 3 and FIG. 4.

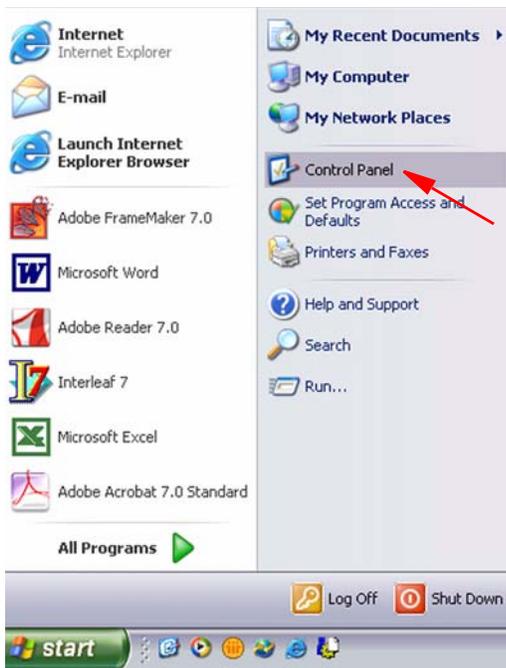


FIG. 3



FIG. 4

2. On the “System Properties” menu, click the “Hardware” tab. See FIG. 5.

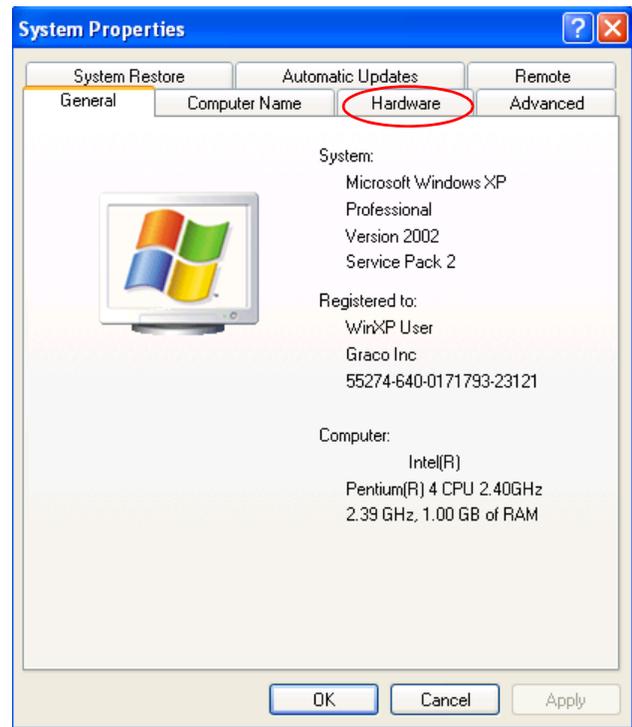


FIG. 5

3. On the “Hardware” page, click the “Device Manager” button. See FIG. 6.

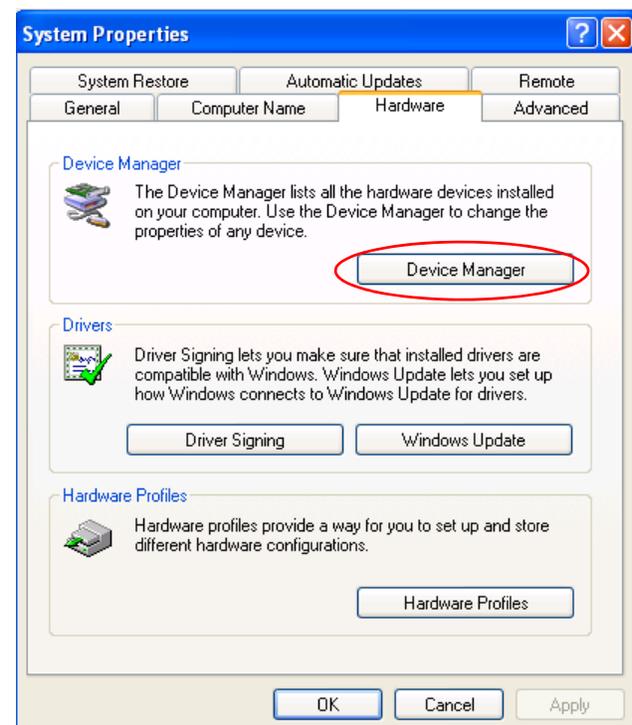


FIG. 6

4. On the list of devices displayed in Device Manager, click on the plus (+) sign in front of “Ports (COM & LPT)”. See FIG. 7.



FIG. 7

5. Ports (COM & LPT) expands and displays the name of the newly installed adapter including the COM port it is using. See FIG. 8.

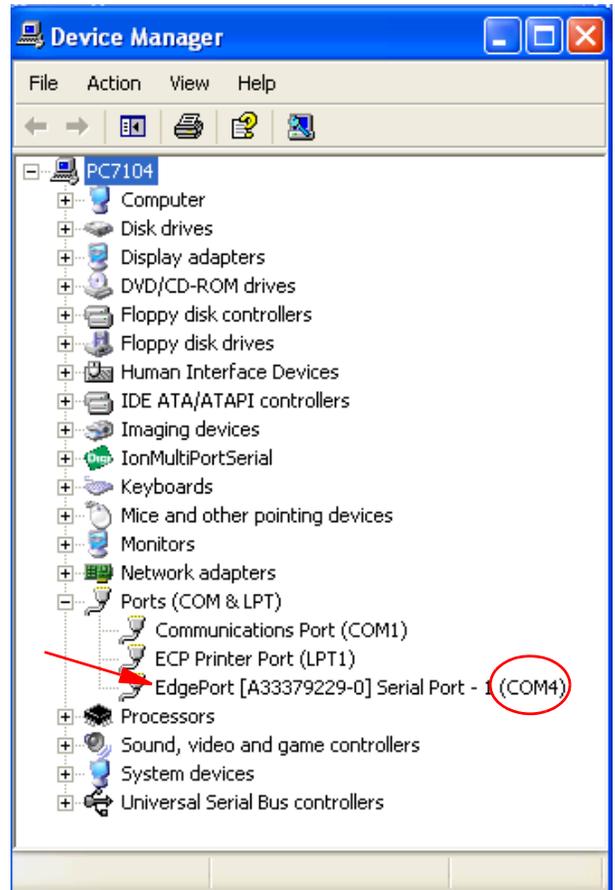


FIG. 8

6. Note this COM port to use in setting the Tera Term (see “Changing the Serial/COM Port” on page 3). See FIG. 9.

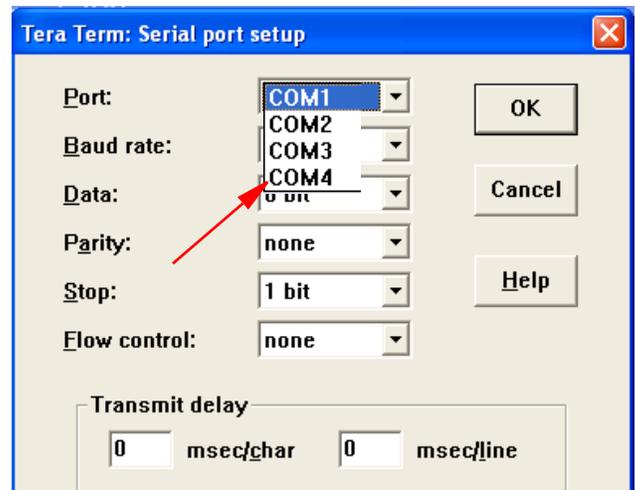


FIG. 9

# Log Program

The XtremeMX Log or ProMixEZ Log program starts communication between the PC and the unit and retrieves log and alarm files.

 **WARNING**

To reduce the risk of fire and explosion, which could cause serious injury and property damage, the PC must be in a non-hazardous location.

 When the unit is first started up or has been shutdown for longer than 2 months, you must turn it on for 8 hours to recharge battery. Reset the date and time with the Setup program.

The unit should be run continuously for 8 hours or more at least once per month to maintain proper charge. If the battery is not recharged on a regular schedule, the date information may be reset. If the date is reset the date information will be incorrect in the data log.

1. Start XtremeMX Log or ProMixEZ Log program from your Start menu.
2. Tera Term: COM window opens.
3. You are prompted to enter the log file name. Type in an identifiable name, such as *Log 12-01-2002*. Press Enter.
4. Xmodem Receive status window opens, then closes when log file is complete.

 If the "Packet #" value does not update, abort the log program and run the setup program (page 7).

5. You are prompted to enter the alarm file name. Type in an identifiable name, such as *Alarm 12-01-2002*. Press Enter.
6. Xmodem Receive status window opens, then closes when alarm file is complete. Tera Term: COM window also closes.
7. Log and alarm are saved as text files and stored in the C:\xtrememx or C:\promixez directory. You can open the files as text documents or create a spread sheet by opening with Microsoft Excel.

## Log Example

<p>Selection b: View Log Files</p> <p><i>Choices:</i></p> <p><i>Selection: View Log Files</i></p> <p><i>Selection b choices:</i></p> <p>Selection a: Transfer run log file</p>	<p>Welcome to the Graco Control Application Menu Build date: Mar 08 2004 11:18:39 (debug build)</p> <p>a. Software Update and Version Information b. View Log Files c. Set Date and Time d. Enter System Information</p> <p>Enter Selection [a-d]: b</p> <p>a. Transfer run log file b. View run log file c. Transfer alarm log file d. View alarm log file e. Reset totals f. Return to Main Menu</p> <p>Enter Selection [a-f]: a</p> <p>Tera Term Instructions:</p> <ol style="list-style-type: none"> <li>1. Go to the File -&gt; Transfer -&gt; XMODEM -&gt; Receive... Menu.</li> <li>2. Select the 1K and Binary Option.</li> <li>3. Specify the file name and directory to store the job log file.</li> <li>4. Click the Open button.</li> </ol> <p>Hyperterminal Instructions:</p> <ol style="list-style-type: none"> <li>1. Go to the Transfer -&gt; Receive... menu.</li> <li>2. Select the Y-Modem protocol.</li> <li>3. Specify the directory to store the job log file.</li> <li>4. Click the Receive button. The setup values will be stored in a file named ProMixEZRunLog.txt in the directory specified in #3 above.</li> </ol> <p>(Type Ctrl-X several times to cancel the transfer)</p>
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## Software Troubleshooting

If the Graco program does not start, check the following:

- Is the power on?
- Are cable 118342 and any adapters used fully seated at both the PC and the connected ports?
- Are any other programs using the same PC communication port?
- Communication conflicts typically occur with fax and handheld computer software. Close or deactivate possible conflicting software.
- Try switching to another PC communication port.
- If using Hyper Terminal, try closing, then restarting the program. Sometimes new communications parameters do not take affect until the software is restarted.
- Try pressing the PC Enter key multiple times to display the main menu.
- To isolate the problem, try communicating with a different PC, RS-232 cable, or ProMix Easy, Xtreme-Mix or XtremeMix 185 system, if available.

## Setup Program

Use Setup program to:

- install software updates
  - view log files
  - set date and time
  - enter calibration information
  - set pump size
1. Start Setup program from your Start menu and follow the prompts.
  2. Tera Term: COM window opens. Press Enter.
  3. Follow the prompts in the window. Refer to screen examples below.

## Setup examples for Xtreme Mix

<p><i>Choices:</i></p> <p><i>Selection: Software Update and Version Information</i></p> <p><i>Selection: b</i></p> <p><i>Software versions:</i></p>	<p>Welcome to the Graco Control Application Menu Build date: Sep 11 2002 08:36:59 (debug build)</p> <p>a. Software Update and Version Information b. View Log Files c. Set Date and Time d. Enter Calibration Information e. Enter Pump Size</p> <p>Enter Selection [a-e]: a</p> <p>a. Install Control Application Software b. Display Software Versions c. Return to Main Menu</p> <p>Enter Selection [a-c]: b</p> <p>Boot Code version: 1.01, checksum=c365ac, built:Aug 05 2002 10:31:50 Control Application version: 1.01, checksum=21e90a9, built:Sep 11 2002 08:37:07</p>
<p><i>Selection: Set Date and Time</i></p> <p><i>Selection: a</i></p> <p><i>Enter month:</i></p> <p><i>Enter day:</i></p> <p><i>Enter year:</i></p>	<p>Enter Selection [a-e]: c</p> <p>Current Date 03/01/02. Current Time 12:04. Note: To fully charge clock battery, power up unit for 4 hours.</p> <p>a. Set date b. Set time c. Return to Main Menu</p> <p>Enter Selection [a-c]: a</p> <p>Enter a new month (1-12). Current month 03 09</p> <p>Enter a new day (1-31). Current day 01 12</p> <p>Enter a new year (2-50). Current year 02 02</p>
<p>Note: Calibration number is on the sensor housing label.</p> <p><i>Selection: Enter Calibration Information</i></p> <p><i>Enter A calibration factor:</i></p> <p><i>Enter B calibration factor:</i></p> <p><i>Updated calibration:</i></p>	<p>Welcome to the Graco Control Application Menu Build date: Sep 11 2002 08:36:59 (debug build)</p> <p>a. Software Update and Version Information b. View Log Files c. Set Date and Time d. Enter Calibration Information e. Enter Pump Size</p> <p>Enter Selection [a-e]: d</p> <p>Enter new A calibration factor. Current A calibration factor: 91000 91007</p> <p>Enter new B calibration factor. Current B calibration factor: 91000 91050</p> <p>Calibration factor A = 91007. Calibration factor B = 91050.</p>

<p>Note: Choose the pump size value from the chart below.</p> <p><i>Selection: Enter Pump Size</i></p> <p><i>Enter pump size:</i></p> <p><i>Updated pump size:</i></p>	<p>Welcome to the Graco Control Application Menu  Build date: Sep 11 2002 08:36:59 (debug build)</p> <ol style="list-style-type: none"> <li>a. Software Update and Version Information</li> <li>b. View Log Files</li> <li>c. Set Date and Time</li> <li>d. Enter Calibration Information</li> <li>e. Enter Pump Size</li> </ol> <p>Enter Selection [a-e]: e</p> <p>Enter new pump size. Current pump size: 250 220</p> <p>Pump size = 220.</p>
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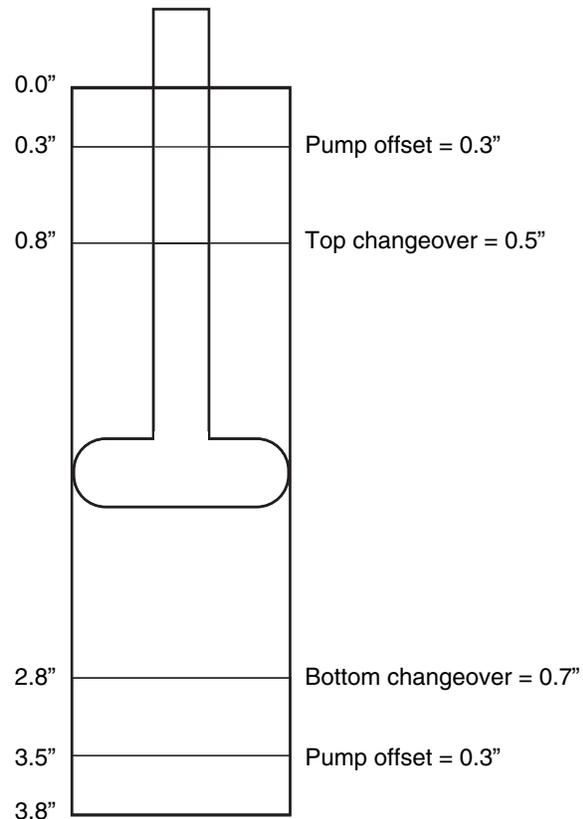
**\*Pump Size Values**

Pump	Size Value		Cycle Length
	(cc/cycle)	(gal/cycle)	(in/cycle)
King 45:1	250	0.0660	9.500
King 56:1	220	0.0581	9.500
King 68:1	180	0.0475	9.500
King 80:1	145	0.0383	9.500
HydraMix	92	0.0243	7.600
UltraMix	54	0.0143	6.000

## Setup examples for ProMix Easy and Xtreme Mix 185

<p>Selection b: View Log Files</p> <p><i>Choices:</i></p> <p><i>Selection: View Log Files</i></p> <p><i>Selection d choices:</i></p> <p><i>Selection b: View run log file</i></p> <p><i>Sample Run Log</i></p> <p><i>Selection d: View alarm log file</i></p> <p><i>Sample Alarm Log</i></p>	<p>Welcome to the Graco Control Application Menu Build date: Mar 08 2004 11:18:39 (debug build)</p> <p>a. Software Update and Version Information b. View Log Files c. Set Date and Time d. Enter System Information</p> <p>Enter Selection [a-d]: d</p> <p>a. Transfer run log file b. View run log file c. Transfer alarm log file d. View alarm log file e. Reset totals f. Return to Main Menu</p> <p>Enter Selection [a-f]: b</p> <table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Description</th> <th>Ratio</th> <th>A Total</th> <th>B Total</th> </tr> </thead> <tbody> <tr> <td>03-10-04</td> <td>09:07</td> <td>Run/Spray Start</td> <td>1.0:1</td> <td>0</td> <td>0</td> </tr> <tr> <td>03-10-04</td> <td>09:07</td> <td>Stop Button Pushed</td> <td>1.0:1</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>Run log successfully dumped</p> <p>Enter Selection [a-f]: d</p> <table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>03-10-04</td> <td>09:00</td> <td>8</td> <td>Sensor Code Default Loaded</td> </tr> <tr> <td>03-10-04</td> <td>09:11</td> <td>9</td> <td>Pump A OVer Travel</td> </tr> </tbody> </table> <p>Alarm log successfully dumped</p>	Date	Time	Description	Ratio	A Total	B Total	03-10-04	09:07	Run/Spray Start	1.0:1	0	0	03-10-04	09:07	Stop Button Pushed	1.0:1	0	0	Date	Time	Code	Description	03-10-04	09:00	8	Sensor Code Default Loaded	03-10-04	09:11	9	Pump A OVer Travel
Date	Time	Description	Ratio	A Total	B Total																										
03-10-04	09:07	Run/Spray Start	1.0:1	0	0																										
03-10-04	09:07	Stop Button Pushed	1.0:1	0	0																										
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03-10-04	09:11	9	Pump A OVer Travel																												
<p><i>Choices:</i></p> <p><i>Selection d: Enter System Information</i></p> <p><i>Selection d choices:</i></p> <p><i>Selection b: Enter Pump Sensor Calibration</i></p>	<p>Welcome to the Graco Control Application Menu Build date: Mar 08 2004 11:18:39 (debug build)</p> <p>a. Software Update and Version Information b. View Log Files c. Set Date and Time d. Enter System Information</p> <p>Enter Selection [a-d]: d</p> <p>a. Set Pump or Flow Meter Option b. Enter Pump Sensor Calibration c. Enter Pump Size d. Enter Pump Length e. Enter Pump Offset f. Enter Flow Meter Calibration g. Return to Main Menu</p> <p>Enter Selection [a-g]: b</p> <p>Enter new pump A calibration factor (x10000 µS/in). Current = 91111 ?91234</p> <p>Enter new pump B calibration factor (x10000 µS/in). Current = 91000 ?91235</p> <p>Calibration factor A = 91234. Calibration factor B = 91235</p>																														

<p><b>Selection c: Enter Pump Size</b>  Note: Pump values shown here for selections c, d, and e are for Ultra Mix pump, see table on page 9 for other pumps</p> <p><b>Selection d: Enter Pump Length</b></p> <p><b>Selection e: Enter Pump Offset</b></p> <p>Note: FIG. 10 on the next page shows a sample offset and changeover.</p> <p><b>Selection f: Enter Flow Meter Calibration</b></p>	<p>Enter Selection [a-g]: c  Enter new pump size (cc/cycle). Current = 54  ? 54  Pump size (cc/cycle) = 54.</p> <p>Enter Selection [a-g]: d  Enter new pump length (x1000 inch/cycle). Current = 6000  ? 6000  Pump length (x1000 inch/cycle) = 6000.</p> <p>Enter Selection [a-g]: e  Enter new pumpOffset (x1000 inch). Current = 150  ? 150 (for UltraMix-based system)  ? 300 (for HydraMix-based system)</p> <p>Enter new TopChangeOver Zone (x1000 inch). Current = 150  ? 150 (for UltraMix-based system)  ? 500 (for HydraMix-based system)</p> <p>Enter new BottomChangeOver Zone (x1000 inch). Current = 150  ? 150 (for UltraMix-based system)  ? 700 (for HydraMix-based system)</p> <p>Pump Offset = 150. TopChangeOver Zone = 150. BottomChangeOver Zone = 150.  (for UltraMix-based system)  Pump Offset = 300. TopChangeOver Zone = 500. BottomChangeOver Zone = 700.  (for HydraMix-based system)</p> <p>Enter Selection [a-g]: f  Enter new flow meter A k-factor (x1000 cc/pulse). Current = 119  ? 119</p> <p>Enter new flow meter B k-factor (x1000 cc/pulse). Current = 119  ? 119</p> <p>Enter new ratio balance (1-99%). Current = 5  ? 5  k-factor A = 119. k-factor B = 119. Ratio tolerance = 5.</p>
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**HydraMix Pump Cylinder**

**FIG. 10**

## Graco Phone Numbers

**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.*

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