ESCO OrchIdea
PAS-6001

PUMP ACCESS SYSTEM CONTROLLER
INSTALLATION GUIDE
Version 1.7.7

OrchIdea PAS-6001 Table of Contents

OrchIdea Quick Installation Guide

FOLLOW THESE STEPS IN ORDER WHEN INSTALLING THE ORCHIDEA PAS-6001

CL-BOX INSTALLATION

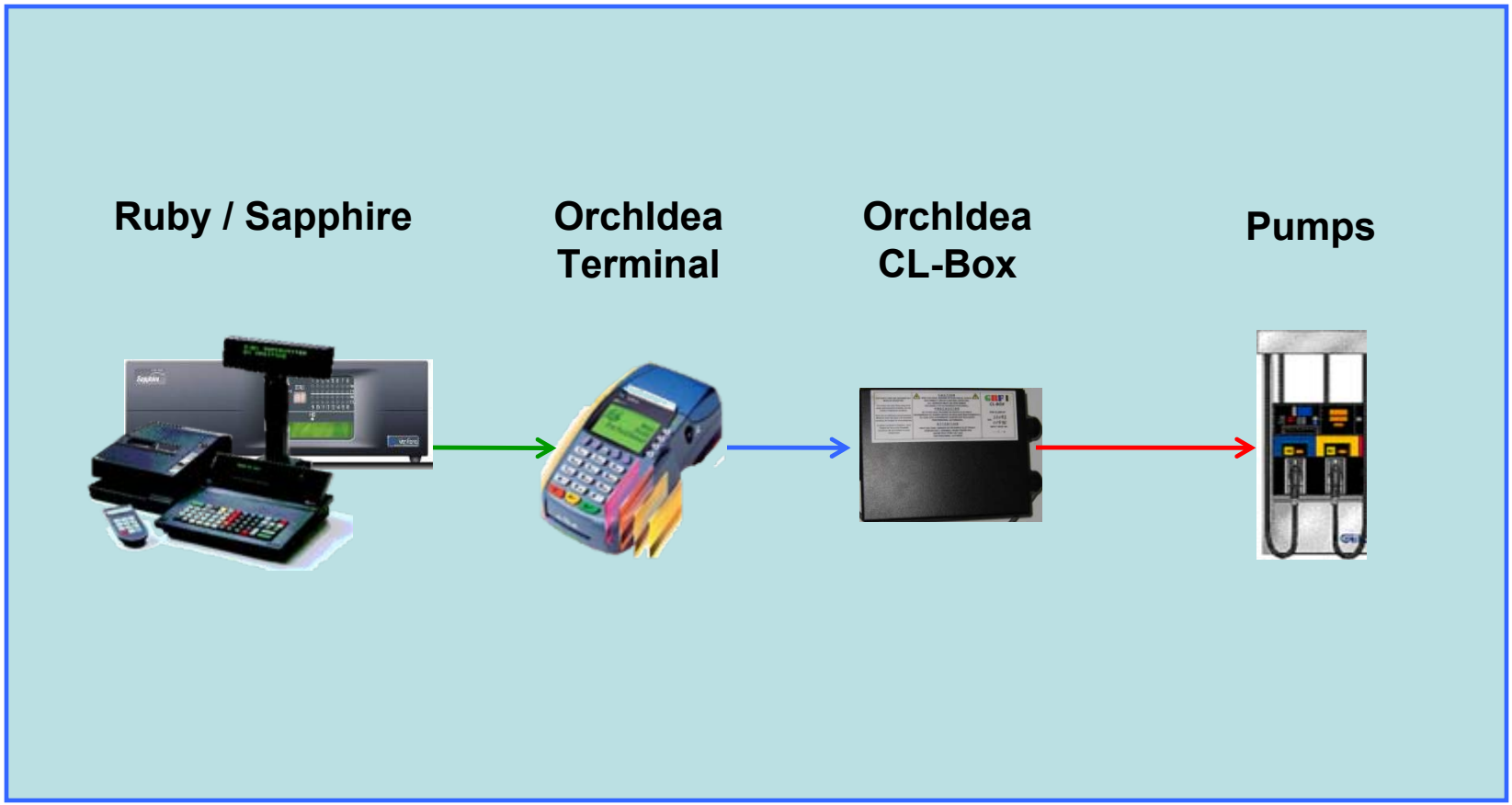
1. Install the **CL-Box**, **VX510** & **Power Supplies. Do Not** apply **Power** or connect **COM** cables yet
2. Set **ALL Pump Switches** to the **OFF** position
3. Connect the **Pump CL Wires** to the **Positive** & **Negative Terminals** in the **CL-Box**
4. Connect all **CRIND CL Wires** to the **Gilbarco D-Box** following standard procedures
5. Apply **Power** to the **CL-Box** & verify The **Red Power** & **Blue Loop LEDs** are lit
6. Set each **Connected Pump Switch** to **ON** one at a time & verify that the **Blue LED** remains lit
7. Make sure all **Unused Pump Switches** are **OFF** or the **CL Link** will be broken & the **Blue LED** will go out
8. If turning any **Connected Pump Switch ON** causes the **Blue LED** to go **OUT** check the **CL** wiring to that pump
9. If the **CL** connection appears to be good try wiring it to a different position in the **CL-Box**
10. If the problem can not be corrected leave that pump **Isolated** until it is resolved
11. Set all **Pump Switches** back to the **OFF** position & verify that the **Blue LED** remains lit

VX510 INSTALLATION & STARTUP

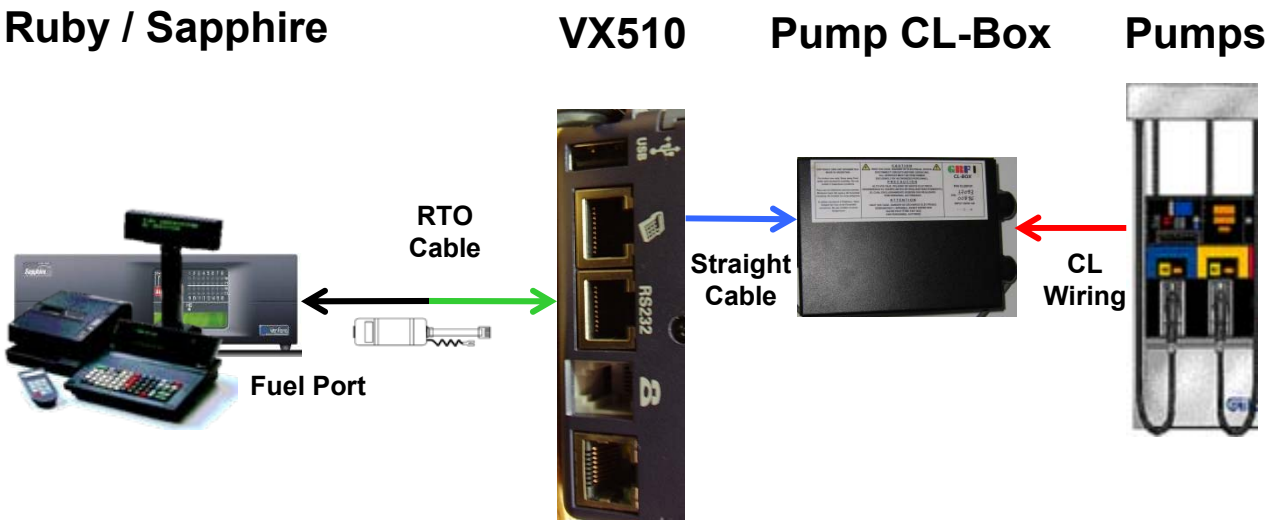
1. Connect the Tripp-Lite **DRS232 Surge Suppressor** to the **Fuel COM** cable coming from the **POS**
2. Cable Color code: **Blue-Straight**, **Green RTO-VX510 RS-232**, **Black-Ruby COM**
3. The **VX510 COM** cables are all pinned differently & **CAN NOT** be interchanged. **FOLLOW COLOR CODE!!!**
4. Connect the **Straight cable** from the **Vx510 PINPAD Port** to the **Pump CL-Box**
5. Connect **RTO cable** from the **Vx510 RS232 Port** to the **Fuel COM** cable via the **Surge Suppressor**
6. Connect **DCR COM** cable to the **Gilbarco D-Box** via the **DCR Converter** following standard procedures
7. Apply **Power** to the **VX510** Terminal & verify the display reads "**WAITING FOR GRADES**"
8. The **Yellow RX LED** in the **Pump CL-Box** should start **Blinking** within a few seconds
9. Set each **Connected** pump switch to **ON** one at a time & verify that the **Blue Loop LED** remains lit
10. Perform a full **FUEL** & **DCR Initialization** from the **Ruby** to initialize the **OrchIdea**
11. Verify that the **Green TX LEDs** & the **Yellow RX LEDs** are **Blinking** indicating good **CL-Box COM**
12. Verify that the **VX510** display reads "**IDLE**" for valid fueling points & "**CLOSED**" for those not valid
13. Verify that all **Fueling Points** & **CRINDs** are functioning normally
14. The status of the **Fueling Points** & current **Sale** can be observed on the **VX510** display

System Architecture

Integrated with Ruby / Sapphire



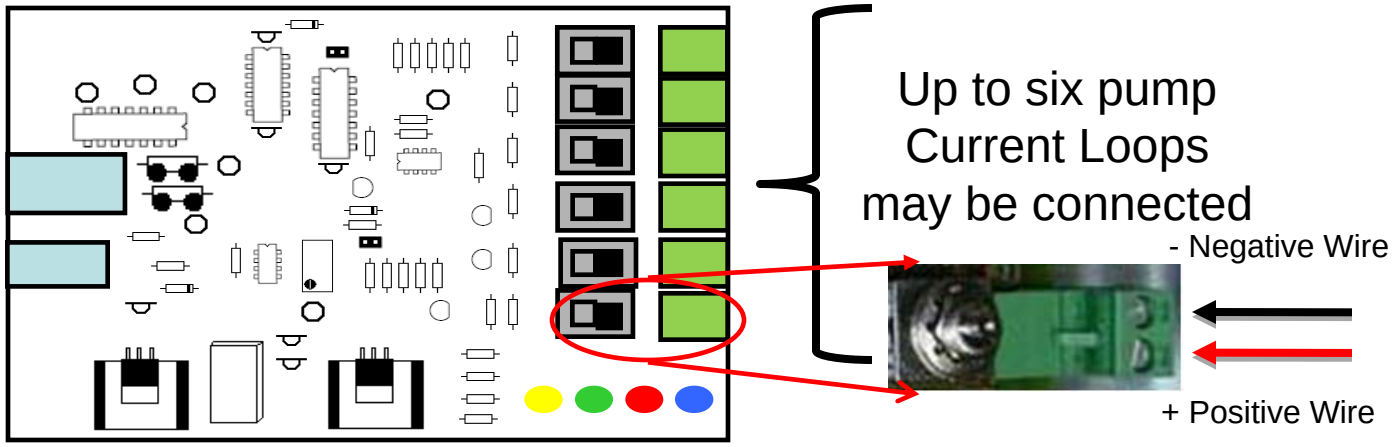
OrchIdea Interconnection Diagram

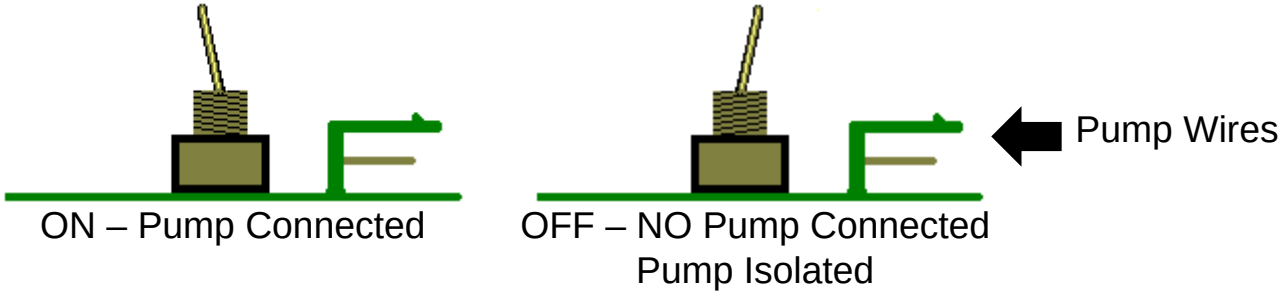


References

- **Green** side of **Ruby to Omni** (**RTO**) cable goes to **RS232 Port** on **VX510**
- **Black** side of **RTO** cable goes through **Surge Suppressor** to **Ruby Fuel Cable**
- **Blue Straight** cable goes from **Pump CL-Box** to **Pin Pad Port on VX510**
- Standard **Pump & CRIND CL Wiring** goes to **Pump & CRIND CL-Boxes**

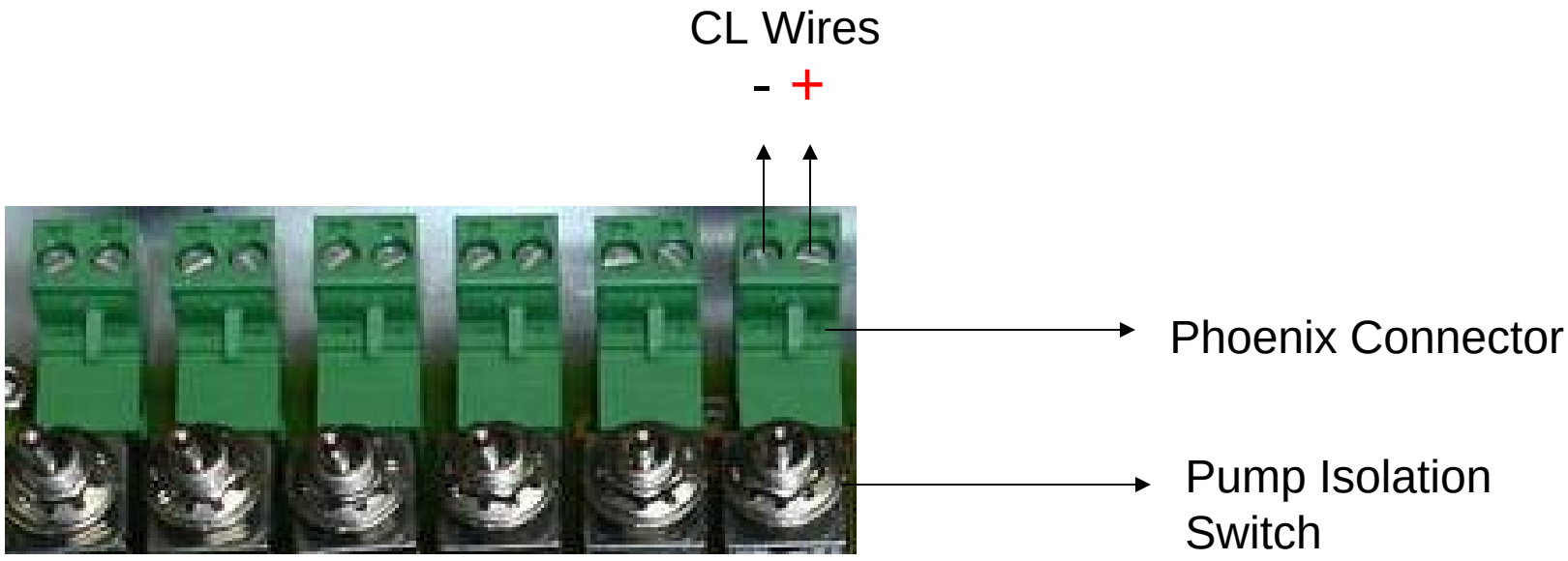
Connecting Pump Current Loop Wires





Note: All unused Current Loop positions must be switched OFF!!!

CL-Box Current Loop LED Indicators



Blue: Current Loop continuity indicator (must be lit for 2-wire COM)

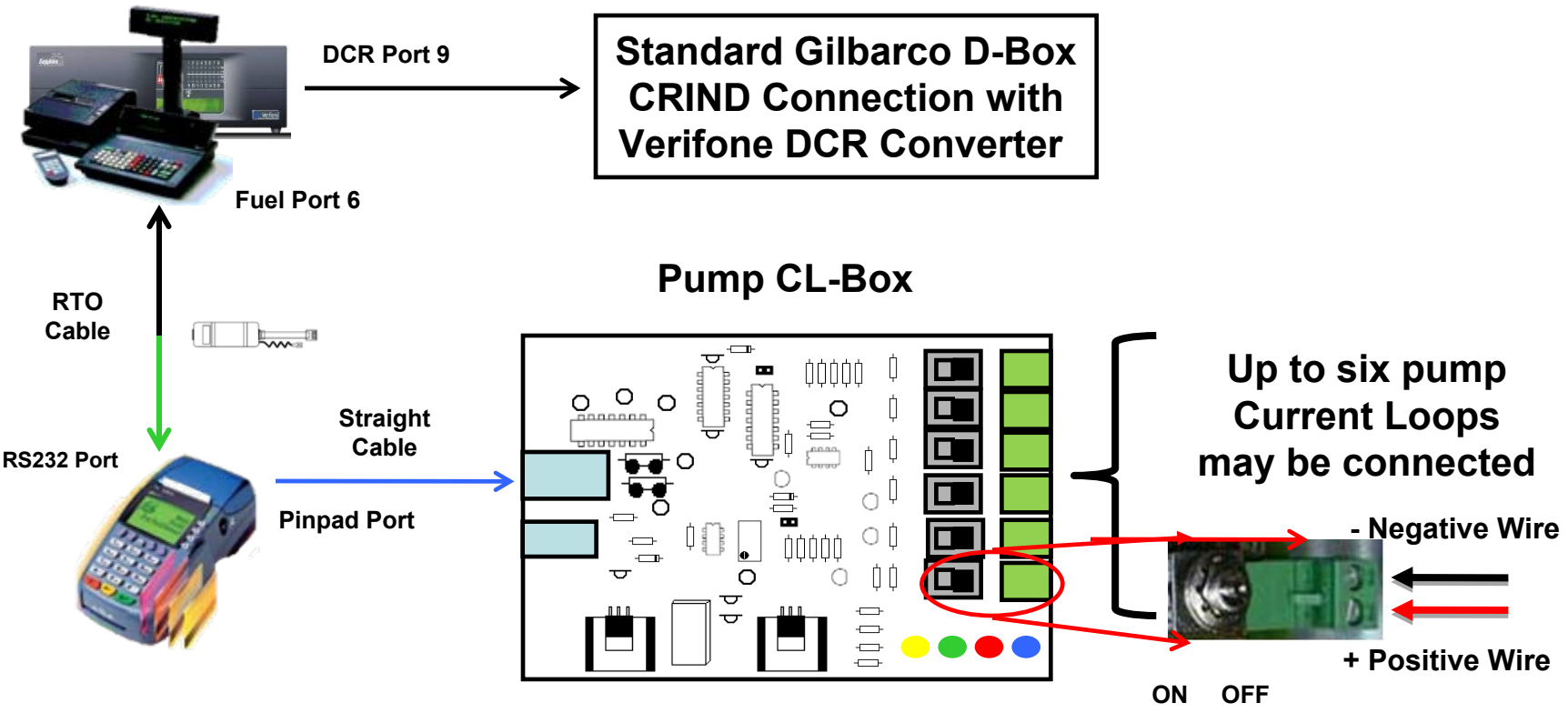
RED: Power indicator (should always be on)

GREEN: TX (Flashing indicates least one pump is responding)

YELLOW: RX (system is communicating to the pump loop)

Note: All unused Current Loop positions must be switched OFF!!!

Connecting Vx510 to Ruby & CL-Box



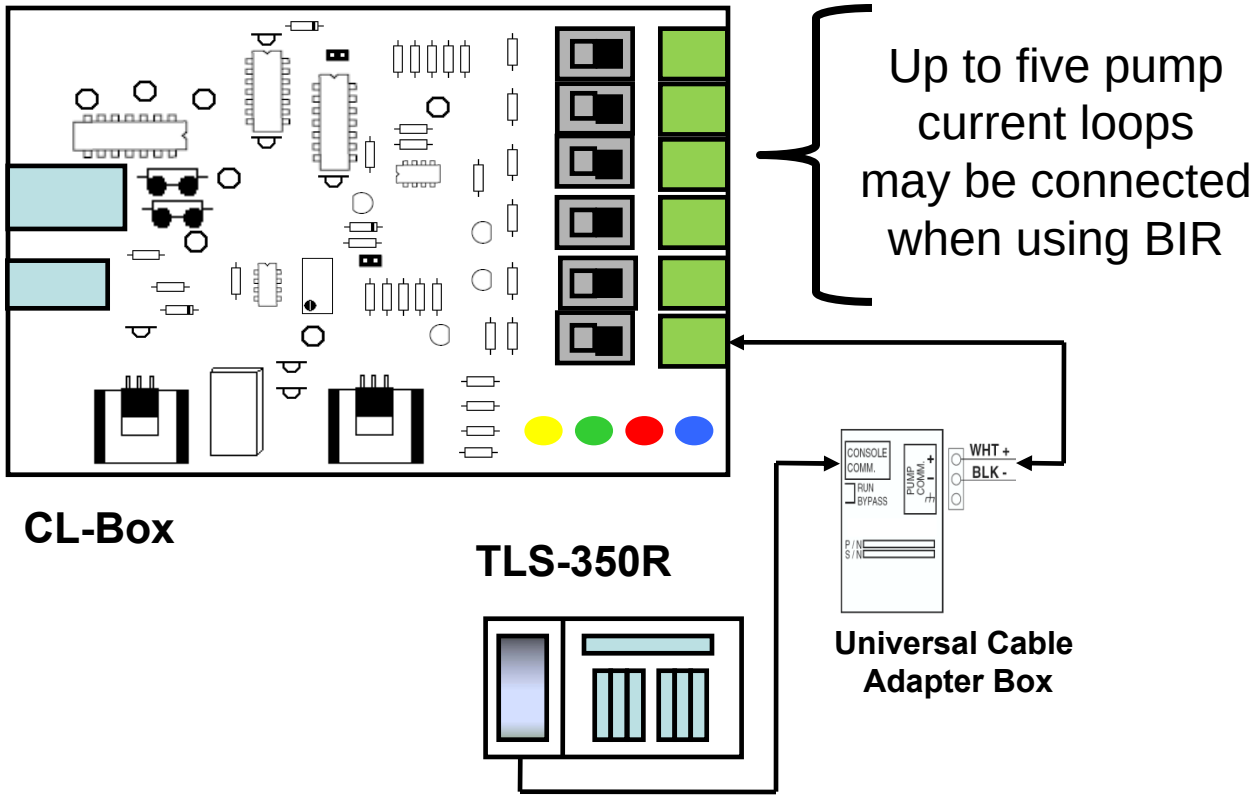
Note: All VX510 COM cables are pinned differently & CAN NOT be interchanged!!!

VX510 COM Connections

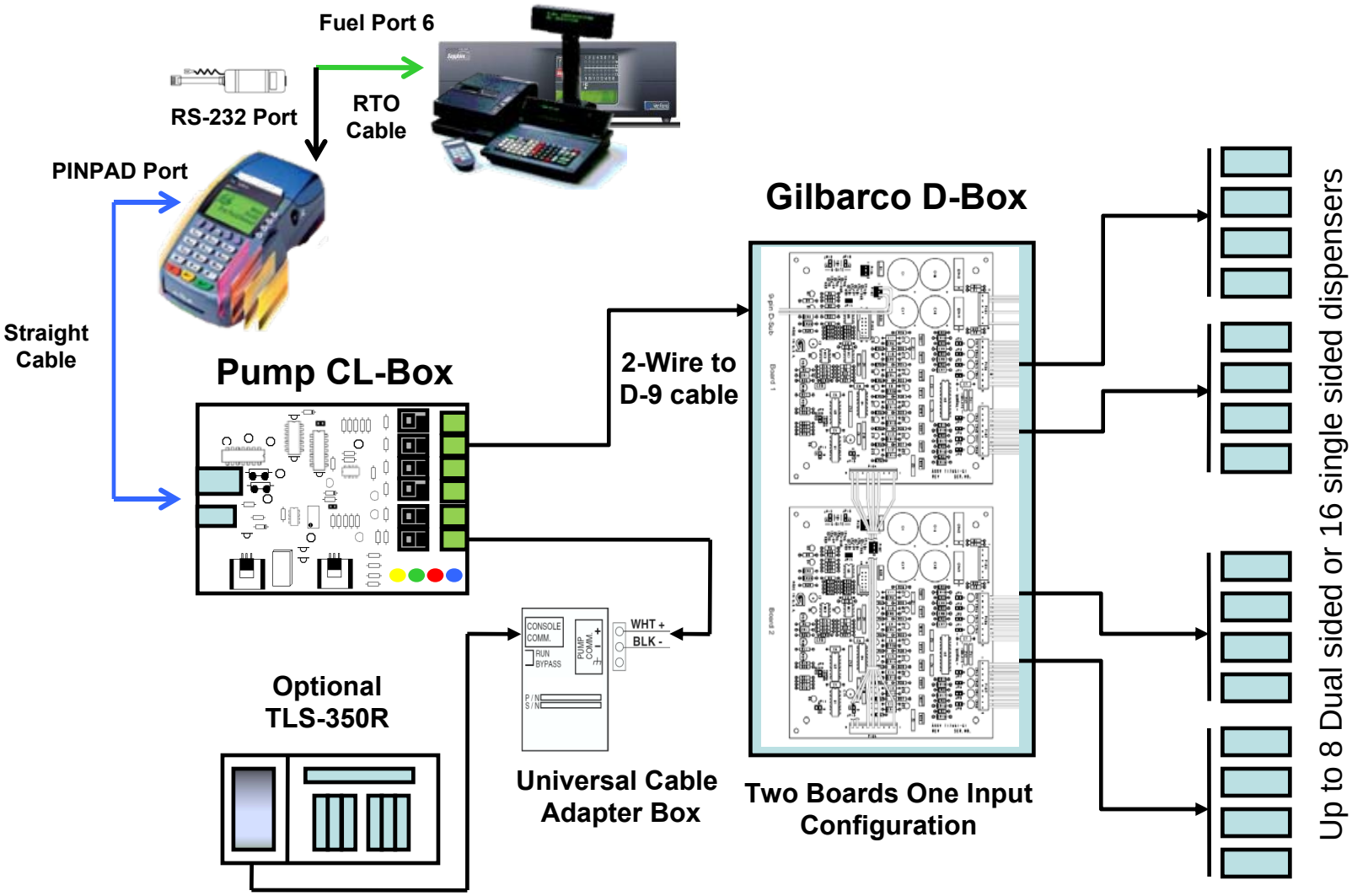
Green end of RUBY-OMNI (RTO) Cable goes to RS232 Port

Blue Straight Through Cable goes to PIN Pad Port

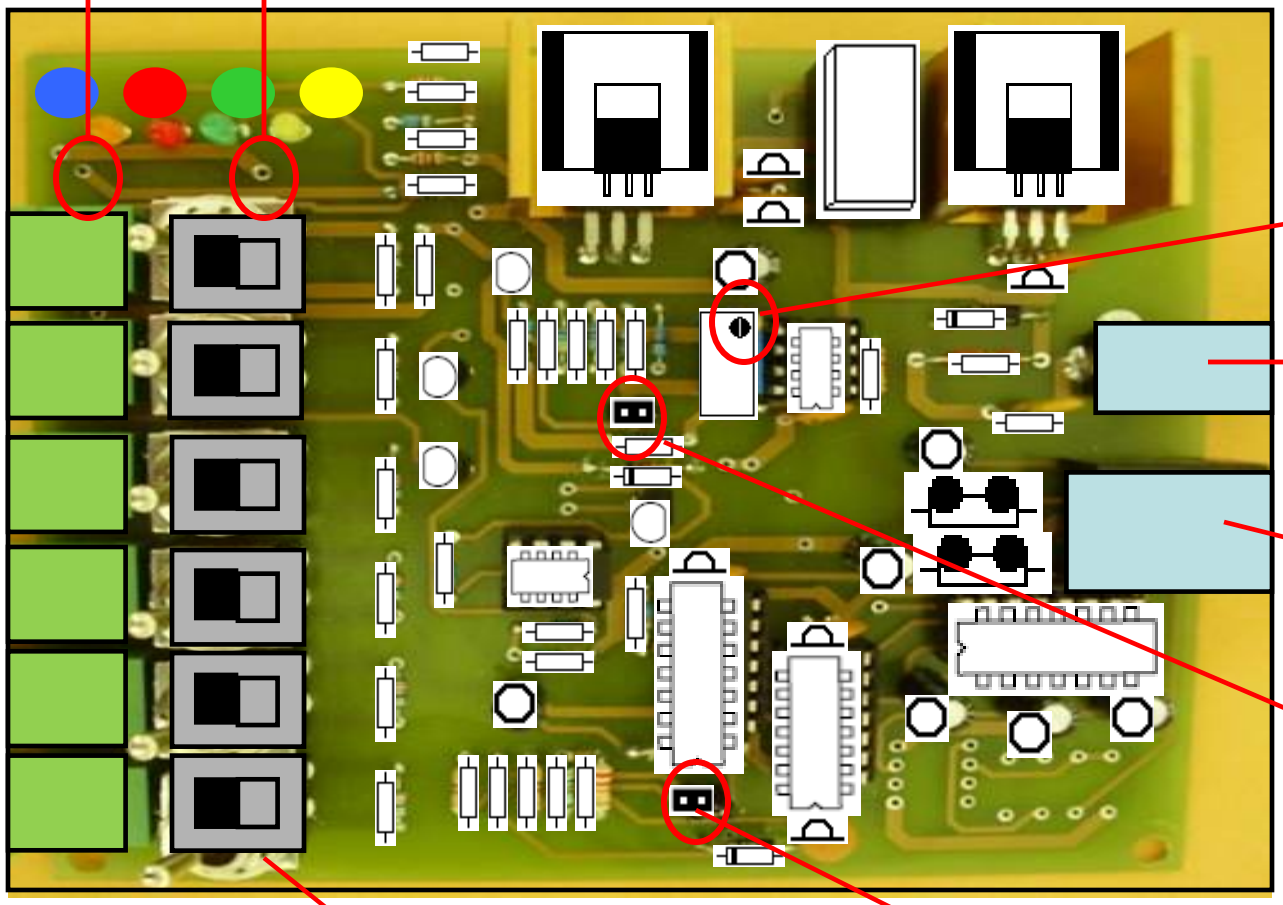
Connecting To Tank Monitor
BIR Module for Reconciliation



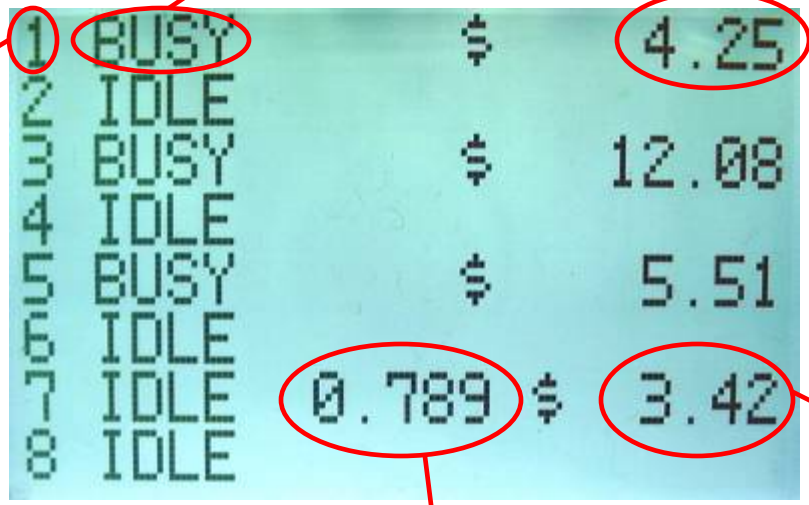
Cascading CL-Box with Gilbarco D-Box



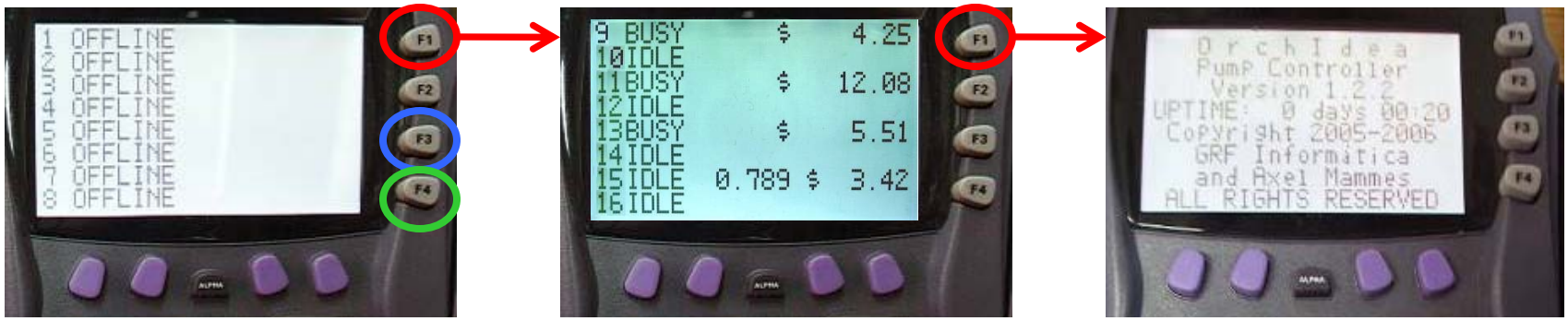
CL–Box Board


Calibration positive
Calibration GND
Calibration screw
11VDC Gilbarco
8VDC Wayne
Power 9VDC
(P/N CPS10936-3A)
(P/N CPS10936-3C)
RS-232 to
Vx510/Vx57
0
JP1 ON Gilbarco
JP1 OFF Wayne
OFF <- Pump Connection Switch -> ON
ECHO jumper must always be in ON position

Online Vx510 Display



Vx510 Function Keys Usage



Press F1 to cycle between screens

Press F3 to Print Configuration Parameters

Press F4 to Print Current Pump Totals