OPERATING INSTRUCTIONS

Pan Tilt Unit with USB-Connection for MOBOTIX M16 Cameras

Article No. / EAN: 0745751300862   **Customs Tarif Code: 85437090**

Features

Material	Cast aluminium/powder-coated
Load capacity	4Kg
Weight	6Kg (Incl. packaging 8Kg)
Rotation range	360° (continously)
Rotation speed	80°/s
Tilt range	-90° -> +90°
Tilt speed	60°/s
Dimensions	240x170x210mm
Presets	128
Tours	4
Operating voltage	38-56VDC Pin 4/5+ 7/8-
Power consumption	15W
Protection class	IP66
Max ambient temperature	-20°C -> +50°C
Pack size	51 × 42 × 26 cm
3 pcs in one carton	Carton: 75 × 50 × 54 cm

INSTRUCTIONS

Packing contents
1 x Pan & Tilt motor
1 x Bag with bolts an screws for mounting the camera
1 Passive-PoE Adapter

After the delivery, check that the packing is not damaged and shows no evident signs of falls or abrasions. If this should be the case, immediately contact the supplier.
Check that the contents correspond to the above-mentioned list of materials.

Contents of this Manual
This manual describes pan & tilt motors, together with their specific procedures of installation,
configuration and use. Read this manual carefully, in particular the chapter concerning the safety rules, before installing and using the pan & tilt motor.

Safety rules
Pan & tilt motors comply with the normative laws in force at the time of editing of this manual, concerning electric safety, electromagnetic compatibility and general requirements.
Anyway, in order to ensure the users (installer, technician and operator), the following warnings are specified for your safety:
The appliance (and the complete system, which it belongs to) must be installed only by qualified technical staff.
The appliance must be opened only by qualified technical staff.
The tampering of the appliance may void the guarantee terms.
Connect to a device corresponding to the specifications indicated on the data plate (see next chapter Identification data).
Before any shifting or technical operations on the appliance, the cables connected to other appliances must be removed.
Do not use voltage cables showing wear or ageing, since they may seriously exposure the users' safety.
Do not use the appliance in the presence of inflammable substances.
Do not allow children or people not familiar with the appliance to use it.
Make sure the appliance is fixed in a solid and reliable way.
The appliance is completely off-line only when the cables connected to other appliances have been removed.
For after-Sale service call only authorised technical staff.

Keep this manual close to hand for any future reference. Identification data on pan & tilt motors there is one plate complying with EC specifications.
This plate includes:
Model identification code

Mounting

ATTENTION: Before powering the P/T-Unit,
you have to take notice of the mounting-position.

The camera and possible mounting-devices may not come in contact with other parts.

All screws must be tightend.

The P/T-Unit must be mounted horizontal in all areas.

Startup-Procedure

Before connecting the appliance:
Check that the material supplied corresponds to the specifications indicated on the data plate,
following the chapter identification data.

Check that pan & tilt motor and the other components of the installation are closed in order
to avoid direct contact with energized parts.

Check that all the EMC Regulations, valid at the mounting-place, are adhered to and maybe
upgrade components to ensure the business-protection and the equipment protection.

Make sure that all the parts are fixed in a solid and reliable way.
Check that the electrical capacity and the connection cables will support the system power
consumption.

Using unqualified hardware can endanger the security of the staff and installation.
Check if the power supplys and cables can handle the consumption.
The cables must be connected as shown in this manual.
After powering, the Unit has to do a calibration run in horizontal and vertical direction.

Maintenance

The PT-Units don't need a special maintenance.
We recommend to make a service at the manufactory every 2 years.

Connection plan

The cables, coming out of the top of the unit, must be connected
without benchs and pinch points.
(refering to the Mobotix guidelines)

90-260VAC, 47-63Hz

PIN-Assignment:
<u>Camera:</u>
1,2 = 50V PoE +
3,6 = 50V PoE -
<u>P/T-Unit:</u>
4,5 = 50V PoE +
7,8 = 50V PoE -
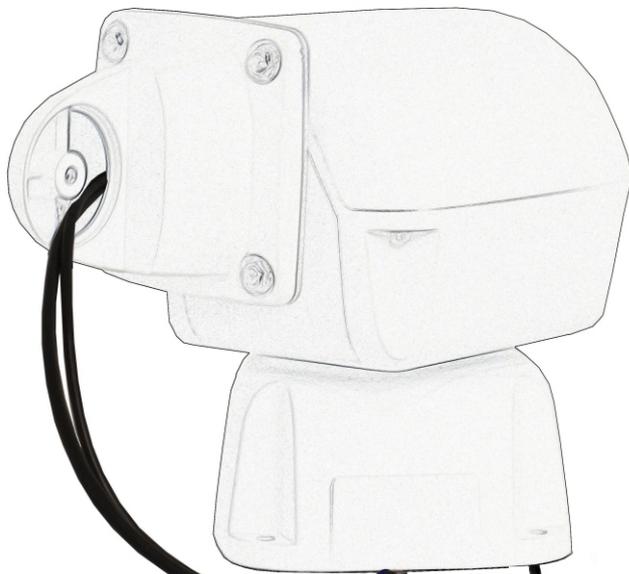
incl. 1m MX-OPT-CBL-LAN
(optional: 2m / 5m / 10m)

Ethernet patch cable

MiniUSB

Sensor module cable

I/O cable to front
element (red clips
and seals)
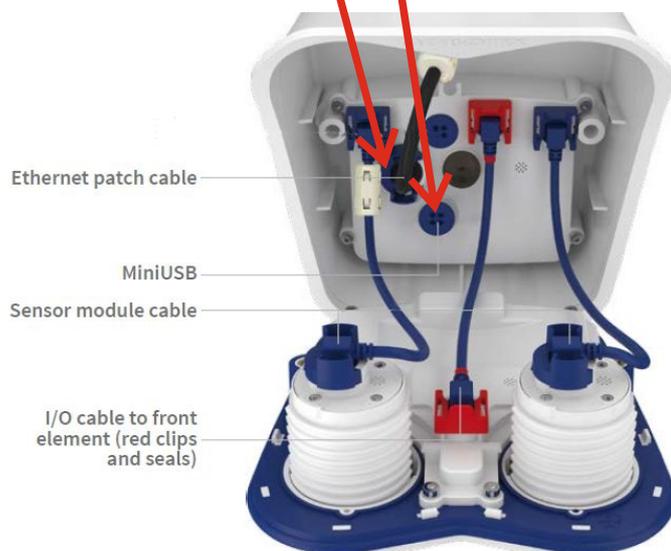
LAN 100 MBit/s without PoE

Settings for MOBOTIX Cameras

1.
Admin Menü
↳ **Network Setup**
  ↳ **Ethernet Interface**

Settings for MOBOTIX Cameras

2.
Admin Menü
↳ **Hardware-Configuration**
  ↳ **Manage Hardware Expansions**

Settings for MOBOTIX Cameras

3.
Admin Menü
↳ Serial Interface
  ↳ Setup of serial interface, modem and weather station

Settings for MOBOTIX Cameras

4. Define Softbuttons

Admin Menü
↳ Page Administration
   ↳ Softbuttons

PicInPic	Grey ∨	Setup Control ∨	section=general camera=RiL size	☐ Remo
Play Last Event	Green ∨	Link ∨	url=/control/player?play_loop	☐ Remo
Play Sound	Yellow ∨	Sound ∨	soundfile=Standard	☐ Remo
Preset 1 speichern	Grey ∨	Put RS232 Text ∨	rs232outtext=%A0%0E%00%03%	☐ Remo
Preset 1	Grey ∨	Put RS232 Text ∨	rs232outtext=%A0%0E%00%07%	☐ Remo
Preset 2 speichern	Grey ∨	Put RS232 Text ∨	rs232outtext=%A0%0E%00%03%	☐ Remo
Preset 2	Grey ∨	Put RS232 Text ∨	rs232outtext=%A0%0E%00%07%	☐ Remo
Preset 3 speichern	Grey ∨	Put RS232 Text ∨	rs232outtext=%A0%0E%00%03%	☐ Remo
Preset 3	Grey ∨	Put RS232 Text ∨	rs232outtext=%A0%0E%00%07%	☐ Remo
Preset 4 speichern	Grey ∨	Put RS232 Text ∨	rs232outtext=%A0%0E%00%03%	☐ Remo
Preset 4	Grey ∨	Put RS232 Text ∨	rs232outtext=%A0%0E%00%07%	☐ Remo
Preset 5 speichern	Grey ∨	Put RS232 Text ∨	rs232outtext=%A0%0E%00%03%	☐ Remo
Preset 5	Grey ∨	Put RS232 Text ∨	rs232outtext=%A0%0E%00%07%	☐ Remo

Set	Factory	Restore	Close

You can find the Commands for the different Functions on the last Page.

Settings for MOBOTIX Cameras

5. Insert Softbuttons

Click on a Softbutton, holding the „Shift"-Button
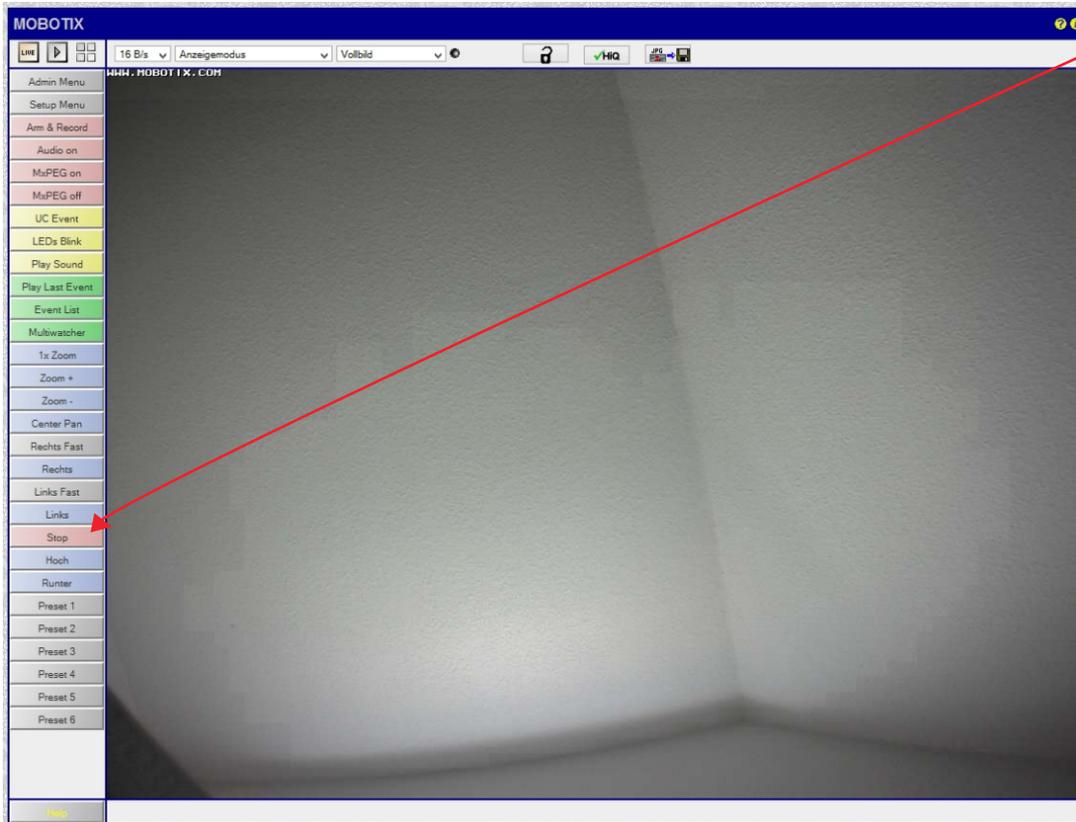
Choose the Position for the new Softbutton.
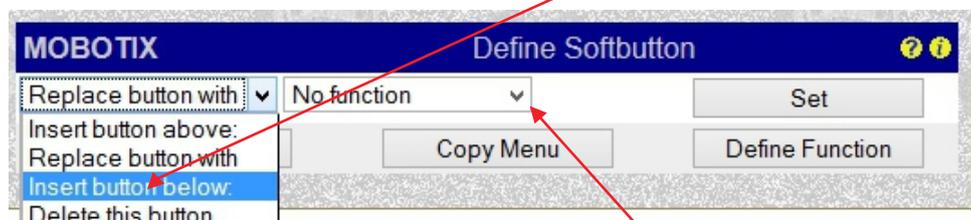
and then choose the Function you want to have.

Settings for MOBOTIX Cameras

## 6. Calling Presets at predefined Times

Admin Menü
↳ **Transfer Profiles**
　↳ **IP Notify Profiles**

Data Type: action=putrs232&rs232outtext= z.B. %AO%0E...usw.

7. Timing
Admin Menü
↳ **Camera Adminstration**
　↳ **Time Tasks**

IP NOTIFY "HttpRequest" (Example is on 1 Minute)

Control Commands

	Up		**Right**
Slow	%FF%01%00%08%00%01%0A	Slow	%FF%01%00%02%01%00%04
	%FF%01%00%08%00%0F%18		%FF%01%00%02%0F%00%12
Medium	%FF%01%00%08%00%1F%28	Medium	%FF%01%00%02%1F%00%22
	%FF%01%00%08%00%2F%38		%FF%01%00%02%2F%00%32
Fast	%FF%01%00%08%00%FF%08	Fast	%FF%01%00%02%FF%00%02

	Down		**Left**
Slow	%FF%01%00%10%00%01%12	Slow	%FF%01%00%04%01%00%06
	%FF%01%00%10%00%0F%20		%FF%01%00%04%0F%00%14
Medium	%FF%01%00%10%00%1F%30	Medium	%FF%01%00%04%1F%00%24
	%FF%01%00%10%00%2F%40		%FF%01%00%04%2F%00%34
Fast	%FF%01%00%10%00%FF%10	Fast	%FF%01%00%04%FF%00%04

Stop		**Remote Reset**
%FF%01%00%00%00%00%01		%FF%01%00%0F%00%00%10

	Tour Record Start		**Tour Start**
1	%FF%01%00%1F%00%00%20	1	%FF%01%00%23%00%00%24
2	%FF%01%00%1F%00%01%21	2	%FF%01%00%23%00%01%25
3	%FF%01%00%1F%00%02%22	3	%FF%01%00%23%00%02%26
4	%FF%01%00%1F%00%03%23	4	%FF%01%00%23%00%03%27

	Tour Record Stop
1	%FF%01%00%21%00%00%22
2	%FF%01%00%21%00%01%23
3	%FF%01%00%21%00%02%24
4	%FF%01%00%21%00%03%25

	Save Preset 1-32		**Call Preset 1-32**
1	%FF%01%00%03%00%01%05	1	%FF%01%00%07%00%01%09
2	%FF%01%00%03%00%02%06	2	%FF%01%00%07%00%02%0A
3	%FF%01%00%03%00%03%07	3	%FF%01%00%07%00%03%0B
4	%FF%01%00%03%00%04%08	4	%FF%01%00%07%00%04%0C
5	%FF%01%00%03%00%05%09	5	%FF%01%00%07%00%05%0D
6	%FF%01%00%03%00%06%0A	6	%FF%01%00%07%00%06%0E
7	%FF%01%00%03%00%07%0B	7	%FF%01%00%07%00%07%0F
8	%FF%01%00%03%00%08%0C	8	%FF%01%00%07%00%08%10
9	%FF%01%00%03%00%09%0D	9	%FF%01%00%07%00%09%11
10	%FF%01%00%03%00%10%14	10	%FF%01%00%07%00%10%18
11	%FF%01%00%03%00%11%15	11	%FF%01%00%07%00%11%19
12	%FF%01%00%03%00%12%16	12	%FF%01%00%07%00%12%1A
13	%FF%01%00%03%00%13%17	13	%FF%01%00%07%00%13%1B
14	%FF%01%00%03%00%14%18	14	%FF%01%00%07%00%14%1C
15	%FF%01%00%03%00%15%19	15	%FF%01%00%07%00%15%1D
16	%FF%01%00%03%00%16%1A	16	%FF%01%00%07%00%16%1E
17	%FF%01%00%03%00%17%1B	17	%FF%01%00%07%00%17%1F
18	%FF%01%00%03%00%18%1C	18	%FF%01%00%07%00%18%20
19	%FF%01%00%03%00%19%1D	19	%FF%01%00%07%00%19%21
20	%FF%01%00%03%00%20%24	20	%FF%01%00%07%00%20%28
21	%FF%01%00%03%00%21%25	21	%FF%01%00%07%00%21%29
22	%FF%01%00%03%00%22%26	22	%FF%01%00%07%00%22%2A
23	%FF%01%00%03%00%23%27	23	%FF%01%00%07%00%23%2B
24	%FF%01%00%03%00%24%28	24	%FF%01%00%07%00%24%2C
25	%FF%01%00%03%00%25%29	25	%FF%01%00%07%00%25%2D
26	%FF%01%00%03%00%26%2A	26	%FF%01%00%07%00%26%2E
27	%FF%01%00%03%00%27%2B	27	%FF%01%00%07%00%27%2F
28	%FF%01%00%03%00%28%2C	28	%FF%01%00%07%00%28%30
29	%FF%01%00%03%00%29%2D	29	%FF%01%00%07%00%29%31
30	%FF%01%00%03%00%30%34	30	%FF%01%00%07%00%30%38
31	%FF%01%00%03%00%31%35	31	%FF%01%00%07%00%31%39
32	%FF%01%00%03%00%32%36	32	%FF%01%00%07%00%32%3A