

# MAIN OPERATING INSTRUCTIONS

*PT-900*



*Pan Tilt Unit*

**CAMBO**

## 1. INTRODUCTION

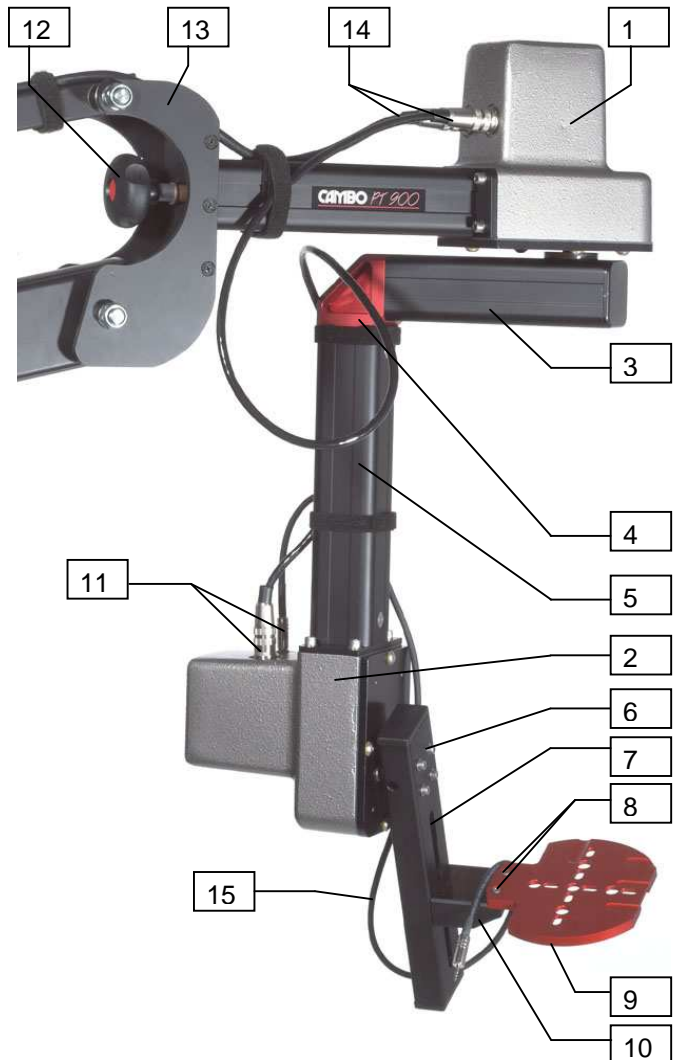
The Cambo PT-900 is a high quality motorised Pan Tilt Unit. You have bought a product out of the new Cambo Video range. We expect that you will achieve very good results and performance using this successor of the PT-90. These instructions give you information about the main functions of the new Cambo Pan Tilt Unit.

The PT-900 is especially made to fit the Cambo V40 Video Boom. An adapter is available that makes 'up side down' mounting on the V40 possible.

It is however also useable on the V15 and directly on a tripod or wall mount.

## 2. LIST OF FUNCTIONS AND PARTS

1. PT-901 Motor Unit 1
2. PT-902 Motor Unit 2
3. Horizontal Arm
4. 90° Bracket
5. Vertical Arm
6. Tilt Bush with screws
7. Tilt Profile
8. Attachment Screws
9. Camera Plate
10. Camera Arm
11. Control Cable (80cm) & LANC-connection
12. Attachment Knob PT-900
13. V40 Front End
14. Control Cables (5m and 80cm)
15. LANC through cable (optional)



16. Control Cable (5m)
17. Tilt Reverse Direction / Off Switch
18. Tilt max. Speed Knob
19. Pan Reverse Direction / Off Switch
20. Pan max. Speed Knob
21. On/Off Switch with Led indication
22. Joystick
23. PT-903 Joystick Unit
24. LANC through connector
25. Input XLR 12V
26. Out XLR 12V through
27. External Joystick connector with switch

# INSTRUCTIONS

## MOUNTING THE PT-900 UNIT

When you have a PT-130 accessory plate to mount the PT-900 up-side-down first remove the Camera Arm using the Attachment Knob (12). Then remove the old adapter plate from your Cambo V-40 Video Boom using the hexagon key and mount the PT-130. Use the V-40 instructions to set-up the Video Boom. If you want to mount the PT-900 up-side-down without the PT-130 mount the old adapter plate up-side-down.

Take your PT-900 and place it on the adapter plate. Fix the Unit with the Attachment Knob (12). Adjust the counter balance of the V40 if necessary. **Bring the Tilt profile (7) and the Horizontal Arm (3) to their click position.** This is the working position, the connection to the gears. The click provides extra safety to prevent the motor, gearing or cables from damaging and it is a great help to get your camera's centre point of gravity at the right position. If you have placed the PT-900 Unit up-side-down you have to adjust the position of the Tilt Profile (7) 180°. Use a screwdriver to remove the four cross-recessed screws that fix the Tilt Profile to the Tilt Bush (6). Rotate the Tilt Profile 180° and fasten the four screws again. The PT-900 now has the right range of movement for the up-side-down position.

## CABLE ATTACHMENTS

Take the Joystick Unit (23) and attach it to the V40 Boom or place it where you want it to be. The 5 meter PT-912 cable is standard with the PT-900 Unit and 10 meter (PT-914) and 20 meter (PT916) cables are available as accessories.

Attention: Look at the red coded side of the control cable. Attach the red coded cable side to the Motor Unit 1 (1/14) using the connector-thread to fix it. Use the straps to attach the cable to the boom leaving enough play for the boom movement. Connect the other end to the Joystick Unit (23/16).

Take the 80cm Control Cable (11 to14) that connects the two motor units to each other. Use the red coded side at the Motor unit 2 (2). Use straps to give the cable the right play to give the system full freedom of movement. Check this during operation.

Finally plug in the power supply (xlr) cable at the joystick unit (26,23). Place the 12V Power supply PT-904 somewhere near the tripod and use the appropriate mains cable to connect it to 100-240V.

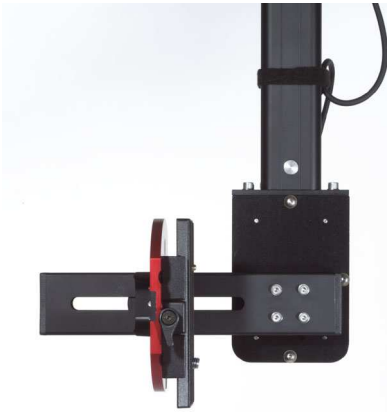
## MOUNTING THE CAMERA

Switch on the Joystick unit and check if the PT-Unit has free movement. Bring the Tilt Arm (7) with the joystick to the lowest position after checking that the arm is in the click position. Mount the quick-lock camera plate to the camera plate of the PT-900 (see picture right).

After fastening the upper quick-lock plate to the camera slide the camera on the PT-900.

**The camera needs to be positioned with its centre of gravity at the rotating point of the Tilt Arm.** This increases the range of possible camera weight and the smoothness of the movements. **NOTE: If the camera is not positioned rightly on the PT-900 the Camera arm can go out of the click position in the gearings of the motorunit (safety click).**





Do the horizontal adjustment with the sliding range of the quick adapter, checking the camera weight position by rotating the camera outside the click-position. The vertical adjustment is done with the tilt arm in horizontal position using a hexagon key to unlock the Camera Arm (10) with camera (see picture left). The hexagon bolt is positioned in the Tilt Arm (7) behind the Camera Arm. Shift the camera, lock the Camera Arm again and check the new position by rotating the camera. Repeat this adjustment till the camera weight is at the centre point of rotation. If used connect the Lanc cable (15) between motorunit 2 and the camera. Mount the lanc remote unit close to the Joystick unit and connect to the joystick unit (23,24).

## CONTROLLING THE PT-900

When the camera is mounted correctly the next step is making a personalised set-up of the controllers you are using. Depending on the use of a V40 boom or fixed position as a tripod mount or Wall mount the Joystick unit should be placed at the most ergonomic position on the boom, tripod or other remote table or frame. A combined joystick unit and remote zoom / focus control on the V40 videoboom should be set on a V46 Control Frame Deluxe (optional). Then a personalised set-up is made, making combined boom and PT-900 movements and still having zoom / focus control. For combined videoboom and PT-900 movement an optional external joystick handle is available.

When a short V40 boom is used, the Joystick unit can also be placed on the Main Beam closer to the Centre of the Boom. The V-42 vertical handgrip for remote lens control can be a solution for combined control.

## SPECIFICATIONS PT-900 Pan Tilt Unit

### Unit Dimensions:

741x332x130mm (hxbxd)

### Packed size:

590x332x130mm

### Weight:

6,0kg (without joystick unit and power adapter)

### Maximum Camera Weight:

10kg (including battery etc.)

### Pan range:

350° (2x175°)

### Tilt range:

350° (2x175°)



PT-190 Flight Case for PT-90 and PT-900

For more Cambo Video Products and Accessories we refer to your dealer and the [www.cambo.com](http://www.cambo.com) site.  
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