# Omega Installation Manual

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# What is the Omega and where is it used?

The Omega is a universal site controller designed with flexibility in mind.
It contains the ability to connect to POS devices/applications and dispensers and their associated card readers. We call the POS connectivity the front end and the part of the Omega that connects to the dispensers the pumpside.

The Omega can connect and emulate a variety of front end communications. The pumpside is capable of running many dispenser brands both domestic and foriegn.

Control capabilities range from just running the dispensers to also running the card reader units and
other site devices such as tank monitoring/gauging systems, carwashes and price signs.

One version of the Omega is designed to connect to a Veriphone Ruby system and run various brands of dispensers. See the diagram "Omega Installation - Ruby by Verifone".

Another version of the Omega uses the PIE proprietary protocol to control both dispensers and their card readers.
This version of the Omega connects to either the PIE single or dual DBoxes. Additionally it can connect
to Tank Monitoring systems and CarWash systems.

The Omega is used to control various brand dispensers using multiple applications.

# Where installed

The Omega should be physically located outside of the non-hazardous area. Typically this is where the field wiring comes into the building. A typical site topography is shown on diagram xxx.

# Power Temp etc

The following general specifications shall apply to the Omega.

| | |
|---|---|
| Physical size | 14x10x4 |
| Operating temperature | 32 to 120 degrees F |
| Storage temperature | 32 to 120 degrees F |
| Humidity | 15 to 90% non-condensing |
| Electrical supply | 115vac, 100 watts maximum<br>dedicated circuit with earth bond |
| Safety Certifications | MET Labs US,CA CE |

Notice: The Omega power supplies may be line voltage selectable. All units are shipped from the factory set for 115 vac operation. Make sure the selector switch on the from panel is set for 115 vac operation.

# How to mount

The Omega may be mounted on a shelf or wall. If mounting on a shelf make sure it is sturdy enough
to support the Omega. If wall mounting use the supplied brackets. Screw the brackets into the bottom
of the Omega as shown in the diagram xxx using the 6-32 screws supplied with the system.
Then using appropriate screws and/or wall anchors, attach the Omega to the wall.

# How to connect to the Omega

The Omega is capable of being configured to run varius applications.
The interface board shipped with the Omega is designed to fit the given application.
Refer to the appropriate section below to continue with installation.

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Omega with CL for Ruby/Veriphone operation

Connect the Ruby/Veriphone to the POS connector using the same cable as would be needed for a Gilbarco PAM unit.

The CL version of the Omega is designed to connect to Gilbarco Universal Data TWI distribution boxes. A standard serial cable(DB9) male to female(DB9) cable is recommended. The serial cable must contain all 9 wires to work correctly.
The Omega CL system is shipped with one serial cable. If connecting more than one DBox, order additional cables from PIE.

Using the diagrams below, connect the cables as shown.
Omega with CL - drawing "Omega Installation - Ruby by Verifone"

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Omega with PIE DBoxes

The Omega can connect to the PIE DBoxes using two methods, serial and ethernet.
If using serial communications use a standard serial cable(DB9) male to female(DB9) along with supplied gender changer.
If using ethernet communications use a CAT5(minimum) ethernet cable. This can connect to a hub, router or a network switch.

Using the diagrams below, connect the cables as shown.
Omega with PIE DBoxes - drawing PiDBox w/ Ethernet/RS232 Connectivity

# Startup and Test

After the Omega has been installed, turn on power to the Omega.
See the power switch on the front panel.
It will take about 2 minutes for the Omega to go though a start up procedure. At this point the Ready LED will turn on.

Using the procedure outlined in the diagnostics section, run Telnet or Hyperterm and enter into the Omega diagnostics. The ability to login to diagnostics is a good test of basic functionality of the system.

Initialize the dispensers with the POS. This will send prices to the Omega for the dispensers that exist at the site and the Omega will then begin to initiate communication with the dispenser and put it online. At this point proceed to test the dispensers one at a time to make sure the system is fully functional.

If you wish to restart the Omega at any time simply press the Reset Switch located on the front panel.

# Diagnostics

If no power indicators or meter check fails check fuse. See Service section for fuse replacement.

To access Omega diagnostics use either telnet/hyperterm for connectivity.
Set up a TCP/IP connection using the following:
Diagnostic settings:

address: 192.168.0.250
port: 10004

# Service

The only user servicable part is the fuse.

The fuse holder is located on the power entry connector. Remove power cord from power entry connector before changing fuse.

Replace only with 1/2 Amp 120 vac fast acting fuse.

Recommended parts shown below:

Littlefuse: 0235.500

Bussman: GMA-500ma

Bussman: GDB-500ma

If the power entry cord is damaged or lost, contact PIE for a replacement.