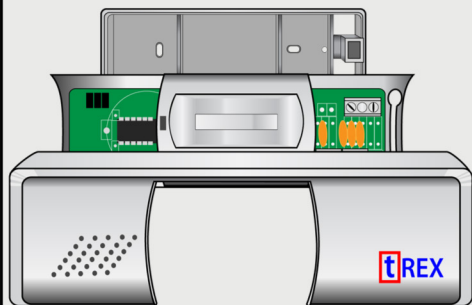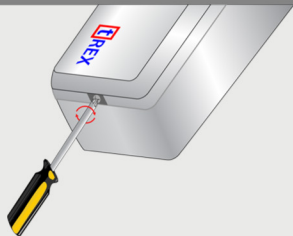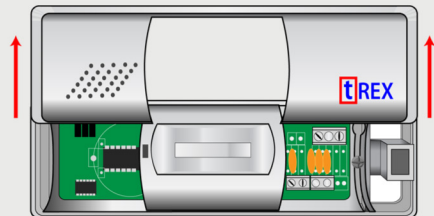# *Instruction Guide – RTC 402/TREX*

TREX Sensor

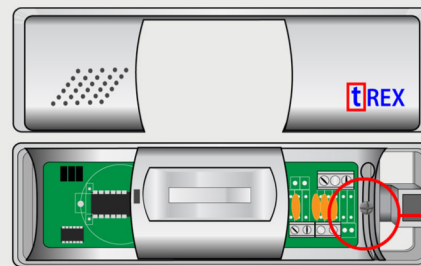**Disassembly and Mounting Guide**

1. Disassembly (1st Part)

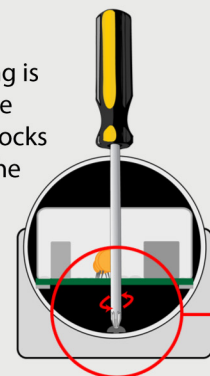Using the Phillips Head Screw driver, loosen the screw on the side of the TREX Sensor.

Once the screw is loose, lift the front casing to reveal the inner parts of the TREX Sensor.

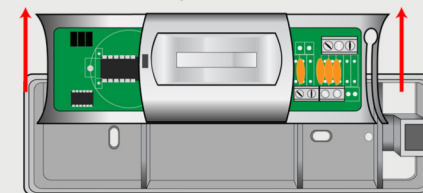## 2. Disassembly (2nd Part)

Now the front casing is removed, loosen the second screw that locks the mainboard of the TREX Sensor to the back casing.
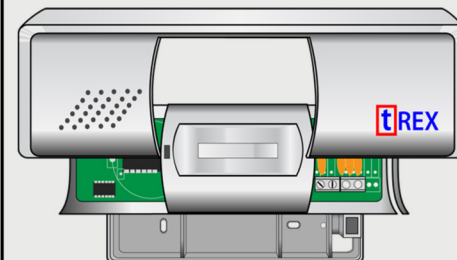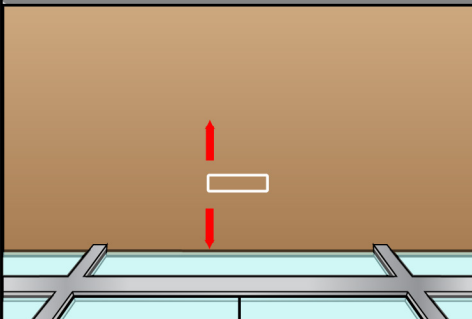
3. Disassembly (3rd Part)

Lift the mainboard and separate from the back casing.

The TREX Sensor is now disassembled.
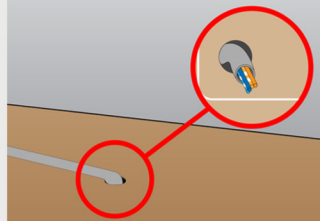
4. Mounting TREX Sensor

TREX should be mounted within 1 foot of the door. Drill all necessary holes.

5. Wiring and Mounting

Insert cat5 through predrilled hole in the ceiling.

You can leave about 1 foot of exposed cable through the ceiling for the next step.

Different View
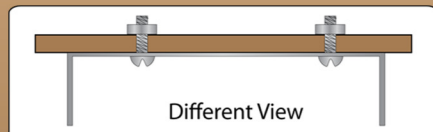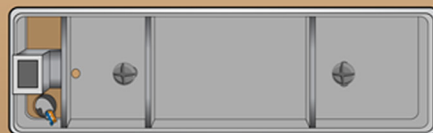
Mount the back casing on the ceiling with the use of screws.

6. Reassembly and Wiring

Reassemble the mainboard on the mounted back casing.

Different View
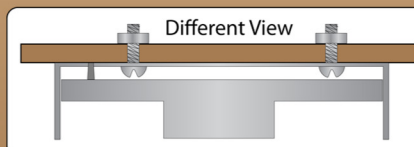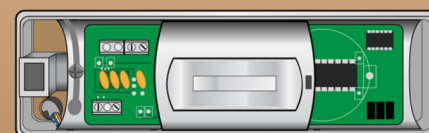
Strip orange and blue wires to bare 1/4 in copper and terminate according to diagram.

▮	= +POWER
▮	= -POWER
▮	= Rex Relay C1
▮	= Rex Relay NO1
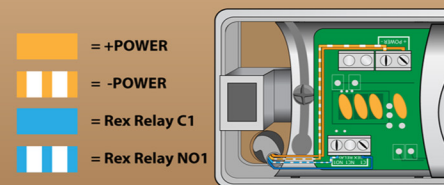
7. Finishing

Once the wiring is finished, reassemble the front casing of the TREX Sensor.
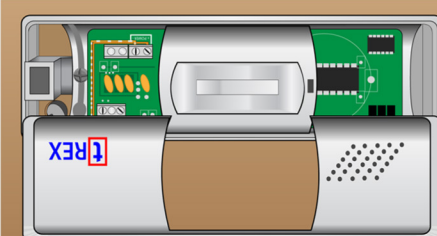
This illustration shows a mounted TREX Sensor at 1 foot inside the store.
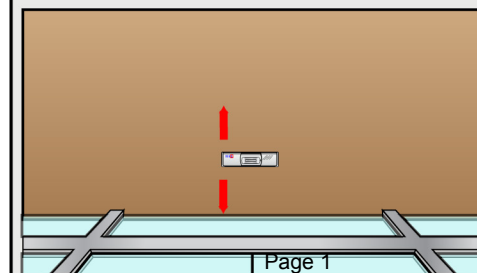
T-REX Sensor
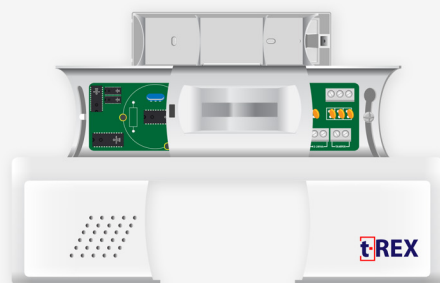
T-REX Adjustment Guide

1. Adjusting the TREX

To continue with the installation of the TREX, we must be it is adjusted properly. The T-REX Sensor Adjustment is a trial and error, you will need to step on and off the ladder several times through these steps to ensure the adjustment is correct.

To start off the TREX should be mounted as close to the door as possible without picking up moving parts of the door. We will need to remove the faceplate of the TREX to adjust the Y-Axis of the TREX. (Please see the disassembly steps on how to remove the faceplate.

2. Adjustment Prep
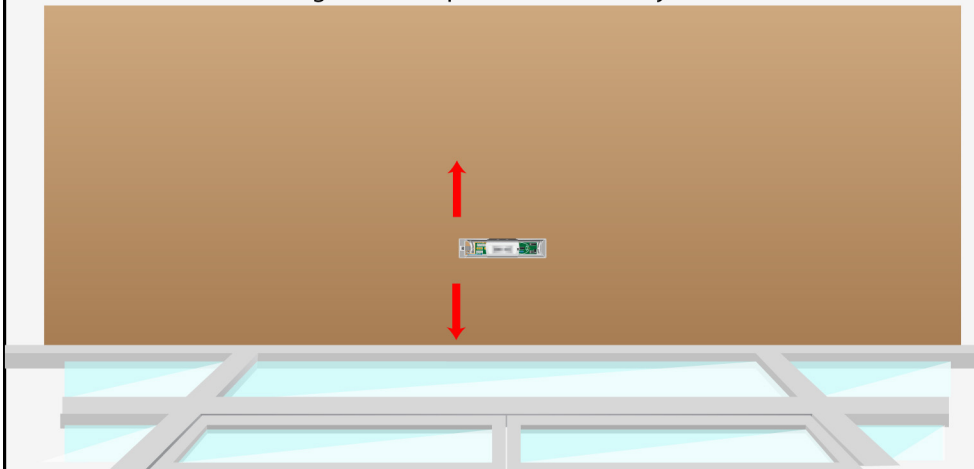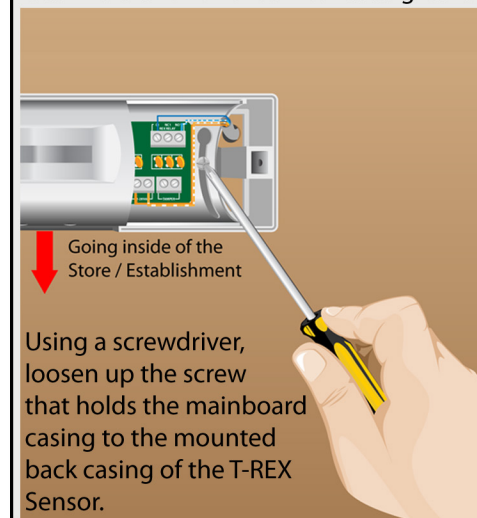
Please ensure at this point the TREX has power. The T-REX Sensor has a passive inferred beam that only detects motion. The LED on the sensor stays red until the beam is broken and it switches to green.

Going inside of the Store / Establishment

Using a screwdriver, loosen up the screw that holds the mainboard casing to the mounted back casing of the T-REX Sensor.

3. Adjusting Y - Axis
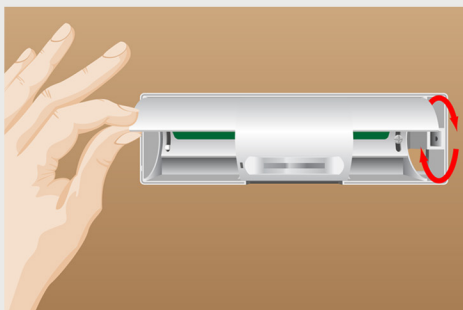
In adjusting the Y - Axis of the T-REX Sensor, rotate the mainboard casing clockwise or counter-clockwise depending on the desired position so that it can aim closer to the door frame itself.

4. Adjusting X - Axis

When the Y - Axis of the T-REX Sensor is already properly aligned to the door frame, adjust the flat head screws located on the bottom part of the T-REX Sensor using a flat head screwdriver. These flat head screws are connected to the flaps inside the mainboard casing that can be widened or narrowed.
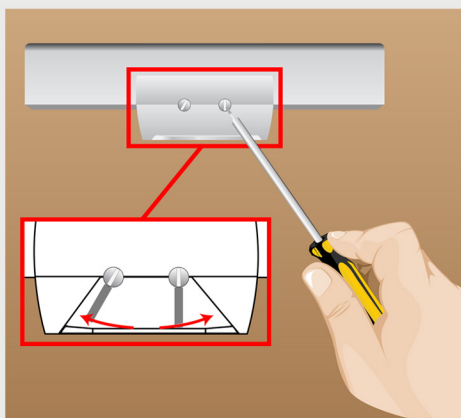
5. Basic Concept T-REX Adjustment

When adjusting these flaps correctly, field of view should not exceed width of the opening. For optimal positioning the TREX lens should be pointing straight down and the sensor should not be triggered to left and right hand side of the door. Please note that the angles of flat head screws may vary depending on the distance of the door frames and the height of the TREX.

T-REX Not Adjusted

T-REX Adjusted
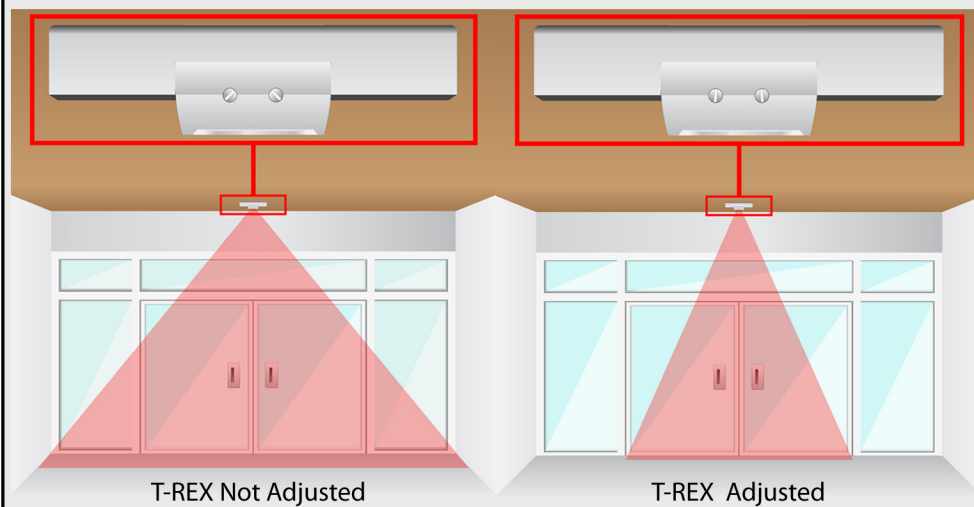
Registered Jack 22 (RJ22)

Wiring and Crimping Guide

1. Cutting Wires
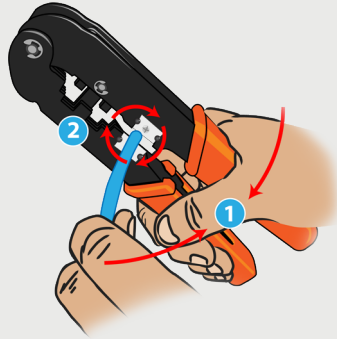
Using the Wire Cutter of the Crimper,
1. Gently press both handle. Make sure not to cut the wires inside the cable.

2. Rotate the Crimping Tool to completely cut the outer covering of the cable.

2. Unshielded Twisted Pair (Cat5 Cable)

Remove the outer casing of the Cat5 cable to show the smaller wires inside.

It has 8 wires.
(See second illustration)

For the Sensor, we will only use 4 wires, so we will cut all unnecessary wires.
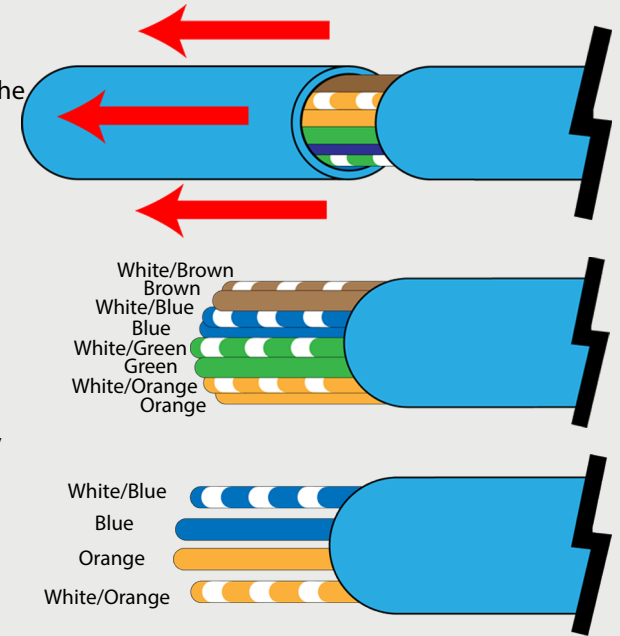(See third illustration)

White/Brown
Brown
White/Blue
Blue
White/Green
Green
White/Orange
Orange

White/Blue
Blue
Orange
White/Orange

3. RJ22 Handset Plug

Registered Jack 22 or simply RJ22 is a standard telephone handset plug for flat stranded 4 conductor phone cable.
** THIS IS NOT A RJ11!**
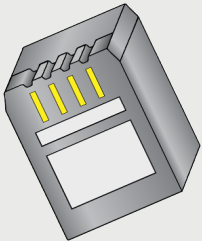
Insert the wires of the cable on the RJ22 Handset Plug. See RJ22 Wiring Guide for reference. Make sure no copper is exposed when crimping!

4. RJ22 Wiring Guide

Setting 1 & 3

1 2 3 4
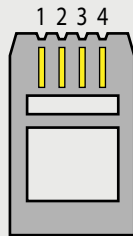
1. White Blue
2. Blue
3. Orange
4. White Orange

Setting 2

1 2 3 4   1 2 3 4
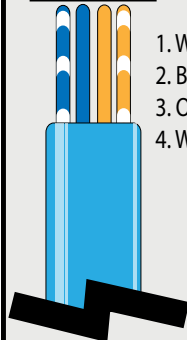
1   2
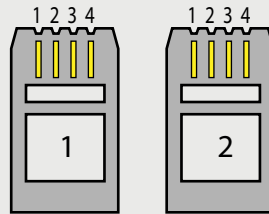
Crimp 1
1. White Blue
2.
3. Orange
4. White Orange
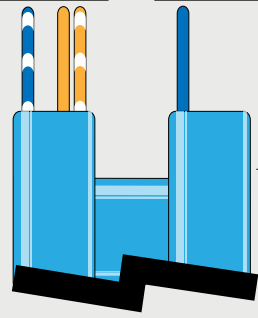
Crimp 2
1. Blue
2.
3.
4.

Please call your Tech Support Representative for the setting number

5. Crimping

With the Cat5 Cable and RJ22 Plug Handset ready, we can now crimp them using the Crimper.
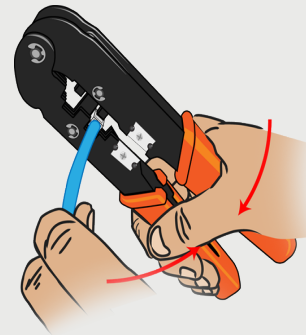
Insert the RJ22 Handset Plug to the RJ22 crimping slot and squeeze the crimper carefully and tightly.

6. Finishing

This illustration portrays a crimped Cat5 Cable with RJ22 Handset Plug.
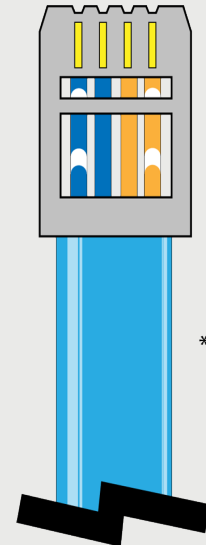
*Setting 1 *

PRODCO RTC 402

Mounting and Installation Guide

1. Drilling Position
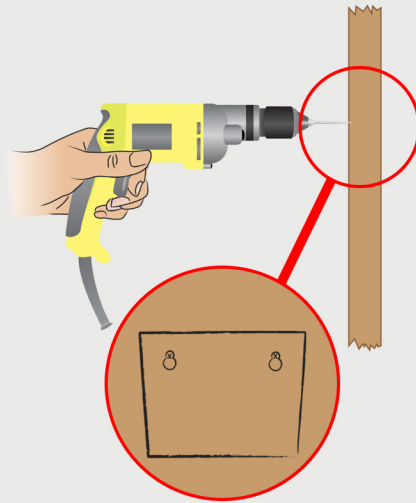
Using a drill, create 2 holes on the wall to mount the RTC402 to the wall securely

2. Screw and Wall Plugs

Output
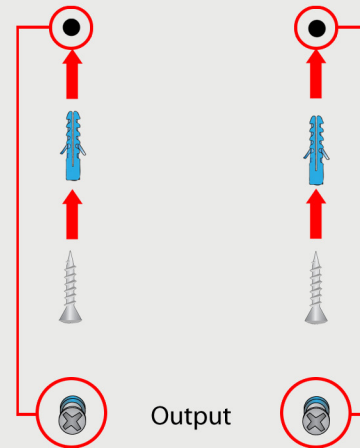
Once the holes are drilled, insert the wall anchors and screw in each hole.

3. RTC402 Mounting

Mount the RTC402 on the fixed screws

This illustration portrays that the RTC402 was mounted properly.

4. Cabling

Plug all the needed cables on the corresponding ports.
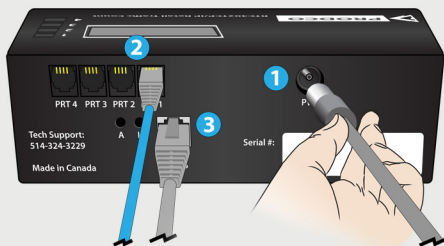
1. Plug the Power Cable on the power port.

2. Plug the Sensor Cable on the first RJ22 port (PRT1). PRT 2,3 and 4 will be used for extra sensors.
3. Plug the Network Cable on the RJ45 port.

5. PRODCO RTC 402 Wiring Diagram

To Sensor

Network Switch

RTC 402

Power Cable

Network Cable (RJ45)

Sensor Cable (RJ22)

Ordinary Wall Socket

6. Finishing

Using zip ties, neatly tie all cables.

PRODCO RTC 402

Programming Guide

1. Button Function

Status: D   . . . .
01/Jan/12   1:23pm

PRODCO
RTC402TCP/IP Retail Traffic Count

RTS TX RX RUN

1. Scrolls Options Up

2. Scrolls Options Down

3. Navigates cursor when cursor is available in other screens, while shifting through options it also acts as an enter button.

4. Acts as a return button. While in a screen you can hit this button to return to the previous window. Hit 4 twice to return to the main screen. Once all changes are made within the screen you are viewing hitting 4 will save changes.

Date Format: = Day / Month / Year

RTC PASSWORD = 3314   (Whenever Prompted)

2. Changing Date & Time

Ensure the time and date is set properly before running test counts or checking counts.

To change the time, from the main screen hit 1 (2 times) until you see "Set Time"

Press 3 to confirm

Enter the password (See Step 1)

Press 3 to navigate the cursor to the designated value you wish to change, press 1 to go up in value, press 2 to go down in value.
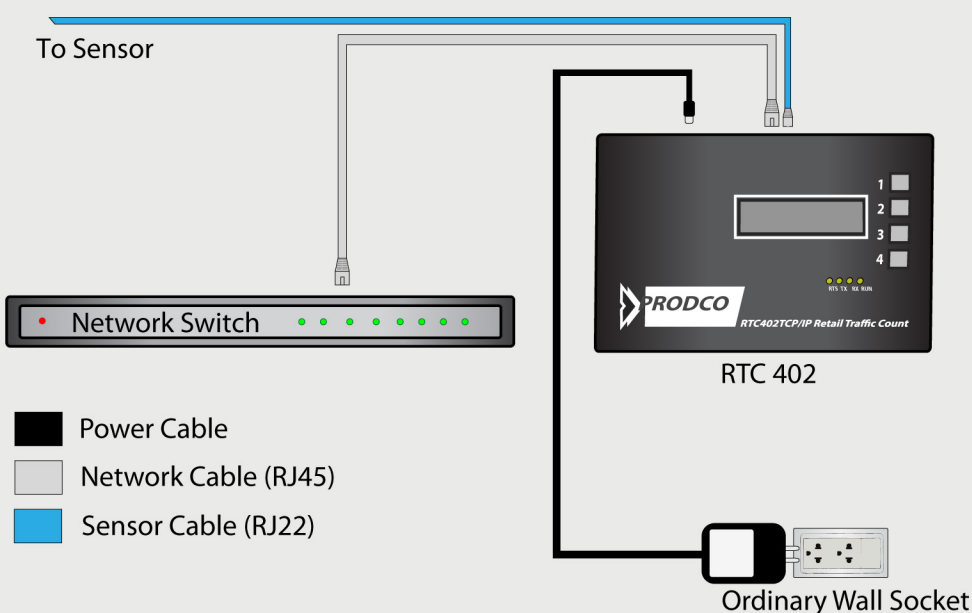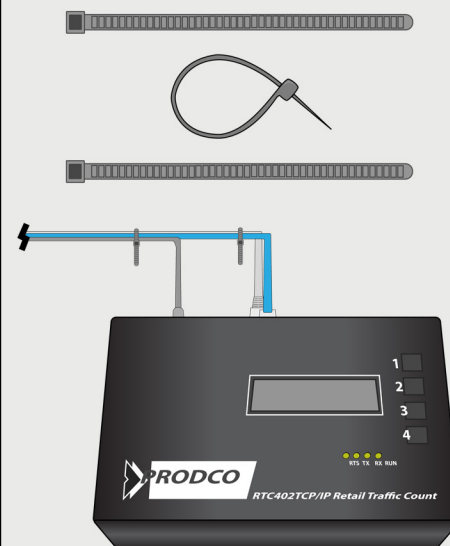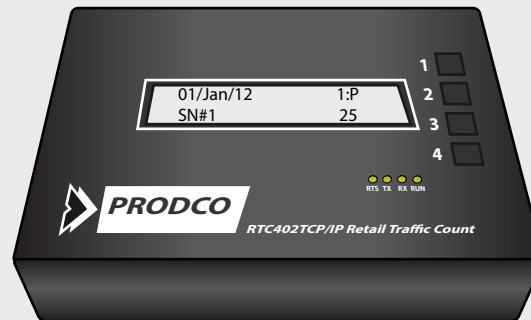
Once changes are complete hit 4 (2 times) to confirm.

Make sure the RTC is set to local time

3. Checking Counts

01/Jan/12   1:P
SN#1   25

PRODCO
RTC402TCP/IP Retail Traffic Count

RTS TX RX RUN

To check counts press 1,3,3. This screen will show the current hour, date and will automatically be set on sensor #1 (SN#1) or, PRT1. Your current count will be on the bottom right.

You can navigate through date, hour and sensors by using 3 to navigate the cursor, once the cursor is on the desired value press 1 to scroll up and 2 to scroll down.

From this screen you will run test counts to ensure accuracy of the sensors. First you will access this screen and check the current count for all sensors. Before heading to the entrance press 4 to exit back to the main screen.

Run a few Inbound and Outbound counts through the door and return to the RTC to check the counts for accuracy. If the counts are to high or to low, double check the divide ratio (Step 4)

If problems persist, check all sensor settings and wiring.

4. Divide Ratio

To change the divide ratio, from the main screen hit 1 (7 times) until you see "Divide Ratio".

Hit 3 to confirm.

Enter the password (See Step 1)

Press 1 or 2 to change the value.
Press 3 to Navigate
Press 4 to Confirm

Divide ratio = /1111 if sensor setting is 2 & 3
Divide ratio = /2222 if sensor setting is 1

Note the first number in the divide ratio is acting as port one's divide ratio, the second number is acting as port two's divide ratio, ect.

Please check with your Tech Support Rep to confirm the correct divide ratio

No lights means no power

- TREX sensors are direct current only. By standard please ensure that the orange is plugged into power + and the orange/white is plugged into - on the circuit board.
- Ensure the power to the RTC is plugged in.
- Ensure that the Cat5 sensor cable is plugged into the RTC or the Jbox, and connected in the appropriate ports.
- For 402 units make sure the crimp is wired properly and that the pins are puncturing through the insulation and making contact with the copper wire.
- Make sure the RTC has the proper voltage running to it. The DC output read out on the power brick should be 12 – 13.5 volts 1 amp (1000mA).
- If a volt meter is not available try using different ports on the RTC. (RTC ports will go bad from time to time.)
- If the RTC is powered and wired correctly, check (with a voltage meter) to see if the Orange and Orange/White unplugged from the TREX is reading at least 12v. (The TREX requires 12-24volts to power on.)
- Ensure that the wires at the module are stripped down about a ¼ inch to make full contact with the conductors inside.
- Tone out the Cat5 line, make sure that it is indeed our designated line and that the line is not damaged. Ensure that it is reading all pairs.

TREX Lights on but not sending counts.

- The light should be red on the TREX, once the beam is broken (when an individual walks under the sensor) it should turn green.
- If the light does not turn green it means that it is not seeing any motion beneath it. Ensure that the adjustable tabs are open enough to see people walking underneath. (These tabs are used to monitor traffic only within the doorframe boundaries make sure they are not too wide or too narrow.)
- Ensure that the blue wire is attached to the C1 Port and the white/blue wire is attached to the NO1 Port on the TREX. (You will see the designated ports printed on the circuit board. This section is the REX Relay.)
- Ensure the screws are tightened down to clench the wires in the terminals. Tug on the wires to be sure they do not fall out.
- The data lines will send a little less than volt through if they are connected to the crimp/J-box properly.
- Check another port on the RTC or J-box.
- Recrimp the sensor line at the cable.
- Reseat the Blue and Blue/White pair on both ends.
- Check for any damages to the pair.
- Tone the cable to ensure that the pair is linking from front to back.
- Check for any splices that may be causing an issue.