**VALCOM IP Solutions**

# IP PoE Double Sided Digital Clocks
## VIP-D425ADS, 4 Digit, 2.5" Display, VIP-D440ADS, 4 Digit, 4.0" Display
## VIP-D625ADS, 6 Digit, 2.5" Display, VIP-D640ADS, 6 Digit, 4.0" Display

## INTRODUCTION

The VIP-D425ADS 4 Digit, 2.5 inch, VIP-D440ADS 4 Digit, 4.0 inch, VIP-D625ADS 6 Digit, 2.5 inch, and VIP-D640ADS 6 Digit, 4.0 inch clock displays enable time indication, synchronization, and correction over an IP-based LAN/WAN. This allows locating a clock display anywhere on the network. Clock synchronization is initiated via connection to any NTP (Network Time Protocol) server. The enclosure is made of steel with a durable powder coated finish. The color of the enclosure can easily be changed to match any décor. Power is provided to the digital clocks via a Power over Ethernet (PoE) switch meeting the 802.3af specification. Only one network connection is required, supplying power and data to both clock displays.
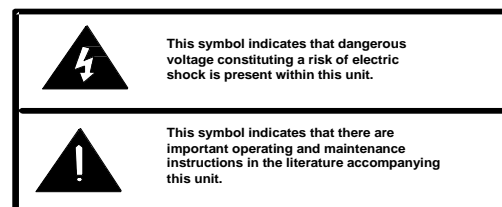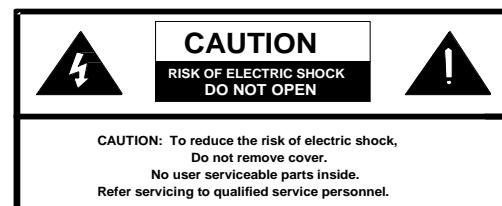
## SPECIFICATIONS
### Features
- Easy to read, high visibility Red 2.5" or 4.0" digits display hours and minutes (4 digit display) or hours, minutes and seconds (6 digit display)
- Selectable 12 or 24 hour format
- 802.3af Power over Ethernet (PoE) compatible
- High Efficiency

## DIMENSIONS/WEIGHT
- VIP-D425ADS: 11.50" L x 4.25" W x 5.50" H (29.21cm L x 10.80cm W x 13.97cm H) Weight: 5.9 LBS (2.68 kg)
- VIP-D440ADS: 17.38" L x 4.25" W x 6.85" H (44.15cm L x 10.80cm W x 17.40cm H) Weight: 9.1 LBS (4.14 kg)
- VIP-D625ADS: 16.12" L x 4.25" W x 5.50" H (40.94cm L x 10.80cm W x 13.97cm H) Weight: 7.3 LBS (3.32 kg)
- VIP-D640ADS: 25.25" L x 4.25" W x 6.85" H (64.14cm L x 10.80cm W x 17.40cm H) Weight: 12.2 LBS (5.45 kg)



## Nominal Power Requirements
802.3af PoE                                   Class 3

## Environment
Temperature:                              0 to +40° C
Humidity:                 0 to 85% non-precipitating

## Precautionary Designations

**CAUTION**
**RISK OF ELECTRIC SHOCK**
**DO NOT OPEN**

CAUTION: To reduce the risk of electric shock, Do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

# INSTALLATION
## FCC Information
**This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.  This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.  Operation of this equipment in a residential area may cause harmful interference in which case the user will be required to correct the interference at one's own expense.**

# MOUNTING
The Digital Clocks have mounting holes predrilled in the end and top of the housing, for use with the included mounting bracket.  Additionally, an optional bridge adapter (model V-9914M-5) is available for use with tile ceilings.

For ease of installation, the digital clock displays should be removed from the housing before mounting.  Using Figure 2 as a guide, remove the four screws holding the clock display to the housing.  Carefully pull the clock display away from the housing, then remove the two wire connectors from the back of the display.  Using the same process, remove the second clock display.

For end mounting, securely attach the mounting bracket to the end of the clock housing using the four screws and nuts provided.  Refer to Figure 3 for details.

For top mounting with the included bracket, refer to Figure 4.  Securely attach the mounting bracket to the top of the clock housing using the four screws and nuts provided.

For top mounting using the optional V-9914M-5 ceiling bridge, use the mounting instructions provided with the bridge but do not cut the 8.5" speaker hole in the ceiling tile.  Instead, cut a 1" hole centered within the bridge opening for the network and seismic cables.  Using appropriate screws and nuts (not provided), attach the clock housing to the V-9914M-5 bridge with the ceiling tile between the bridge and the clock housing.  Refer to Figure 5.

Feed the network cable and seismic cable (if used) through the cutout in the clock housing before attaching to the wall or ceiling.  Position the clock housing in the final mounting location and securely attach to the wall or ceiling with appropriate fasteners through the four mounting holes in the bracket.

Reinstall the clock displays into the clock housing, using Figure 2 as a guide.  Insert the RJ-45 connector into the network connection on the clock display board as shown in Figure 1, then slide the display onto the housing and secure with the four screws removed previously.  Pull the signal wires through the housing and reattach to the second clock display.  The connectors are color marked, and must be reattached to the matching connector on the clock display.  Make sure all wires are inside the housing, then slide the second clock display onto the housing.  Secure with the four screws previously removed.

## Setup

Valcom IP Clocks (beginning with firmware version 3.17.4) are programmed at the factory to acquire an IP address using Dynamic Host Configuration Protocol (DHCP). If DHCP is not available, the clock will revert to the static IP address of 192.168.6.207 after 3 minutes.

In addition to the IP address, the clock will also try to acquire all of the information needed to synchronize time from the DHCP Scope. If the DHCP Scope Options noted below are correctly configured, the clock will be able to acquire the correct time without further programming.

- Option 42, NTP Server IP Address.
- Option 100, POSIX Time Zone, example: "EST5EDT4,M3.2.0/02:00,M11.1.0/2:00". This is the preferred option, and works for any area of the world.
- Option 101, Time Zone Name, example: "America/New_York". This option is only supported for North America time zones.

Each of these options from the DHCP scope can be overridden by manually programming the desired value using the Valcom VIP-102B IP Solutions Setup Tool. If not using DHCP for IP address assignment, all of the Time settings will be configured using the Setup Tool. Download the latest version of the free IP Solutions Setup Tool from the Valcom web site at www.valcom.com/vipsetuptool.
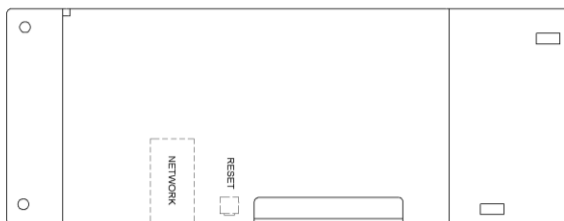


**Figure 1. Network Connection**

## TECHNICAL ASSISTANCE

When trouble is reported, verify power is being supplied to the unit and there are no broken connections. If a spare unit is available, substitute a spare unit for the suspected defective unit.Assistance in troubleshooting is available from the factory. Call (540) 563-2000 and press 1 for Technical Support or via email at support@valcom.com

When requesting assistance, you should include all available information. It is strongly suggested that you go to the web site and review the documentation at http://www.valcom.com.

Valcom equipment is not field-repairable. Valcom, Inc. maintains service facilities in Roanoke, VA. Should repairs be necessary, attach a tag to the unit clearly stating your company name, address, phone number, contact person and the nature of the problem. Send the unit to:

<div align="center">

**Valcom, Inc.**
**Repair & Return Dept.**
**5614 Hollins Road**
**Roanoke, Va. 24019-5056**

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### WARRANTY

Warranty information may be found on our website at www.valcom.com/warranty.

Network connection

(8) Screws to attach
display to clock
housing

Clock housing with
digital displays
removed

Remove two connectors from this
display. reconnect these connectors
to the display before attaching the
display to the clock housing.
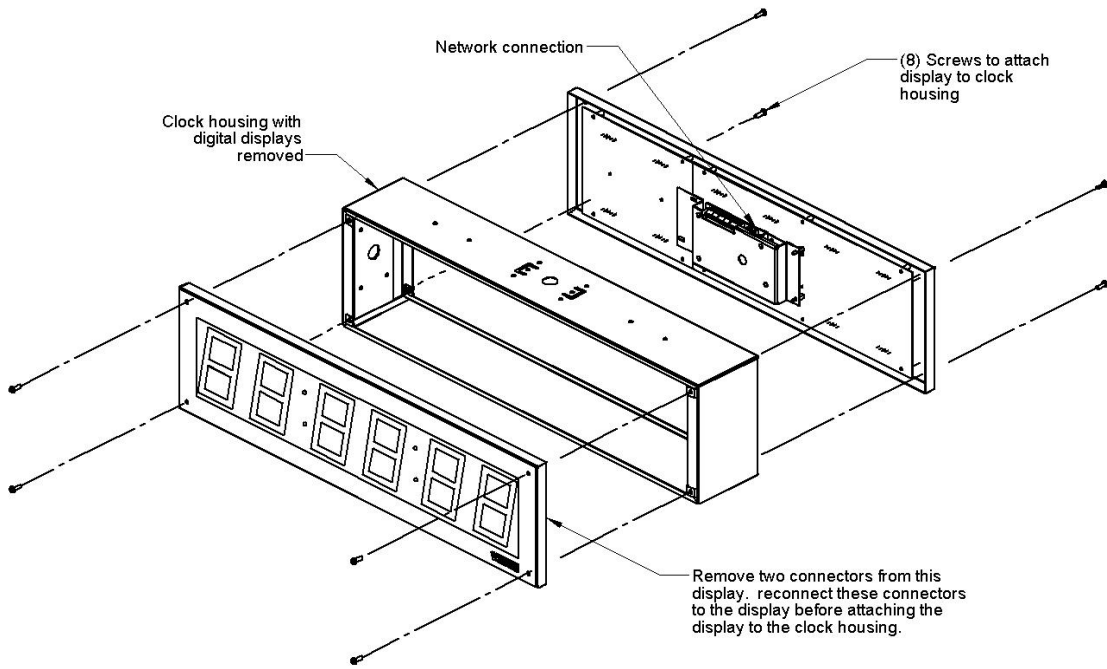
**Figure 2.  IP Digital Double Sided Clock Wiring and Display Diagram**
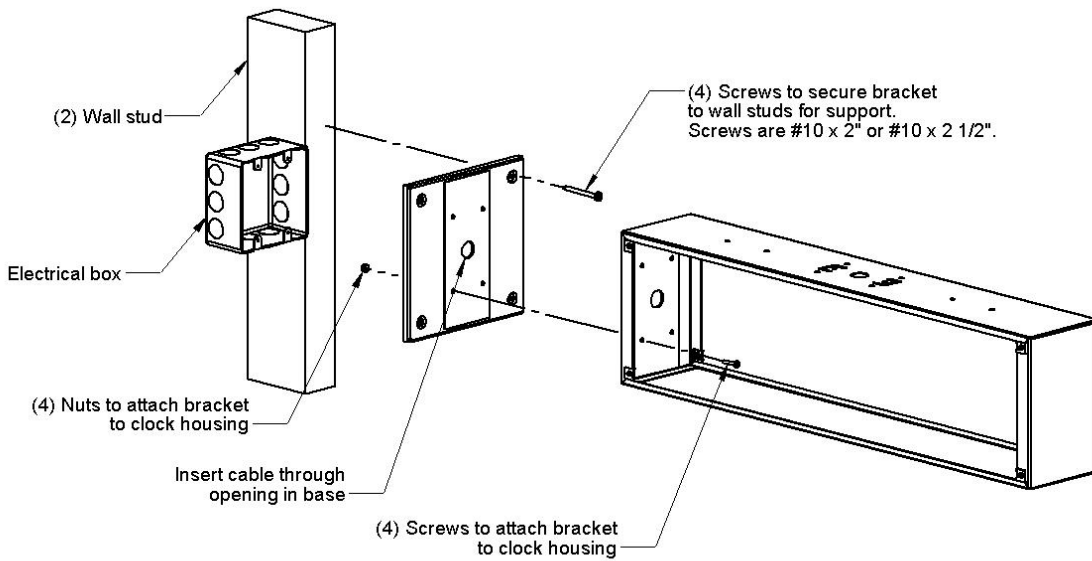
(2) Wall stud

(4) Screws to secure bracket
to wall studs for support.
Screws are #10 x 2" or #10 x 2 1/2".

Electrical box

(4) Nuts to attach bracket
to clock housing

Insert cable through
opening in base

(4) Screws to attach bracket
to clock housing

The digital double sided clock
should be mounted so that the top
of the clock is 10 feet above the
floor or as close to the ceiling as
possible

**Figure 3.  IP Digital Double Sided Clock Wall Mount Diagram**

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**Figure 4. IP Double Sided Clock Ceiling Mount Diagram**

(2) Ceiling stud

Electrical box

(4) Nuts to attach bracket to clock housing

Insert cable through opening in base

(4) Screws to secure bracket to wall studs for support. Screws are #10 x 2" or #10 x 2 1/2".

(4) Screws to attach bracket to clock housing
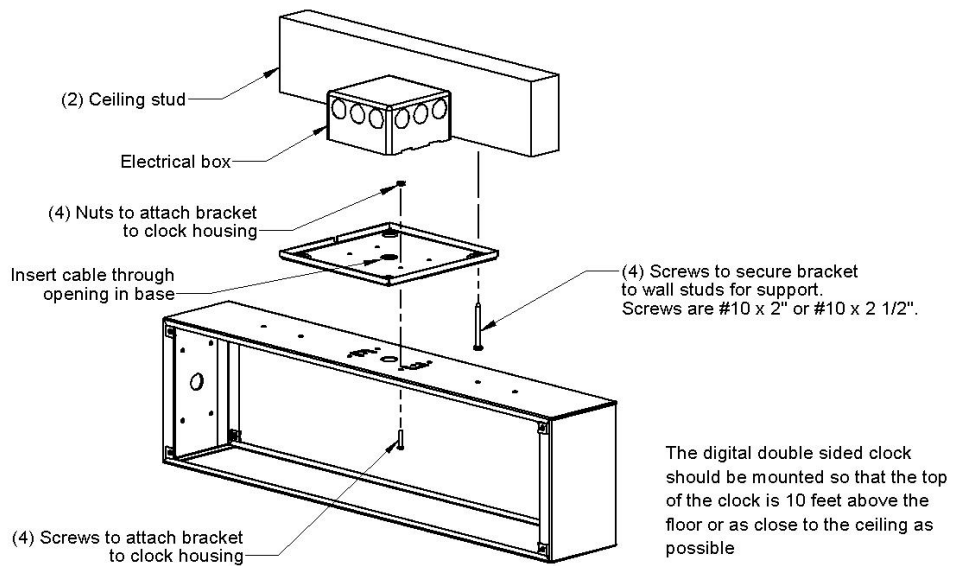
The digital double sided clock should be mounted so that the top of the clock is 10 feet above the floor or as close to the ceiling as possible



Attach ceiling bridge to ceiling tile with fender washers and screws

V-9914M-5 bridge for support of clock assembly

Cut holes in ceiling tile for cable and screws that secure bridge to tile

Insert network cable through ceiling tile

Bend seismic tabs to attach seismic cable to clock housing

Attach ceiling bridge to ceiling tile with fender washers and nuts

**Use of seismic tabs strongly recommended**

Nuts to attach clock housing to ceiling tile

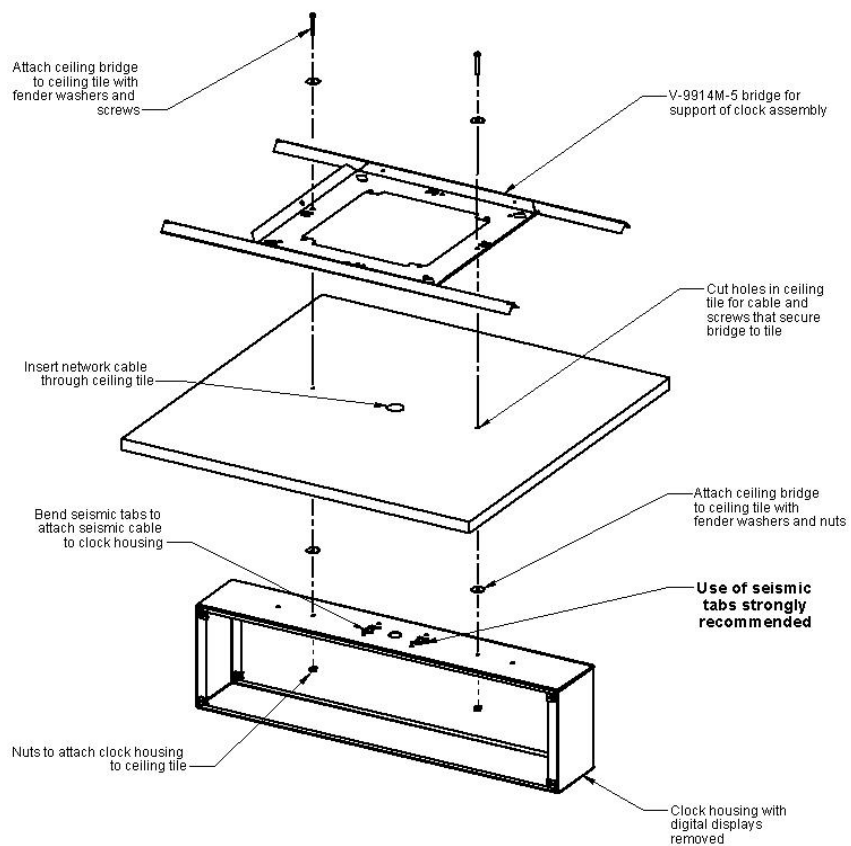Clock housing with digital displays removed

**Figure 5. IP Digital Double Sided Clock Ceiling Mount with Optional Bridge Diagram (for D440ADS, D625ADS, D640ADS only) (not for D425ADS)**

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