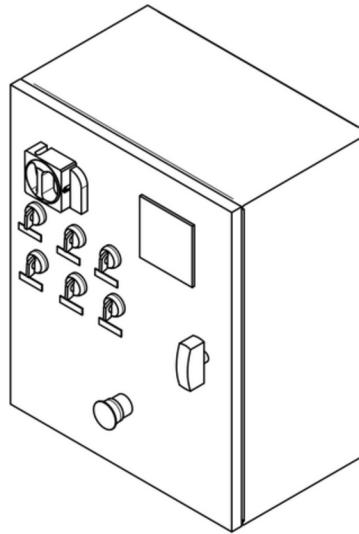


FarmHQ ELECTRIC PUMP INSTALLATION



www.farmhq.com

December 2024 • Version 3.1

TC-3 ELECTRIC 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.

WHAT YOU WILL NEED

- DRILL
- VOLTMETER
- METRIC ALLEN WRENCHES
- CRESCENT WRENCH
- WIRE STRIPPERS
- CRIMPERS
- OPEN END WRENCH SET
- TEFLON TAPE
- 1/4" PIPE ADAPTORS
- CONTROL SCREWDRIVER
- 12-48VDC POWER SUPPLY

CONTACT US AT

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

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

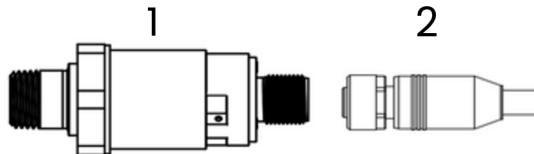
- IF YOU HAVE ANY TROUBLE DURING INSTALL REFERENCE THE USER MANUAL AT FarmHQ.com/support



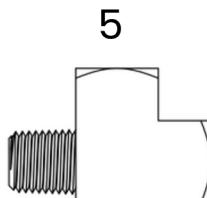
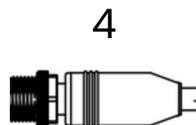
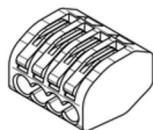
INSTALLATION HARDWARE



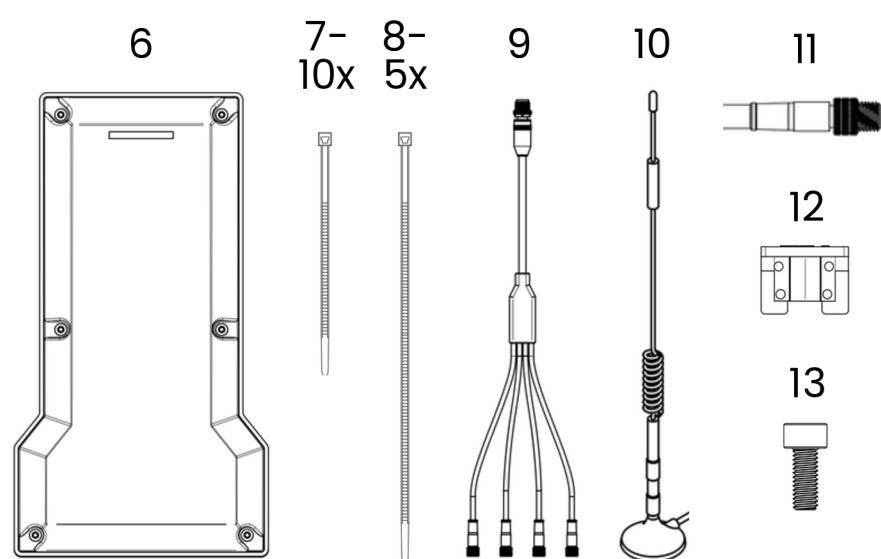
PUMP KIT



3-3x



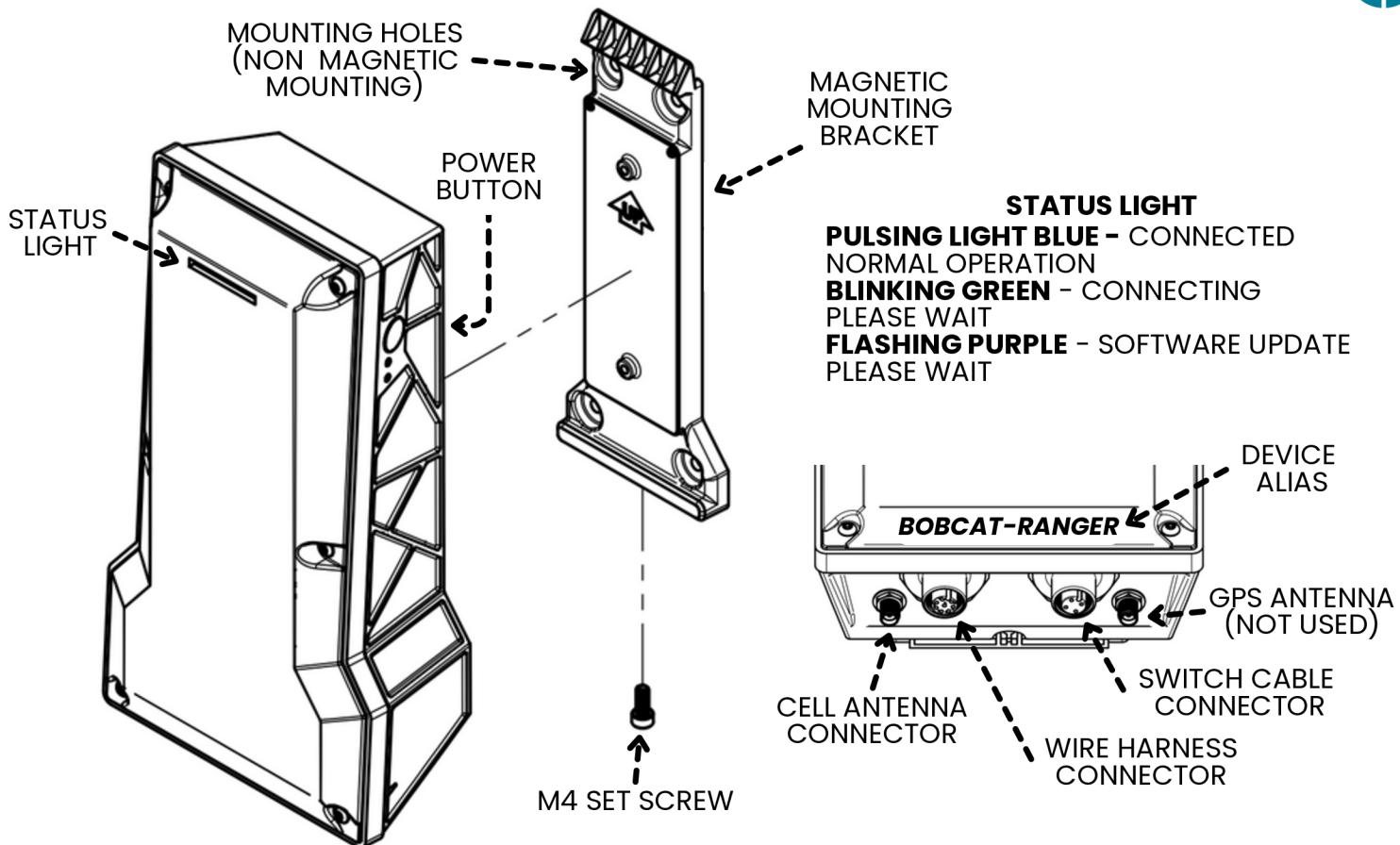
DEVICE KIT



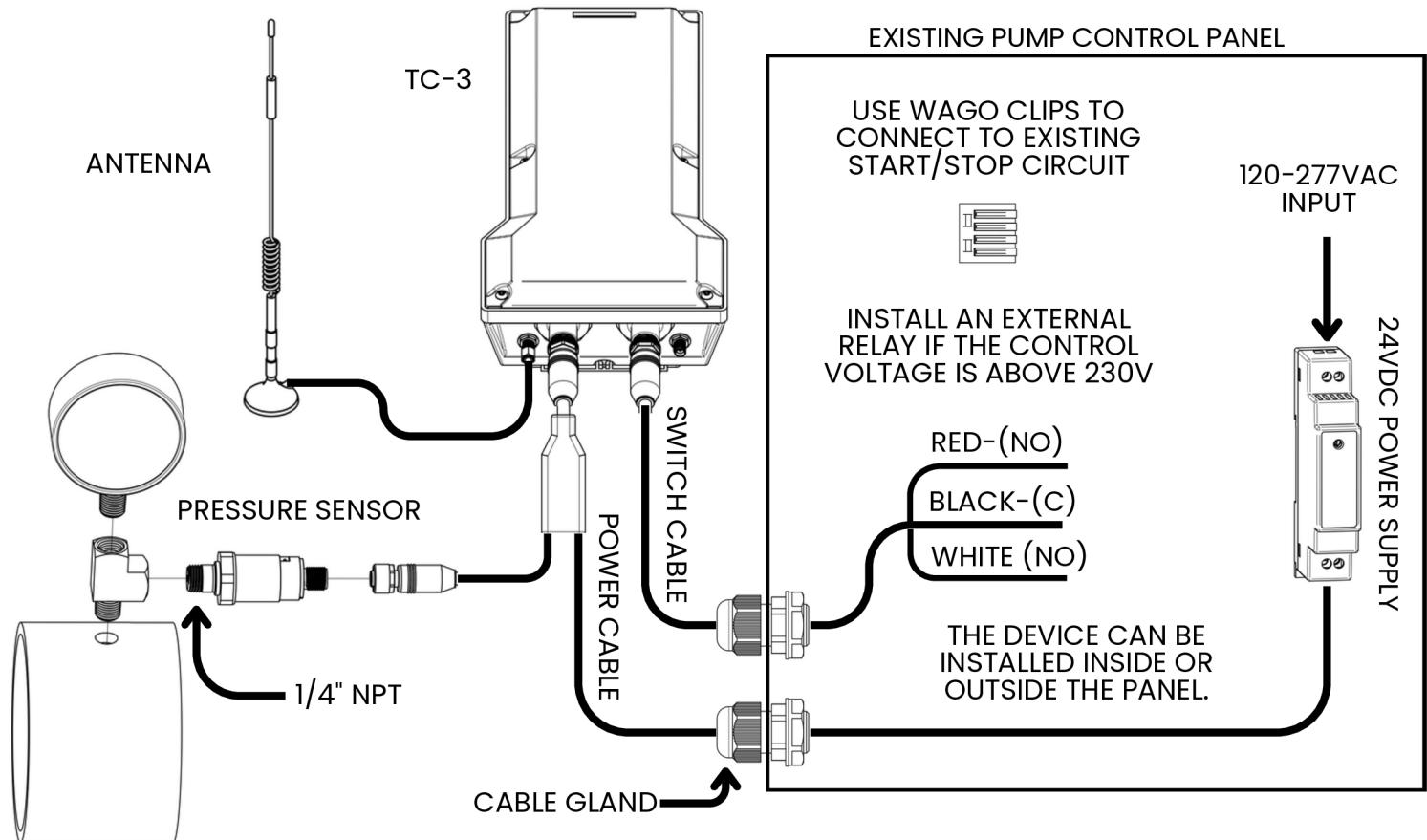
- 1. PRESSURE SENSOR
- 2. PRESSURE SENSOR CABLE
- 3. WAGO WIRE CONNECTORS
- 4. SWITCH CABLE
- 5. 1/4" NPT BRASS TEE M5
- 6. TC-3
- 7. 6" CABLE TIES

- 8. 11" CABLE TIES
- 9. TC-3 WIRE HARNESS
- 10. ANTENNA
- 11. POWER CABLE
- 12. SPARE 5A BLADE FUSE
- 13. SPARE M4 SET SCREW

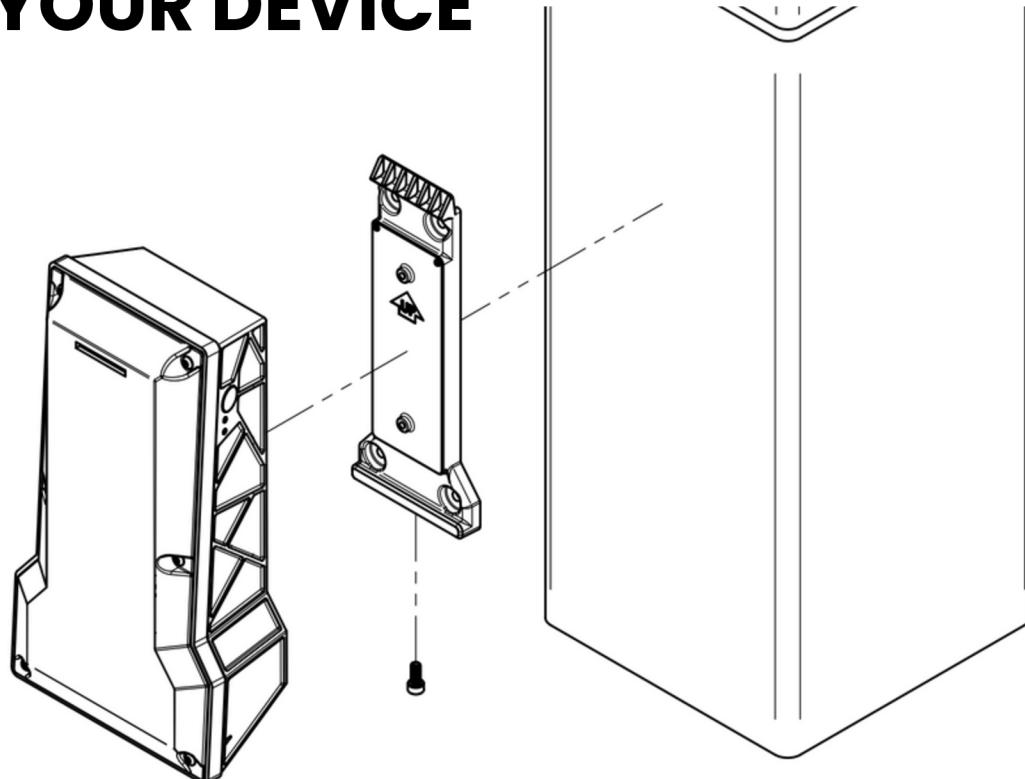
DEVICE OVERVIEW



INSTALLATION OVERVIEW

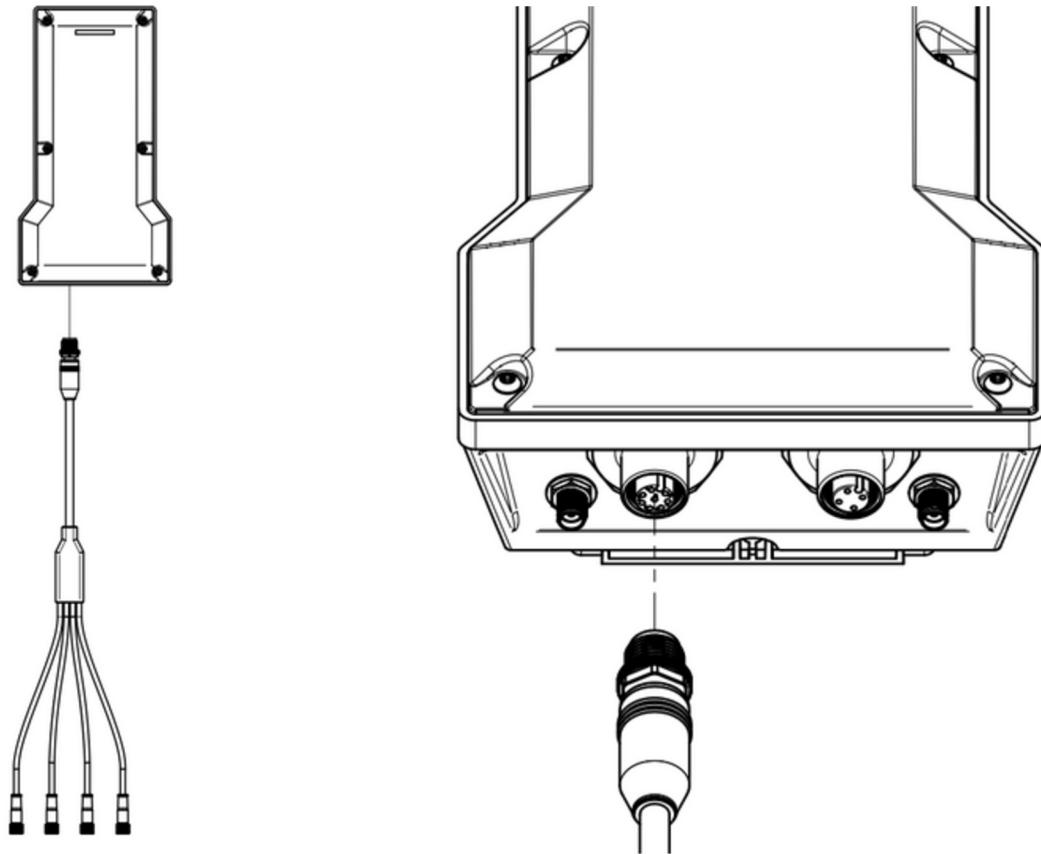


1. MOUNT YOUR DEVICE



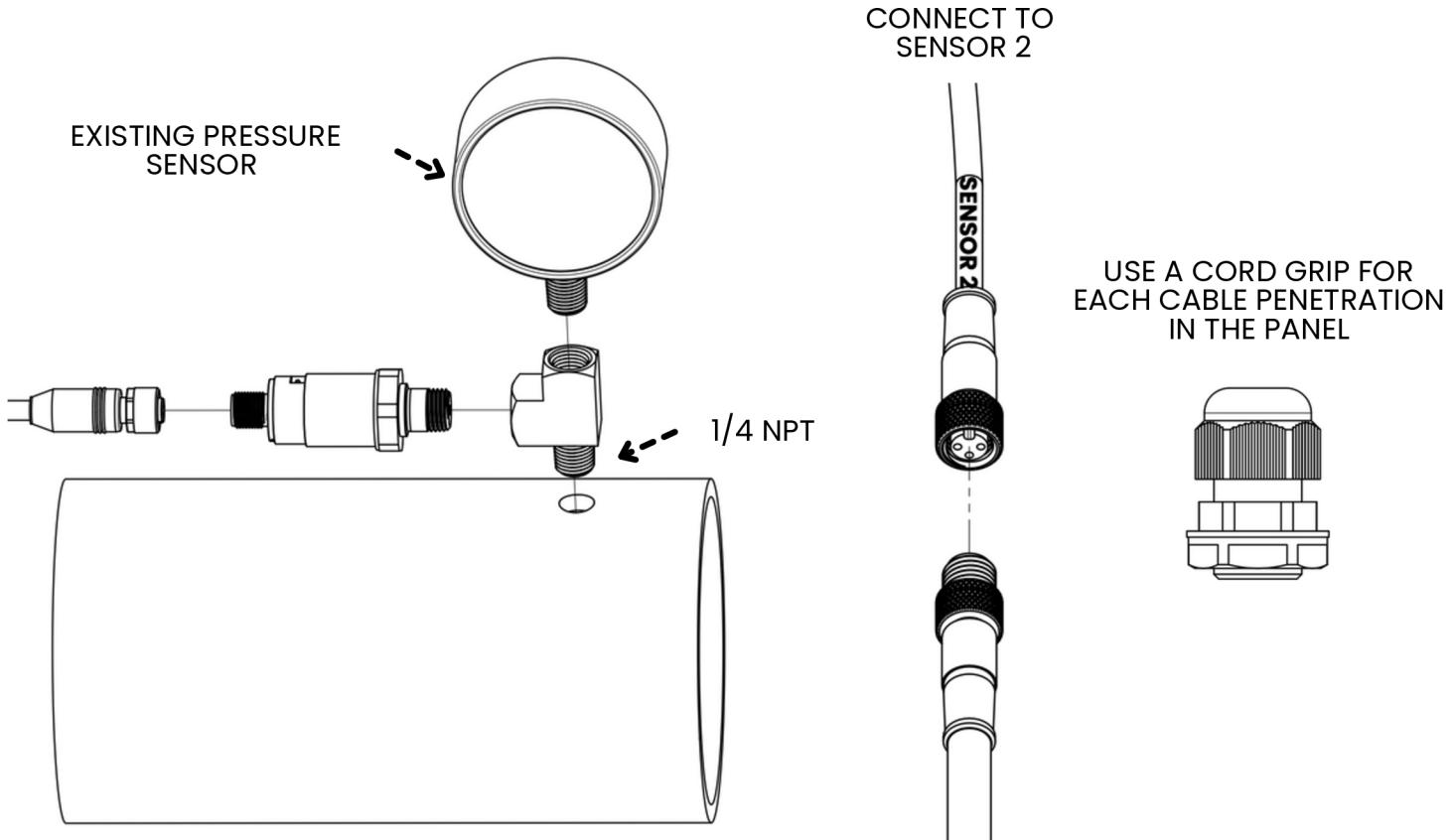
INSTALLATION LOCATION – FOR STATIONARY PUMPS, DEVICES CAN BE MOUNTED INSIDE THE ELECTRICAL PANEL OR PUMP HOUSE. NOTE THAT HIGH CURRENT POWER CABLES CAN INTERFERE WITH PROPER FUNCTIONALITY. WHEN MOUNTING INSIDE OF AN ELECTRIC PANEL, MAKE SURE THE DEVICE, ANTENNA AND ANTENNA WIRE IS FAR AWAY FROM ANYTHING CARRYING HIGH CURRENT. FOR BEST GPS PRECISION, THE DEVICE SHOULD HAVE A CLEAR VIEW OF THE SKY. THE DEVICE GPS LOCATION CAN BE MANUALLY ADDED TO A SPECIFIC LOCATION WHERE IT'S NOT POSSIBLE TO GET GOOD GPS.

2. CONNECT WIRE HARNESS

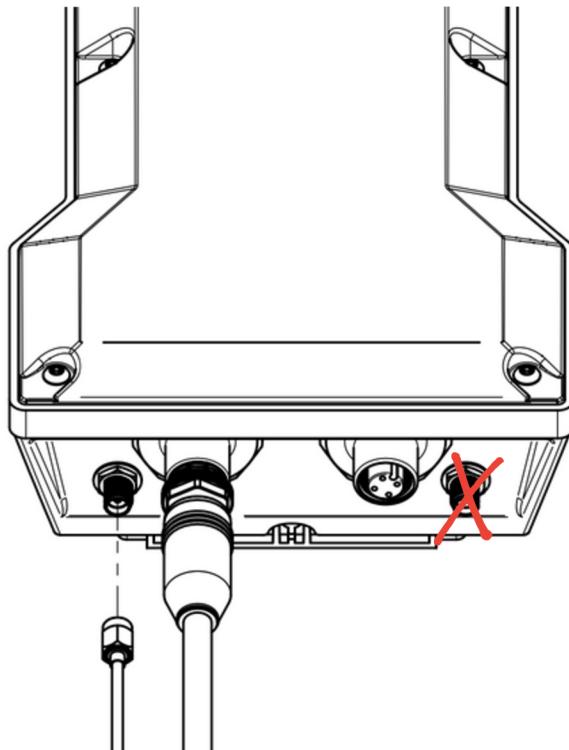
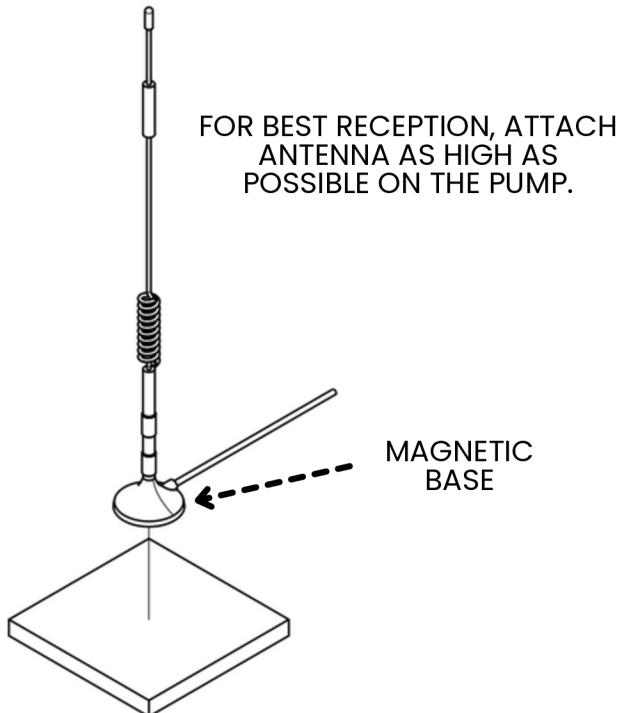




3. CONNECT PRESSURE SENSOR



4. CONNECT THE ANTENNA



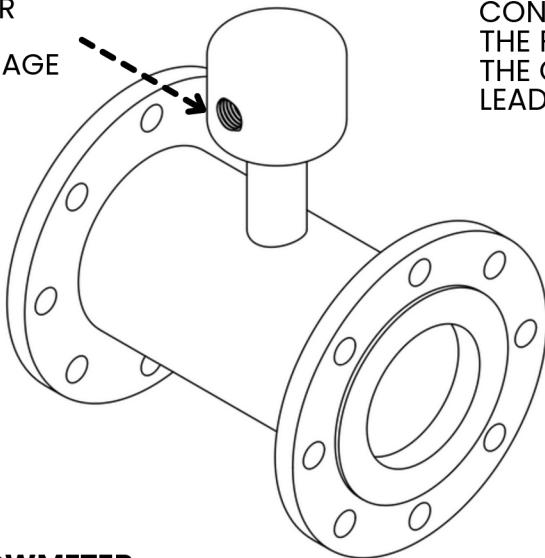
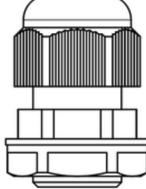
INSTALLING INSIDE AN ELECTRICAL PANEL – ROUTE THE ANTENNA OUTSIDE THE ENCLOSURE

INSTALLING INSIDE A PUMP HOUSE – ROUTE THE ANTENNA ONTO THE ROOF

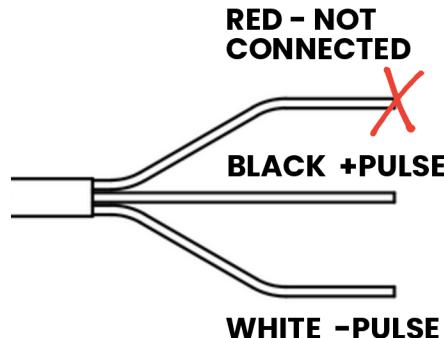
5. CONNECT TO FLOWMETER (OPTIONAL)



USE CORD GRIP OR
SEALING GLAND FOR
PENETRATIONS TO
AVOID WATER DAMAGE
TO FLOW METER



USE THE PROVIDED SENSOR CABLE TO CONNECT TO THE PULSED OUTPUT OF THE FLOW METER. CUT THE END OFF THE CABLE TO EXPOSE THE WIRE LEADS AND CONNECT AS SHOWN.



CONNECT
TO SENSOR 1



PROGRAM THE FLOWMETER

SOME FLOWMETERS REQUIRE THE PULSED OUTPUT TO BE ENABLED AND THE K-VALUE OR GALLONS-PER-PULSE SETTING TO BE CONFIGURED. IN SOME CASES, THESE SETTINGS COME PRE-CONFIGURED FROM THE FACTORY. REFER TO THE FLOWMETER MANUAL TO DETERMINE THE K-VALUE, AS THIS WILL BE REQUIRED FOR PROPER CONFIGURATION.

RED - CUT AND WRAP WITH ELECTRICAL TAPE

6. CONNECT TO POWER (8-48VDC)

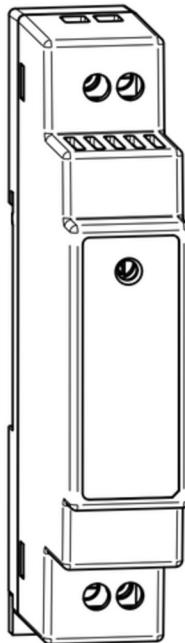


THE TC-3 ACCEPTS 8VDC-48VDC. IF THIS VOLTAGE IS NOT AVAILABLE, FarmHQ CAN PROVIDE A DIN RAIL MOUNT POWER SUPPLY

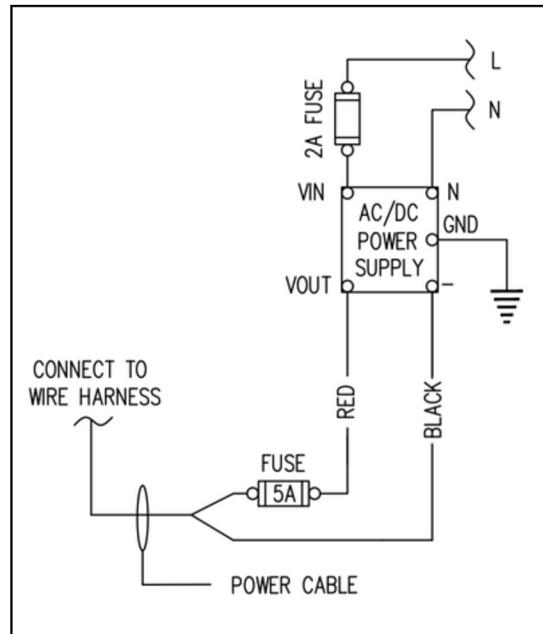
POWER SUPPLY SPECS:

- 20W MIN
- 8-48VDC OUTPUT

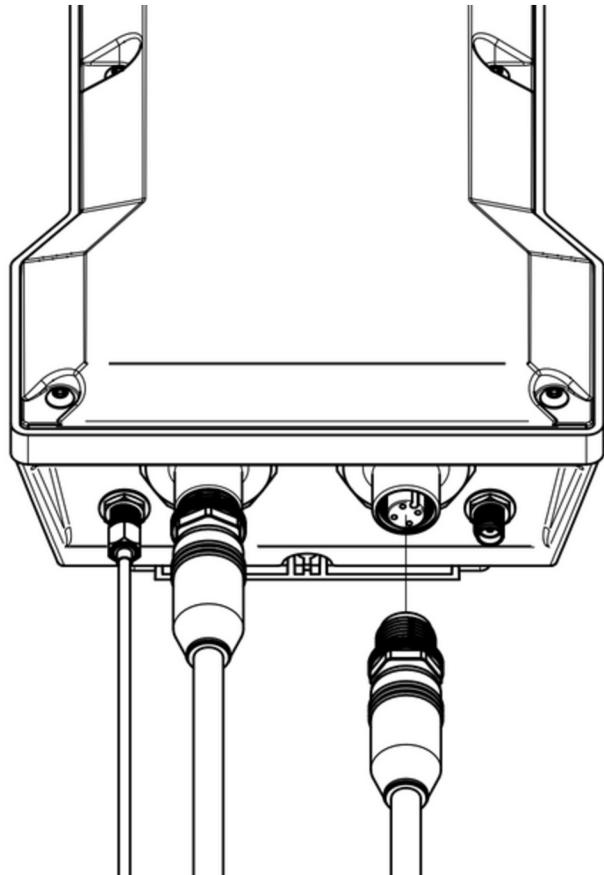
INSTALL A 12V OR 24V POWER SUPPLY. FARMHQ CAN ACCEPT 8-48V



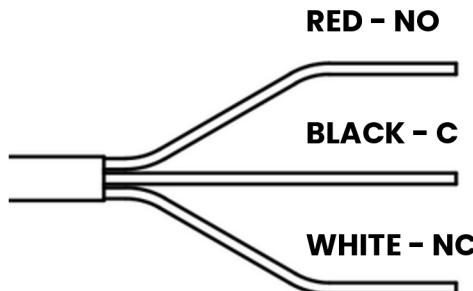
AC/DC POWER SUPPLY WIRING DIAGRAM



7. CONNECT SWITCH CABLE



THE TC-3 HAS AN INTERNAL RELAY RATED FOR 4A, 250V FOR USE TO START/STOP YOUR PUMP. THE SWICH CABLE EXPOSES THE NO, NC, AND C CONTACTS OF THE REALY. EACH PUMP IS DIFFERENT SO YOU WILL NEED TO DETERMINE HOW TO PROPERLY WIRE IN FarmHQ FOR PROPER PUMP SHUTDOWN.



NO - NORMALLY OPEN

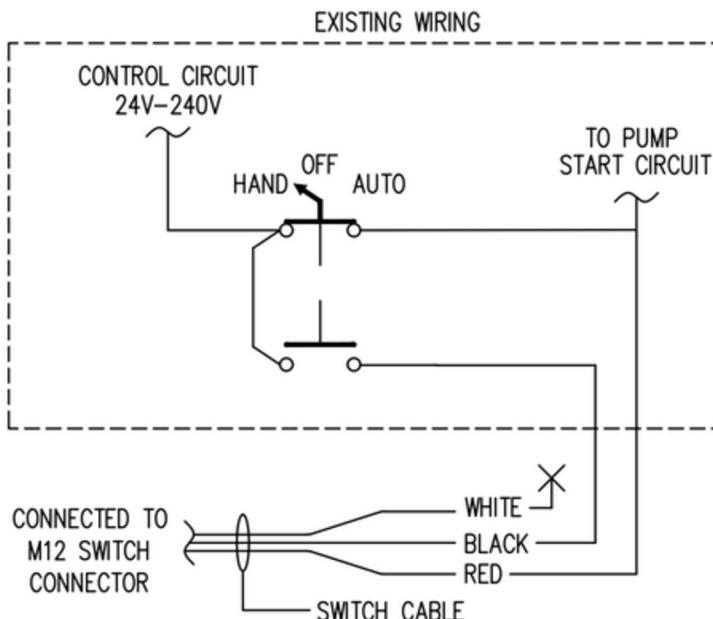
C - COMMON

NC - NORMALLY CLOSED

8. WIRE INTO SHUTDOWN CIRCUIT



WIRE FARMHQ INTO THE RUN/ENABLE CIRCUIT, ALLOWING IT TO START/STOP YOUR PUMP. IT IS RECOMMENDED TO CONNECT THROUGH THE HOA SWITCH ON THE PANEL. REFER TO THE SIMPLIFIED WIRING DIAGRAM, NOTING THAT YOUR PUMP'S WIRING MAY DIFFER. USE THE PROVIDED WAGO CLIPS TO CONNECT THE SWITCH CABLE TO THE EXISTING RUN/ENABLE CIRCUIT.



9. GETTING STARTED WITH THE APP



A. DOWNLOAD THE FARMHQ APP

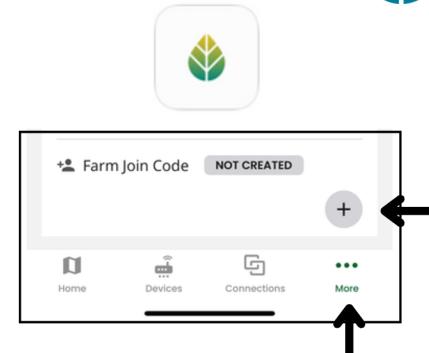
B. SIGN UP, CREATE OR JOIN AN ACCOUNT

CREATE YOUR OWN USER ACCOUNT. EVERY USER NEEDS TO HAVE AN ACCOUNT. FOLLOW THE PROMPTS TO VERIFY YOUR EMAIL ADDRESS AND PHONE NUMBER. NEXT CREATE A NEW FARM ACCOUNT. IF A FARM ACCOUNT ALREADY EXISTS, USE A FARM JOIN CODE TO BE ADDED TO THE EXISTING FARM. SOMEONE WHO HAS ACCESS TO THE ACCOUNT CAN GENERATE ONE FOR YOU.

C. ADD A DEVICE

FROM THE DEVICES TAB, ADD A NEW DEVICE. INPUT THE DEVICE ALIAS PRINTED ON THE FRONT OF THE DEVICE. THE CONFIGURATION WORKFLOW GUIDES YOU STEP BY STEP. YOU CAN CHANGE CONFIGURATION DETAILS LATER IF YOU NEED TO.

APP BASICS – GO TO www.farmHQ.com/support FOR AN OVERVIEW OF HOW THE APP WORKS



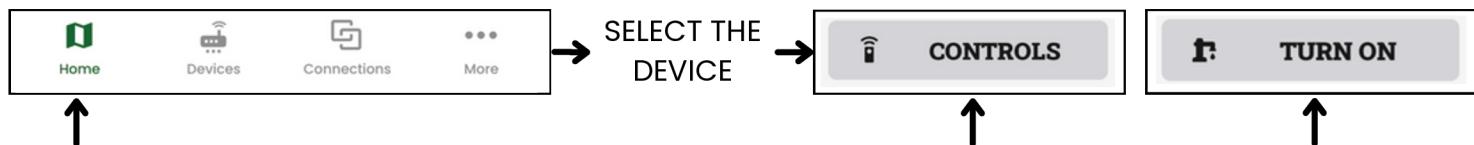
10. VERIFY YOUR INSTALL



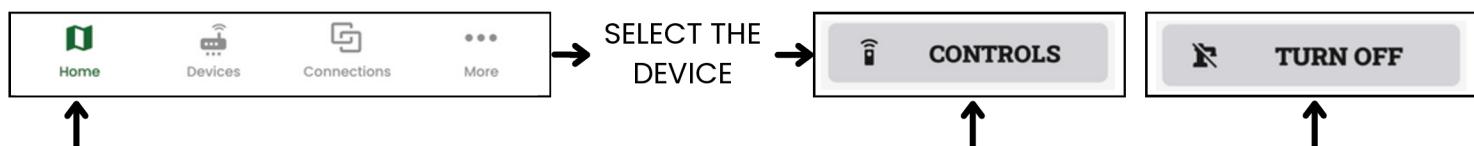
PLEASE DON'T SKIP THIS STEP. IF YOU DO NOT HAVE THE ABILITY TO RUN THE PUMP AT THE TIME OF INSTALL MAKE SURE YOU VERIFY STEPS NEXT TIME THE PUMP IS RUNNING.

A. NAVIGATE TO DEVICE CONTROLS.

B. CLICK - "TURN ON"



C. VERIFY YOUR PUMP TURNS ON. IF YOU CAN RUN WATER, VERIFY THE APP IS REPORTING THE SAME PRESSURE AS THE GAUGE ON THE PUMP



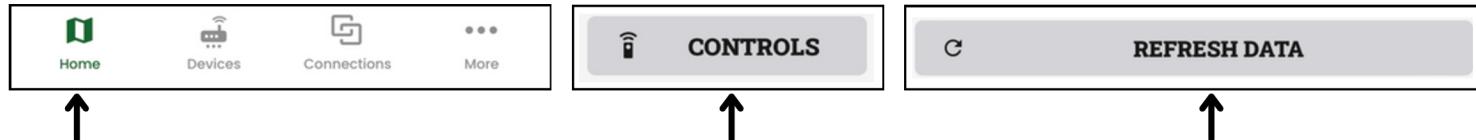
D. CLICK - "TURN OFF"

E. VERIFY THE PUMP SHUTS DOWN

TROUBLESHOOTING - BASIC CHECKS

A. CHECK THAT THE TC-3 IS POWERED ON AND THE STATUS LIGHT IS PULSING LIGHT BLUE.

B. CLICK ON THE HOME TAB AND CLICK ON THE DESIRED DEVICE. CLICK "REFRESH DATA"



C. VERIFY THE PUMP CONFIGURATION. CHECK THE FOLLOWING.

1. MAKE SURE YOU SELECTED THE CORRECT PUMP TYPE – "PUMP ON/OFF"
2. MAKE SURE THE SENSOR PORT MATCHES HOW IT IS CONNECTED TO THE WIRE HARNESS



D. RESTART THE DEVICE – REMOVE THE WIRE HARNESS THEN HOLD THE POWER BUTTON UNTIL THE LIGHT TURNS GREEN (3 SECONDS) THEN LET GO. PLUG THE WIRE HARNESS BACK IN AND WAIT FOR THE DEVICE TO BEGIN PULSING LIGHT BLUE.

