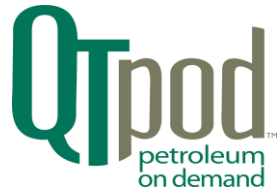




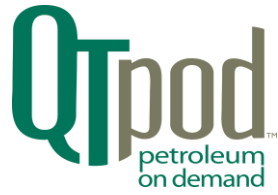
# MultiDisplay™ Installation Instructions





*QT MultiDisplay™:*

*The MultiDisplay uses integrated circuit technology with no moving parts, this reliable counter displays gallons / liters, dollars and total price, meeting NIST and state requirements as an Auxiliary Display. It is not intended to be used as a replacement for the Primary Register on your fueling meter. The bright, non-glare red LED lenses makes it easy to see for hundreds of feet, both day and night.*



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# MultiDisplay Installation Instructions

## General Information

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### Specs / Parts List

- MultiDisplay Unit
- Mounting Bracket
- Power Supply
- Ribbon Cable
- 4 conductor cable
- 4 wire nuts

### Tools Needed:

- Medium Phillips screwdriver
- Small standard screwdriver
- Wire stripper

### Technical Support

- Call 1-(303) 444-3590
  - Press 2 if out of service
  - Press 3 for non-emergency

# MultiDisplay Installation Instructions

## Terminal Code Upgrade

Please perform the terminal code upgrade following the steps in the document titled **Manually Upgrading M3000 Terminal Code** before proceeding with this installation. **Be sure to return the DS1250 memory chip for credit.**

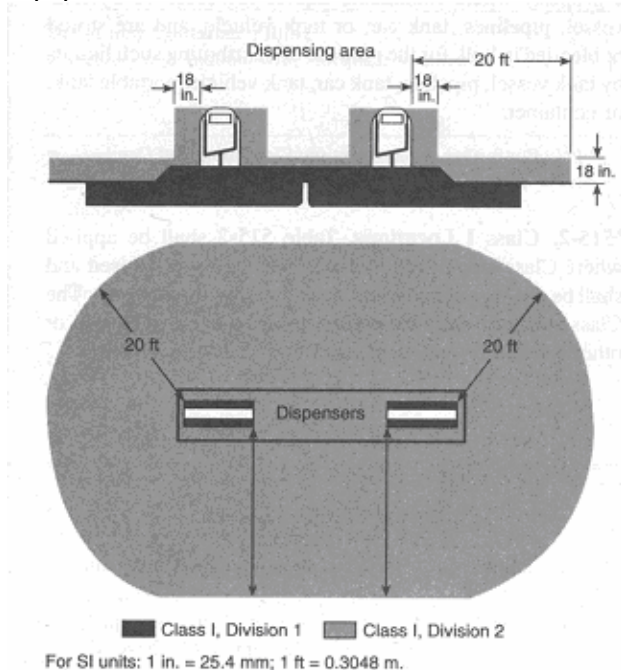
## Location of the MultiDisplay Unit

Install the MultiDisplay Unit at a location visible to your customers.

The MultiDisplay is a simple apparatus consisting of a combination of components and electronic circuitry which can be installed outside or above Class 1 Division 2. It is a non-sparking low temperature device containing passive optoelectronic LEDs, and is incapable, under normal working conditions, of causing ignition of a flammable gas-air, vapor-air or dust-air mixture due to arcing or thermal means. It is an enclosed apparatus and does not contain any moveable parts, switches, sliding contacts, motors, generators, hot metals, batteries, fluorescent or incandescent lights. Therefore we advise that the MultiDisplay can be considered as a nonincendive, simple apparatus for installation outside or above Class 1 Division 2. **Refer to the NEC 511-7: Equipment Above Class 1 Locations, as well as your local jurisdiction for all equipment installations.**

**Refer to the NEC (National Electrical Code) Figure 514-2 diagram below.**

Class I Division II is the shaded area that is from 0 to 18 inches above the ground encompassing the fuel dispensing equipment in a 20 foot diameter surrounding the dispensing area as well as 18 inches around all sides of the actual dispensing equipment.



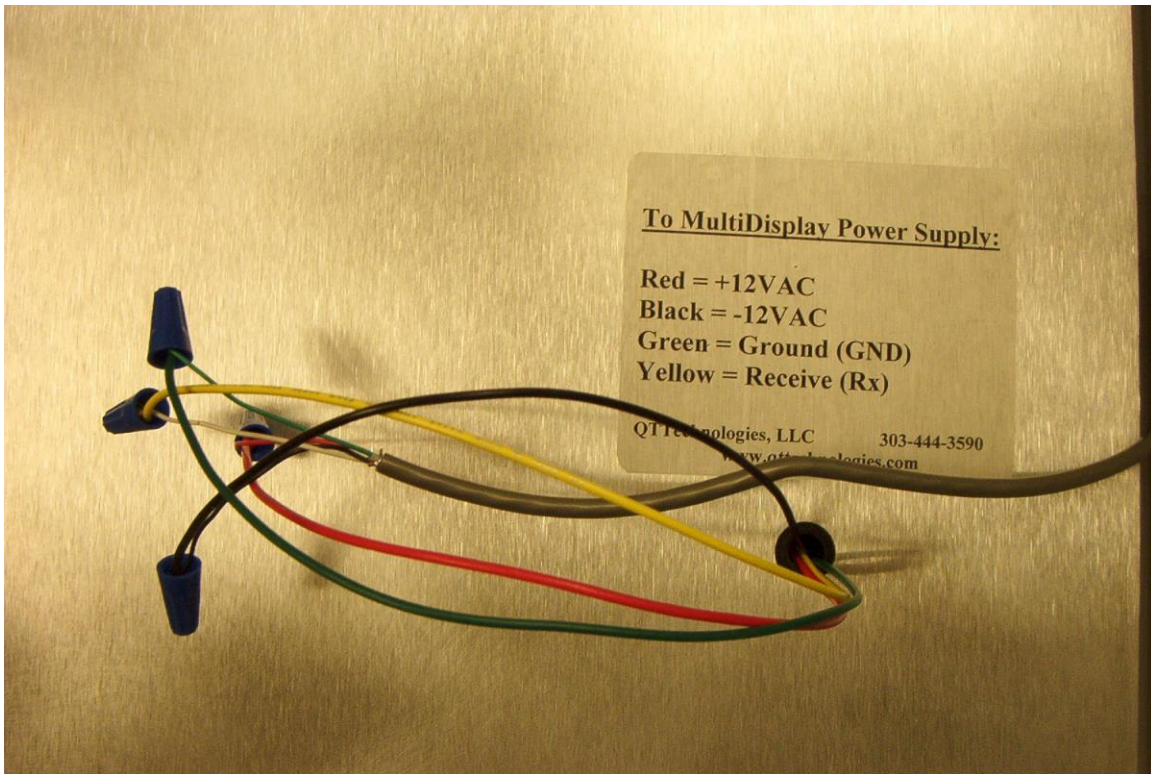
\*Figure 514-2 Classified locations adjacent to dispensers as detailed in Table 514-2.

Figure — NEC Diagram for Informational Purposes only

# MultiDisplay Installation Instructions

Mount the connected junction box and run conduit (if necessary) from it to the QTPod terminal. If conduit is run, a four conductor shielded cable will have to be installed from the junction box to the QTPod terminal.

Use the supplied wire-nuts to make these connections inside the junction box.



**Wire-Nut Connections**

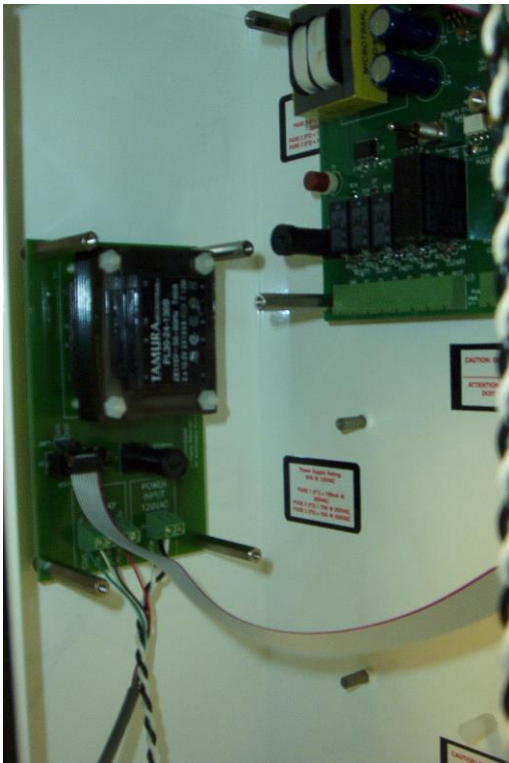
## **Refer to NEC 511-6 Wiring in Spaces Above Class 1 Locations:**

- a) All fixed wiring above Class I Locations must be in metal raceways, rigid nonmetallic conduit, electrical nonmetallic tubing, flexible metal conduit, liquid tight flexible metal conduit or liquid tight flexible nonmetallic conduit.

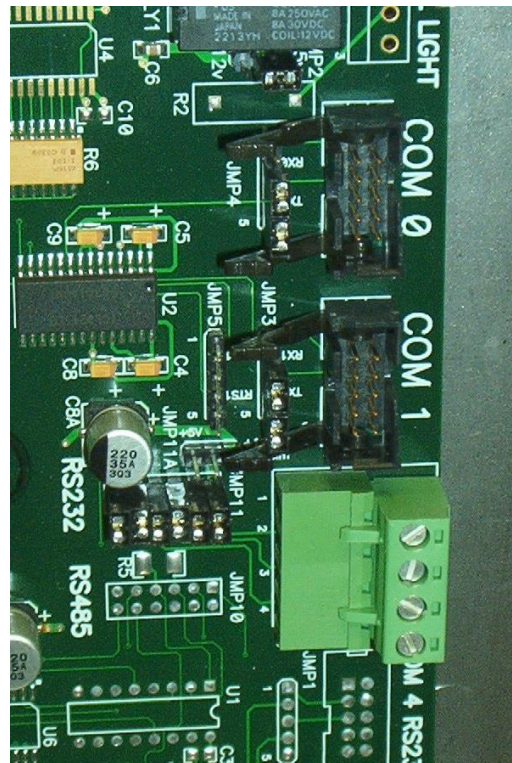
# MultiDisplay Installation Instructions

## Install the power supply

The MultiDisplay Unit power supply will mount on the left hand side of the upper pedestal area. The ribbon cable will be routed into the top, and connected to either COM0 or COM1 located near the top right side of the AT5 motherboard. The black and white twisted wires will be connected to the black and white wires going to the head.



Power Supply mounted in Pedestal



Com Ports on AT5 Motherboard

# MultiDisplay Installation Instructions

## Wiring

The wires from the MultiDisplay Unit itself will need to be connected to the power supply mounted inside the pedestal. The red wire will go to the 12 VAC + and the black wire will go to 12 VAC -. The green wire will go to GND, and the yellow wire will go to RCV. If you are installing more than one MultiDisplay Unit, the four wires for each one will be connected in the same manner.



Power Supply Connections

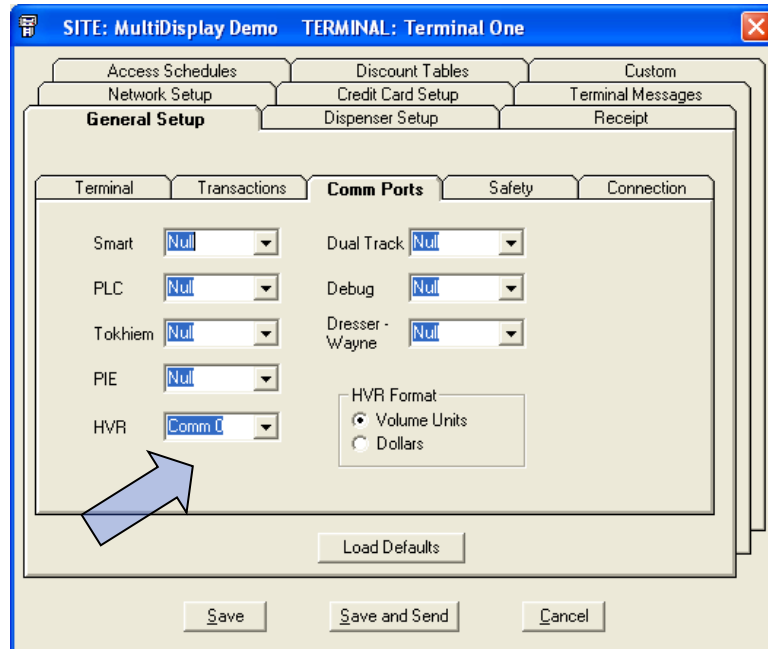


# MultiDisplay Installation Instructions

## SiteMinder Setup

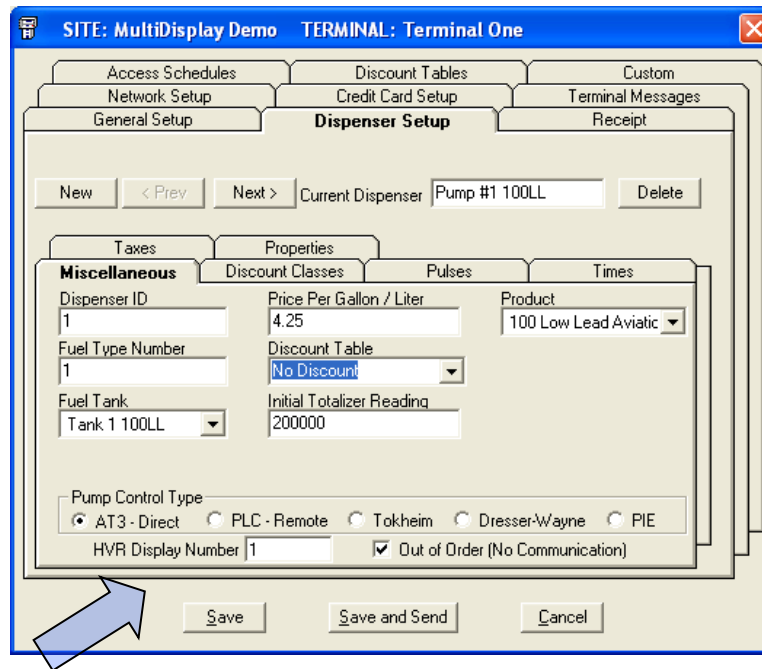
Configure Siteminder for the Multi Display Unit.

Click on Edit > Fuel Terminal > Configuration. Click on the COMM PORTS tab, and select the correct communications port.



# MultiDisplay Installation Instructions

For single MultiDisplay Unit installations, the HVR Display Number will be 1.  
Click on the Dispenser Setup tab to set this address.



The screenshot shows the 'Dispenser Setup' window for 'Pump #1 100LL'. The 'Miscellaneous' tab is active, displaying the following fields:

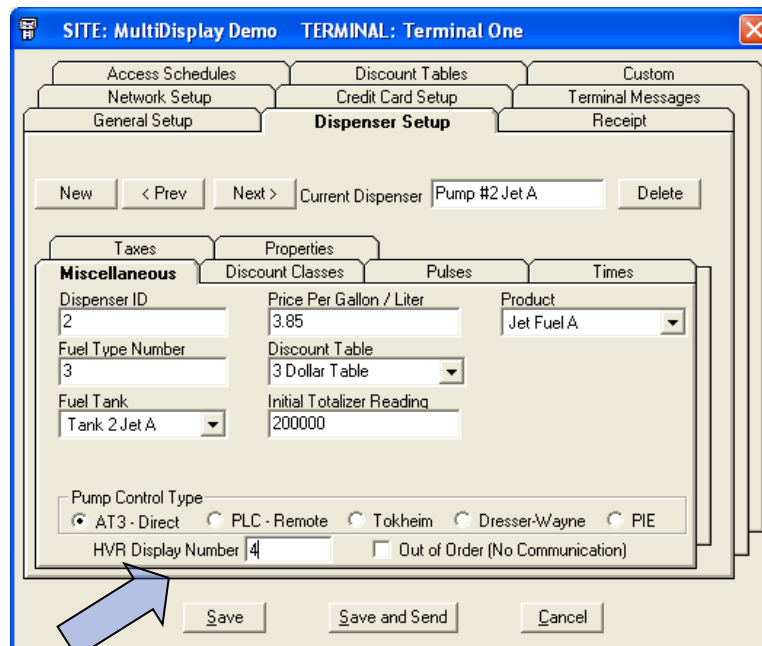
Miscellaneous	
Dispenser ID	1
Fuel Type Number	1
Fuel Tank	Tank 1 100LL
Price Per Gallon / Liter	4.25
Discount Table	No Discount
Initial Totalizer Reading	200000
Product	100 Low Lead Aviatc

Pump Control Type:  AT3 - Direct  PLC - Remote  Tokheim  Dresser-Wayne  PIE

HVR Display Number: 1  Out of Order (No Communication)

Buttons: Save, Save and Send, Cancel

If you have multiple MultiDisplay Units for displaying transaction information for two or more dispensers, you will have to setup each MultiDisplay Unit with its own address, and put the address in the HVR Display Number box.



The screenshot shows the 'Dispenser Setup' window for 'Pump #2 Jet A'. The 'Miscellaneous' tab is active, displaying the following fields:

Miscellaneous	
Dispenser ID	2
Fuel Type Number	3
Fuel Tank	Tank 2 Jet A
Price Per Gallon / Liter	3.85
Discount Table	3 Dollar Table
Initial Totalizer Reading	200000
Product	Jet Fuel A

Pump Control Type:  AT3 - Direct  PLC - Remote  Tokheim  Dresser-Wayne  PIE

HVR Display Number: 4  Out of Order (No Communication)

Buttons: Save, Save and Send, Cancel

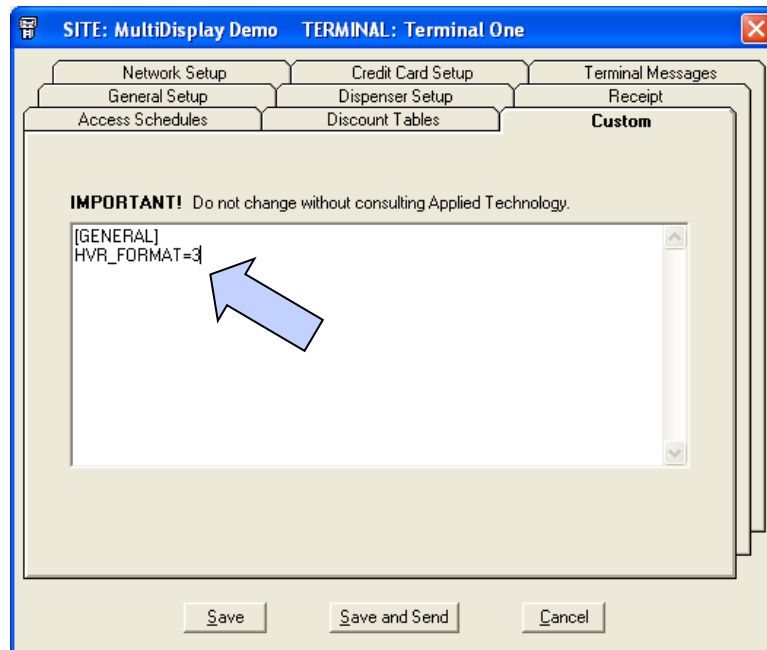
The second MultiDisplay Unit's address would be 4, as shown here.

# MultiDisplay Installation Instructions

To ensure correct configuration, you must make an entry in the Custom tab.

Click in the text box, and enter the following text exactly as shown here:

```
[GENERAL]  
HVR_FORMAT=3
```

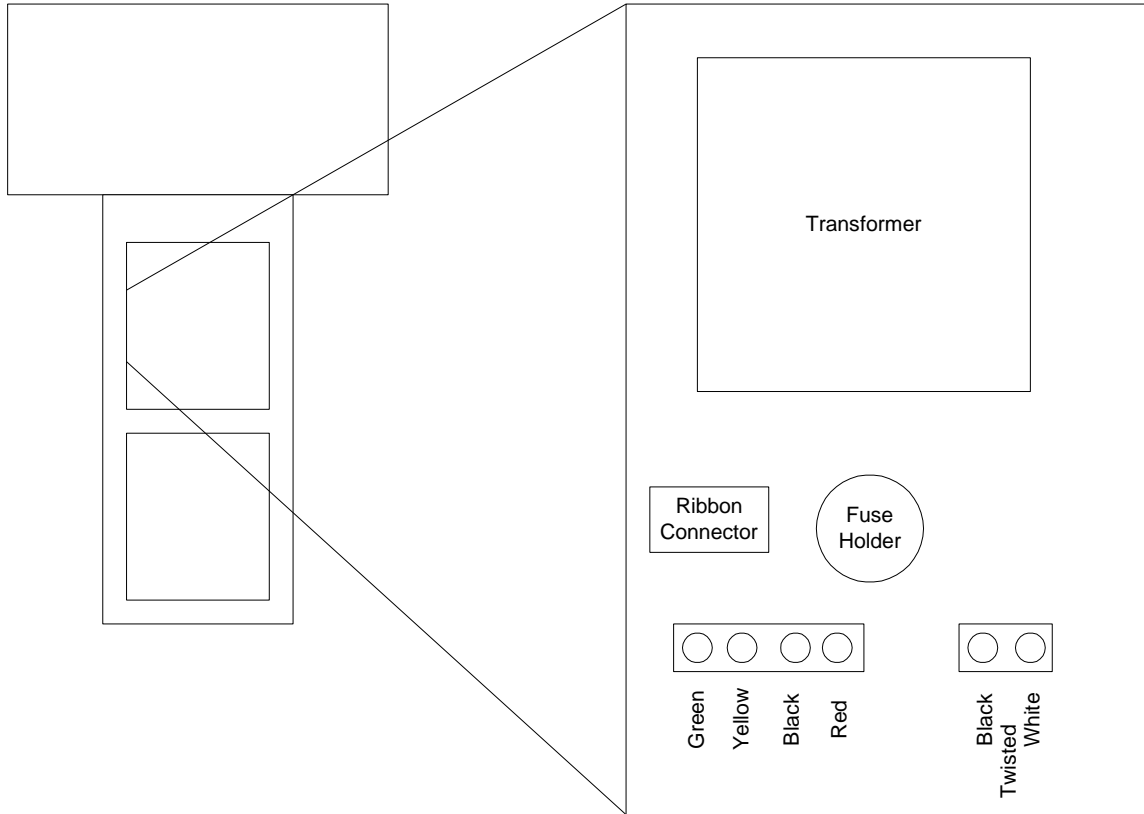


This instructs the terminal to send data for a 3 line MultiDisplay Unit.

**NOTE:** If this entry is missing, or not typed exactly as shown above, the unit **will not function**.

# MultiDisplay Installation Instructions

## Diagrams



Power Supply Diagram

# MultiDisplay Installation Instructions

## Mounting Brackets



Top or Bottom Bracket  
Mount

Side Mount



Back Mount