COHU, INC. ELECTRONICS DIVISION

Installation and Operation Manual

Figure 1. iView

3950 SERIES iVIEW CAMERA/POSITIONER SYSTEM

Table 1. Specifications

SPECIFICATION	CHARACTERISTIC
Imager	1/4 inch color interline transfer CCD, progressive scan
Resolotion	470 horizontal tv lines
Lens	Integral 23X optical, 3.6 to 82.8 mm with 10X digital, auto/manual focus
Sync	Phase adjust line lock
Day/Night Switchover	Day (color) / night (mono), manual or auto
Sensitivity	3.0 lux at 1/60 s (color day) 0.2 lux at 1/4 s (color day) 0.3 lux at 1/60 s (mono night) 0.02 lux 1/4 s (mono night)
Power Input	120 V ac nominal: 89 - 135 V ac, 60 Hz per NEMA 2.1.2 standard TS2 for traffic control systems 230 V ac nominal (207 - 253), 50 Hz 24 V ac nominal (21.6 - 26.4), 60 Hz
Power Interruption	Confirms to NEMA 2.1.6 standard TS2
Power Transients/Interruptions	Confirms to NEMA 2.1.4 TS2
Communications	Opto-isolated serial port RS-422 with digital position feedback; RS-232 and RS-485 available
Protocol	Non-propritary Cohu standard, others optional (see figure 2, protocols)
Firmware	Stored in flash memory; upgrade via serial port
Pan/Tilt	360° continuous pan; +40º to -90º down
Preset Speed	>100°/second preset, at 0.5° accuracy
Presets	64
Title Generation	8 lines
Tours	8, each of 32 presets with dwell timer per preset per tour
Sectors	16 in the horizontal plane
Privacy Zones	8 programmable zones can be set for video blanking
Alarm Inputs	2 available
Environmental	-40 to +55 °C
Humidity	100 percent, relative
Pressurization	Pressurized with dry nitrogen; IP Rating IP67, NEMA 4X
Weight	28 lb (16 kg) approximate

This equipment has been tested and found to comply with limits for class A digital devices, pursuant to part 15 of the FCC rules.
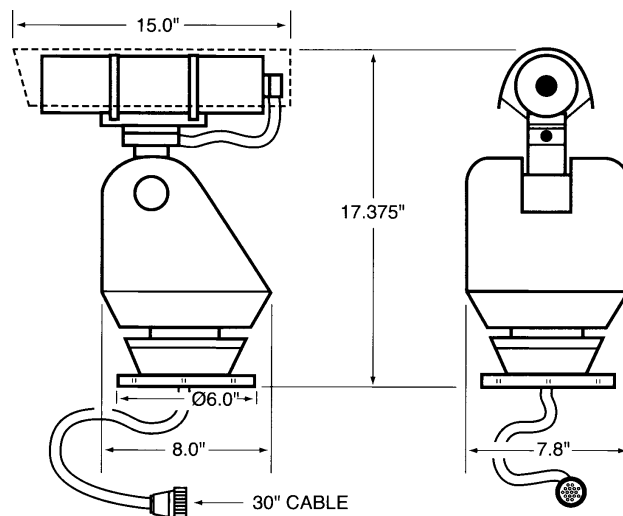
1.0 GENERAL DESCRIPTION

The 3950 series is a camera system that integrates a high performance digital signal processing camera, pan-and-tilt Positioner, and control receiver into one package.

Throughout this manual the entire assembly will typically be referred to as either the "Positioner" or the "iView."

Specifications are contained in table 1. A model number interpretation is provided in figure 2. This can be used to interpret an existing model number.

WARNING

Some versions of this Positioner operate from 115 V ac or 230 V ac. Use all appropriate care when installing and maintaining any equipment operating from these voltages.

1.1 ELECTRICAL CHARACTERISTICS

The camera uses digital signal processing (DSP). It has an internal source ID generator. Integration control plus a built-in video storage card provides full color continuous video even at very low light levels.

The positioner speeds are variable with maximums of 100° per second in pan mode and 20° per second in tilt while sustaining 90 mph winds. Pan range is a continuous 360 degrees while the tilt range is +40 to -90 degrees from the horizontal. There are 64 preset positions with a preset accuracy of one-quarter degree. When responding to standard pan-preset the Positioner can move with a pan speed of 100° per second.

This camera/positioner will operate in temperature ranges from -40° to +55° C and with winds of up to 90 mph. The enclosure protects against salt, grime, dirt, and moisture.

The integrated receiver/driver, contained within the iView, communicates using Cohu protocol messages to control all camera functions. All iView functions are operable via RS-422 serial communications.

The Positioner is fully compatible with existing Cohu controllers. In case of power failure, all 64 preset positions of all Positioners are stored in nonvolatile memory.

Each iView "address" within a surveillance system can be selected electronically from the Monitoring Center. There are no mechanical dip switches to set at the camera, and each unit responds to the central command only if addressed. This provides greater integration flexibility for the designer and more dynamic camera control for the operator

1.1.1 Control Software

The Cohu camera system control software, is designed to control the camera, camera DSP functions, positioner, lens functions, as well those of auxiliary equipment such as VCRs, screen splitters, and monitor selection. The protocol and message structure for camera is common for all cameras. No proprietary protocol and message structure is used. Three versions of control software are available:

Win MPC
Win MPC Graphical User Interface (GUI) software is available for setting the address and performing field tests for each iView. This can be obtained at no cost from either the cohu-cameras.com web site or by mail on floppy disk

Cams
The Cams protocol software is intended for controlling multi-camera/positioner systems when the Cohu MPC Master Control Panel is the central control "intelligence" for the system. All control and respond commands among the various equipment in the system pass through the Master Control Panel.

Net Cams
The Net Cams software is intended for controlling multi-camera/positioner systems when a Windows based PC is the central control "intelligence" for the system. All control and respond commands among the various equipment in the system pass through the Net Cams Server.

1.2 MECHANICAL CHARACTERISTICS

Although the camera/positioner is a single mechanical assembly for installation purposes, it actually consists of two subassemblies: (1) the camera and (2) the positioner.

All camera circuits are contained within a sealed and pressurized environmental housing having a clear window at one end for viewing by the camera lens. This barrel is fully covered by a sun shield spaced slightly away from the housing itself. This minimizes
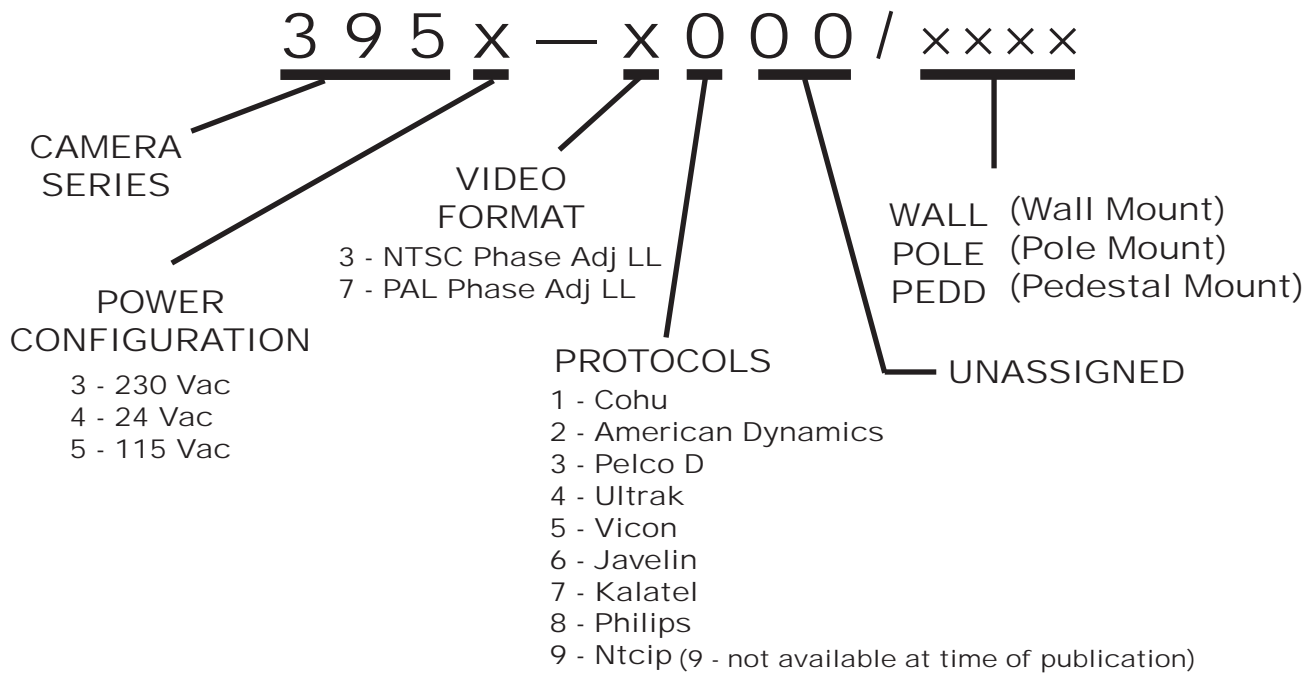
395x — x000/xxxx

CAMERA
SERIES

VIDEO
FORMAT
3 - NTSC Phase Adj LL
7 - PAL Phase Adj LL

POWER
CONFIGURATION
3 - 230 Vac
4 - 24 Vac
5 - 115 Vac

PROTOCOLS
1 - Cohu
2 - American Dynamics
3 - Pelco D
4 - Ultrak
5 - Vicon
6 - Javelin
7 - Kalatel
8 - Philips
9 - Ntcip (9 - not available at time of publication)

WALL (Wall Mount)
POLE (Pole Mount)
PEDD (Pedestal Mount)

UNASSIGNED

Figure 2. Model Number Interpretation

heat buildup due to sunlight and also serves to minimize sun flair by shading the lens at some camera angles.

The pan/tilt positioner is a sealed unit intended for outdoor use under rain, snow, and other typical harsh weather conditions.

A single multiconductor cable passes through the base to provide for all signal and operating power connections for both the pan/tilt unit and the camera. This 30-inch cable has a 16 pin connector at the other end for connection with the system cable routed to its area.

2.0 INSTALLATION

An iView can typically mounted in any one of three mechanical configurations depending on the mounting accessories supplied. This is determined by the model number:

1. Pedestal Mount (PEDD model)

The simplest configuration. Only the iView is supplied. It bolts directly onto the top of a site-supplied pedestal having the correct hole pattern or to an adapter plate providing the proper hole pattern. Figure 3 illustrates a pedestal mount. (The pedestal must be site supplied.)

Table 2. Equipment vs. Model Number

MOUNT CONFIG.	CAMERA / POSITIONER	ARM	ADAPTER PLATE	POLE BRACKET
Pedestal	•			
Wall	•	•	•	
Pole	•	•	•	•
NOTE: Dot (•) designates items supplied for each mounting configuration.				

2. Wall Mount (WALL model)

This mounting arrangement requires an arm that bolts to the wall and an adapter plate between the arm and the bottom of the Positioner. The arm is typically supplied with this adapter plate already installed.

3. Pole Mount (POLE model)

This mounting arrangement is similar to the Wall Mount -- except that the mounting arm attaches to a bracket fastened to a pole instead of directly bolting to a wall.

Table 2 summarizes the major items supplied for each of these three installation methods. Each of these installations will be expanded upon in a later sections.

2.1 UNPACKING AND RECEIVING INSPECTION

This item was thoroughly tested and carefully packed in the factory. Upon acceptance by the carrier, they assume responsibility for its safe arrival. Should you receive this item in a damaged condition, apparent or concealed, a claim for damage must be made to the carrier. To return the product to the factory for service, please contact the Customer Service Department for a Return Authorization Number." If a visual inspection shows damage upon receipt of this shipment, it must be noted on the freight bill or express receipt and the notation signed by the carrier's agent. Failure to do this can result in the carrier refusing to honor the claim." When the damage is not apparent until the unit is unpacked, a claim for concealed damage must be made. Make a mail or phone request to the carrier for inspection immediately upon discovery of the concealed damage. Keep all cartons and packing materials. Since shipping damage is the carrier's responsibility, the carrier will furnish you with an inspection report and the necessary forms for filing the concealed-damage claim

2.2 STATIC DISCHARGE PROTECTION

Procedures in this manual do not require entry into the housing of the positioner/camera. However in the event that an open unit were available, the following precautions should be followed:

CAUTION

This Positioner/Camera contains sensitive devices that can be damaged by static discharge. Use appropriate static control methods when working inside either the Positioner or Camera.

Components used in modern electronic equipment, especially solid state devices, are susceptible to damage from static discharge. The relative susceptibility to damage for semiconductors varies from low with TTL to high with CMOS. Most other semiconductors fall between TTL and CMOS in susceptibility to static discharge. As a minimum, therefore, observe the following practices when working inside this or any other electronic equipment:

1. Use conductive sheet stock on the work bench surface.

2. Connect the sheet stock to ground through an 1 megohm or greater value resistor.

3. Use a wrist strap connected to ground through an 1 megohm or greater value resistor when working at the bench.

4. Maintain relative humidity of the room above 30 percent. This may require a room humidifier. Working on circuits with relative humidity below 30 percent requires extraordinary procedures not listed here.

5. Use antistatic bags to store and transport an exposes chassis, circuit boards, and components. Use new antistatic bags. Old, used bags loose their static protection properties.

This list serves as a reminder of the minimum acceptable practices. Be sure that all static discharge devices at the work bench are properly installed and maintained." Standard grounding mats and wrist straps purchased for use at work benches are supplied with leads having current limiting resistors for safety. Never substitute with a grounding lead not having the resistor.

2.3 EQUIPMENT SUPPLIED

Depending on the mounting configuration, several variations of equipment can be supplied. See table 2 for a list of the basic differences between models.

Positioner with 30-inch "pigtail" and connector

Positioner Baseplate Dimensions

0.375 THICK PLATE

Ø4.750

Ø0.38

10°

DETAIL "A"

Ø6.00

SEE DETAIL "A"

TO POSITIONER

CONNECT AND PLACE INSIDE

THROUGH CONDUIT TO CONTROL EQUIPMENT

CONDUIT

Stainless Steel Mounting Hardware

3955-1000-PEDD Cutaway of Base

Pedestal Top

Stainless Steel Mounting Hardware

Access Port

Pigtail Cable of 3955-1000

Figure 3. Typical Pedestal Mount Installation

POSITIONER

WALL

POSITIONER CABLE
(Route through Adapter
Plate into Arm)

Route system
cable through
hole in wall
into Arm

ADAPTER
PLATE

Ø6.00

ARM

NOTE: Arm is typically shipped
with Adapter Plate attached

Use weather-tight gasket
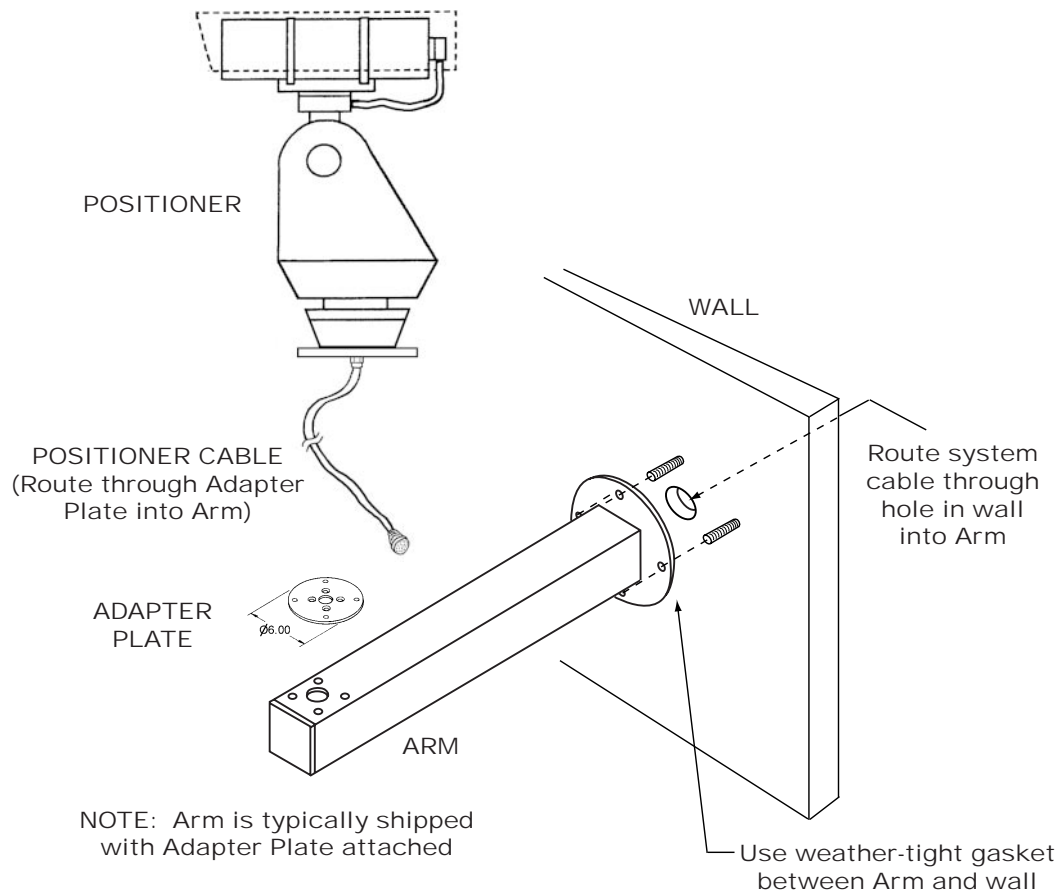between Arm and wall

Figure 4. Typical Wall Mount Installation

PEDD (Pedestal Mount). See figure 3.

Pedestal mounting is the most basic of the three mounting arrangements. Taller pedestals should have an access plate near the top so that a strain relief can secure the cable assembly in place. This not only prevents the weight of the cable from pulling on the connector but it is also a good general practice with all cable runs.

WALL (Wall Mount). See figure 4.

With a wall mount, the Pedestal bolts to the end of an arm which is attached to a wall. Figure 6 gives dimensions of the arm and adapter plate. This arm is typically shipped with the adapter bracket attached. This wall must not only have four mounting bolts but also a hole centered between these bolts through which the cables must pass. A weather-tight gasket should be used between the arm and wall. Since the Positioner pigtail cable is about 30 inches long it is likely that the connectors will be behind or inside the wall or junction box in that area.

POLE (Pole Mount). See figure 5.

Mounting to a pole is similar to mounting to a wall. For mounting to a pole, the four mounting bolts are provided by a bracket. This bracket is attached to the pole by stainless steel straps. This strapping requires a special tensioning tool (type 7411411-001).

Cable routing when using a pole mount depends the situation encountered. It can either be directed down behind the pole bracket or, if arrangements have been made for this, into the pole. Junction boxes, drip loops, and weather proof integrity of the connectors must be considered before starting the installation.

Typical Installation of pole mounted Positioner showing cable routng

ACCESS PORT

STRAIN RELIEF

CCTV POLE

Strain relief must be used on cable to prevent tension on the connectors

POSITIONER

POSITIONER CABLE
(Route through Adapter Plate into Arm)

ADAPTER PLATE

Ø6.00

ARM

POLE MOUNT
(Strapped to Pole)

POLE

SYSTEM CABLE
(Attach to Positioner cable)

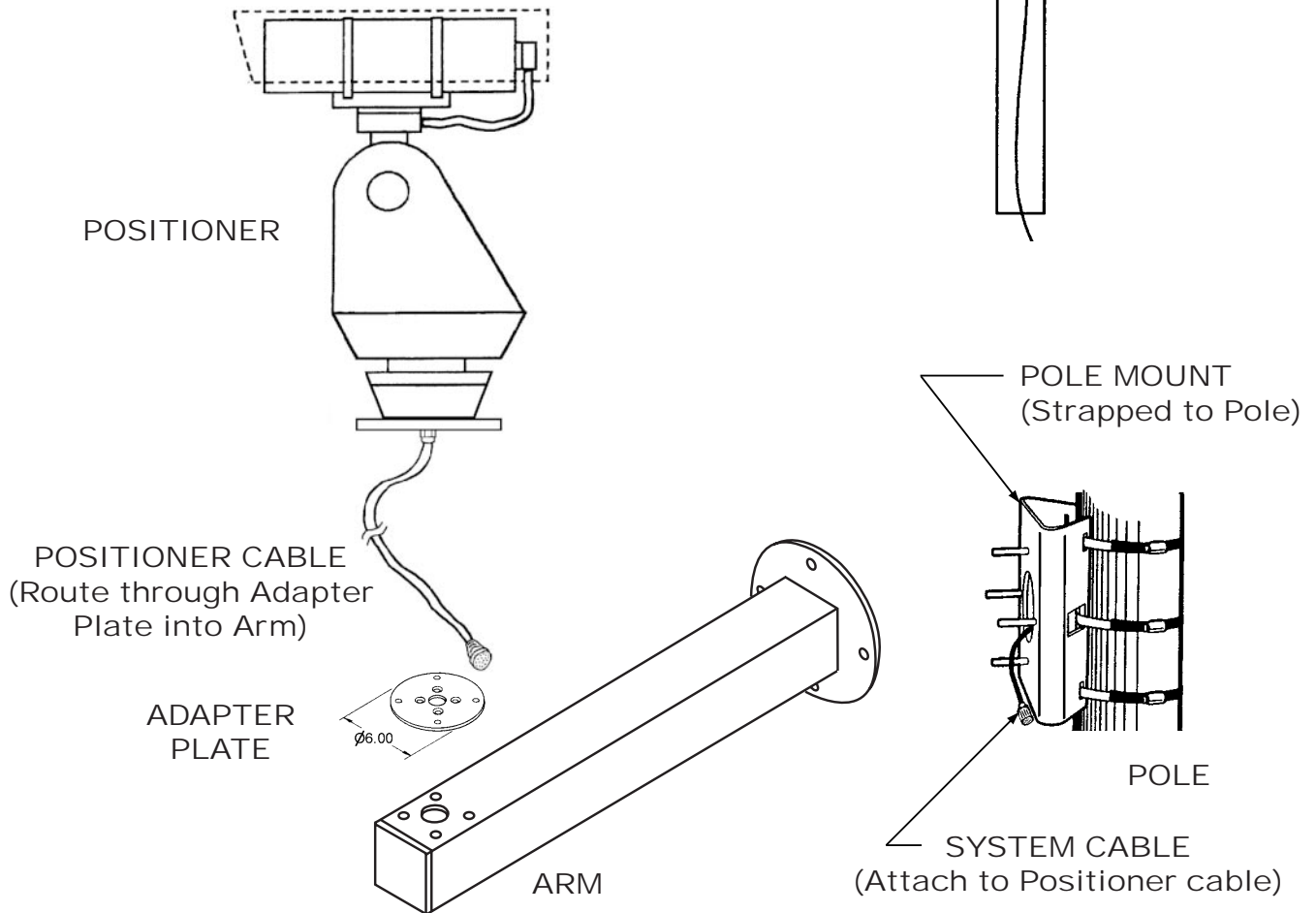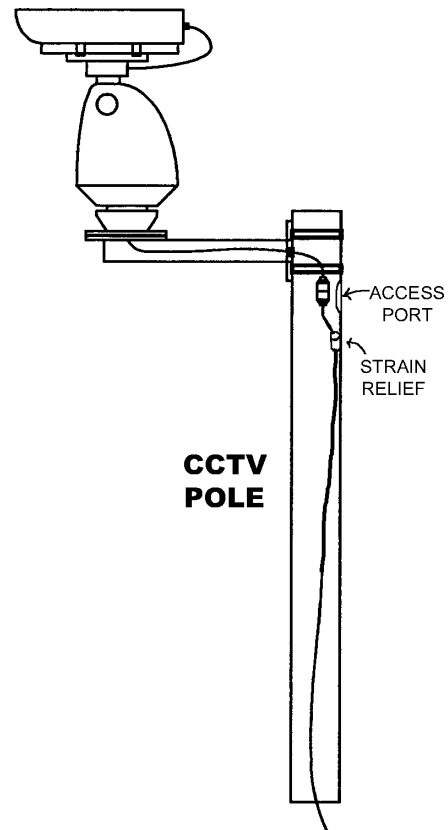NOTE: Arm is typically shipped with Adapter Plate attached

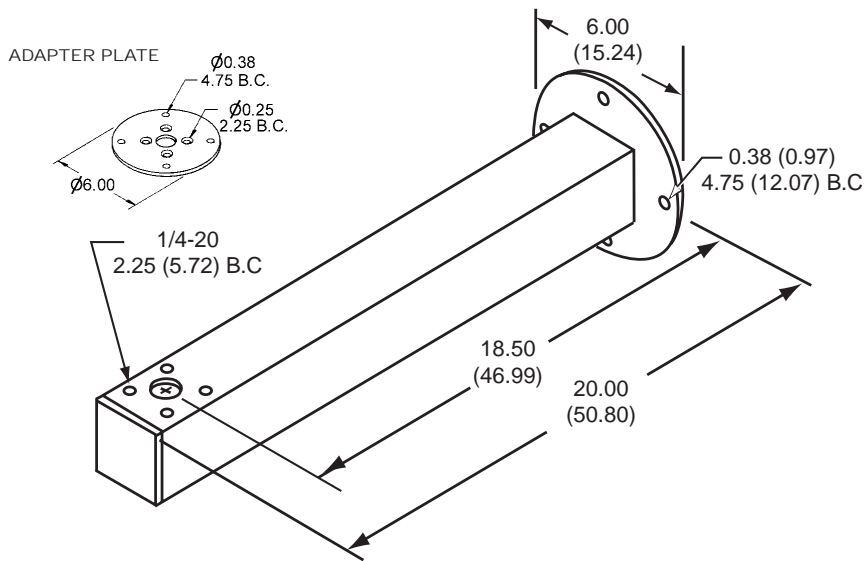**Figure 5. Typical Pole Mount Installation**

Figure 6. Arm and Apapter Plate Dimensions

2.4 EQUIPMENT REQUIRED BUT NOT SUPPLIED

5/16 stainless steel mounting hardware

Tensioning tool (pole mounting) (type 7411411-001)

Gasket material and/or sealing compound for water-proofing

Cable, multiconductor or individual cables

Win MPC test and setup GUI

Data control such as Cams or Net Cams GUI

2.5 POWER REQUIREMENTS

Depending on the model, a Positioner requires either 24 V ac 60 Hz, 115 V ac 60 Hz, or 230 V ac 50 Hz power. In cold weather with the heaters on, 15 watts is required. Otherwise power consumption is 9 watts. All electrical connections to and from the Positioner are made through a single permanently-attached cable entering the bottom of the base plate. This same cable also contains signals and video wiring.

2.6 PEDESTAL MOUNT INSTALLATION

Mounting an iView on top of a pedestal is the most basic installation. The iView base bolts directly to the top of the pedestal (or to an adapter plate if required). The four-bolt hole pattern is on a standard 4.75-inch diameter circumference.

Proceed as follows to install an iView on a pedestal:

1. Route the cable pigtail down into the pedestal. This cable should be secured by a strain relief and not allowed to hang free within the pedestal. (If an access plate is not available at the top of the pedestal, the system cable must first be connected to the pigtail connector.)

2. Bolt the iView to the pedestal – using stainless steel hardware.

3. Attach the pigtail connector to the system connector. This often is done through a removable access plate. Be sure these cables are secured with a strain relief so that they do not hang free.

4. Verify that the iView will have a full range of movement without striking any nearby structure.

5. Proceed to section 2.10 to set up and check out the iView.

2.7 WALL MOUNT INSTALLATION

With a wall-mount installation, a support arm bolts to a wall and the iView then bolts to the arm. An adapter plate on the arm matches its hole pattern to the hole pattern of the iView.

1. Verify that the system cable is accessible for connection to the iView pigtail cable at the mounting location.

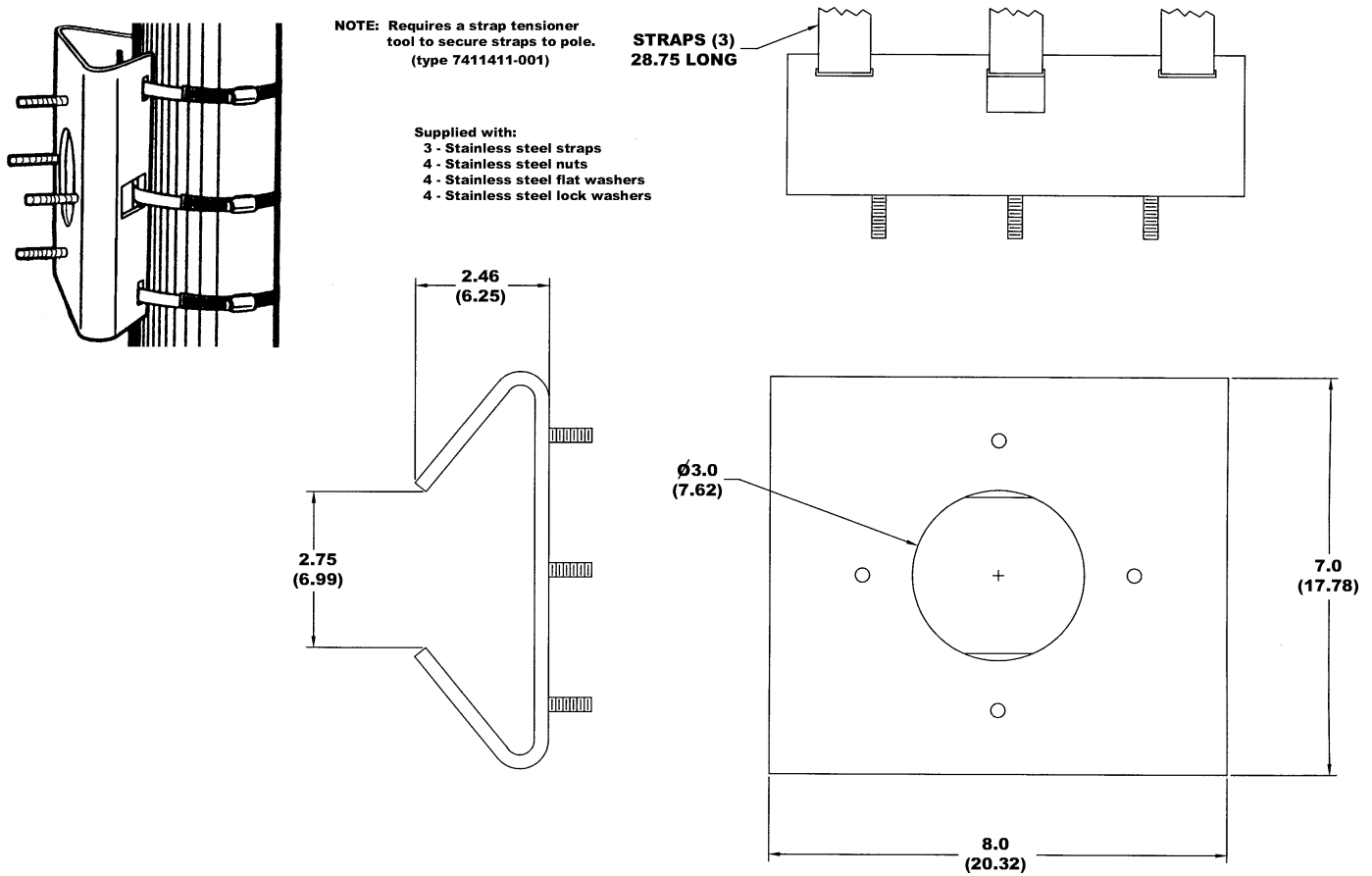2. Attach the adapter plate to the wall mount arm.

NOTE: Requires a strap tensioner
          tool to secure straps to pole.
          (type 7411411-001)

STRAPS (3)
28.75 LONG

Supplied with:
  3 - Stainless steel straps
  4 - Stainless steel nuts
  4 - Stainless steel flat washers
  4 - Stainless steel lock washers

2.46
(6.25)

2.75
(6.99)

ø3.0
(7.62)

7.0
(17.78)

8.0
(20.32)

Figure 7. Pole Mount Bracket Dimensions

3. Route the system cable out of the wall and into the back of the wall mount arm. Continue the cable through the arm and out the hole at the iView mounting location.

4. Install a weather tight gasket between the arm and the surface of the wall.

5. Bolt the Arm to the wall.

6. Attach the two connectors to each other and feed excess cable into the arm.

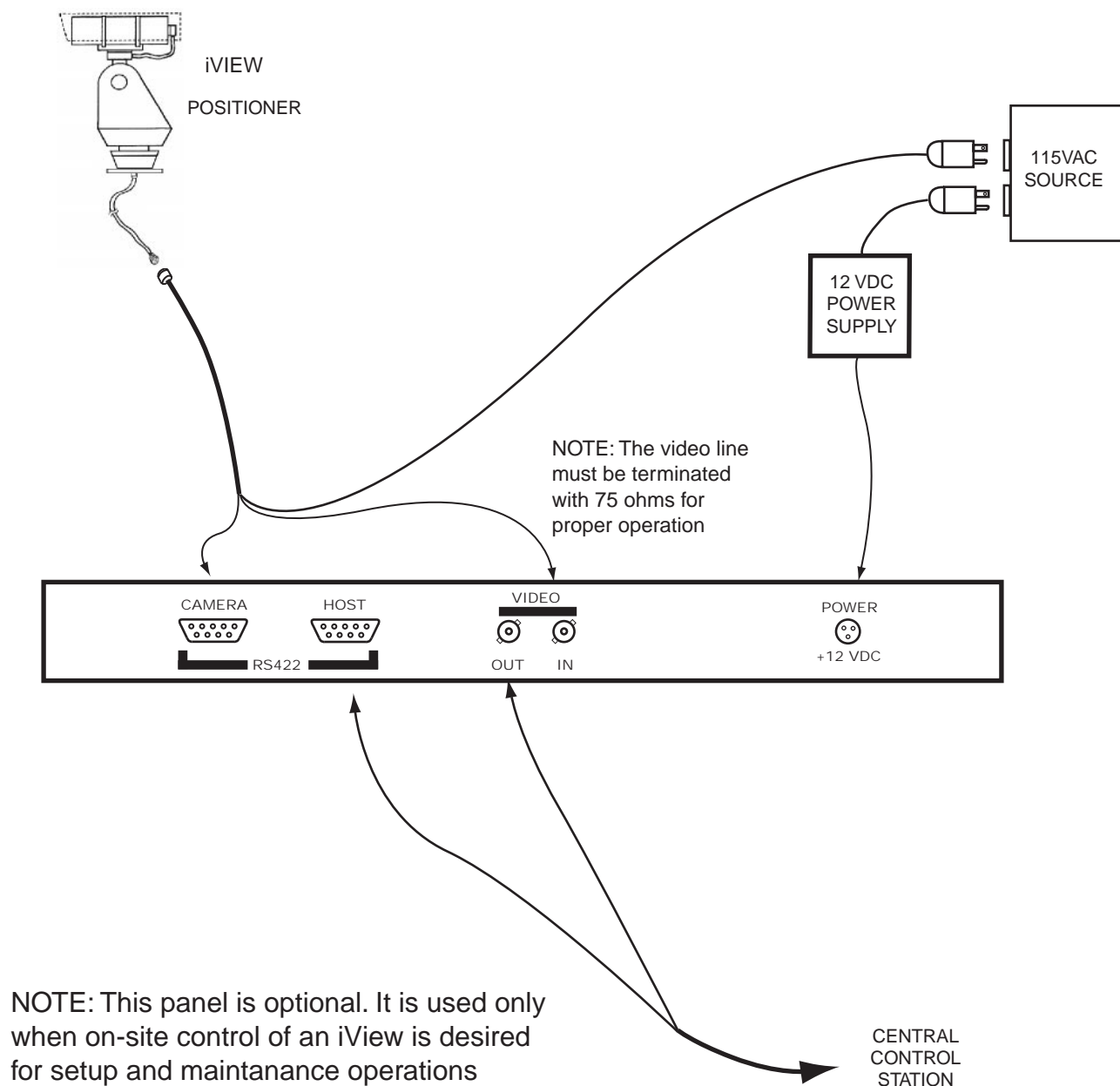7. Sit the iView on the adapter plate and install the stainless steel hardware.

8. Verify that the iView will have a full range of movement without striking any nearby structure.

9. Proceed to section 2.10 to set up and check out the iView.

2.8 POLE MOUNT INSTALLATION

A pole mount installation is similar to the wall mount installation except that the arm fastens to a bracket (figure 7) attached to the pole instead of directly to a wall.

1. Verify that the system cable has been properly routed to the location where the pole-mount bracket will be attached.
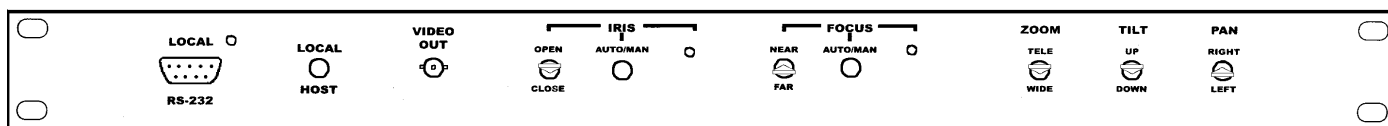
2. Fasten the pole-mount bracket to the pole – being

iVIEW
POSITIONER

115VAC
SOURCE

12 VDC
POWER
SUPPLY

NOTE: The video line
must be terminated
with 75 ohms for
proper operation

CAMERA   HOST   VIDEO   POWER

RS422   OUT   IN   +12 VDC

NOTE: This panel is optional. It is used only
when on-site control of an iView is desired
for setup and maintanance operations

CENTRAL
CONTROL
STATION

(FRONT OF TYPICAL LOCAL CONTROL PANEL)

LOCAL   LOCAL   VIDEO   IRIS   FOCUS   ZOOM   TILT   PAN
                          OUT   OPEN AUTO/MAN   NEAR AUTO/MAN   TELE   UP   RIGHT
RS-232   HOST   CLOSE   FAR   WIDE   DOWN   LEFT

Figure 8. Interconnection Diagram, iView to Local Control Panel

iView

115 VAC
RS422

CABLE
CA297B

TYPICAL INSTALLATION

EQUIPMENT CABINET

NOTE: THE VIDEO LINE
MUST BE TERMINATED
WITH 75 OHMS FOR
PROPER OPERATION

75 OHM
COAX

FIBER OPTIC
TRANSCEIVER

75 OHM
VIDEO IN

FO

RS422
DATA
TERMINAL
STRIP

TWISTED PAIR
SERIAL DATA
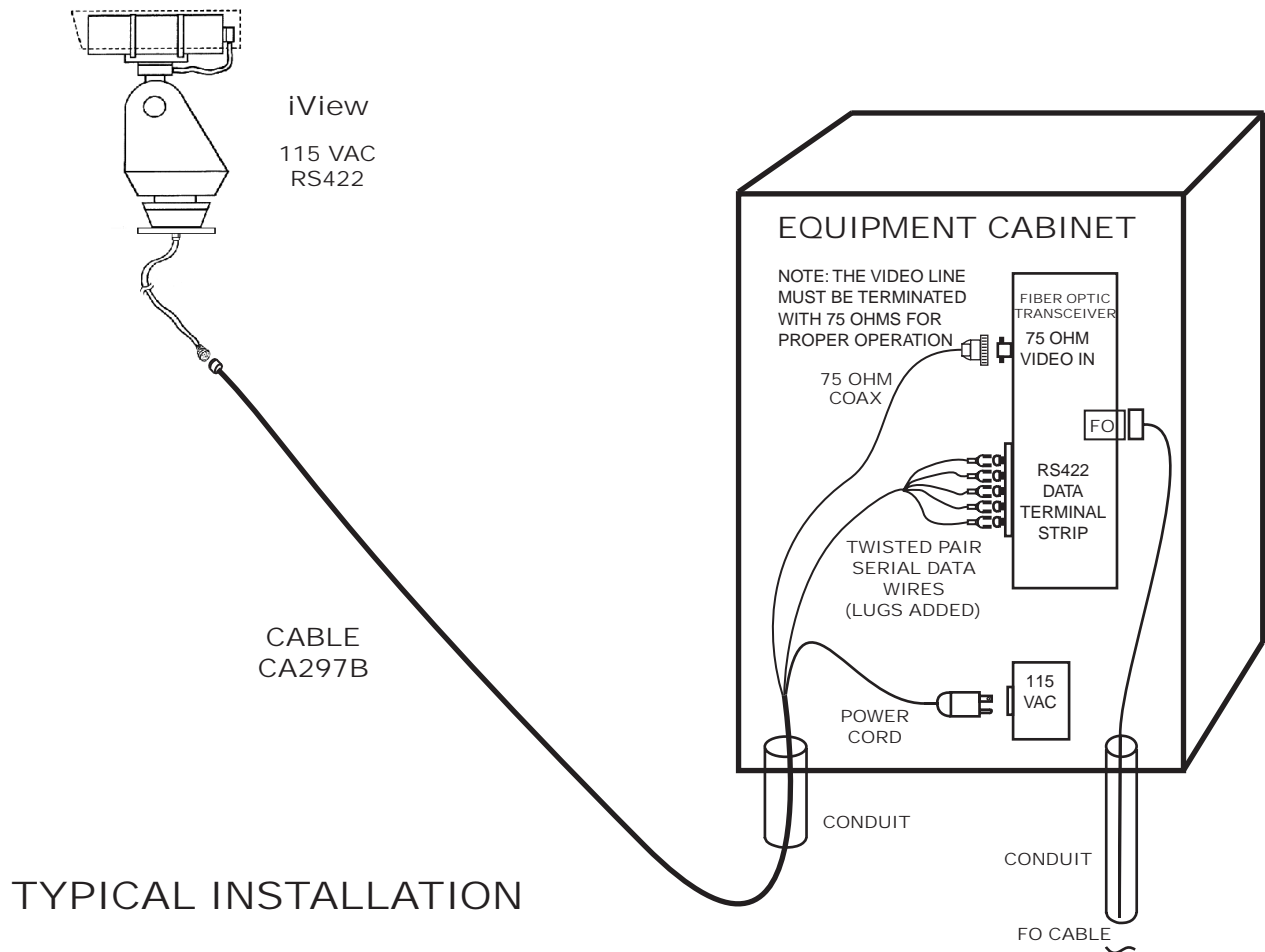WIRES
(LUGS ADDED)

POWER
CORD

115
VAC

CONDUIT

CONDUIT

FO CABLE

Figure 9. Interconnection Diagram, iView to Equipment Cabinet

sure that the system cable is routed so that it is available for the wall-mount arm.

3. Route the system cable through the back of the arm and out the hole at the other end.

4. Bolt the arm to the pole-mount adapter.

5. Attach the two connectors to each other and feed excess cable into the arm.

6. Sit the iView on the adapter plate and install the stainless steel hardware.

7. Verify that the iView will have a full range of movement without striking any nearby structure.

8. Proceed to section 2.10 to set up and check out the iView.

2.9 CABLING REQUIREMENTS

A permanently attached 30-inch pigtail cable exits the base plate at the bottom of the iView. This cable has a 16-pin circular connector for mating with the system cable going to the nearby junction box or equipment cabinet.

Always pre-plan all system cabling before starting an installation. Before an iView is bolted in place, the system cable must be available to attach to the pigtail cable at the mounting location.
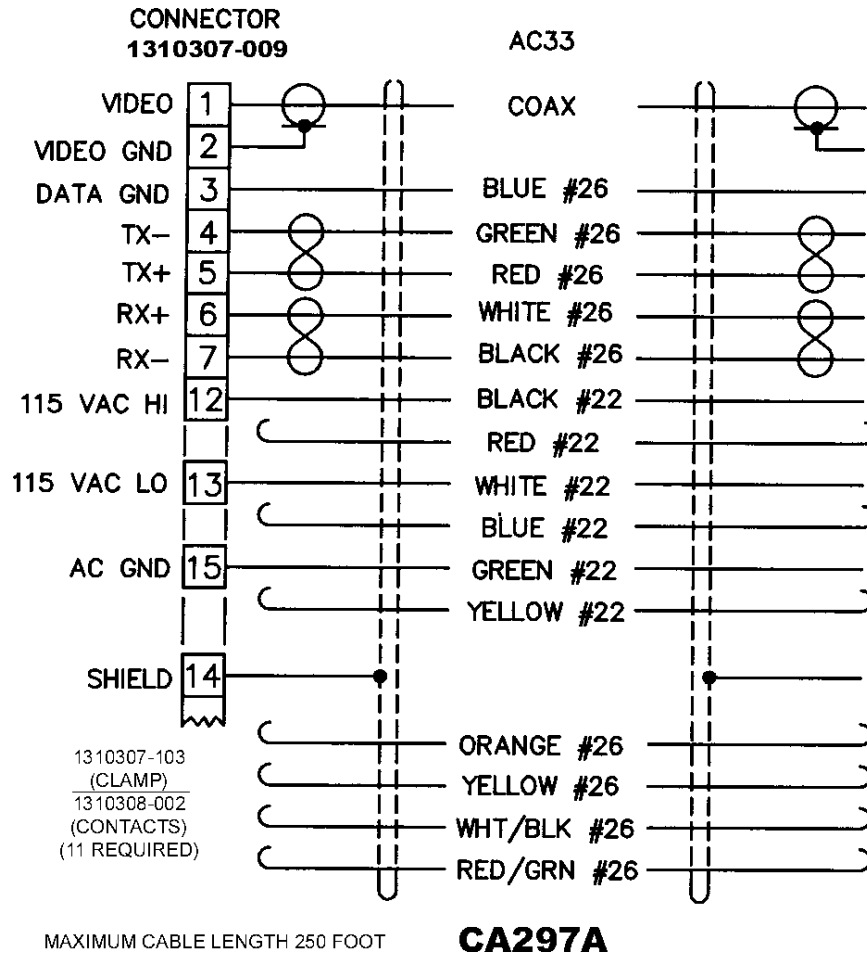
Figure 10. Cable CA-297A (RS-422) Stripped Leads Version

Figure 8 shows the cable wiring between the iView and a Local Control Panel typically located in a nearby equipment cabinet. This Panel is optional. It is used when a local control panel is desired for setup and maintenance operations.

If such a panel is not used then the interconnections shown in figure 9 must be made. In this case a nearby junction box becomes the connection point between an iView site and the distant Central Control Station.

Figure 10 is an assembly diagram for the cable used between the iView and a typical junction box having a terminal strip for all connections. This cable has five stripped wire leads for the data connections and also stripped leads for the ac power plug BNC video connector.

Figure 11 is the assembly diagram for the cable used between an iView and a typical junction box. This cable has an ac power plug, BNC video con-

nector, and stripped leads for data connections at the junction box.

Figure 12 is an assembly diagram for the cable used between an iView and a junction box having RS-232 data communications available. This cable has an RS-232 to RS-422 converter wired in for data communications with the RS-232 sources. This cable also has an ac power plug and the BNC video connector like the previous cable.

Figure 13 is the assembly diagram for a test/setup cable intended for use during setup and maintenance operations. This cable is intended for use with the RS-232 output of a laptop PC and thus an RS-232 to RS-422 converter is required to communicate with RS-422 used by the iView. Figure 14 shows a typical 232/422 converter. The terminal labels used on various models of these converters differ, so it is important to read the literature accompanying the converter being used.
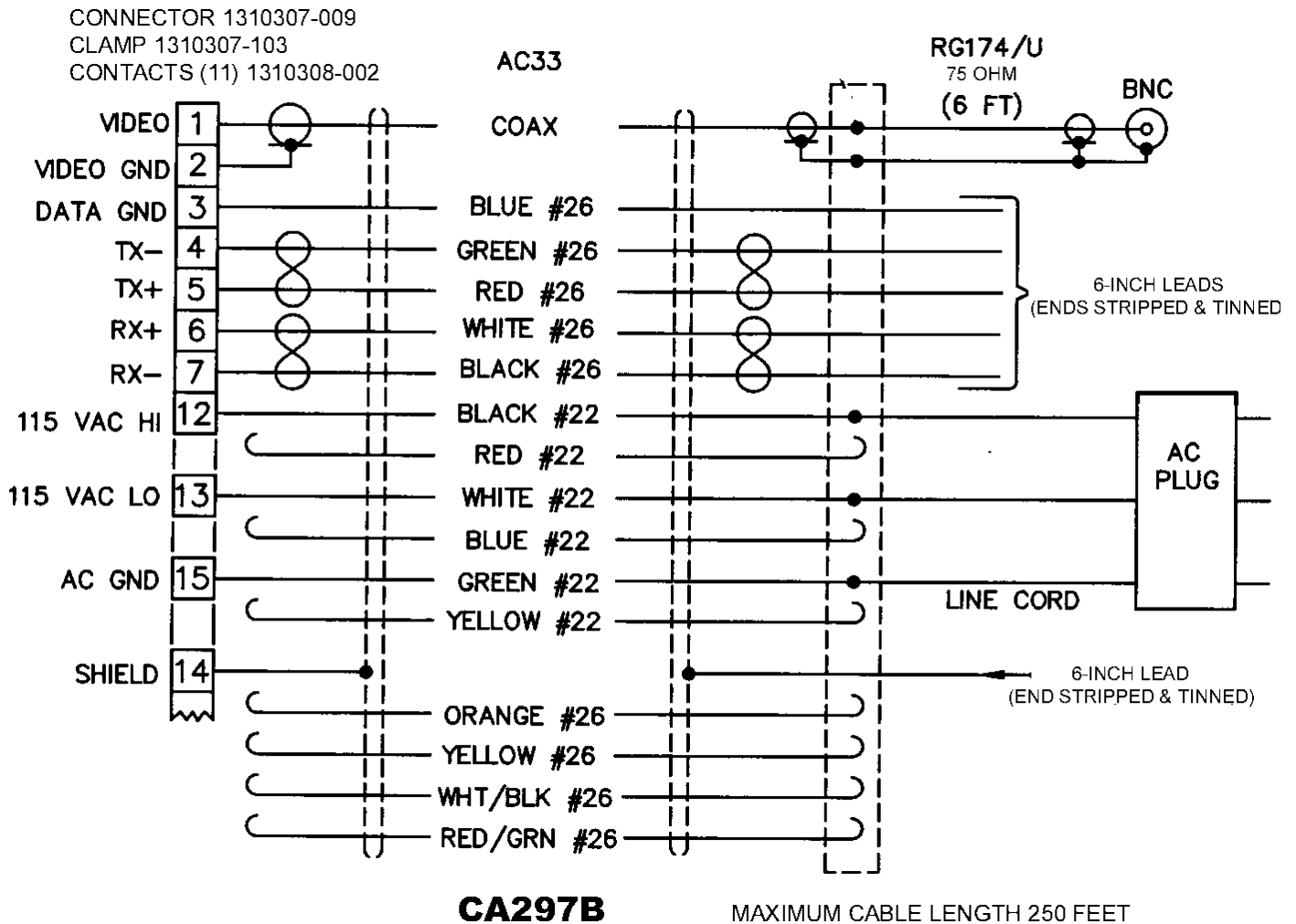
Figure 11. Cable CA-297B (RS-422) BNC Plug & Power Plug

Note that when a Local Control Panel is being used this test/setup cable and 232/422 converter are not required. The Panel has an RS-232 D9 connector on its front panel.

Table 3 lists some basic characteristics required for a typical cable. Table 4 is a pin function list of the iView connector for either 115 or 230 V ac operation.

Pin functions for the 24 V ac version of an iView are not shown in this manual.

2.10 GUI INTERFACE

Several GUI interfaces are available for use with the iView.

1. Win MPC is used to control a single iView during installation or maintenance operations. This can be done either at a central shop facility or at the site location of the iView.

Table 3. Required Cable Characteristics

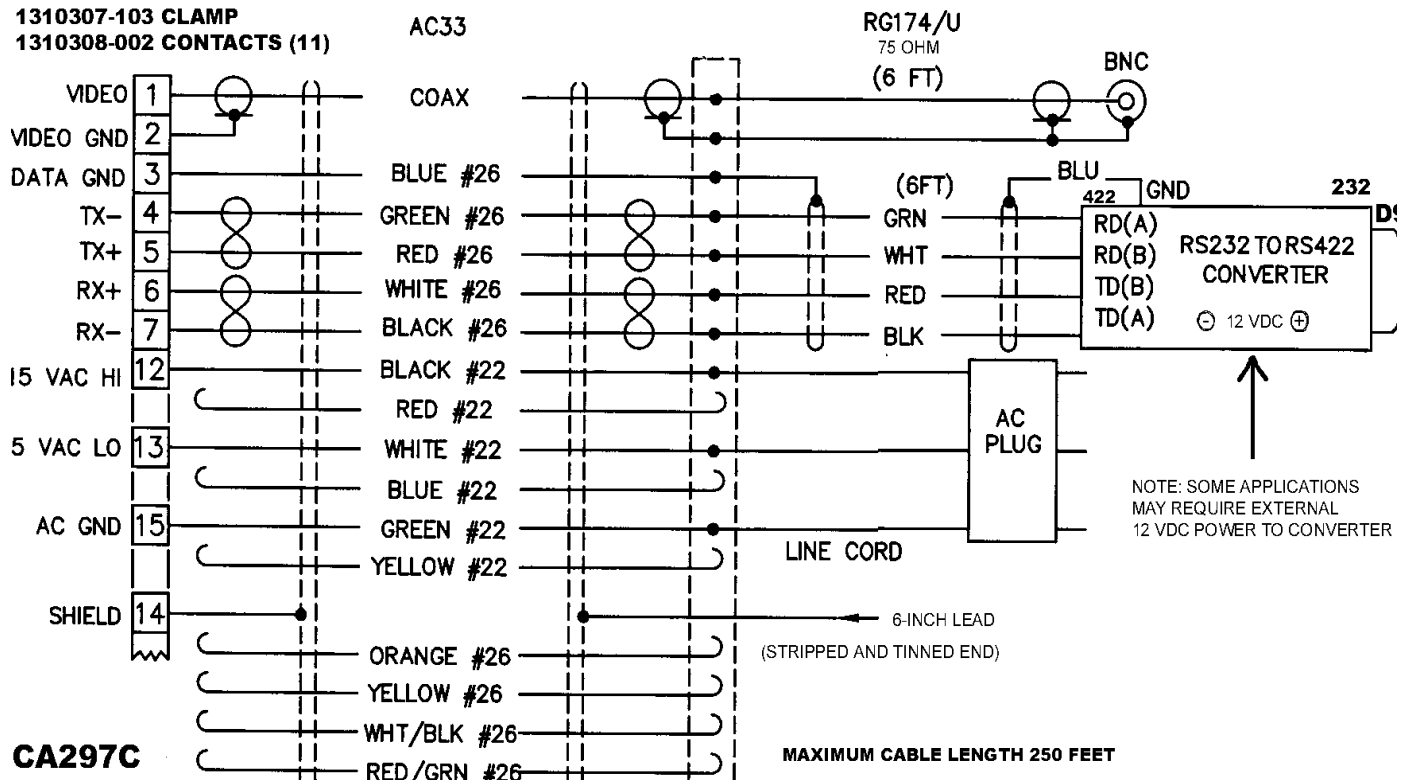| CONDUCTOR FUNCTION	CHARACTERISTICS
VIDEO	RG-59/U (75 ohm), 100 % copper conductor, 95% minimum braided shield
DATA	2 pair, twisted with overall shield, 26 AWG minimum (Belden 8723 or equivalent)
POWER	3-CONDUCTOR, 22 AWG (Belden 19401 or equivalent)
NOTE: For distances exceeding 250 feet, please contact an Applications Engineer at Cohu Electronics.	

Figure 12. Cable CA-297C (RS-422) BNC Plug, Power Plug, & 232/422-Converter

2. CAMS is used to control multiple iView systems when an MPC Master Control Panel is being used as the central control point.

3. NET Cams is used to control systems with multiple iView when the central control is a Net Cams Server.

2.10.1 Win MPC Setup

When Win MPC (figure 15) is used to set up the iView, it must be isolated from all other iViews in the system. This generally is no problem since the iView setup is performed either at a test bench location or at the actual iView site itself. If the address setting function of Win MPC were to be sent to multiple iViews they would all have identical addresses programmed into their memory. Since all iViews (and other addressable equipment) in a system must have a unique address, this would result in an inoperative system.

2.10.2 Establishing Communications

Since each iView in the system must have a unique address, it is probably best to set all iView addresses at a test bench located at the central distribution location prior to sending each of them out to the field installation sites. Providing a central control location for all address assignments may ensure that no duplications occur.

Before the address can be set or any other setups made, it is necessary to establish communications with the iView. Figure 16 shows the home screen of Win MPC. Proceed as follows:

1. Under the FUNCTION menu area of the window, click on SETUP. The Comm setup window menu should appear. Figure 17 shows the communications setup window of Win MPC. Table 5 summarized the required selections.
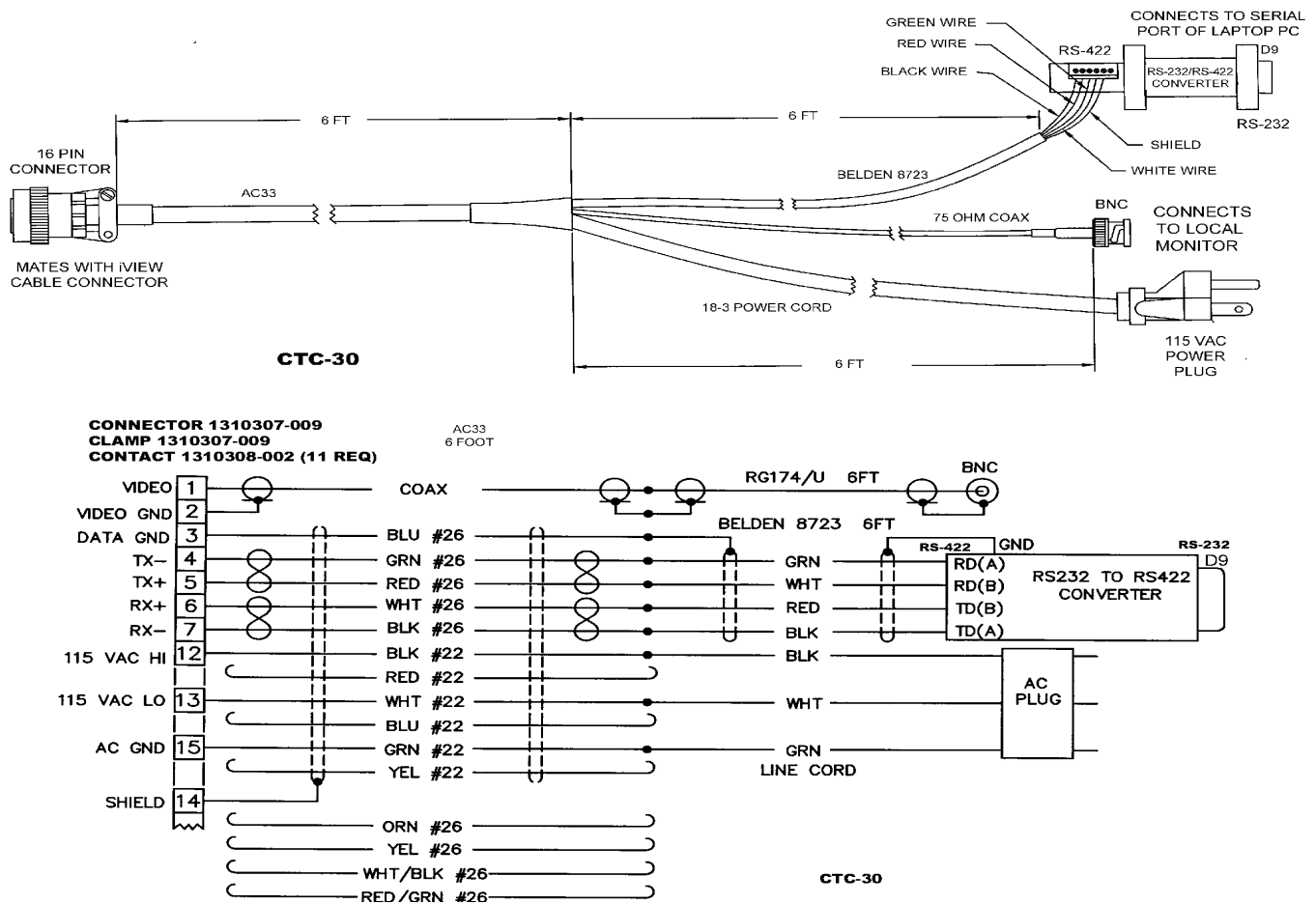
a. Receiver to "iDome/iView"

Figure 13. Cable CTC-30, Test/Setup Wiring Diagram

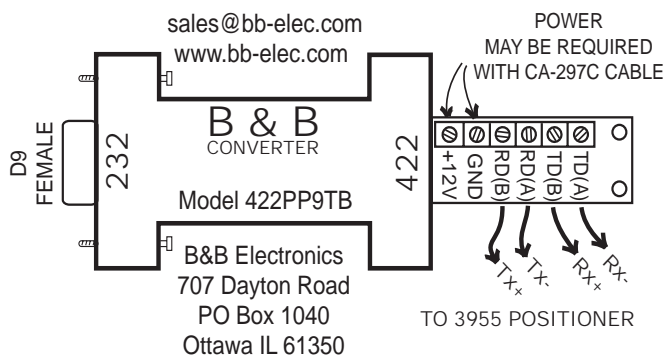(Available from Cohu as Part Number 3010100-001)

Figure 14. Typical RS-232 to RS-422 Converter

This converter converts the RS-232 output of a PC to RS-422 for communications with an iView during field setup and testing.

A local PC with Win MPC software typically is used in this application.

If this converer is plugged into the RS-232 output from an F/0 converter, 12 V dc operating power will likely have to be applied to the 12 V dc terminal lugs. These F/O to RS-232 converters typically do not have sufficient current on the handshake lines to power the 232/422 converter. This application of the 232/422 converter would typically occur as part of a fixed installation inside an equipment cabinet located near an iDome. The 232/422 converter would be part of a type CA-297C cable.

Table 4. Connector
Pin Functions 115 or 230 V ac

PIN	FUNCTION
1	video signal (75 ohm)
2	video ground
3	data ground
4	Tx- (RS-422)
5	Tx+ (RS-422)
6	Rx+ (RS-422)
7	Rx- (RS-422)
8	not used
9	not used
10	not used
11	not used
12	115 or 230 V ac line (hot/high)
13	115 or 230 V ac neutral (low)
14	overall shield
15	115 or 230 V ac ground
16	not used

CAUTION: An iView requires either 24 V ac 60 Hz, 115 V ac 60 Hz, or 230 V ac 50 Hz. Be sure of which input power is required before connecting to an iView.

MATING VIEW
OF CONNECTOR
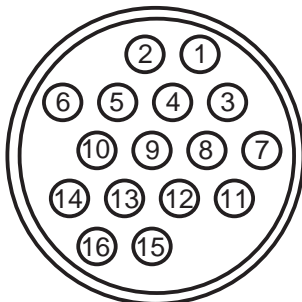
FOR 115 AND 230 VAC MODELS
POSITIONS 8, 9, 10, 11, & 16
NOT USED

Figure 15. Typical Win MPC Application

b. Max Pan Speed to "15"

c. Max Tilt Speed to "15"

3. Under the Pan/Tilt Background menu area:

a. Select "None"

4. Click on "OK" to exit the setup window.

2.10.3 Setting the Positioner Address

After the initial setup, it is a good idea to allow Win MPC to search for the existing Positioner address: This will verify that communications has been established.

Click on the FIND button at upper left of the screen. A pop-up window will appear while Win MPC searches for all allowable camera addresses (0 to 223). The factory default setting is "1."
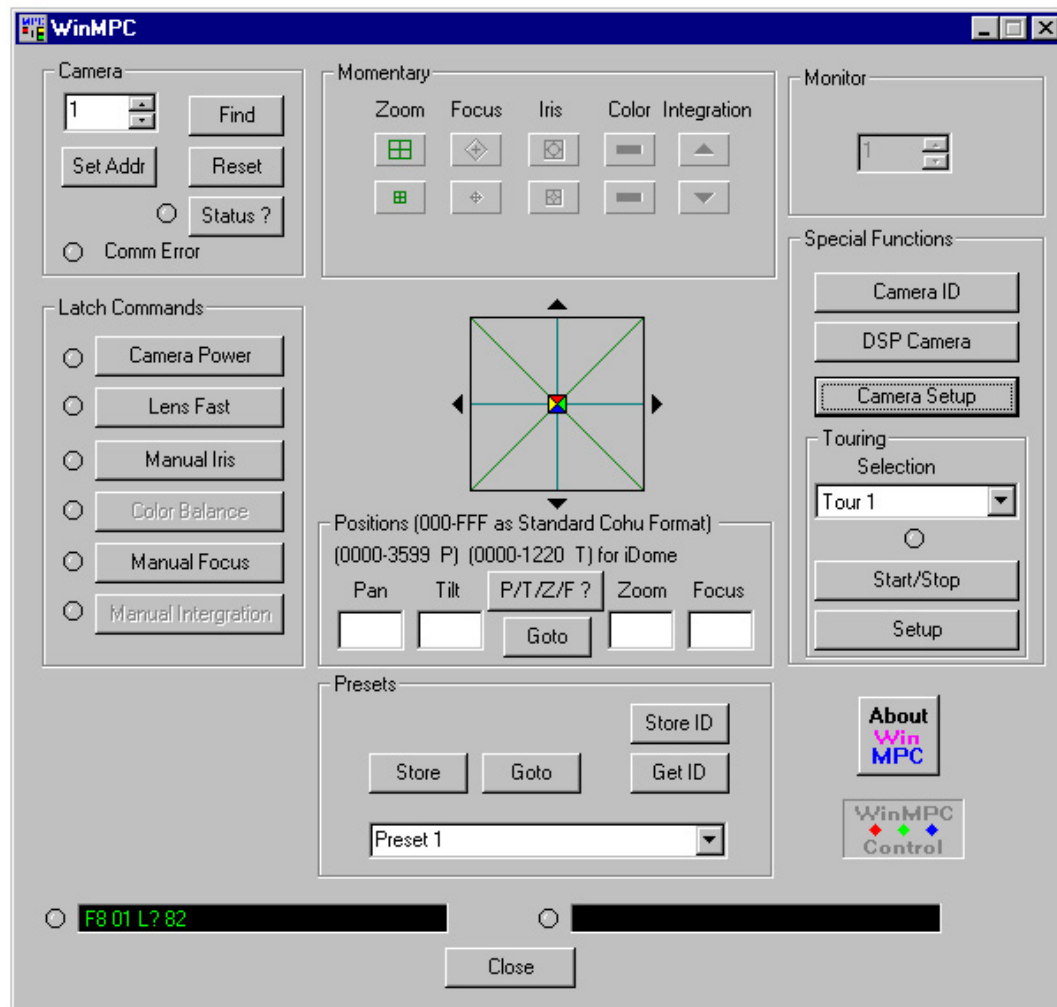
Figure 16. Typical Win MPC "Home" Screen

b. Select the Port being used on the PC (Com1, Com 2, Com 3, Com 4)

c. Baud Rate to "9600" (Click "Set Baud")

d. Comm Mode "PC to MPC Receiver"

e. Camera to "Day/Night" (default)

f. Receiver to "iDome/iView Camera"

2. Under the Pan/Tilt menu area:

a. Select "Var Speed P/T" (default)

3. Under the Pan/Tilt Background area select any desired image type for the center pan/tilt area of the home page.

4. Click on "OK" to exit the Setup screen.

2.10.3 Setting the iView Address

After initial setup, it is a good idea to allow Win MPC to search for the existing iDome address. This will verify that communications has been established]

Click on the FIND button at the upper left of the screen. A pop-up window will appear while Win MPC searches for all allowable iView addresses (1 to 223).

CAUTION: Win MPC is intended to be connected to one iView at a time. If it were to be connected into a system of iViews and the Address Set Function used, all iViews (or other equipment) in the system would have their identifications set to the same address.

If this is not the required address for this iView, then change the address to the required number and click on "Set Address."

Click on the FIND button again to confirm that this new address has been accepted.
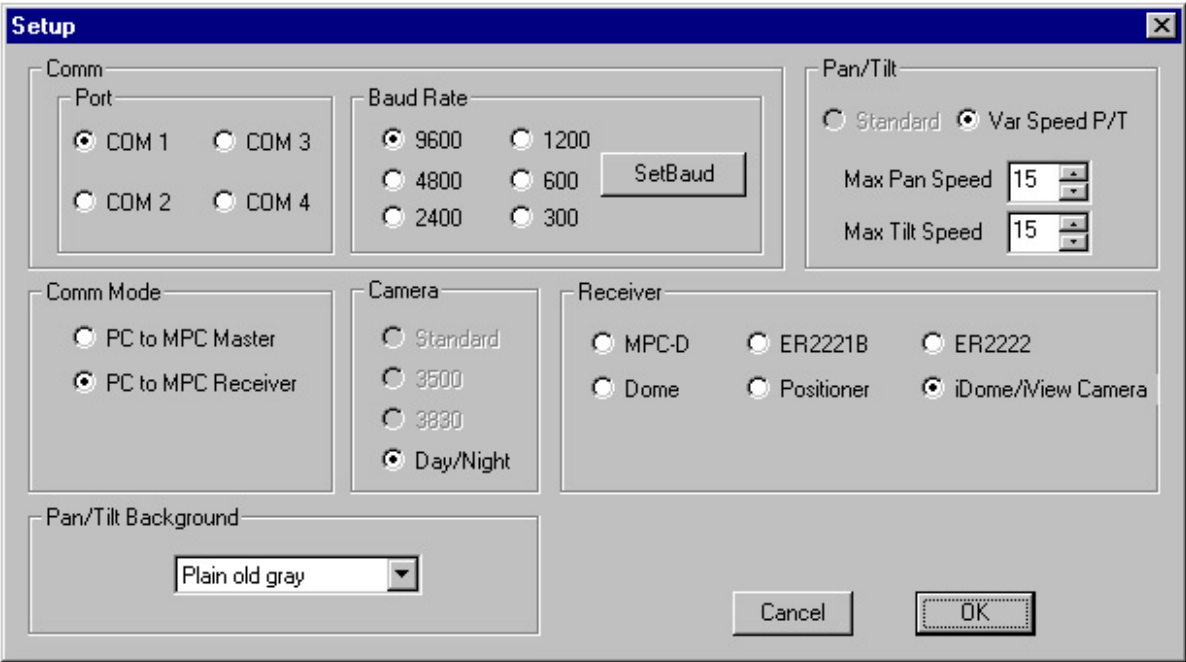
Figure 17. Win MPC Communications Functions Screen

2.10.4 Checkout Procedure

After communications has been established with the iView various functions should be tested to verify proper operation. A test stand pedestal (figure 18) is available on which to mount the Positioner during this testing phase. Use the Win MPC interface to perform tests and setups.

Check all the Monentary functions: zoom, focus, iris, color, and integration. Latch commands also should be tested: camera power, lens fast, manual iris, and color balance. Several presets should be set and then re-established to verify their operation.

After presets are established, the tour function should be tested for proper operaton. Once it has been verified that the iView is operating properly it can be released for use.

2.11 PREPARATION FOR SHIPMENT AND STORAGE

For storage periods exceeding about one month, seal the unit in a vapor-proof bag containing a fresh desiccant pack.

Table 5. Communications Settings

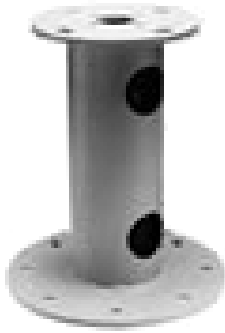| COMMUNICATIONS FUNCTION	SETTING
Port	COM 1 (Typical. Verify)
Baud Rate	9600
Pan/Tilt	Var Speed P/T
	Max Pan Speed = 15
	Max Tilt Speed = 15
Comm Mode	PC to MPC Receiver
Camera	Day/Night
Receiver	iDome/iView Camera

Figure 18. Pedestal Test Stand

Maintain the iView storage environment within a range of -30 to 70 °C (-22 to 158 °F).

For shipment, package with enough foam padding or other packing material to prevent damage that can occur during shipping. The original shipping carton is a good container if it has not been damaged or subjected to excessive moisture. For shipping to the factory by Common Carrier, use the following address:

Cohu Electronics
3912 Calle Fortunada
San Diego, CA 92123-1827

Please contact the Customer Service Department for a Return Authorization (RA) number before sending any shipments to the factory:

cst@cohu.com
or
858-277-6700 extension 261

Prominently display the RA number on the outside of the shipping container(s) and on paperwork contained inside. Give a brief description of why the equipment is being returned and list the symptoms of any problems being experienced with the equipment.

3.0 OPERATION

3.1 Local Panel Control

If the iView has been connected through a nearby Local Control Panel back to the central control facility, it is possible to connect a tv monitor to the Panel and control basic functions of the iView.

3.2 Local Laptop PC Control

A local laptop PC running Win MPC software can be used to connect to the iView and control a full range of functions including the setting of its address. This laptop can either connect through an RS-232 connector on the front of an optional Local Control Panel or it can connect directly to the iView RS-422 cable -- in which case the RS-232 to RS-422 converter is required.

WARRANTY

Cohu, Inc., Electronics Division, warrants equipment manufactured to be free from defects of material and workmanship. Any part or parts will be repaired or replaced when proven by Cohu examination to have been defective within two years from date of shipment to the original purchaser for standard CCD cameras and one year from date of shipment to the original purchaser for intensified CCD cameras and all other Cohu manufactured products.

Pressurized camera products include a lifetime pressurization warranty. Cohu wll re-pressurize at no charge returned environmental cameras not exhibiting evidence of physical damage due to misuse.

All warranty repairs will be performed at the factory or as otherwise authorized by Cohu in writing. Transportation charges to Cohu shall be prepaid by purchaser.

This warranty does not extend to Cohu equipment subjected to misuse, accident, neglect, improper application, or repaired or altered by other than Cohu or those authorized by Cohu in writing.

Television image pickup tubes, image intensifiers, lenses, and products manufactured by companies other than Cohu are warranted by the original manufacturer.

This warranty is in lieu of all other warranties expressed, implied, or statutory, including warranties of fitness for a particular purpose and merchantability, and set forth buyers sole remedy in connection with such warranties.

Cohu, in no event, whether as a result of breach of contract or warranty, tort (including negligence) or otherwise, shall be liable for any penalties regardless of reason; collateral, consequential, incidental, or exemplary damages, including without limitation, any loss of profit or revenues, loss of use of any equipment or goods, or removal or re-installation of equipment without prior written approval.

A Return Authorization (RA) number must be obtained from Cohu prior to returning any item for warranty repair or replacement.

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Cohu Inc., Electronics Division