



Remote Head P15



User Manual P15

Remote Head P15

CE			Date of issue : 2011 /08

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1. Equipment Information

1.1 Contents of 2-axis unit

1.	1 x Touch panel	O	
2.	1 x Base frame	O	
3.	1 x Drive module pan-axis with mounting pins and lock washer	O	
4.	1 x Drive module tilt Axis	O	
5.	1 x L-handle with base plate	O	
6.	2 x 3/8" long attachment bolts	O	
7.	1 x Box (Zoom/Focus/Power)	O	
8.	Cable set Bus for 2 – Axis version	O	
9.	Set of 1 x Cable Zoom/ Focus Fujinon	O	
10.	1 x Cable set Zoom/Focus Canon	O	
11.	1 x Cable set Zoom/Focus Canon Digital	O	
12.	1 x Cable set Zoom/Focus Angenieux	O	
13.	1 x set Allen wrench		
14.	1 x Main control cable Bus 20m	O	
15.	1x Double battery adapter V-Mount	O	
16.	1 x User manual	O	
17.	1x Monitor holder with 1/4" bolts	O	
18.	1x AC Adapter 24V	O	

1.1a Additional contents of 3-axis unit

1.	1 x Drive module roll axis	O	
2.	1 x Cable bus	O	
3.	1 x L- handle with base plate	O	
4.	2 x Attachment bolts 3/8" long	O	
Controls			
5.	One-man control consisting of:		
	1 x Attachment bar with Tripod inclusion	O	
	1 x Zoom/Focus handle	O	
	1 x Joystick handle	O	
6.	1 x Holder with rocker 3. axis	O	
7.	1 x Panel with joystick, zoom, focus	O	
8.	1 x PanBar cable set	O	
9.	Case for 2/3 axis version	O	
10.	User manual	O	
11.	C-stand for one-man operation	O	
12.	Panel joystick	O	
		O	
		O	

Packed on (Date):

Signature :

1.2 Responsibilities of the manufacturer / EC declaration of conformity

EC declaration of conformity for machinery directive 2006/42/EC Annex II 1.A

The manufacturer / distributor

MovieTech AG
Martin-Kollar-Str. 9
D-81829 Munich

hereby explains, that the following product

Product name: P15
Manufacturer: ABC products
Serial number:
Series/ type name: Remote head product
Description:

P15 is a product for the photography and film industry developed to allow weightless camera movements.

It conforms to all relevant regulations of the above-mentioned directive and the other applied directives (following) – including any current changes thereof at the time of declaration.

The following harmonized standards were applied:

EN ISO 12100-1:2003	Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology (ISO 12100-1:2003)
EN ISO 12100-2:2003	Safety of machinery - Basic concepts, general principles for design - Part 2: technical principles (ISO 12100-2:2003)
EN ISO 14121-1:2007	Safety of machinery - risk evaluation - Part 1: principles (ISO 14121-1:2007)

The following national or international standards (or parts/clauses thereof) and specifications were applied:

Name and address of the person authorized to compile the technical documentation:

Mr. Sigfried Käser Mr. F. Strassmann

Place: Munich

Date: 16.06.2011

1.3 Responsibilities of the operator

Repair requirements

Repair of the P15 is only permitted by the MovieTech AG or authorized contract partners.

Disposal

P15 should not be disposed of in domestic waste. It must be disposed of at a collection site (please check with your municipality) or through your dealer/manufacturer.

The recipient address is given on the product label. This provides for an environmental friendly disposal.

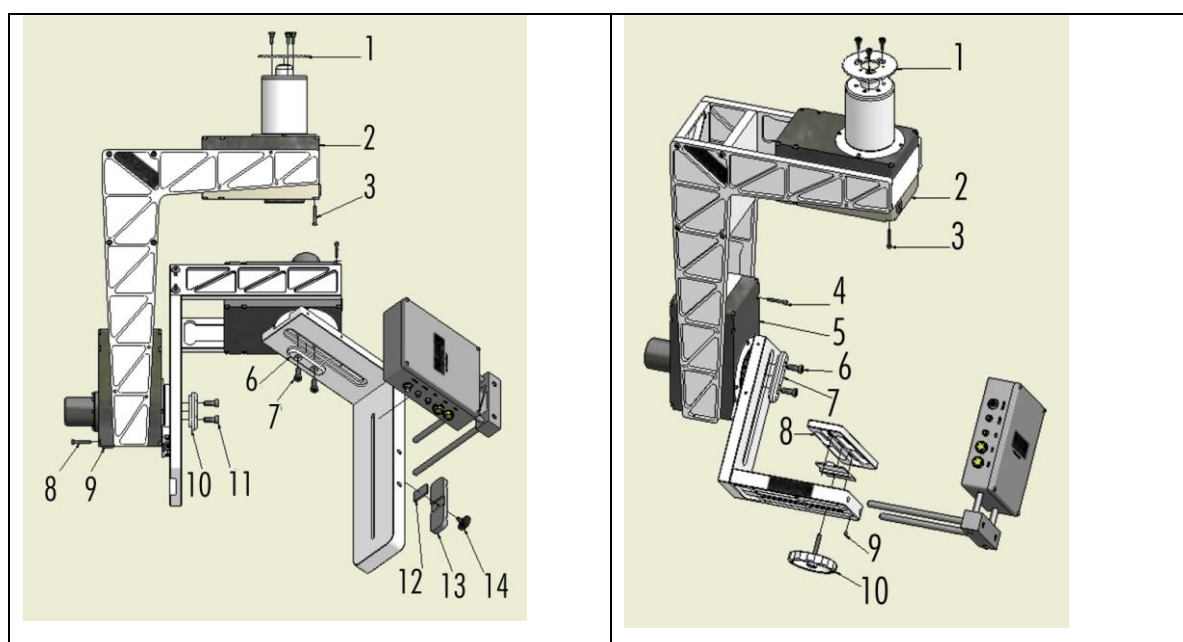
Care

It is recommended to clean P15 with a damp, clean cloth when dirty. Avoid any caustic or corrosive cleaning agents.

1.4 Exploded drawing with numbering

Note Use the indicated numbers to order any spare parts!

P15



3- axis version

2-axis version

1.5 External interfaces

P15 may be mounted hanging or standing (upside down) at a sufficiently stable carrier unit suitable for the load (crane or dolly).

P15 is equipped with a euro mount adapter (80mm outer diameter) for attachment to film devices such as dollies or camera cranes.

A Mitchell adapter is optionally available.

1.6 Legal Notice

The manufacturer's specified limit values must be strictly adhered to. Any excess should be avoided under all circumstances.

In case of accidents due to negligence or abusive use, the manufacturer will not be held liable for any damage or injuries. The assembly and disassembly sequence specified in the user manual must be observed.

Use exclusively original parts for the product's maintenance.

Accessories of other manufacturer, may limit neither the use nor the safe use of P15!

The people entrusted to operate P15, must have read and understood the original user manual of the manufacturer. In case of questions regarding the safe use, please contact the manufacturer. Contact details may be found among other things on the CE marking on the P15 touch panel.

Service life of the equipment:

Service life span is limited by material wear and tear. Therefore, service life depends on frequency of use and environmental conditions, to which P15 is exposed.

2. User manual

Thank you for choosing P15, we are thankful for your confidence.
P15 allows gliding camera movements in horizontal and vertical directions.
We wish you much joy and success with your new ABC products P15!

Your P15 has the following main features:

- quiet propulsion system
- direct access to programming
- sliders for data, thus 360° swing radius on all axes
- Short assembly and disassembly times

Read this user manual carefully before you use your new equipment for the first time. It contains all the information you need to know on the unit operation, so that you avoid personal injury and property damage.



Carefully observe all safety instructions in this user manual.

Keep this user manual carefully. Give this user manual to the new owner, if you sell or otherwise leave the unit.


Inform more users on the necessity of reading and understanding the user manual before the first use.




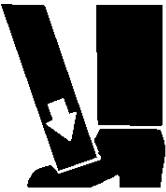


2.1 To understand the user manual correctly

2.1.1 Marking on the unit

	CE mark: This mark means that your equipment meets the safety requirements of all applicable EU directives
	Dustbin: This sign means that you must dispose of the unit only at a local collection site

2.1.2 Markings in this user manual

Marking	Meaning
	Draws your attention on the handling and effect of safety information.

 WARNING	<p>Makes you aware of a dangerous situation that can cause you significant injury or death, if not avoided.</p>
 CAUTION	<p>Makes you aware of a dangerous situation that can cause you mild to moderate injury, if not avoided.</p>
NOTE	<p>Makes you aware of potential property damage and other important information in connection with your equipment.</p>
 Foot protection	<p>Safety shoes: Mandatory sign according to ANSI (according to Z 535.3 - 2007) Meaning: Foot protection</p>
 Fall down / drop	<p>Fall down/drop: Falling down Warning sign according to ANSI (according to Z 535.3 - 2007) Meaning: Falling down / downward movement – danger to feet</p>
 bruise / crush	 Danger of Crushing <p>Bruise/ crush: Crushing Warning sign according to ANSI (according to Z 535.3 - 2007) Meaning: Risk of crushing for hands</p>

2.2 Service address

MovieTech AG

Martin-Kollar-Str. 9

D-81829 Munich

E-mail: info@movietech.de

www.movietech.de

Tel.: +49 (0) 89 43 68 91 3

3. Safety precautions

3.1 General safety precautions - manufacturer

- Before commissioning, ensure that you have read and understood the user manual.
- Do not leave the assembled remote head unattended. Secure against unauthorized use.
- The manufacturer's specified limit values must be strictly adhered to. Any excess should be avoided under all circumstances.
- The remote head may not be assembled under the influence of alcohol, drugs or other narcotics.
- Only qualified persons may be assigned with the assembly and disassembly and operation of the remote head. If necessary, the assignment must be stated in writing.
- Beware of possible bruising during assembly and disassembly and during operation (please see chapter structure and special warnings for each operating phase). Warning labels on the product and the manual must be observed!
- Ensure and guarantee the safe fixing of a camera on the remote head before each use. Use additional straps for safe fixing.
- Electrical equipment like monitors, must always be protected against moisture and humidity.
- Never move the remote head mechanically by hand when switched on!

3.2 General safety precautions - Use

- Follow the instructions on the use of maximum 25 kg camera weight in the 2-axis operation, 15kg camera weight in the 3-axis operation. Note warnings on the unit, special instructions on stability and safe use.
- Do not leave the assembled P15 unattended. Secure against unauthorized use.
- Because of the danger of a lightning strike, adjust the operation when a storm approaches.
- P15 may be used at an ambient temperature of -5 - +40°C.
- Do not assemble and disassemble, if the maximal permissible wind velocity exceeds 50 km/h.
- P15 is suited for studio and limited outdoor use. Avoid installing in a sandy, dusty, wet and salty environment.
- Avoid dashing the remote heads against any objects and obstacles, because of possible damages to materials and the drive. Damaged parts, above all safety-related parts, must be replaced by the manufacturer.

3.3 General safety precautions - check

- Before each use, safety must be checked during operation by visual and functional testing (according to DIN15999)
- In particular, pay attention to the following criteria
 - unusual noises during movement,
 - deformations (e.g. bending, twisting),
 - damage (e.g. cracks, corrosion),
 - missing parts (e.g. retaining pins, fasteners)
 - defective clamp functions of the adjustment mechanisms
 - defective cables
- In case of form changes or damages, contact the manufacturer!
- Please observe all other safety instructions in the following chapters!

3.4 Intended use of P15

P15 may only be used according to its “**intended use**”. P15 is designed for horizontal and vertical camera movements around the pivot point of the middle section. Therefore, the camera thereby must weigh between 0.5 and 25kg (15kg in the 3-axis operation). Balancing the camera on all three axes is required before each use to avoid damage to the drive units.

3.5 Personnel requirements

The operator of P15 should be able to control both the camera picture and the P15 radius of action. The operation of P15 must be always assessed in terms of the safety-related aspects. The responsibility for safe operation lies with the user. Distances between the camera and objects must always be assessed properly in terms of safety to avoid accidents and damages. You must assume a responsible approach to the product in the respective environment. The user must familiarize himself with and understand the safety-related aspects of the operation using the user manual.

General information for safety at work:



Betreten der Fläche
verboten

In operation, the P15 entails a risk to dash the head of an actor.

Within the P15 radius of action, only the access to the user, when mounting the camera, is allowed! During the operation of P15, the radius of action should be kept free.

Standing or sitting underneath an extension arm with a remote head P15 assembled thereon is not allowed for safety reasons!

Entering a prohibited area

3.6 Safety-related environmental conditions

The operation of P15 is suitable for the following environmental conditions:

- In-studio operation and limited outdoor operation.
- Avoid installing in a sandy, dusty, salty and wet environment!
- Avoid operation under heavy rain, snowfall and in a strong windy or gusty environment !
- The base should be even and stable for the necessary total weight loading of P15.
- Always keep in mind that the pressure on a crane, dolly, or individual tripod legs under load – if P15 is loaded increases on the ground many times.
- Avoid installing P15 on snow, sand and swampy grounds.

3.7 Possible misuse

The following applications are not permitted for the P15:

- Using cameras weighting over 25kg/ 2-axis (15kg/ 3-axis)
- Using with untared and insecure cameras
- Using P15 for holding lighting systems
- Using P15 in sandy conditions
- Using under water
- Assembly and taring of the camera with the unit is turned on
- Adjusting the drive modules with the unit turned on
- Connecting and disconnecting individual cables with the unit turned on
- Adjusting the drive modules with the unit turned on
- The touch module must be protected against humidity

3.8 Residual hazards and protective measures

Transport / Storage:

- When transporting the P15, make sure that no point loads rest on single parts.
- The remote head should be stored in a dry area.
- The remote head may not be stored in direct sunlight.
- The remote head may not be transported or shipped without proper packaging.
- The drive modules of the remote head may not be adjusted under load. Loads are always adjusted prior to disassembly according to instructions.
- All accessories should be disassembled for transport

4. Technical information

4.1 Technical data





Remote head P15 Digital BUS

Activation:	RS485
Motors:	DC-Motor 24V
Power supply:	24V DC
Touch panel:	LCD 4.3"TFT-Display
Velocity:	Vmax. 360° Pan 2-Axle ca. 4, 5 Sec.
Dead weight:	2-Axle Operation 12kg 3-Axle Operation 20kg
Connection:	Euro mount taps 80mm (Optional: Mitchell adapter)
Frame dimensions:	2-ply frame 520x380mm
Bearing load:	Bearing load 2-axis 25kg Bearing load 3-axis 15kg

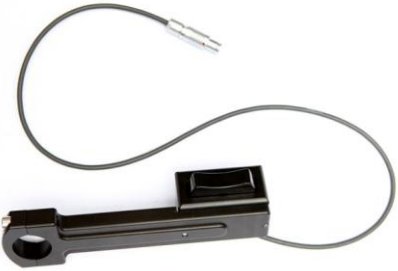

5. Structure and operation

5.1 Main components


	<p>Remote head frame 2-axis</p>
	<p>Basic bracket 2-axis with mounting plate, 2x 3/8" bolts</p>
	<p>Drive module pan axis with mounting pins and lock washer</p> 
	<p>Drive module tilt axis</p>

	<p>Touch screen with control unit with emergency stop button, , power on/off, toggle switch , fastening system</p>
	<p>One-man operation joy stick module</p>
	<p>One-man operation focus/zoom module</p>
	<p>Main control cable 20m</p>

	<p>Connection cable modules 2 lengths for 2-axis version 3 lengths 3-axis version</p>
	<p>Module box zoom/ focus/ power/ video</p>
	<p>Roll axis unit</p>

	<p>Roll axis control</p>
	<p>Case 2/3 axis for P15</p>

5.2 Optional accessories

	<p>Art. No. M2594 Monitor 7" TFT LCD7/HDMI Marshall 800x480 incl. battery and charger</p> <p>Subjects to technical changes, article may differ from image</p>

5.3 Mounting

Please open the transport case with caution. Use no sharp tools such as cutters, scissors etc that may cause damage to the frame parts or the cable.

Please control the contents delivered with the delivery slip and list. For content list see page 5,6

The contents delivered include only the items illustrated!

In case of missing parts, inform the manufacturer.

5.3.1 Mounting P15 2 axes – Base frame with drive modules



CAUTION

- The socket (mount) of the remote head has an outer diameter of 80mm.
- Make sure that the Euro mount connection of P15 is inserted vertically into the designated socket 80mm clamping and that this is securely closed!
- Make sure that the crane or dolly to be operated with the P15 is suitable for the given load!
- Secure a mounted camera always with additional security straps



Illustration **01**

The Pan-module may move in the frame



Illustration **02**

Position the pan-module in the frame and fasten the 4 Allen screws with a wrench of size 3



Illustration **03**

Please leave some room for the assembly of the connection cable



Illustration **04**

Tilt module may be moved in height.



Illustration **05**
Fasten the 4
Allen screws with
a key of size 3



Illustration **06**
Mounting of the
basic clamp Tilt
with clamp and 2
x Allen screws
M8. Allen wrench
of size 5



HINT

Do not remove the screwed stopper of the frame for safety reasons to prevent the sliding of unsecured drive module!



Illustration **07**
The basic clamp
tilt, is adjustable in
height for the taring
of the camera

Tighten the bolts
securely after
positioning

Photo clamp!!!

Illustration **08**
Mounting of the
basic
bracket tilt
with clamp
and 2 x Allen
screws M 8.
Allen wrench
of size 3.

5.3.2 Mounting P15 2 Axis – Mounting of camera plate



illustration **09**
Install the mounting
plate.

A: Lay the
connection **plate** in
the slot

B: Lay the base
plate

C: Screw star bolts
from the bottom



Illustration **10**
Complete
assembly
illustration

Base **plate** is
moved
horizontally
and vertically

Note: The contents delivered include 2x 3/8"bolts for the mounting of a camera base plate.

5.3.3 Mounting the power cable BUS for 2-axis



Illustration 11
Mount power cable PAN-TILT
Lead the cable clamp on the frame part



Illustration 12
The connection sockets of the tilt module are located on the bottom side of the module

5.3.4 Mounting of zoom/focus module for 2-axis operation

The zoom/focus module allows following functions for the use of one-man operation or control panel:

- Zoom function of an objective with integrated motor
- Focus function of an objective with integrated motor
- Rec. on/off of an objective with zoom function
- Ret. function of angle camera moves and shows the last seconds of footage
- Power cam over 12V out – **caution!** (output voltage is 15V /5A)
- Tally function (optional sensor required)

Caution – For the use of the module and a broadcast objective with integrated motors, a cable set for the manufacturer Canon, Canon digital, Fujinon, Angenieux is required!

Art. No. 8470-2700 Canon standard cable set consisting of zoom cable XPin/focus cable XPin

Art. No. 8470-2900 Canon digital cable set consisting of XPin/focus cable XPin

Art. No. 8470-2800 Fujinon standard cable set consisting of XPin/focus cable XPin

Art. No. 8470-2600 Angenieux standard cable consisting of XPin/focus cable XPin



Illustration 13
Insert module with connecting rods in the tilt module

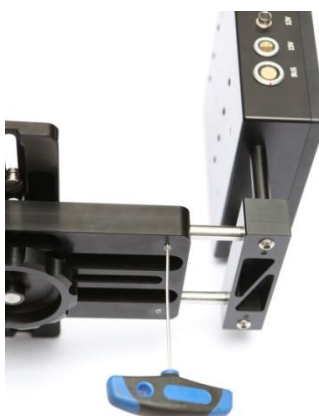


Illustration 14
Module may be set at variable positions
Fasten clamping bolts with an Allen wrench of size 2

Connect the zoom/focus module over a BUS cable with the tilt axis!

See also display of cable connections Page 39

5.3.5 Mounting P15 3-axes

To mount the roll axis, the clamp of the tilt-axis in the 2-axis operation must be removed.

The assembly pieces (1) are identical and can be applied for both axle variants!



Illustration **15**
Bring the
module roll in
position for
mounting



Illustration **16**
Module may be
set at variable
positions. Fasten
the bolts with an
Allen wrench of
xx size



CAUTION

Position the roll axis unit in such a way to ensure free rotation of the tilt and roll axes!

NOTE

Determine precise positioning of the weighing with the mounted camera!
See also mounting of the camera page 25.
The maximum camera additional load is limited in the 3-axis operation to 15kg!

5.3.6 Mounting the power cable bus for 3-axis

See Schematic diagram Cable connections page 40

When connecting the BUS connection cable give priority to pan and tilt as in point 5.3.2 Mounting the power cable BUS for 2-axis (Page 22).

Additionally the following BUS cables are connected:

Tilt axis – roll axis

Roll axis – zoom box

5.3.7 Mounting the zoom/focus module for 3-axis operation



Illustration 17
Connect the
bus-cable tilt
connection (1)
with the roll
connection



Illustration 18
Mounting
illustration for
zoom/focus
module mounting
prepared.

When the
zoom/focus
module is not in
use, no cable
connection (1) is
required



Illustration 19
Connect the
bus-cable tilt
connection (1)
with the roll
connection



Illustration 20
Push the module
in the side holes.
Put on clamp (1)

For the assembly of the zoom/focus box first insert the filler piece (1) in the bottom bracket (see Illustration 10). Then insert the connecting rods of the zoom/focus box in the side holes of L-bracket. Tighten with an enclosed bolt. The bracket is fastened by the clamping effect of the filler piece. To tare the rotation of the roll axis, you may change the position of the box.



CAUTION

Always tighten fixing bolt securely to clamp the box, in order to prevent sliding of the zoom/focus box out of the guide way!



Illustration **21**

- A) Insert clamp in the base plate
- (B) Push zoom/focus module in the holes
- (C) Tighten with countering screw



Illustration **22**

Connect bus cable on roll axis and zoom/focus module

5.3.8 Mounting of the camera

To mount camera in the 2 and 3 axis version, two 3/8"bolts are included in the contents delivered!



Caution!

Mounted accessories such as cameras should be additionally secured by professional security systems such as appropriate steel ropes or straps from falling!

Additional safety information on page 41!

The remote head must be electrically switched off for the levelling procedure!
The axes of the remote heads should never be moved under voltage, as this may damage the transmissions or motors!

Make sure that the bracket of the tilt-axis does not touch the base frame when rotating.
Perform test at low speed



Illustration **23**

Positioning of the tilt axis

Position the camera so that a levelled position in the tilt axis is created and the camera does not turn up or down.

The adjustment can be made via the camera base plate or L-bracker (1).

The height adjustment of the tilt axis in the base frame allows you to customize the frame geometry of the camera used.

Small camera – compact volume

Note

The end stop positions of each axis can be programmed at the controller (see page 37, menu 9) if the axis positioning could lead to contact with the base frame.

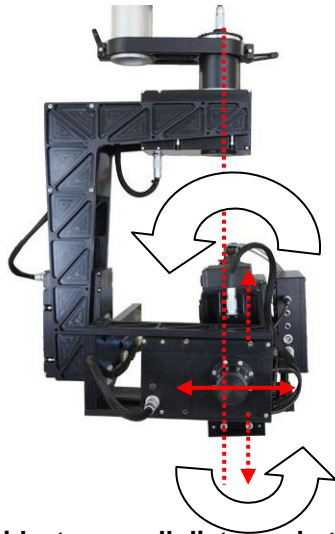


Illustration **24**

Positioning of the roll axis

Position the camera so that a levelled position of the roll axis is created and the camera does not turn left or right.

Determine the necessary distance to the frame by manual rotation.

The counterbalance may be achieved by adjusting the zoom/focus module



Caution!

Avoid a too small distance between the camera and all frame parts!

Perform slow motion tests of the axis to determine spacing! Move the axes by hand only, when the unit is switched off!



Illustration **25**

Always install the lock washer over the euro mount tap to secure the remote head



Illustration **26**

Place the casher according to the hole pattern, press down and twist counter-clockwise until it stops.

5.3.9 Attaching main control cable at euro taps



Illustration **27**

Main control cable Art. No. 8470-1100

Length 20 m

Connector designation Lemo Pol



Illustration **28**

Bring cable in position and mind the colored marking

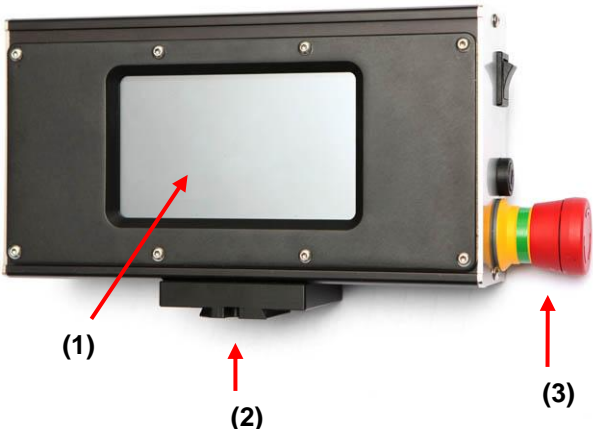
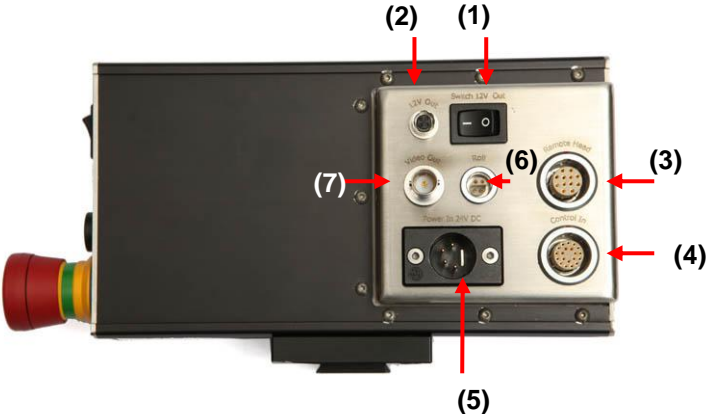


Illustration **29**

Insert main control cable until it stop

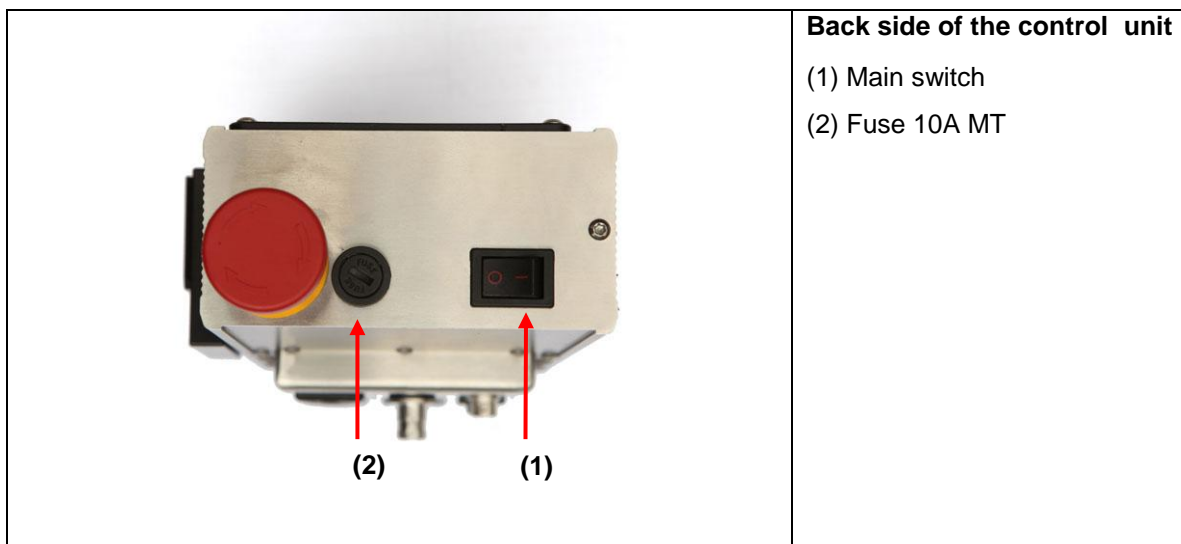
To remove, pull up the sleeve of the plug

5.4 Control unit - Touch panel

	<p>Front side</p> <p>Control unit with touch screen</p> <p>(1) Touch screen (2) Adapter for attachment (3) Emergency stop button</p>
	<p>Back side of control unit</p> <p>(1) Switch for 12V Out (not main) (2) 12V Out Hirose 4 Pin w (3) Remote IN 12 Pin (4) Control In 20 Pin (5) Power IN 24V DC (6) Roll IN 4Pin Hirose (7) Video out BNC</p>

NOTE: Emergency stop: Press the red emergency stop button inward in case of emergency – hazardous situation.
When the green ring is no longer visible, the emergency stop is activated!
When the green ring is visible, the emergency stop is not activated!

Avoid any contact of the LCD surface with hard objects!



NOTE Fuse: Disconnect the equipment from the power. The cover of the twist lock may be removed with a small screwdriver counter clockwise. Replace the fuse 10A MT if defective.

NOTE Note the following points to protect the control unit and avoid any damages:

- Direct sunlight
- Humidity /splashing water
- Extreme cold
- Dust /sand

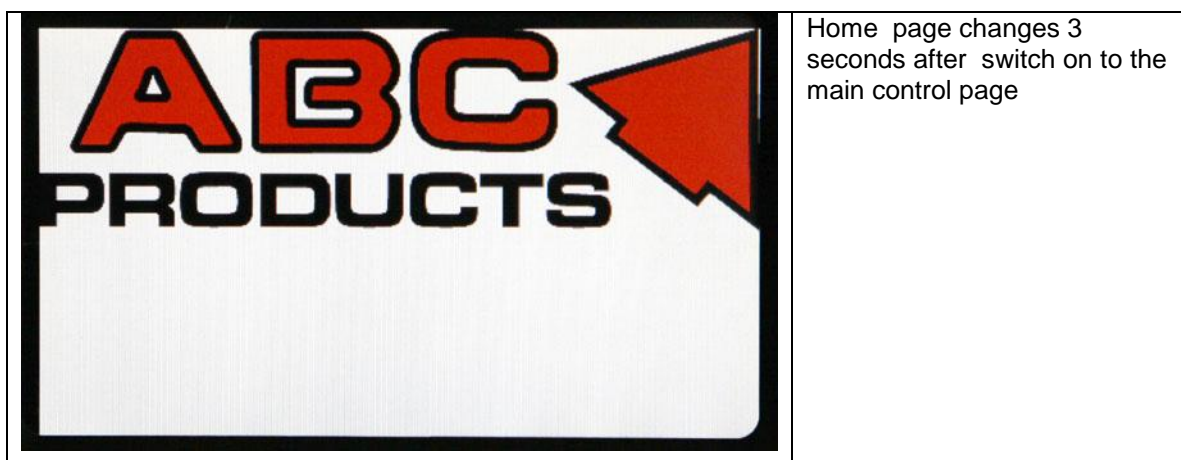
If protective coatings against humidity or dust are used, make sure that the device heat can escape sufficiently to prevent overheating of the electronics!

5.4.1 Control unit - touch panel operation

Operation: The software of the remote head P15 features 7 menu pages

Home page: after switch on, the ABC-products logo appears

Main panel



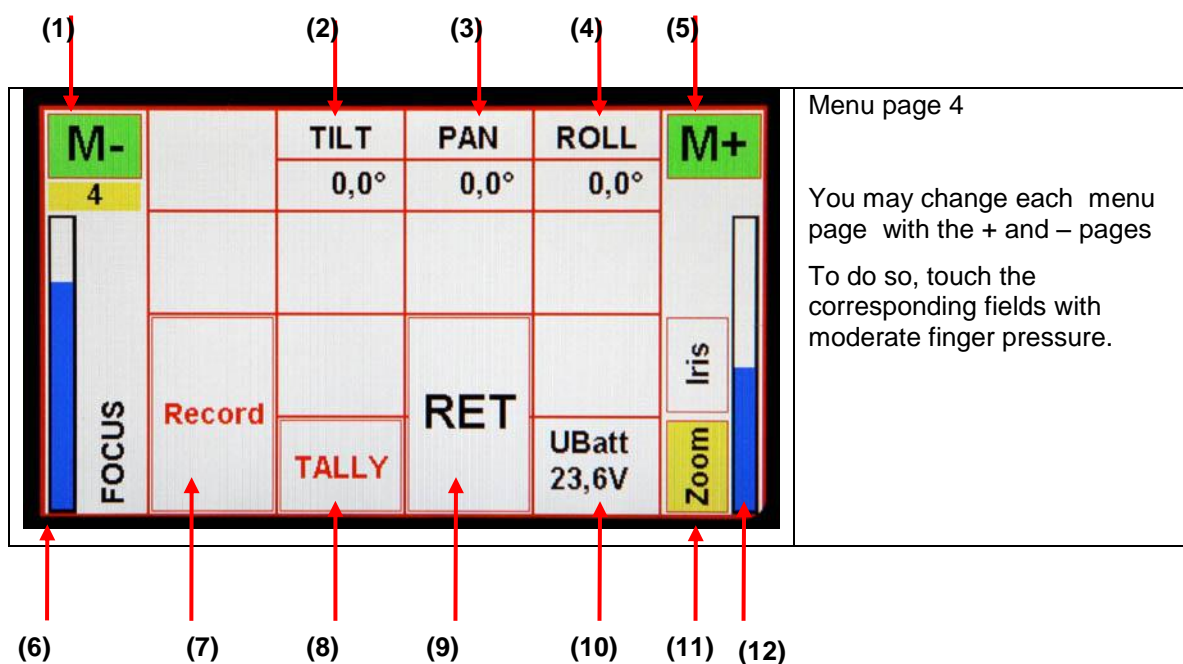
NOTE Menu pages are marked with the following numbers:

4;5;6;7;8;9;12

The record key may be pressed on all 12 following menu pages!

If the necessary power supply (cable connection to power supply or V-mount adapter) is 24V DC, switch on the equipment by the main switch on the side of the case.

Menu page 4 Basis adjustment of record and return



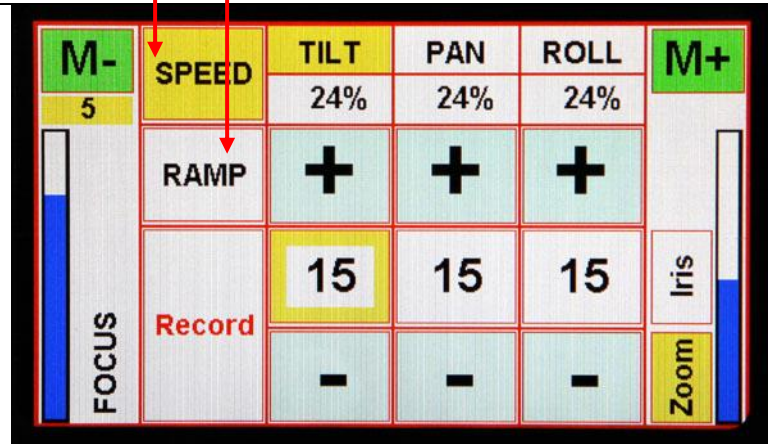
- (1) Scroll up menu page
- (2) As-built position of TILT axis at degrees °
- (3) As-built position of PAN axis at degrees °
- (4) As-built position of ROLL axis at degrees °
- (5) Scroll down menu page
- (6) Focus beam As-built position of the focus (possible only to objectives with inbuilt motors)
- (7) When pressing Record the record function is switched on (red light) / off (white light)
- (8) Tally lights in the Rec mode (only in connection with zoom /focus module and sensor set mounted on the red light of the camera.
- (9) RET connection function of the camera is triggered
- (10) Voltage indication current voltage state
- (11) Beam zoom-position (only in connection with external motors)
- (12) Beam iris-position (only in connection with external motors)

Menu page 5 Adjustment of speed and ramp for the tilt/pan/roll function

Menu page 5 offers the ability to adjust the speed of each axis. Ramp value may adjust how hard or soft each axis will start and stop.

(1) (2) (3) (4) (5)

↓ ↓ ↓ ↓ ↓



Menu page 5

You may change each menu page with the + and – pages

To do so, touch the corresponding fields with moderate finger pressure.

- (1) The SPEED function for axis velocities is turns “yellow when activated
- (2) The RAMP function is activated with pressure for start and stop (hard or soft)
+ for increasing value – for decreasing value (at the same time value in %)
- (3) Data for TILT speed (RAMP)
- (4) Data for PAN speed (RAMP)
- (5) Data for ROLL speed (RAMP)

Menu page 6 Adjustment of speed and smoothness for the zoom shot/focus/iris function

Menu page 6 offers the ability to adjust the action velocity of zoom and focus or also iris (ext. motors). Ramp value may adjust how hard or soft these functions must be.

(1) (2) (3) (4) (5)

↓ ↓ ↓ ↓ ↓

M-	SPEED	ZOOM	FOCUS	IRIS	M+
6	40%	40%	40%	40%	
FOCUS	Smooth	+	+	+	Zoom
	Record	6	6	6	
	-	-	-		

Menu page 6

Adjustment of the velocity
“speed” of zoom/focus/iris

Or handling “smoothness”(hard
or soft) of zoom/focus/iris.

- (1) The SPEED function for zoom/focus/iris turns “yellow” when activated and “white” when not activated
- (2) The SMOOTH function for hard or soft driving of zoom/focus/iris turns “yellow” when activated and “white” when not activated
- + for increasing value – for decreasing value (at the same time value in %)
- (3) Data for ZOOM smoothness (speed)
- (4) Data for FOCUS smoothness (speed)
- (5) Data for IRIS smoothness (speed) (only with external motors)

Menu page 7 Adjustment of Go Home function for all axes at the same time or for one axis

Menu page 7 offers the ability to program a defined position for each one or all axes, which may start linearly and repeatedly at the push of a button.

NOTE To save the Go Home function, the end stops tilt high and tilt low (menu page 9) of each axis must be deleted!

(1) (2) (3a/b) (4a/b) (5a/b)

↓ ↓ ↓ ↓ ↓

M-	Set All To Zero	TILT	PAN	ROLL	M+
7		0,0°	0,0°	0,0°	
FOCUS	All Go Home	Tilt Home	Pan Home	Roll Home	Iris
		Tilt ZERO	Pan ZERO	Roll ZERO	
	Record	TALLY	RET	UBatt 23,7V	
					Zoom

Menu page 7

Programming of All Go Home function of TILT/PAN/ROLL

All axes

or

Single axle

Tilt home

Pan home

Roll home

(1) Set all to zero

The current position of all axes is saved at the push of a button and the degree indication "0" °
To save keep button pressed for min. 2-3 seconds.

(2) All Go Home

At the push of a button the saved position starts automatically on direct way
No programmed cornering or the like possible

(3a) Tilt zero

At the push of a button the current position of the TILT axle is saved with degree indication "0" °

(3b) Tilt Home

At the push of a button the saved TILT position starts again automatically and directly after the procedure

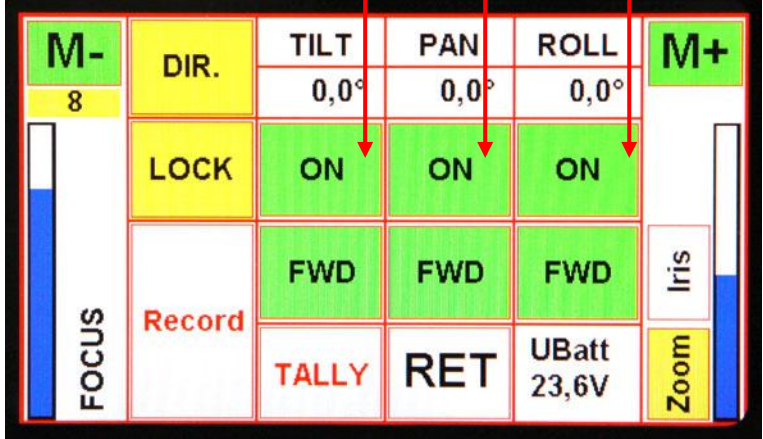
Same function for each PAN (4a/b) and roll (5a/b) axes

Menu page 8 Adjustment of drive axes lock and change of direction of each axis

Menu page 8 offers the ability to proceed with only one axis, while any unneeded axes are locked. Useful for example in very fast motion, with programmed limit stops or trips that run very precise in only one axis.

(1) (2) (3)

↓ ↓ ↓



Menu Page 8

Lock with LOCK each
TILT/PAN/ROLL drive axes

All axes

or

Change of direction
FWD/REV for TILT/PAN/Roll

(1) TILT

ON – axis is activated /OFF- axis is deactivated
FWD /REV change of direction
for TILT axis

(2) PAN

ON – axis is activated /OFF- axis is deactivated
FWD /REV change of direction for PAN axis

(3) ROLL

ON – axis is activated /OFF- axis is de activated
FWD /REV change of direction for ROLL axis

Menu page 9 Limiting the travel by programming two end positions for each axis

Menu page 9 offers the ability to configure the movement window of the remote heads.

Therefore, any overrunning of the planned recording area should be avoided.

(1) (2) (3)
↓ ↓ ↓

M-	High Limit	TILT	PAN	ROLL	M+
9		0,0°	0,0°	0,0°	
	Low Limit	Tilt HIGH	Pan HIGH	Roll HIGH	
		Tilt Clear	Pan Clear	Roll Clear	
	Record	Tilt LOW	Pan LOW	Roll LOW	
FOCUS					Iris
					Zoom

Menu page 8

Limits the travel of each drive axis through high /low limits for TILT/PAN/Roll

(1) When pressing the Tilt Clear function, the current position is set to "0°"

Start upper endpoint, press Tilt HIGH– save position (press for 3 sec.)

Start lower endpoint, press Tilt LOW– save position (press for 3 sec.)

Travel is saved and limited!

Same function for (2) PAN and (3) ROLL

NOTE To save the **Go Home Function (menu page 7)** the end stops Tilt high and Tilt low of each axis must be deleted!

Only two end final positions may be saved for each axis.


Caution! Always start slowly any saved end positions for control purposes, to check the saved procedure and to avoid damage to camera! If the saves procedure has not been programmed, the remote head moves beyond the planned end position.

If necessary, repeat saved procedure! Again, by a slow process check end position.


Menu page 12 Adjusting the joystick window

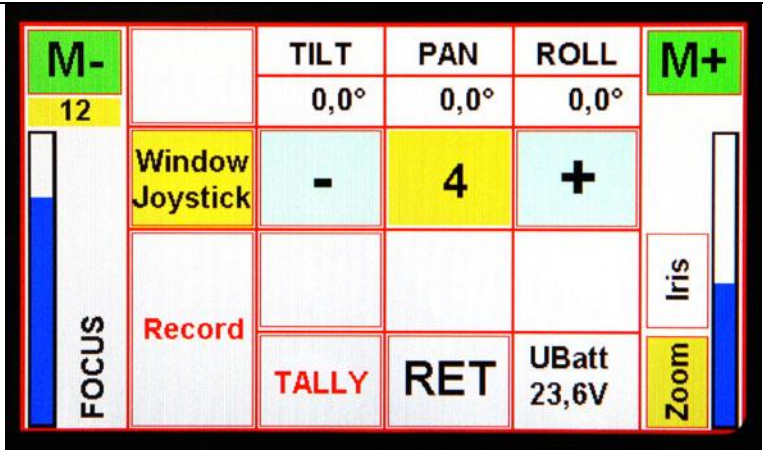
Menu page 12 offers the ability to adjust the size of the joystick window.

(1)



(2)



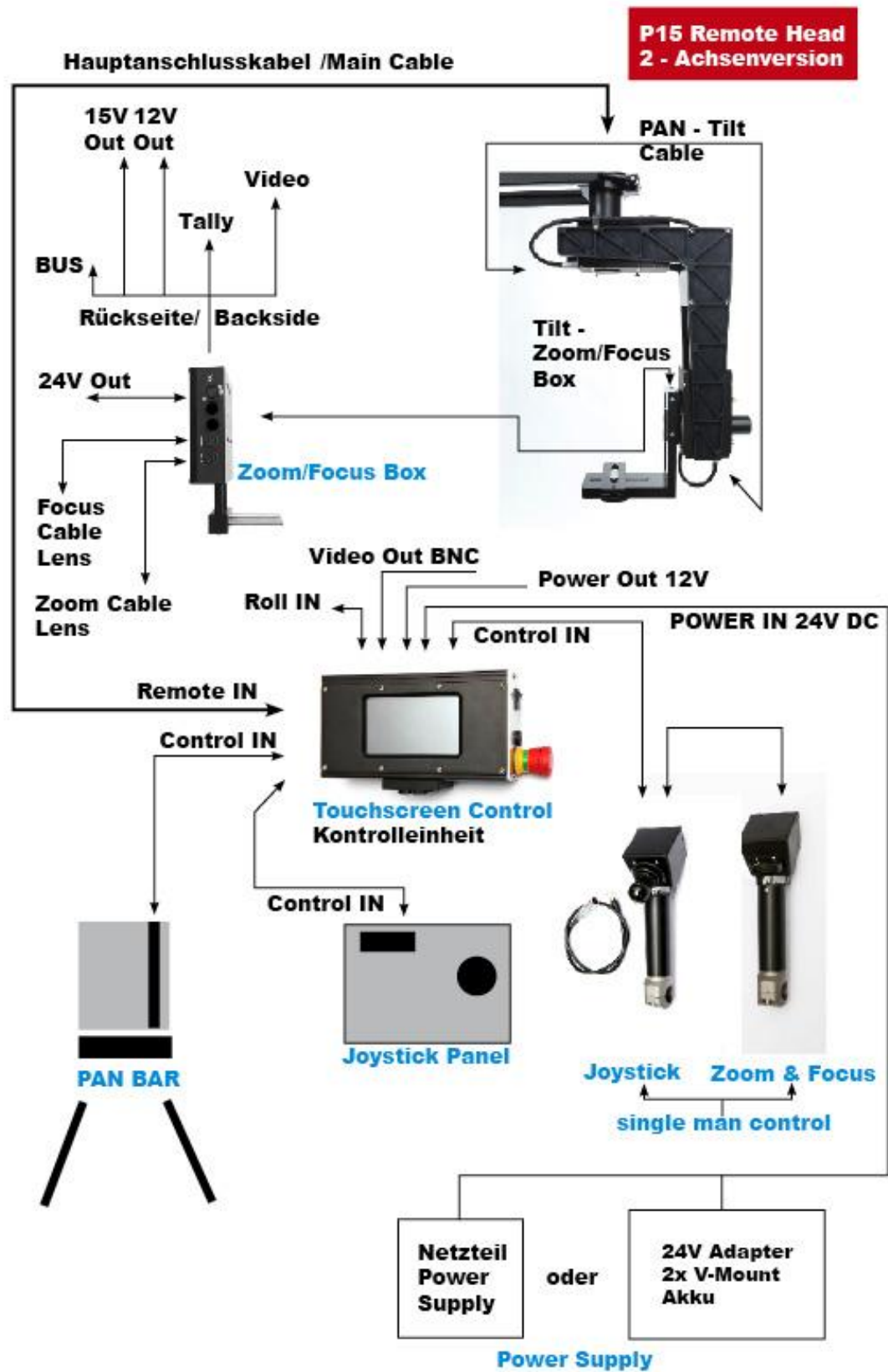


Menu page 12

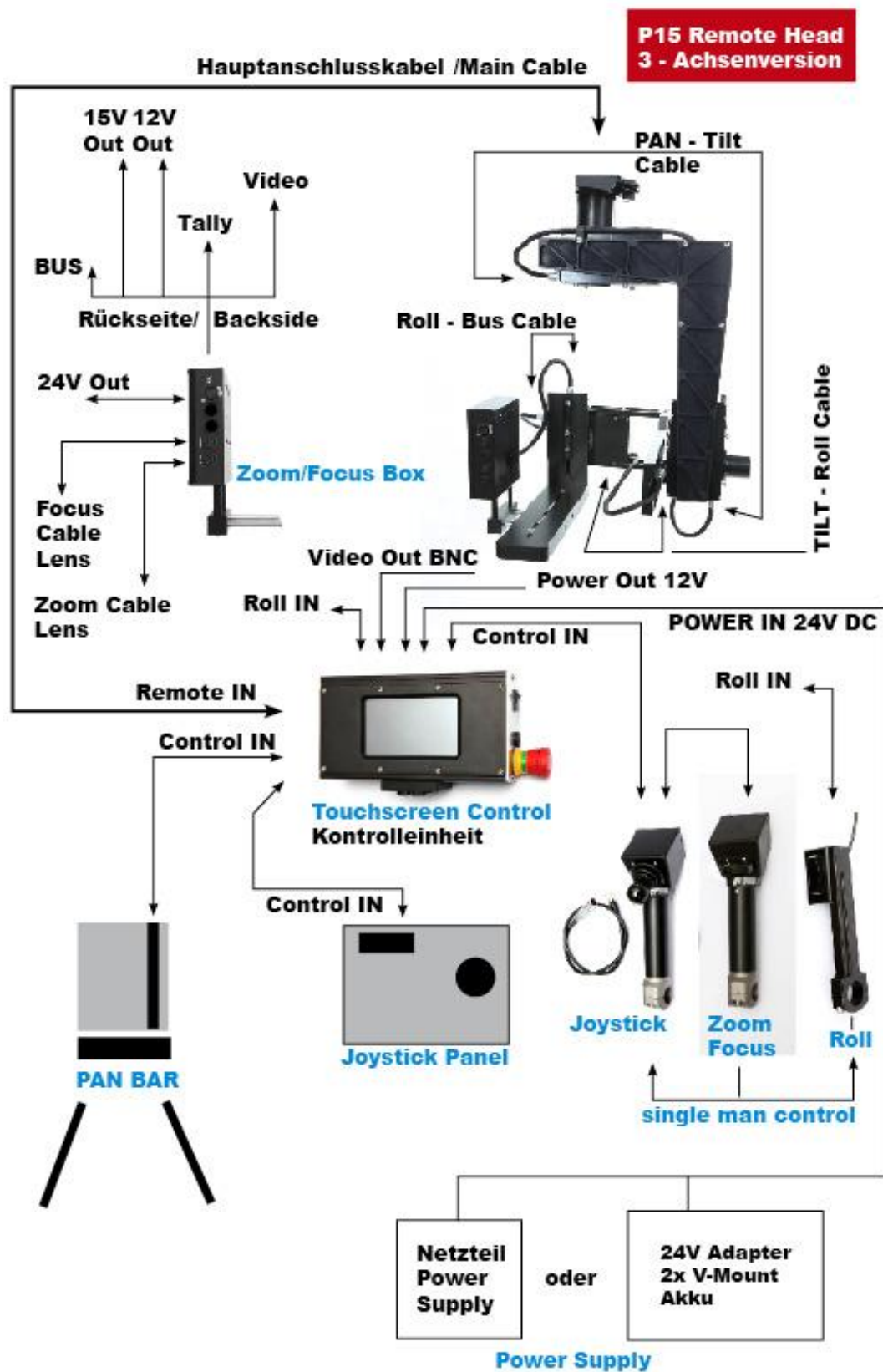
Adjusting the joystick window
 (1) Minimizing the window -
 (2) Maximizing the window +

The smaller the value, the faster the remote head responds to the deflection movement

5.5 Schematic diagram - Connection plan - 2-axis version



5.6 Schematic diagram - Connection plan - 3- axis version



6. Care of the remote heads

To clean the remote head, frame and drive, we recommend a moderately strong air shower to remove dirt particles. Clean with a microfiber cloth damp with detergent.

NOTE **Pack the remote head in the system case only when dry.**

7. General notes and safety information on operation

User:

The user manual must be read and understood by any user before commissioning the equipment

Before operating the equipment, all electrical and mechanical parts such as cable, plugs, modules, fixed and removable parts, screws, mounting plates, clamps and the like must be checked for proper condition..

The environmental condition must be suitable for the unit operation.

Avoid operation with storm, water, humidity, excessive sunlight, extreme cold, etc.

Mains used for power supply must be checked for suitability by professionals, if necessary through measurements.

Mounted accessories such as cameras must be additionally secured by professional security systems like suitable steel ropes or straps from falling!

The manufacturer disclaims any liability resulting from improper and non-complying with the equipment regulation handling and from inadequate environmental conditions.

The same applies for any liability resulting from the use of non-system accessories that cause direct or indirect damages during the use of the remote heads.

The warranty is void when using parts not supplied by the manufacturer and have an impact on the equipment.

For repairs and services, you must contact the manufacturer. Any damage resulting from unauthorized interference to the equipment is excluded from liability.

Die MovieTech AG mit Hauptsitz in München und Tochtergesellschaften in Mailand und Prag produziert und vermarktet als einer der führenden Hersteller Produkte und Lösungen für die Film- und Fernsehindustrie.

Die Produktpalette von MovieTech konzentriert sich auf die Bereiche: Kamerakräne, Dollys, Lichtsysteme, Remote Heads und entsprechendes Zubehör.

Ziel der Movie Tech AG ist die Herstellung von professionellem Filmequipment, das die Arbeit der Anwender am Set oder im Studio wesentlich erleichtert und die Umsetzung der kreativen Ideen ermöglicht.

The MovieTech AG is based in Munich with subsidiaries in Milan and Prague. As one of the leading manufacturers in its field, it produces and markets products and solutions for the film industry.

The MovieTech product range concentrates on the areas of: Camera cranes, dollies, remote heads and corresponding accessories, as well as studio and stage techniques.

The MovieTech mission is the manufacture of professional film equipment that not simplifies the work of those using it on the set or in the studio, but also facilitates the implementation of creative ideas.



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