

## RCP-2 Remote Control Panel

### USER MANUAL

March 2024 • 1.0 • English

D4510008166





# 1 Disclaimer

Before using the product, be sure to read and understand all respective instructions.

The product is available for commercial customers only.

For product specification changes since this document was published, refer to the latest publications of ARRI data sheets or data books, etc., for the most up-to-date specifications.

Not all products and / or types are available in every country. Please check with an ARRI sales representative for availability and additional information.

The information given in this document is subject to change without notice.

While ARRI endeavors to enhance the quality, reliability and safety of their products, customers agree and acknowledge that the possibility of defects thereof cannot be eliminated entirely. To minimize risk of damage to property or injury (including death) to persons arising from defects in the products, customers must incorporate adequate safety measures in their work with the system and have to heed the stated canonic use.

ARRI or its subsidiaries expressly exclude any liability, warranty, demand or other obligation for any claim, representation, or cause, or action, or whatsoever, express or implied, whether in contract or tort, including negligence, or incorporated in terms and conditions, whether by statute, law or otherwise. In no event shall ARRI or its subsidiaries be liable for or have a remedy for recovery of any special, direct, indirect, incidental, or consequential damages, including, but not limited to lost profits, lost savings, lost revenues or economic loss of any kind or for any claim by third party, downtime, good will, damage to or replacement of equipment or property, any cost or recovering of any material or goods associated with the assembly or use of our products, or any other damages or injury of the persons and so on or under any other legal theory.

Neither ARRI nor its subsidiaries assume any liability for infringement of patents, copyrights or other intellectual property rights of third parties by or arising from the use of ARRI products or any other liability arising from the use of such products. No license, express, implied or otherwise, is granted under any patents, copyrights or other intellectual property right of ARRI or others.

In the case one or all of the foregoing clauses are not allowed by applicable law, the fullest extent permissible clauses by applicable law are validated.

## 2 Imprint

### Copyright

© 2024 Arnold & Richter Cine Technik GmbH & Co. Betriebs KG. All rights reserved.

The device contains proprietary information of Arnold & Richter Cine Technik GmbH & Co. Betriebs KG; it is provided under a license agreement containing restrictions on use and disclosure and protected by copyright law. Reverse engineering of the software is prohibited.

No part of this publication may be used for distribution, reproduction, transmission, transcription, storage in a data retrieval system, or translated into any language in any form by any means without the prior written permission of Arnold & Richter Cine Technik GmbH & Co. Betriebs KG.

If you are downloading files from our web pages for your personal use, make sure to check for updated versions.

ARRI cannot take any liability whatsoever for downloaded files, as technical data are subject to change without notice.

Due to continued product development the information in this document may change without notice. The information and intellectual property contained herein is confidential between ARRI and the client and remains the exclusive property of ARRI. If you find any problems in the documentation, please report them to us in writing. ARRI does not warrant that this document is flawless.

ARRI, ARTEMIS 1, ARTEMIS 2, TRINITY 1, TRINITY 2, SRH3, SRH360 and SRH360-EVO are trademarks or registered trademarks of Arnold & Richter Cine Technik GmbH & Co. Betriebs KG. All other brands or products mentioned are trademarks or registered trademarks of their respective holders and should be treated as such.

Original version.

### For Further Assistance

Arnold & Richter Cine Technik GmbH & Co. Betriebs KG

Herbert-Bayer-Str. 10

D-80807 Munich

Germany

E-mail: [service@arri.com](mailto:service@arri.com)

Website: [www.arri.com/en/technical-service](http://www.arri.com/en/technical-service)

# Content

<b>1</b>	<b>Disclaimer</b>	<b>3</b>
<b>2</b>	<b>Imprint</b>	<b>4</b>
<b>3</b>	<b>About this Document</b>	<b>7</b>
<b>4</b>	<b>About this Product</b>	<b>8</b>
4.1	Introduction	8
4.2	Remote Control Panel	9
4.3	Power Supply	11
<b>5</b>	<b>To Initialize the Remote Control Panel and the System</b>	<b>12</b>
5.1	Power Up	12
5.2	Head Position	13
<b>6</b>	<b>Home Screen</b>	<b>14</b>
6.1	Introduction	14
6.2	Color Scheme	14
<b>7</b>	<b>Controllers</b>	<b>16</b>
7.1	Axis Setup	16
7.2	To Assign Controllers	16
7.3	Controller Setup	17
7.4	Directions	17
7.5	“Angle or Position Mode” and “Speed Mode”	17
7.5.1	Angle or Position Mode	17
7.5.2	Speed Mode	17
7.6	Basic Controller Settings	18
7.6.1	Speed	18
7.6.2	Ramp	18
7.6.3	Window / Dead Band	18
7.6.4	Ratio	19
7.6.5	Sensitivity	19
<b>8</b>	<b>PID Settings</b>	<b>20</b>
8.1	PID Settings Menu	20
8.2	Presets	21
8.3	PID Link	21
8.4	Clutch	21
8.5	Drop	22
<b>9</b>	<b>Customizing</b>	<b>23</b>
9.1	Assignment of Jog Wheels to Values	23
9.2	Assignment of Jog Wheels to Programs	24
<b>10</b>	<b>Programs</b>	<b>25</b>
10.1	Custom Home	25
10.2	Advanced Settings	26
10.3	Custom Roll	26
10.4	Custom Program	26
10.5	Follow	27
10.6	Limits	28

- 11 FIZ (Focus, Iris, Zoom)..... 30**
- 12 User Profiles ..... 31**
  - 12.1 User Profiles Sub Menu ..... 31
- 13 Main Menu..... 32**
  - 13.1 Radio Setup ..... 32
    - 13.1.1 Working Without Radio / Hard-wired..... 32
    - 13.1.2 Working With Radio Modules..... 33
    - 13.1.3 Pairing..... 33
  - 13.2 LBUS / CAN Bus ..... 33
  - 13.3 Software Status..... 33
  - 13.4 Language ..... 33
  - 13.5 Service ..... 33
  - 13.6 Dynamic Mode ..... 34
  - 13.7 Head Calibration ..... 34
    - 13.7.1 Calibrate Gyro..... 34
    - 13.7.2 Calibrate Zero ..... 35
    - 13.7.3 Restore Backup ..... 35
  - 13.8 User Profiles..... 35
  - 13.9 Widgets Setup..... 35
  - 13.10 Display setup..... 35
  - 13.11 Assigned Controllers ..... 35
  - 13.12 Controller Calibration ..... 35
- 14 ARRI Service Contacts ..... 37**

### 3 About this Document

This user manual contains detailed information about the features and functionalities of the device. Please visit the website <http://www.arri.com> to download the operating manual, where applicable, and much more information about this and other ARRI products.

Keep all manuals and all other operating and assembly instructions belonging to the device in a safe place for future reference and possible subsequent owners

For useful information in addition to these manuals please have a look at the [ARRI learn & help](#) section on the [ARRI website](#).

The ARRI Academy courses provide unrivalled insights into the full possibilities of working with ARRI camera systems, lenses, lighting systems and accessories.

Our advanced service training courses are designed to transfer detailed knowledge about how to service and repair all types of ARRI products and give you permanent access to detailed service instructions, special tools and service parts. To learn more, please visit [ARRI academy](#) or contact [academy@arri.de](mailto:academy@arri.de).

All directions are given from an operators point of view. For example, device right side refers to the right side of the device when standing behind the device and operating it in a normal fashion.

Connectors are written in all capital letters, for example "USB connector".

Buttons are written in italic typeface capital letters, for example "*PLAY* button".

Menu paths are written in italic typeface, with menu and home in capital letters, for example "*MENU > Display Orientation > Normal*".

For more details about the product, please refer to the ARRI website at:

[RCP-2 product page](#)



Searchkeys:  
RCP-2 Remote Control Panel, K2.0049722,  
D4510008166

[ARRI documentation portal](#)



#### Document Revision History

Document ID: D45 1000 8166

Version	Release	Date	Note
1.0		March 2024	First Release

## 4 About this Product

### 4.1 Introduction

Based on the architecture of the TRINITY 2 GUI and the valuable feedback from SRH-3, SRH-360, EVO 360 and TRINITY 2 users, the new CSS EVO GUI 2.0 has been developed.

The new CSS EVO GUI 2.0 offers a standardized operating concept for easy programming and adaptation of the EVO 360 and TRINITY 2 to the shooting conditions and personal working methods and preferences.

A clear architecture with a flat hierarchical structure allows quick access to the parameters and functions of the 360 EVO and the TRINITY 2 without having to maneuver deep into nested menu structures.

In addition to the controller of the stabilized remote head, focus, iris and zoom, as well as other functions, can not only be parameterized, but also grouped into combined programs that can be called up again and again with precision.

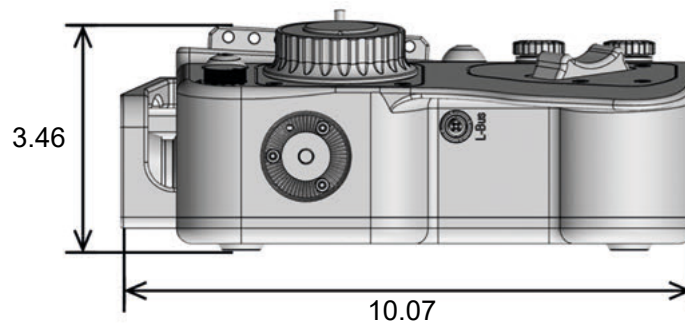
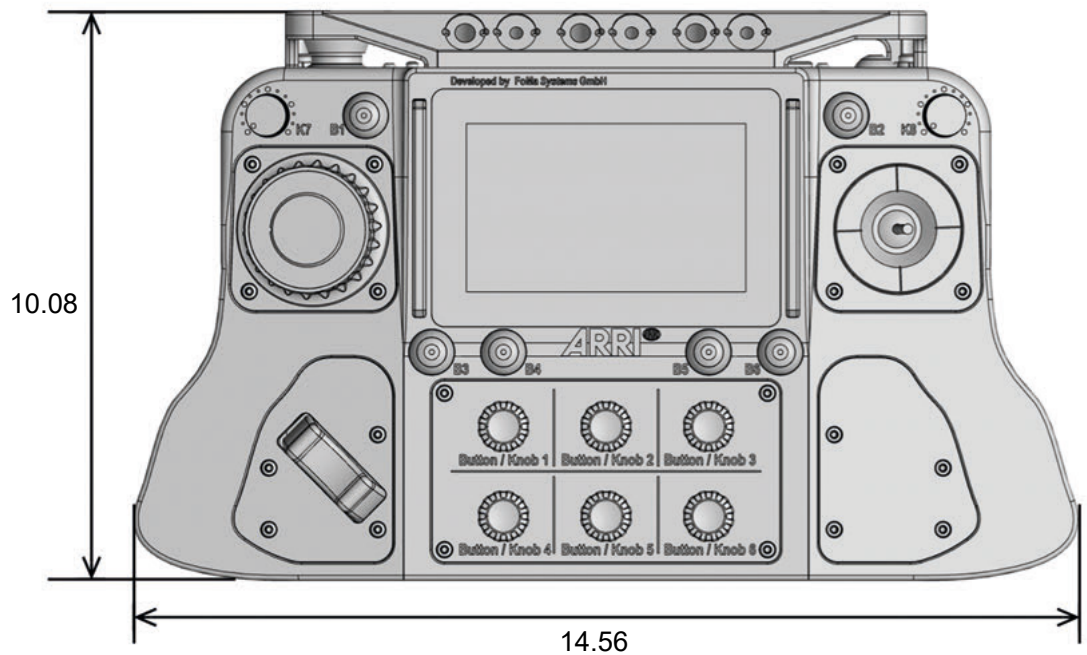
The CSS EVO GUI 2.0 masters LBUS, FS CAN bus and network communication and is therefore ideally equipped for future work requirements and processes.

Thanks to this uniform GUI for the 360 EVO and the TRINITY 2 system, wishes and suggestions from two entirely different application areas can be creatively implemented in this architecture.



## 4.2 Remote Control Panel

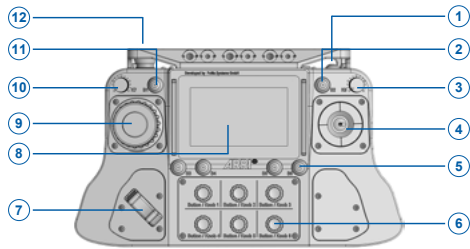
### Dimensions



All dimensions given in inch.

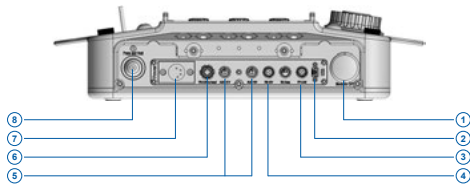
Width	370 mm / 14.56 in
Depth	256 mm / 10.07 in
Height	88 mm / 3.46 in (without joystick)
Weight	3.1 kg / 6.83 lb (fully equipped)

### Overview Top



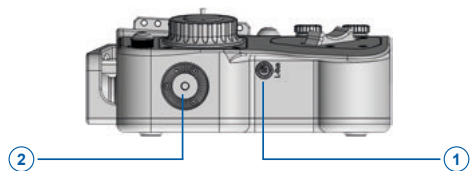
- 1 Power ON / OFF
- 2 Button B2 (analog / assignable)
- 3 Knob K8 (analog / assignable)
- 4 Joystick (Standard K2.0039880, Broadcast K2.0039881, Microforce K2.0039882)
- 5 Buttons B3 - B6 (analog / assignable)
- 6 Knobs K1 - K6 and Buttons B1 - B6 (digital / assignable)
- 7 Zoom Rocker (optional, Focus / Zoom Set K0.0019595)
- 8 Display (touch screen)
- 9 Focus Wheel (optional, Focus / Zoom Set K0.0019595)
- 10 Knob K7 (analog / assignable)
- 11 Button B1 (analog / assignable)
- 12 Emergency Stop Switch

### Overview Back

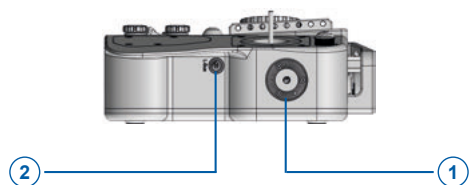


- 1 Emergency Stop switch
- 2 Mini USB (for service only)
- 3 FF CAN Bus (for service only)
- 4 RS AUX Power (12 V, max. 3 A)
- 5 AUX Power (2pin Lemo, 12 V, max. 3 A)
- 6 FS CAN Bus
- 7 Power IN (4pin XLR, 12 V)
- 8 Power ON/OFF

### Overview Sides



- 1 LBUS In (ARRI standard)
- 2 Mounting Rosette (ARRI standard)



- 1 Mounting rosette (ARRI standard)
- 2 LBUS In (ARRI standard)

## 4.3 Power Supply



### NOTICE

Please follow the instructions regarding the power supply in the 360 EVO and TRINITY 2 operating manual.

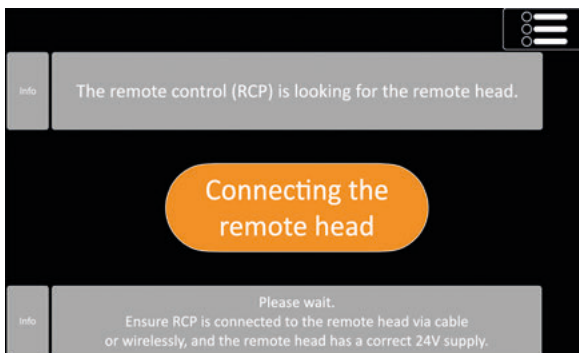
Only a power supply that meets the requirements can ensure the flawless operation of the remote control.

## 5 To Initialize the Remote Control Panel and the System

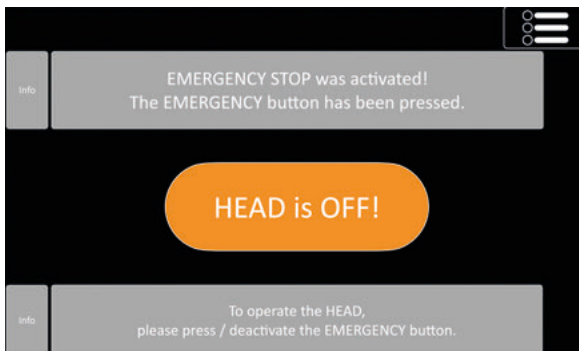
### 5.1 Power Up



Press the *Power button* momentarily to switch the remote control panel on.



The boot process takes a few seconds. After the boot process the information on the left appears.



When this message appears, an emergency stop switch is active. Please check the emergency stop switches both on the Remote Control Panel and on the CSS device.

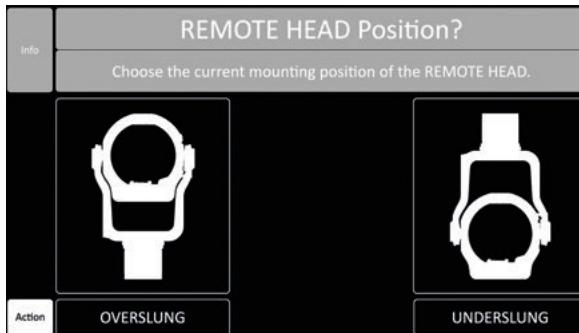


Position of the emergency stop switches:

- Left: Stabilized Remote Head
- Right: Remote Control Panel

## 5.2 Head Position

When the connection to the remote head has been successfully established, the following message appears.



Select **OVERSLUNG** when the head is **standing** on a dolly, bazooka or hard mount.

Select **UNDERSLUNG** when the head is **suspended** from a crane, Spidercam, or hard-mount.



### NOTICE

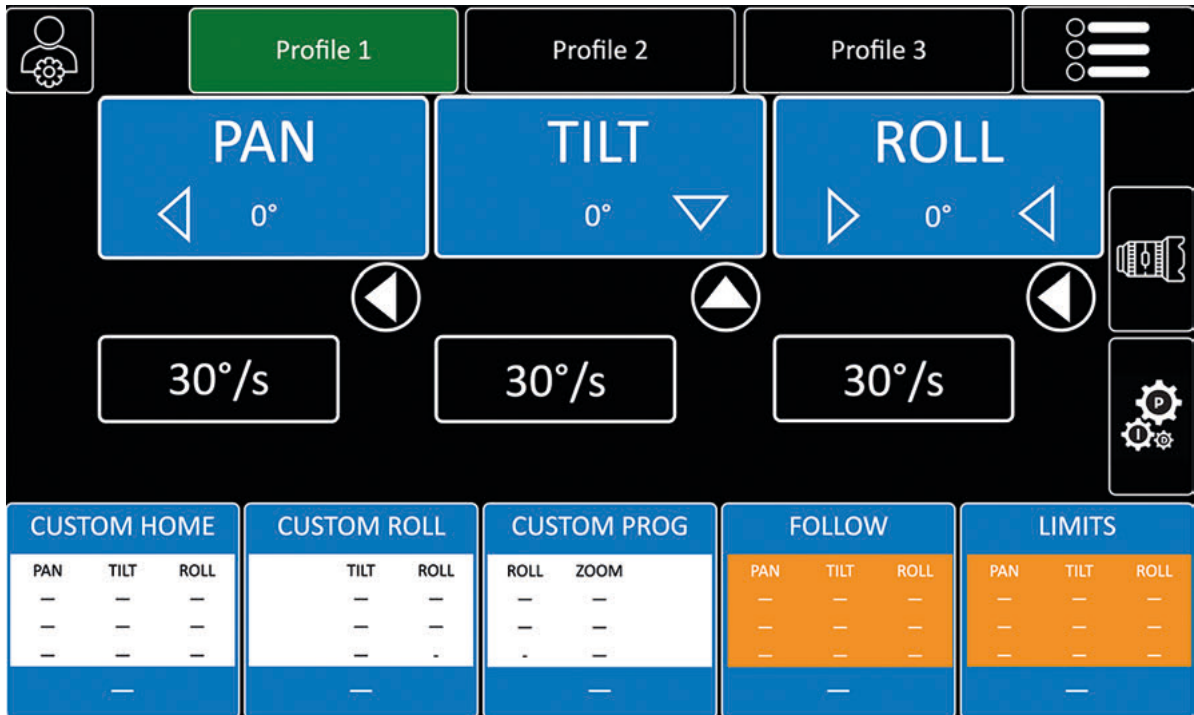
An incorrectly selected position can lead to reduced performance of the stabilized remote head and other undesirable effects.

## 6 Home Screen

### 6.1 Introduction

The home screen consists of four elements:

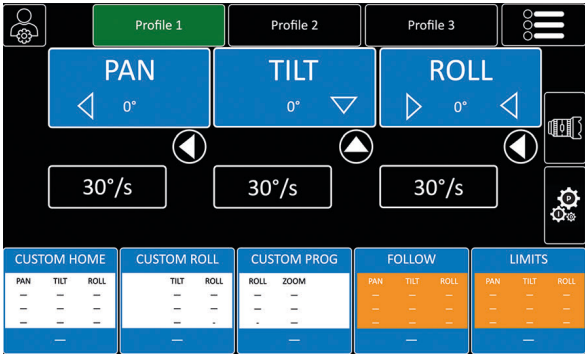
- At the top you have access to the user profiles and user profile groups and access to the main menu.
- On the left is a cross-system arrangement of the function names. This arrangement of function names can be found in all submenus.
- On the right is the status information for the power supply of the remote head and the Remote Control Panel, as well as access to the FIZ (Focus, Iris, Zoom) and PID submenus.
- Five freely programmable programs are available at the bottom of the home screen.



### 6.2 Color Scheme

Group	1	2	3	4	5
Axis					26.0 V 14.4 V
Pos.					
Contr.	None	None	NONE		
Speed		-		-	-
Ramp Window	10%	-	10%	10%	-
Window					
Ratio					
Action					

White areas with black lettering are for information purposes only. This means that functions and current values are displayed. The white areas do not react to touch!



Black and green areas with a white border are interactive areas. They display functions and values. Touch them to change functions and values directly or access the respective sub menu.

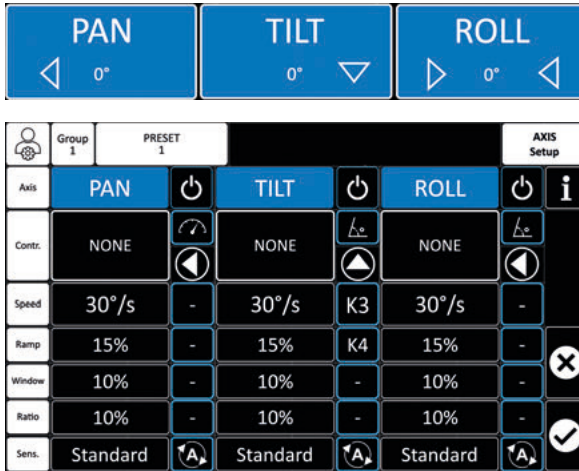
Open the sub menus of the large blue areas PAN, TILT, ROLL, FOCUS, IRS, and ZOOM by pressing them longer than two seconds.

The five user programmable fields at the bottom of the home screen are an exception:

- Tap and hold the field for more than two seconds to open a sub menu to program a custom program.
- Touch the field briefly to execute the previously programmed custom program.

# 7 Controllers

## 7.1 Axis Setup



Axis setup allows to place the values of the respective axes into a meaningful relationship with each other more rapidly.

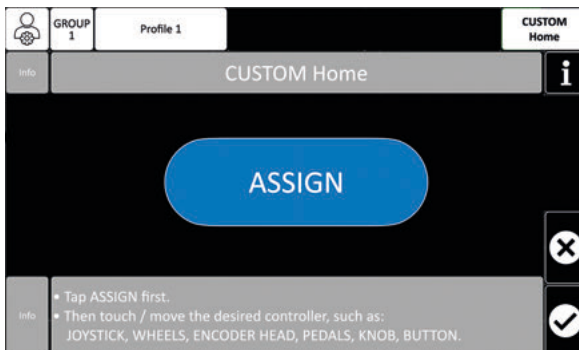
All axes are presented simultaneously in the axis submenu.

## 7.2 To Assign Controllers

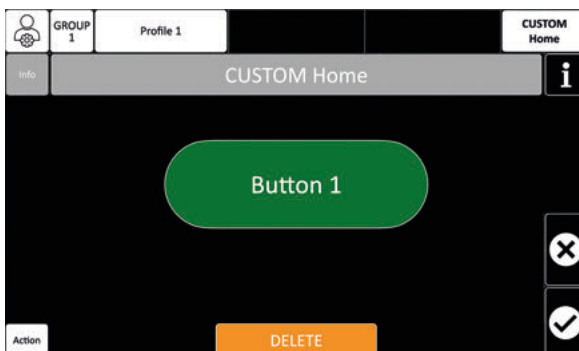


Touch the desired field to assign a controller.

Let's assign a controller for the PAN axis.



- Tap on the **NONE** field under PAN.
- **NONE** means that no controller is assigned to this axis. The controller assignment submenu opens.
- Tap **ASSIGN**.
- Touch / move the desired controller, such as: JOYSTICK, WHEELS, ENCODER HEAD, PEDALS, KNOB, BUTTON.



Set the ARRI Wheel DRW-1 to PAN and rotate it after pressing the ASSIGN button. The ARRI Wheel DRW-1 Pan is now automatically assigned to the PAN axis.

Press  when you are happy with your choice.



### NOTICE

To cancel the assign process, press



### 7.3 Controller Setup



The four available Joysticks, the ARRI Wheels, ARRI Pedals, and other LBUS controllers like the OCU-1 or Master Grips all have different basic settings.

But there's a way to set them up automatically.

After the controller has been assigned, tap this field for **two seconds** to call up the appropriate basic settings for the connected controller.

### 7.4 Directions



Tap on this field to change the direction.

### 7.5 “Angle or Position Mode” and “Speed Mode”

Each controller has a preferred operating mode. There are two different modes of operation.



Tap on this field to switch between the two modes.

#### 7.5.1 Angle or Position Mode

The controller generates precise position data in degrees and transmits it to the remote head.

Controllers, such as the ARRI Wheels DRW-1, and digital encoder heads, such as the DEH-1 and DEH-2, operate on this principle.

If the controller is brought to an angle or position of 60°, for instance, and held there, the remote head follows a one-to-one pattern, with the controller’s movement terminating precisely at 60°.

If you want the remote head to move exactly the same way as the controller and to move to a certain position repeatedly, angle or position mode is recommended.

#### 7.5.2 Speed Mode

In Speed Mode, the dynamic values of the controller will be utilized to control the movement of the remote head. Controlling the remote head feels more intuitive and direct.

The Speed Mode setting is the appropriate choice when shooting in highly dynamic situations involving rapidly moving targets.



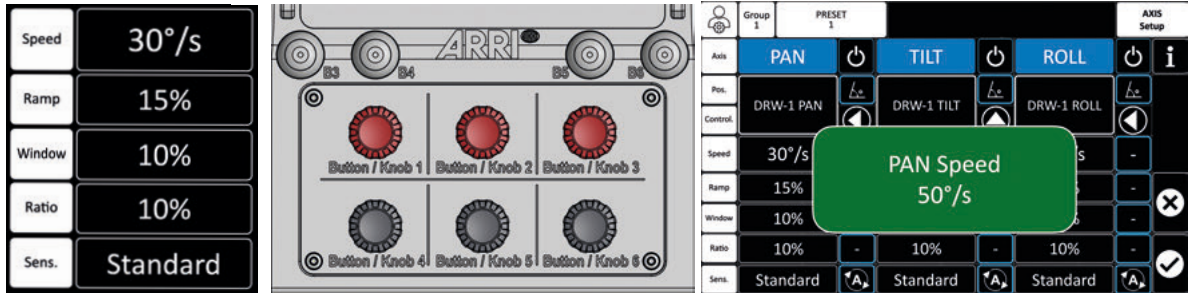
#### NOTICE

**Speed mode** is required for all available joysticks and the ARRI Pedals DEP-1.

## 7.6 Basic Controller Settings

### 7.6.1 Speed

1. Tap on the value in the black field to open a pop-up window.
2. Turn one of the top jog wheels on the RCP-2 EVO or the side jog wheels on the RCP-3 to increase or decrease the value.
3. Press the jog wheel to confirm the new value.



### 7.6.2 Ramp

Ramp is only available in Speed Mode.

The Ramp value in remote heads refers to the rate at which the speed of the camera movement changes. It determines how quickly the camera accelerates or decelerates during a pan, tilt, or other movement.

When you adjust the Ramp value, you essentially adjust the smoothness and speed of the camera movement. A higher Ramp value will result in a more gradual acceleration and deceleration, creating smoother and more cinematic movements.

On the other hand, a lower Ramp value will cause the camera to accelerate and decelerate more abruptly, resulting in quicker movements.

By adjusting the Ramp value, operators can fine-tune the camera's movements to achieve the desired effect for a particular shot or scene. This level of control is essential for creating professional-looking and visually appealing footage.

#### NOTICE

A ramp value that is too high can be counterproductive and is therefore not recommended, as the previously set speed value may not be achieved.

### 7.6.3 Window / Dead Band

Window / Dead Band is only available in Speed Mode.

The Window / Dead Band value in a remote head refers to a parameter that controls the sensitivity of the joystick or control device used to operate the camera. It determines the amount of movement required before the camera begins to respond to the input.

A smaller Window / Dead Band value means that even slight movements of the joystick will result in immediate response from the camera, making it more sensitive and responsive to subtle inputs.

On the other hand, a larger Window / Dead Band value requires more significant joystick movements before the camera starts to move. It makes it less sensitive and allows for more precise control.



**NOTICE**

It's not recommended to set a Window / Dead Band value too high, as the controller may react too late. The final available range of the controller may not be sufficient to execute the desired movement.

**7.6.4 Ratio**

Ratio is only available in Angle Mode.

The ratio value in a remote head refers to the relationship between the movement of the control device, such as a joystick, and the resulting movement of the camera. It determines how much the camera moves in response to the input from the control device.

A higher ratio value means that a small movement of the control device will result in a larger movement of the camera. It provides more rapid and dynamic camera movements.

On the other hand, a lower ratio value will cause the camera to move less in response to the same input. It results in slower and more subtle movements.



**WARNING**

Too high ratio values can lead to extremely fast movements of the remote head.

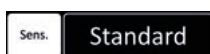
**7.6.5 Sensitivity**

The sensitivity value in a remote head refers to the parameter that controls how responsive the camera is to the input from the control device, such as a joystick or a remote control. It determines the degree to which the camera responds to the movement of the control device.

A higher sensitivity value makes the camera more responsive to small movements of the control device. It results in quicker and more pronounced camera movements.

On the other hand, a lower sensitivity value reduces the camera's responsiveness to small movements. It results in slower and more subtle camera movements.

Controllers which only work in Speed mode, such as the Joysticks, the DEP-1 Pedals, or Rocker, can be adjusted to make them feel more analog.



Tap this field to change the setting or feel of the controller in Speed mode.

**LOW** gives the best "analog" feeling.



**NOTICE**

Different setting options are offered depending on whether the controllers are operating in Speed or Angle mode.

## 8 PID Settings

The PID (Proportional, Integral, Derivative) values in a remote head refer to the parameters that control the behavior of the motorized system used to move and stabilize the camera. These values are part of a control algorithm that helps regulate the movement and positioning of the camera.

- **Proportional (P):** The P value determines how much the motor responds to the current error. The error is the difference between the desired position and the actual position of the camera. A higher P value results in a stronger response to this error, leading to faster but potentially more oscillatory movements.
- **Integral (I):** The I value considers accumulated past errors over time and helps eliminate any residual error that may persist after applying proportional control. It helps ensure that the camera reaches and maintains its desired position accurately.
- **Derivative (D):** The D value considers the rate of change of the error, helping to dampen rapid changes in movement and reduce overshooting or oscillations.

By adjusting these PID values, operators can fine-tune the responsiveness, stability, and precision of the camera movements. Properly tuned PID values can help achieve smooth and accurate camera motions, especially in dynamic shooting situations where precise control is essential. However, finding the optimal PID values often requires experimentation and tuning based on specific equipment and shooting conditions.



### NOTICE

It is imperative to comprehend and acknowledge that all essential steps, including camera setup, attachment of the remote head to the crane, and PID settings, must be executed accurately in order to obtain optimal performance from the entire system.

Before you start to change the PID values, make sure that:

1. The camera setup is solid and stable.
2. All parts are securely fastened to the camera.
3. Do not use tape or Velcro to attach components to the camera.
4. Make sure all the clamps, mounts and brackets are securely fastened and secure.

### 8.1 PID Settings Menu



Tap the PID icon on the home screen to open the PID settings menu.

	Group 1		Profile 1		PID Setup
Axis	PAN		TILT		ROLL
Motor Power	60 %	-	50 %	-	50 %
P	20.0		20.0		1.5
I	1.0		1.0		7.5
D	25.0		25.0		2.5
Clutch	50 %		50 %		50 %
Drop	30 %	-	PID Link OFF		PRESETS

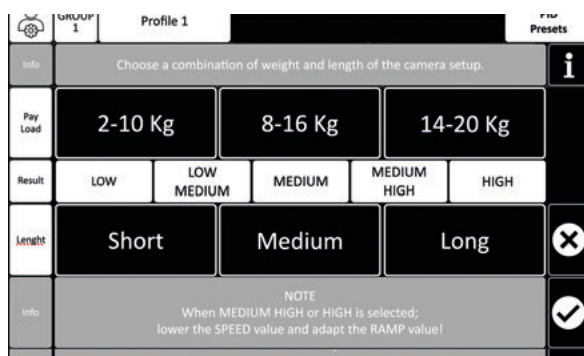
You can choose between preset or manual settings for the PID settings.

It is the quickest way to use the preset option first and then fine tune the PID values manually.

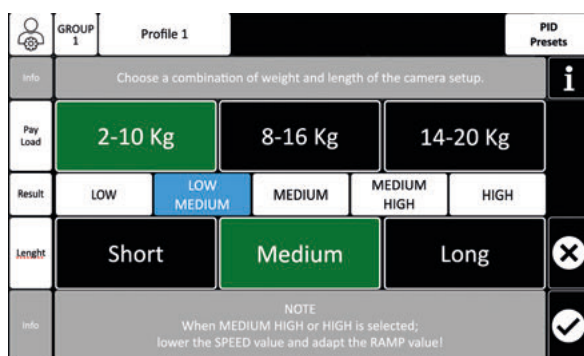
## 8.2 Presets



Tap the **PRESETS** field to open the PID PRESET sub menu.



Now, select the combination of fields that best reflects the length and weight of the camera setup.

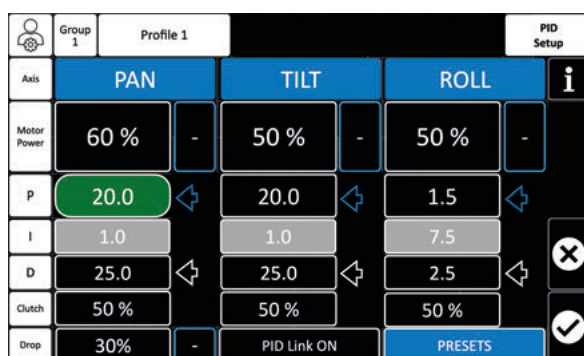


The result is displayed with a blue background. In this case, it is LOW / MEDIUM.

## 8.3 PID Link



Tap the **PID Link OFF** field to activate the PID Link.



Activate the PID Lock function to simplify manual fine-tuning and, above all, to prevent the **D** value from being forgotten and the **I** value from being changed accidentally.

If, for example, the **P** value of the PAN axis is changed, the **D** value is automatically adjusted by a fixed factor in relation to the **P** value.

The arrows next to the **P** and **D** values indicate that the settings are not linked to each other.

## 8.4 Clutch

The **Clutch** function prevents excessive correction of the head when it departs from the intended position.

This function has different settings that can be changed from 5% to 100%.

A low value is recommended for slow applications such as dolly and studio crane, whereas a higher value is suitable for more dynamic applications such as rapid car movements.



Tap the **Clutch** field to change the value.

## 8.5 Drop

Adaptive background adjustment (Drop) is a function specially developed for the Top Shot that automatically adjusts all settings in the background.

This function facilitates precise fine-tuning by utilizing a scale system that ranges from 0% (no adjustment) to 100% (maximum adjustment).

The normal working range remains unaffected and is still  $\pm 70^\circ$  so that the function can be seamlessly integrated into the workflow.



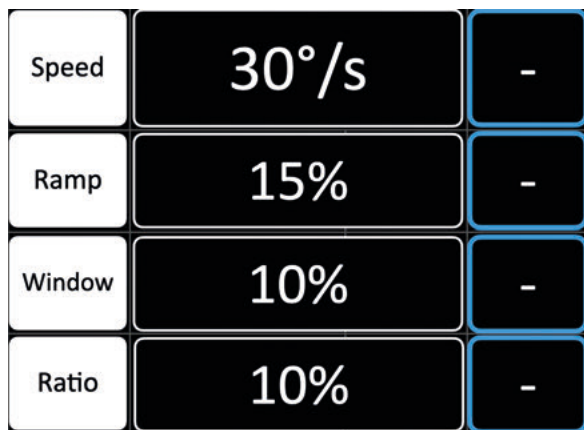
Tap the **Drop** field to change the value.

## 9 Customizing

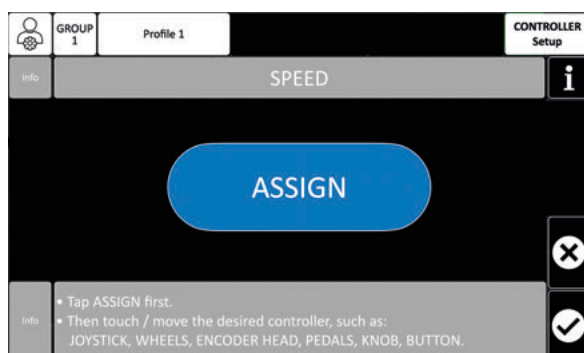
CSS EVO GUI 2.0 offers a wide range of options for users to interact with the respective functions and parameters.

### 9.1 Assignment of Jog Wheels to Values

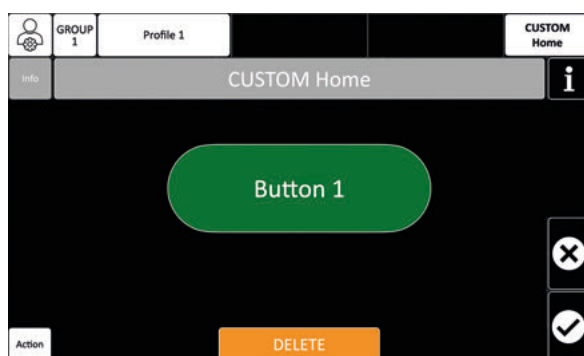
The majority of the value modifications in this graphical user interface can be attributed to a rotary control of a jog wheel.



Tap on a field with a blue border next to a value for two seconds to open a submenu for the assignment.



Tap **ASSIGN**. Then turn one of the digital jog wheels on the Remote Control Panel.



Once the jog wheel is recognized, it will be assigned to the speed value.

Press  when you are happy with the choice of controller.

When you want to assign another controller, press **DELETE** and repeat the procedure with another controller.

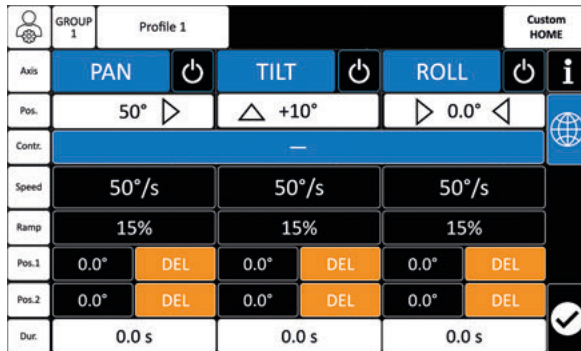


#### NOTICE

To cancel the assignment process, press .

## 9.2 Assignment of Jog Wheels to Programs

You can assign every function or custom program in this graphical user interface to a push control of a jog wheel.

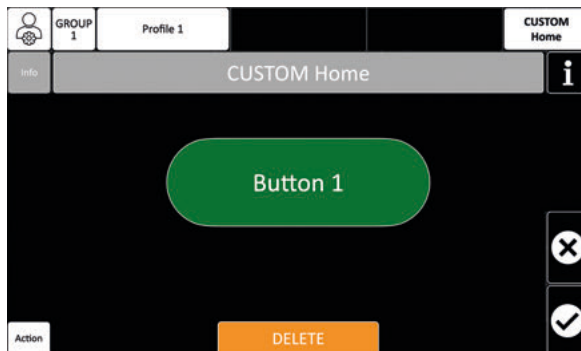


Tap the wide blue controller bar to open a sub menu for the assignment.



Tap **ASSIGN**.

Then turn or push one of the digital controllers on the Remote Control Panel.



Once the jog wheel is recognized, it will be assigned to the program.

Press when you're happy with the choice of controller.

When you want to assign another controller, press **DELETE** and repeat the procedure with another controller.



### NOTICE

To cancel the assignment process, press .



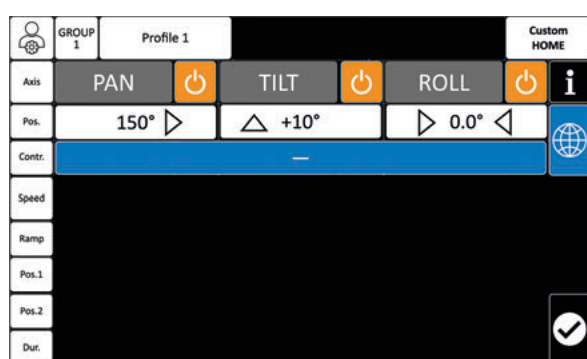
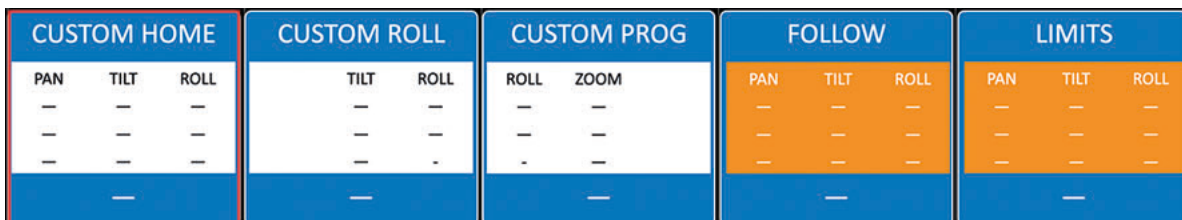
## 10 Programs

CSS EVO GUI 2.0 offers the possibility for the operator to program individual sequences in which the movements of the remote head can also be combined with FIZ of the lens control.

The sequences are always programmed according to the same pattern.

### 10.1 Custom Home

On the home screen, tap **CUSTOM HOME** for two seconds to call up the sub menu.

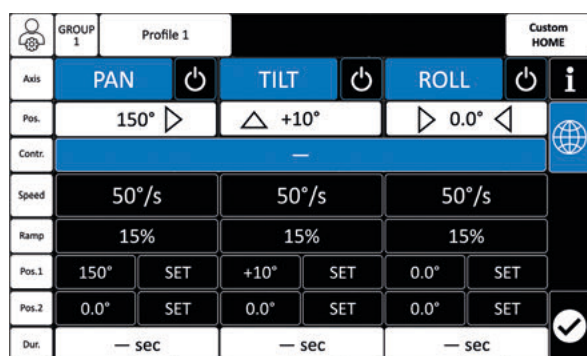


See adjacent illustration. The entire **CUSTOM HOME** function is currently disabled.

Tap the **ON/OFF** field for two seconds to initiate the desired axes.



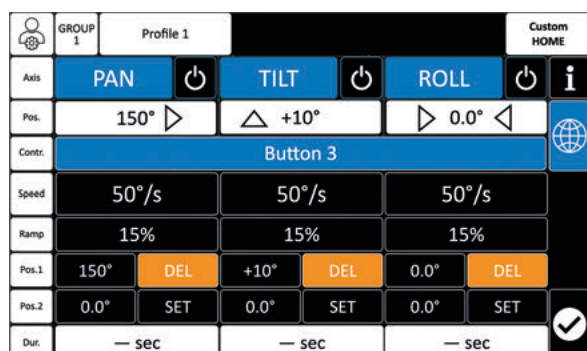
Tap the **GLOBAL HOME** icon to display the actual physical zero position of the remote head.



Enable the desired axis. Use the joystick or wheels to move the remote head into the desired HOME position.

While the remote head is moving, the current position angle is displayed continuously in the **Pos. 1** field.

After achieving the desired home position, press the **SET** button next to the position angle.



The current HOME position has been set when **DEL** appears next to the position angle.

Tap the wide blue controller bar to open a sub menu for the assignment.

In the setup above, you can make the remote head move automatically from any position to the **HOME** position you set.

You can adjust the speed and ramp for the pre-programmed movement.

Furthermore, it is recommended that you assign a button that initiates this program upon pressing it.

You can use the touch screen on the home screen to start this pre-programmed movement.

### 10.2 Advanced Settings

GROUP 1	Profile 1		Custom HOME
Axis	PAN	TILT	ROLL
Pos.	150°	+10°	0.0°
Contr.	Button 3		
Speed	50°/s	50°/s	50°/s
Ramp	15%	15%	15%
Pos.1	150° DEL	+10° DEL	0.0° DEL
Pos.2	0.0° DEL	0.0° DEL	0.0° DEL
Dur.	— sec	— sec	— sec

When you set a value in **Pos. 2**, the head will move between the two programmed positions.

When you trigger the assigned controller, the remote head will move to position 1 and move to position 2 when it is triggered again and back to position 1 when it is triggered again.

### 10.3 Custom Roll

**CUSTOM ROLL** is used and programmed in the same way as described above for **CUSTOM HOME**.

CUSTOM HOME	CUSTOM ROLL	CUSTOM PROG	FOLLOW	LIMITS
PAN TILT ROLL	TILT ROLL	ROLL ZOOM	PAN TILT ROLL	PAN TILT ROLL
— — —	— —	— —	— — —	— — —
— — —	— —	— —	— — —	— — —
— — —	— —	— —	— — —	— — —
—	—	—	—	—

### 10.4 Custom Program

The **CUSTOM PROGRAM** allows you to combine the **roll axis** and **zoom**.

This way, both axes / movements can be precisely aligned in order to achieve the same exact approach every time.

On the home screen, tap **CUSTOM PROG** for two seconds to call up the sub menu.

CUSTOM HOME	CUSTOM ROLL	CUSTOM PROG	FOLLOW	LIMITS
PAN TILT ROLL	TILT ROLL	ROLL ZOOM	PAN TILT ROLL	PAN TILT ROLL
— — —	— —	— —	— — —	— — —
— — —	— —	— —	— — —	— — —
— — —	— —	— —	— — —	— — —
—	—	—	—	—

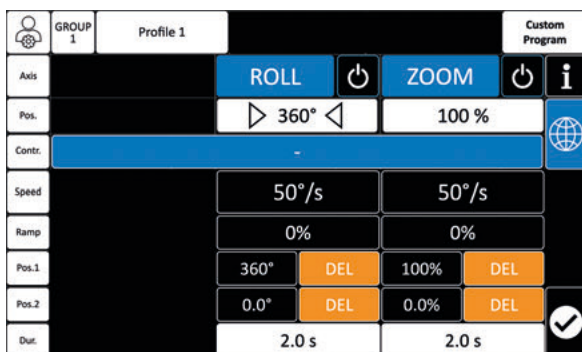
GROUP 1	Profile 1		Custom Program
Axis	ROLL	ZOOM	
Pos.	0.0°	0 %	
Contr.	—		
Speed			
Ramp			
Pos.1			
Pos.2			
Dur.			

See adjacent illustration. The entire **CUSTOM PROG** function is currently disabled.

Tap the **ON/OFF** field for two seconds to initiate the desired axes.

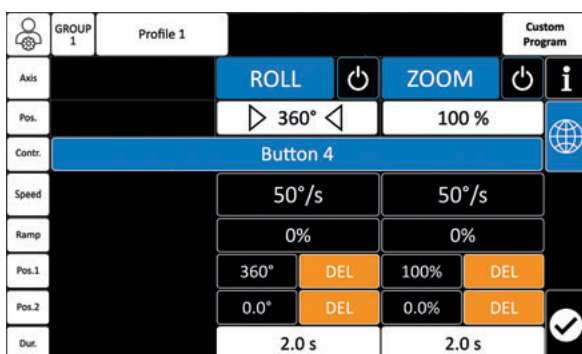


Enable the desired axis. Use the joystick or wheels to move the remote head into the desired positions. Use the zoom rocker to move the zoom lens in the desired positions.



After achieving the desired head and zoom positions, press the **SET** buttons next to the positions.

The current positions have been set when **DEL** appears next to the position angles.



Of course, you can adjust the speed and ramp for the pre-programmed movement.

Furthermore, it is recommended that you assign a button that initiates this program upon pressing it.

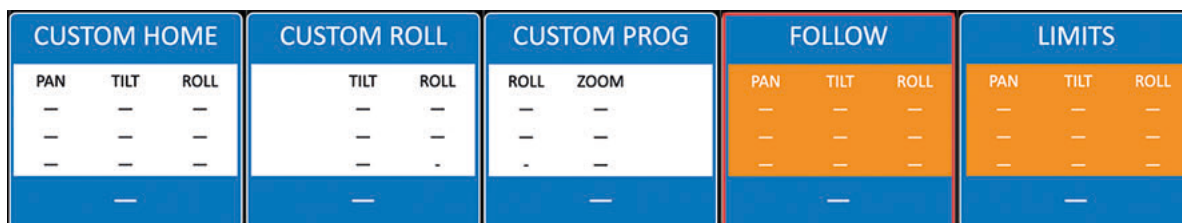
You can use the touch screen on the home screen to start this pre-programmed movement.

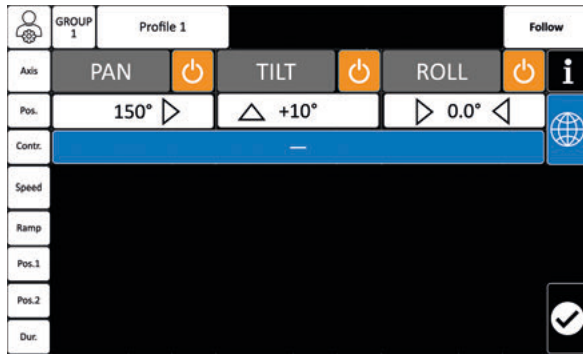
## 10.5 Follow

The Follow function on a remote head allows the user to automatically point the camera at a specific object or person while it is moving.

This can be particularly useful when the camera is mounted on a moving tripod or drone and the target object is to be followed. The Follow function ensures that the object always remains in focus and the camera follows it, even if it is moving.

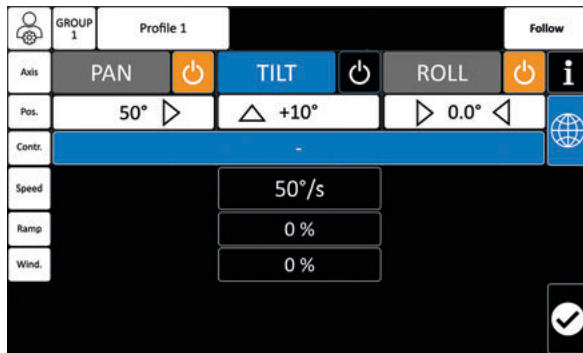
On the home screen, tap **FOLLOW** for two seconds to call up the sub menu.





See adjacent illustration. The entire **FOLLOW** function is currently disabled.

Tap the **ON/OFF** field for two seconds to initiate the desired axes.



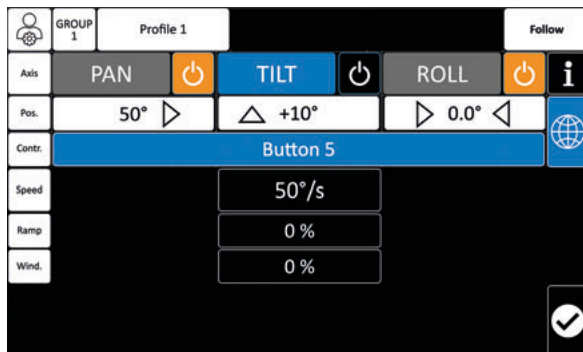
See adjacent illustration. In this setup, only the **TILT** axis has been enabled.

As higher the speed value as more direct the remote head will follow the crane, for example.



## NOTICE

A speed value that is too low and ramp value that is too high can have a negative impact on how the remote head follows the crane.



Furthermore, it is recommended that you assign a button that initiates this program upon pressing it.

You can use the touch screen on the home screen to start this pre-programmed movement.

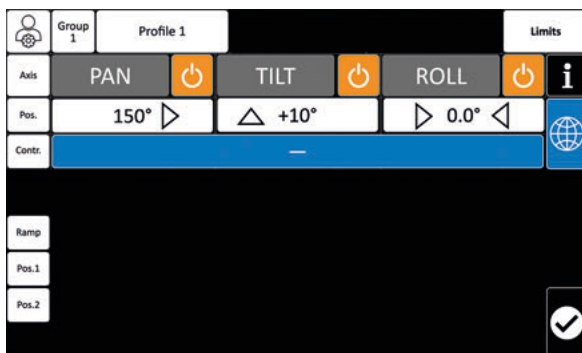
## 10.6 Limits

The Limits function allows the user to set certain limits for the movement of the camera. The camera can only be moved within a certain range and not beyond.

This is useful to ensure that the camera is not accidentally moved to an unwanted position or to ensure that it stays within a defined frame. The Limits function can also help to ensure safety and prevent damage to equipment.

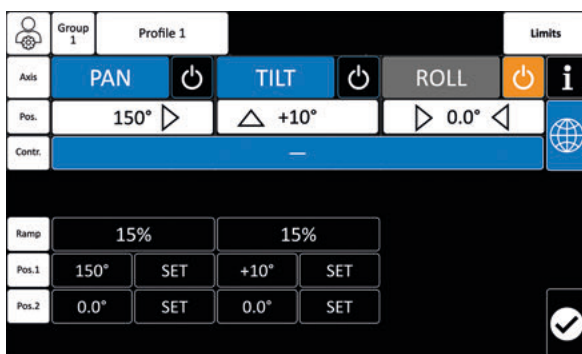
On the home screen, tap **LIMITS** for two seconds to call up the sub menu.

CUSTOM HOME			CUSTOM ROLL		CUSTOM PROG		FOLLOW			LIMITS		
PAN	TILT	ROLL	TILT	ROLL	ROLL	ZOOM	PAN	TILT	ROLL	PAN	TILT	ROLL
—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
—			—		—		—			—		



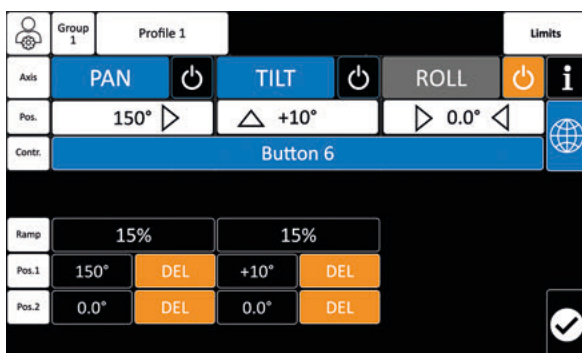
See adjacent illustration. The entire **LIMITS** function is currently disabled.

Tap the **ON/OFF** field for two seconds to initiate the desired axes.



See adjacent illustration. In this setup, only the **PAN** and **TILT** axis had been enabled.

Limits are set for Pan and Tilt. The camera will stop movement when reaching the limits.



After achieving the desired head positions, press the **SET** buttons next to the positions.

The current positions have been set when **DEL** appears next to the position angle.

## 11 FIZ (Focus, Iris, Zoom)

The CSS EVO GUI 2.0 provides **LBUS** communication.

Both cinema and broadcast optics can be controlled via the Remote Control Panel. They can be included in pre-programmed sequences.



### NOTICE

It is important to ensure that the latest software is installed on any LBUS components before attaching them to the Remote Control Panel and remote head.

Group 1	PRESET 1			FIZ Setup
Axis	FOCUS	IRIS	ZOOM	i
Contr.	OCU-1	NONE	ROCKER	
Speed				
Ramp				
Torque	Low	Low	Low	X
Ratio	0%	0%	0%	
Action	CALIBRATE	CALIBRATE	CALIBRATE	✓

The FIZ sub menu follows the same pattern as the PAN, TIL and ROLL setup sub menu.



### NOTICE

Different setting options are offered depending on whether the controllers are operating in speed or angle mode.

If you encounter issues with one of the connected LBUS components, please go to the Main Menu and select Software Status under the SYSTEM column.

You can find the current software status of the respective LBUS component there.



## 12 User Profiles

You can see which profile from which group is currently being used on the Home Screen. You can switch between the three profiles by touching them.

In this case, profile 1 of group1 is in use.



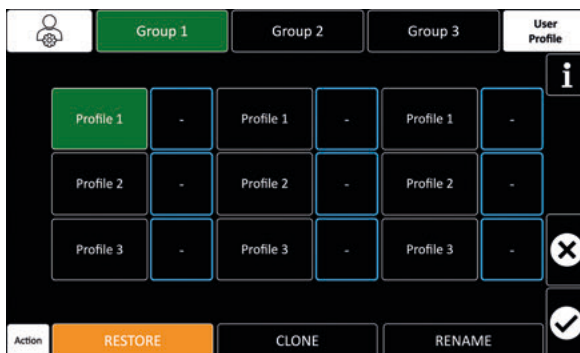
### NOTICE

Every change, such as swapping the controller, or direction, updating values such as speed, ramp, etc., are always automatically saved in the current profile.



Tap the user profile icon when you want to change the group or rename, clone, or restore any of the profiles.

### 12.1 User Profiles Sub Menu



The CSS EVO GUI 2.0 provides the user with the ability to save six user profiles in three distinct groups. This implies that a total of 18 user profiles are currently available.

The green highlighted fields indicate which group and which profile is currently in use.

## 13 Main Menu

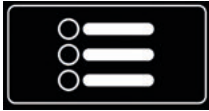
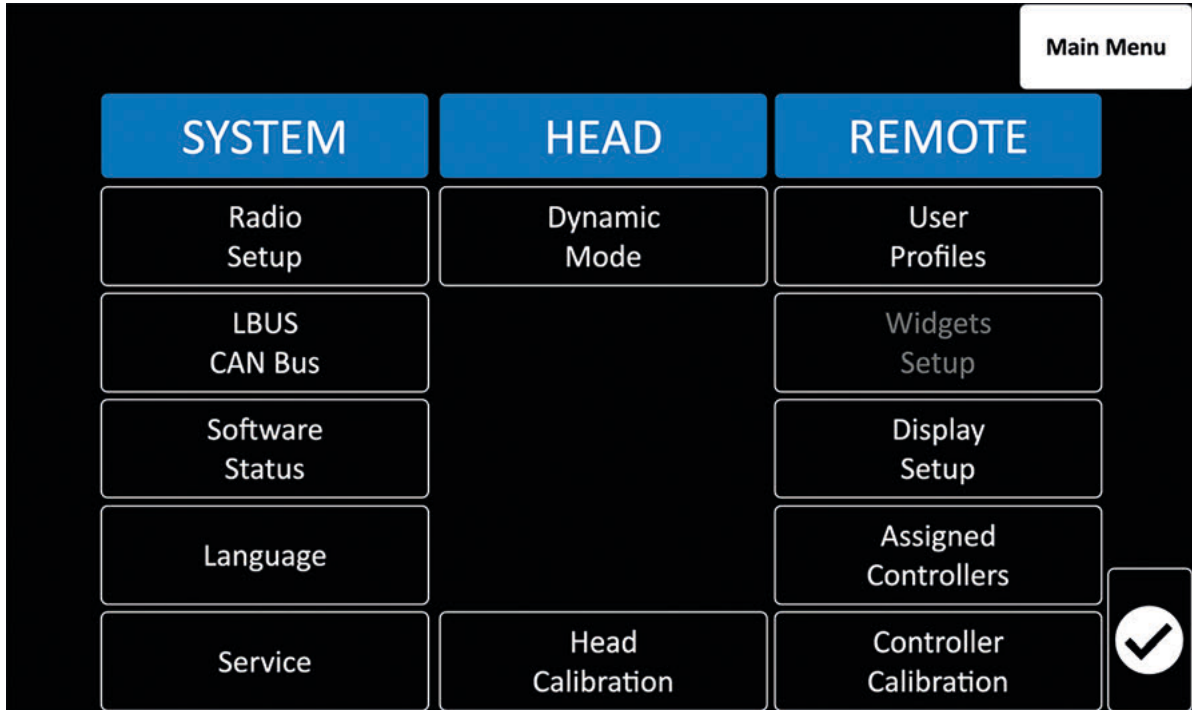


Illustration 1:

Tap the main menu icon on the home screen to enter the main menu.



### 13.1 Radio Setup

The CSS EVO GUI supports the

- **ERM-2400** 2.4 GHz RXD-TXD Pro Set, SRH (KK.0040049)

and

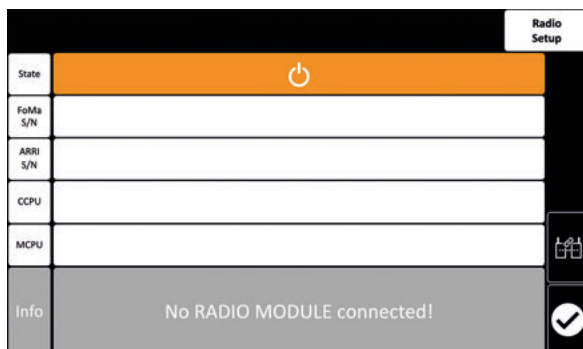
- **ERM-900** MHz RXD-TXD Pro Set, SRH (KK.0040050),

with the 360 EVO and TRINITY 2.

With the TRINITY 2 the CSS EVO GUI supports the

- **TRINITY 2 RF-2400** Radio Set (K0.0044373).

#### 13.1.1 Working Without Radio / Hard-wired



Please ensure that the radio system is deactivated, when you do not use a radio module and use the Remote Control Panel hard-wired.



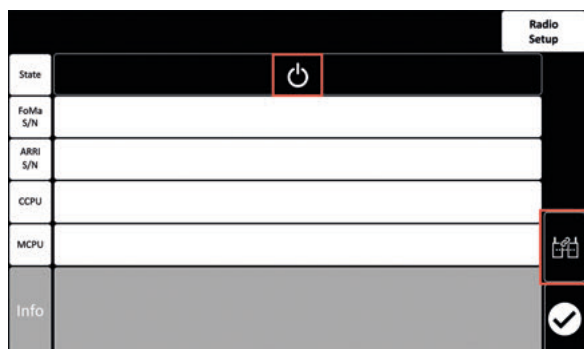
### 13.1.2 Working With Radio Modules



#### NOTICE

After the external radio modules or ERM have been connected to the remote head and the Remote Control Panel, you must pair the radio modules with each other.

### 13.1.3 Pairing



To activate the radio system:

1. Tap the **ON/OFF** field.
2. Tap the pairing field on the right side of the menu screen.
3. Please follow the instructions displayed on the screen.

### 13.2 LBUS / CAN Bus

You will find here which controllers are connected and in use, as well as the actual software status.

### 13.3 Software Status

		Software Status	
	HEAD	REMOTE	
FoMa S/N	360EVO#xxxxxx	RCP2EVO#xxxxxx	
ARRI S/N	K2.0049722xxxx	K2.0049724xxxx	
CCPU	A01.00.xx	A01.00.xx	
MCPU	V2.00.xx	-	
LCPU	LCPU V03.00xx	LCPU V03.00xx	
RCPU	-	-	
BTL	V1.2	V1.2	✓

Here you can see the actual software status of the remote head and the remote control panel / RCP.



#### NOTICE

After a software update has been completed, please ensure that all components of the system have been updated properly.

Also have the information ready when contacting ARRI Service.

### 13.4 Language

As soon as alternative Languages are available, this function will be turned on.

### 13.5 Service

The service menu is password protected and is only accessible by authorized service staff.

## 13.6 Dynamic Mode

When using the 360 EVO Remote head, the CSS EVO GUI offers three different Dynamic Modes:



### Low Dynamic Mode

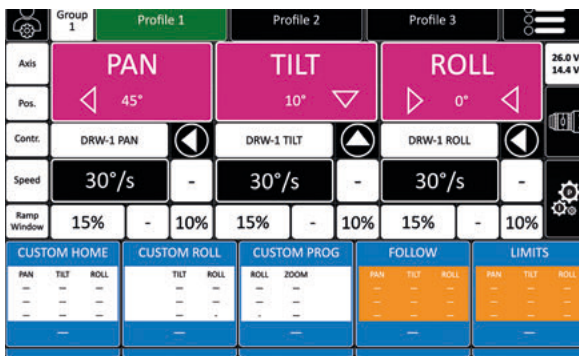
The Low Dynamic Mode is ideal for situations where the remote head is mounted on a tripod or dolly, and it's crucial that the head doesn't sway too much.

### Standard Dynamic Mode

Standard Dynamic Mode ensures the best overall performance for the average daily shooting scenarios.

### High Dynamic Mode

When the remote head is used in extreme centrifugal conditions, the overall stabilization performance is maximized by activating the High Dynamic Mode.



As soon as a dynamic mode other than the Standard Dynamic Mode is activated, the background color of the home screen changes to

- Green: Low Dynamic Mode set,
- Blue: Standard Dynamic Mode set, or
- Purple: High Dynamic Mode set.



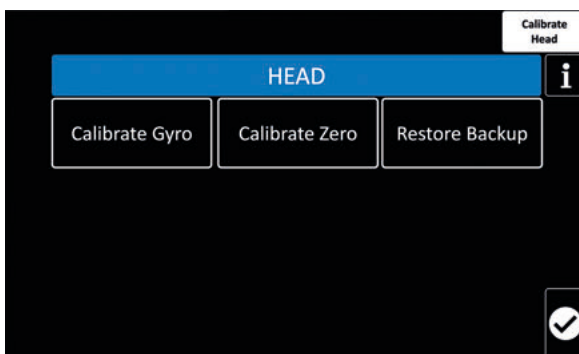
## NOTICE

The process of activating or deactivating the Low and High Dynamic Modes can take up to two minutes.

You must not touch or move the remote head until the dynamic mode activation or deactivation process has been completed.

## 13.7 Head Calibration

### 13.7.1 Calibrate Gyro



When the remote head behaves strangely, you can solve the problem by calibrating the gyro.

We recommend to conduct calibration when the head has been transported over extended distances (the remote head was last used in a city, and now it is used in the mountains, for example).

1. Tap **Calibrate Gyro** to calibrate the camera gyros.
2. Follow the instructions displayed on the screen.



## WARNING

### Secure the Camera!

Since the motors of the remote head are switched off during the calibration process, the camera may tilt over the tilt axis.

### 13.7.2 Calibrate Zero

This feature enables the reset of the physical zero of the remote head.

### 13.7.3 Restore Backup

This function deletes all the settings and values saved in the Remote Head that are sent from the Remote Control Panel to the Remote Head permanently.

The remote head has been temporarily reset to factory settings.

As soon as the Remote Control Panel communicates with the remote head again, all the current settings and values of the Remote Control Panel will be refreshed and sent to the remote head.

This procedure can be very helpful if the head suddenly behaves strangely.

Don't worry, no Remote Control Panel settings or values are gone.

## 13.8 User Profiles

This is an alternative way to enter the User Profile sub menu.

## 13.9 Widgets Setup

This feature will be activated in the next bigger software update.

## 13.10 Display setup

In this menu, you can adjust the display brightness and display orientation.

## 13.11 Assigned Controllers

Assigned Controllers	
Function	Controller
PAN	DRW-1 P
TILT	DRW-1 T
ROLL	DRW-1 R
FOCUS	OCU-1
ZOOM	NONE
ZOOM	NONE

This menu will provide an overview of the controllers currently being used and the functions they do control.

## 13.12 Controller Calibration

The phenomenon of a certain drift in controllers that are first connected to the system is not uncommon.

This is especially noticeable with so-called micro force joysticks.



## NOTICE

Before you attempt to compensate for a drift in the joystick by increasing the window or ramp values, you should rather recalibrate the controller.

---

## 14 ARRI Service Contacts

Please see the current list of service partners at [service contacts](#).



Arnold & Richter Cine Technik GmbH & Co.  
Betriebs KG  
Herbert-Bayer-Str. 10  
80807 Munich  
Germany  
+49 89 3809 2121  
Business hours:  
Mo. - Fr. 09:00 - 17:00 (CET)  
service@arri.de

ARRI CT Limited / London  
2 Highbridge, Oxford Road  
UB8 1LX Uxbridge  
United Kingdom  
+44 1895 457 000  
Business hours:  
Mo. - Thu. 09:00 am - 5:30 pm (GMT)  
Fr. 09:00 am - 5:00 pm (GMT)  
service@arri-ct.com

ARRI Inc. / West Coast  
3700 Vanowen Street  
CA 91505 Burbank  
USA  
+1 818 841 7070  
Business hours:  
Mo. - Fr. 09:00 am - 05:00 pm (PT)  
service@arri.com

ARRI Inc. / East Coast  
617 Route 303  
NY 10913 Blauvelt  
USA  
+1 845 353 1400  
Business hours:  
Mo. - Fr. 08:00 am - 05:30 pm (EST)  
service@arri.com

ARRI Canada Limited  
1200 Aerowood Drive, Unit 29  
ON L4W 2S7 Mississauga  
Canada  
+1 416 255 3335  
Business hours:  
Mo. - Fr. 08:30 am - 05:00 pm (EDT)  
service@arri.com

ARRI Australia Pty Ltd  
Suite 2, 12B Julius Ave  
NSW 2113 North Ryde  
Australia  
+61 2 9855 4305  
Business hours:  
Mo. - Fr. 08:00 am - 05:00 pm (AEST)  
service@arri.com.au

ARRI Asia Pte. Ltd.  
164 Kallang Way, #03-01  
349248 Singapore  
Singapore  
+65 6230 9488  
Business hours:  
Mo. - Fr. 9:00 - 18:00 (CST)  
service@arri.asia

ARRI Japan Kabushiki Kaisha  
Service  
Haneda Innovation City Zone K210, 1-1-4  
Hanedakuko, Ota-Ku  
144-0011 Tokyo  
Japan  
+81 3 6635 3750  
Business hours:  
Mo. - Fr. 10:00 - 18:00 (JST)  
info@arri.jp

ARRI China (Beijing) Co. Ltd.  
Chaowai SOHO Tower C, 6/F, 0628/0656  
Chaowai Dajie Yi 6  
Beijing  
China  
+86 10 5900 9680  
Business hours:  
Mo. - Fr. 09:00 am - 06:00 pm (CST)  
service@arri.cn

ARRI ASIA Limited  
41/F One Kowloon, 1 Wang  
Yuen Street Kowloon Bay  
Hong Kong  
P. R. China  
+852 2537 4266  
Business hours:  
Mo. - Fr. 09:00 am - 06:00 pm (HKT)  
service@arri.asia

ARRI Korea Limited  
Kolon Digital Tower 1(#1505-06), 25  
Seongsuil-ro 4 gil, Seongdong-gu  
04781 Seoul  
Korea  
+82 (0)70 4419 6401  
Business hours:  
Mo. - Fr. 9:00 - 18:00 (KST)  
service@arri.kr

ARRI Brasil Ltda  
Avenida Ibirapuera 2907 – Cj. 421, Indianópolis  
04029-200 São Paulo  
Brazil  
+55 1150419450  
Business hours:  
Mo. - Fr. 09:00 am - 05:30 pm (BRT)  
arribrasil@arri.com

LINKA İthalat İhracat ve Diş Tic.  
Distribütör  
Halide Edip Adivar Mah. Darülaceze Cad.  
No:3 Akın Plaza Kat:5 95-96  
34381 Şişli, İstanbul  
Turkey  
+90 2123584520  
Business hours:  
Mo. - Fr. 09:00 - 18:00 (EET)  
service@linkgroup.com.tr

CINEOM Broadcast India Pvt. Ltd.  
C-4, Goldline Business Centre  
Link Rd. Malad West  
400 064 Mumbai  
India  
+91 (0)22 42 10 9000  
Business hours:  
Mo. - Sa. 10:00 am - 06:00 pm (IST)  
arrisupportindia@cincom.com

CINEOM Broadcast DMCC.  
Unit No. 2109, Jumeirah Bay Tower X2 Cluster X  
Jumeirah Lakes Towers  
P.O Box 414659  
Dubai, UAE  
+971 (0) 45570477  
Business hours:  
Sa. - Th. 10:00 am- 06:00 pm  
arriservice.me@cincom.com



**ARRI** 