



MODEL: UC PIVOT INSTALLATION GUIDE

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SMART SHOT WITH VALLEY PIVOT 8000 / STANDARD PANEL:

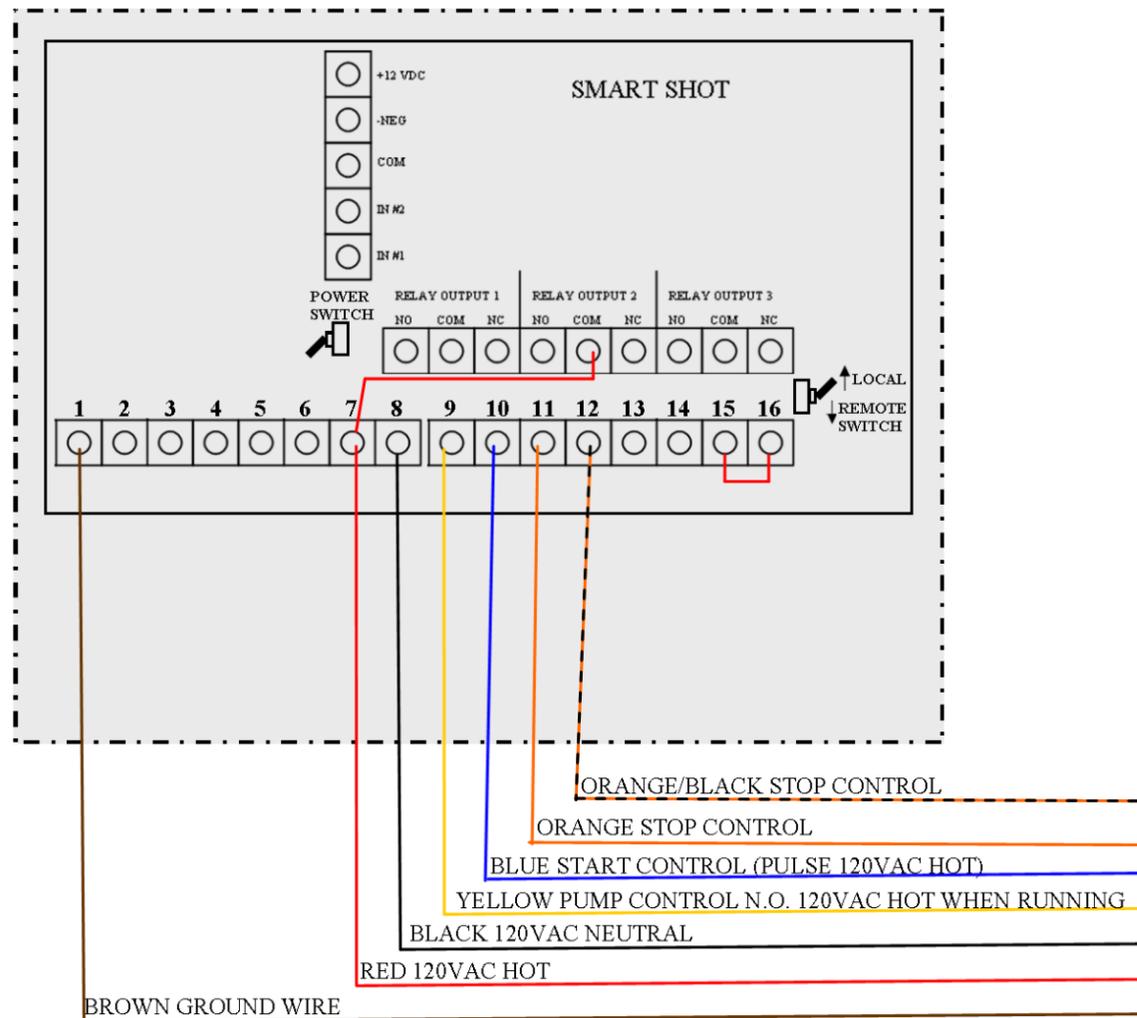
Note: Install jumper between terminals 7 and Relay Output 2 COM.

Operation:

Smart Shot is powered by 120vac hot when disconnect is on.
 Water Pump operation depends on position of the "WELL" Switch in the Valley Panel.
 Wet or Dry operation depends on position of the Wet/Dry switch in the Valley Panel.

Wet Operation:

- Remote/Local Switch in Smart Shot is in Remote position.
- Relay #2 of the Smart Shot will start the Pivot by Pulsing 120vac to the Valley Panel. Relay #2 Closes for 8 seconds upon Start command to start pivot and then opens.
- Term #15 and Term #16 in the valley panel close and this activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Relay #3 of the Smart Shot will stop the pivot. When the STOP button is pushed the relay Opens for 8 seconds to open the systems safety stopping the pivot. When the systems return safety is opened the pump control terminals will lose power and de-energize the 120vac relay deactivating the Sensor Input #1 on the Smart Shot updating the web interface showing that the pivot has stopped. The Smart Shot will also send text and email alerts to the customer notifying them that the pivot has stopped.



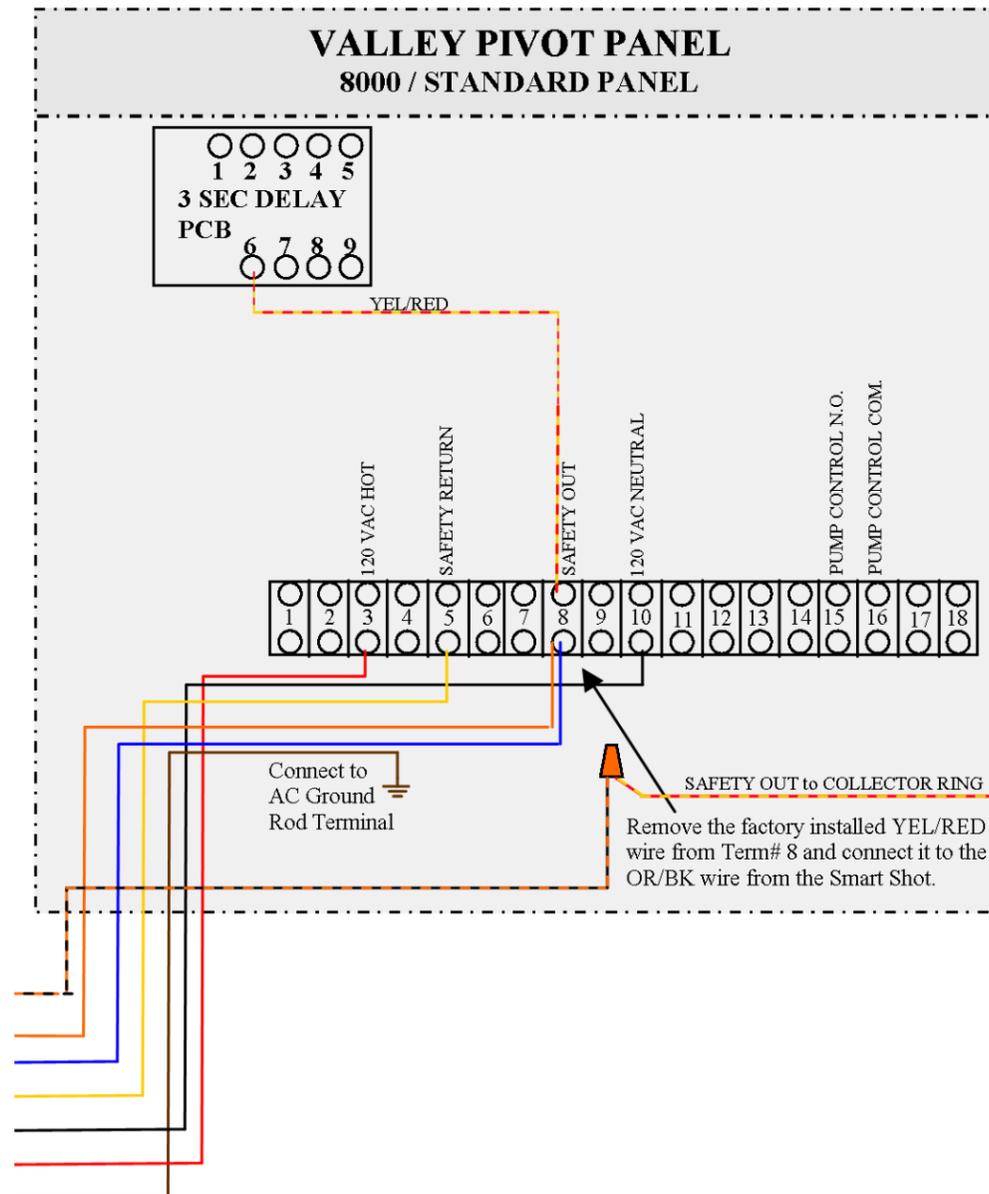
VALLEY PIVOT PANEL - 8000 / STANDARD PANEL

Note: Changing of the factory Yellow/Red wire in the Pivot Panel.

Note: Must be 120VAC HOT on pump control circuit, Term#15 and Term#16.

Local Operation:

- Remote/Local switch in Smart Shot is in Local position
- Operate the Valley Panel per normal operation.
- Term #15 of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Power Company Auto Restart can start/stop the systems per normal Auto Restart function.
- If Load Control stops the system, Sensor Input #1 of the Smart Shot will open and notify the customer. When the Load Control is closed again, the system will auto restart since Relay #3 of the Smart Shot is still latched.



SMART SHOT WITH VALLEY PIVOT PRO PANEL: HOT START - STOP AND MONITOR

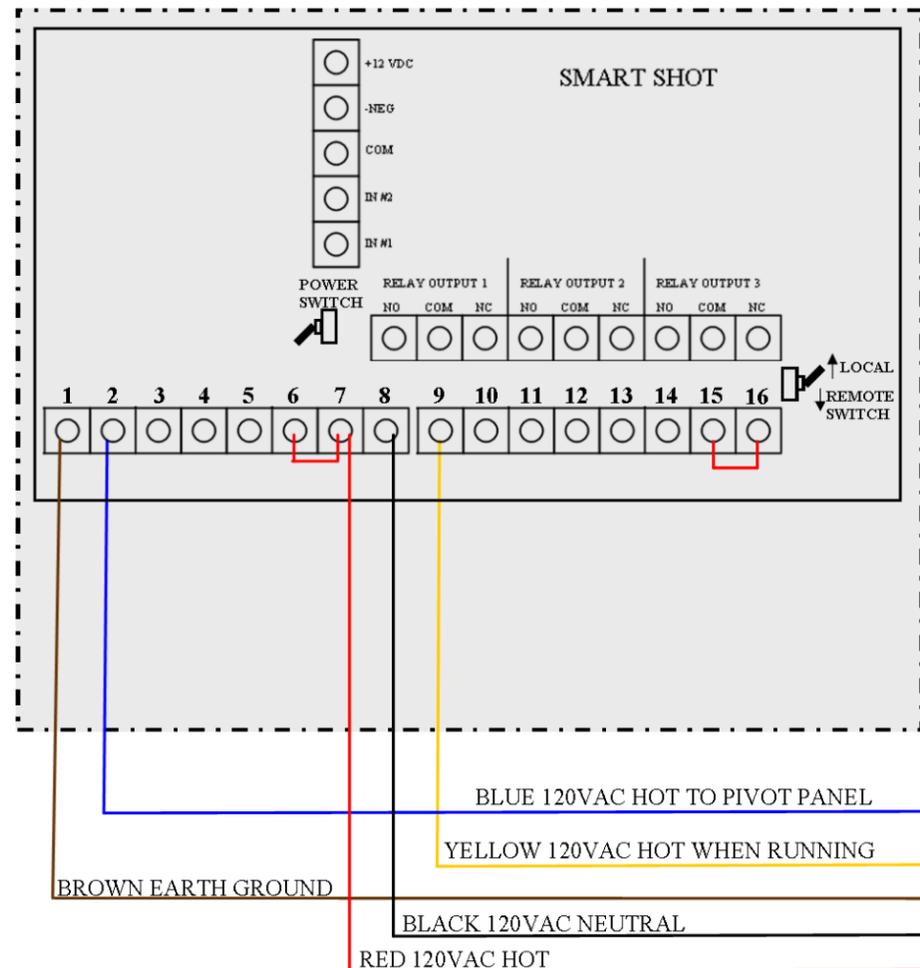
Note: Install jumper between terminals 6 and 7.

Operation:

Smart Shot is powered by 120vac hot when disconnect is on.
Water Pump operation depends on position of the "WELL" Switch in the Panel.
Pivot Panel needs to be set for AUTO RESTART.

Wet Operation:

- Remote/Local Switch in Smart Shot is in Remote position.
- Relay #2 of Smart Shot is not used.
- Relay #3 of Smart Shot is Start/Stop pivot control. Relay is maintained (*latched*).
Closes upon Start command, Opens upon Stop command.
Start cmd provides 120vac Hot power to Panel to start the pivot.
- Term #15 of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Power Company Auto Restart can start/stop the systems per normal Auto Restart function.
- If Load Control stops the system, Sensor Input #1 of the Smart Shot will open and notify the customer.
Relay #3 of the Smart Shot will stay latched (Unless STOP is pressed on web site). When the Load Control is closed again, the system will auto restart since Relay #3 of the Smart Shot is still latched.



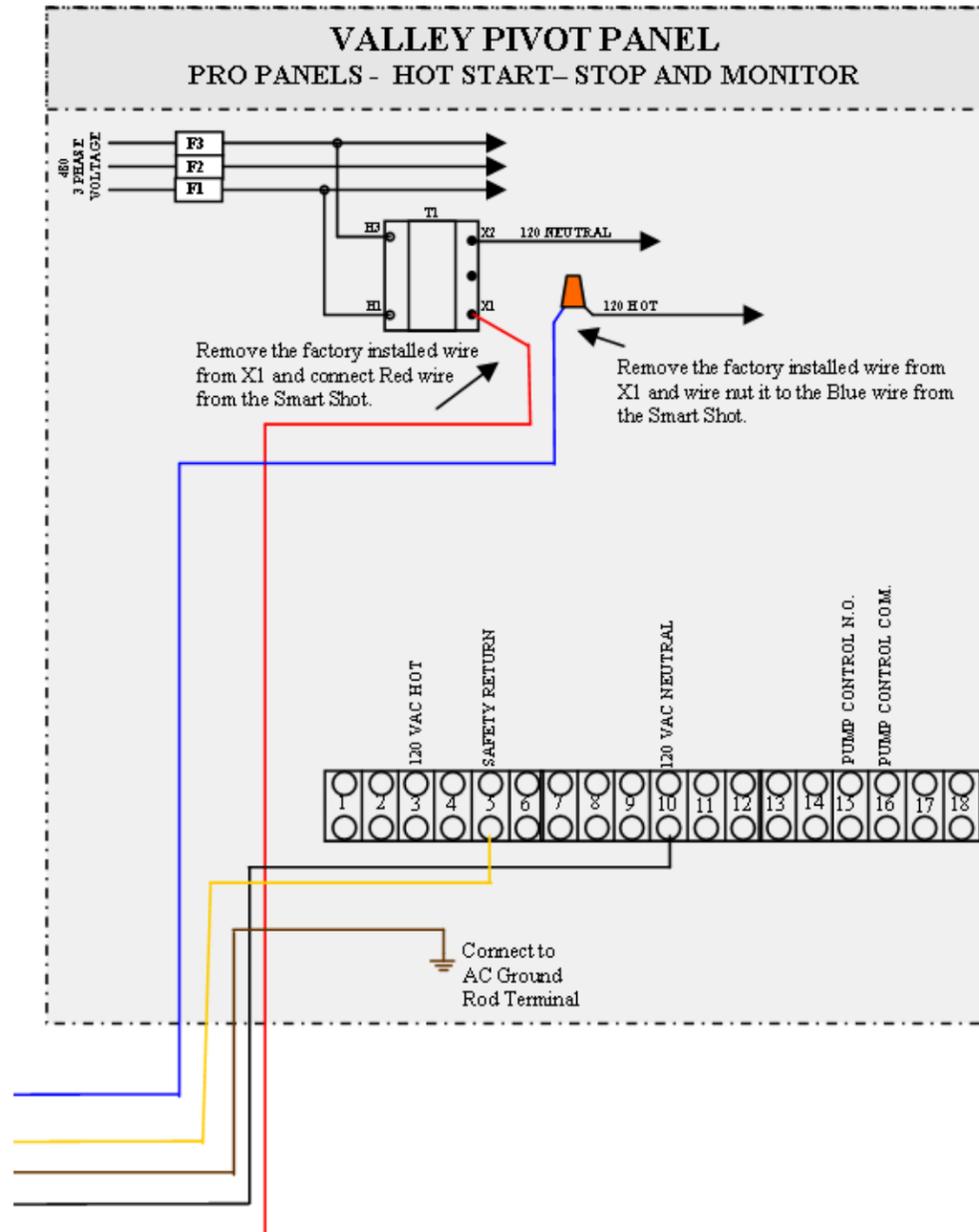
VALLEY PIVOT PRO PANEL: HOT START - STOP AND MONITOR

Note: Changing of the factory Red or 120vac Hot wire in the Pivot Panel.

Note: Must be 120VAC HOT on pump control circuit, Term#16.

Local Operation:

- Remote/Local switch in Smart Shot is in Local position
- Operate the Valley Panel per normal operation.
- Term #15 of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Power Company Auto Restart can start/stop the systems per normal Auto Restart function.



**SMART SHOT WITH VALLEY PIVOT SELECT PANEL:
REMOTE START - STOP AND MONITOR**

Note: This install requires a Valley J6 Plug, 6 pin.

Note: This install requires special Valley Select operating script. Call Hot Shot Systems for info.

Operation:

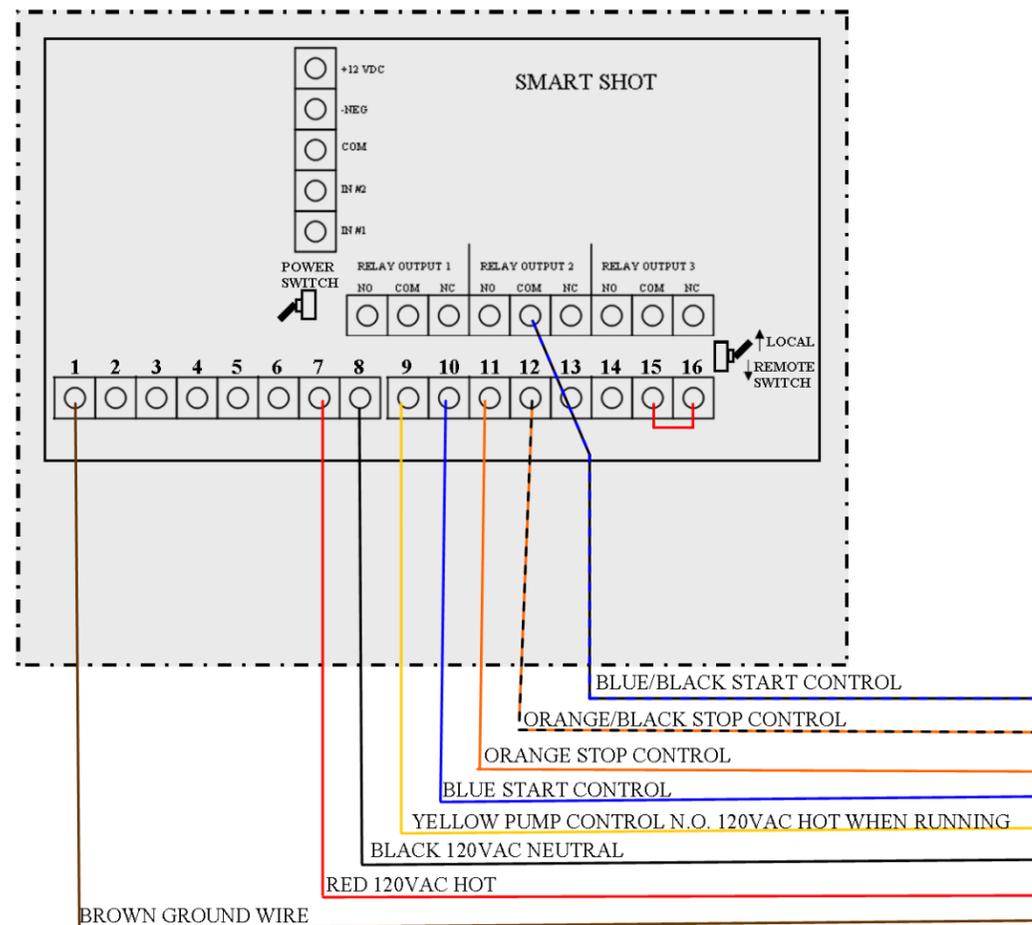
Smart Shot is powered by 120vac hot when disconnect is on.

Water Pump operation depends on position of the "WELL" Switch in the Panel.

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Wet Operation:

- Remote/Local Switch in Smart Shot is not used.
- Relay #2 of Smart Shot is for remote start.
When **START** is pressed relay 2 in the Smart Shot will close connecting terminals 5 and 6 on the J6 terminal strip on the Valley relay board starting the pivot. *(Relay is latch)*
- Relay #3 of Smart Shot is for Stop pivot control when pivot is running. *(Relay is momentary)*
When **STOP** is pressed relay 3 in the Smart Shot will momentary open the safety in the pivot stopping it.
- Term #5 of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Power Company Auto Restart can start/stop the systems per normal Auto Restart function.
- If Load Control stops the system, Sensor Input #1 of the Smart Shot will open and notify the customer.
Relay #2 of the Smart Shot will stay latched (Unless STOP is pressed on web site). When the Load Control is closed again, the system will auto restart since Relay #2 of the Smart Shot is still latched.



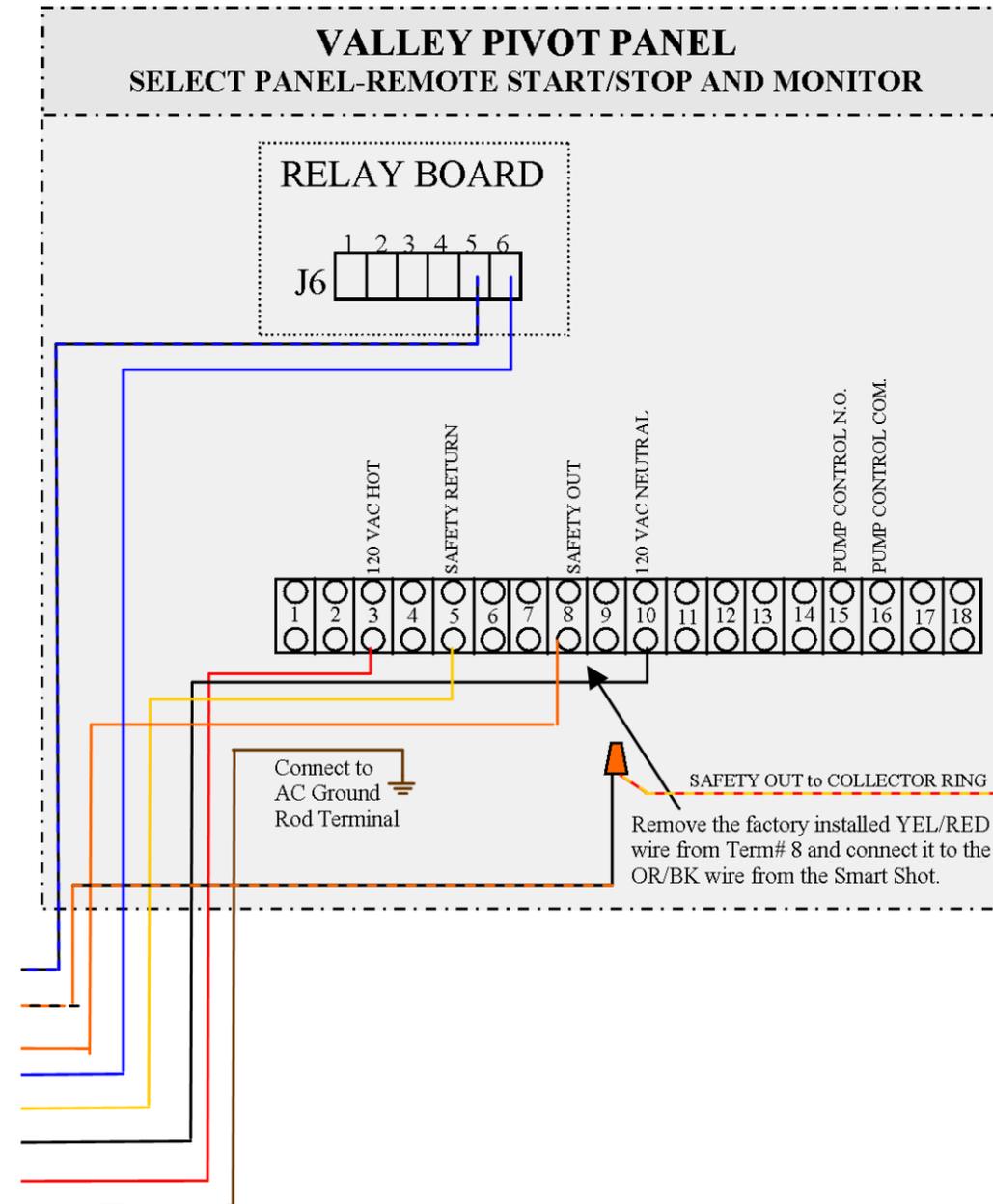
**VALLEY PIVOT SELECT PANEL:
REMOTE START - STOP AND MONITOR**

Note: This install requires a Valley J6 Plug, 6 pin

Note: Changing of the factory Yellow/Red wire in the pivot panel.

Local Operation:

- Remote/Local switch is not used
- Operate the Valley Panel per normal operation.
- Term #5 of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Power Company Auto Restart can start/stop the systems per normal Auto Restart function.



**SMART SHOT WITH ZIMMATIC BOSS / VISION / COMPUTER PANELS:
HOT START - STOP AND MONITOR**

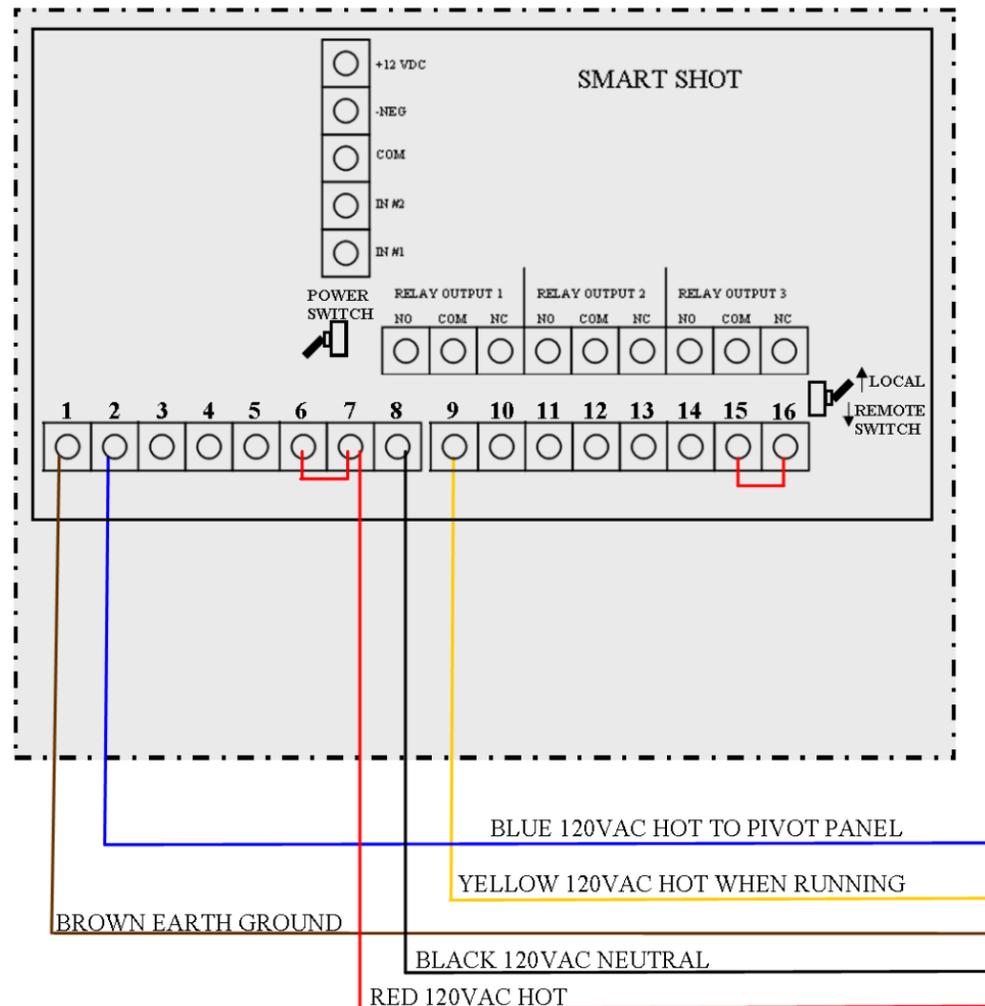
Note: Install jumper between terminals 6 and 7.

Operation:

Smart Shot is powered by 120vac hot when disconnect is on.
Pivot Panel needs to be set for AUTO RESTART.

Wet Operation:

- Remote/Local Switch in Smart Shot is in Remote position.
- Relay #2 of Smart Shot is not used.
- Relay #3 of Smart Shot is Start/Stop pivot control. Relay is maintained (*latched*).
Closes upon Start command, Open upon Stop command.
Start cmd provides 120vac Hot power to Panel to start the pivot.
- Safety terminal of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Power Company Auto Restart can start/stop the systems per normal Auto Restart function.
- If Load Control stops the system, Sensor Input #1 of the Smart Shot will open and notify the customer.
Relay #3 of the Smart Shot will stay latched (Unless STOP is pressed on web site). When the Load Control is closed again, the system will auto restart since Relay #3 of the Smart Shot is still latched.

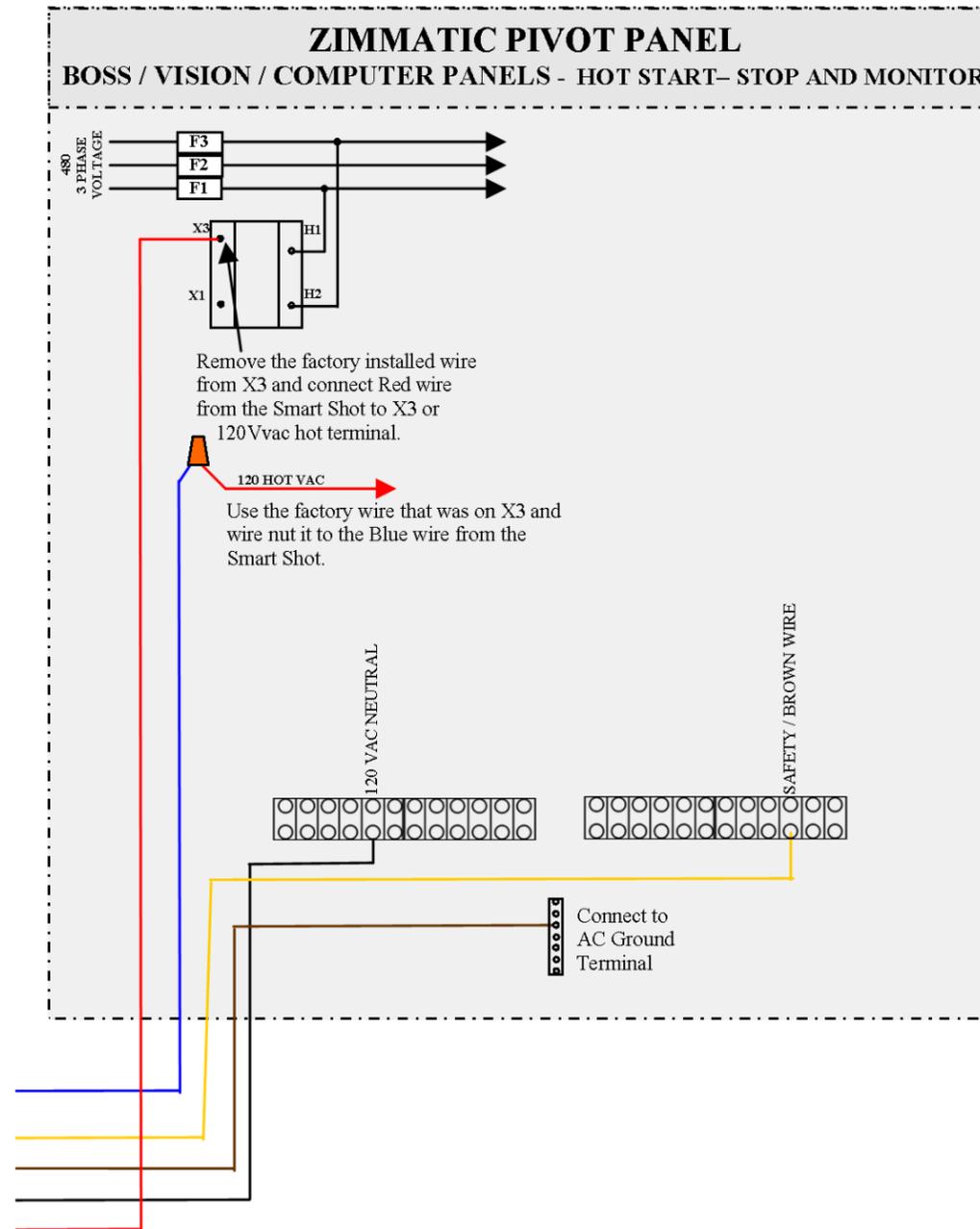


**ZIMMATIC AIMS / BOSS / VISION / COMPUTER PANELS:
HOT START - STOP AND MONITOR**

Note: Changing of the factory Red or 120vac Hot wire in the Pivot Panel.

Local Operation:

- Remote/Local switch in Smart Shot is in Local position
- Operate the Panel per normal operation.
- Safety terminal of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Power Company Auto Restart can start/stop the systems per normal Auto Restart function.



**SMART SHOT WITH ZIMMATIC PIVOT PANEL
OLDER GREY PANELS - PUMP START—SAFETY STOP AND MONITOR**

Note: This install requires special PSR operating script. Call Hot Shot Systems for info.

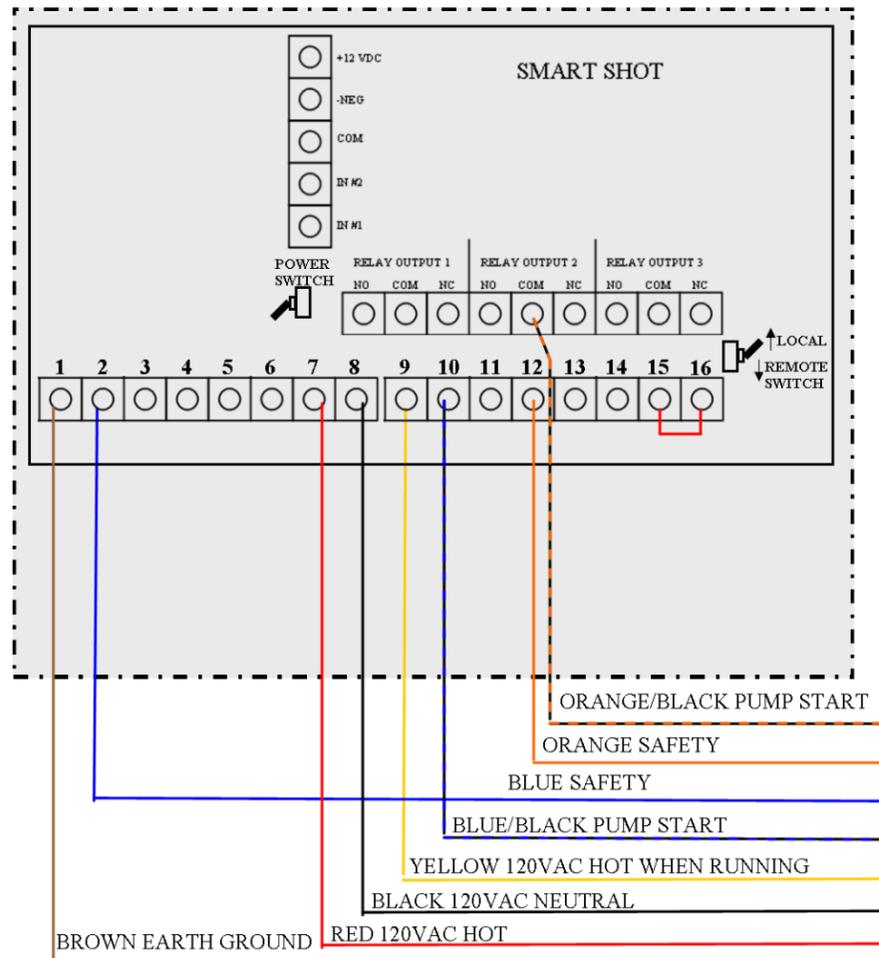
Operation:

Smart Shot is powered by 120vac hot when disconnect is on.

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Wet Operation:

- Panel Well Switch is up and Wet/Dry Switch is up.
- Remote/Local Switch in Smart Shot is in Remote position.
- Relay #2 of Smart Shot is Well Control at start-up.
Closes for 10 min. upon Start command to start pump and then opens up.
Gets the well started before the pivot starts to pressurize the system.
Opens if the Stop command is issued before the 10 min timer is finished.
- Relay #3 of Smart Shot is Start/Stop pivot control. Relay is maintained (*latched*).
Closes upon Start command. Open upon Stop command.
Closes the safety circuit to start the pivot.
- Pivot pressurizes, the WPS closes and the pivot stays running.
- Term #10 of the Panel is powered which powers the Hot Shot 120vac Relay in the Smart Shot panel.
Sensor Input #1 of the Smart Shot is now closed and shows the pivot is running.
- Smart Shot Relay #2 opens and the well stays running.

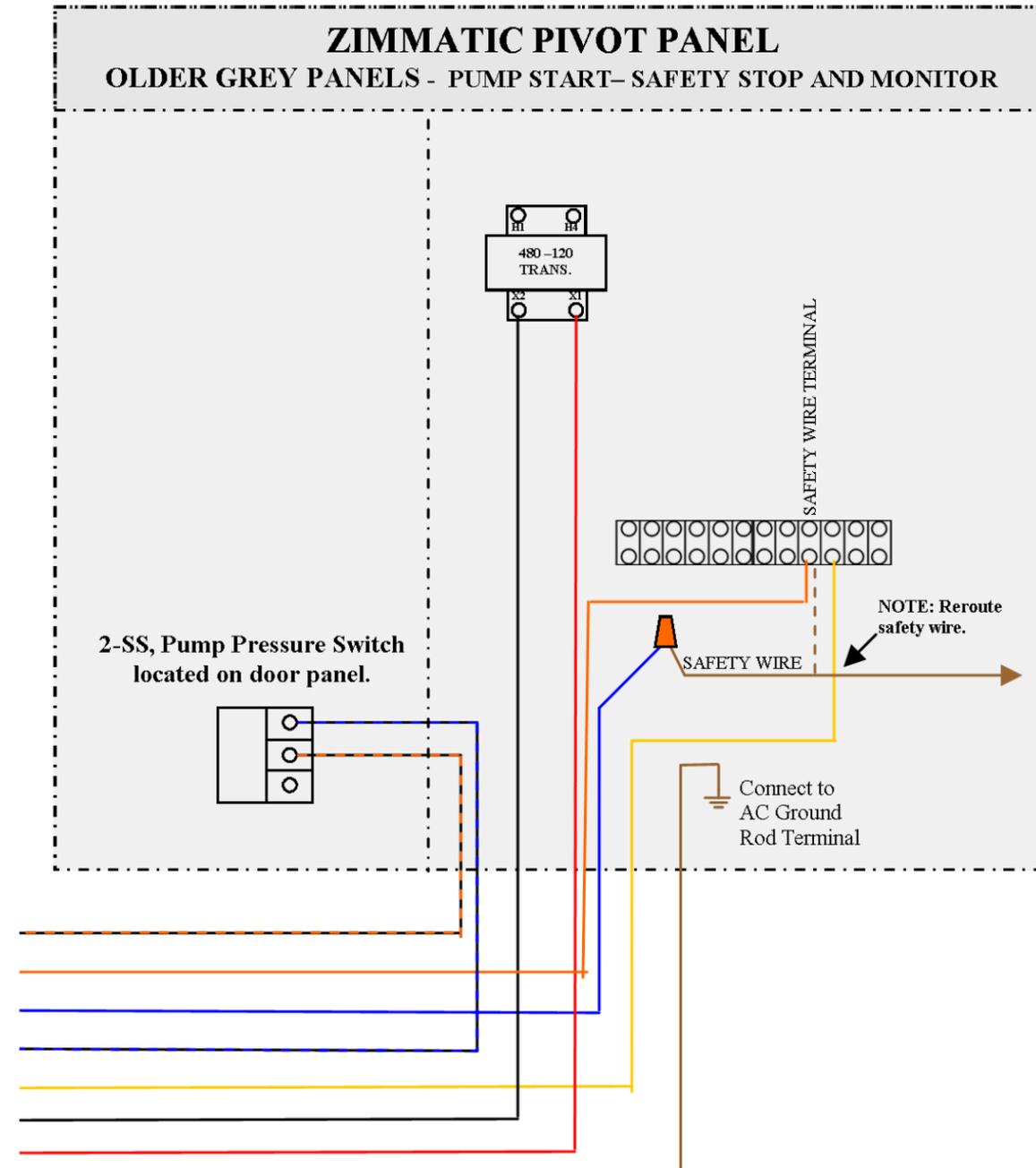


**ZIMMATIC PIVOT PANEL
OLDER GREY PANELS - PUMP START—SAFETY STOP AND MONITOR**

Note: Changing of the factory SAFETY wire in the Pivot Panel.

Local Operation:

- Remote/Local switch in Smart Shot is in Local position
- Operate the Panel per normal operation.
- Safety terminal of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.



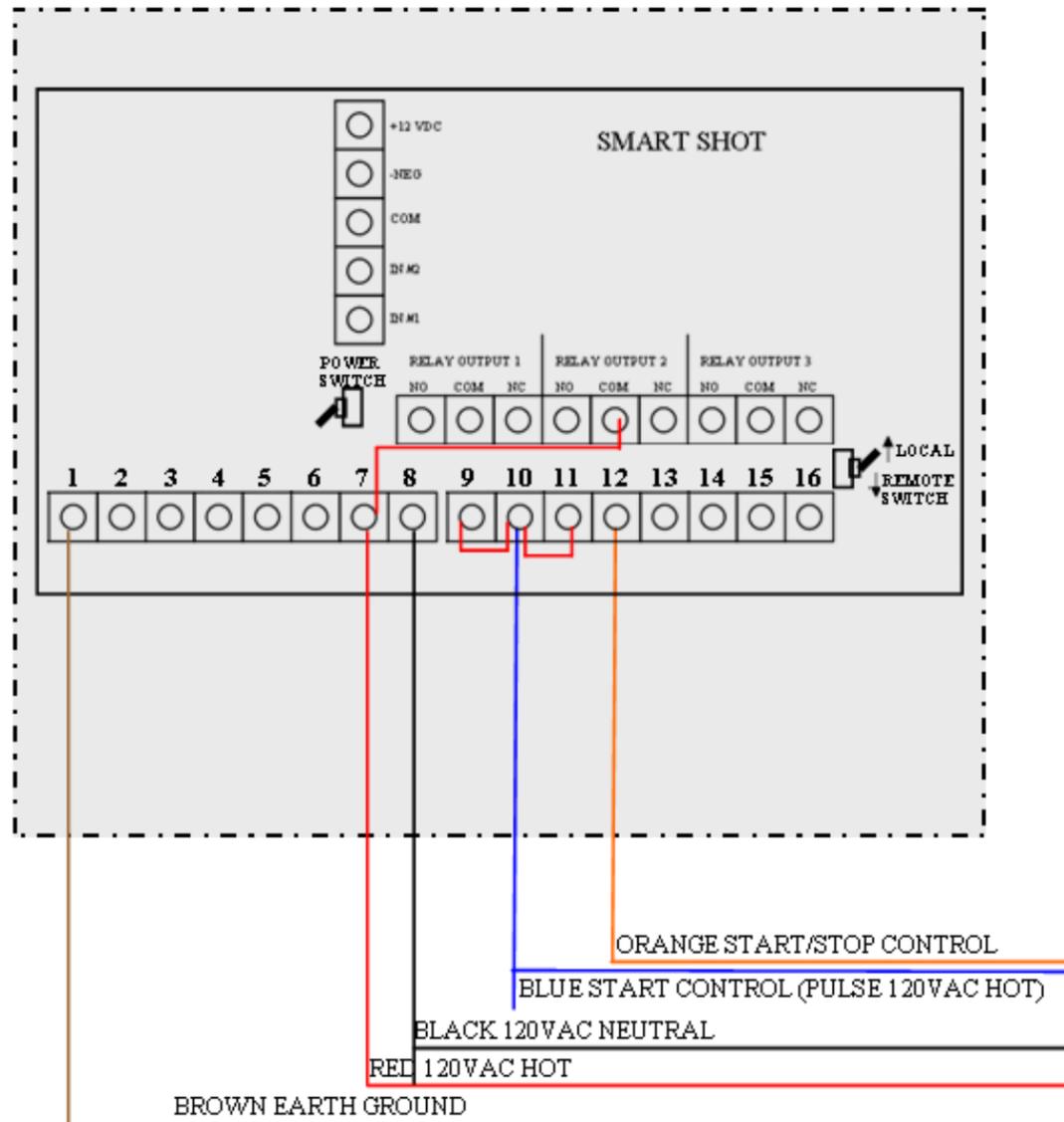
**SMART SHOT WITH ZIMMATIC PIVOT PANEL
OLDER RED PANELS - SAFETY START—SAFETY STOP AND MONITOR**

Operation:

Smart Shot is powered by 120vac hot when disconnect is on.

Wet Operation:

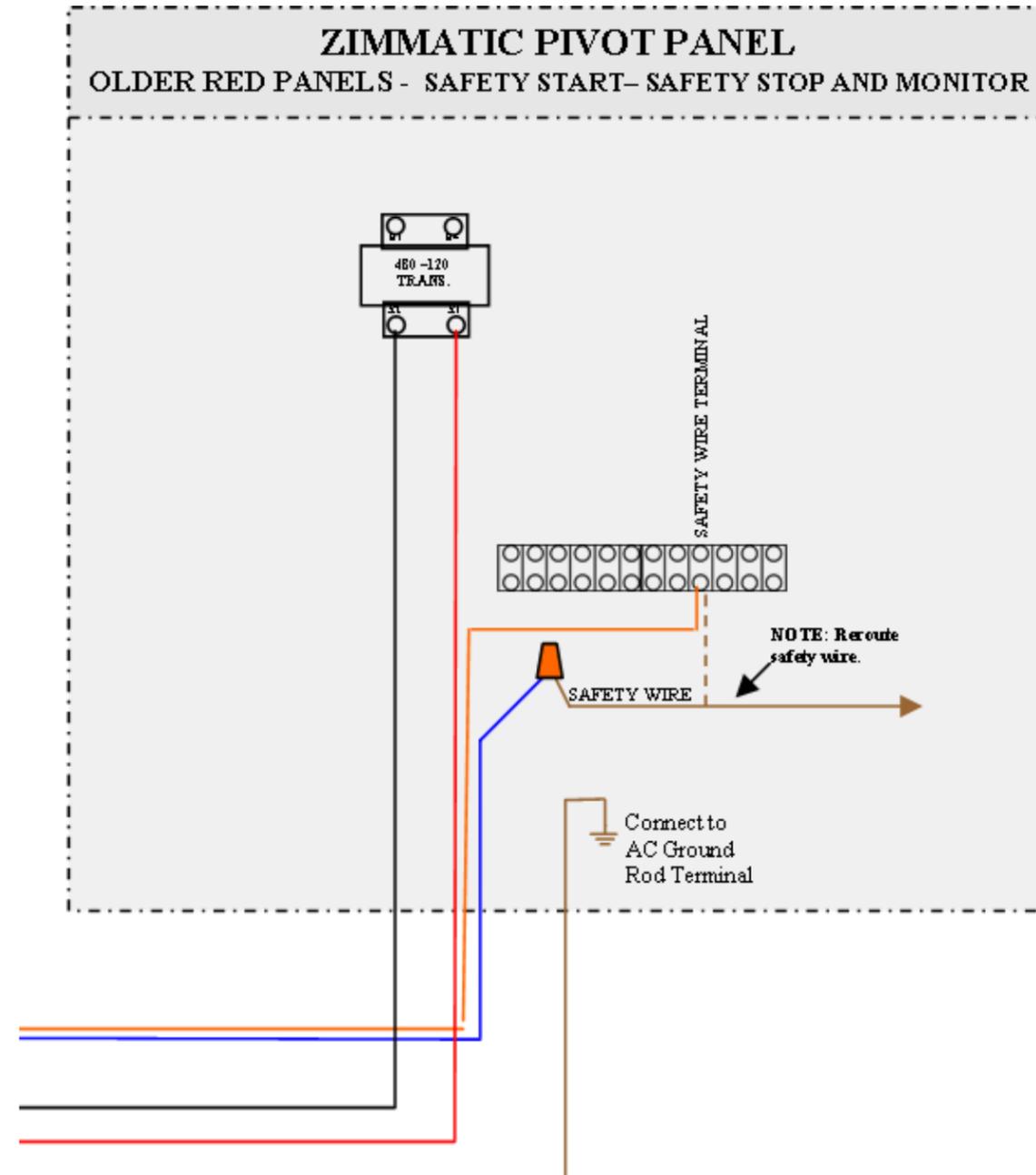
- Remote/Local Switch in Smart Shot is not used.
- Relay #2 of Smart Shot is for remote start.
When **START** is pressed relay 2 in the Smart Shot will close pulsing the safety to start the pivot.
- Relay #3 of Smart Shot is for Stop pivot control when pivot is running. (*Relay is momentary*)
When **STOP** is pressed relay 3 in the Smart Shot will momentary open the safety in the pivot stopping it.
- Sensor 1 on the Smart Shot will light up indicating the pivot is running.



**SMART SHOT WITH ZIMMATIC PIVOT PANEL
OLDER RED PANELS - SAFETY START—SAFETY STOP AND MONITOR**

Local Operation:

- Remote/Local switch in Smart Shot is in Local position
- Operate the Panel per normal operation.
- Safety terminal of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.



SMART SHOT WITH REINKE - TOUCH SCREEN / COMPUTER PANELS
HOT START - STOP AND MONITOR

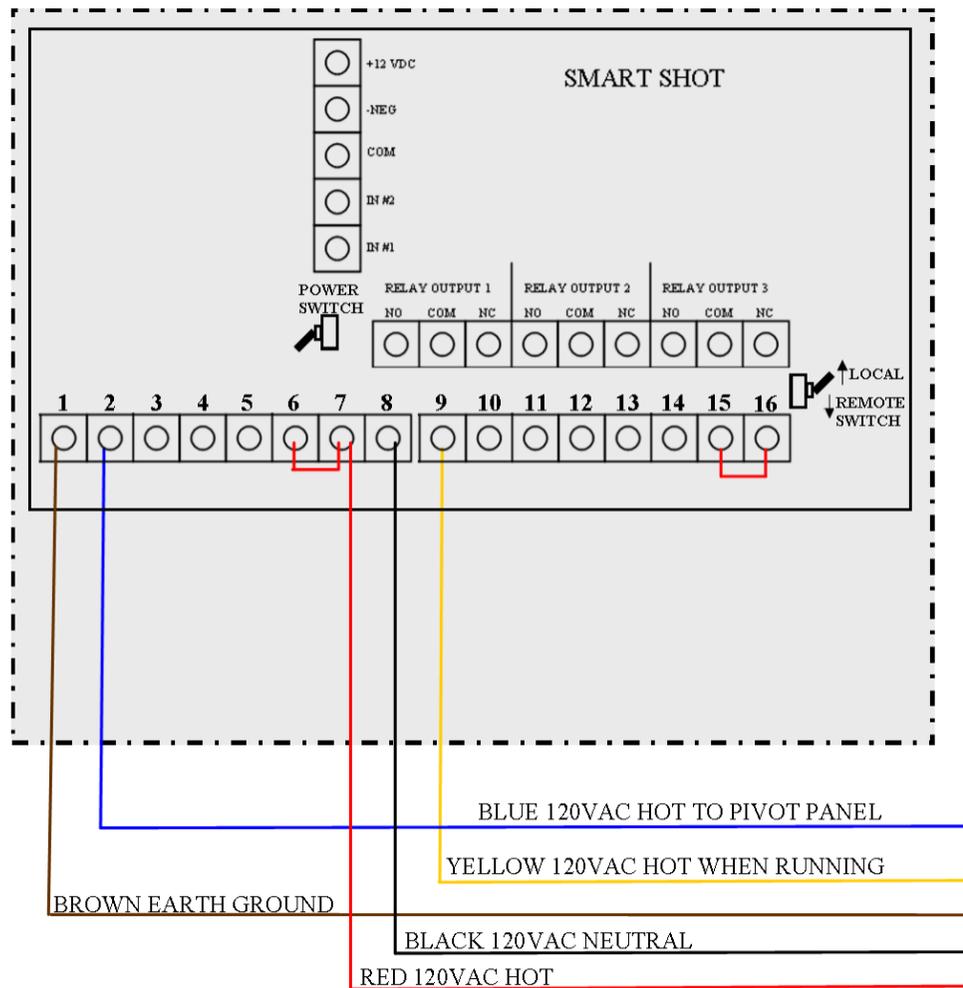
Note: Install jumper between terminals 6 and 7.

Operation:

Smart Shot is powered by 120vac hot when disconnect is on.
Pivot Panel needs to be set for AUTO RESTART.

Wet Operation:

- Remote/Local Switch in Smart Shot is in Remote position.
- Relay #2 of Smart Shot is not used.
- Relay #3 of Smart Shot is Start/Stop pivot control. Relay is maintained (*latched*).
Closes upon Start cmd, Open upon Stop cmd.
Start cmd provides 120vac Hot power to Panel to start the pivot.
- Safety terminal of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Power Company Auto Restart can start/stop the systems per normal Auto Restart function.
- If Load Control stops the system, Sensor Input #1 of the Smart Shot will open and notify the customer.
Relay #3 of the Smart Shot will stay latched (Unless STOP is pressed on web site). When the Load Control is closed again, the system will auto restart since Relay #3 of the Smart Shot is still latched.

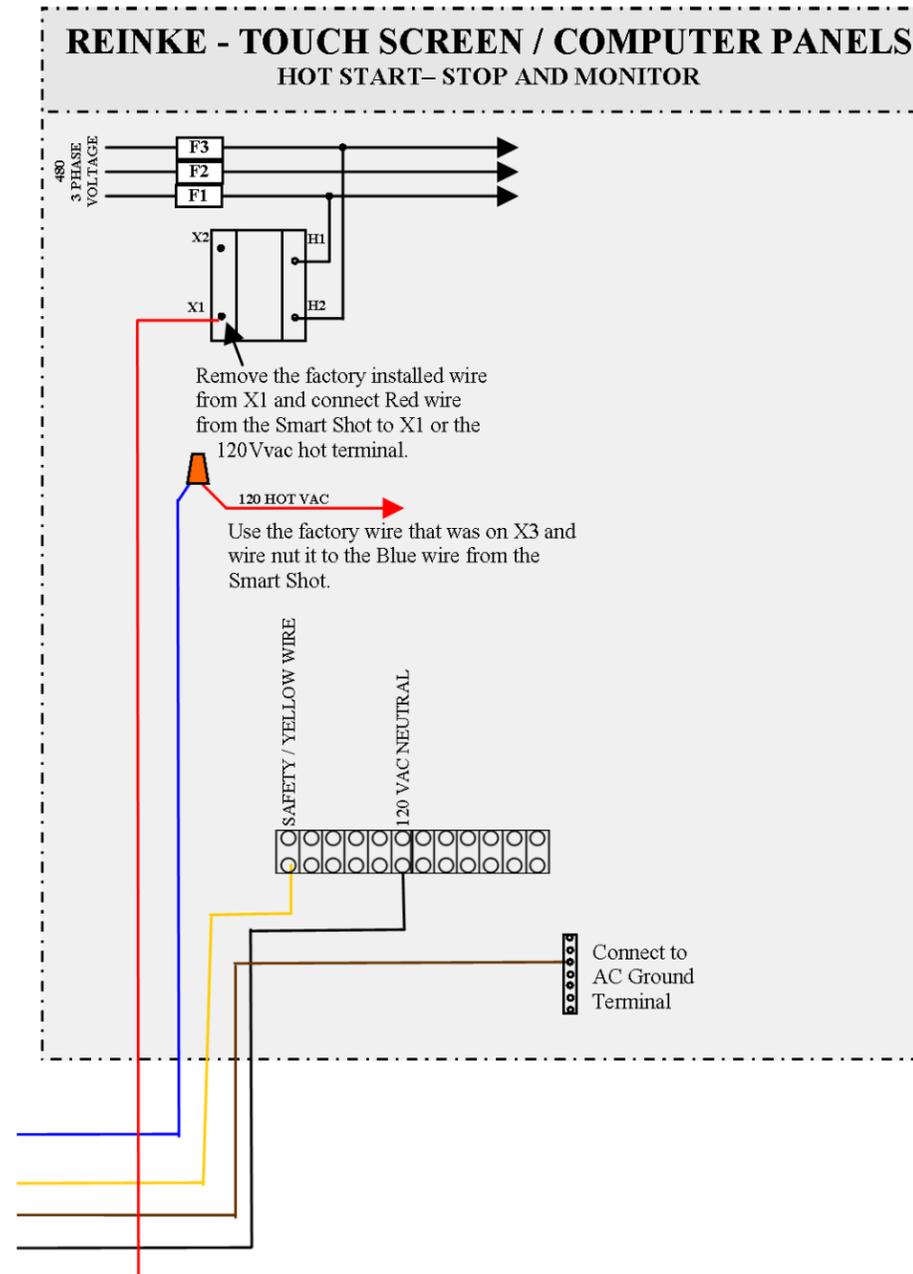


REINKE - TOUCH SCREEN / COMPUTER PANELS
HOT START - STOP AND MONITOR

Note: Changing of the factory Red or 120vac Hot wire in the Pivot Panel.

Local Operation:

- Remote/Local switch in Smart Shot is in Local position
- Operate the Panel per normal operation.
- Safety terminal of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Power Company Auto Restart can start/stop the systems per normal Auto Restart function.



SMART SHOT WITH REINKE 65 PANEL & SIMILAR

Note: Install jumper between terminals 8 and 10.

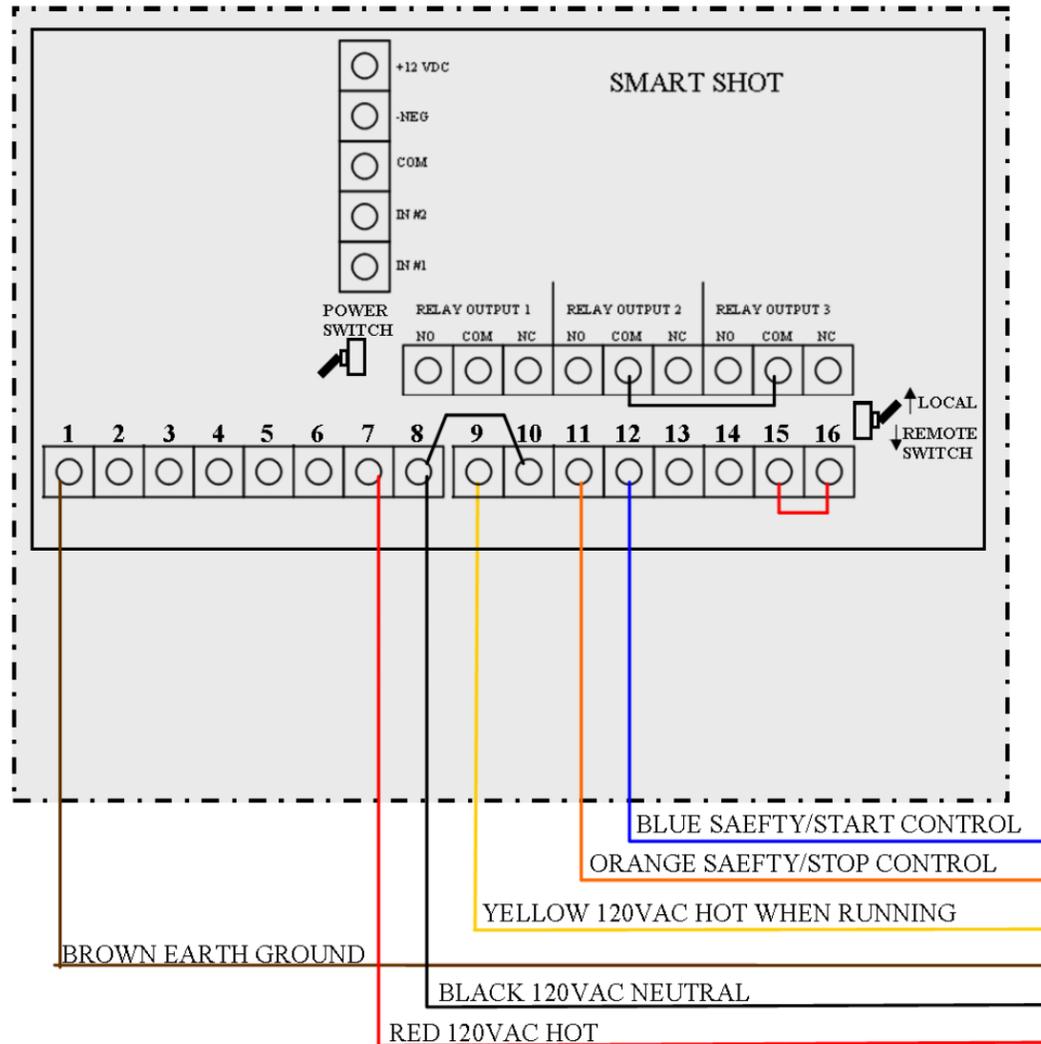
Note: Install jumper between Relay Output 2 COM and Relay Output 3 COM.

Operation:

Smart Shot is powered by 120vac hot when disconnect is on.

Wet Operation:

- Remote/Local Switch in Smart Shot is in Remote position.
- Relay #2 of the Smart Shot will start the Pivot by Pulsing 120vac neutral to the brown wire. Relay #2 Closes for 8 seconds upon Start command to start pivot and then opens.
- The contactor in the panel will close and this activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Relay #3 of the Smart Shot will stop the pivot. When the STOP button is pushed relay 3 Opens for 8 seconds to open the systems safety, stopping the pivot. When the systems return safety is opened the end gun yellow wire will lose power and de-energize the 120vac relay deactivating the Sensor Input #1 on the Smart Shot updating the web interface showing that the pivot has stopped. The Smart Shot will also send text and email alerts to the customer notifying them that the pivot has stopped.

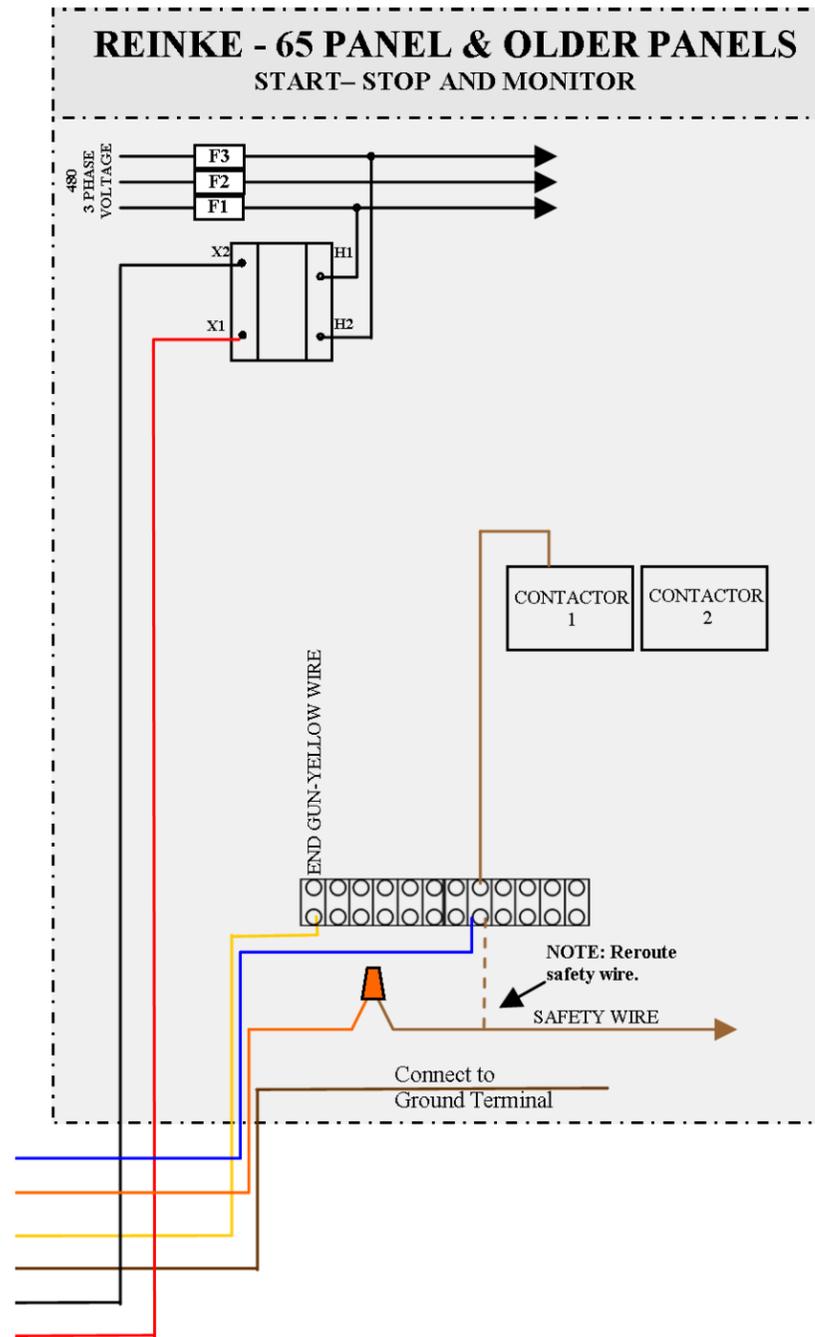


REINKE 65 PANEL & SIMILAR

Note: Changing of the factory BROWN wire in the Pivot Panel.

Local Operation:

- Remote/Local switch in Smart Shot is in Local position
- Operate the Panel per normal operation.
- The end gun yellow wire of the Panel is powered when the pivot starts, which then activates the Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.



SMART SHOT WITH GREENFIELD BASIC 230V PANEL & SIMILAR

Note: Install jumper between terminals 6 and 7. Between 15 and 16.

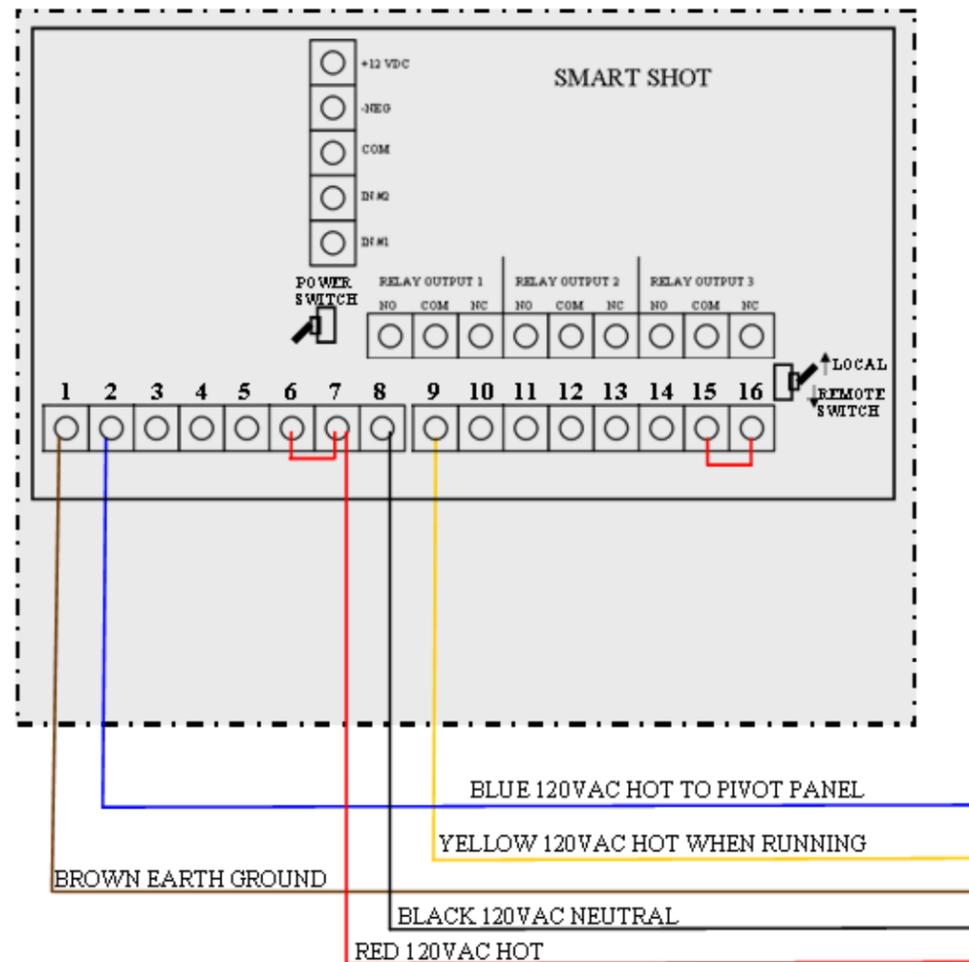
Note: Removal of Factory wire in the Greenfield Panel.

Operation:

Smart Shot is powered by 120vac hot when disconnect is on.

Wet Operation:

- **Remote/Local Switch** in Smart Shot is in Remote position.
- **Auto Restart Switch** in the Greenfield must be ON.
- **Power Switch** in the Greenfield panel must be ON.
- **Wet/Dry Switch** needs to be set to Wet.
- Relay #3 of Smart Shot is Start/Stop pivot control. Relay is maintained (*latched*).
Closes upon Start cmd, Open upon Stop cmd.
Provides power to Power Switch of Greenfield Panel to start or stop the pivot.
- Term #30 of the Greenfield Panel is powered when the pivot starts, which powers the 120vac relay in the Smart Shot panel. Sensor Input #1 of the Smart Shot is now closed and shows the pivot is running.
- Power Company Auto Restart can start/stop the systems per normal Auto Restart function.
- If Load Control stops the system, Sensor Input #1 of the Smart Shot will open and notify the customer. Relay #3 of the Smart Shot will stay latched (Unless STOP is pressed on web site). When the Load Control is closed again, the system will auto restart since Relay #3 of the Smart Shot is still latched.



Greenfield 230v Panel wired for Auto Restart

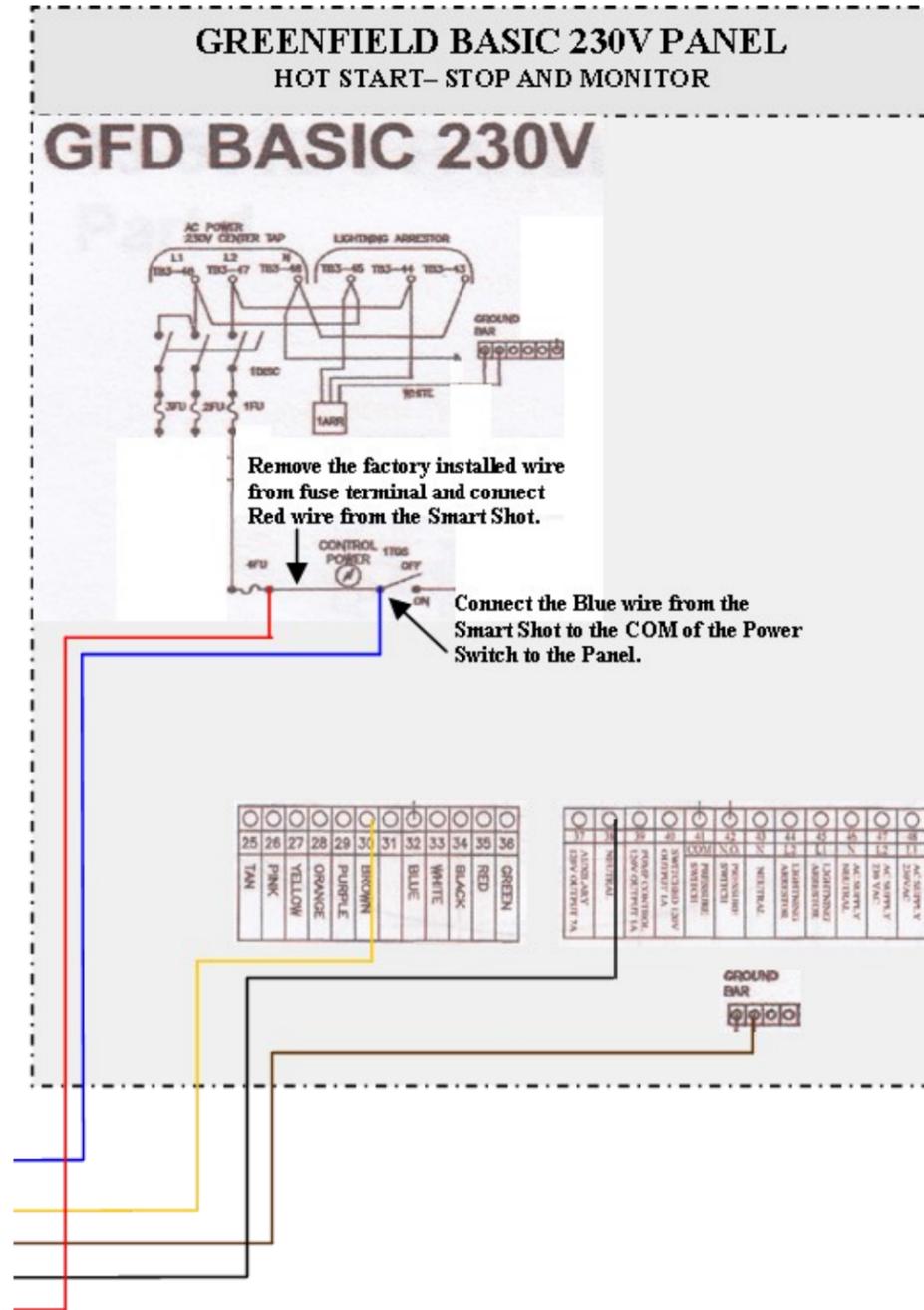
Load Control Water Pressure Auto Restart or Low Water Pressure Safety Time Delay Auto Restart

Dry Operation:

- Greenfield Panel Wet/Dry switch is off or in Dry.
- Remote/Local switch in Smart Shot is in Remote position.
- Relay #3 of Smart Shot will start and stop the pivot.
- Sensor Input #1 of Smart Shot will close indicating the pivot is moving.

Local Operation:

- Remote/Local switch in Smart Shot is in Local position
- Operate the Greenfield Panel per normal operation.



SMART SHOT CONTROLLING 480V PUMP PANEL

Note: Install jumpers between terminals 9 and 10 also 10 and 11.

Note: Install jumper between Relay Output 2 COM and terminal 7.

Note: SMART SHOT NEEDS PROGRAMMED WITH CUSTOM START TIMER.

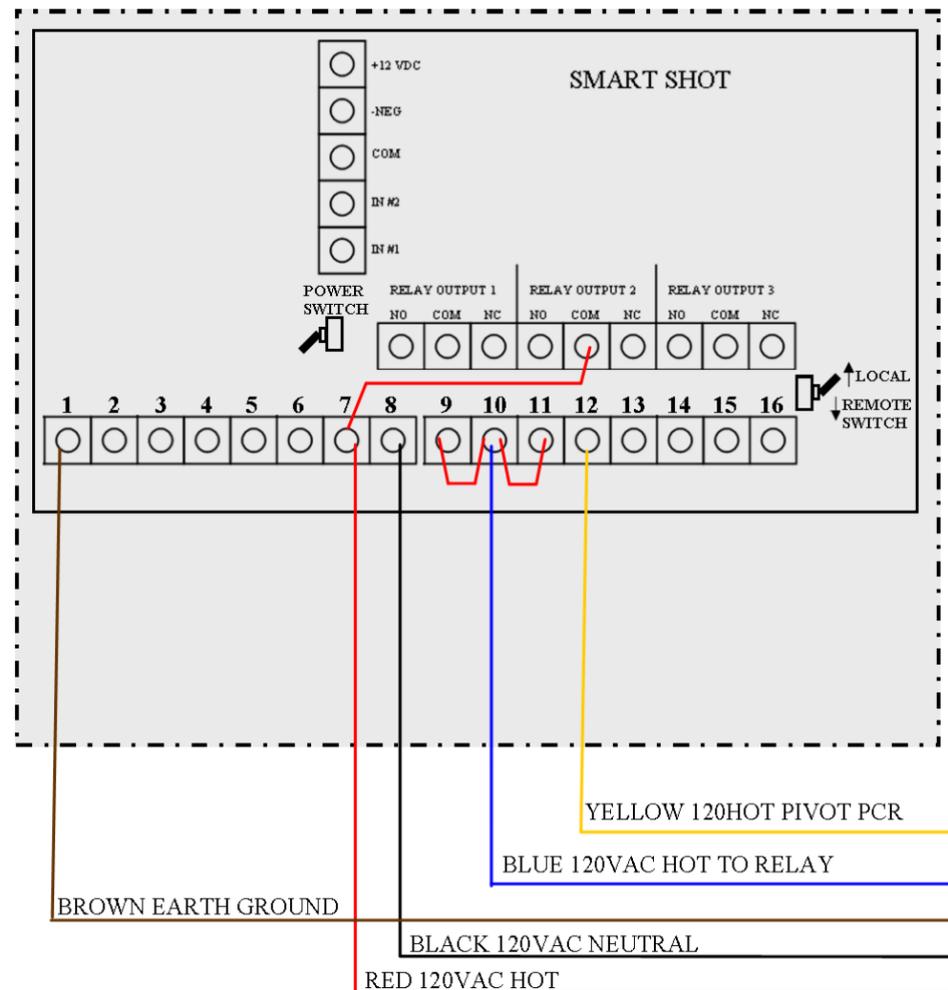
• Call 785-623-1500 for details.

Operation:

Smart Shot is powered by 120vac hot when disconnect is on.

Wet Operation: 

- Remote/Local Switch in Smart Shot is in Remote position.
- Relay #2 of the Smart Shot will start the pump by applying 120vac hot to the blue wire. Relay #2 Closes for 10 minutes upon Start command to pressure up the pivot and then opens. Pivots well control relay will now be closed to hold the pump relay in so the pump stays running. If pivot safeties are tripped the pump will stop.
- When the pump control relay is energized it will also activate Sensor Input #1 on the Smart Shot updating the web interface to show that the pivot is running.
- Relay #3 of the Smart Shot will stop the pivot. When the STOP button is pushed relay 3 Opens for 8 seconds to remove voltage from the pump control relay coil, stopping the pivot. This will also deactivate the Sensor Input #1 on the Smart Shot updating the web interface showing that the pivot has stopped. The Smart Shot will also send text and email alerts to the customer notifying them that the pivot has stopped.



STANDARD 480V PUMP PANEL

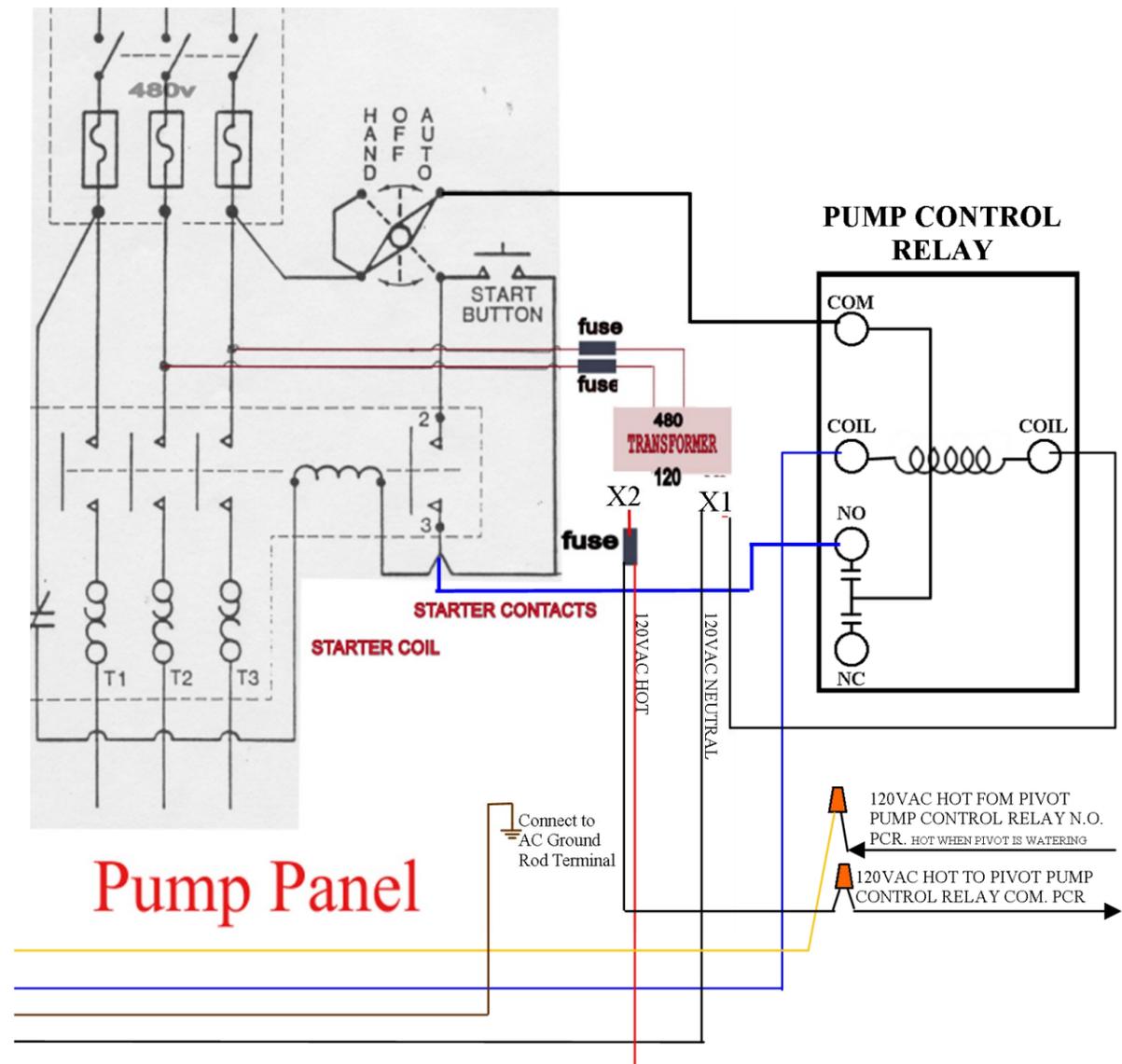
Note: Changing of the 120vac Hot wire coming from Pivot panels pump control relay.

Note: Pump Control Wires coming from the Pump Control Relay in the Pivot Panel need to be rewired. Remove the voltage going to the pump control relay in pivot panel and connect the neutral pump wire to the relay. This will make a loop for the 120 hot to be controlled by the pump control relay in the pivot panel.

Note: The voltage required for switching the relay in the pump panel must now come from the pump panel.

Local Operation:

- Operate the Pump Panel on Hand operation.



SMART SHOT CONTROLLING 240V PUMP PANEL

Note: Install jumpers between terminals 2 and 9 also 6 and 7.

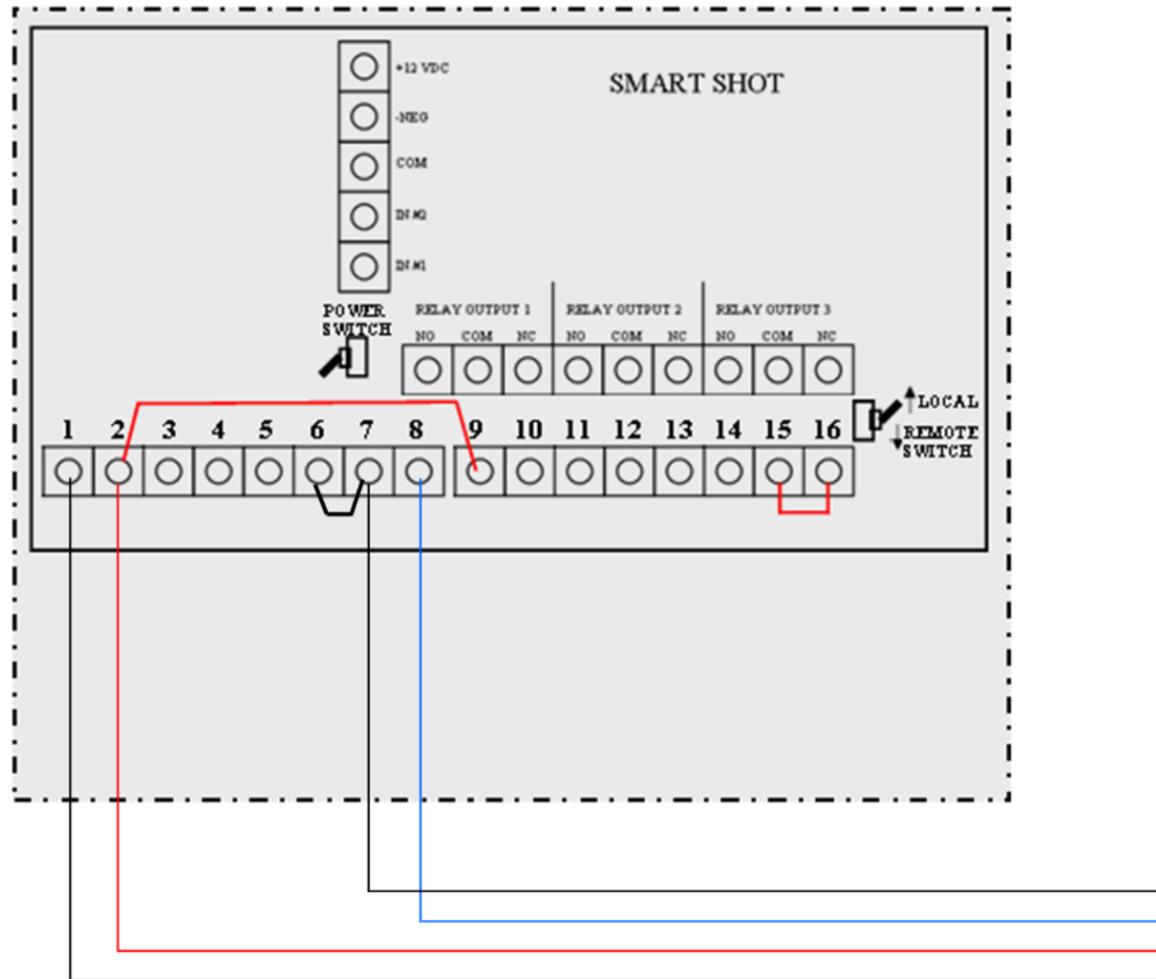
Note: Install jumper between terminals 15 and 16 for local operation.

Operation:

Smart Shot is powered by 120vac hot when disconnect is on.

Wet Operation: 

- Remote/Local Switch in Smart Shot is in Remote position.
- Relay #3 of the Smart Shot will start the pump by applying 120vac hot to the coil of the DPDT pump control relay. When Start is pressed relay 3's LED in the Smart Shot will light up and the pump will start.
- When the Smart Shots relay 3 is energized it will also activate Sensor Input #1 on the Smart Shot updating the web interface to show that the pump is running.
- Relay #3 of the Smart Shot will also stop the pivot. When the STOP button is pushed relay 3 Opens and removes voltage from the DPDT pump control relay coil, stopping the pump. This will also deactivate the Sensor Input #1 on the Smart Shot updating the web interface showing that the pump is off. The Smart Shot will also send text and email alerts to the customer notifying them that the pump has stopped.



STANDARD 240V PUMP PANEL

Note: Installation of the DPDT pump control relay.

Local Operation:

- Operate the Pump Panel on Hand operation.

