



Installation manual

SA PTZ Series

316L Fixed camera station

Note: To ensure proper operation, please read this manual thoroughly before using the product and retain the information for future reference.

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SA PTZ Series
Installation Manual v4 AIT55

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How to contact us

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DESCRIPTION

The SA-PTZ (T) camera housing is a rugged corrosion proof PTZ camera station designed for use in onshore, offshore, marine and heavy industrial environments. The camera housing is constructed from electro-polished 316L stainless steel for maximum corrosion protection and is fitted with an 316L sun-shield, a thermostatically controlled heater, and integrated wiper. Combined with a IP zoom camera or thermal module the SA-PTZ(T) transforms in a full featured PTZ camera station. The PTZ T is fitted with a $\varnothing 70$ mm germanium window for thermal TC36 or TC640 modules. The housing is not sold separately, it is only available in combination with a Siqura daylight camera module or thermal module and an interface (INT-RJ/SM/MM).

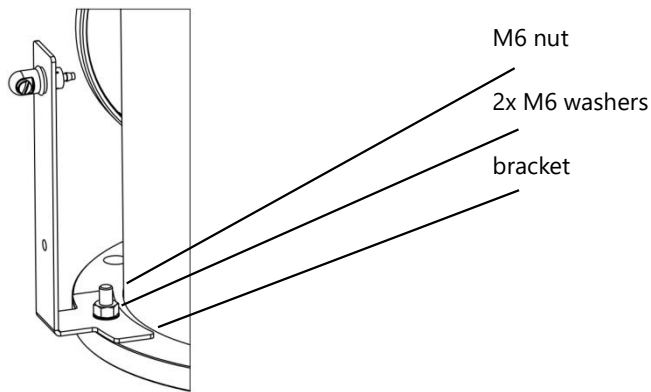
MODELS

SA-PTZ24	Safe Area PTZ Camera 316L 24VAC
SA-PTZ115	Safe Area PTZ Camera 316L 115VAC
SA-PTZ230	Safe Area PTZ Camera 316L 230VAC
SA-PTZ24T	Safe Area PTZ Thermal Camera 316L 24VAC
SA-PTZ115T	Safe Area PTZ Thermal Camera 316L 115VAC
SA-PTZ230T	Safe Area PTZ Thermal Camera 316L 230VAC

INSTALLING THE CAMERA

	Prior to installation and operation, carefully read all instructions the in this manual and heed all warnings.
	Unpack this equipment and handle it carefully. If the package appears to be damaged, notify the shipper immediately.
	Use the original packaging to transport the unit. Disconnect power supply before moving it. In case of returning the equipment, the original packaging must be used.
	Make sure that the installation surface can support at least four times the weight of the unit in normal operating conditions. In case of excessive external stress (e.g. vibration, strong winds or impact), the equipment may need additional means of protection.
	Proper stainless steel hardware should be carefully chosen to fasten the unit to the surfaces.
	Use caution when lifting and assembling the unit. It is recommended that non-slip protective gloves be worn during installation. The unit could bear sharp edges.
	Trying to manually force the wiper will result in damaging the device and will void the warranty.
	To maintain the IP rating of the unit, adequate cable glands must be used. The unit must be tightly closed when operating.
	For security reasons, do not install the unit in the proximity of water containers and never push objects or pour liquids into the unit. The unit can be safely used in damp environments or outdoors, as long as the connectors are properly sealed.
	Video and data cables should not share the same conduit with supply voltage cables. Whenever EMC is an issue, adequately shielded cables must be used.
	Open only the covers pointed out in this installation manual. Other covers should be open only by the manufacturer.
	This equipment has been designed to fit in harsh environments requiring little or no maintenance. Suggested inspection interval is 6 months, but extremely harsh environments may require more frequent inspection and maintenance checks. On each inspection check the O-ring seals and the eventual window wiper blade integrity. Replace them if necessary.
	Check cables, electrical connections and mounting hardware for integrity and tightness. Replace or tighten any damaged/loose part.
	Remove PVC protective film from the camera housing sunshield after installation.
Operating temperature: $-20^{\circ} +75^{\circ}$ C ($-4^{\circ} +167^{\circ}$ F).	
	Before performing any operation, turn off the power. The installation of the unit can be performed only by qualified personnel in accordance with the regulations in force. Do not connect the unit to a supply circuit unless the installation is completed.
	Check carefully the supply voltage marked on the label. Incorrect Power Supply Voltage may damage the unit. Do not overload the terminal connection, as it may cause a fire or electrical shock hazard.
	An all-pole mains switch with an opening distance between the contacts at least 3 mm in each pole must be incorporated in the electrical installation. The switch must be equipped with protection against the fault current towards the ground (differential) and the overcurrent (magnetothermal, maximum 15A). It must be very quickly recognizable and readily accessible. A suitable blow fuse must also be installed for protection.
	For connection to the mains, use a multipolar cable having minimum $3 \times 1,5$ mm ² (15 AWG). The main cable must be at least protected by an ordinary PVC sheath.
	Fasten all the cables inside the housing with cables ties or other fixing means to avoid the electrical contact with surrounding parts in case that terminal blocks screw off.
	Electrical connections (such as plugs and cords) must be protected from potential hazardous environmental factors (e.g. foot traffic, hitting objects).
	Ensure that the unit case is properly earthed, connecting all the earth ground studs. Earth cable should be about 10mm longer than the other cables on the connector, in such way that it won't be accidentally disconnected if the cable is stretched or pulled.
	When leaving the unit unused for long periods, disconnect supply cables.

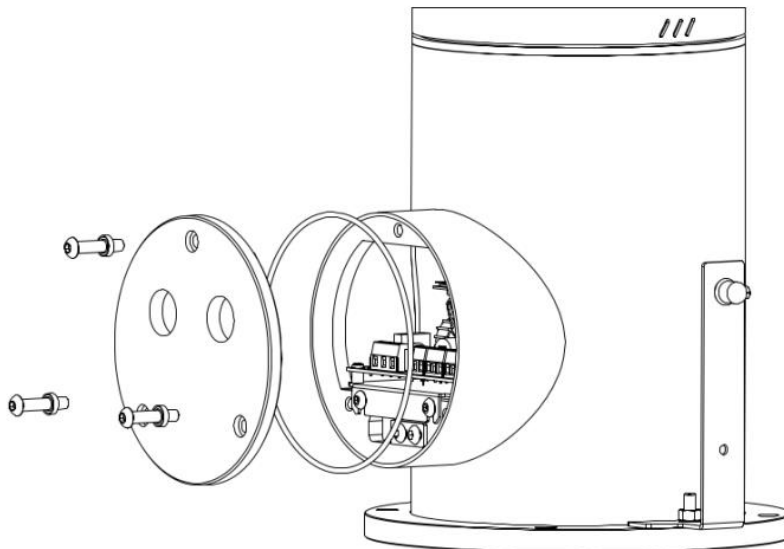
INSTALLING THE NOZZLE BRACKET*



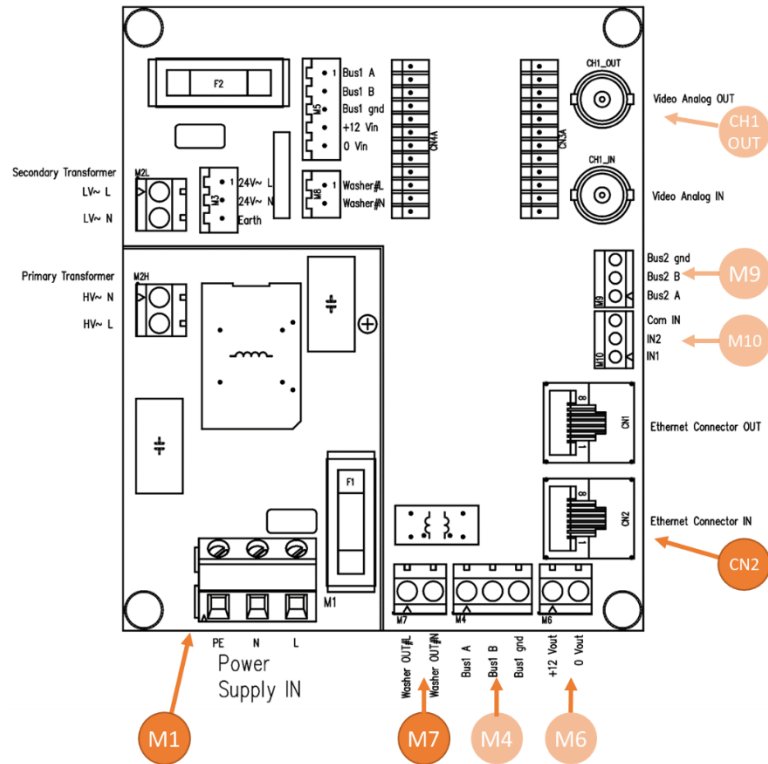
* Not available for the thermal versions SA-PTZ T.

PERFORM ELECTRICAL CONNECTIONS

Open the base junction box and perform the connections on the interface board. The screw terminal blocks are used for the field installation. It must be noted that each plug-in connector is different in shape and/or colour to avoid any wrong connection. The connections should be performed according to the below:



Connection board



Field installation		
ID	Name	Notes
M1	Supply voltage	Depending on model: 24VAC (max current: 6A) or 230VAC 50/60Hz (max current: 0,75A). PE (Protection Earth) must be connected.
M7	Auxiliary AC output	Designed to activate washer systems. Generally activated via AUX 2 in Pelco D. The activation lasts 5 seconds.
CN2	Ethernet	100base-TX fast Ethernet connection

Pre- or not connected (Not to be changed)		
ID	Name	Notes
M3	Supply voltage	Supply voltage for telemetry receiver and any 24VAC device inside the unit.
M4	Data input (RS485)	Reserved. (Pelco D Protocol to control telemetry receivers: 2400,N,8,1).
M5	RS485 bus	Communication bus (RS485) for telemetry receiver. This provides the auxiliary DC output (M7).
M6	Auxiliary DC output	Reserved. (12 VDC. Max: 0,4A. Any connection of this Aux must be performed inside the base junction box.)
M8	Auxiliary AC output	Auxiliary AC output connected to AUX 2 of telemetry receiver.
M9	Auxiliary data (RS485)	Reserved.
M10	Auxiliary digital input	Reserved: (Dry contact or open collector auxiliary input. Close IN1 (Collector) to Com IN (Emitter) to activate AUX1 (wiper). Close IN2 (Collector) to Com IN (Emitter) to activate AUX2 (washer). Com IN=GND.)
CN1	Ethernet	Fast Ethernet to IP camera
CH1_IN	Analog input	Reserved
CH1_OUT	Analog output	Reserved
CN3	Auxiliary connector	Reserved
CN4	Same as above	Reserved

Fuse values

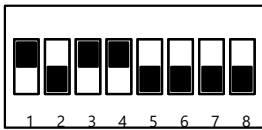
The following fuse values are used:

Fuse name	Fuse value
F1	8A T 250VAC 5x20
F2	10A T 250VAC 5x20

All the fuse must be T type (time lag).

Different supply voltage can be supplied and may require different fuse values. In such cases, please contact Tecnovideo.

SETTING THE UNIT ADDRESS (Analog version only)

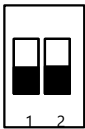


The 8 way dip-switch on the telemetry receiver (*DIS1*) can be used to set up the unit address ON (1) (binary). When a switch is on the ON position, the relative digit has value 1, otherwise the value is 0. Switch 1 is referred to the least significant digit (2^0), while switch 8 is referred to the most significant digit (2^7).

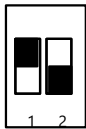
For example, the address 13 (00001101 in binary) can be set up turning ON the switch 1, 3 and 4 (see figure).

The same address must be set on both telemetry receivers of the PTZ unit.

SETTING THE TELEMETRY RECEIVER



ON (1)



ON (1)

The 2 way dip-switch on the telemetry receiver (*DIS2*) is used to configure the board to work for pan or for tilt movements.

When Switch 1 is on OFF (0), the board is configured to work as pan. When Switch 1 is on ON (1), the board is configured to work as tilt. Switch 2 is reserved and must be kept on OFF (0).

This must be done only in case of board replacement.

Fig.1: Pan setting

Fig.2: Tilt setting

Default limits

The unit is set with default values to achieve the following tilt angles: +/- 90° (up/down). Pan limits are not set. Factory limits are about +/- 100° Tilt (up/down). No factory pan limits (continuous rotation).

Changing the default limits

Left Limit		Right Limit		Up Limit		Down limit	
Preset Set 70	Clear limit	Preset Set 71	Clear limit	Preset Set 72	Clear limit	Preset Set 73	Clear limit
Preset Set 80	Set limit	Preset Set 81	Set limit	Preset Set 82	Set limit	Preset Set 83	Set limit

Note: setting the Pan limits (set 80 and 81) will delete all the pan saved presets.

Presets

Preset from **1** to **69** and from **100** to **150** can be used to set/call specific positions. The other presets are factory reserved and cannot be used to set/call specific positions.

On startup, the unit will perform a zero-axis (in which the unit won't accept any further command). Setting preset **74** changes the behaviour of the unit to perform the zero-axis on the first command received after the startup. Setting preset **84** switches back this behaviour and make the unit perform the zero-axis on startup. Calling preset **92** performs a pan and tilt zero-axis, while call **90** performs a pan zero axis and **91** performs a tilt zero axis. Calling preset **93** moves the unit to zero position (0°,0°) both on pan and tilt axis.

Preset **Call 88** activates auxiliary output AUX1 (wiper). Auto off after 10 seconds.

Preset **Call 89** activates auxiliary output AUX2 (washer). Auto off after 5 seconds.

Preset **Call 99** calibrates the Camera Pots in case of motorized lens (**needed the first time the camera is connected**).

Preset **Call 200** activates the automatic wiper and washer cycle systems.