



INDOOR SCANNER WITH CONTROL

PIH-305/305S/306

INSTRUCTION MANUAL

IMPORTANT SAFEGUARDS

	<p>CAUTION</p> <p>RISK OF ELECTRIC SHOCK DO NOT OPEN</p>	
<p>CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>		

GRAPHIC SYMBOL EXPLANATION

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.



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INTRODUCTION

The PIH-305/305S Scanner is indoor, continuous duty units rated for loads up to (15.41b) 7kg respectively when mounted in either the upright or inverted positions, slow speed, high-torque drive motors with instant start-stop characteristics provide operational stability without coast. Drive trains made with acetal output gears provide lubrication-free operation. This injection-molded scanner has both a permanent stop to permit full 360 degrees rotation and adjustable limit stops to set pan travel limits as desired.

GENERAL

● SCOPE

These units should be installed using approved materials and wiring practices in accordance with the National Electrical Code and applicable local wiring ordinances.

ASSOCIATED EQUIPMENT AND ACCESSORIES

● CONTROLS

Scanner controls are available in two chassis types and two control Voltages. Refer to Table 1 for a listing of controls and their associated scanner. Each control provides push button operation of the scanner in both the manual and automatic modes, a POWER switch, and an indicator lamp.

● MOUNTS

The PIH-5003 mounting bracket is designed for mounting the PIH-305 series scanners.

Control model	Scanner model	Working Voltage	Wire size(AWG) Annealed Copper	Maximum distance Ft. (M)
		230V 50/60 Hz 114V	22	5,000 (1,524)
		24V 50/60 Hz	22 20 18 16	350 (106) 550 (167) 900 (274) 1,400 (427)

Table 1 Scanner/Control Compatibility and Operating Distances

INSTALLATION

● GENERAL

Fabricate interconnecting cables according to the appropriate cable assembly diagrams in Figure 1. For proper operation, the distance between the scanner and its control unit should not exceed the distance given in Table 1 for particular wire size used.

● MOUNTING THE UNIT

This PIH-305 scanner is designed to operate indoors with load weighing up to 15.41b (7kg) respectively. Proper performance depends on secure fastening to a suitable mounting surface with the camera correctly mounted and balanced on the unit. Round-base units is installed directly on the PIH-5003 mounting bracket. Scanner mounting screws should be tightened only enough to prevent the base from moving on the mounting surface.

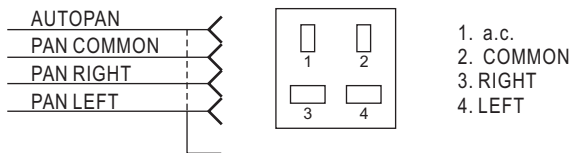


Figure 1 Interconnecting Cable Diagrams

CAUTION

Do not attach unit to drywall surfaces. Mount round-base scanner directly to PIH-5003 mounting bracket with one 1/4-20hex-head bolt 1-1/2 inches (3.8cm) long with a lock-washer.

INVERTED MOUNTING OF UNIT

When this unit is mounted inverted, the left-right directions are reversed for manual operation. This must be corrected when wiring the cable between the control unit and the scanner. To do this, reverse the leads going to pin 2 and 3 of the connector at one end of the cable. See figures 4C and 4D for inverted mounting of scanner and camera.

WIRING THE UNIT TO THE SYSTEM

Line cord scanner plug into a standard power outlet for independent automatic operation.

Scanner without line cord is supplied with the appropriate mating connector. Prepare the control cable according to Figure1.

SETTING LIMIT STOPS

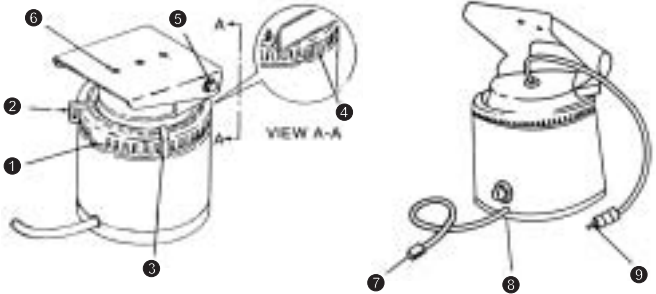
The stop ring is slotted at 5 degree intervals except for a 15 degree solid edge containing a molded permanent stop (1 on Figure3). The line or pendant cord identifies the back of the pedestal, in the front of the unit the reversing switch activator (4) is visible between the stop right and the pan housing.

Located on the stop ring are two adjustable plastic snap-on limit stops (2 and 3). Remove both pan limit stops by pulling outwards over 360 degree rotation is possible with limit stops removed.

Perform steps 1 through 5 to establish approximate limit stop settings before mounting camera. Make sure that there is adequate clearance for the camera and lens to rotate through the required pan angle, and that the rear of the pedestal faces away from the scene to be viewed.

SCANNER WITH CONTROL

1. Energize the control and check that the AUTO switch is not energized.
2. Press MANUAL RIGHT switch on control and hold until the scanner rotates to the desired right-hand position. Release push button.
3. Install the right limit stop (2 on Figure 3) just to the right of the switch actuator (4) by pushing it into the groove until it snaps in place.
4. Press MANUAL LEFT on control and hold position. Release push button.
5. Install the left limit stop (3) to the left of the switch actuator as in step 3.
6. Mount camera on scanner. Refer to MOUNTING THE CAMERA section.
7. With both limit stops securely snapped in place, pan to both stop positions and recheck for exact trim.



1. Permanent Stop
2. Right Limit Stop
3. Left Limit Stop
4. Switch Actuator
5. Hex-head Screws (2)

6. Camera Mounting Holes (3)
7. Plug to Scanner Control
8. Plug to Monitor
9. Plug to Camera

Figure 3 Limit Stop Adjustments

SCANNER WITH LINE CORD

1. Plug line cord into a.c. outlet.
2. Allow unit to autopan to desired right-hand position. Unplug cord.
3. Install the right limit stop (2 on Figure3) just to the right of the switch actuator (4) by pushing it into the groove until it snaps in place.
4. Plug in the line cord and allow the unit to autopan to desired lefthand position. Unplug cord.
5. Install the left limit stop (3) to the left of the switch actuator as in step3.
6. Mount camera on scanner. Refer to MOUNTING THE CAMERA section.
7. With both limit stops securely snapped in place, energize the scanner and check for exact trim.

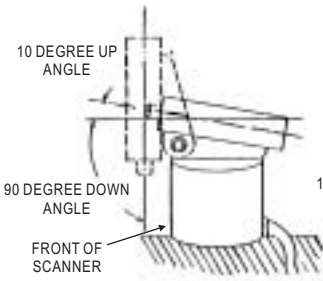
MOUNTING THE CAMERA

CAUTION

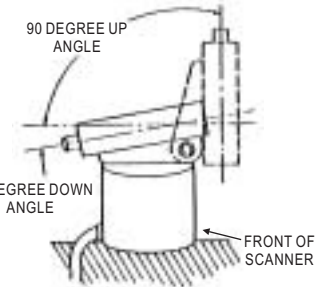
Do not mount an auto-iris lens on an autopanning unit. Such use will cause excessive wear on this iris mechanism as it constantly compensates for different light levels.

Use a 1/4-20 screw and lockwasher to mount the camera. To obtain the best balance, this screw must be placed in one of three positions provided (6 on Figure3). A simple method to determine camera balance is to place a pencil under the camera on a flat surface. Move the camera until it balance on the pencil. The position of the pencil under the camera then indicates the point which should be at the center of the mounting plate.

The scanner has an off-center pivot on the camera mounting platform which allows the camera tilt angle to be adjusted from 10 degrees above the horizon line to 90 degree below, or from 10 degree below the horizon line to 90 degree above depending on camera mounting (see Figure4). To adjust camera tilt angle at the pivot point, loosen the hex-head screws (5 on Figure3) on each side of the camera mounting bracket and tilt the bracket to the desired position. Retighten the two screws firmly. The PIH-305/305S have an additional pan head screw on each side of the bracket. Loosen for adjustment, then retighten.

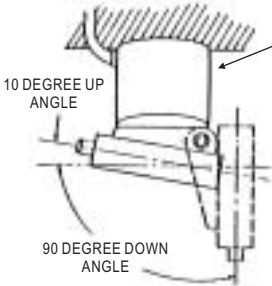


A. Normal upright mounting

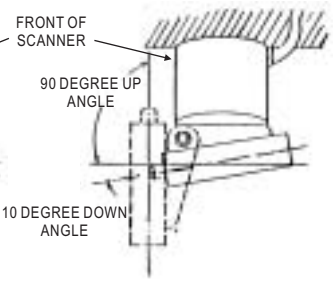


B. Upright mounting when greater than 10 degree up angle is required.

Figure 4(I) Scanner and Camera Mounting positions



C. Normal inverted mounting



D. Inverted mounting when greater than 10 degree up angle is required.

Figure 4(II) Scanner and Camera Mounting positions

SPECIFICATIONS

● PIH-305/305S INDOOR SCANNER

Model No.	PIH-305	PIH-305S
Rotation Angle	350° Max. Automatic scan	
Tilt Angle	± 90°	
Pan Speed	Approx. 5.8° / second	
Limit stop	Externally adjustable	
Maximum Load	7 kgs	
Power Source	a.c. 24V/117V/230V (Option)	
Motor Output	3 watts max.	
Normal Operating Current	24V - 0.06A, 117V - 0.021A, 230V - 0.014A	
RPM	2 rounds	
Operating Temperature	-10°C to +60°C (14°F ~ 140°F)	
Cable Requirement	4-conductor, unshielded	
Construction	Aluminum, light gray textured	
Dimensions	φ 129 x 149(H) mm	φ 119 x 115(H) mm
Weight	2.1 kgs	0.9 kgs

● PIH-306 SCANNER CONTROL 1-CH

Pan	Push button, LEFT/RIGHT
Power	Slide switch, MAN/OFF/AUTO
Input Voltage	a.c 117V/230V (Option), 60Hz/50Hz
Output Voltage	a.c 24V/117V/230V (Option), 60Hz/50Hz
Operating Temperature	-10°C to +60°C (14°F ~ 140°F)
Construction	Stell, with silver gray baked enamel finish
Dimensions	152(W) x 55(H) x 188(D) mm
Weight	1.25 kgs



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