



T E T O N  
T E C H N O L O G Y

# RS-232 / WIFI CARD

## Product Installation Manual

for TLS 300 and TLS 350 models.

### BEFORE INSTALLATION:

- Locate the breaker switch for the Veeder Root.
- You will need a WiFi device (computer or smartphone) with a **Google Chrome** or **Safari** browser and the location's WiFi network name and password.

### STEP 1) INSTALL THE CARD:

**Note: (TLS-350) WIFI Comm Cards may be installed in comm slots 1, 2, or 3 only.**

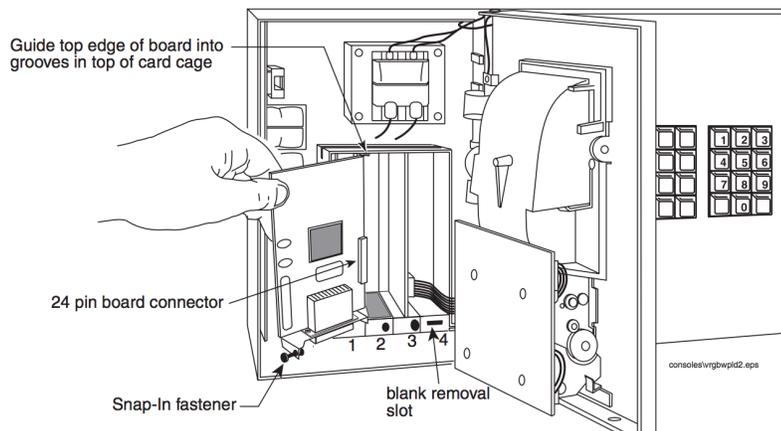
- 1) If your console has a printer, press the front panel MODE key until you see the display below:

**SYSTEM SETUP  
PRESS <STEP> TO CONTINUE**

Press the **PRINT** key to print out a SYSTEM SETUP report. After printing the setup report, press MODE until you return to the operating mode main screen. **Save the printed setup report. This report contains a record of all setup values entered into this console.** This may be needed if step 3 is not done correctly or the battery backup malfunctions.

- 2) Open the left-hand door (printer cabinet) of the console by unscrewing the left-top and left-bottom torx screws.
- 3) **Ensure that the Battery Backup switch is set to "ON" (up).** See *dip switch location on page 7.*

- 4) **Ensure that switch 2 is switched to the OFF (open position).** See *dip switch location on page 7.*
- 5) To install the new Comm module, first remove the cover plate from an open slot in the communication compartment. If your console has a snap connector which secures the cover plate in the card cage, pull it out and lift out the cover plate.
- 6) **Turn console power Off!** Locate the breaker switch to the Veeder Root System and turn it off. **Damage to the comm card and or Veeder Root may occur if the card is inserted while the power is on!** The system should beep once and the screen should go blank.



**figure 3. Comm Module Installation**

- 7) (Optional) To replace an existing Comm module with the WIFI Card, remove and label any attached connectors to the module's end plate (underneath the console), pull out on the fastener in the module's end plate until it unsnaps and remove the Comm module.
- 8) Slide the new WIFI Comm module into an open slot (1, 2, or 3) until the 24-pin female connector on the rear edge of the board seats in the 24-pin male connector on the motherboard. Do not apply excessive force when installing the module.
- 9) **Turn console power On.**
- 10) The system will now go through a warm startup and self test process. This usually takes less than 1 minute. The system will return to its main page when complete.

## **STEP 2) CONFIGURE PORT SETTINGS:**

**Note: If “Communication Setup”, cannot be accessed by the following instructions, flip the dip-switch 4. This will override the system allowing access for 30 minutes.**

- 1) Print “Port Settings” from the Veeder Root.
  - a) Starting from the main overview on the Veeder Root.
  - b) Press “**Mode**” until you see “**Setup Mode**”.
  - c) Press “**Function**” until you see “**Communications Setup**”.
  - d) Press “**Step**” until you see “**Port Settings**”.
  - e) Press “**Print**”.
- 2) The printed “Port Settings” receipt should have a section that describes the RS-232 port settings. The settings must be configured as below:

-----  
PORT SETTINGS:

COMM BOARD : X (RS-232)      X = The port number the card is installed on.  
BAUD RATE : 9600  
PARITY : NONE  
STOP BIT : 1 STOP  
DATA LENGTH : 8 DATA  
-----

**If your printed receipt matches the settings above, skip to step 3. If they do not match, you must update them using the steps below:**

- a) While still in “Port Settings” Press “**Enter**”.
- b) Press the “**Tank/Sensor**” button until the correct RS-232 com board is selected.  
Example: COMM BOARD : 2 (RS-232) if the WiFi card is installed in comm slot 2.
- c) Press the “**Step**” button to cycle through each of the port settings.
- d) To change a setting, press the “**Change**” button until the correct value is shown then press “**Enter**” to save changes.
- e) Press the “**Step**” button to continue to the next setting. Continue to change and save the settings until the values match the settings above.
- f) Print port settings again to ensure that the correct values were saved. **The VeederRoot does not always save the settings the first time!** Make sure to print to verify the settings are correct or the device will not work. If they are incorrect, walk through a) → f) until they match.

### **STEP 3) CONNECT TO WIFI NETWORK:**

- 1) With the printer door open, verify the wireless module is blinking blue. **\*\*If the light is blinking green, please wait up to 30 seconds and the device should begin to blink blue. Leave the printer door open for inspection of status light during setup.**
- 2) In a **Chrome or Safari browser**, go to <http://fuel.tetontechnology.com/setup> on your computer or smart device. **(Do not click “Scan” yet).**
  - a) Without Closing the setup page, Go to WiFi settings on your device and connect to the Photon - XXXX WiFi network.
  - b) After you connect to the Photon - XXXX network return to the opened setup page in your browser.
  - c) Tap the “Scan” button on the setup page and select the appropriate WiFi network for your location.
  - d) Type in the password for the WiFi network and click “Join”.

The WiFi module should blink green rapidly for up to 30 seconds (connecting), then briefly solid yellow (attempting to talk to Veeder Root), then start breathing Cyan (connected to WiFi, connected to Veeder Root).

#### **Is the WiFi module Breathing Cyan?**

- **YES.** Congratulations, you are done!
- **NO.** Verify the WiFi network is working by disconnecting from the Photon - XXX network and reloading <http://fuel.tetontechnology.com/setup> Try walking through parts a) through d) of this section again once the device returns to blinking blue.

#### **STATUS LIGHT KEY**

-  **Blinking Blue** -- Listening for WiFi credentials.
-  **Blinking Green** -- Device is attempting to connect to WiFi network.
-  **Solid Yellow** -- Connected to WiFi / Attempting to communicate with the Veeder Root.
-  **Breathing Cyan** -- Connected to WiFi / Connected to Veeder Root.
-  **Blinking Magenta** -- Updating Firmware.

*Note: If WiFi connection is lost after a successful setup. The device will try to connect again (blink green) for 30 seconds. If the device is unable to connect within 30 seconds, it will begin to blink blue for 3 minutes allowing you to enter new credentials if needed (after a network password change etc..). If you have not changed networks (routers, passwords, service providers etc..), the device should reconnect when the network is available again. This cycle will repeat until the device has been reconnected.*

## **TROUBLESHOOTING**

- 1) **Light is not blinking blue for setup.** If the light is blinking green, wait 30 seconds and the led should return to blinking blue. If it does not, press and hold the “Mode” button (**page 8**) until you see a blinking blue light and let go.
  
- 2) **After clicking “Join” on the Setup page, the device is stuck blinking Green or Blue.**  
There is a 3 minute window from the time the device is powered up and starts blinking blue to complete the WiFi setup in Step 2. After 3 minutes the device will attempt to connect (indicated by a fast blinking green light) which interrupts the setup process. Another attempt will be needed. To do this, 1) disconnect from the Photon - XXX network and reconnect to the local WiFi network and try again from **STEP 3) CONNECT TO WIFI NETWORK.**

If you have made it through setup without being interrupted by the green flashing light, the WiFi credentials you have given it could be incorrect. **For non password protected networks the password should be left blank.** The device should return to blinking blue within 30 seconds. At this point you can try re-entering the WiFi credentials.

- 3) **Light is stuck on solid yellow after setup.** The device will continue to glow yellow until successful communication with the Veeder Root has been established. Double check the port settings are correct and repeat step 2 if necessary. Ensure that dipswitch 2 is in the open position. Ensure that the correct port is being configured, i.e. if you have installed the card on port 2 of the Veeder Root, make sure that Port 2 is the one being configured.
  
- 4) **The light was breathing Cyan but now it is not?**

The device is blinking green now:

- Verify that your network is up. The device should return to breathing Cyan once it is.
- Have you changed providers, routers, modems... etc? If so, it will be necessary to set up WiFi credentials again.
- Your device may be on the edge of WiFi coverage. Typically if your computer or smart device has good coverage at the Veeder Root area, the device will be covered as well.

The device is blinking blue now:

- Your network has been down for more than 30 seconds. The device will try to reconnect every 3 minutes (blink green). Make sure the Wifi network is online and reaches the device.

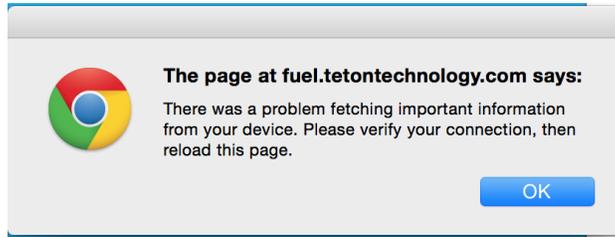
The device is blinking magenta:

- The device is performing a firmware update. Allow up to 5 minutes before attempting to reset or powering down the device.

The device is blinking Cyan rapidly:

- This indicates that the device is connected to the WiFi network but there is no internet service

- 5) **The setup page is not working.** If the following error pops up after pressing “Connect” there are a few things that could have happened.



- You may have forgot to connect to the Photon-XXXX network as described in **STEP 2) Connect FUEL WiFi device.**
- The 3 minute timeout during setup may have occurred which disconnected your device from the Photon-XXXX network.
- Make sure you are using a Google Chrome browser. Safari will not work.

A couple things to keep in mind:

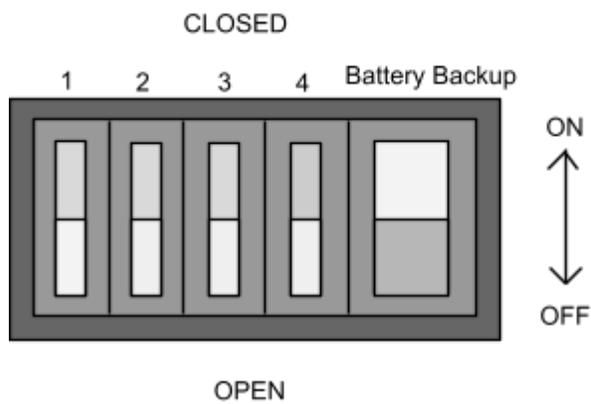
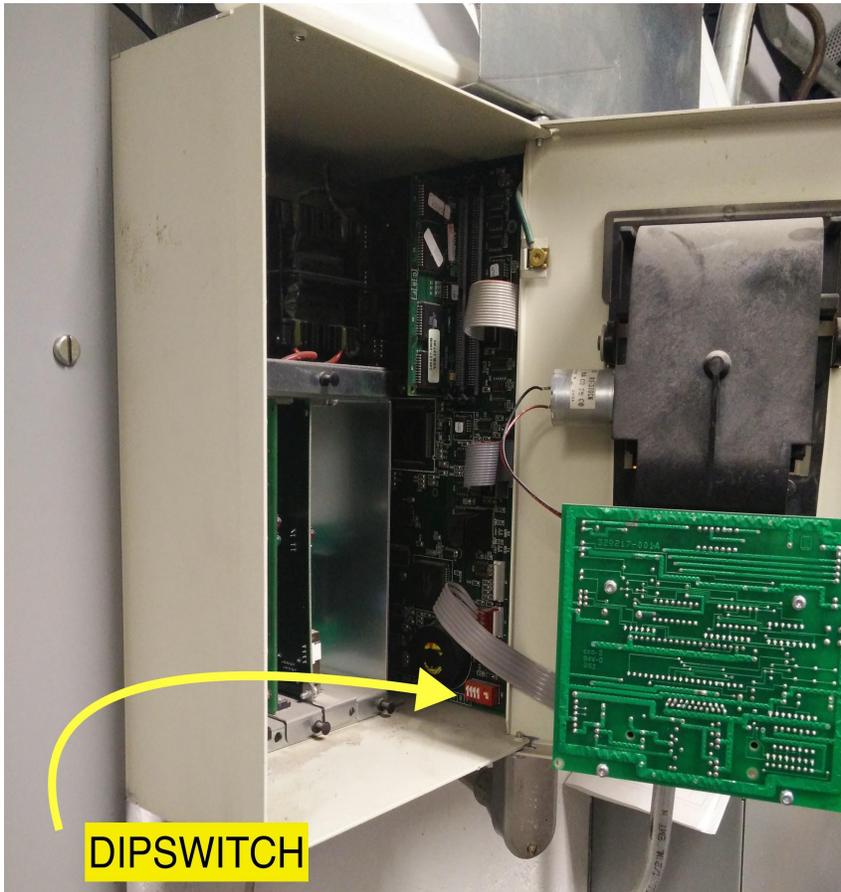
- When launching the <http://fuel.tetontechnology.com/setup> you should be connected to the locations wifi network **NOT** the Photon- XXXX network. The Photon-XXX network does not provide internet access.
- **After** launching the setup page in your browser, you need to connect to the **Photon-XXXX** wifi network, **then press Scan**. After setup your computer or smartphone should automatically reconnect to the locations WiFi network and the Photon-XXXX network should disappear from the list of available networks on your device.

- 6) **Can not access “Communications Setup” or “Port Settings”.** If the Veeder Root has “Simplicity” branded on the front, you must toggle the dip switch closest to the battery backup dip switch. It doesn’t matter what position the dip switch is in, simply flip it to the opposite position. This will override the system for 30 minutes allowing access to port settings.

***For further assistance please call or email:***

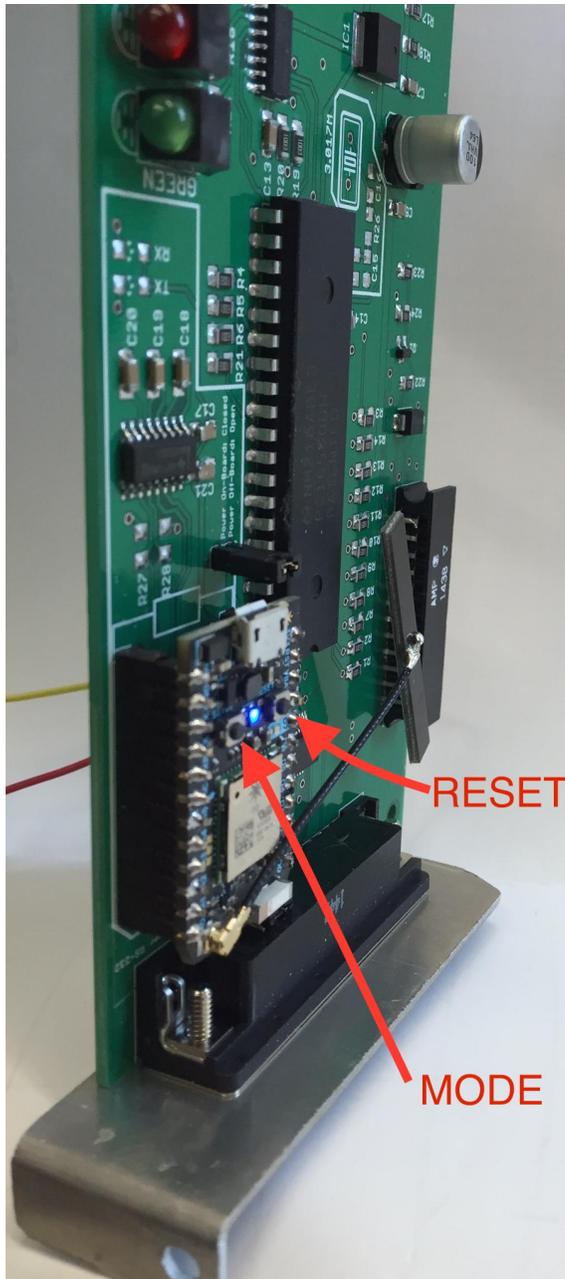
<b>Jason Parmenter</b> 208-339-0822 <a href="mailto:jason@tetontechnology.com">jason@tetontechnology.com</a>	<b>Anthony Webb</b> 208-403-3299 <a href="mailto:anthony@tetontechnology.com">anthony@tetontechnology.com</a>
--	---

**TLS-350 DIP SWITCH LOCATION**



*Typical configuration of dip switches on TLS-350 models. Note on some models the battery backup switch will be positioned on the left. (Closed → on), (Open → off), these are always labeled on the circuit board near the switch.*

## WiFi Module Buttons



*Note the Reset button is furthest away from you when installed.*

