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### Quick Installation Reference for FE Petro STP-SCI Smart Controllers on Regular Unleaded at Murphy USA Fuel Centers



For complete installation and safety details, consult the Installation Guide provided with each product. This document is not a substitute for the full installation and safety details provided with the products presented in this quick installation reference according to the specifications of Murphy USA.

#### Regular Unleaded Master-Slave Product Wiring and Set-up:

- Mount and Wire Controllers according to Figure 1
- Attach input power supply, output STP wiring, and RS-485 communication wiring to STP-SCI Master and STP-SCI Slave Smart Controller per installation manual
- Attach dispenser signals 1-8 to STP-DHI Dispenser Hook Isolation box per installation manual
- Remove factory installed wire from L2 of STP-SCI Master to STP-DHI input power and make connection to separate 120V input power for STP-DHI as noted in Figure 1
- Jumper Hook signals from STP-SCI Master to STP-SCI Slave as shown in Figure 1

**NOTE:** When wired according to Figure 1, the STP-DHI and one STP-SCI unit will continue to operate even when the other STP-SCI unit is de-energized. When a STP-SCI is de-energized, the Hook signals will remain energized in both STP-SCI units when the STP-DHI is energized and any dispenser signal 1-8 is present.

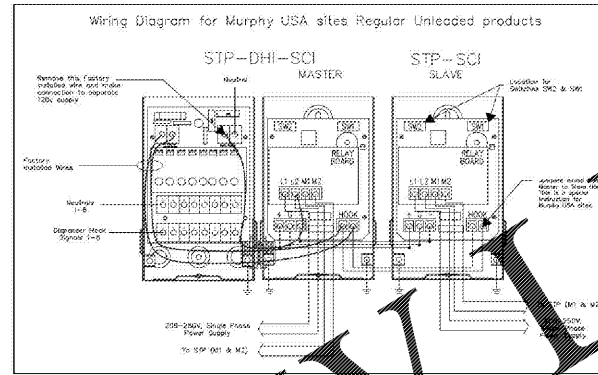


Figure 1 (continued on Page 2)

**NOTE:** This quick reference is for STP-SCI Smart Controllers with rev 1.1 or newer software. In software rev 1.4 and prior, Alternating Circuit functioned the same as Master-Slave Alternating Circuit configuration described above.

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### Quick Installation Reference for FE Petro STP-SCI Smart Controllers on Premium and Diesel at Murphy USA Fuel Centers



For complete installation and safety details, consult the Installation Guide provided with each product. This document is not a substitute for the full installation and safety details provided with the products presented in this quick installation reference according to the specifications of Murphy USA.

#### Premium (Diesel if applicable) Standalone Product Wiring and Set-up:

- Mount and Wire Controllers according to Figure 1
- Attach input power supply and output STP wiring to STP-SCI Smart Controller per installation manual
- Attach dispenser signals 1-8 and input power neutral to STP-DHI Dispenser Hook Isolation box per installation manual

**NOTE:** When wired according to Figure 1, STP-SCI will stop operating when either STP-DHI or STP-SCI are de-energized. When a STP-SCI is de-energized, the Hook signal will remain energized when the STP-DHI is energized and any dispenser signal 1-8 is present.

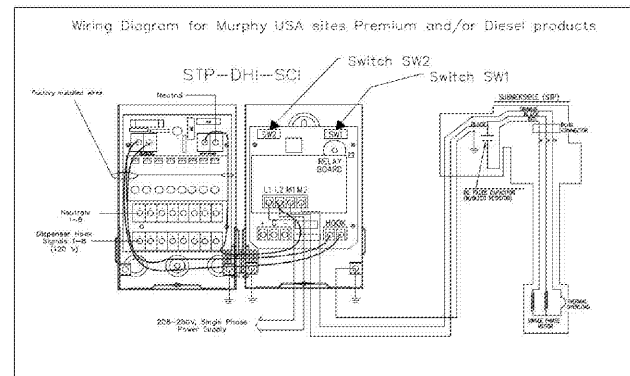


Figure 1

(continued on Page 2)

**NOTE:** This quick reference is for STP-SCI Smart Controllers with rev 1.1 or newer software.

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### Quick Installation Reference for FE Petro STP-SCI Smart Controllers on Regular Unleaded at Murphy USA Fuel Centers



(continued from Page 1)

- Set configuration switches SW1 and SW2 in the STP-SCI Master and STP-SCI Slave controller according to Figure 2.
- See Figure 1 for location of configuration switches

**NOTE:** When configured as shown, the Lead pump will alternate and both pumps will run during busy times (Master-Slave Alternating Circuit). Additionally, the STP-SCI will automatically reset Underload fault on the other STP-SCI at next call for a Slave.



Figure 2

- Energize input power supply to Regular Unleaded STP-SCI Master, and STP-SCI Slave
- Verify solid green light on front of all three controllers
- Verify yellow communication light on each STP-SCI each controller (Master will flash fast and Slave will flash slowly)
- Red light will be flashing/beeping 8 times to signal STP-SCI is Uncalibrated (push Reset Button to silence). STP-SCI Smart Controllers must be calibrated before use

**NOTE:** Prior to calibration, SW1 Pole #7 can be turned ON to enable Bypass Mode to purge lines. Bypass Mode allows STP-SCI operation for 10 minutes with Overload fault detection only (pushing the STP-SCI Reset Button will enable another 10 minutes).

- Close ball valves at discharge of both regular Unleaded Master and Slave STPs. No Regular Unleaded product flow can occur during calibration of these Smart Controllers.
- On STP-SCI Master and STP-SCI Slave controllers, push and hold Reset Button for about 10 seconds until all STP-SCI (Red, Green, Yellow) lights are blinking in sequence, then release the Reset Button
- With both controller lights blinking, go to a dispenser and select the Regular Unleaded product to provide a hook signal to the STP-DHI. Once blinking for calibration, a Hook signal must be applied or the STP-SCI calibration process will abort.
- Calibration is complete (within 20 seconds) when red light turns off on both controllers. Green light will continue to flash on both controllers until Hook signal is de-energized, at which time the green light will turn solid on both. Yellow lights will continue to flash on both controllers as described above.
- Any issues with calibration process, consult the STP-SCI Installation Guide or call FE Petro Technical Support at 800-225-9787 or 800-984-6266.

**NOTE:** This quick reference is for STP-SCI Smart Controllers with rev 1.1 or newer software. In software rev 1.4 and prior, Alternating Circuit functioned the same as Master-Slave Alternating Circuit configuration described above.

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### Quick Installation Reference for FE Petro STP-SCI Smart Controllers on Premium and Diesel at Murphy USA Fuel Centers



(continued from Page 1)

- Set configuration switches SW1 and SW2 in the STP-SCI Smart Controller according to Figure 2.
- See Figure 1 for location of configuration switches

**NOTE:** When configured as shown, the STP-SCI will automatically reset Underload fault on next Hook signal.

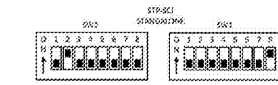


Figure 2

- Energize input power supply to Premium STP-DHI and STP-SCI (Diesel if applicable)
- Verify solid green light on front of all three controllers
- Yellow light on STP-SCI will remain off since it is not communicating with another controller
- Red light will be flashing/beeping 8 times to signal STP-SCI is Uncalibrated (push Reset Button to silence). STP-SCI Smart Controllers must be calibrated before use

**NOTE:** Prior to calibration, SW1 Pole #7 can be turned ON to enable Bypass Mode to purge lines. Bypass Mode allows STP-SCI operation for 10 minutes with Overload fault detection only (pushing the STP-SCI Reset Button will enable another 10 minutes).

- Close ball valves at discharge of Premium (Diesel if applicable) STP. No Premium (Diesel if applicable) product flow can occur during calibration of these Smart Controllers.
- On Premium (Diesel if applicable) STP-SCI controller, push and hold Reset Button for about 10 seconds until all STP-SCI (Red, Green, Yellow) lights are blinking in sequence, then release the Reset Button
- With Smart Controller lights blinking, go to a dispenser and select the Premium (Diesel if applicable) product to provide a hook signal to the STP-DHI. Once blinking for calibration, a Hook signal must be applied or the STP-SCI calibration process will abort.
- Calibration is complete (within 20 seconds) when red and yellow lights turn off on Smart Controller. Green light will continue to flash on both controllers until Hook signal is de-energized, at which time the green light will turn solid on both.
- Any issues with calibration process, consult the STP-SCI Installation Guide or call FE Petro Technical Support at 800-225-9787 or 800-984-6266.

**NOTE:** This quick reference is for STP-SCI Smart Controllers with rev 1.1 or newer software.

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TURBINE PUMP INSTALLATION REFERENCE  
SUBMERSIBLE TURBINE PUMP (STP) SMART CONTROLLER (SCI)

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