

MODELS

GPT-350-110
 GPT-350-110-PP
 GPT-350-220
 GPT-350-220-PP

OUT DOOR PAN-AND-TILT DRIVE

GENERAL

Scope

This manual contains the contents on installation, operation and maintenance of the GPT-350 series pan & tilt drive. Only authorized service engineers have to operate it following safety instructions by using tools and cables which conform to its specifications.

Features

The GPT-350 has auto pan function and is a large-scaled all-weather outdoor pan & tilt drive having excellent resistance against change of weather.

This product is designed so that it can load up to 30 kg and you can adjust right-and-left, up and down angles within the ranges of 330° in right-and-left rotation, 20° in up and 70° in down.

The internal driving motor has low noise and high torque, It is featured fast stop by an internal breaker, and change of direction can be done in a short time when the auto pan function is enabled.

Elastic adaptation of cables makes it possible to prevent tiredness of wires when the auto pan function is applied.

You can mount or dismount a camera housing easily and its design is elegant.

For the outside, high class materials are adapted by using stainless die casting and engineering plastic techniques. The inside is manufactured by using rust-proofing technique and stainless screws, therefore, it has excellent endurance and anticorrosion. In addition, it is designed so that it can have strong driving force and endurance ratio.

110 or 220 VAC can be used as input of GPT-350. The cable thickness and the range of maximum operating distance differ depending on input voltage as shown in [Table 1] given below.

Operating distance depending on power source and cable

Input Voltage	Model	Cable Thickness (AWG)	Max. Distance (m)
110 VAC	GPT-350-110	20	20
	GPT-350-110-PP	18	35
		16	50
220 VAC	GPT-350-220 GPT-350-220-PP	20	40
		18	70
		16	100

[Table 1]

SPECIFICATIONS AND ACCESSORIES

Specifications

Model	GPT-350-110 (PP)	GPT-350-220 (PP)
Operating Voltage	AC 110 V 50 / 60 Hz	AC 220 V 50 / 60 Hz
Power Consumption	PAN (Right / Left) 25.3 W	
	TILT (Up / Down) 25.3 W	
Rotating Angle	PAN (Right / Left) Max. 350°	
	TILT (Up / Down) Max. + 20° ~ - 70°	
Rotating Speed	PAN (Right / Left) 6° ± 1°/ sec	
	TILT (Up / Down) 4° ± 1°/ sec	
Operating Temperature	-27 °C ~ + 60 °C	
Mountable Weight	Max. 30 kg	
Angle Adjustment	External Adjustment (by stoppers)	
Rotating Pan	Auto / Manual	
Weight	Approx. 8.2 Kg	
Dimensions	214(W) □ 242(H) □ 303(D)	
Color	Light Gray	

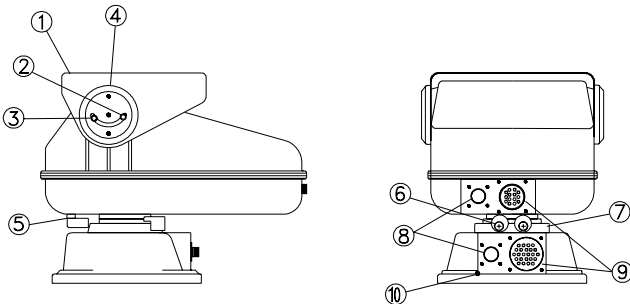
[Table 2]

Accessories

ACCESSORY (AMP Connector)	
14PIN 1 Set	1) 14PIN CONNECTOR PLUG 2) CLAMP CABLE 3) BOOT RUBBER 4) CONNECTOR PIN (MALE) 5) TAPPING SCREW 6) RUBBER-RING (20mm) 7) CLAMPING INSET
24PIN 1 Set	1) 24PIN CONNECTOR PLUG 2) CLAMP CABLE 3) BOOT RUBBER 4) CONNECTOR PIN (FEMALE) 5) TAPPING SCREW 6) RUBBER-RING (30mm) 7) RUBBER-RING (20mm) 8) CLAMPING INSET

[Table 3]

NAMES OF PARTS AND FUNCTIONS

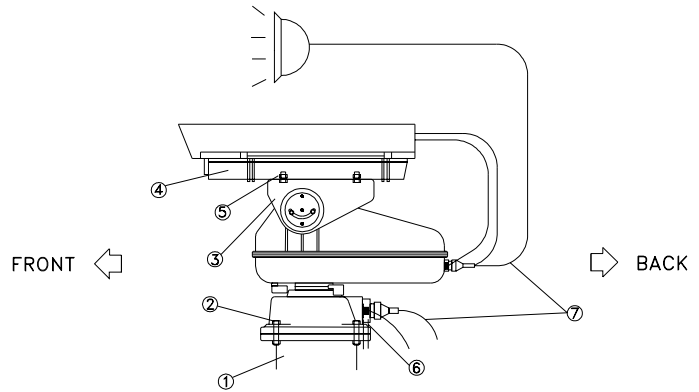


[Fig. 1]

- 1. MOUNTING PLATE** : For mounting a camera housing
- 2. UP STOPPER** : The up angle shrinks when it is rotated clockwise. (approaching the down stopper)
- 3. DOWN STOPPER** : The down angle shrinks when it is rotated counterclockwise. (approaching the up stopper)
- 4. SIDE CAP** : Open it when adjusting the up and down angles. After adjustment, re-mount it, (the right side only)
- 5. SWITCH** : For auto pan enable/disable and stopping pan.
- 6. LEFT STOPPER** : The left angle shrinks when it is rotated clockwise. (becoming more distant from the right stopper)
- 7. RIGHT STOPPER** : The right angle shrinks when it is rotated counterclockwise. (becoming more distant from the stopper)
- 8. COAXIAL CONNECTOR** : Connect the upper connector (VIDEO-IN) to the camera and the lower (VIDEO-OUT) to the monitor.
- 9. CONTROL CONNECTOR** : Connect the upper connector (14PIN) to the camera housing and the lower (24PIN) to the control machine.
- 10. GROUNDING TERMINAL** : For grounding.

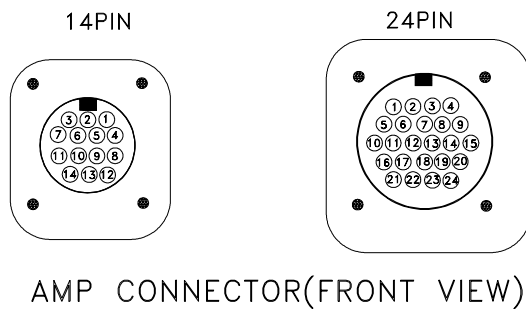
INSTALLATION

Installation Procedure



[Fig. 2]

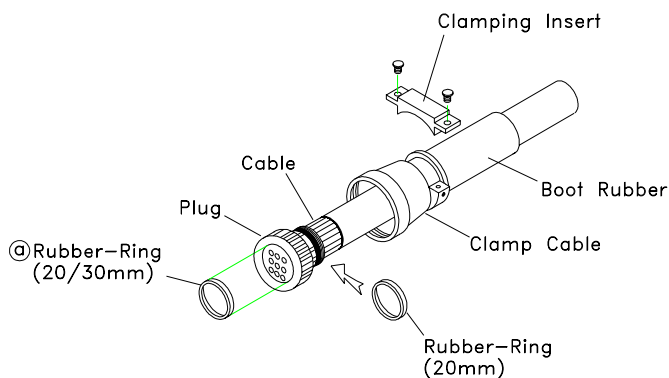
- Turn the P/T drive toward the front on the pan & tilt bracket(★)(i.e., the direction of shooting) as shown in Fig. 2 and tighten it firmly by screwing the bolts(★)and nuts (4 EA).
- Turn the camera or outdoor housing (✱) toward the front on the mounting plate(✱) and tighten it firmly by screwing the bolts (✱).
- For grounding(⊕), use a cable of 14 AWG or more.
- Cable for control connector(✧) : When selecting a cable, it has to conform to the operating distance. Press or solder the 14 male pins and 24 female pins to the corresponding cables and connect them to plugs so that they can conform to functional pin numbers. (See Fig. 3)



[Fig. 3]

5. For assembling control connector accessories, refer to Fig. 4 given below, First, insert the rubber-ring(a) into the body and then, pull the boot rubber tightly in the direction of arrow to clamp it.

6. Perform completely wiring of coaxial cable and overall system .



[Fig. 4]

INSTALLATION AND HANDLING INSTRUCTIONS

1. Read through carefully and understand this manual before installation and use. Save it for continuous reference.
2. Check whether the voltage of the power source on the site conforms to the specified voltage of this pan & tilt.
3. Check again whether wiring of the connectors is correctly run before applying the power. Incorrect wiring can cause failure directly.
4. Do not lay things of 30 Kg or over on the pan and tilt drive. When installing any thing, adjust the center of gravity to the middle of the mounting plate.
5. When installing lights, be careful so that the power consumption does not exceed 300 W.
6. Do not continuously use the auto pan function for over 8 hours. Especially, for PP(PRESET) model, continuous use of the auto pan function shortens the life of the potentiometer.

7. Do not attach any hazard-causing things to the product. Do not lay it on an unstable stand, triangular stand, self or table.

8. Do not install this product on the locations near to heaters or power tools. Install it on a well-ventilated place.

9. When installing the control cable, be careful that too high load is not applied to it and it has no distortion.

10. Be careful that overload is not applied to the power terminal or extension cable, which can cause a fire.

11. Keep the specified ranges of temperature and power.

12. Never disassemble the product arbitrarily. If necessary, contact the service station

13. If one of the followings occurs, stop operating the pan & tilt drive and disconnect the connectors.

- When the control cable is damaged.
- When the product is dropped or the body is damaged.
- When the product does not normally operate with not conforming to operating commands.

⚡ If any problem or failure occurs, turn off the power and contact the service station.

OPERATING PROCEDURE

1. Check whether the wiring of the control cable is correct.
2. Adjusting the operating angle of the tilt(See Fig. 1)

Open the left(when seen from the surface to which the connector is attached) side cap and unfasten the screws (Fig. 1; *, *). Then adjust the up and down stoppers so that the angles meet the area to be supervised, and then tighten the screws. After adjustment, re-attach the side cap in the reverse order.

- UP STOPPER (*): To shrink the up angle, rotate it clockwise,
- DOWN STOPPER (*): To shrink the down angle, rotate it counterclockwise.

3. Adjusting the operating angle of the pan (See Fig. 1)

Unfasten the screws (⊕, ⊖), then adjust the right and left stoppers so that the angles meet the area to be supervised, After adjustment, tighten the screws.

- LEFT STOPPER (⊕) : To shrink the left angle, rotate it clockwise,
- RIGHT STOPPER (⊖) : To shrink the right angle, rotate it counterclockwise.

4. Testing the operations.

Test the up, down, right and left rotations and the auto pan operations to check whether the desired supervision area is set.

CLEANING AND STORAGE

1. When cleaning the product, first, disconnect the power and wipe it with a soft cloth dampened with soapy water which contains no solvents such as benzene or thinner.
2. Be sure to disconnect the power when the product is not used.
3. Store the product in a well-ventilated stable place of low humidity and dust.
4. Do not drop the product.

TROUBLESHOOTING

- **Up and down operations do not execute.**
- **Right and left operations do not execute.**
 - Check the power input.
 - Check the output voltage of the controller.
 - Check whether total mounted weight exceeds 30 Kg.
 - Check connection of the connectors.
 - Check break-down of the control cable.
 - Check overheating of the monitor.
 - Check the contact point of the micro switch.

CONNECTOR PIN ASSIGNMENTS

NO.	24 PIN CONNECTOR	
	GPT-350-110-PP GPT-350-220-PP	GPT-350-110 GPT-350-220
1	ZOOM TELE	ZOOM
2	ZOOM WIDE	ZOOM
3	FOCUS NEAR	FOCUS
4	FOCUS FAR	FOCUS
5	CAMERA POWER(H)	CAMERA POWER(H)
6	CAMERA POWER(N)	CAMERA POWER(N)
7	GROUND	GROUND
8	AUX POWER COM	AUX POWER COMM
9	AUX POWER 1	AUX POWER 1
10	AUX POWER 2	AUX POWER 2
11	LENS SUPPLY (+)	NC
12	ZOOM POS	NC
13	FOCUS POS	NC
14	LENS RETURN (-)	NC
15	PAN/TILT SUPPLY (+)	NC
16	PAN POS	NC
17	TILT POS	NC
18	PAN/TILT RETURN (-)	NC
19	PAN/TILT COM	PAN/TILT COMM
20	UP	UP
21	DOWN	DOWN
22	RIGHT	RIGHT
23	LEFT	LEFT
24	AUTO PAN	AUTO PAN

NO.	14 PIN CONNECTOR	
	GPT350-110-PP GPT350-220-PP	GPT350-110 GPT350-220
1	ZOOM	ZOOM
2	ZOOM	ZOOM
3	FOCUS	FOCUS
4	FOCUS	FOCUS
5	CAMERA POWER(H)	CAMERA POWER(H)
6	CAMERA POWER(N)	CAMERA POWER(N)
7	GROUND	GROUND
8	AUX POWER COMM	AUX POWER COMM
9	AUX POWER 1	AUX POWER 1
10	AUX POWER 2	AUX POWER 2
11	LENS SUPPLY (+)	NC
12	ZOOM POS	NC
13	FOCUS POS	NC
14	LENS RETURN (-)	NC

□ Use the PIN 7 of the 24-pin connector for connecting with an external equipment and the PIN 7 of the 24-pin connector for connecting with the camera housing.

[Table 4]

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