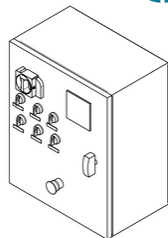


TC-3 PUMP INSTALLATION



⚠ WARNING ⚠ - ALL ELECTRICAL WORK SHOULD BE PERFORMED BY A LICENSED ELECTRICIAN. IMPROPER INSTALL CAN CAUSE INJURY OR DEATH.

⚠ WARNING ⚠ - DO NOT INSTALL WHILE YOUR EQUIPMENT IS RUNNING. FAILURE TO COMPLY MAY CAUSE INJURY OR DEATH.



FOR ELECTRIC PUMPS, SEE ELECTRIC PUMP INSTALL ON PAGE 15

WHAT YOU WILL NEED

- DRILL
- VOLTMETER
- METRIC ALLEN WRENCHES
- CRESCENT WRENCH
- WIRE STRIPPERS
- CRIMPERS
- OPEN END WRENCH SET
- TEFLON TAPE
- 1/4" PIPE ADAPTORS
- RELAY

ELECTRIC PUMP INSTALL

- BYPASS SWITCH
- TERMINAL BLOCKS
- 12-24VDC POWER SUPPLY (IF NOT AVAILABLE)
- FUSED TERMINAL BLOCKS (FOR POWER SUPPLY)

ADDITIONAL HARDWARE

- ADDITIONAL HARDWARE MAY BE REQUIRED DEPENDING ON YOUR PUMP. FIND HARDWARE RECOMMENDATIONS ON OUR WEBSITE UNDER **FarmHQ.com/support**

FARMHQ APP

- AVAILABLE FOR BOTH IOS AND ANDROID. DOWNLOAD ON OUR WEBSITE **FarmHQ.com/support**

SUPPORT

- IF YOU HAVE ANY TROUBLE DURING INSTALL REFERENCE THE USER MANUAL AT **FarmHQ.com/support**

CONTACT US AT

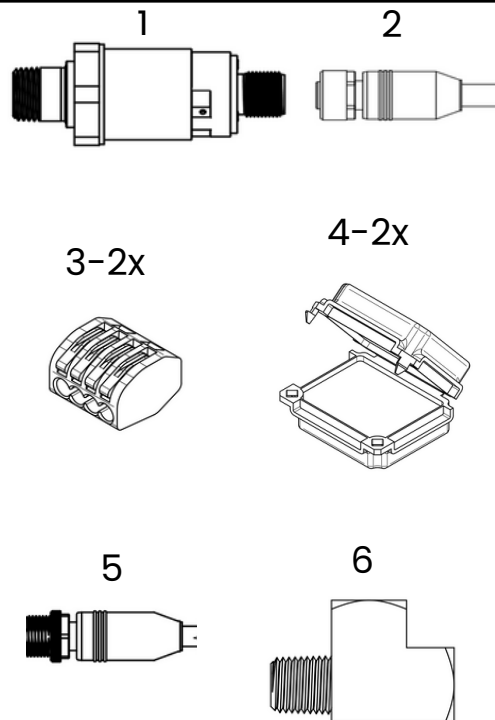
- SUPPORT@FARMHQ.COM
- +1 360-818-2632



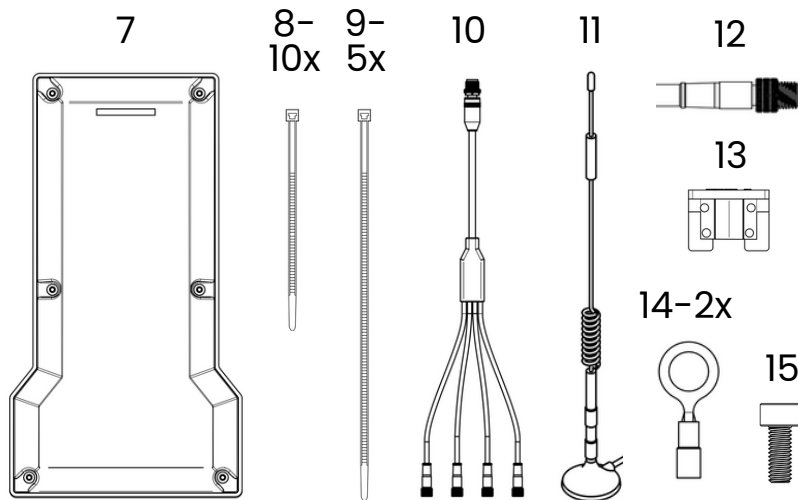
INSTALLATION HARDWARE



PUMP KIT



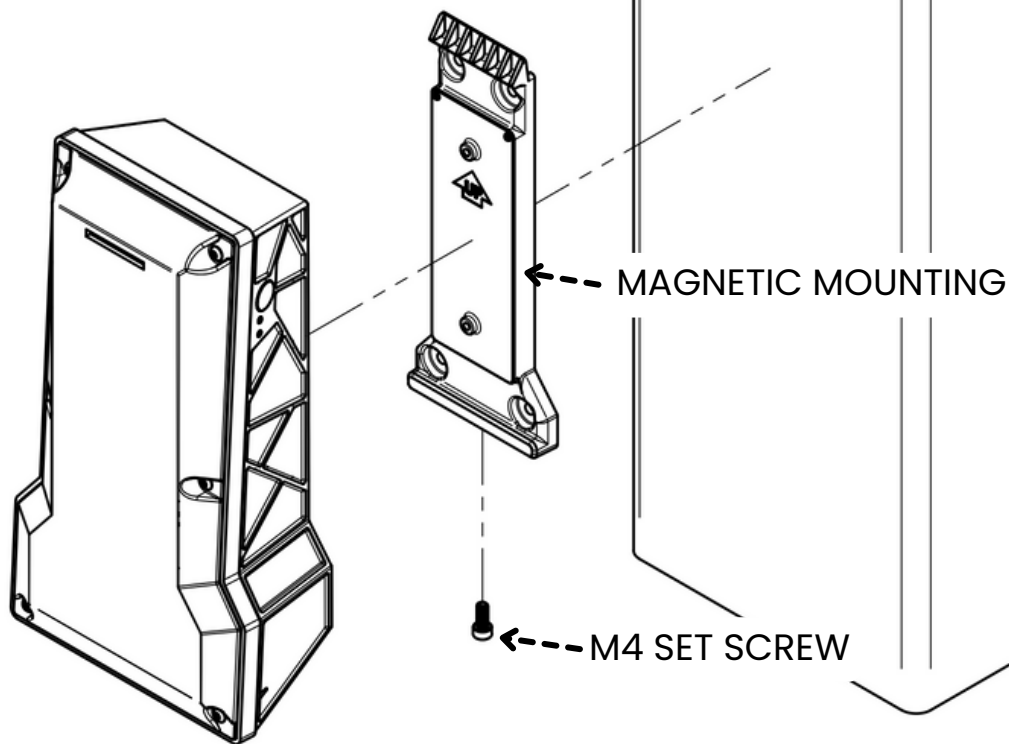
DEVICE KIT



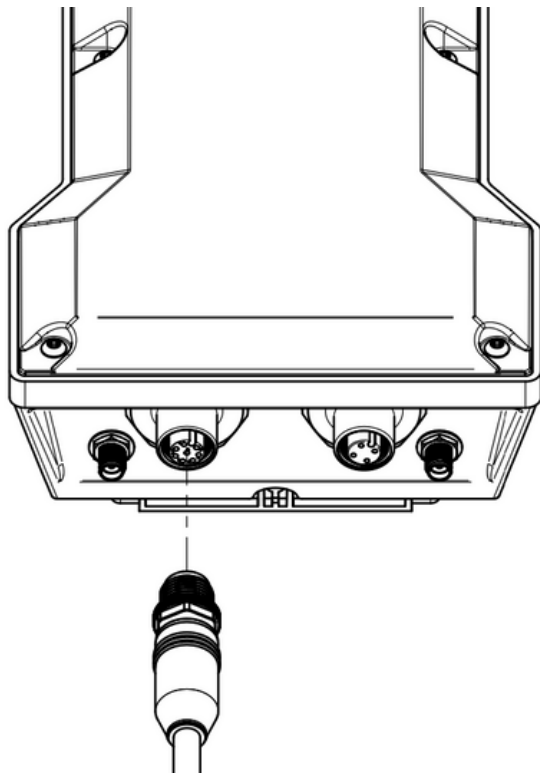
1. PRESSURE SENSOR
2. PRESSURE SENSOR CABLE
3. WAGO WIRE CONNECTORS
4. GEL BOXES
5. SWITCH CABLE
6. 1/4" NPT BRASS TEE M5
7. TC-3
8. 6" CABLE TIES

9. 11" CABLE TIES
10. TC-3 WIRE HARNESS
11. ANTENNA
12. POWER CABLE
13. SPARE 5A BLADE FUSE
14. 5/16" RING TERMINALS
15. SPARE M4 SET SCREW

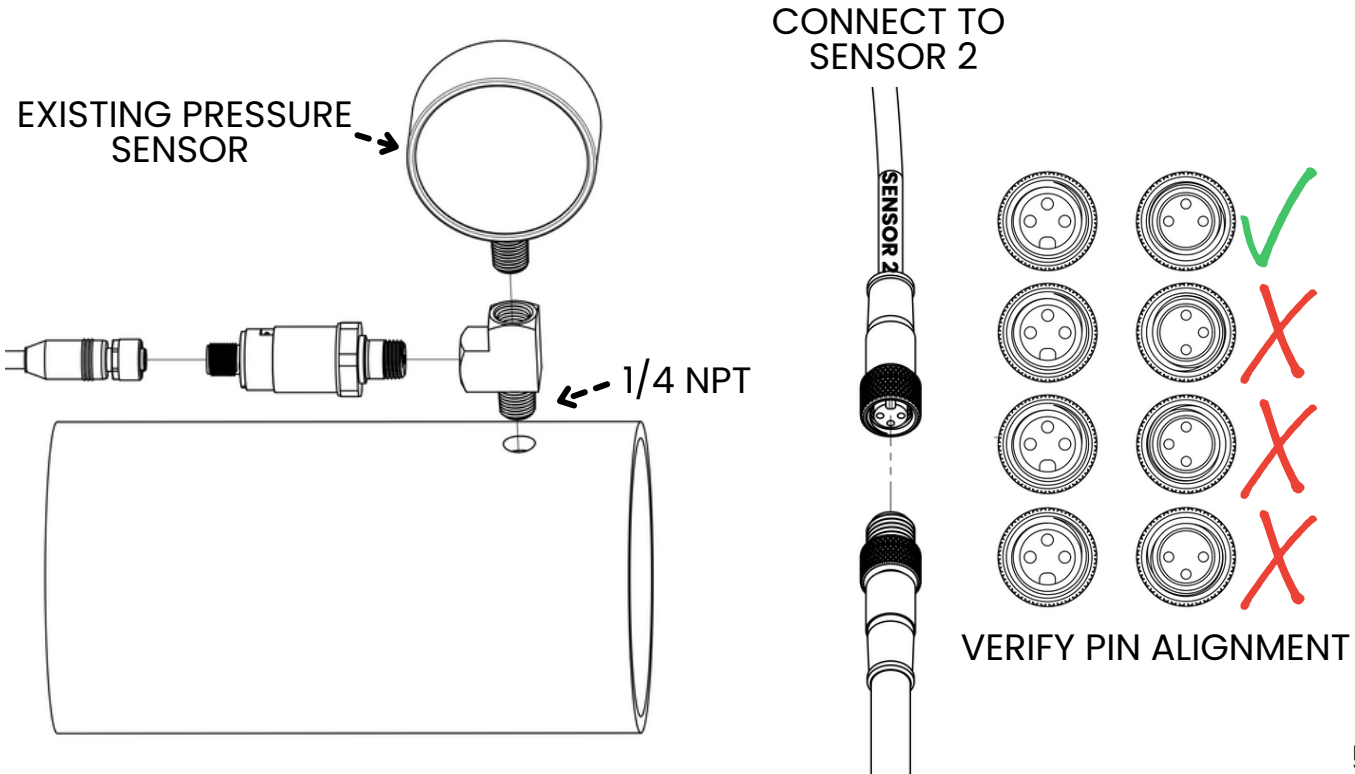
1. MOUNT YOUR DEVICE



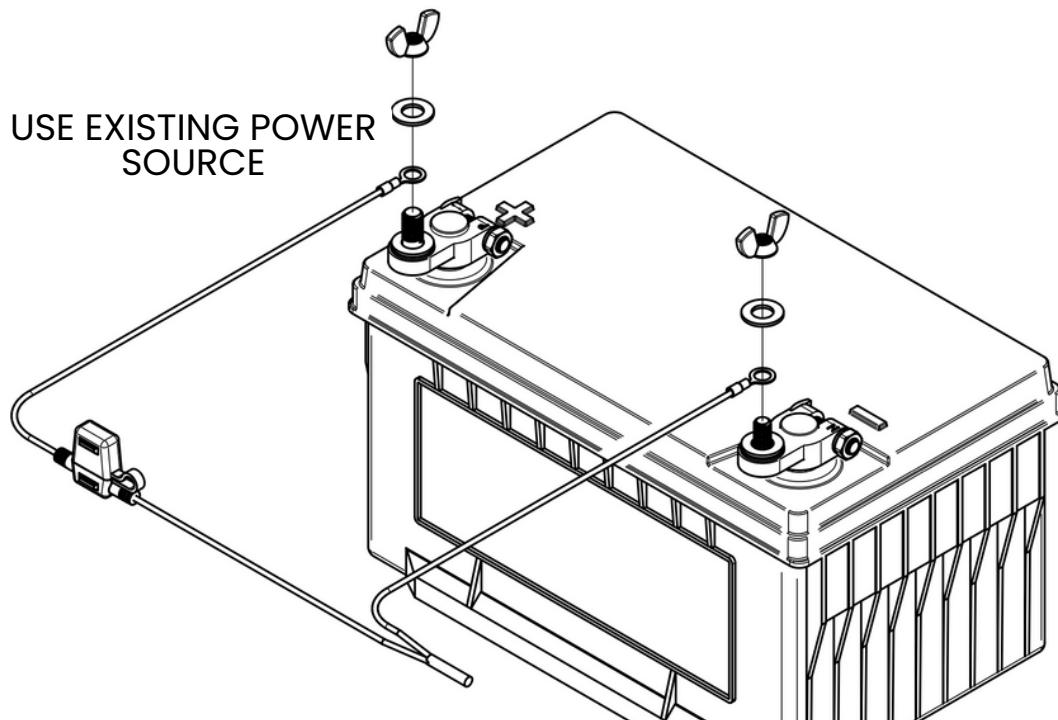
2. CONNECT WIRE HARNESS



3. CONNECT PRESSURE SENSOR



4. CONNECT TO POWER

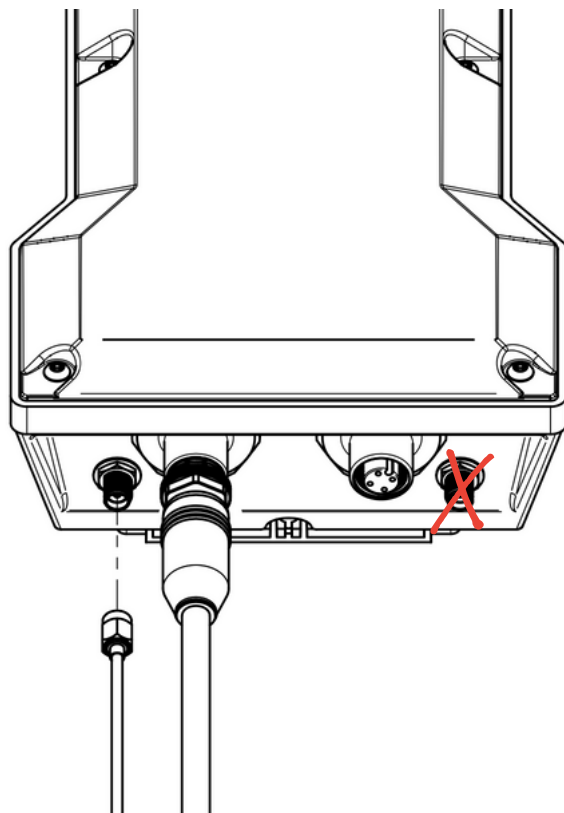
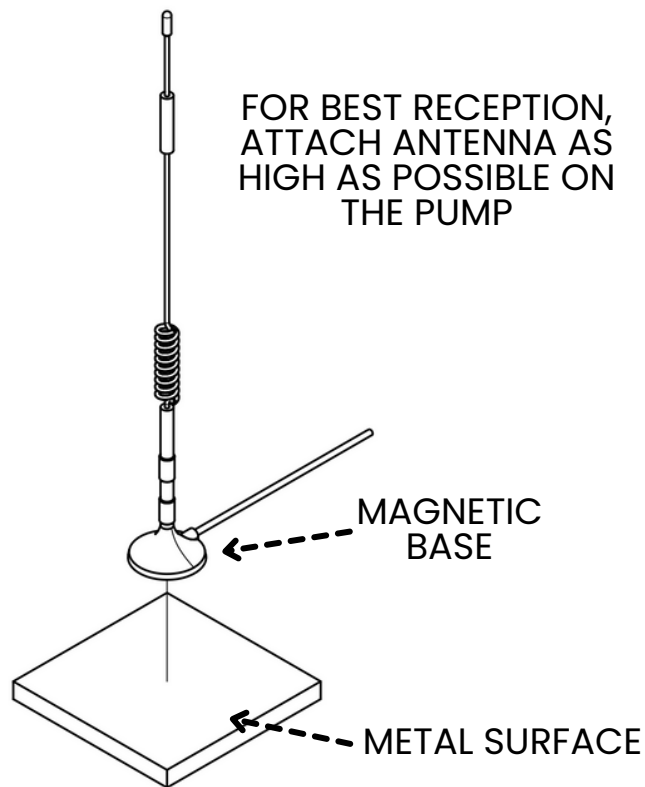


THE TC-3
ACCEPTS
12V-48V

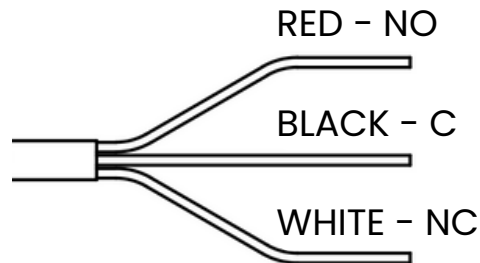
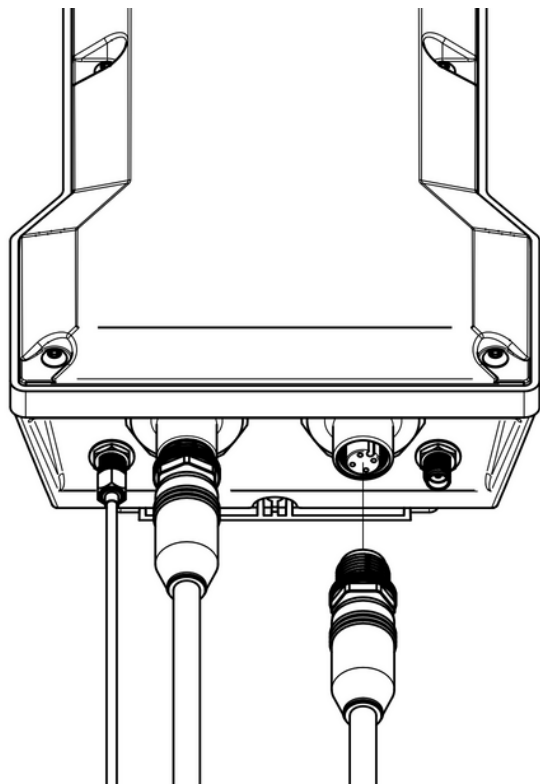


IF NO POWER IS AVAILABLE, YOU CAN FIND RECOMMENDATIONS
ON HOW TO POWER YOUR DEVICE AT **FarmHQ.com/support**

5. CONNECT THE ANTENNA



6. CONNECT SWITCH CABLE

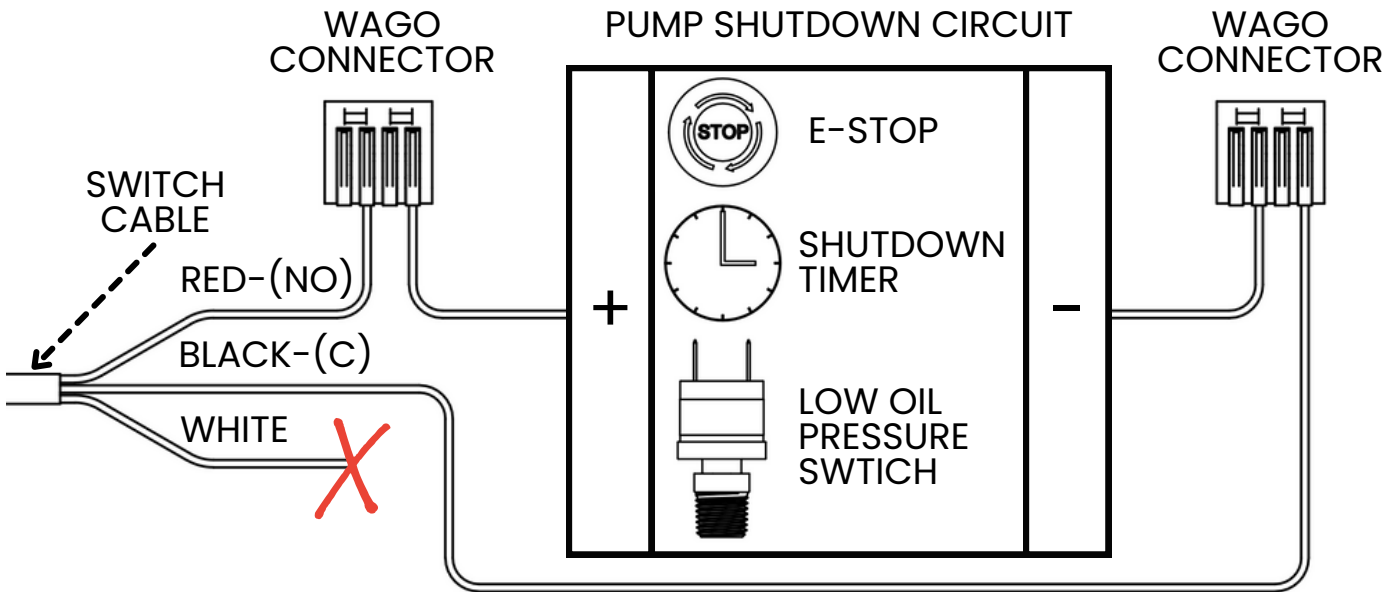


NO - NORMALLY OPEN
C - COMMON
NC - NORMALLY CLOSED

7. NORMALLY-OPEN (NO) WIRING

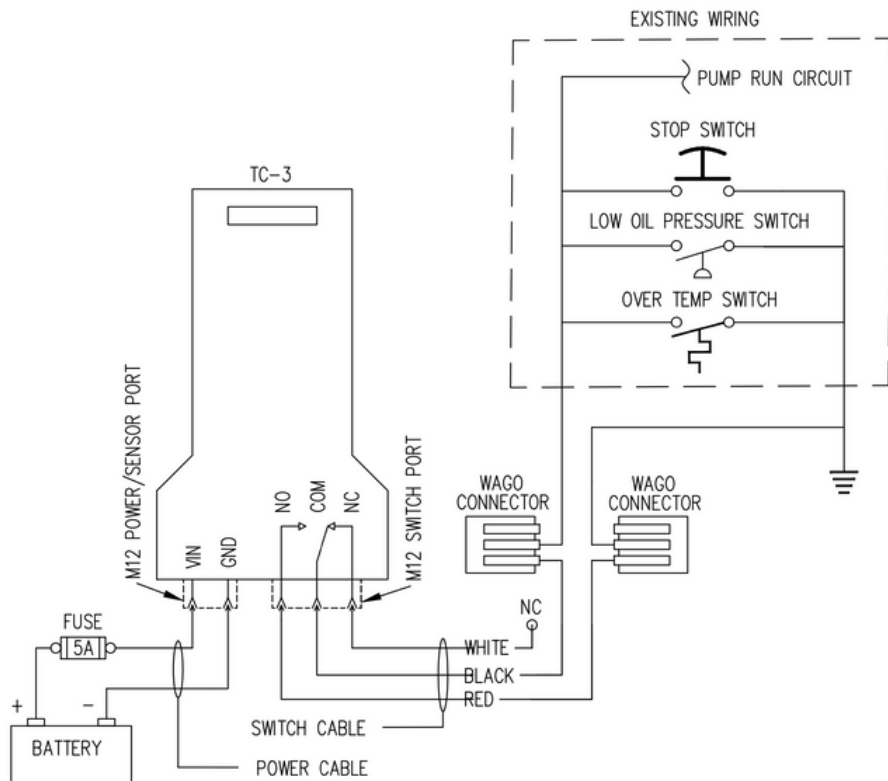


MOST COMMON SHUTDOWN CIRCUIT TYPE

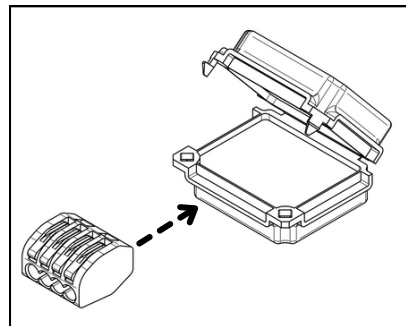


FOR NORMALLY-OPEN SHUTDOWN CIRCUITS, WIRE IN PARALLEL TO THE DEVICES THAT ALREADY EXIST.

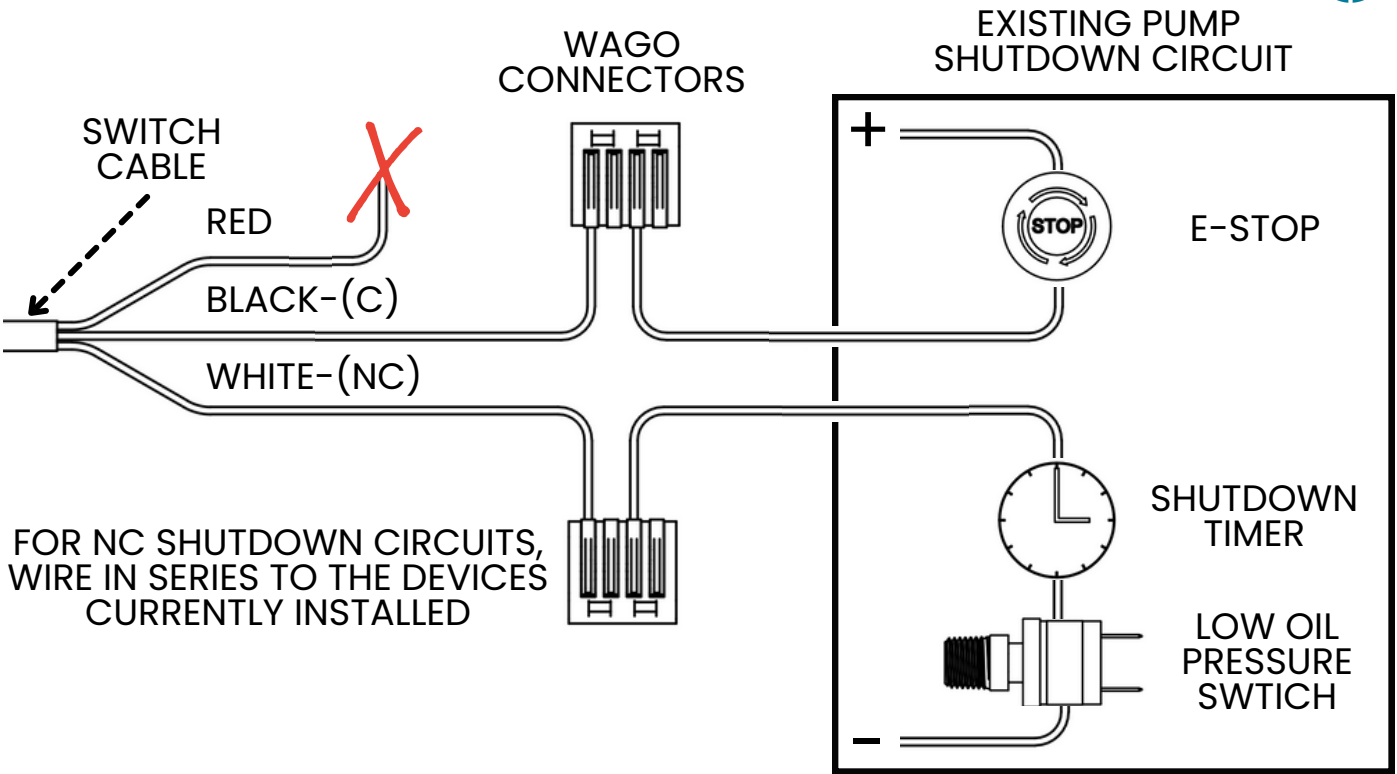
7A. WIRING DIAGRAM EXAMPLE- (NO)



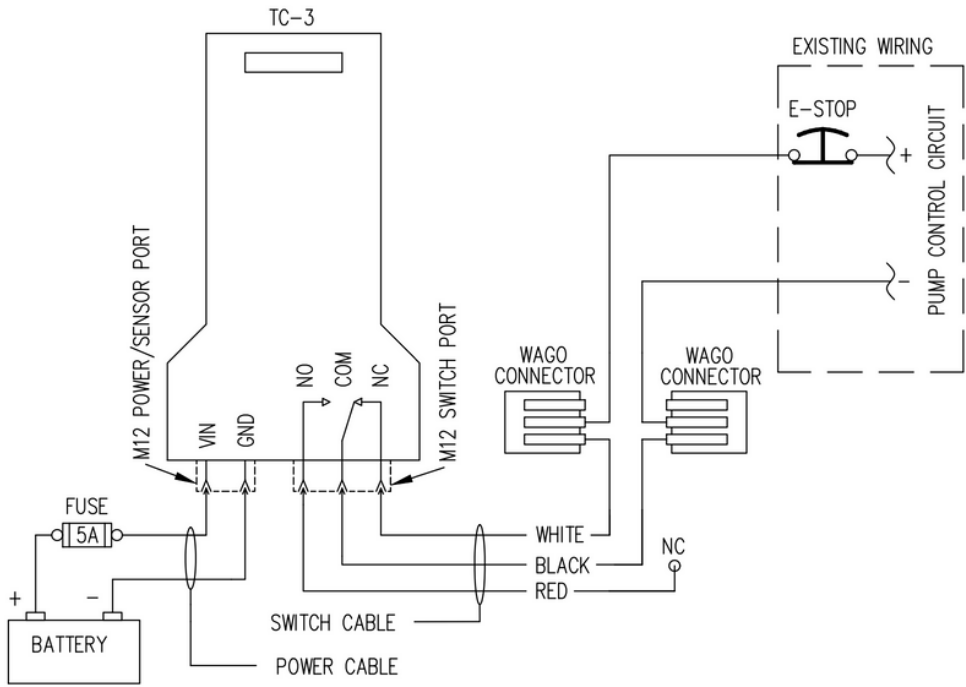
PLACE GEL BOXES
OVER THE WAGO
CONNECTORS FOR A
WATERPROOF SEAL



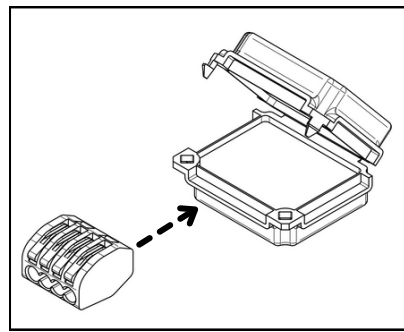
8. NORMALLY-CLOSED (NC) WIRING



8A. WIRING DIAGRAM EXAMPLE- (NC)



PLACE GEL BOXES
OVER THE WAGO
CONNECTORS FOR A
WATERPROOF SEAL



9. CONFIGURE YOUR DEVICE



A. SCAN THE BARCODE OR GO TO FarmHQ.com/support

FROM HERE YOU CAN ACCESS THE WEB APP OR DOWNLOAD THE MOBILE APP.

B. MAKE A NEW FARM ACCOUNT OR JOIN AN EXISTING ACCOUNT VIA A JOIN CODE.



C. IN THE APP, FOLLOW THE STEPS TO CONFIGURE YOUR DEVICE AS A PUMP.

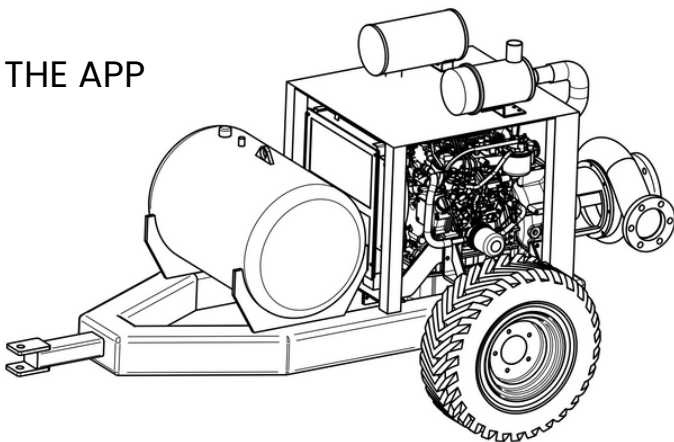


10. TEST PUMP SHUTDOWN



CONFIGURE TC-3 DEVICE IN THE FarmHQ APP BEFORE YOU BEGIN.

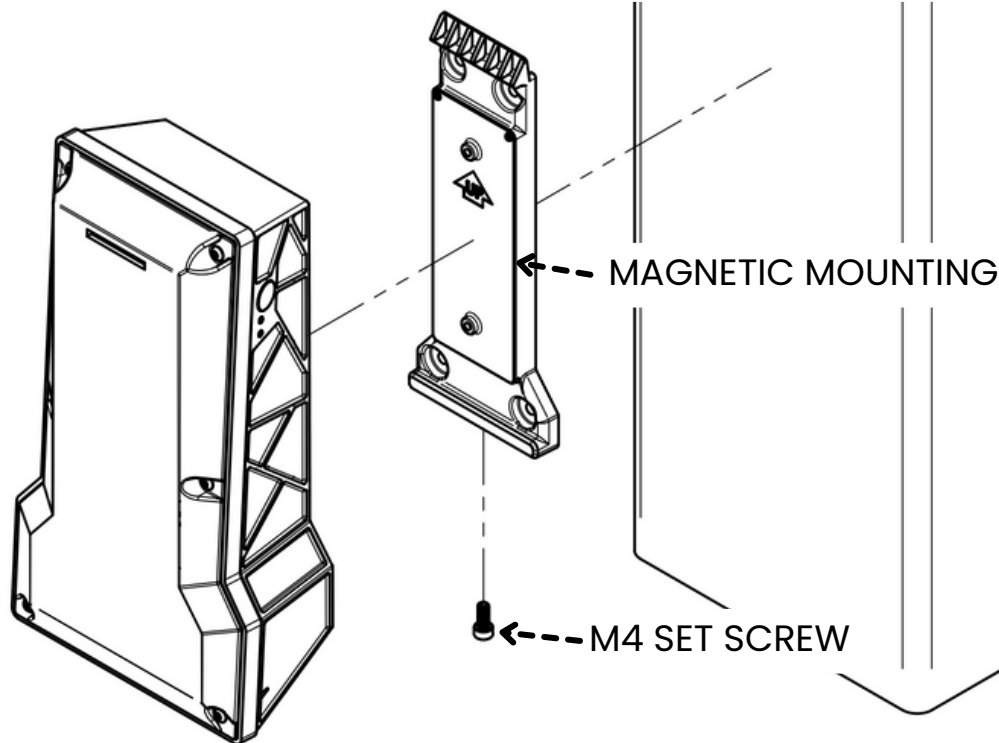
1. TURN THE PUMP ON
2. NAVIGATE TO DEVICE CONTROLS IN THE APP
3. CLICK - "TOGGLE"
4. VERIFY THE PUMP SHUTS DOWN



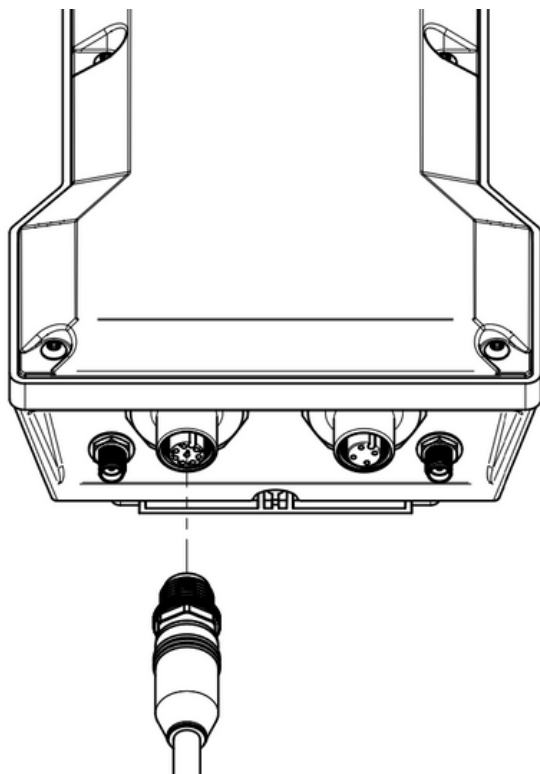
THIS COMPLETES INSTALLATION OF YOUR TC-3 ON A PUMP . THE FOLLOWING INSTRUCTIONS ARE FOR INSTALLING YOUR TC-3 ON AN ELECTRIC PUMP.

1. MOUNT YOUR DEVICE

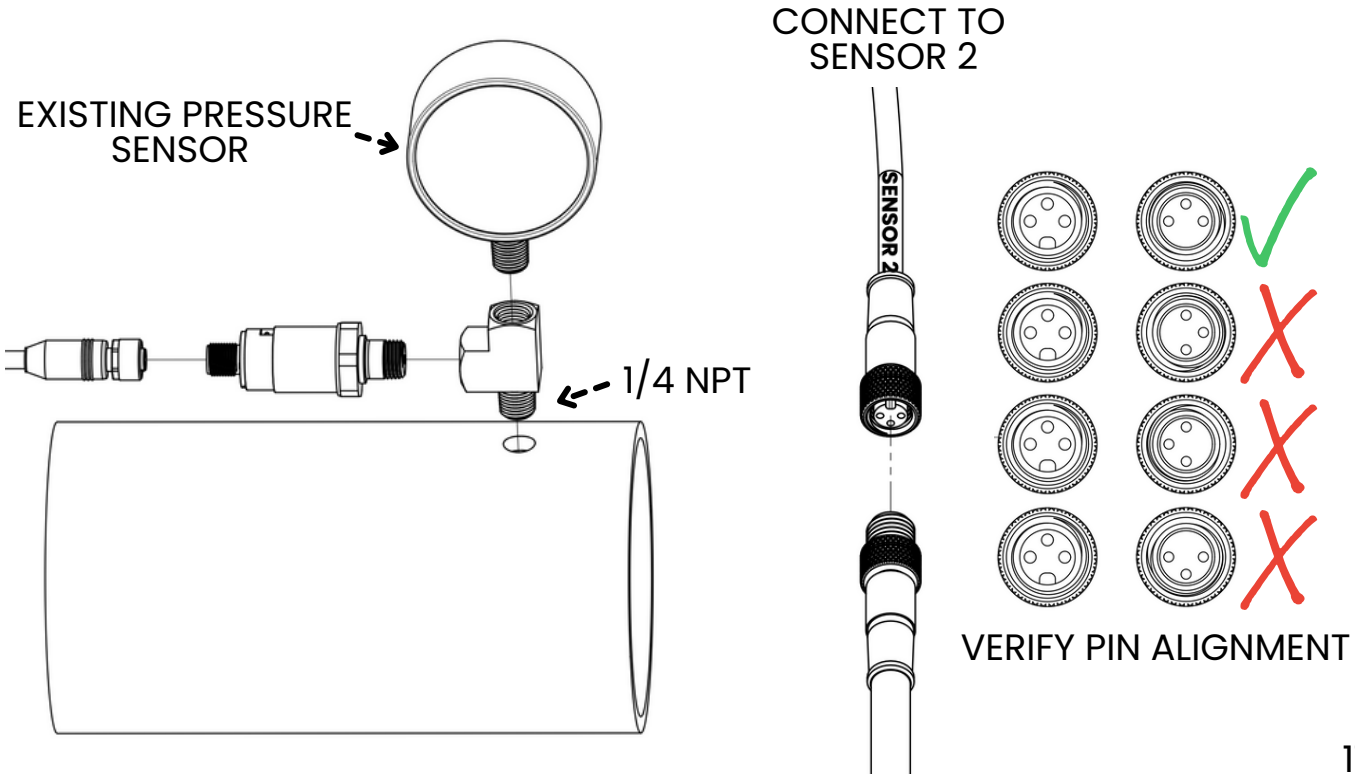
NOTE – THIS SET OF INSTRUCTIONS IS IF FOR INSTALLING YOUR TC-3 ON AN ELECTRIC PUMP. SEE PAGE 1 FOR STANDARD PUMP INSTALLATION.



2. CONNECT WIRE HARNESS



3. CONNECT PRESSURE SENSOR



4. CONNECT TO POWER (8-48VDC)



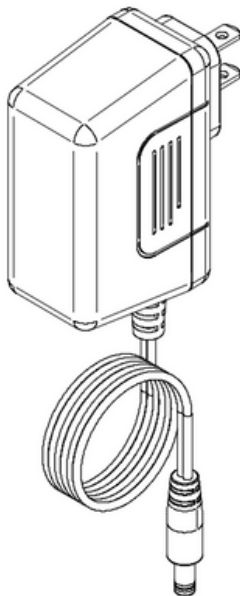
THE TC-3 ACCEPTS 8VDC-48VDC. IF THIS VOLTAGE IS NOT AVAILABLE, FarmHQ CAN RECOMMEND A DIN RAIL MOUNT OR PLUG IN POWER SUPPLY

POWER SUPPLY SPECS:

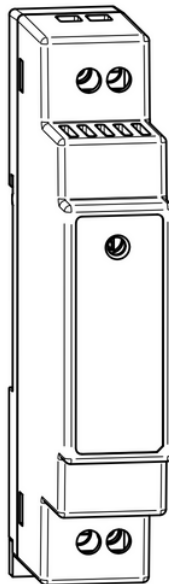
- 20W MIN
- 12-48VDC OUTPUT



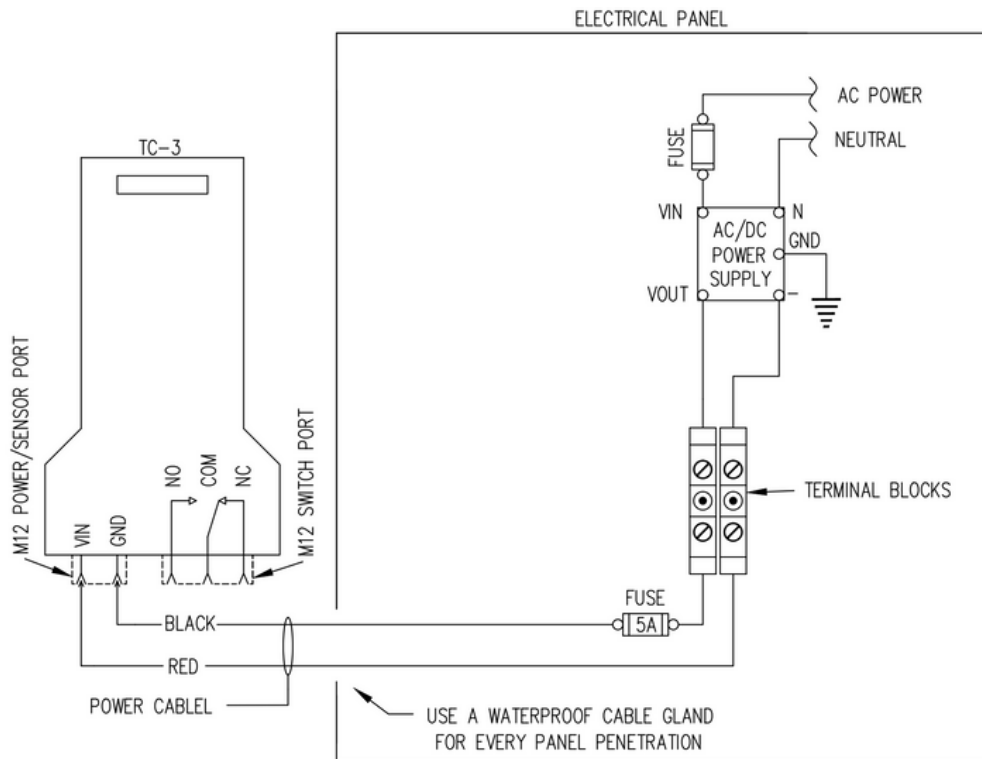
PLUG IN POWER SUPPLY



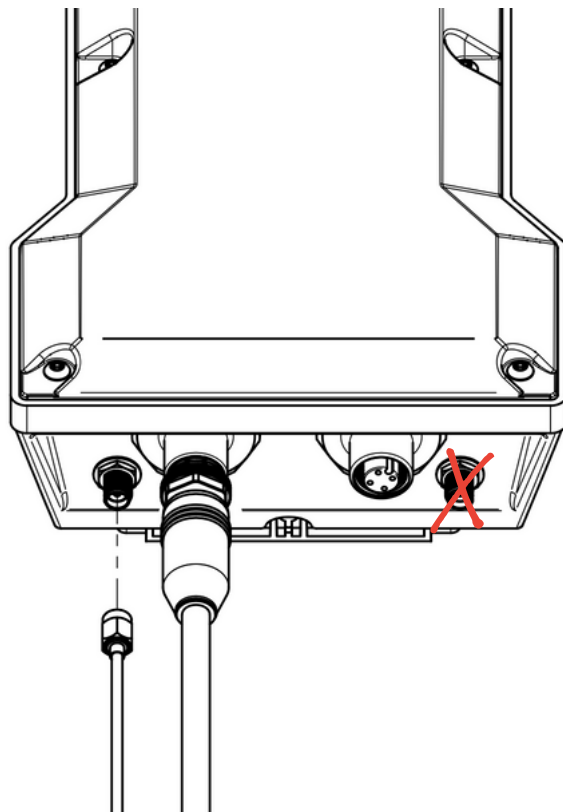
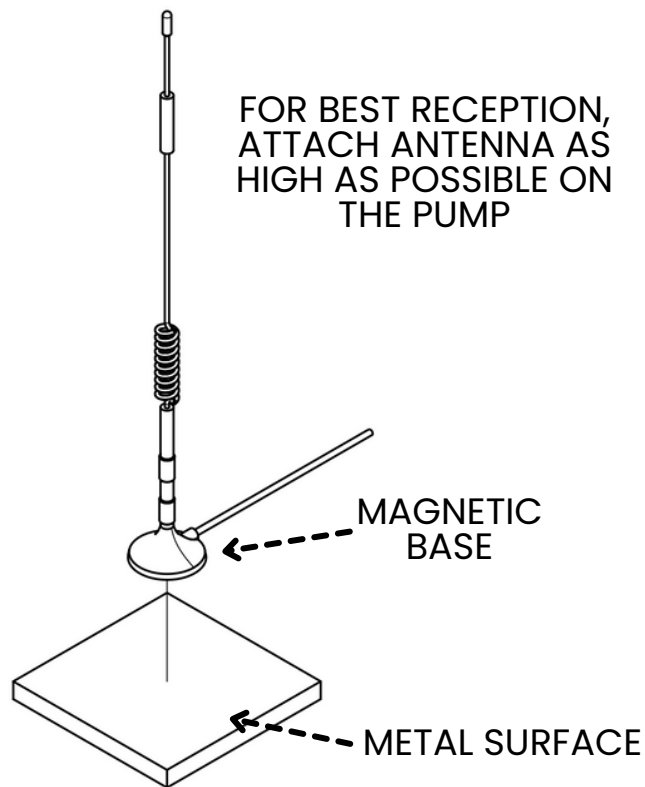
DIN RAIL MOUNT POWER SUPPLY



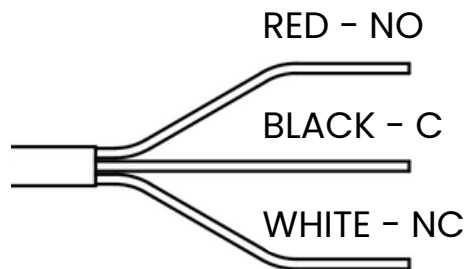
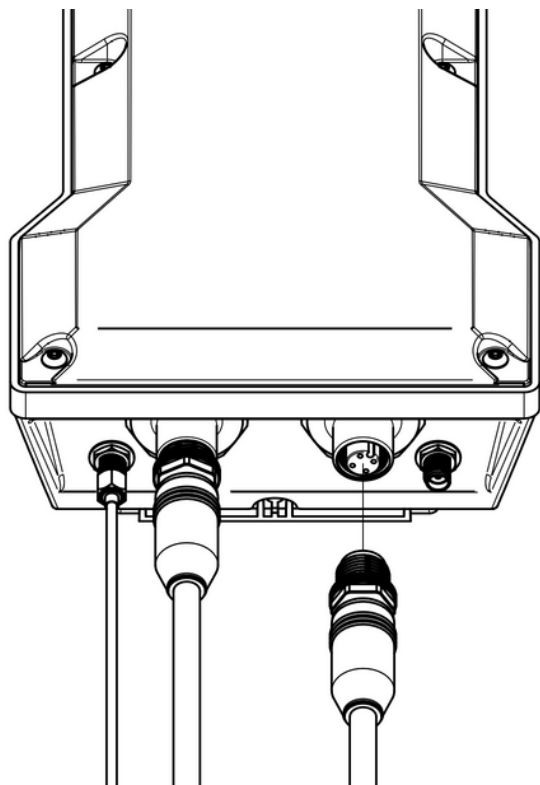
4A. TC-3 POWER WIRING DIAGRAM



5. CONNECT THE ANTENNA



6. CONNECT SWITCH CABLE



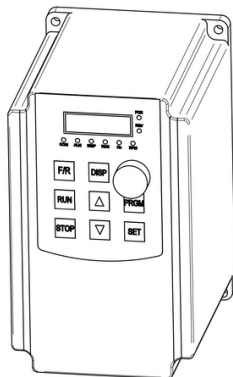
NO - NORMALLY OPEN
C - COMMON
NC - NORMALLY CLOSED

7. SELECT DESIRED CONTROL TYPE



CONTROL OPTIONS

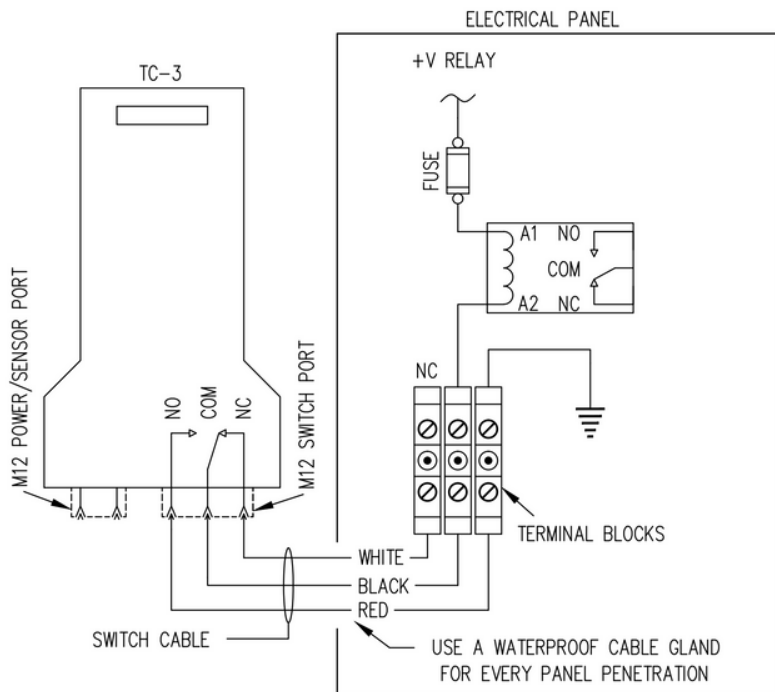
- **PUMP STOP** – SEE WIRING DIAGRAMS ON PAGE 26
 - **PUMP START/STOP** – IF YOU WANT TO ENABLE START/STOP FUNCTIONALITY, WE RECOMMEND WIRING YOUR PUMP'S CONTROL CIRCUIT TO THE TC-3 SWITCH IN A NORMALLY-OPEN CONFIGURATION. WHEN THE CONTROL CIRCUIT CLOSES, THE PUMP STARTS. THEN, WHEN THE CONTROL CIRCUIT OPENS THE PUMP STOPS. THIS IS MOST COMMONLY FOUND ON PUMPS DRIVEN BY VFDS. SEE WIRING DIAGRAMS ON PAGE 27
- NOTE** – NOT ALL PUMPS ARE START COMPATIBLE.



8. INSTALL A RELAY AT PUMP PANEL



THE CONTROL VOLTAGE IN YOUR PANEL CAN DAMAGE YOUR TC-3. INSTALL A RELAY IN THE PUMP CONTROL PANEL TO KEEP THE CONTROL CIRCUITS SEPARATE. THIS RELAY WILL BE CONTROLLED BY YOUR TC-3.

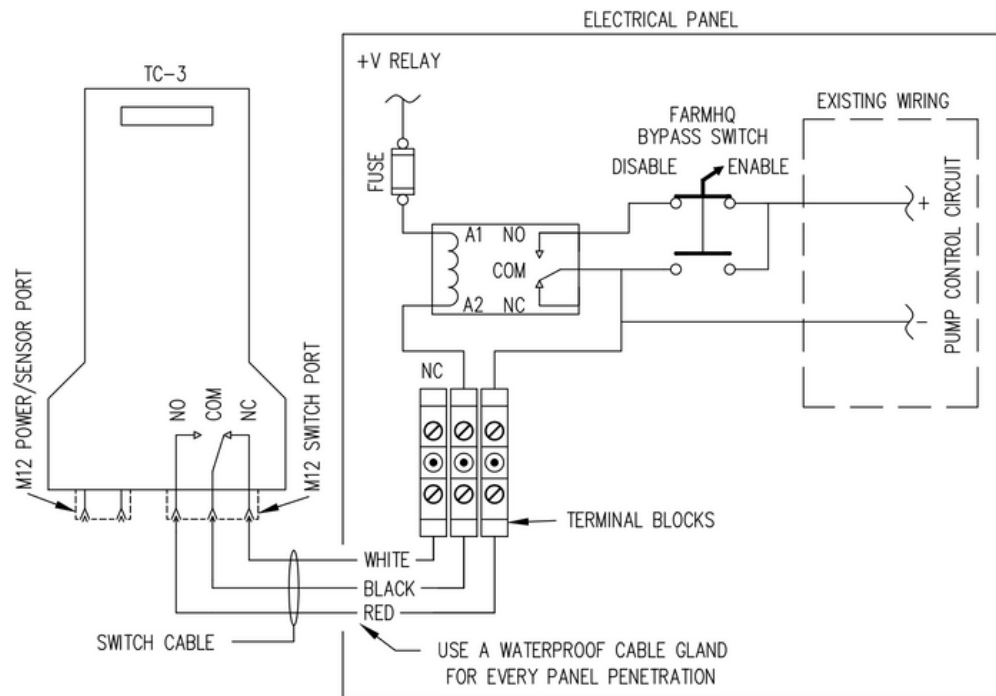


RELAY REQUIREMENTS

- SPDT
- COIL VOLTAGE: 5V-240V
- COIL CURRENT MAX: 1A

FarmHQ CAN RECOMMEND A RELAY IF YOU NEED HELP.

9. INSTALL BYPASS SWITCH-OPTIONAL



FarmHQ CAN
RECOMMEND A
BYPASS SWITCH IF
YOU NEED HELP.

ENABLED

BYPASS

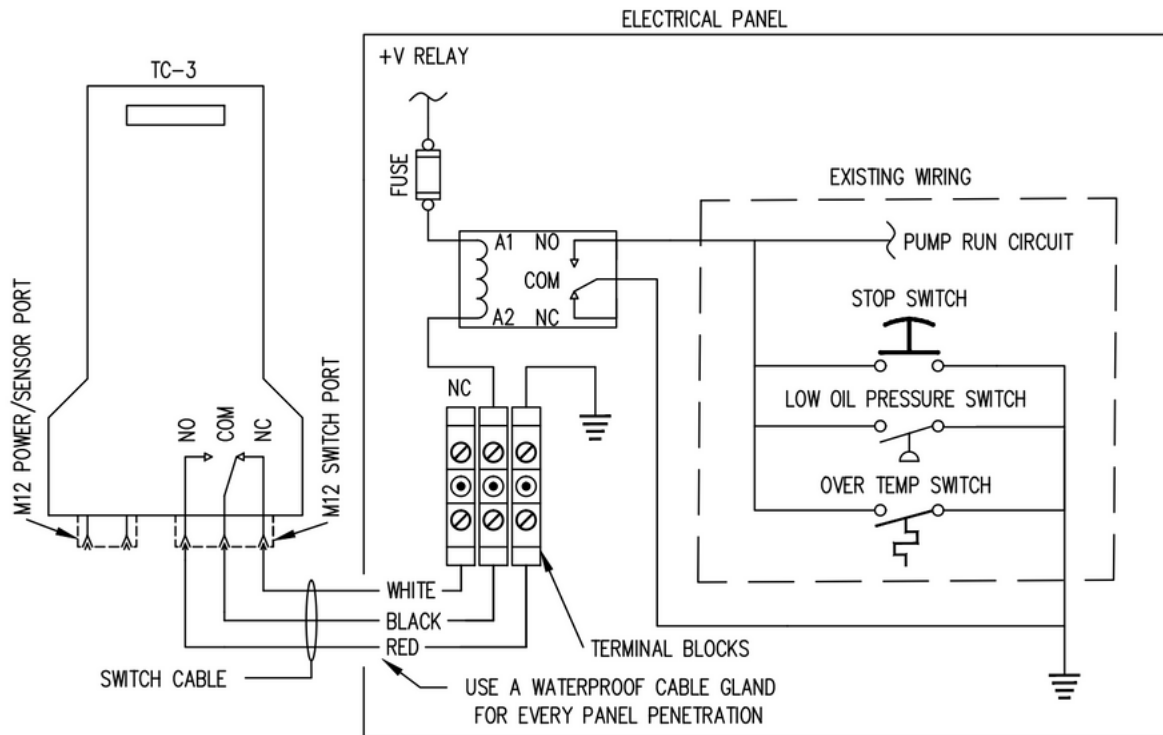


A BYPASS SWITCH PROVIDES AN EASY MECHANICAL LOCKOUT THAT ALLOWS YOU TO RUN YOUR PUMP WITHOUT FARMHQ, IF DESIRED.

10A. PUMP SHUTDOWN-ONLY WIRING



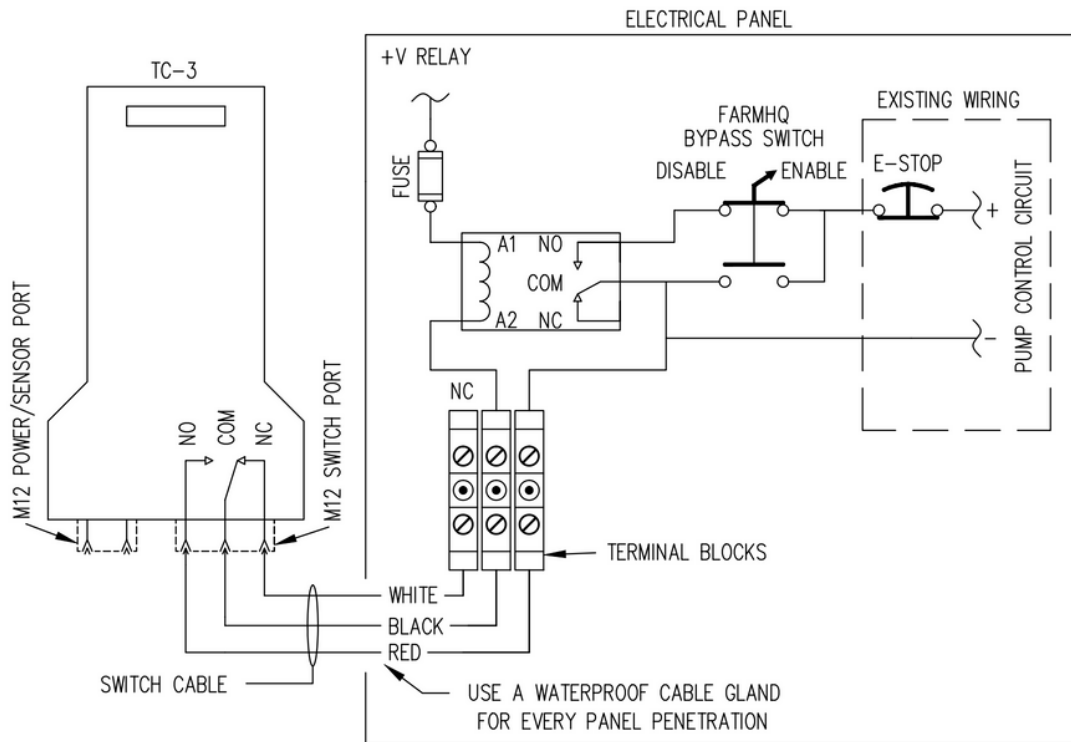
WIRING EXAMPLE



10B. PUMP START/STOP WIRING



WIRING EXAMPLE



11. CONFIGURE YOUR DEVICE



A. SCAN THE BARCODE OR GO TO FarmHQ.com/support

FROM HERE YOU CAN ACCESS THE WEB APP OR DOWNLOAD THE MOBILE APP.

B. MAKE A NEW FARM ACCOUNT OR JOIN AN EXISTING ACCOUNT VIA A JOIN CODE.



C. IN THE APP, FOLLOW THE STEPS TO CONFIGURE YOUR DEVICE AS A PUMP.



12. TEST PUMP CONTROL



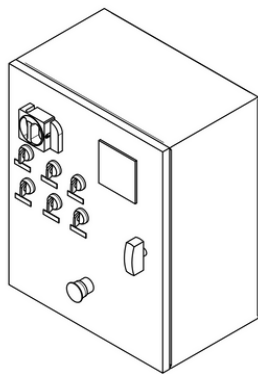
CONFIGURE TC-3 DEVICE IN THE FarmHQ APP BEFORE YOU BEGIN.

TO TEST SHUTDOWN-ONLY WIRING

1. TURN THE PUMP ON
2. NAVIGATE TO DEVICE CONTROLS IN THE FARMHQ APP
3. CLICK - "TOGGLE"
 - A. THIS WILL ACTIVATE THE TC-3 SWITCH FOR 10 SECONDS
4. VERIFY THAT THE PUMP SHUTS DOWN

TO TEST START/STOP WIRING

1. TURN BYPASS SWITCH TO - TC-3 ENABLED
2. NAVIGATE TO DEVICE CONTROLS IN THE FARMHQ APP
3. CLICK - "ON" - THIS ACTIVATES THE TC-3 SWITCH.
4. VERIFY THE PUMP STARTS (OR FINISH STARTING THE PUMP)
5. CLICK - "OFF" - THIS DEACTIVATES THE TC-3 SWITCH.
6. VERIFY THAT THE PUMP SHUTS DOWN



THIS COMPLETES INSTALLATION OF YOUR TC-3 ON AN ELECTRIC PUMP