# Instruction Sheet Oiler Ethernet Interface

This document shows you how to setup and use the Oiler Ethernet Interface Option with the SmartPAC PRO control. The Oiler ethernet interface option enables you to communicate with and program the Unist SmartFlow® controller using the SmartPAC PRO system. The SmartPAC PRO along with the Unist SmartFlow® controller can be used to control the fluid supply to a Uni-Roller® S2, as well as many other control applications.

This document is organized in the following sections:

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## **Upgrading SmartPAC PRO Firmware**

To use the Oiler Ethernet Interface, you must be running SmartPAC PRO with the Oiler Ethernet Interface (part no. 9688632) as an installed option. Instructions for ordering and receiving updated firmware and installing the firmware on your SmartPAC PRO are provided in Appendix B of the SmartPAC PRO user manual or the *Upgrading SmartPAC PRO Firmware* instruction sheet, which accompanies all firmware upgrade orders.



Figure 1. SmartPAC PRO Installed Options Showing Oiler Ethernet Option

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### **Unist SmartFlow® Oiler Setup**



Figure 2. Unist SmartFlow® Controller

To use a Unist SmartFlow® controller with a SmartPAC PRO, do the following:

1. Connect the Unist Controller to your Local Area Network via the RJ-45 port which is located on the top left of the circuit board (*see Figure 3*). Use a standard CAT-5 ethernet cable to connect to this port.



Figure 3. Unist SmartFlow® Controller Board Showing Ethernet Connector

2. Next, verify that the jumper JP2 is in place on the controller circuit board and is connecting both pins of JP2 as shown in Figure 4 (When communications are disabled this jumper is inserted onto only 1 pin of JP2).



Figure 4. Unist SmartFlow® Controller Board Showing Communication Jumper

Then, access the Communication settings menu on the Unist controller. To enable communications (Disabled by factory default), press on the next to "RUN SIGNAL INPUT".

<b>5</b> 品 com	IUNICATION SETTINGS
ETHERNET	PRESS CONTROL INTERFACE
IP: STATIC	CONTROL TYPE: ETHERNET
IP: 192.168.222.5	MODBUS ADDRESS: 1
	RUN SIGNAL INPUT

Figure 5. Unist SmartFlow® Communication Settings

- 4. Then, set the control type to "Ethernet".
- 5. Lastly, touch the "IP: STATIC" button to the left which brings up the keypad to enter your IP address.

### SmartPAC PRO Initialization Oiler Setup

- Next, the SmartPAC PRO initialization settings must be configured to communicate with the Unist SmartFlow® controller. To do so perform the following steps:
  - 1. Turn the PROG/RUN key to PROG. On the Main Program Menu, press the INITIALIZATION MENU button (*Figure 6 below*).



Figure 6. Main Program Menu with Initialization Menu button shown.

2. The Main Initialization Menu displays (shown below). Depending on the options installed, you may need to advance to the next menu screen to view Oiler settings.

$\bigcirc$		MAIN INITIALIZATIO	DN MENU	CAMBIE AL ESPANOL
		RESOLVER ZERO		
$[\mathbf{O}]$		POSITION SENSOR		
		PRESS NAME		
		SELECT CAM NAMES		OPTIONS
		AUTO ADVANCE		
		SET GLOBAL CAMS		
		CUSTOM SENSOR NAMES	Next	PREFERENCES
		SENSOR ENABLE MODE	Nexty	
		System Init	Exit	
	IDL	Ē		

Figure 7. Main Initialization Menu

3. Select NEXT on the side of the Main Initialization Menu (see Figure 7).

$\bigcirc$	MAIN INITIALIZATIO	N MENU	
	PLC INTERFACE		
<u>io</u> ]	PRESS CONTROL		
	SECURITY ACCESS		
	BACKUP/RESTORE		OPTIONS
	SETUP DATA COMMS/SFC		
	SETUP NETWORK	Prev	
	OILER CONTROL		PREFERENCES
	DIAGNOSTICS		
	System Init Menu	Exit	
IDL	E 03-360-3071-03-	21:03 mil	

Figure 8. Main Initialization Menu with the OILER CONTROL shown.

- 4. Select OILER CONTROL from the Main Initialization Menu (see Figure 8).
- 5. The Oiler Control Utility Menu displays the default Oiler Setup settings for the SmartPAC PRO unit (*see Figure 9*).

?	Oiler B	Ethernet Setup	
Ó	Oiler Type:	None	
	Oiler's IP Address:	0.0.0.0	
	Comms Enabled:	False	
	Annunciate Alarms:	True	
		Apply Changes	
	Comms Diagnotics		Exit

Figure 9. Oiler Ethernet Setup Menu Default Settings.

6. Select the "Oiler Type" button and toggle it so that it displays "Unist Smartflow". Next, Select the "Oiler's IP Address" button and enter in the static IP address assigned to the Unist controller in the IP address entry window (*see Figure 10*).

?	Oiler Ethernet Setup	
Ó	Oiler Type: None	
	Oiler's IP Address: 0.0.0.0 Enter IP Address	
	Cancel Backspace	
	0 .	
	Comms Diagnotics	

Figure 10. Oiler Ethernet IP Address Setup Window.

- 7. Select the "Comms Enabled" button and toggle it to TRUE as shown in Figure 11.
- 8. Once the previous steps are performed, press the "Apply Changes" button. After you apply changes the SmartPAC PRO will display the message "Settings Applied".

### NOTICE

If the SmartPAC PRO does not connect to the Oiler or if you have any questions on these settings, you can select the Help button in the upper left hand corner of the SmartPAC Pro screen and a help window will be displayed describing each setting's purpose.

9. Once the Oiler setup is complete and you exit the setup screen to the Main initialization menu then select the "OILER CONTROL" button again, the Oiler Ethernet Setup Menu displays the message "*Comms Okay*" as shown in Figure 11.



Figure 11. Oiler Ethernet Setup Menu Showing "Comms Okay".

### SmartPAC PRO Program Mode Setup

This section shows how to make settings in the SmartPAC PRO Program mode. The Program Mode settings, which are entered via the Main Program Menu (*see Figure 6*), control the SmartPAC PRO operation for an individual tool.

1. From the Main Program Menu select the "Tool Manager" button. On the Tool Manager screen select the tool number you plan to program to function with the Unist SmartFlow® controller and press the "Edit Tool" button on the right side of the screen. Select the "OILER CONTROL" button from the Tool menu (*see Figure 12*).



Figure 12. Tool Program Menu showing Oiler Control

2. The Unist SmartFlow Job number screen will display (*see Figure 13*), these job numbers are setup in the Unist system. This screen will tell the SmartFlow system which job to load for this tool.

? 0	TOOL 12818 PULLEY Unist Sm	nartFlow	
	Oiler Job Number =	JOB 4	
4.9.5	09-Nov	/-2021 01:01:35 PM	Prog Run 59

Figure 13. Unist SmartFlow Job Number Screen

3. Once you have selected the Job number press BACK to return to the main tool menu.

#### **NOTICE** RELOAD CURRENTLY LOADED TOOL IF YOU CHANGE IT

If you change settings for a tool that is currently loaded, you should load the tool again after you make the settings. If you do not re-load the tool, the old settings will be used.

4. If you have made any changes to the currently loaded tool or intend to load this tool number you must select the "Load This Tool" button on the right side of the screen. A message appears indicating that the tool is being loaded.



Figure 14. Load Tool Warning Message

A DANGER
ANCILLARY EQUIPMENT MAY OPERATE WHEN TOOL IS LOADED
Ensure that all personnel stand clear when you load a tool.
Failure to comply with these instructions will result in death or serious injury

### SmartPAC PRO Run Mode Setup

This section shows how to make settings in the SmartPAC PRO Program mode. In Run mode, you can view and adjust settings only for the tool that is currently loaded. You cannot create new tool numbers or modify settings for an unloaded tool as you can in Program mode.

1. With the key set to "RUN Mode" the Main Run Mode Menu displays (*see Figure 15*). Depending on the options installed, you may need to advance to the next menu screen to view Oiler settings.



Figure 15. Main Run Mode Menu

2. Select NEXT on the side of the Main Run Mode Menu (see Figure 15).



Figure 16. Main Run Mode Menu Showing Oiler Control

3. Select OILER CONTROL from the Main Run Mode Menu (see Figure 16).

? ©	BARRY12 TOOL A12818 PART CNTR 0 Copy of PULLEY TWO HAND INCH A SENSOR SETUP MODE PRESS ANGLE 83	
✓ ✓	Unist SmartFlow Oiler Running	
	Current Job = JOB 4	
	Back	

Figure 17. Run Mode Oiler Control Screen

3. This screen will display whether the Unist SmartFlow controller is running or not as well as displaying the current oiler control job number that is being used. If the controller is not running, please refer back to the Initialization oiler setup section and/or the Unist SmartFlow Oiler user manual which you received with your controller. To return to the main Run mode menu press the BACK button in the lower right corner of the screen.