





INDOOR PAN/TILT WITH CONTROL

PIH-302/302C

INSTRUCTION MANUAL

WARNING : TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK ,
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE .

 <div style="display: inline-block; text-align: center;"><div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">CAUTION</div><div style="background-color: black; color: white; padding: 5px;">RISK OF ELECTRIC SHOCK</div></div> 
<p>CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT OPEN COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the unit.

PRECAUTIONS

- ⊗ **Do not drop or strike this equipment.**
It will cause damage to the equipment.
- ⊗ **Do not install the equipment near any naked flames or heat sources.**
The presents of flammable gas or object in the operating environment or exposing this unit to direct sunlight may cause fire and severe injury.
- ⊗ **Do not expose this unit to rain , moisture , smoke or dust environment.**
May cause short circuit, fire and serious damage to this unit.
Unplug this unit and have it checked by qualified service personnel.
- ⊗ **Do not cover the opening of the cabinet with cloth and plastic or to install this unit in poor ventilated places. Allow 10cm between this unit and its surroundings.**
May cause overheat. The normal operating temperature is 0 ° C ~ 40 ° C.
- ⊗ **Do not continue to operate the unit under abnormal conditions such as detection of smoke, strange smell or no display on screen while power is turned on.**
Contact qualified service personnel for help.
- ⊗ **Do not touch the power connection with wet hands.**
May cause short circuit or electric shock.
- ⊗ **Do not damage the power cord or leave it under pressure.**
May cause fire or shock hazard.
- ⊗ **Do not operate this unit near magnet, speaker system, etc., to avoid unnecessary magnetic interference.**
These interference will cause color confusion and screen fluctuation.
- ⊗ **Do not drop metallic parts through slots.**
This could permanently damage the appliance.
- ⊗ **Connection cables should be grounded properly.**
Sudden surge such as lightning will damage the system permanently.



PREFACE

Thank you for choosing PIH-302 Indoor Pan/Tilt. For trouble free installation and optimum performance please read this manual thoroughly before attempting installation or operation.

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PAN/TILT UNIT

● INSTALLATION

The PIH-302 is intended to be mounted on a PIH-5003 wall Mount. Installation of the pan and tilt drive to the wall mount requires a stainless steel 1/4-20 screw supplied with the wall mount. Note the ribs on the underside of the PIH-302 base engage slots in the PIH-5003. This allows positioning of the PIH-302 in any of four directions with respect to the wall mount. Secure PIH-302 to the wall mount using screw from underside of wall mount into PIH-302 and tighten.

● WIRING OF UNIT

Fabricate the interconnecting cable in accordance with Figure 1. For proper operation.

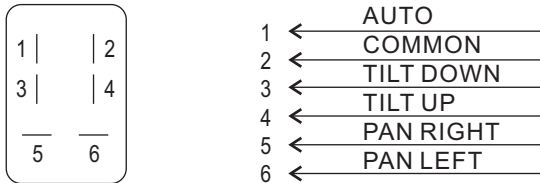


Figure 1
PIH-302 Cable Assembly Diagram

● INVERTED MOUNTING

When the unit is mounted in the inverted position, the left/right directions are reversed for manual operation. This must be corrected when wiring the cable between control unit and the pan and tilt drive. Simply reverse leads going to terminals 3 and 4.

● ADJUSTING LIMIT STOPS

After cable is installed and unit has been mounted, proceed as follow:

1. Plug control unit into a 117Va.c.(optional 230Va.c./24Va.c.) source. Be sure auto switch is in the OFF position.
2. To adjust pan limit stops (see Figure 2), loosen screws securing both stops(1) and (3) to unit. Slide stops around unit to desired locations and secure by tightening screw.

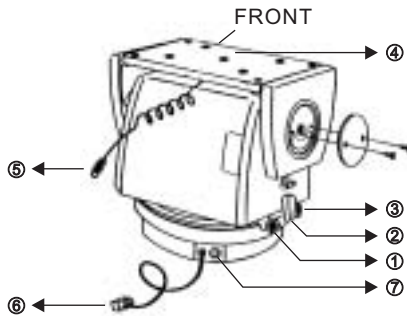


Figure 2

- | | |
|-------------------------|--------------------------------------|
| ① Right Pan Limit Stop | ⑤ 4-conductor cable for video signal |
| ② Limit-Switch Actuator | ⑥ Connection to control |
| ③ Left Pan Limit Stop | ⑦ Video Output |
| ④ Camera Mounting Plate | |

● MAINTENANCE

This pan and tilt drive requires no lubrication or maintenance for the life of the unit. If the unit fails to function, turn it off and check the fuse on the control unit.

Replacement fuse valuse are given in the instructions supplied with the control unit.

CONTROLLER

● FRONT/REAR PANEL

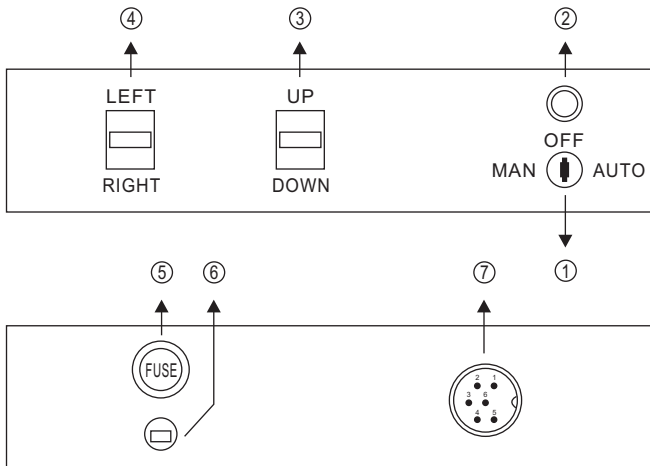


Figure 2

- | | |
|-------------------------|-------------|
| ① Power / Auto / Manual | ⑤ Fuse |
| ② Indicate Lamp | ⑥ a.c. In |
| ③ Up/Down (Switch 1) | ⑦ 6p-Socket |
| ④ Left/Right (Switch2) | |

● WIRING OF PAN/TILT

Before connecting pan and tilt controls to the system, slide the module into the card cage or enclosure from front to back, guiding the line cord through first. To secure the module in place, loosen the screw on the retaining bracket located on the rear panel of the module, in the upper right corner. Slide the bracket up and tighten the screw.

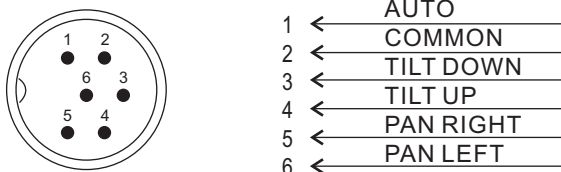


Figure 4
Interconnection Diagram, PIH-302C Control

Fabricate interconnecting cables according to appropriate cable assembly diagram (Figure 4).

- **OPERATION**

Energize the control unit by plugging the line cord into a power source of the appropriate voltage. The red power indicator light will illuminate.

- **PAN AND TILT**

Pan is horizontal change in camera direction, moving the field of view to the left or right.

Tilt is a vertical change in camera direction, raising or lowering the field of view.

To pan or tilt the camera, move switches up/down and left/right. The switches control drives pan and tilt functions simultaneously.

To set the unit for automatic pan operation, switch the AUTO mode. The unit now pans continuously between the preselected limits.

As manual pan functions (obtained by setting "MAN"), and moving the switch 1 and switch 2, while a direction of panning is instructed, running will be stopped automatically at the place of a limited stop.

● SYSTEM INSTALLATION

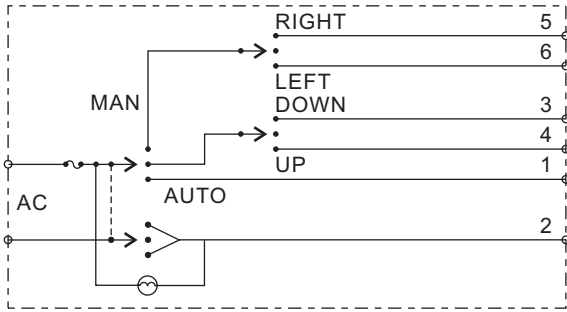


Figure 5
Interconnection Diagram, PIH-302 Control

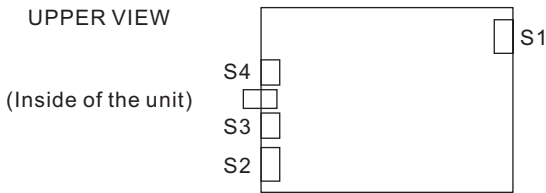
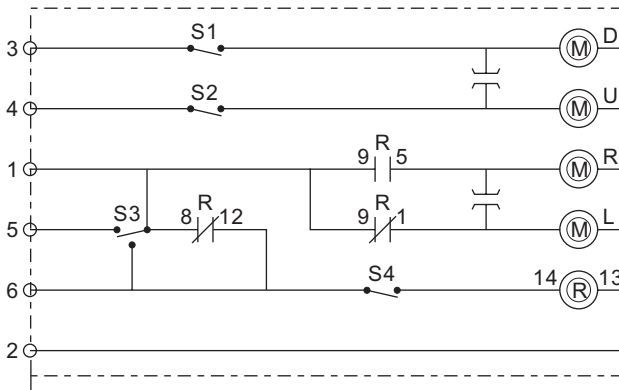


Figure 6
Interconnection Diagram, PIH-302

SPECIFICATION

● PIH-302 INDOOR PAN/TILT

Angular Travel	Pan : 350 °	Tilt : ± 60 °
Limited Stop	Externally adjustable	
Speed	Pan : 5.5 ° / second	Tilt : 3 ° / second
Load Rating	Pan : 7kgs	Tilt : 4kgs
Duty Cycle	Pan : continuous	Tilt : Intermittent
Input Voltage	a.c. 24V/117V/230V, 50Hz/60Hz	
Motor Output	6 watts	
Normal Operating Current	24V-0.083A, 117V-0.16A, 230V-0.2A	
Cable Requirement	Six conductor, unshield	
Operating Temperature	-25°C ~ +60°C	
Construction	Aluminum and plastic	
Finish	Off white baked enamel finish	
Dimensions	184 (H) x 115 (φ)mm	
Weight	1.9 kgs	

● PIH-302C INDOOR PAN/TILT CONTROL

Control Buttons	Auto / Off / Manual, Left / Right, Up / Down
Input Voltage	a.c. 117V/230V, 50Hz/60Hz
Output Voltage	a.c. 24V/117V/230V, 50Hz/60Hz
Environment Temperature Operating	-10°C ~ +60°C
Construction	Steel, with silver gray baked enamel finish
Dimensions	152(W) x 58(H) x 188(D)mm
Weight	1.25 kgs



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