Stabilized Remote Head

SRH-3 & SRH-360 SUP 3.0

Quick Guide

Date 01.08.2021

Dedicated to these products

KK.0037270	SRH-3 Stabilized Remote Head, No Radio, Set, Standard Joystick
KK.0037271	SRH-3 Stabilized Remote Head, No Radio, Set, Microforce Joystick
KK.0037272	SRH-3 Stabilized Remote Head, No Radio, Set, Broadcast Joystick

Dedicated to these products

KK.0037273	SRH-360 Stabilized Remote Head, No Radio, Set, Standard Joystick
KK.0037275	SRH-360 Stabilized Remote Head, No Radio, Set, Microforce Joystick
KK.0037276	SRH-360 Stabilized Remote Head, No Radio, Set, Broadcast Joystick

1 User Advisory / Application Requirements

The SRH-3 & SRH-360 stabilized remote head and related products should only be used by experienced and trained operators.
This product is not designed for inexperienced users, and must not be used without proper training.

Stabilization of remote heads is an extremely complex and at times difficult task and therefore stabilized remote heads do have their limitations. For example, the remote head will only correct for angular movement and not parallel movement. This means that when the remote head is attached directly to a lift, or to a pole, or structure that is subjected to vertical movement, it cannot compensate for lift as it moves up and down (because that movement is parallel). In order to absorb vertical and parallel movements, the remote head must be mounted on a suitable shock absorber.

Stabilization systems are limited by engine power, as well as their bandwidth or frequency response. Very fast movements required to correct the camera position may not be within system capabilities. This can be seen when using longer lenses.
The use of suitable Iso Dampers devices improves the application.
Mounting a suitable Iso Dampers device between the remote head and the mounting point of the head, will soak up the fast, unwanted movements, leaving the stabilization with unwanted movements that are slower and within the bandwidth of the system.
There are many Iso Damper devices that follow different designs and qualities.
Choosing the right Iso Damper is as important as the stabilized head itself.
Another purpose of Iso Dampers is that they decouple the stabilized remote head from some resonance and flexing of the mounting point.

All gimbal-based stabilized remote heads will always face some kind of drift.
Drift is unwanted movement of the system usually caused by the gyros and the earth's rotation, which can't be measured by the MEMS sensors.
Drift is normally measured in degrees per hour.
The SRH-3 & SRH-360 remote head has a very small amount of drift that would only be noticed while the head is stationary over a long period of time. The average drift can be up to approximately 10° in 30 minutes. Drift can also be caused by a non-calibrated joystick or a loose camera setup, or an Iso Damper that is too soft.

Reduction of flexing or bending of the camera and lens package, and flexing of the remote head attachment are critical. The overall setup needs be as rigid as possible because any flexing can cause the head to vibrate or oscillate. Every attempt to improve the stiffness of the camera setup and the head attachment, and to reduce or eliminate any flexing should be made.

Many different camera and lens packages can be used with the SRH-3 & SRH-360, and there are also many different ways to mount the remote head. As a result, it is not always possible or practical to obtain perfect conditions regarding rigidity and balance. This may cause the load to become unstable and it will then shake and oscillate when the stabilization is active. In these situations, adjustment of the PID parameters will be required. The correct setting of these PID values is crucial for the proper working of the system.

An unbalanced camera setup will place more strain on the motors of the SRH-3 & SRH-360.
The system will need more force to move the load and this will sometimes increase the possibility of the load becoming unstable, and that the remote head may over compensate or shake and oscillate.

Please remember that what the remote head is mounted on, and the manner in which it is mounted, will directly impact on its performance. The total mass of the head and its load are an important consideration when choosing how and where to mount it. This torque will change in direction and amplitude in varying amounts. The more solid the mount, the easier it is for the system to perform well. Sometimes even the leveling linkage on a camera crane will have play or backlash that allows the mounting point to move slightly when loads are reversed. If there is mechanical play between the components in the shock absorber, vibrations of the overall system may occur. Iso Dampers with the appropriate dimensions and hardness should always be used - the system may become too elastic if the Iso Damper used is too soft, causing vibration.

NOTE
Each of these aspects can lead to the motor power of single axis having to be lowered, which will limit the effectiveness of the overall stabilization.

2 For your safety

⚠ Warning
The SRH-3 and SRH-360 stabilized remote heads and related products should only be used by experienced and trained operators. This product is **not** designed for inexperienced users and should not and must not be used without proper training. ARRI recommends that all users of the stabilized remote head read the manual in its entirety prior to use.

How To Use This Manual
All directions are given from a camera operator's point of view.
For example, camera-right side refers to the right side of the camera when standing behind the camera and operating it in a normal fashion.

NOTICE
The product is solely and exclusively available for commercial customers and shall be used by skilled personnel only. Every user should be trained according to ARRI guidelines. Use the product only for the purpose described in this document. Always follow the valid instructions and system requirements for all equipment involved.

Strengthen Your Knowledge and Get Trained
The ARRI Academy courses provide unrivaled insights into the full possibilities of working with ARRI camera systems, camera stabilizer systems, lenses, lights and accessories.
To learn more, please visit http://arri.com/academy.

2.1 Risk Levels and Alert Symbols

Safety warnings, safety alert symbols, and signal words in these instructions indicate different risk levels.

⚠ DANGER
DANGER indicates an imminent hazardous situation which, if not avoided, **will result in** death or serious injury.

⚠ Warning
WARNING indicates a potentially hazardous situation which, if not avoided, **may result in** death or serious injury.

⚠ CAUTION
CAUTION indicates a potentially hazardous situation which, if not avoided, **may result in** minor or moderate injury.

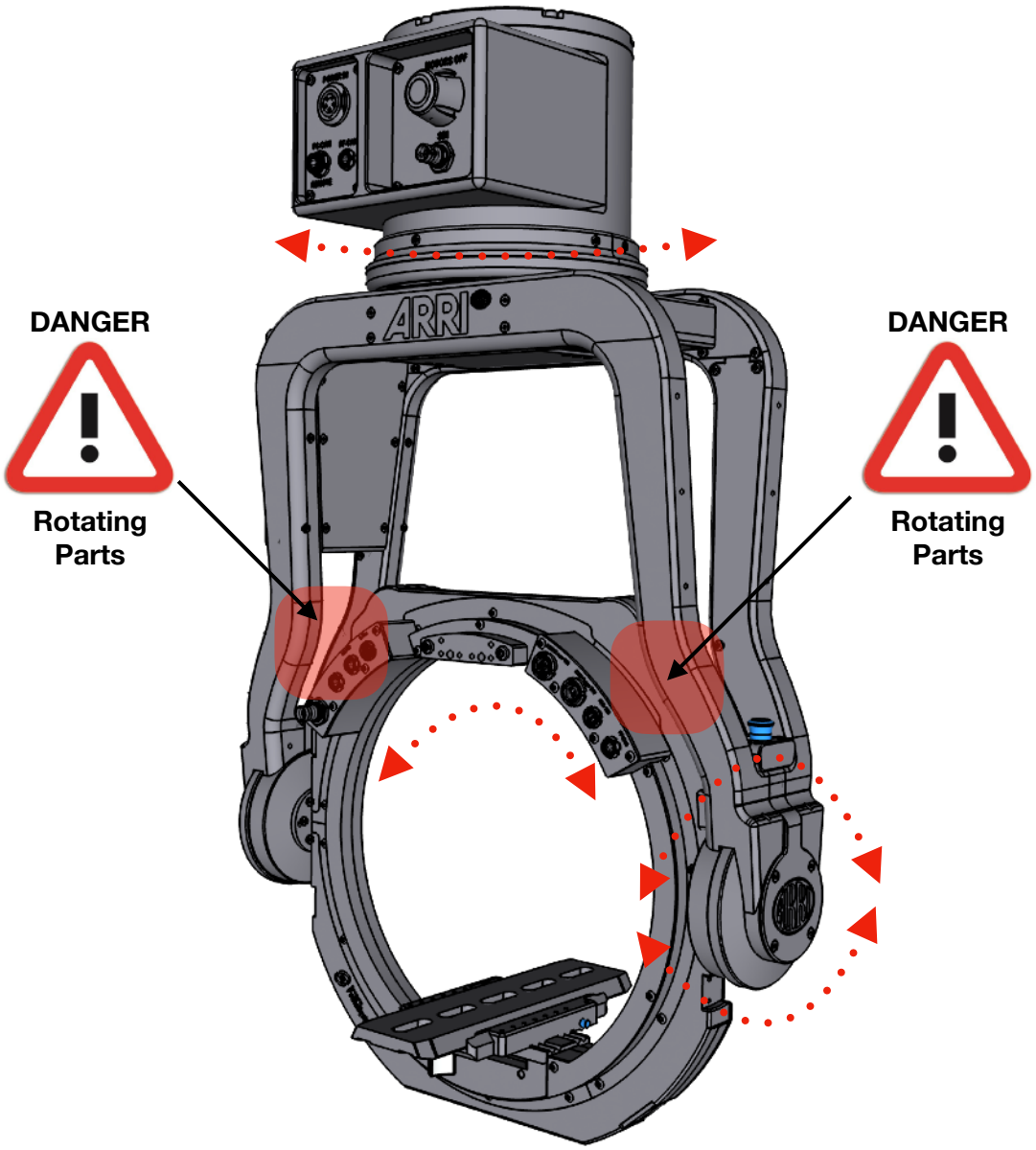
NOTICE
NOTE explains practices not related to physical injury. No safety alert symbol appears with this signal word.

NOTE
Provides additional information to clarify or simplify a procedure.

2.2
Safety Instructions

⚠ DANGER

Pay attention during setup and the entire operation that no fingers or limbs end up between the outer yoke and inner ring.
A high kinetic force can result between the outer and inner ring, depending on the weight and length of the camera.
Serious injuries can result through negligence. If this does happen then, cut off the power supply straight away and seek medical attention if necessary.

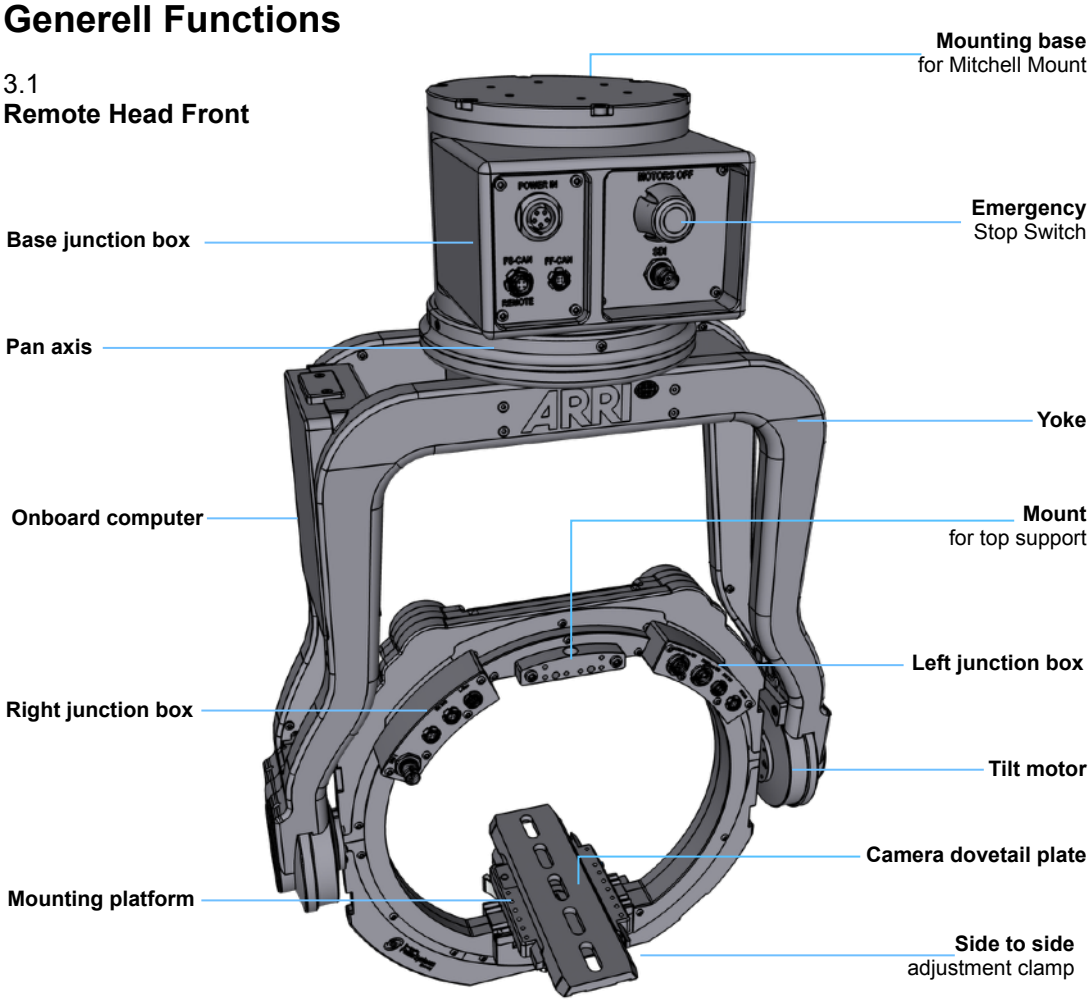


⚠ CAUTION

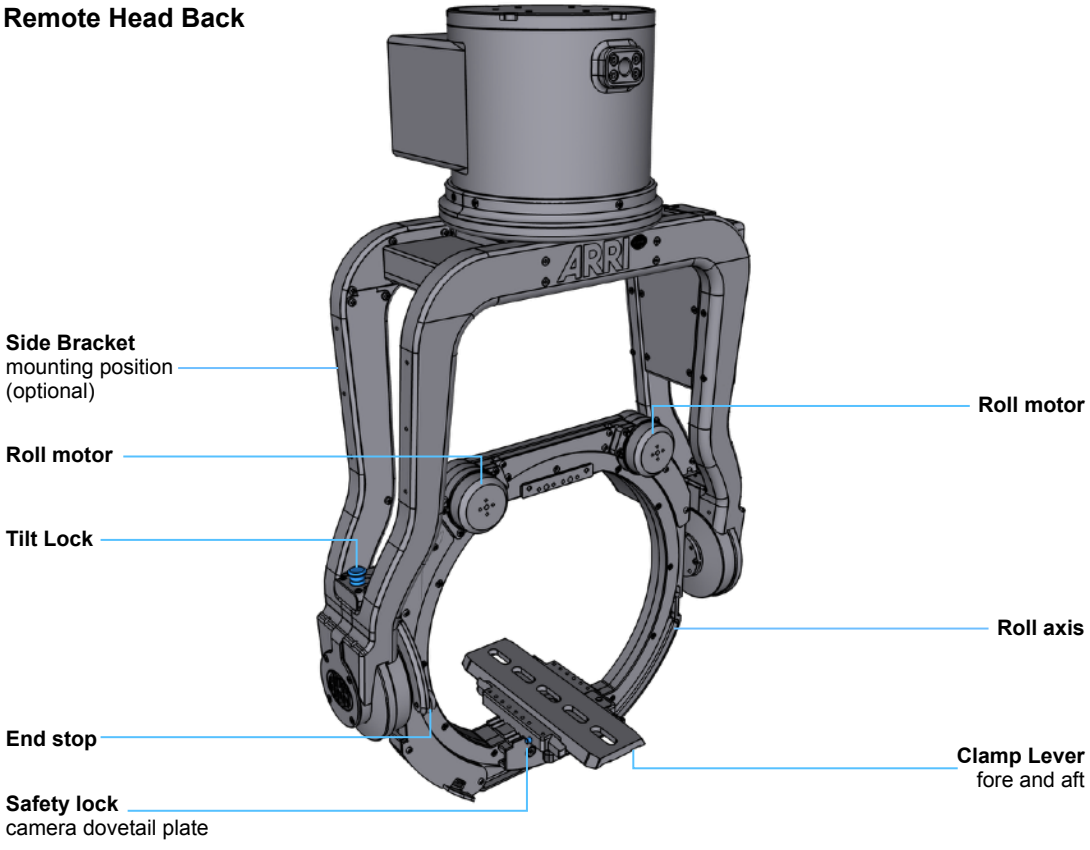
Keep in mind that the SRH-3 & SRH-360 stabilized remote head is a fully stabilized Gimbal based device with a payload capacity of 30kg / 66 lb.
The amount of available torque is very high.

3 Generell Functions

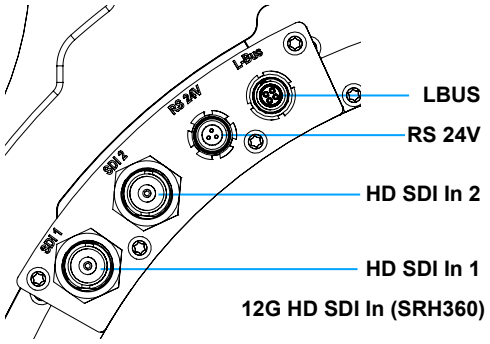
3.1 Remote Head Front

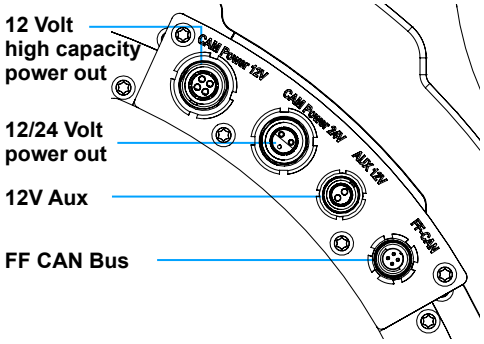


3.2 Remote Head Back



3.3
Connectors SRH-3 / SRH-360

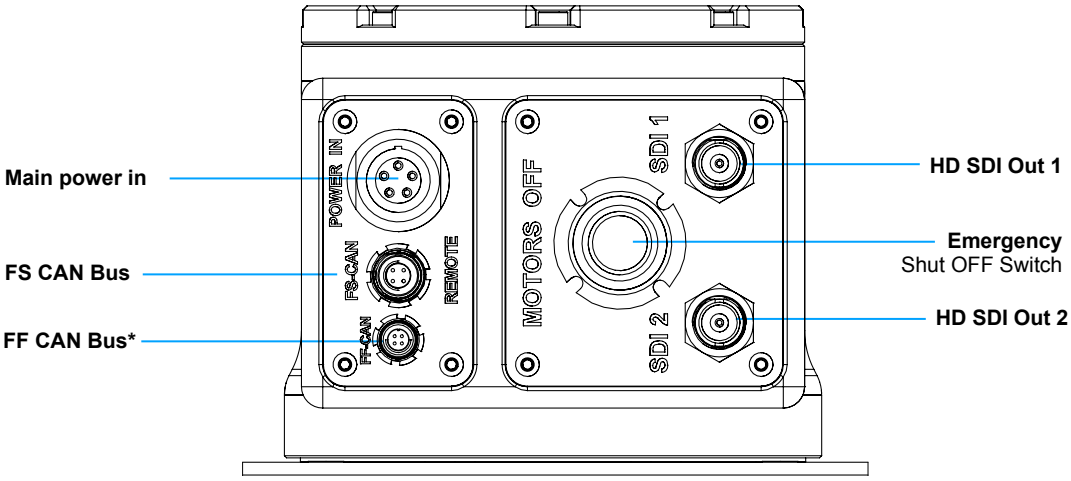




Right junction box **Left junction box**

⚠ CAUTION
The 12V aux power consumption should not exceed 14,4V / 5 Amps.

3.4
Junction Box SRH-3



3.5
Junction Box SRH-360

3.6
Available cables

Cam Power, Cine, 12V, XLR, HiCap	**K2.0010470**
Cam Power, Cine, 24V, Fischer 2pin	**K2.0010471**
Cam Power, Cine, 24V, ALEXA Mini	**K2.0020467**
Cam Power, Cine, 12V, HiCap, ALEXA	**K2.0010538**
Cam Power, Cine, 12V, HiCap, ALEXA Mini	**K2.0010540**
Cam Power, Cine, 12V, HiCap, AMIRA, 90°	**K2.0010565**
Cam Power, Cine, 12V, HiCap, Red EPIC	**K2.0010472**
Cam Power, Cine & EFP, 12V, XLR	**K2.0010469**
HD SDI BNC Cable	**K2.0010476**
Cable LBUS 0.2m/8 inch	**K2.0006749**
Cable LBUS 0.3m/1ft	**K2.0006750**
Cable LBUS 0.5m/1.5ft	**K2.0006751**
Cable LBUS 0.8m/2.5ft	**K2.0006752**
Cable LBUS 1.5m/5ft	**K2.0006753**
SRH Power Supply Set, 600W	**K0.0019478**
SRH Power Supply Power and Data Cable, 12V/24V, 20m/65.6ft	**K2.0019303**
SRH High Capacity Camera Power Cable Set	**K0.0012269**
SRH High Capacity Battery Power Cable Set, 12V/24V, 20m/66ft	**K0.0021437**
SRH High Capacity Battery Power Cable Set 12V/24V, 10m/33ft.	**K0.0021438**
SRH High Capacity Battery Power Cable, 12V/24V, 0.5m/1.64ft	**K2.0019306**
SRH High Capacity Battery Power Cable 12V, 4pin XLR, 20m/66ft	**K2.0021430**
SRH High Capacity Battery Power Cable 24V, 3pin XLR, 20m/66ft	**K2.0021429**
SRH High Capacity Battery Power Cable 12V, 4pin XLR, 10m/33ft	**K2.0021428**
SRH High Capacity Battery Power Cable 24V, 3pin XLR, 10m/33ft	**K2.0021427**
SRH FS CAN Bus Cable, 1m/3.2ft	**K2.0033762**
SRH FS CAN Bus Cable, 5m/16.4ft	**K2.0037701**
SRH FS CAN Bus Cable, 10m/32.8ft	**K2.0019302**
SRH FS CAN Bus Cable, 25m/82 ft	**K2.0019301**
SRH FS CAN Bus Coupler, 0.2m/0.65ft	**K2.0019300**

4 Remote Head Attachment

4.1
Mounting the Stabilized Remote Head

NOTICE
In order to be able to use the maximum stabilization performance of the SRH-3 & SRH-360, the remote head may only be mounted on cranes, dollies, towers, cable cams or other support suitable for use.

⚠ DANGER
Mounting the stabilized remote head to a crane, dolly, support arm or any other device, has to be done by experienced operator or grip personal. **Make sure that all safety regulations have been considered.**

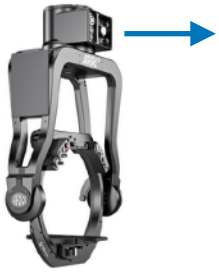
Step 1

4.2
Mechanical Home Position SRH-3

NOTICE
Since the SRH-3 has no slip ring and therefore the rotation of the pan axis is limited to +/- 270 °, the mechanical zero / home position must already be considered during the assembly of the SRH-3 on a crane or dolly. The position will be displayed as: **-270° / 0° / +270°**

Use the junction box at the pan axis as orientation!

In Underslung the junction box points into the set, in Overslung in the opposite direction.



Underslung

0° / Home Position

Overslung

0° / Home Position

Step 2

4.3
ISO Damper

NOTICE
Stabilization systems are limited by engine power, as well as their bandwidth or frequency response. Stabilized remote heads have difficulty isolating certain shocks and violent movements in the vertical axis. Even certain lateral movements can not always be perfectly corrected. Very fast movements required to correct the camera position may not be within system capabilities.This can be seen when using longer lenses. The use of Iso Dampers devices improves the application. Mounting the Iso Dampers device between the remote head and the mounting point of the head, will soak up the fast, unwanted movements, leaving the stabilization with unwanted movements that are slower and within the bandwidth of the system. When a stabilized remote head, such as the SRH-3 & SRH-360, is attached to a fast-moving vehicle that travels over difficult terrain, extreme shocks and forces are applied to the remote head.

5 Camera Preparation / Balancing

NOTICE
The entire balancing procedure of the stabilized remote head is based on symmetry and neutral balance. Only a precisely executed camera preparation will enable you to get the best performance out of the SRH-3 & SRH-360 stabilized remote head.

Step 3

5.1

The right Camera Dovetail Plates and accessories

We highly recommend to use the so called Stabilizer Adapter Mount / SAM plates.

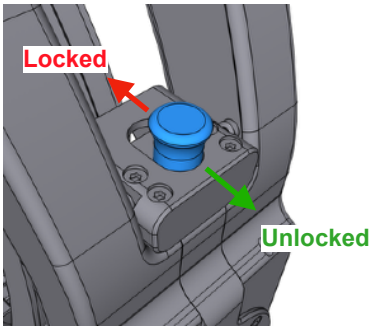
The SAM plates ensure secure and vibration-free attachment of the camera to the SRH-3 & SRH-360. The SAM plates allow the use of other accessories, such as the SSB-1 bracket and the counterweights.
By mounting the Sam plates on longer CSS dovetail plates, longer camera settings can be used with the SRH-3 & SRH-360.

To secure the camera from the top, the Top support bracket is highly recommended.

LINK
https://www.arri.com/en/camera-systems/camera-stabilizer-systems/stabilized-remote-heads/dovetail-plates-and-brackets

Step 4

5.2
Tilt Lock



⚠ DANGER
While **camera setup** the **Tilt Lock** needs to be **engaged**! (Locked) Before **powering** up the remote head, the **Tilt Lock** must be **disengaged**! An **engaged Tilt Lock** may **cause damage** by overheating the tilt motors.

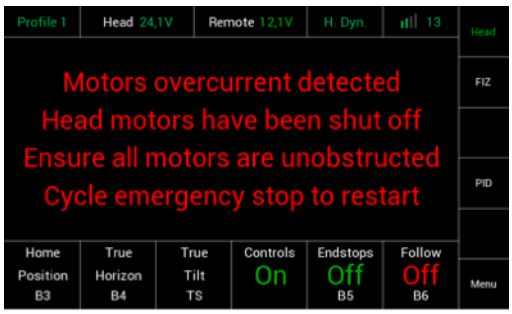
NOTICE

Overcurrent detection remote head

In case the remote head detects that one or multiple of its axes can not be moved anymore for longer than 20 (pan and tilt axes) respective 5 (roll axis) seconds, all motors are turned off automatically and an according message is displayed at the remote control.

A common cause for this situation can be the tilt lock (which must be removed for the normal operation of the remote head).
Or the roll axis is blocked by accessories, which are mounted to the camera.

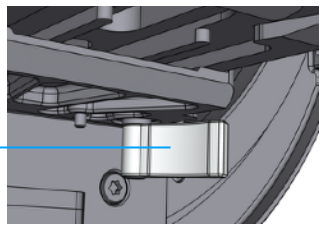
Remove the condition which blocks the axis movement and cycle the emergency stop in order to enable the motors again.



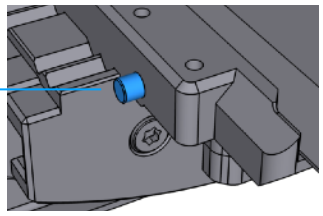
Step 5

5.3
Mounting Camera Dovetail Plate

First open the clamp lever to insert the camera dovetail / SAM plate.



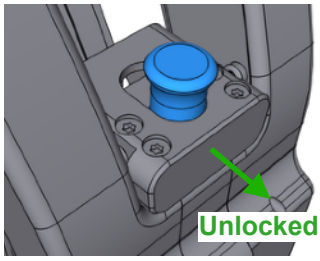
To remove the camera dovetail / SAM plate push the blue safety lock.



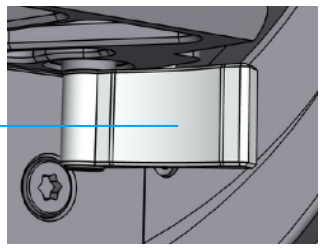
Step 6

5.4
Fore and Aft Balance

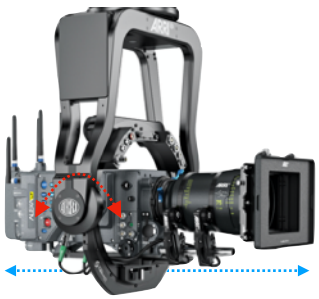
Unlock the tilt lock mechanism first.



Open the clamp lever to move the dovetail plate forward or backward.



Move the camera **fore** or **aft**, until the camera remains in a neutral horizontal position.



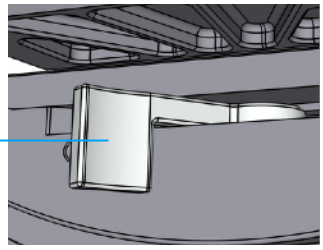
NOTICE

When adding or removing components, the camera position must be readjusted.

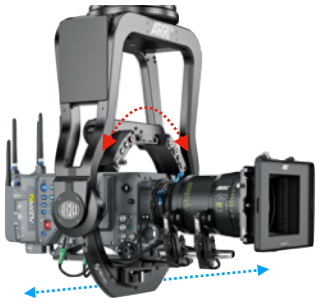
Step 7

5.5
Side to Side Balance

Open the clamp leaver at the front.



Move the camera **left** or **right** until the camera remains in a neutral horizontal position.



NOTICE
When adding or removing components, the camera position must be readjusted.

6 Powering the SRH-3 & SRH-360

⚠ CAUTION
To perform in the desired way, the stabilized remote head requires at least min. **24V / 8A** over the **3pin XLR** plug and min. **12V / 5A** via the **4pin XLR** plug. **Use only suitable and recommended power cords, batteries and power supplies.** **Otherwise the desired performance cannot be guaranteed.** The power supply for the EUT, has to provide "SELV" and a short-circuit-proof „limited power source", according to EN 60950-1.

6.1
Batteries (Recommended)

BEBOB CUBE 1200 www.bebob.de

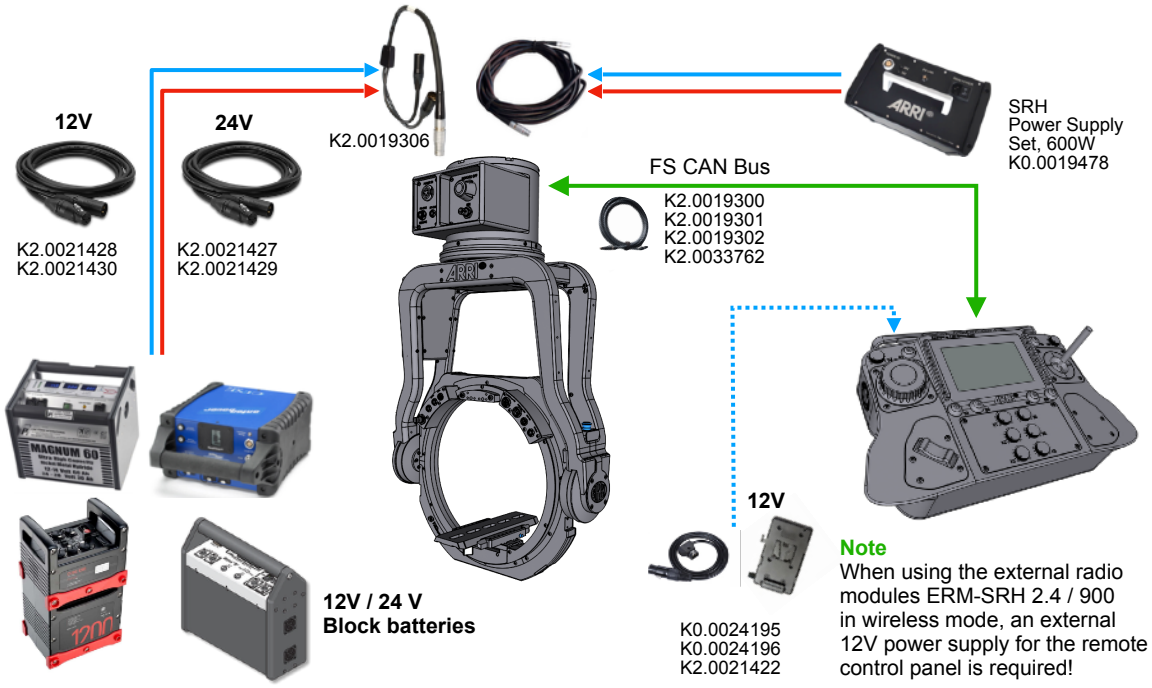
Anton Bauer CINE VCLX www.antonbauer.com

Block Battery www.blockbattery.com

Cinepower Magnum 60 www.cinepower.com

Step 8

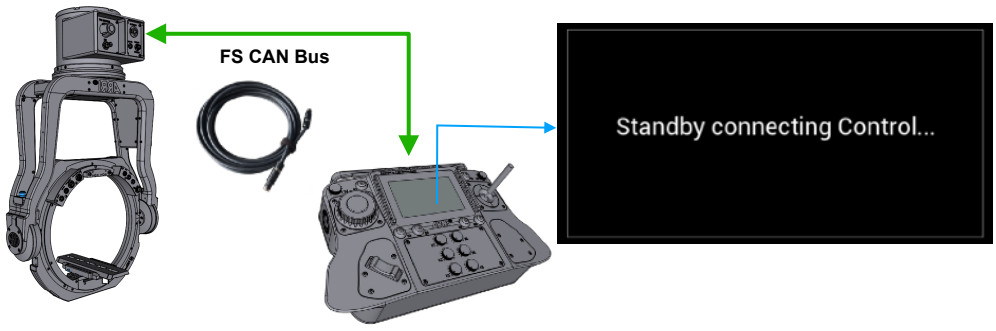
6.2
Wiring the SRH-3 & SRH-360 remote head and the Remote Control Panel



7 Remote Control Panel

Step 9

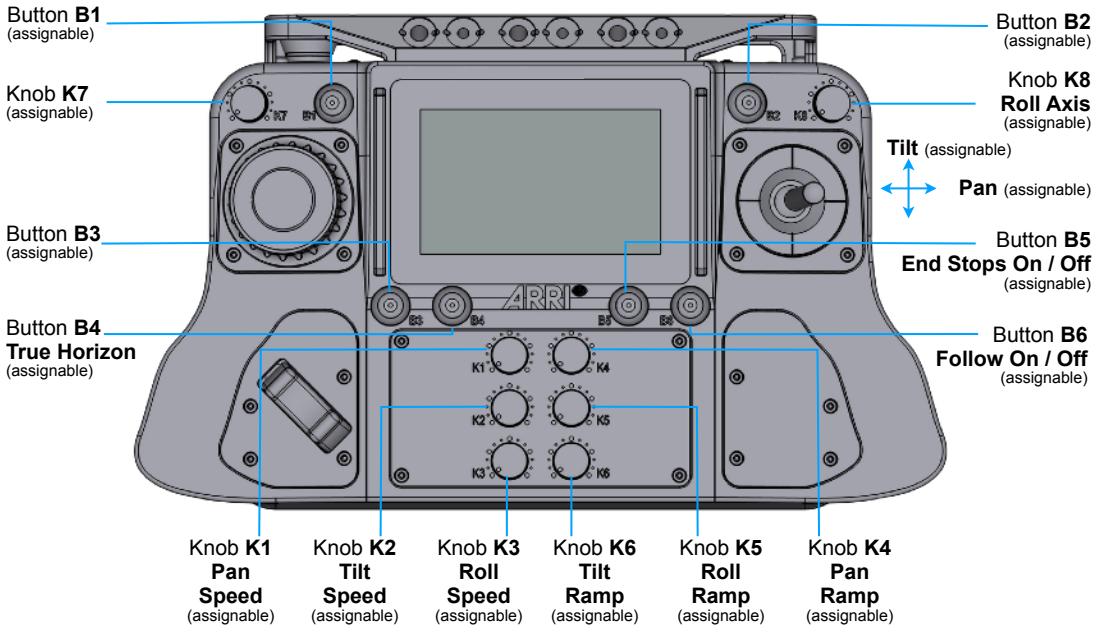
7.1
Connecting the remote control panel with the remote head (hardwired)



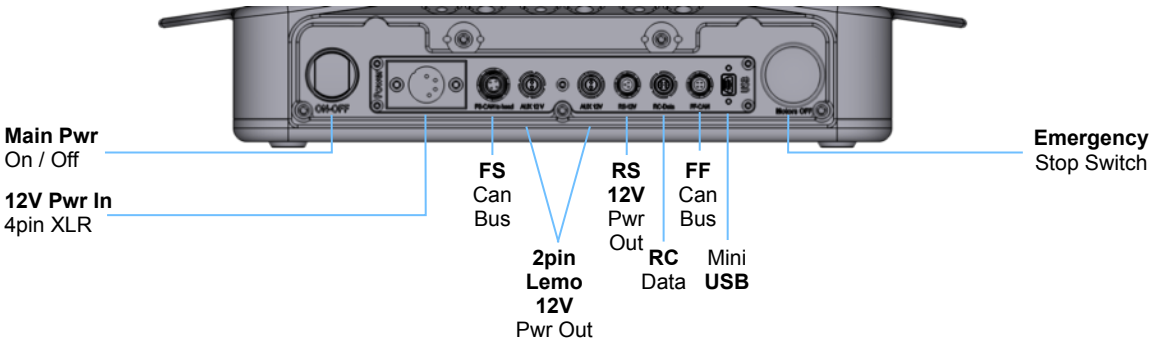
Available cables

SRH FS CAN Bus Cable, 1m/3.2ft	**K2.0033762**
SRH FS CAN Bus Cable, 5m/16.4ft	**K2.0037701**
SRH FS CAN Bus Cable, 10m/32.8ft	**K2.0019302**
SRH FS CAN Bus Cable, 25m/82 ft	**K2.0019301**
SRH FS CAN Bus Coupler, 0.2m/0.65ft	**K2.0019300**

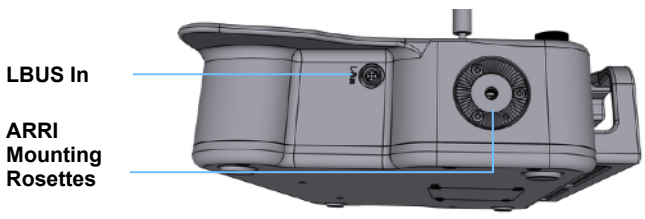
7.2
Functions on the top (factory presets)



7.3
Functions on the rear



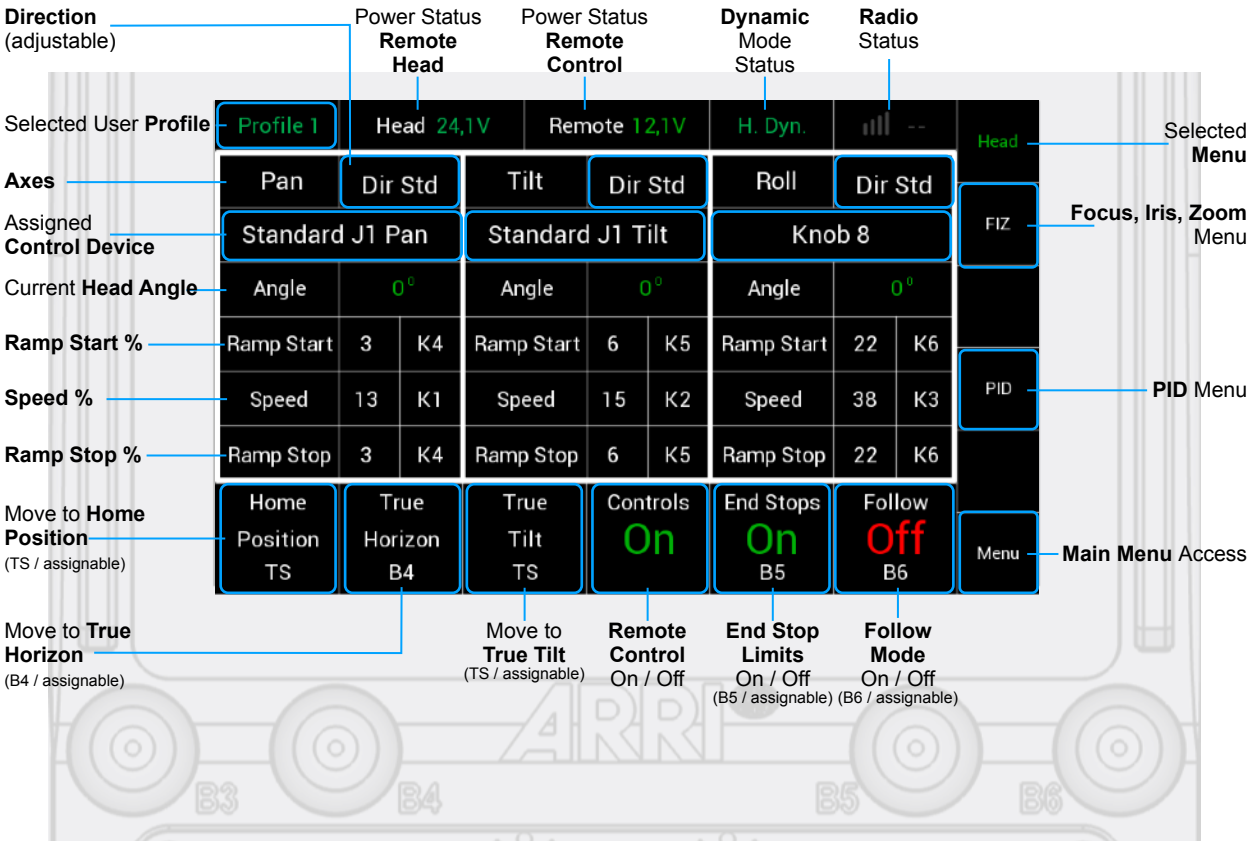
7.4
Functions on the right and left side



8 Remote Control / GUI (Graphical User Interface)

8.1 Software factory presets

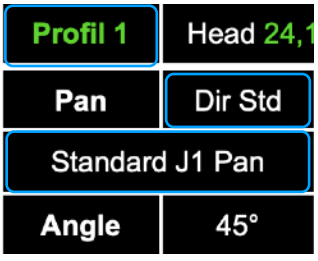
The SRH-3 & SRH-360 has a factory preset for the main functions such as joystick, speed and ramp.
The factory preset settings ensure all necessary basic functions and enable immediate operation.



General functionality of the touchscreen

8.2 Home Screen

All fields marked in **blue** open a submenu for quick adjustments



8.3 Sub Menus

Touch **Save** to store the current settings.

Touch **Factory Presets** to reset the current setting to the factory settings.

Touch **Discard** to cancel the actual settings.

Touch **Back** to return to the previous page

Step 10

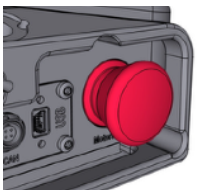
8.3
Emergency Stop remote control panel / remote head

This information appears on the screen after the **emergency stop switch** has been triggered.

The emergency stop switch can be triggered on the remote control panel and on the remote head.

This means that the remote head has its motors **turned off** as long as the **emergency stop** switch is **activated**.

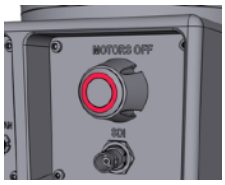
8.4
Emergency Stop remote control panel



⚠ CAUTION

Do not pull the Emergency Stop knob!
Turn the knob to the left.

8.5
Emergency Stop remote head

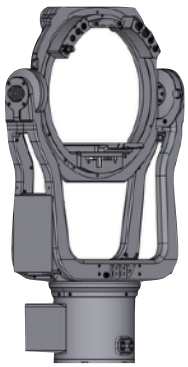


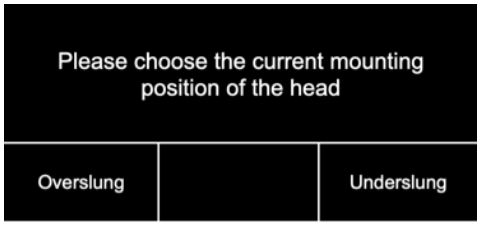
NOTE

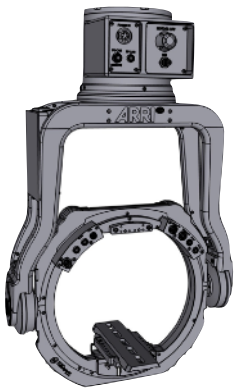
An activated **emergency stop switch** will backlit by a **red LED** ring.
Pressing the switch deactivates the emergency stop.

Step 11

8.6
Mounting Position
Once the remote control is connected to the remote head, the display will ask for the position of the remote head.







Standing
Overslung

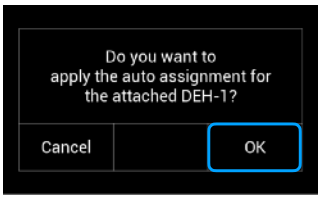
Hanging
Underslung

9 Controls Setup

Step 12

9.1 Auto Assignment Controller

For a fast and easy setup, this menu will show up, as soon the **DRW-1, DEH-1, Knob Solo** is connected to the remote control panel.



NOTE
Press **Cancel** if DRW-1 or DEH-1 has already been assigned and values have already been set. **Press OK to overwrite your last values.**

NOTE
The Auto Assignment function can be deactivated in the **Settings** menu for the remote control.

9.2 Manual Assignment

Touch the **field** below **Pan, Tilt, Roll** and select the desired controller in the submenu.

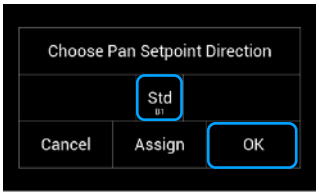
Available controllers Pan, Tilt, Roll

SJ1T	Standard J 1 **Tilt**	Standard Joystick 1 up/down	**DRWP**	DRW-1 **Pan**	DRW-1, ARRI Wheels, **Pan**
SJ1P	Standard J 1 **Pan**	Standard Joystick 1 left /right	**DRWT**	DRW-1 **Tilt**	DRW-1, ARRI Wheels, **Tilt**
			DRWR	DRW-1 **Roll**	DRW-1, ARRI Wheels, **Roll**
MF1T	Microforce J 1 **Tilt**	Microforce Joystick 1 up/down			
MF1P	Microforce J 1 **Pan**	Microforce Joystick 1 left /right	**DEHP**	DEH-1 **Pan**	DEH-1, ARRI Encoder Head, **Pan**
			DEHT	DEH-1 **Tilt**	DEH-1, ARRI Encoder Head, **Tilt**
BC1T	Broadcast J 1 **Tilt**	Broadcast Joystick 1 up/down			
BC1P	Broadcast J 1 **Pan**	Broadcast Joystick 1 left /right	**TS**	Touchscreen	Control through the Touchscreen of the Remote Control Panel
K1 … K8	Knob **1** … Knob **8**	Knobs	**B1 … B6**	Button **1** … Button **6**	Buttons

NOTE
As soon as a controller is connected to the Remote Control Panel, the following information appears briefly.

9.3
Changing Direction

The marked field indicates the selected direction.



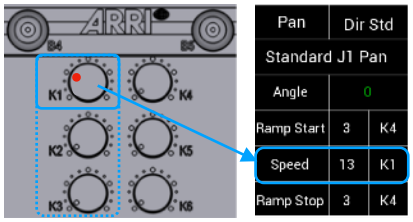
Touching the marked field opens the Direction submenu.

Touching the field in the middle **toggles** between **Standard** and **Reverse**.

9.4
Speed (K1, K2, K3)

In factory preset **Speed** is assigned to:
K1 Pan
K2 Tilt
K3 Roll

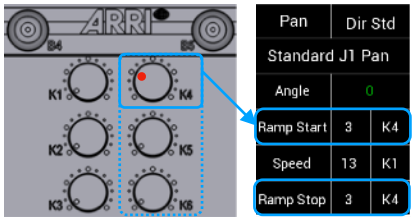
Turning the knob to the right will increase the **Speed** value.
The selected **Speed** values are displayed on the home screen.



9.5
Ramp (K4, K5, K6)

In factory preset **Ramp** is assigned to:
K4 Pan
K5 Tilt
K6 Roll

Turning the knob to the right will increase the **Start** and **Stop Ramp** value.
The selected **Start** and **Stop Ramp** values are displayed on the home screen.



9.6
Controls On / Off

As a **security measure,** you can **lock all controllers** of the remote control panel by touching **Controller On / Off**.

Touching will toggle between **On** and **Off**.

10 PID / Quick Setup

NOTICE

It is important to understand and to accept that all necessary steps, such as setting up the camera, attaching the remote head to the crane, the quality of the crane itself and the PID settings, must be taken into account and properly performed.

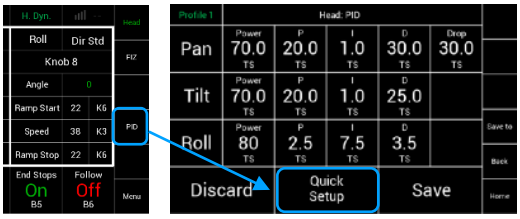
1. Start with a solid camera setup.
2. Make sure that all required components are firmly attached to the camera.
3. Avoid assemblies that use tape or Velcro.
4. Check that all clamps are securely locked.

If only one step is missing, the desired overall system performance can not be achieved.

Step 13

10.1
PID Quick Setup

To reach the **PID Quick Setup** press **PID** at the Home page, then press **Quick Setup**.

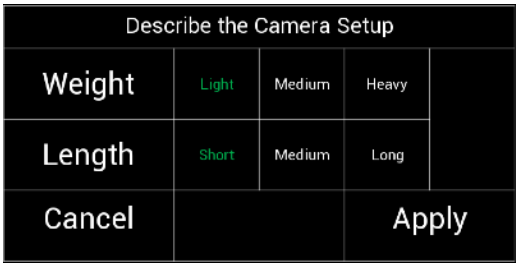


10.2
Camera Weight / Size Preselection

With this simple selection you can set the weight and the length of the camera.

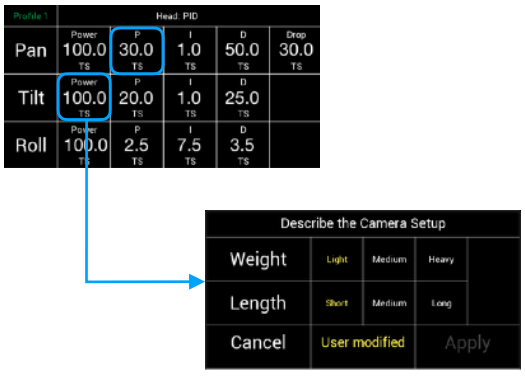
The selection then results in **motor power** and the necessary **torque**.

Light	camera weight	5	-	10	kg	11	-	22	lb.
Medium	camera weight	10	-	20	kg	22	-	44	lb.
Heavy	camera weight	20	-	30	kg	44	-	66	lb.



When you have made your selection, press **Apply.**

NOTE
As soon as you manually fine-tune the PID values of the PID presets and thus change the PID presets, this is indicated by yellow values.



Step 14

10.3
Fine tuning of the current PID values

1 Set the Joystick **Ramp** to **ZERO** (Pan & Tilt) (K4 & K5)

2 Physical test to determine the necessary tilt power value. Touch the lens at the front end, slowly push the camera down and check if the tilt axis starts to slip.

3 If the **Tilt** axis **slips**, you **must increase** the **Power value** for the **Tilt** axis.

NOTE

When the remote head starts to **vibrate**, **reduce** the **Power value**!

4 Once the **Tilt Power** value meets your expectations, the same **Power** value will be used for the **Pan** axis as well.
Press **Save!**

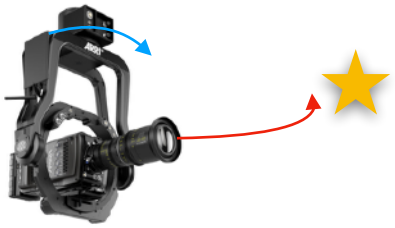
5 Adjusting the **PID** values:

NOTE

Now a camera picture on a larger monitor screen is needed.

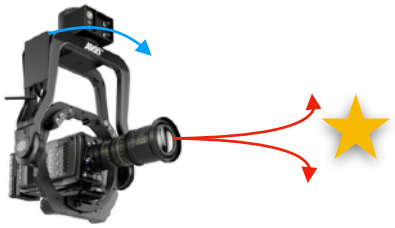
6 Choose and frame a fixed point in the set.

7 Use the joystick and move the remote head to the selected position in the set and stop the head right there.



8 Check if the camera:
• stops at the selected point
• whether the camera exceeds the point
• whether the camera is bouncing left and right

9 If the camera exceeds the desired point, **increase** the **P** and **D values** in increments of five.

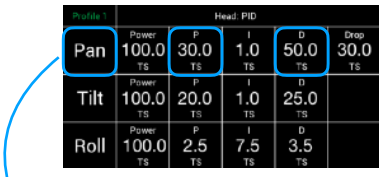


NOTE

The **D value** must be min. **5 higher** then the **P value.**

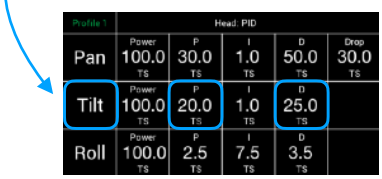
NOTE

When the remote head starts to **vibrate**, **reduce** the **P value**!



10 If the remote head **bounces** to the left and right when you reach the desired point, you must slowly **increase** the **D value** of the **Pan** axis.

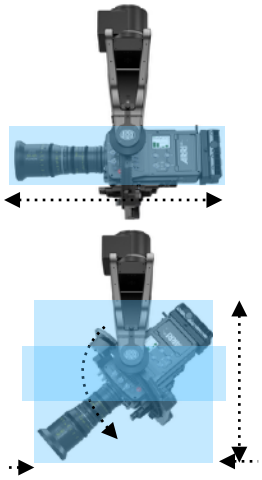
11 Once the **Pan PID** values meets your expectations, reduce the P and D values by 10 and use the little lower values for the **Tilt** axis.
Press **Save!**



11 Drop

Step 15

NOTICE
Without any **Drop compensation**, strong **vibrations** occur at steep angles.



At very steep angles, the weight distribution of the camera setup changes extremely.

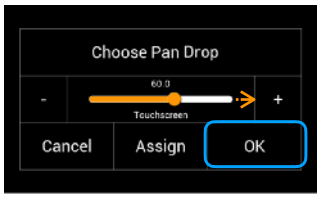
The weight of the camera remains the same during tilting, but the overall length of the weight distribution becomes shorter and shorter the steeper the tilt angle becomes. Therefore, power and torque must be adjusted in relation to the current angle of inclination.

A correct Drop setting permanently balances the Pan and Tilt values as the camera angle gets steeper and steeper.

11.1 **Adjusting Drop**

Touch Drop to open the Drop Sub Menu.

Slowly move the camera to the 90° top-down position.

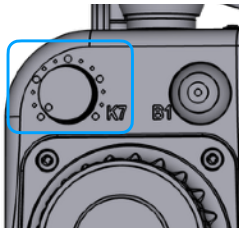


As soon as the remote head starts to vibrate, slowly move the slider to the right and increase the **Drop** value until the remote head stops vibrating.

Press **OK**.

11.2 „**Master Control“**

NOTE



The **Drop** setting is a pretty powerful way to control the overall performance and behavior of the SRH-3 & SRH-360.

Although the PID settings were carried out perfectly, there may be undesirable vibrations in connection with the general mounting situation on the crane or dolly.

In order to get this unexpected vibrations under control immediately, it is advisable to assign the drop on one of the knobs, e.g. K7.

As soon as vibrations occur, simply turn K7 a little to the left to lower the drop value and the vibrations will disappear immediately.

Step 16

12 Home Position SRH-3

This function moves the remote head back to its predefined starting position.

NOTICE

Since the SRH-3 has no slip ring and therefore the rotation of the pan axis is limited to +/- 270 °, the mechanical zero / home position must already be considered during the assembly of the SRH-3 on a crane or dolly.

The position will be displayed as: **-270° / 0° / +270°**

NOTICE

Use the junction box at the pan axis as orientation.

Underslung

0° / Home Position

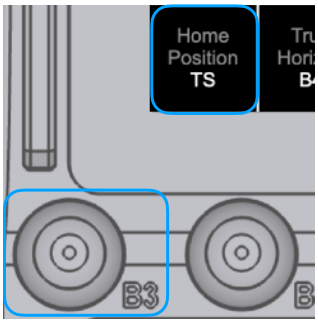
Overslung

0° / Home Position

In Underslung the junction box points into the set, in Overslung in the opposite direction.

By default, this function is assigned to the Touch Screen.

Touching **Home Position** on the Home Screen, will open a submenu, where the remote head can be moved in the Home Position and where this function can be assigned to a button.



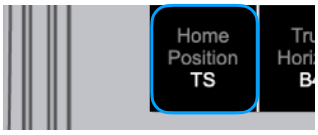
NOTE
If the function is used more often, it is helpful to assign it to **B3**.

NOTICE

With the SRH-3, the Home Position, are fixed values and cannot be changed by the user.

12.1 Setting a new Home Position SRH-360

By default, this function is assigned to the Touch Screen.

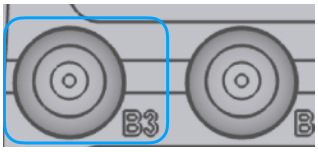


Touching H**ome Position** on the Home Screen, will open a submenu.

To set a new custom Home Position, use the controller (joystick, wheels) to move the Pan, Tilt and Roll axes in the desired Home Position.

Press **Set new Home Position**

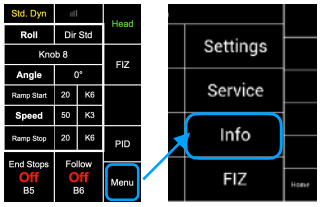
Press **Ok** to store the new Home Position.



NOTE
If the function is used more often, it is helpful to assign it to **B3**.

13 Info

Info Menu Remote / Head

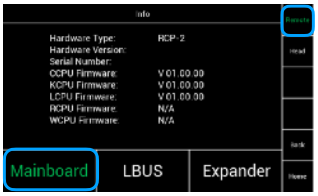


23.1 Remote Control Panel

Selecting **Remote** will provide information about the **Mainboard**, **LBUS**, and **Expander**.

23.2 Mainboard

The **Mainboard Info Screen** will show the actual SW version.

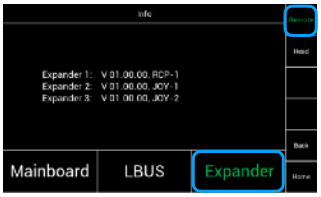


23.3 LBUS

The **LBUS Info Screen** will show the actual SW version of the connected LBUS controller.

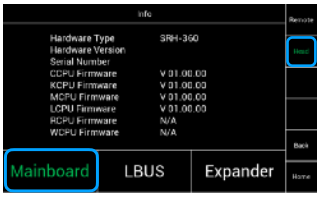
23.4 Expander

The **Expander Info Screen** will show the actual SW version of the connected Expanders, like the Joystick or the internal Focus and Zoom controllers.

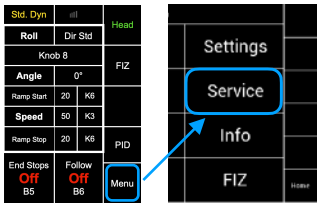


23.5 Head

Selecting **Head** will provide information about the **Mainboard**, **LBUS**, and **Expander** for the remote head.

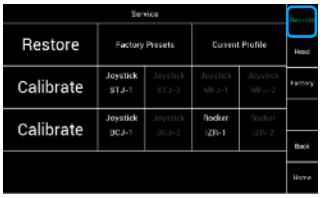


14 Service



Touching **Service** opens a new submenu in which you can carry out calibrations and restores for the remote control panel and the remote head.

14.1 Remote Control Panel



Selecting **Remote** will open the remote control panel **Service** menu.

14.2 Calibrate

By selecting **Calibrate**, internal controllers such as the internal joystick or zoom rocker can be calibrated.

NOTICE

Don't touch the controller during the calibration process.

14.3 Restore Current Profile

Touching **Current Profile** will restore the current user profile.

⚠ CAUTION

All settings, of the selected user profile will be deleted!
The current **selected** user profile will be restored back to the factory presets.

14.4 Restore Factory Presets / Remote Control Panel

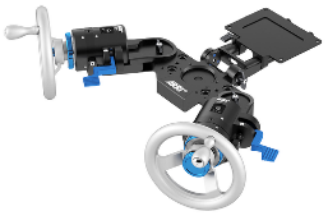
Touching **Factory Presets** will restore all user profiles.

⚠ CAUTION

All settings, all User Profiles will be deleted!
All user profiles will be restored back to the Factory Presets.

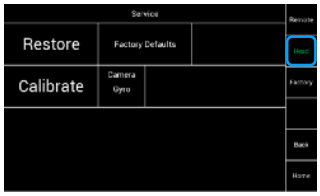
NOTICE

The previously connected controllers are retained and are recognized again immediately.



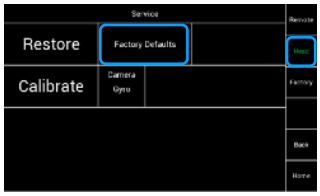
14.5
Remote Head

Selecting **Head** will open the head service menu.



14.6
Restore Factory Presets / Remote Head

If **Factory Presets** is selected, all memory settings of the remote head will be restored back to the factory presets.



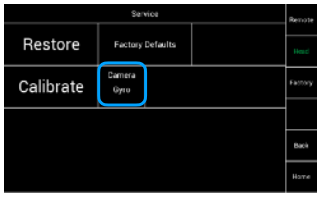
NOTICE

Don't worry.
All Remote Control Panel settings are retained.
In this way you can ensure that all current Remote Control Panel values are updated and refreshed in the remote head.

14.7
Sensor & Gyro Calibration

If the remote head behaves abnormally, the situation can be remedied immediately by calibrating the gyro.

Calibration is also recommended when the head has been transported over long distances.
For example, the remote head was last used in a city and next it will be used in the mountains.



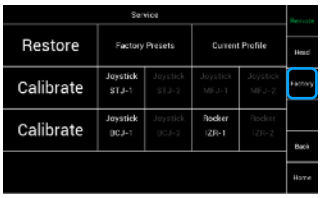
Choose **Gyro Calibration** in order to perform the Camera Gyro calibration.

NOTICE

Secure the camera.
Since the **motors** are **switched off** during the calibration, it may be that the camera tilts over the tilt axis.

14.8
Factory

Only an ARRI service technician can access this function.



15 Power Disconnection

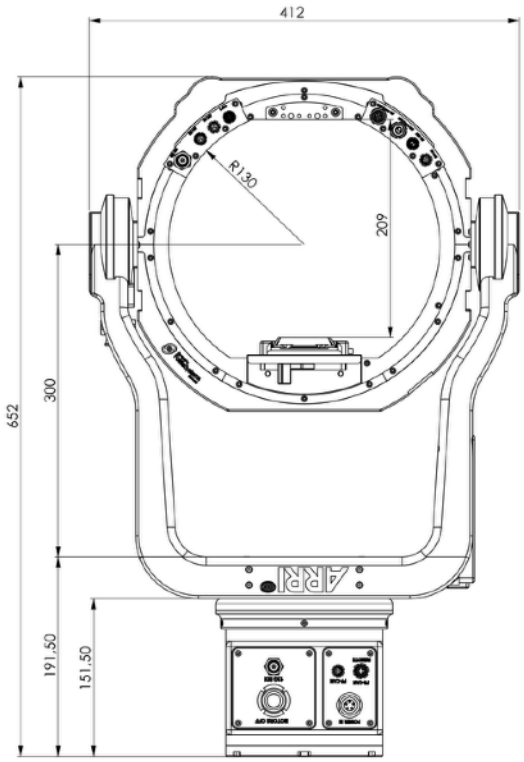
⚠ CAUTION

To disconnect the device safely from the power source, remove both cables from the SRH-3 / SRH-360 remote head.
Mount and operate the device in an orientation to ensure easy access to the connectors.

16 Dimensions

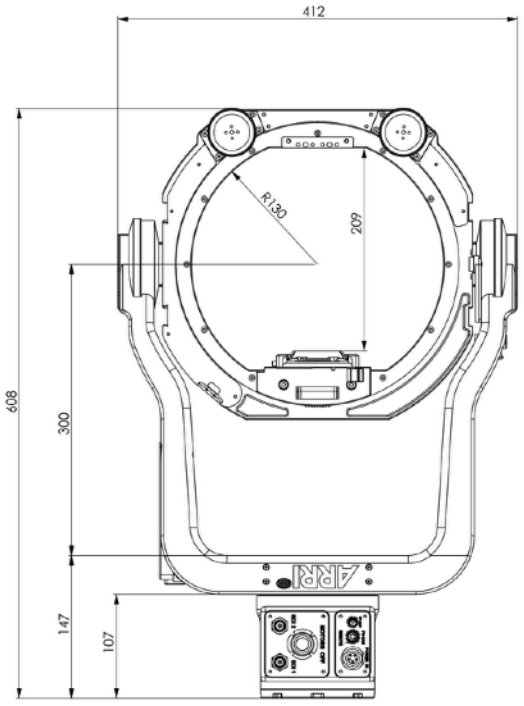
16.1
Remote Head SRH-360

Stabilized Axes	3 (Pan, Tilt, Roll)
Max. Payload	up to 30 Kg / 66 lbs.
Height	652 mm / 25,67in
Width	412 mm / 16,22in
Depth Head	150 mm / 5,9in
Depth Base	246 mm / 9,68in
Ring Diameter	260 mm / 10,23in
Ring Height centre	209 mm / 8,23in
Weight	11,6 Kg / 25,57lbs
Max. Tilt Range	+ 60° / -110°
Max. Roll Range	+/- 90°
Max. Pan Range	Unlimited / Slip Ring
Max. Pan Rate	240° / Sec.
Max. Tilt Rate	240° / Sec.



16.2
Remote Head SRH-3

Stabilized Axis	3 (Pan, Tilt, Roll)
Max. Payload	up to 30 Kg / 66 lbs.
Height	608 mm / 23.93“
Width	412 mm / 16.22“
Depth Head	150 mm / 5.9“
Death Base	165 mm / 6,49“
Ring Diameter	260 mm / 10.23“
Ring Height centre	209 mm / 8.23“
Weight	9,4 Kg / 20,7 lbs.
Max. Tilt Range	+ 60° / -110°
Max. Roll Range	+/- 90°
Max. Pan Range	540° +/-270°
Max. Pan Rate	240° / Sec.
Max. Tilt Rate	240° / Sec.

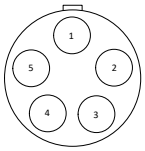


All data subject to change without further notice.

17 Pinout
Remote Head SRH-3 SRH-360 / Remote Control Panel

12V/ 24V / FS-CAN IN

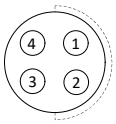
LEMO ECG.3B.305.CLL



1 = GND
2 = FOMA BUS Slow L
3 = FOMA BUS Slow H
4 = 12 V IN
5 = 24 V IN

FS-CAN

Fischer DBP 103 A053 - 140



1 = GND
2 = CAN1 L
3 = CAN2 H
4 = 12V OUT

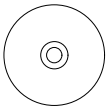
FF-CAN

Fischer DBP 102 A053 - 140

1 = GND
2 = CAN1 L
3 = CAN2 H
4 = 12V

HD BNC 6G-SDI

AMPHENOL 112522



FF-CAN: 4 POL*

Fischer DBP 102 A053 - 140

1 = GND
2 = CAN1 L
3 = CAN2 H
4 = 12V

AUX Pwr 12V

LEMO ECG.0B.302.CLN

1 = GND
2 = 12V OUT

CAM PWR 12V/ 24V

LEMO ECP.1S.303.CLN

1 = 12V
2 = GND
3 = 24V

12V HiCap

LEMO ECG.1B.304.CLN

1 = 12V
2 = GND
3 = GND
4 = 12V

LBUS

LEMO ECG.0B.304.CLN

1 = GND
2 = CAN L
3 = 12V
4 = CAN H

RS 24V
Lötseite Buchse

FISCHER DGP 102 A052 - 13

1 = GND
2 = 12V/24V

18 Assignable Controllers and Functions

SJ1P	Standard J 1 **Pan**	Standard Joystick 1, Pan, left /right
SJ1T	Standard J 1 **Tilt**	Standard Joystick 1, Tilt, up/down
MF1P	Microforce J 1 **Pan**	Microforce Joystick 1, Pan, left /right
MF1T	Microforce J 1 **Tilt**	Microforce Joystick 1, Tilt, up/down
BC1P	Broadcast J 1 **Pan**	Broadcast Joystick 1, Pan, left /right
BC1T	Broadcast J 1 **Tilt**	Broadcast Joystick 1, Tilt, up/down
J2 H	Joystick 2 **H**	Additional Joystick 2, Pan, left /right
J2 V	Joystick 2 **V**	Additional Joystick 2, Tilt, up/down
DRWP	DRW **Pan**	DRW-1, ARRI Wheels, Pan, Pan, left /right
DRWT	DRW **Tilt**	DRW-1, ARRI Wheels, Tilt, up/down
DRWR	DRW **Roll**	DRW-1, ARRI Wheels, Roll
DEHP	DEH **Pan**	DEH-1, ARRI Encoder Head, Pan, left /right
DEHT	DEH **Tilt**	DEH-1, ARRI Encoder Head, Tilt, up/down
TS	Touchscreen	Control through Remote Control Panel
K1 … K8	Knob **1** … Knob **8**	Knobs
B1 … B6	Button **1** … Button **6**	Buttons
IFW1	**Focus** Wheel 1	Wheel 1
IFW2	**Focus** Wheel 2	Wheel 2
IZR1	**Zoom** Rocker 1	Rocker 1
IZR2	**Zoom** Rocker 2	Rocker 2
MLW	Left **Wheel**	Master Grip Left Focus Wheel
MRW	Right **Wheel**	Master Grip Right Focus Wheel
MLR	Left **Rocker**	Master Grip Left Zoom Rocker
MRR	Right **Rocker**	Master Grip Right Zoom Rocker
MLRB	MLR **Button**	Master Grip Left Rocker, Red Button
MRRB	MRR **Button**	Master Grip Right Rocker, Red Button
MLWB	MLW **Button**	Master Grip Left Wheel, Red Button
MRWB	MRW **Button**	Master Grip Right Wheel, Red Button
OCU	OCU **Wheel**	OCU-1 Wheel
OCUL	OCU **Left**	OCU-1 Left Button
OCUM	OCU **Middle**	OCU-1 Middle Button
OCUR	OCU **Right**	OCU-1 Right Button
MLRJ	MLR Joystick **center**	Master Grip Left Rocker Joystick center
MLRL	MLR Joystick **left**	Master Grip Left Rocker Joystick, left
MLRR	MLR Joystick **right**	Master Grip Left Rocker Joystick, right
MLRU	MLR Joystick **up**	Master Grip Left Rocker Joystick, up
MLRD	MLR Joystick **down**	Master Grip Left Rocker Joystick, down
MLRH	MLR Joystick **horizontal** (left & right)	Master Grip Left Rocker Joystick, horizontal (left & right)
MLRV	MLR Joystick **vertical** (up & down)	Master Grip Left Rocker Joystick, vertical (up & down)
MRRJ	MRR Joystick **center**	Master Grip Left Rocker Joystick center
MRRL	MRR Joystick **left**	Master Grip Left Rocker Joystick left
MRRR	MRR Joystick **right**	Master Grip Left Rocker Joystick right
MRRU	MRR Joystick **up**	Master Grip Left Rocker Joystick up
MRRD	MRR Joystick **down**	Master Grip Left Rocker Joystick down
MRRH	MRR Joystick **horizontal** (left & right)	Master Grip Left Rocker Joystick horizontal (left & right)
MRRV	MRR Joystick **vertical** (up & down)	Master Grip Left Rocker Joystick vertical (up & down)

All data subject to change without further notice.