



cGate

USER GUIDE v3.0

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Imprint

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This USER GUIDE applies to the following product:

C150-100 cmotion cGate

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Before using the products described in this manual, be sure to read and understand all the respective instructions.

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While cmotion 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.

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Table of Contents

1. For your Safety	8
2. Audience and intended use	10
3. Scope of delivery and warranty	10
3.1 Delivery	10
3.2 Warranty	10
4. Introduction	11
4.1 LBUS connector	11
4.2 Ethernet connector	11
4.3 USB connector	11
5. cGate hardware layout	12
5.1 Hardware layout overview	12
5.1.1 Front Side	12
5.1.2 Left Side / Right Side	13
5.1.3 Back Side	13
6. cGate software layout	14
6.1 Main screen	15
6.1.1 Overview	15
6.1.2 Pair ID	16
6.1.3 Quick Buttons	16
6.2 USB Symbol	17
6.2.1 Camera Icon	18
6.2.2 Lens File Icon	19
6.3 Status LED bars	20
6.3.1 LBUS status	20
6.3.2 Ethernet status	20
6.4 Setup	21
6.4.1 Network	21
6.4.1.1 DHCP	21
6.4.1.2 IP Address	21
6.4.1.3 Subnet Mask	22
6.4.1.4 Gateway	22
6.4.1.5 DNS	22
6.4.2 Data Tunnel	23
6.4.2.1 cGate Pair ID	23
6.4.2.2 cGate Pair Mode	23
6.4.2.3 LCS tunnel	24
6.4.3 Device Connections	25
6.4.3.1 Known Devices	26
6.4.3.1.1 Connect	27
6.4.3.1.2 Edit	29
6.4.3.1.3 Delete	30

6.4.3.2	Add New -----	31
6.4.3.2.1	Search -----	31
6.4.3.2.2	Search and Save -----	33
6.4.3.2.3	Search and Connect -----	33
6.4.3.2.4	Add Manually -----	33
6.4.3.3	Connected Device -----	35
6.4.3.3.1	Set Active -----	36
6.4.3.3.2	Set Inactive -----	36
6.4.3.3.3	Disconnect -----	36
6.4.3.3.4	Automatic Reconnection -----	36
6.4.3.3.5	Reconnection after device restart -----	36
6.4.3.3.6	Reconnection after connection loss -----	37
6.4.3.3.7	Reconnection after changing network settings -----	37
6.4.4	Lens -----	38
6.4.4.1	Load Lens -----	38
6.4.4.2	Unload Lens -----	39
6.4.4.3	Save Lens -----	40
6.4.4.4	Delete lens files -----	41
6.4.4.5	Import lens files from a USB drive -----	42
6.4.4.5.1	Files listed from USB drive -----	43
6.4.4.5.2	Export lens files to a USB drive -----	43
6.4.4.6	Sync Menu -----	45
6.4.4.6.1	Sync Role -----	45
6.4.4.6.1.1	Host -----	45
6.4.4.6.1.2	Client -----	45
6.4.4.6.1.3	Sync Role visualization on home screen -----	46
6.4.4.6.2	cGate Pair ID -----	47
6.4.4.6.3	Focus Offset -----	47
6.4.4.7	Lens Handling -----	48
6.4.5	Motors -----	49
6.4.5.1	Calibrate all -----	49
6.4.5.2	Motor Settings -----	50
6.4.5.2.1	Axis -----	51
6.4.5.2.2	Direction -----	51
6.4.5.2.3	Ramp -----	52
6.4.5.2.4	Torque -----	52
6.4.5.2.5	Calibrate -----	53
6.4.5.3	Stealth Mode -----	53
6.4.6	Display & LEDs -----	54
6.4.6.1	Display Orientation -----	54
6.4.6.2	Display Brightness -----	55
6.4.6.3	Display Sleep Mode -----	55
6.4.6.4	LED Brightness -----	56
6.4.6.5	LED Sleep Mode -----	56
6.4.6.6	Stealth Mode -----	56
6.4.7	System Info -----	57
6.4.7.1	Device Info -----	57
6.4.7.2	ETH Info -----	58
6.4.7.3	LBUS Info -----	60
6.4.8	Firmware Update -----	61
6.4.8.1	Updating a cGate -----	63
6.4.8.2	Updating other LBUS Devices -----	64

6.4.9	Factory Reset	65
6.4.9.1	cGate	65
6.4.9.2	LBUS Devices	65
6.4.9.3	All	66
7.	Network Configuration	67
7.1	Use cases cPRO system	67
7.1.1	General network setup overview	67
7.1.2	Split control from the same location	68
7.1.3	Split control from different locations	69
7.1.4	Multi-camera setup	70
7.2	Use cases ARRI system	71
7.2.1	General network setup overview	71
7.2.2	Split control from the same location	72
7.2.3	Split control from different locations	73
7.2.4	Multi-camera setup	74
7.3	cGate network communication	75
7.3.1	DHCP ON connected to a router	75
7.3.2	DHCP ON connected to a switch	75
7.3.3	DHCP OFF connected to a router or a switch	75
7.4	Extended Camera Control	76
7.4.1	Sony Venice / Venice 2	76
7.4.1.1	Extended Camera Control Features - Sony	76
7.4.1.2	Quick Start – Sony	77
7.4.1.2.1	Setup Overview – Sony	77
7.4.1.2.2	Prepare the camera - Sony	77
7.4.1.2.3	Prepare the cGate - Sony	78
7.4.1.2.4	Create and save a camera profile - Sony	79
7.4.1.2.5	Connect the created camera profile - Sony	79
7.4.1.2.6	Check that the camera is active - Sony	80
7.4.1.3	Trouble Shooting - Sony	80
7.4.2	Blackmagic cameras	82
7.4.2.1	Extended Camera Control Feature - Blackmagic	82
7.4.2.2	Quick Start – Blackmagic	83
7.4.2.2.1	Prepare the camera – Blackmagic	83
7.4.2.2.2	Prepare the cGate - Blackmagic	86
7.4.2.2.3	Connect the Camera - Blackmagic	87
7.4.2.3	Trouble Shooting - Blackmagic	88
7.5	Lens Sync Setup	89
7.5.1	Use Case cPRO system	90
7.5.2	Use Case ARRI system	90

8. Appendix	91
8.1 Pinouts	91
8.1.1 LBUS port	91
8.1.2 Ethernet port	91
8.2 Environmental Conditions	92
8.3 Dimensions and weight	93
8.4 Mounting Options	94
8.4.1 Mounting with cGate / cPRO camin bracket	94
8.4.2 Mounting with cforce mini clamp	95
8.4.3 Mounting with LCUBE bracket	95
8.5 Part numbers	96
8.5.1 Main components	96
8.5.2 Mounting accessories	96
8.5.3 Cables	97
8.6 Service contacts	98
8.7 Cleaning and maintenance	99
8.8 International declarations	100
8.8.1 EU-Declaration of Conformity	100
8.8.2 UK Declaration of Conformity	100
8.8.3 FCC Class A Statement	101
8.8.4 Industry Canada Compliance Statement	101

1. For your Safety

Before use, please ensure that all users comprehensively read, understand, and follow the instructions in this document.

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
NOTICE 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.

Vital precautions:



Danger!

Risk of electric shock and fire!

Short-circuits may result in serious damage to equipment, injury or death.

Before use, read and follow all valid instructions.

Use solely and exclusively as described in the instructions.

Never open. Never insert objects unless instructed to do so. E.g. battery, USB.

For operation, always use a power source as indicated in the instructions.

Always unplug the cable by gripping the plug, not the cable.

Never try to repair. All repair work should be done by a qualified cmotion Service Center.

Never remove or deactivate any safety equipment (incl. warning stickers or screws marked with paint).

Always protect from moisture, cold, heat, dirt, vibration, shock, or aggressive substances.



Danger!

Risk of fire!

Short-circuits and back currents to power supplies/batteries may result in serious damage to equipment, injury or death.

Always use original ARRI / cmotion LBUS cables to external power sources (D-Tap, XLR)!

ARRI / cmotion LBUS cables to external power sources provide a protection circuit to prevent back currents to power supplies / batteries.

2. Audience and intended use

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 cmotion guidelines. Use the product only for the purpose described in this document. Always follow the valid instructions and system requirements for all equipment involved.

3. Scope of delivery and warranty

Notice
Product and packaging contain recyclable materials. Always store, ship, and dispose according to local regulations. cmotion is not liable for consequences from inadequate storage, shipment or disposal.

3.1 Delivery

On delivery, please check that the package and content are intact. Never accept a damaged or incomplete delivery. A complete delivery includes:

- [C150-100] cmotion cGate
- User manual download card
- Original packaging

3.2 Warranty

For scope of warranty, please ask your local cmotion Service Partner. cmotion is not liable for consequences from inadequate shipment, improper use or damage through third-party products.

4. Introduction

The cGate is a unique miniature signal converter, that converts industry standard LBUS protocol into an Internet Protocol (IP) and vice versa.

By passing real-time lens and camera control over any existing IP infrastructure, including Ethernet (LAN), IP-based RF solutions or any supported fiber channel system, cGate allows integration of cmotion / ARRI controllers and lens motors in studios, stadiums and within challenging RF environments during live events, on film sets or when shooting underwater.

In addition, cGate provides access to advanced camera control over Ethernet-enabled cameras.

Through cmotion's RCCP (Remote Cine Control Protocol), development partners can access the LBUS eco-system including lens, camera and Cinefade Vari360 control for their own implementation into motion control, virtual production workflows and others.

Offering both, plug-and-play automatic pairing and advanced manual IP configuration, cGate can be implemented in any complex network in film, TV or cinematic live broadcast with minimal network knowledge.

4.1 LBUS connector

LBUS is a bus standard designed to allow multiple lens motors and control devices to communicate with each other. The cGate has two identical, bi-directional LBUS ports providing power and control signals. The cGate can be connected to any other LBUS device in daisy-chain using a LBUS to LBUS cable (e.g. LCB-1).

4.2 Ethernet connector

The cGate features a 3-Port Ethernet Switch using one internal ethernet port to tie in LBUS to IP and two external Gigabit ports for LBUS tunneling, camera access and 3rd party integration.

Using a cmotion ethernet cable (e.g. CGI-1), one of the two 10pin Lemo ethernet ports can be connected to an IP network through a standard RJ45 connector.

With both external ethernet ports being transparent, cGate can be connected to the camera using the second ethernet port, maintaining existing IP camera control and shading via standard broadcast RCPs from the control room or streaming future-proof IP video up to one Gigabit.

4.3 USB connector

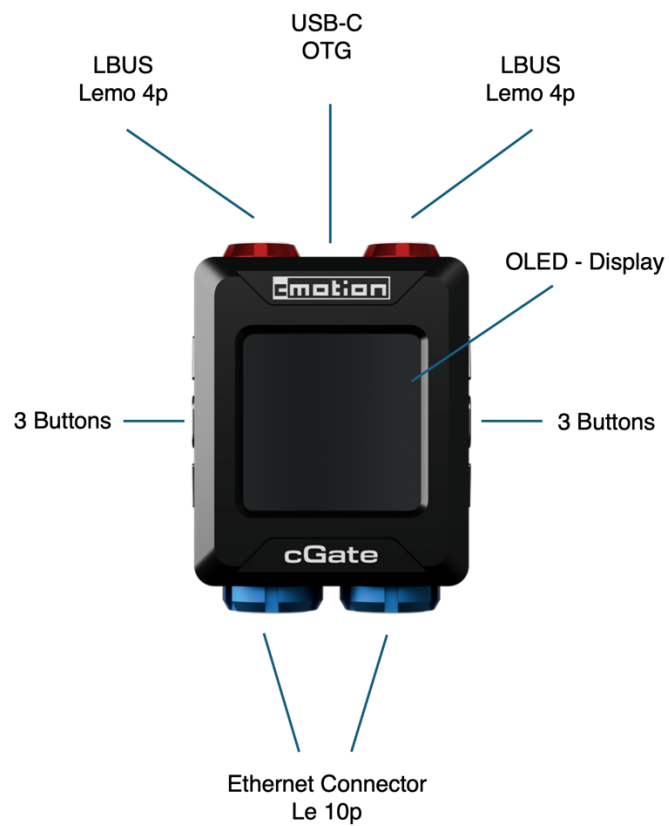
cGate features an 250Mb/s USB-C OTG port, which can be used for software updates through an USB-C flash drive. The USB-C flash drive should be formatted in ExFAT or FAT32.

Equipped with an internal storage of up to 4GB, cGate is prepared for future use through it's USB-C interface.

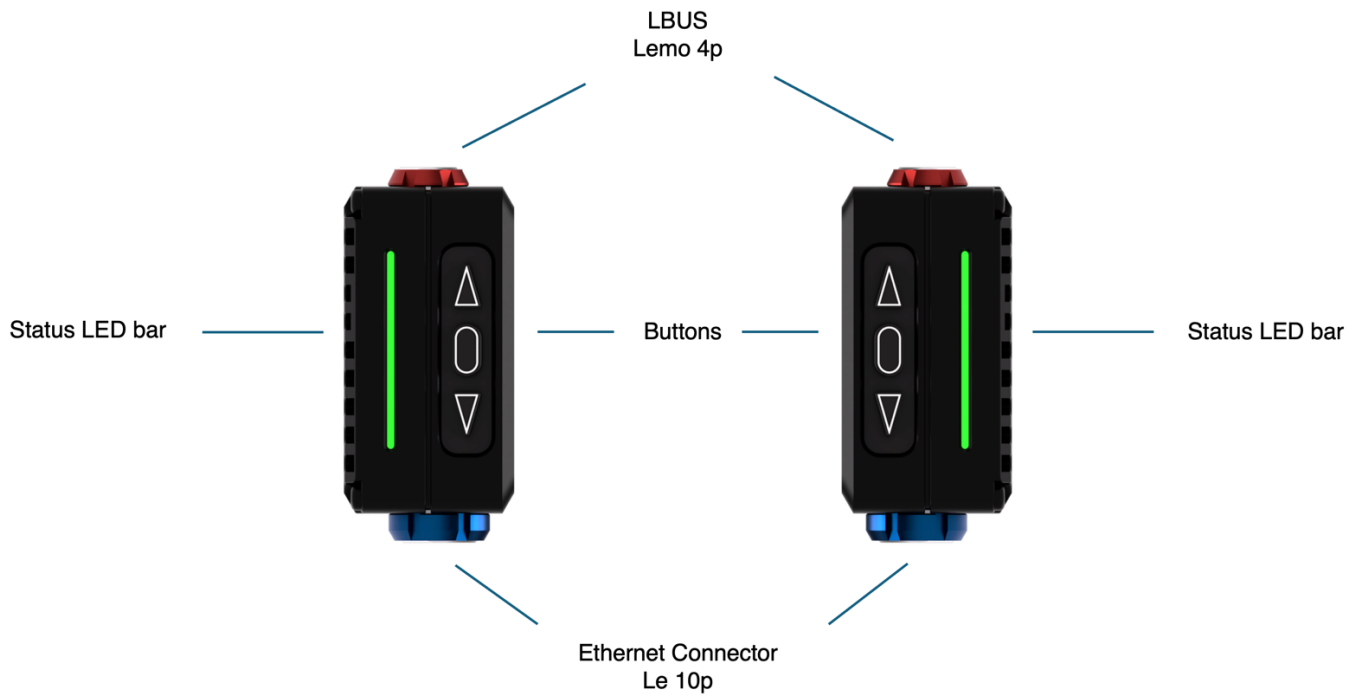
5. cGate hardware layout

5.1 Hardware layout overview

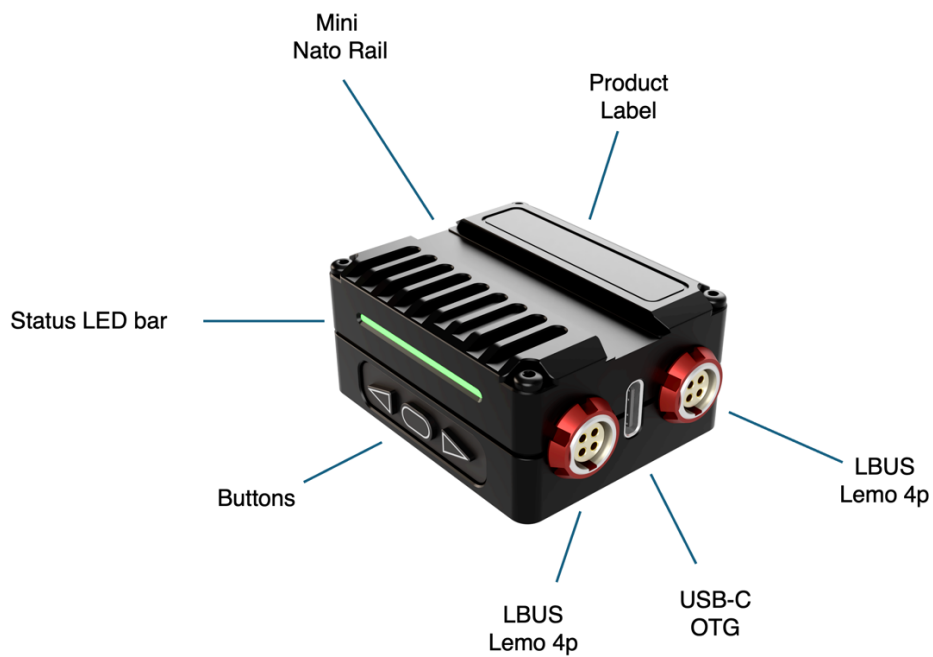
5.1.1 Front Side



5.1.2 Left Side / Right Side

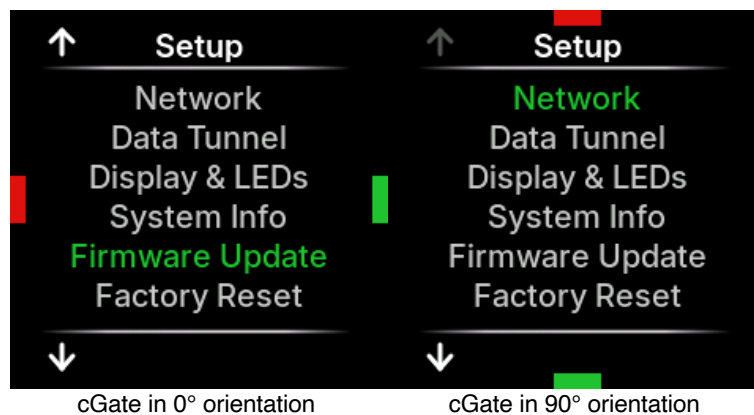


5.1.3 Back Side



6. cGate software layout

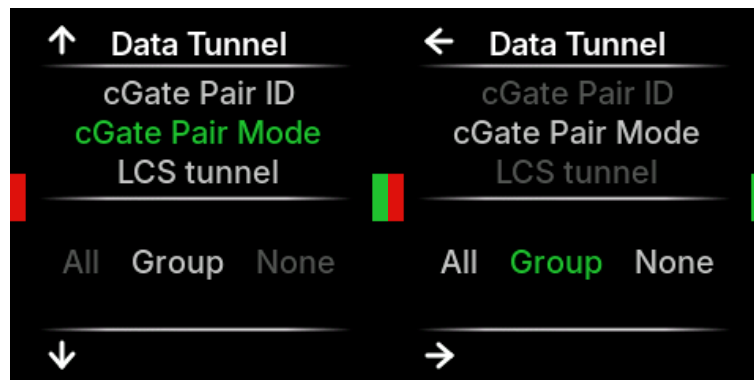
This chapter describes the general cGate operating concept.



The cGate has 6 hardware buttons. Each button takes on a different function depending on the active menu page. Each function is displayed next to the corresponding button.

In the Setup menu, the "SELECT" function is visualized with a green bar and the "BACK" function with a red bar. Depending on the display orientation, the bars are located on the left / right or at the top / bottom of the screen.

Arrows indicate options to navigate in the menu and can display in white or gray. If an arrow is grayed out, navigation in the corresponding direction is not possible.



In the Setup menu, selected entries are highlighted in green.

Pressing the UP / DOWN button, selects the entry above or below the current entry.

Pressing the LEFT / RIGHT button, selects the entry to the left or to the right of the current entry.

Pressing the SELECT button executes a function or confirms a selection.

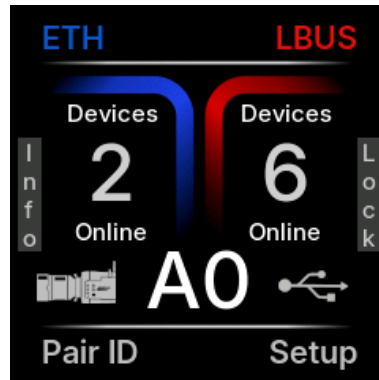
Pressing the BACK button returns to the previous screen while keeping settings unchanged.

Some menus are divided into two sections. When an entry is selected in the upper section, the lower section previews the currently active setting in light gray as well as optional settings in dark gray. By pressing SELECT, the settings can be changed in the lower section, while the upper section gives reference to the selected tab highlighted in light gray (e.g. "cGate Pair Mode" in the example above).

6.1 Main screen

The following chapter provides an overview of the main screen, the quick button functions and a brief description of the USB and camera mounting status.

6.1.1 Overview



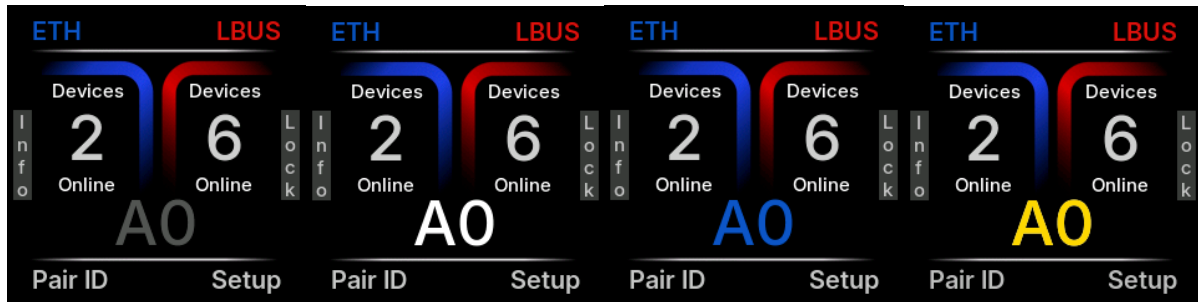
The number on the left side of the main screen shows the number of available Ethernet devices, including cGates and Ethernet enabled cameras. The number on the right side shows the number of available LBUS devices, including cGates.

Notice

Please note that the cGate is both an Ethernet device and an LBUS device at the same time and will therefore be counted in both device categories.

Button	Action
ETH	Quick jump to ETH Info
Info	Quick jump to Device Info
Pair ID	Configure cGate Pair ID
LBUS	Quick jump to LBUS Info
Lock	Locks / Unlocks all buttons Displays in red, when the lock function is active
Setup	Opens the Setup menu

6.1.2 Pair ID



The cGate pair ID displays as "A0" in the example above. The font color depends on the Pair Mode setting.

Pair ID color	Pair Mode setting
Dark gray	Deny – will not connect to any other cGate
White	Group – will connect to other cGates with the same ID
Blue	All – will connect to all other cGates that are also on setting "All" and "Group" with the same ID
Yellow	Sync Client – will connect to hosts with the same ID, but NOT to the host's LBUS network

6.1.3 Quick Buttons

On the main screen, four quick button functions are available:

Buttons	Function
Double tap "Lock"	Activates / Deactivates the lock function
Left UP + Right DOWN simultaneously	Rotates the graphical user interface clockwise
Right UP + Left DOWN simultaneously	Rotates the graphical user interface counterclockwise
Both center buttons simultaneously (Info + Lock)	Toggles through the display brightness

6.2 USB Symbol

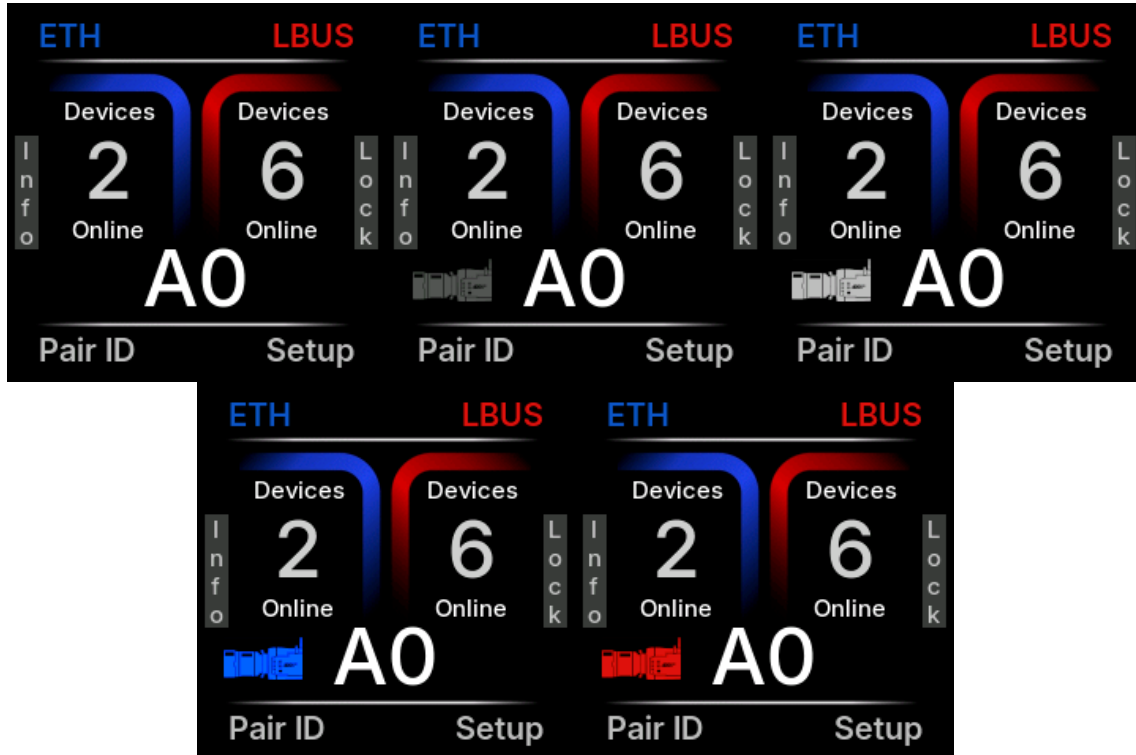
If a USB memory stick is connected to the cGate, a USB symbol is shown on the main screen. The USB symbol can be displayed in different colors.



Color	Status
Dark Gray	USB memory stick is connected
Light Grey / White	USB memory stick is mounted
Red	USB memory stick cannot be mounted

6.2.1 Camera Icon

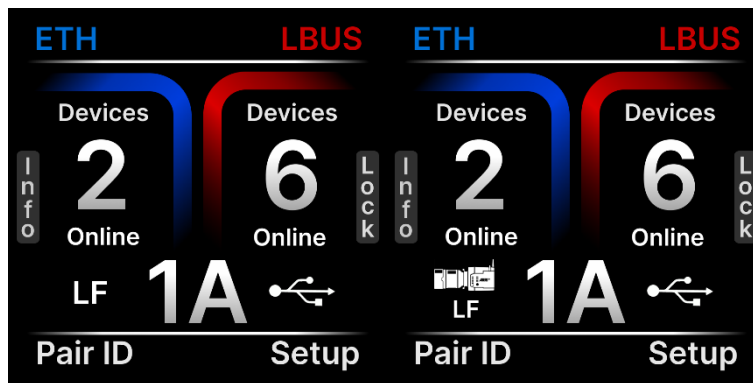
The camera icon on the home screen shows the status of the camera connection.



Camera Icon	Status
Not visible	No camera connected
Dark grey	Camera connected but not active
Light Grey / White	Camera connected and active
Red	Reconnection of last active camera after startup failed / Connection lost
Blue	Reconnection attempts are ongoing

6.2.2 Lens File Icon

The lens file icon shares the space with the camera icon and shows if a lens file is loaded.



6.3 Status LED bars

Both LED bars on the left and on the right sides of the cGate indicate the same status, but each LED bar is divided in two parts.

The part of the LED bars towards the LBUS ports indicate whether an LBUS device is connected. The part of the LED bars towards the Ethernet ports indicate the status of the network connection.

6.3.1 LBUS status

Color	Status
Red	No LBUS Device is connected
Green	One or more LBUS devices are connected

6.3.2 Ethernet status

Color	Status
Red	No Ethernet network is connected
Blue	Ethernet network is connected, but no other cGate is connected
Green	Connected to another cGate over the Ethernet network

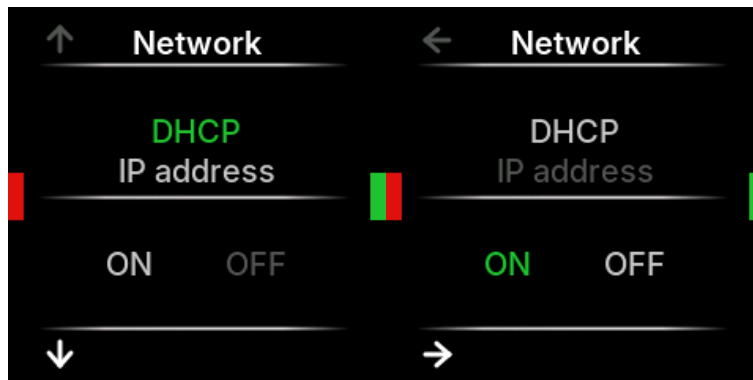
6.4 Setup

The Setup menu contains settings for Network, Data Tunnel, Device Connections, Lens, Motor, Display & LEDs, System Info, Firmware Update and Factory Reset

6.4.1 Network

The Network menu allows you to change the DHCP mode, the IP address, the Subnet Mask, the Gateway and the DNS.

6.4.1.1 DHCP



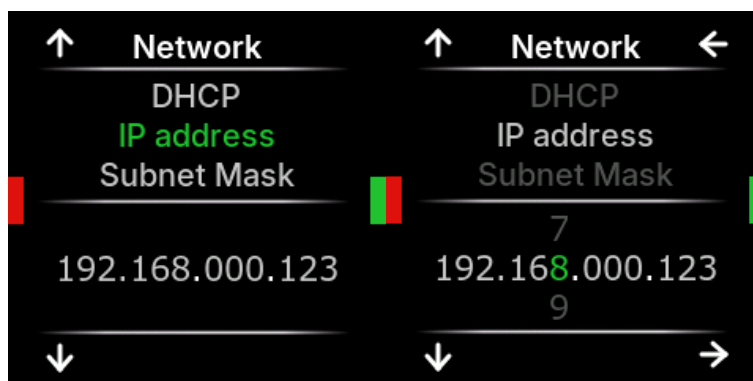
The DHCP menu allows you to turn the DHCP mode ON or OFF.

When DHCP is turned ON, cGate uses the IP address that it receives from the DHCP server. Static IP settings will be ignored.

If no DHCP service is available, the communication is established through a link-local multicast address via mDNS.

When DHCP is turned OFF, a static IP address will be used to establish the communication between multiple cGates. The static IP address settings need to be configured manually.

6.4.1.2 IP Address



The IP address menu allows you to configure a static IP address.

Use the LEFT / RIGHT buttons to select a digit you want to change. Use the UP / DOWN buttons to set a number between 0 - 9.

Every section of the IP address can be set between 0 and 255. Press the SELECT button to save the settings. Use the BACK button to leave the menu without any changes.

Please note that DHCP must be turned OFF to use a static IP address.

Notice

After leaving the network menu completely, the network socket will reopen with the new settings, if network settings were changed.

This behavior is intentional to avoid sending too many network requests while editing network settings.

6.4.1.3 Subnet Mask

The subnet mask is configured in the same way as the IP address.

6.4.1.4 Gateway

The gateway is configured in the same way as the IP address.

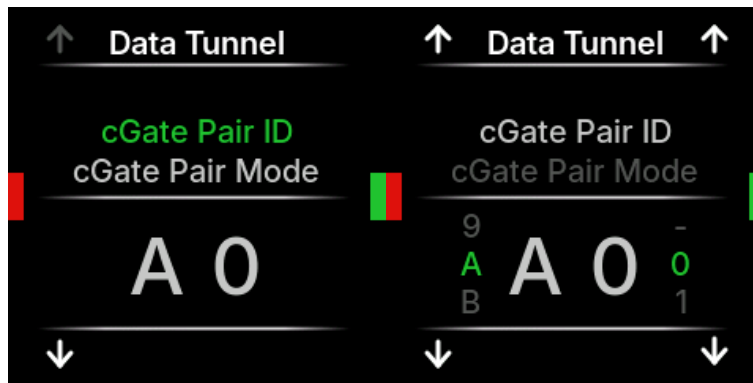
6.4.1.5 DNS

The DNS address is configured in the same way as the IP address.

6.4.2 Data Tunnel

The following chapter describes data tunneling, how to use the cGate Pair ID, the cGate Pair Mode and the LCS tunnel.

6.4.2.1 cGate Pair ID



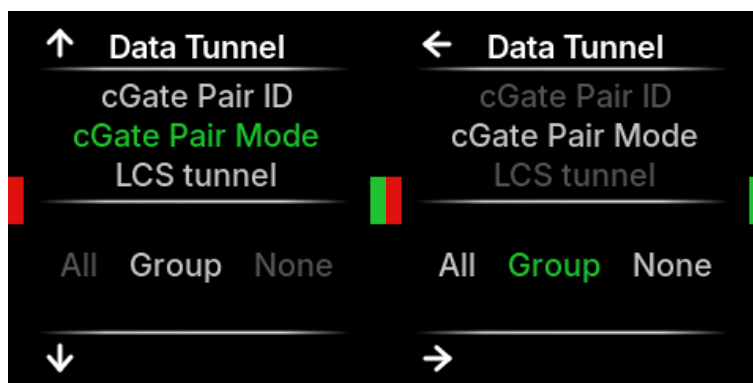
The cGate Pair ID defines which cGates exchange LBUS data between each other. cGates using the same pair ID exchange LBUS data over Ethernet when the cGate Pair Mode is set to Group.

To configure the cGate Pair ID, use the UP / DOWN buttons on the left side to set the first digit. Available characters are 0-9 and A-Z.

Use the UP / DOWN buttons on the right side to set the second digit. Available characters are 0-9, A-Z and "-".

Set the second digit to "-" if you want to use a cGate pair ID with one digit only.

6.4.2.2 cGate Pair Mode

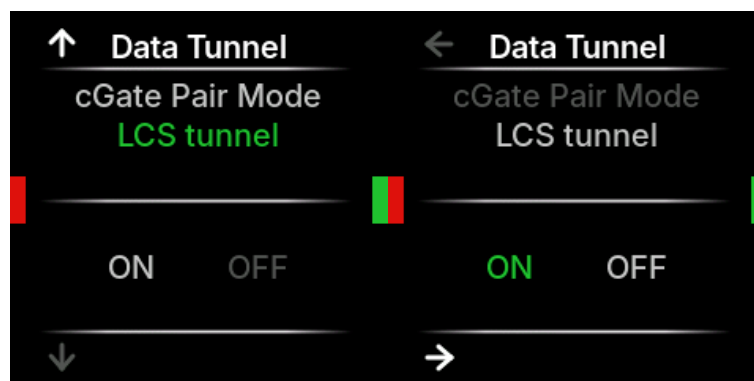


The cGate Pair Mode allows you to configure which cGate should send / receive LBUS data over Ethernet.

Setting	Behavior
All	LBUS data is transferred between all cGates. A selected pair ID will be ignored. The cGate Pair ID on the main screen is displayed in blue.
Group	LBUS data is only transferred between cGates with the same cGate Pair ID. The cGate Pair ID on the main screen is displayed in white.
None	No LBUS data is transferred over ethernet. The cGate Pair ID on the main screen is displayed in dark gray.



6.4.2.3 LCS tunnel



The LCS protocol is used by ARRI ALEXA cameras, other ARRI motor controllers (e.g. RIA-1, cforce mini RF) and ARRI hand units (e.g. Hi-5, ZMU-4, WCU-4).

When the LCS tunnel is turned ON, LCS data is transferred between the cGates along with the LBUS data. LBUS Pair Mode must be set to All or Group.

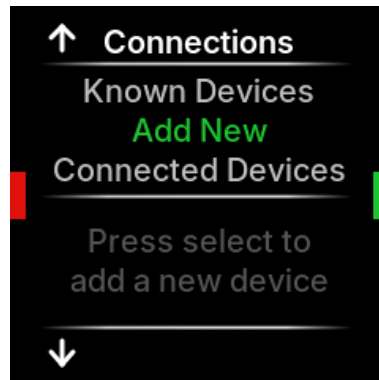
To save network bandwidth, the LCS tunnel can be turned OFF.

6.4.3 Device Connections

The Device Connections Menu can be used to connect service devices like cameras to a cGate e.g. to allow extended camera control features via Ethernet.

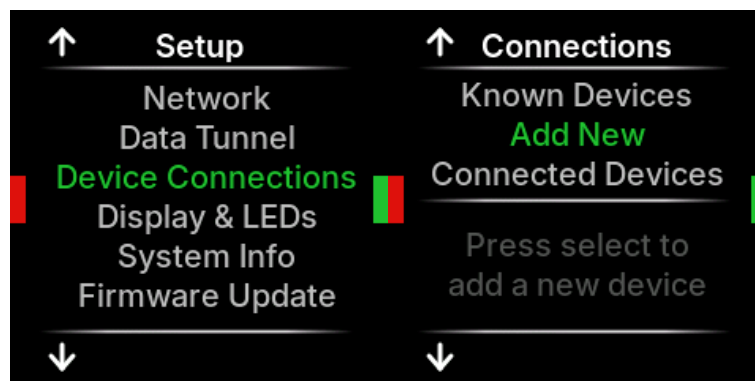
Currently extended camera control features via Ethernet are available for Sony Venice and Venice 2 as well as for the most popular Blackmagic cameras.

Please refer to section 7.4.1 “Sony Venice / Venice 2” on page 76 or to section “7.4.2” Blackmagic cameras” on page 82 for a detailed feature scope and setup.



To find other devices on the network, a device connection must be configured. The “Device Connections” menu allows you to connect the cGate to specific service devices such as cameras using a manual or an automatic search. For some devices only one of these options may be available.

While Blackmagic cameras offer automatic as well as manual configuration, Sony Venice / Sony Venice 2 does not provide service discovery and must be added using the manual configuration.



The “Device Connections” menu allows you to select a camera profile from the “Known Devices” list, to “Add New” devices and to activate / deactivate “Connected Devices”.

6.4.3.1 Known Devices

The “Known Devices” menu lists all camera profiles which have been saved in advance for quick camera preparation, reconnection and further setup.

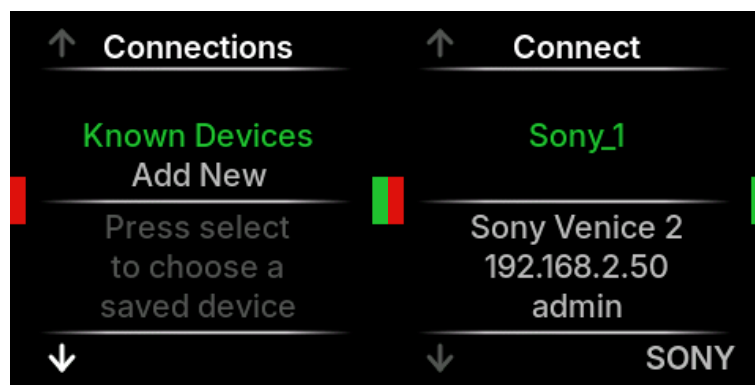
Camera profiles store all necessary information to connect to the specific camera, enabling automatic camera detection and reconnection.

Each camera profile can be saved under a user defined name. Camera information and user credentials may vary depending on the camera type as follows:

Device Type	Device Profile Information
Sony Venice	IP-address, username, password
Blackmagic Design	IP-address

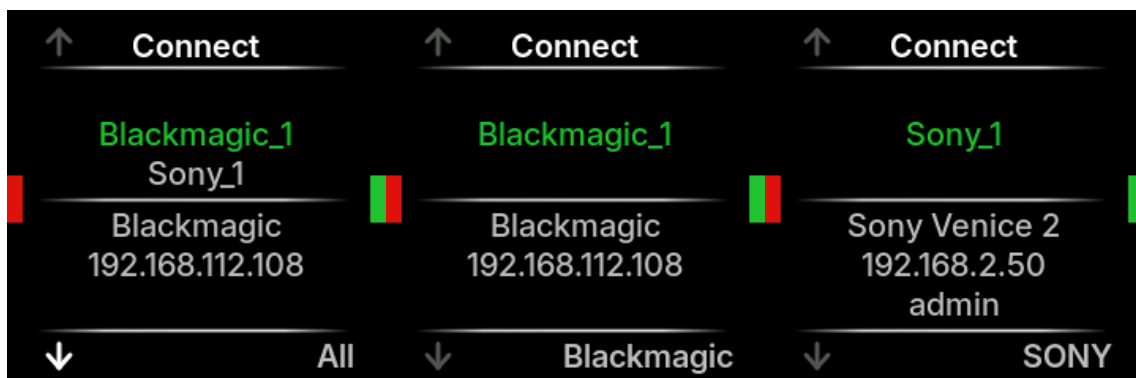
Currently a maximum of 10 profiles can be saved per camera type.

If the maximum limit is reached, a help text will inform you to remove a profile before adding a new one. This applies to both options, adding profiles via “Add New” as well as saving a profile from an automatic search.



When entering the “Known Devices” menu all saved camera profiles are listed in the upper section of the screen. Use the UP / DOWN buttons to navigate through the list.

The lower section of the screen displays a short profile information, which contains the camera type (e.g. Sony or Blackmagic), the IP-address and the password (depending on camera).



Camera profiles can be sorted by the profile type “Sony”, “Blackmagic” or “All”, for quick navigation.

The button label indicates which profile type is currently selected. Switch between the profiles by pressing the button next to the profile label.

“All” lists all profile types, “Sony” lists Sony profiles only and “Blackmagic” lists Blackmagic profiles only.

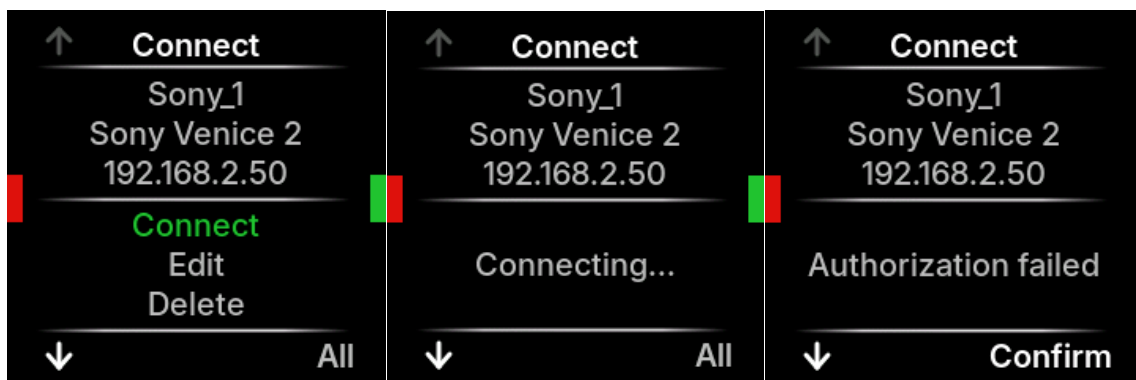
If no profiles are saved, a help text shows “No profiles available. Add a new profile first”. Pressing SELECT allows you to enter the “Add New” menu directly.



Use the UP / DOWN buttons to navigate through the profile list and select the profile you want to use to connect your camera. Select “Connect” to connect your camera using the selected profile, select “Edit” if you want to adjust profile settings before connecting your camera, select “Delete” to delete your profile from the profile list.

6.4.3.1.1 Connect

Select “Connect” to start a connection request with the camera using the selected profile. The profile information will remain in the upper part of the screen, while the lower part of the screen will display the connection progress.



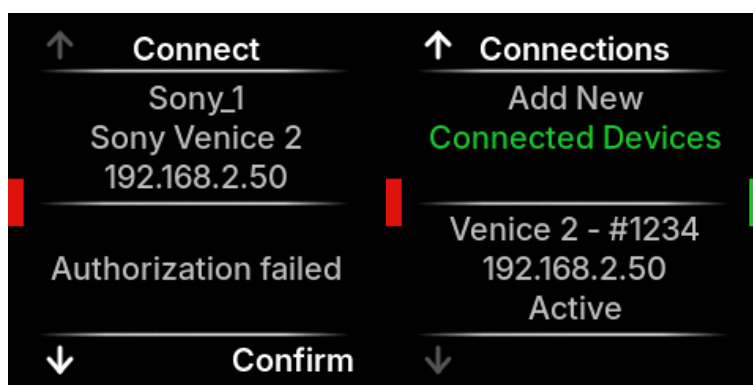
“Connecting...” will be displayed, while a ping is sent to the configured IP-address, during the connection request. If an answer to the ping request is received, the connection to the camera will be established.

Depending on the connection and authorization protocols of the selected device, it may take a few seconds to connect. During this time, only the BACK button is available to leave the connection screen. However, if the connection process has been started already, the device will still be connected in the background.

If the connection fails, the reason is displayed in the lower part of the screen. Depending on the result of the connection request, the text can read as follows:

Status	Description
Device not found	No answer received from the ping sent to a given IP address
Connection failed	The connection to the communication socket failed
Authorization failed	The communication socket was connected, but the transferred credentials were incorrect (e.g. username and/or password were incorrect)
Unknown Error	An unknown error occurred, which is not covered by the options above

If the connection was successful, the “Connections Screen” will be shown, including information on the connected device and its connection status:

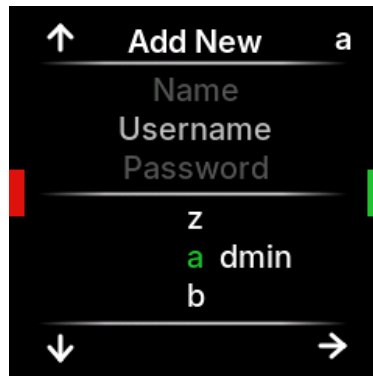


Status	Description
ACTIVE	The camera is connected and can be controlled through the LBUS system
READY	The camera is connected, but cannot be controlled - control is not enabled
DISCONNECTED	The camera was disconnected and is not available anymore

6.4.3.1.2 Edit

Select “Edit” if you want to edit individual profile items of the selected profile.

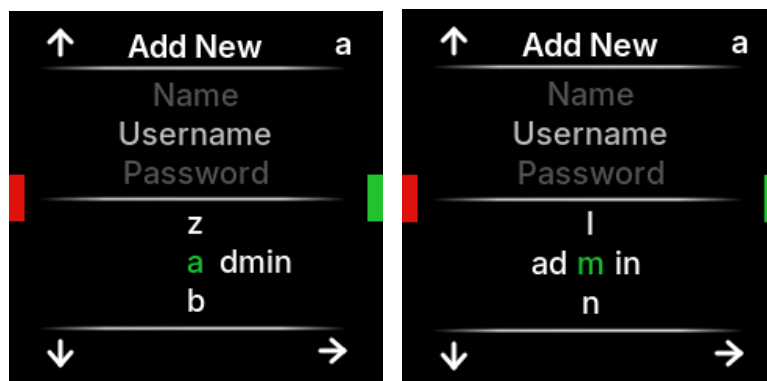
By selecting Name, Username or Password the corresponding item becomes available to edit.



The selected digit is highlighted in green. Use the UP / DOWN buttons to change the letter.

A preview of the previous letter (UP) and the next letter (DOWN) is displayed above and below the currently selected digit.

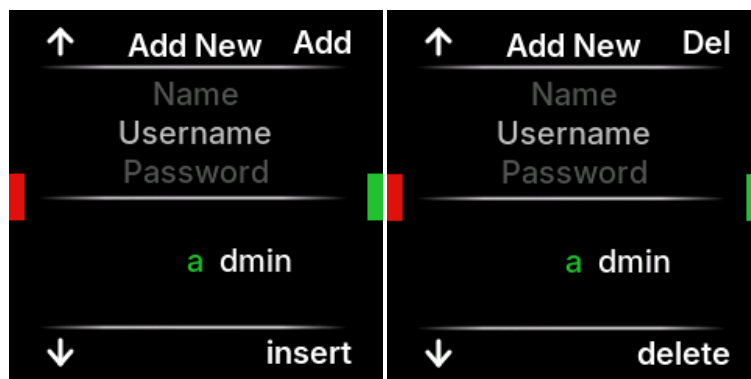
Use the RIGHT button to select the next digit and to toggle through the string.



When scrolling through the string, the alphabet will be updated to the currently selected letter accordingly.

Use the Character Mode button on the top right to switch between the following character types:

A	Upper Case
a	Lower Case
1	Numbers
\$	Special Characters
Add	Inserts a new digit after the currently selected digit
Del	Deletes the selected digit



While in the character modes “Add” or “Del”, the corresponding functions are executed by pressing the “insert” button or the “delete” button.

Notice
Please note, that you can't scroll through the string while in the character mode's “Add” and “Del” function. Please press the character mode button on the top right to switch to another mode (e.g. A, a, 1, \$) if you want to select another digit in the string. A valid string must contain at least one character and no more than 20 characters.

Press SELECT to save the new profile settings and to leave the menu.

Press BACK to leave the edit function without changing the profile settings.

6.4.3.1.3 Delete

Select “Delete” to delete the currently selected profile.

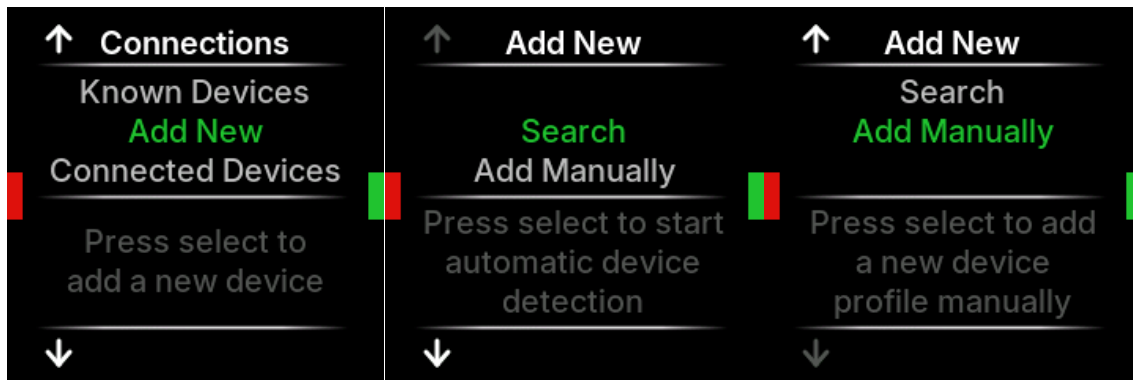
Notice
Please note, there is currently no safety question before a selected profile is deleted. Pressing the “Delete” button will instantly and irreversibly delete the profile.

6.4.3.2 Add New

Select “Add New” to start the process of creating a new camera profile manually or automatically and connecting a new camera.

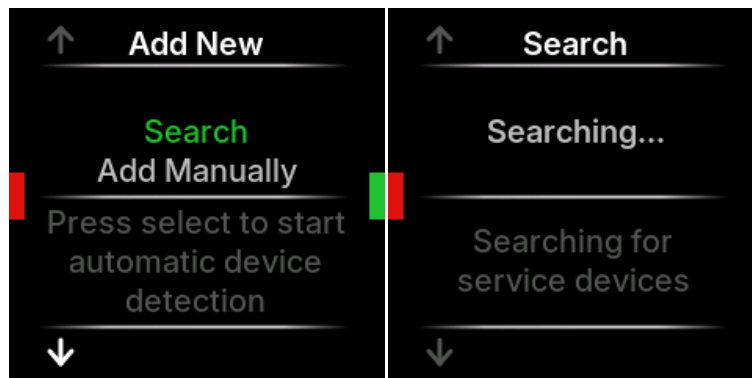
Select “Search” to start the automatic device search.

Select “Add Manually” to start the process of manually configuring a new camera profile.



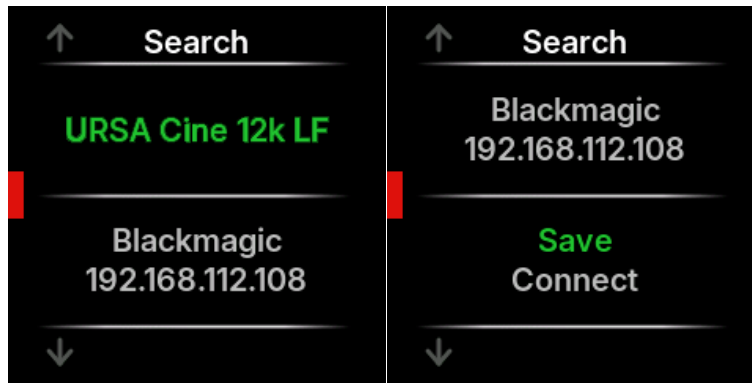
6.4.3.2.1 Search

Select “Search” to start the automatic device search.



“Searching...” will be displayed in the upper part of the screen while the automatic search is active. This process will take approximately 3 - 5 seconds.

All found devices will be listed in the upper part of the screen showing their device name. If multiple devices are found, use the UP / DOWN buttons to select the right device. Additional information about the selected device will be shown in the lower part of the screen.

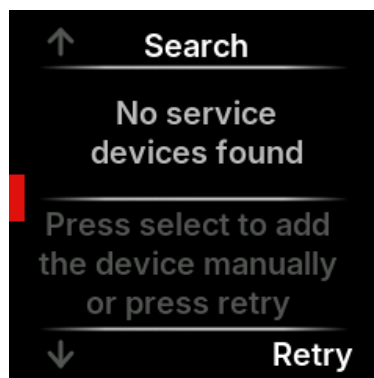


For example, in the case of a Blackmagic URSA Cine 12K LF above, the configured manufacturer name “Blackmagic” and the IP address will be displayed.

After selecting the camera, you can choose to “Save” the camera settings as a camera profile for future use or to “Connect” to the camera directly without saving the camera profile.

Notice
Please note, that currently only Blackmagic cameras can be searched automatically. Sony Venice does not provide service discovery and can only be added manually.

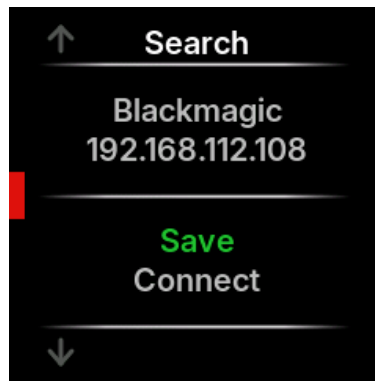
If no service device was found, the search will end automatically after 3 - 5 seconds. A “No service devices found” message will be displayed.



Press “Retry” to start the search again. The list of previously found devices will be cleared.

If no device is found after a couple of searches, please double check your network configuration or try to add the device manually.

6.4.3.2.2 Search and Save



When selecting “Save” after an automatic search, the device information is loaded to the profile dialogue (“Add New – Add Manually”) to create a new camera profile. All found information is filled in automatically but can be edited. A custom profile name can be entered. Please refer to section 6.4.3.1.2 “Edit” on page 29 in this manual.

Once the profile is saved, the device can be connected as described in section 6.4.3.1 “Known Devices” on page 26 in this manual.

6.4.3.2.3 Search and Connect

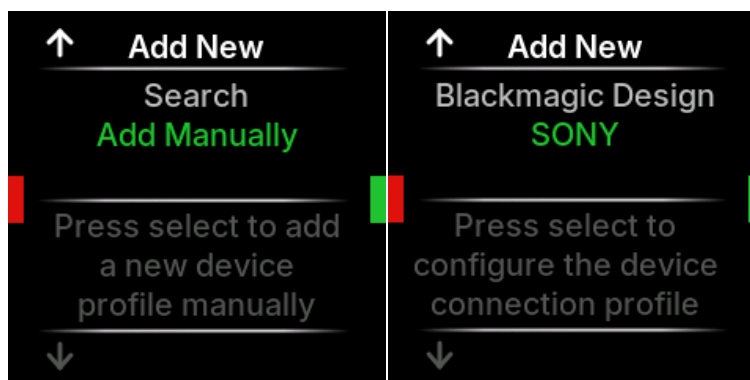
When selecting “Connect” after an automatic search, the connection process for the camera starts immediately.

The option to save the profile will be skipped and the device connection request starts as described in section 6.4.3.1.1 “Connect” on page 27 in this manual.

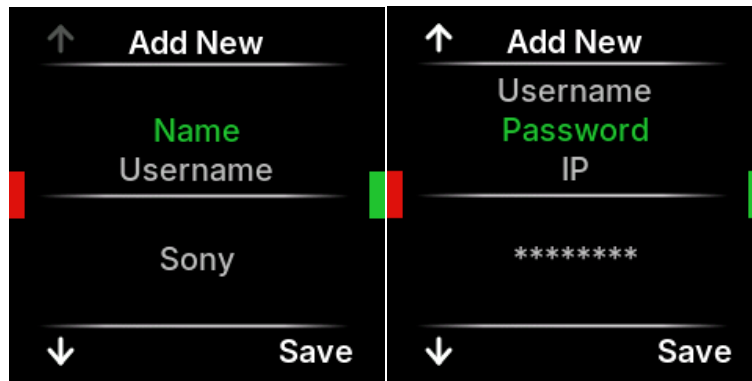
A successfully added and activated camera will be saved as the last active camera and will be reconnected automatically after each restart of the cGate or in case of connection loss.

6.4.3.2.4 Add Manually

When adding a camera manually, the camera manufacturer must be selected first. Sony and Blackmagic Design cameras are available with this current cGate software release.



Select the corresponding camera type to start the configuration of the camera profile. Depending on the chosen camera type, its relevant profile settings will be available to edit.



The first item is the profile “Name”, followed by other settings including Username, Password and IP-address, depending on the selected camera type.

If a new profile is created, standard values of the corresponding camera type will be preloaded for convenience but can be edited to match the present camera settings.

Username and Password, if required, must be entered precisely to match authentication with the corresponding camera.

Standard values for Sony Venice / Sony Venice 2:

Profile name	Sony
Username	admin
Password	AAAAAAA1
IP-address	192.168.2.50

Standard values for Blackmagic cameras:

Profile name	BMD (Blackmagic Design)
IP-address	192.168.2.107

After editing all items, the profile can be saved by pressing the “Save” button. It is now available for connection from the “Known Devices” menu.

Please also refer to section 6.4.3.1 “Known Devices” on page 26 in this manual.

6.4.3.3 Connected Device

The “Connected Devices” menu shows a summary of the device currently connected including its name, its IP address and its connection status.



Furthermore, the “Connected Devices” menu provides options for control of the connected device / camera including “Set Active”, “Set Inactive” and “Disconnect”.



Camera Status	Description
ACTIVE	The camera is connected AND control is ENABLED
READY	The camera is connected but control is DISABLED
DISCONNECTED	The camera is disconnected, camera information stays available until the list is reloaded

Only one camera can be active at any given time. However, up to 3 cameras can be connected within the LBUS network. It is currently not possible to connect multiple cameras to cGates with the same Group ID.

If a camera is connected it will be activated automatically and camera control becomes available in the LBUS system. All other cameras connected to cGates using the same Group ID will be disconnected.

This however does not apply if a camera is reconnected automatically. In this case, the successful reconnection will not disconnect any other camera.

This behavior is intentional and should simplify setup preparation. Any intentional connection of a camera will disconnect previously connected cameras. If however, a cGate reconnects a camera (for example after system startup) it should not interfere with intentionally connected cameras.

If a camera is disconnected manually, the control options become unavailable (greyed out). The camera information stays available until the list is reloaded, to visualize the disconnected status. The device will be removed as the last known active camera and will not be reconnected automatically e.g. after a system startup.

6.4.3.3.1 Set Active

The device listed as “Active” is available to control through the LBUS system. Select “Set active” to activate the camera and to enable camera control. The last active camera will be saved for automatic reconnection.

6.4.3.3.2 Set Inactive

Select “Set inactive” to deactivate the camera and to disable camera control. An inactive camera stays connected to the cGate and will not be removed as the last active camera and therefore will be reconnected automatically e.g. after a system startup.

6.4.3.3.3 Disconnect

Select “Disconnect” to disconnect the camera and to remove it as the last active camera. No reconnection attempts will be made e.g. after a system startup.

6.4.3.3.4 Automatic Reconnection

If a camera is connected to the cGate, the connection info for the camera will be saved as last active camera, enabling automatic reconnection e.g. after a system startup or loss in connection.

6.4.3.3.5 Reconnection after device restart

This feature is only available if a camera was connected and active before shutdown.

During the camera reconnection, the camera icon on the home screen will be displayed blue to indicate ongoing reconnection attempts. If the camera is reconnected successfully, the camera icon on the home screen turns light gray / white.

To reduce network traffic, the cGate will try to reconnect the camera for a defined amount of time. If the camera could not be reconnected, the reconnection attempts will stop, and the camera icon will turn red.

After this point, the camera is deactivated as the last known camera and will NOT be reconnected automatically after the next system startup.

This behavior intends to reduce network traffic in case the setup was changed.

6.4.3.3.6 Reconnection after connection loss

If the connection to the camera was lost due to connection issues (lost radio connection, interruption / disconnection of the local access network, etc.) and if the cGate was not disconnected from the camera intentionally through the menu, the cGate will try to reconnect to the camera indefinitely.

In this case, reconnection attempts will not stop after a defined amount of time but the cGate will continuously search for the camera.

This behavior is intended, as connection issues may vary in time to be solved. Also the camera will remain the last known active camera and reconnection attempts will be made after system startup. Please also refer to section 6.4.3.3.5 "Reconnection after device restart" on page 36 in this manual.

6.4.3.3.7 Reconnection after changing network settings

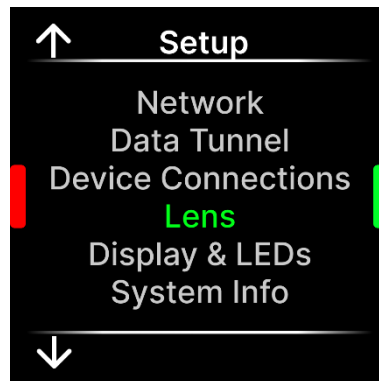
cGate will try and reconnect the last known camera after network settings were changed / the network is restarted e.g. network settings were changed from DHCP to Manual IP, network cable was removed and plugged in again, etc.

Again, the cGate will try to connect to the camera continuously the same way as after connection loss. Please also refer to section 6.4.3.3.6 "Reconnection after connection loss" on page 37 in this manual.

6.4.4 Lens

The Lens menu provides functions for managing lens files and includes the Lens Sync submenu for configuring lens synchronization.

Lens files can be loaded, unloaded, saved, deleted, imported from a USB drive, or exported to a USB drive.

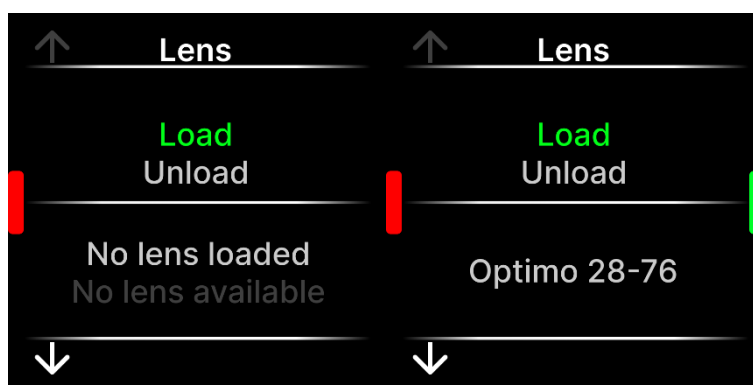


6.4.4.1 Load Lens

“Load” is available when at least one lens file is stored on the cGate or on a connected USB drive. The lower half of the screen displays the currently loaded lens.

If no lens files are available, a message is displayed and “Load” cannot be selected.

If a lens is loaded, its name and focal length are shown as well as a list of other available lens files. Press SELECT to open the list of available lens files.



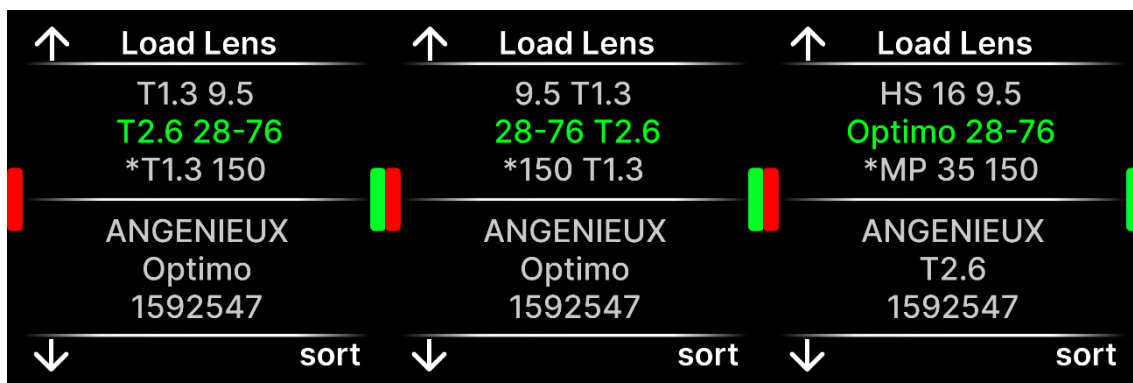
Internally stored lens files are listed first, followed by files found on the USB drive.

USB files are identified by an asterisk (*) at the beginning of the file name. For further information, please also refer to section 6.4.4.5.1 “Files listed from USB drive” on page 43 in this manual.

The “sort” button changes the information displayed for each file but does not change the file order.

Available display modes are:

- T-Stop + Focal Length – Manufacturer, Name, Serial Number
- Focal Length + T-Stop – Manufacturer, Name, Serial Number
- Name + Focal Length – Manufacturer, T-Stop, Serial Number
- Name + T-Stop – Manufacturer, Focal Length, Serial Number



After selecting a lens file, a popup indicates whether loading was successful.

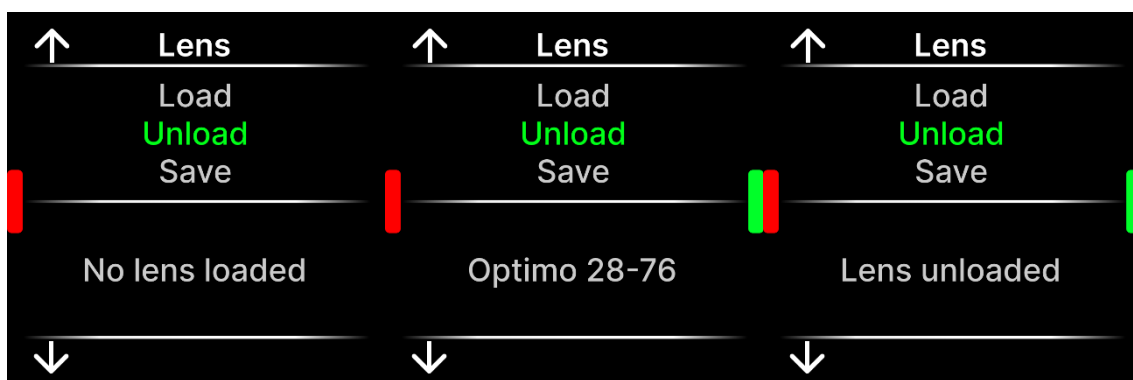
- If successful, the display returns to the Lens menu.
- If loading fails, e.g. if using a corrupt file, the file list remains open so another file can be selected.

6.4.4.2 Unload Lens

If a lens is currently loaded, select “Unload” to remove it.

A confirmation popup is displayed after the lens has been unloaded.

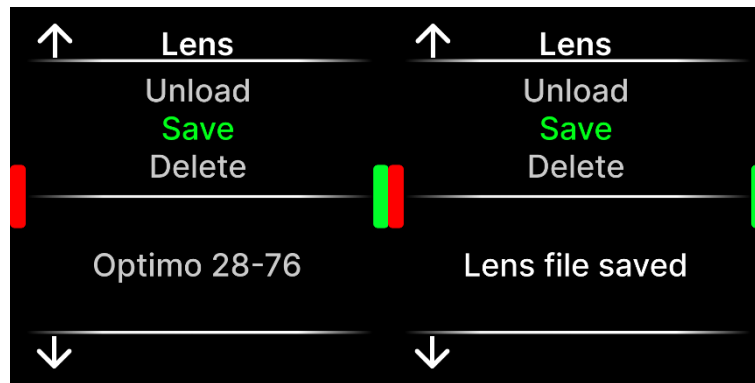
If no lens is loaded, “Unload” is unavailable.



6.4.4.3 Save Lens

The current loaded lens file can be saved to the cGate for future use.

“Save” is available when the current lens file was loaded from LBUS or from a USB drive. The lens file is saved in .cml format using the name used in the lens data.



Saving a lens file is not necessary for it to be restored after a system startup.

The current loaded lens file is automatically stored internally and will be reloaded after startup. This temporary copy is overwritten the next time another lens file is loaded.

Save the lens file only, if you want to keep it permanently in the cGate lens database.

A popup indicates whether saving was successful.

Saving may fail if:

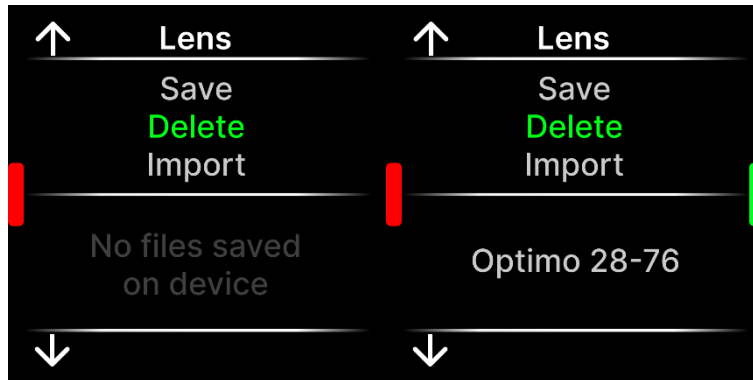
- the maximum number of stored lens files (25) has been reached, or
- an internal write error occurs.

Popup Message	Meaning
Lens file saved	File saved successfully
Save failed	Internal write error
Already saved	File is already stored on the device
Max saved already	Lens database is full (25 files saved)

6.4.4.4 Delete lens files

“Delete” becomes available when at least one lens file is stored on the cGate.

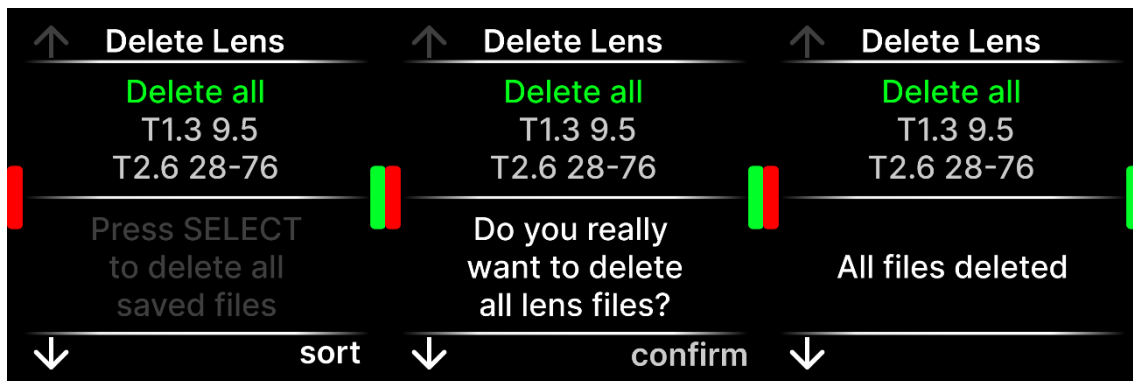
Selecting „Delete“ opens the list of stored lens files. You can delete individual files or all files at once.



Selecting “Delete All” displays a confirmation dialog.

After confirmation:

- the current loaded lens file is unloaded,
- the lens database is reset,
- all stored lens files are deleted, and
- the display returns to the Lens menu.



When deleting an individual file, only the selected file is removed.

A popup confirms successful deletion, and the file list remains open so additional files can be deleted.

If the deleted file is currently loaded, the lens remains active. It is still stored internally to allow automatic reloading after system startup but is no longer available in the lens file list.

6.4.4.5 Import lens files from a USB drive

“Import” becomes available when a connected USB drive contains at least one supported lens file.

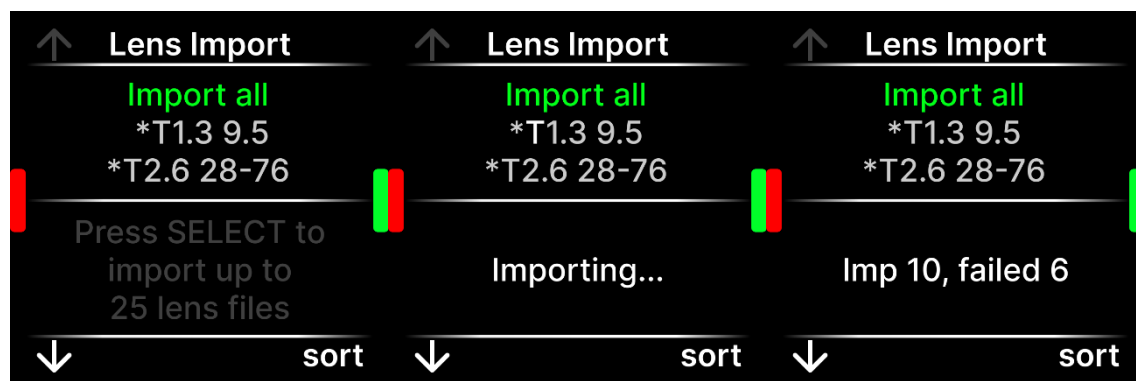
Select “Import” to open the import list, which displays up to 25 lens files found on the USB drive. USB files are marked with an asterisk (*) at the beginning of the file name.

You can import individual files or all displayed files at once.



Selecting “Import All” imports as many files as possible without exceeding the storage limit of 25 lens files.

For example, if five lens files are already stored on the cGate, up to twenty additional files can be imported.



When importing an individual file, only the selected file is imported. After a successful import, the list remains open so additional files can be imported.

Popup Message	Meaning
Import successful	File imported successfully
Invalid file	Invalid .cml files header
Import failed	Read / write error or File not found
Imp 5, failed 2	7 files processed; 5 imported successfully and 2 failed

6.4.4.5.1 Files listed from USB drive

Lists containing USB files display a maximum of 25 lens files.

If more than 25 files are found, they are selected in the following priority:

1. .cml files in the USB root directory
2. .tab files in the USB root directory
3. .tab files in ARRI subfolders

For example, if 18 .cml files are found in the root directory, the cGate searches for up to seven additional .tab files.

If fewer than seven are found, it continues searching for .tab files in ARRI subfolders until the list reaches 25 files or no more files are available.

Within the ARRI directory, all subfolders are searched. Any compatible .tab files found there are added if space available.

If more than 25 .cml files are found, only the first 25 .cml files are listed.

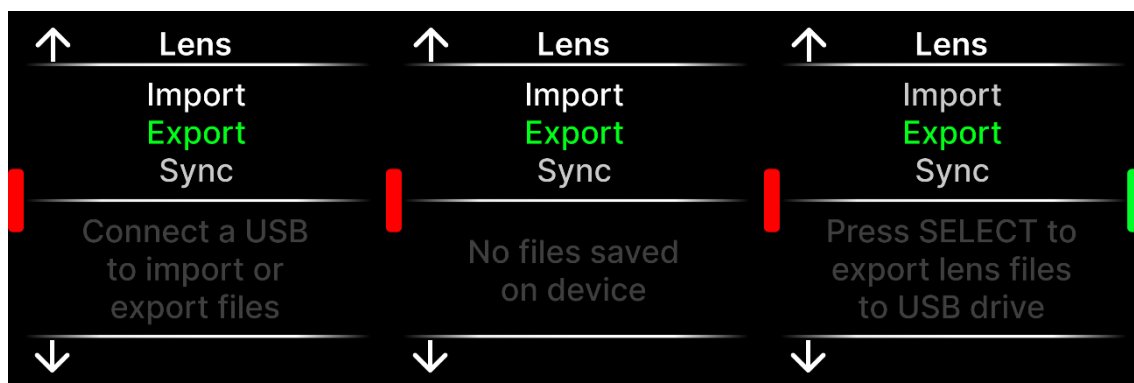
Notice

While importing, we recommend only having 25 lens files saved on a single USB drive.

6.4.4.5.2 Export lens files to a USB drive

“Export” becomes available when at least one lens file is stored on the cGate.

Select “Export” to open the list of stored lens files.



Choose “Export All” to copy all stored lens files to the connected USB drive.

If a file with the same name already exists on the USB drive, it is overwritten.



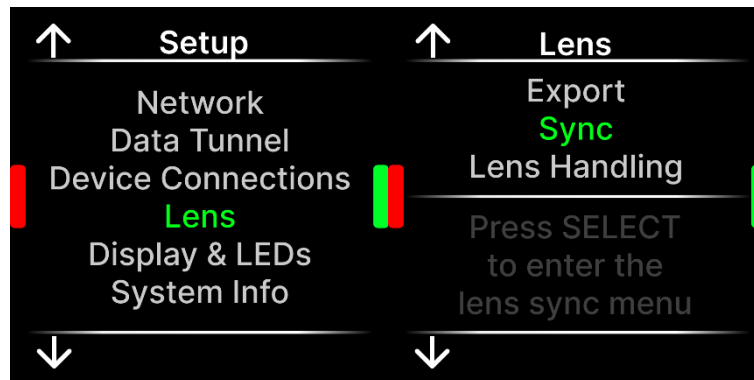
A popup confirms whether the export was successful.

Popup Message	Meaning
Export successful	File exported successfully
Invalid file	Invalid .cml files header
Export failed	Read / write error or File not found
Exp 5, failed 2	7 files processed; 5 exported successfully and 2 failed

6.4.4.6 Sync Menu

Lens Sync is a unique cGate feature that synchronizes lens motors across multiple cameras. It is designed for special applications such as 3D rigs, camera arrays, and multi-camera setups using lenses with different focal lengths. It allows synchronized axes to be controlled from a single cmotion or ARRI hand unit.

The Sync menu is always available and opens the Lens Sync submenu. It provides access to synchronization settings, including “Sync Role”, “cGate Pair ID”, and “Focus Offset”.



6.4.4.6.1 Sync Role

The cGate can operate as either a host or a client in a Lens Sync setup. Thereby the cGate Pair ID determines which devices may communicate within the synchronization setup. Please also refer to section 6.4.4.6.2 “cGate Pair ID” on page 47 in this manual.

6.4.4.6.1.1 Host

A host cGate distributes synchronization data to all connected clients. Motor positions are synchronized using either the host motor positions or the loaded lens data.

The host connects to other hosts that use the same Pair ID and participates in the LBUS network as normal, usually used to connect remote cGates over Ethernet.

However, connected clients do not appear in the host's LBUS network. They connect only for synchronization and exchange sync messages with the host. They are neither mounted as LBUS nor Ethernet devices.

6.4.4.6.1.2 Client

A client cGate connects to all hosts using the same cGate Pair ID.

After connecting, the client receives synchronization data and matches its motor positions to the host. The client cGate controls the motors connected to its own LBUS system while acting as the synchronization target.

Neither the client cGate nor its connected LBUS devices become part of the host's LBUS network. If a motor is connected to the host, the corresponding motor connected to the client mirrors its movement.

If a cPRO or Hi-5 hand unit is connected to the client's LBUS system, it can take control of any axis, overriding synchronization of that axis.

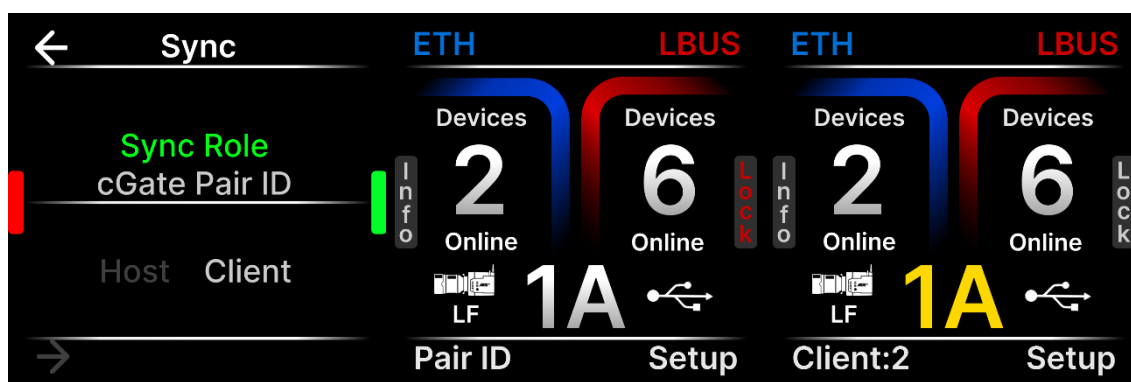
6.4.4.6.1.3 Sync Role visualization on home screen

When operating as a client, the Pair ID quick button is replaced by the sync quick button.

The button displays:

- the Sync Role: Client
- the number of connected hosts

Pressing the button opens the Sync menu. The Pair ID is displayed in yellow to indicate the client status.

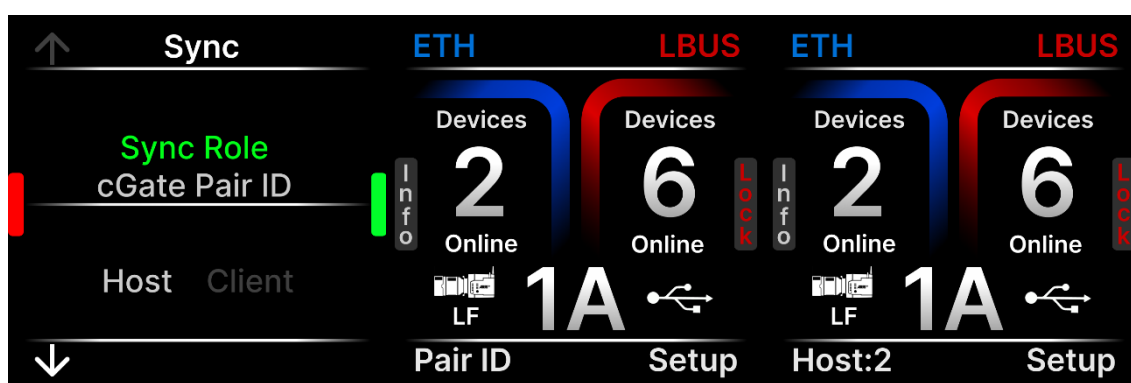


When operating as a host, the regular Pair ID quick button remains visible until the first client is connected.

When at least one client is connected, the quick button displays:

- the Sync Role: Host
- the number of connected clients

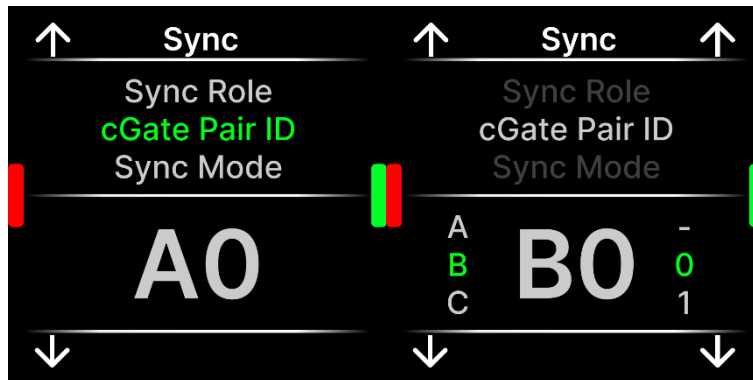
Pressing the button opens the Sync menu.



6.4.4.6.2 cGate Pair ID

The cGate Pair ID determines which hosts and clients may communicate within a synchronization setup.

The Pair ID can be configured directly from the Home screen (while available), from the Data Tunnel menu and the Sync menu.



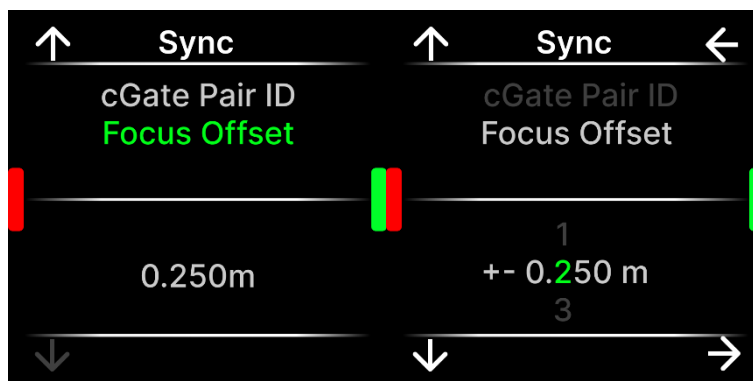
6.4.4.6.3 Focus Offset

If the sensor plane on each camera is different, a Focus Offset can be applied to compensate for the different positioning.

The offset needs to be set on each cGate individually and will be applied to the motor positions of the corresponding cGates.

The Focus Offset

- is entered in meters (m),
- may be positive or negative, and
- can be set between **0.000 m** and **9.999 m**.

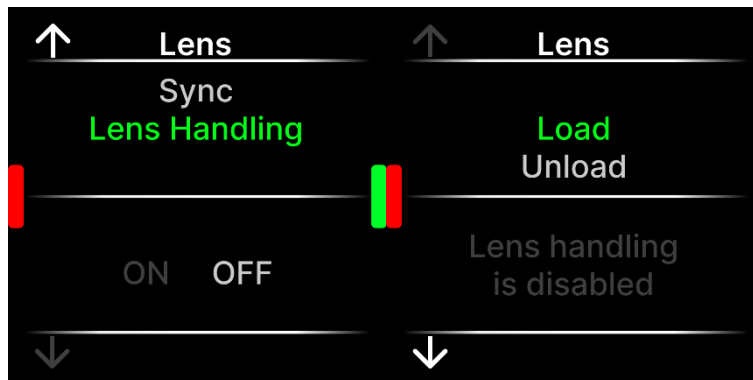


6.4.4.7 Lens Handling

Lens Handling enables or disables lens data processing and lens file management on the cGate.

Lens data is only required for Lens Sync and RCCP functions.

Disabling Lens Handling reduces LBUS traffic, Ethernet traffic, and disables lens data synchronization when these features are not in use.



By default, Lens Handling is set to OFF.

The cGate automatically enables Lens Handling whenever it detects that lens data is required. This occurs when:

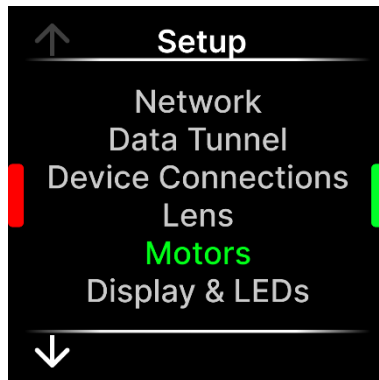
- Lens Sync is configured as host and at least one client is connected.
- Lens Sync is configured as client and a host is connected.
- An RCCP connection is established.

When enabled automatically, Lens Handling remains active until the next system restart.

If Lens Handling is enabled manually from the menu, the setting is stored and remains enabled after future restarts.

6.4.5 Motors

The Motors menu provides functions for calibrating motors, configuring individual motor settings, and enabling or disabling Stealth Mode.

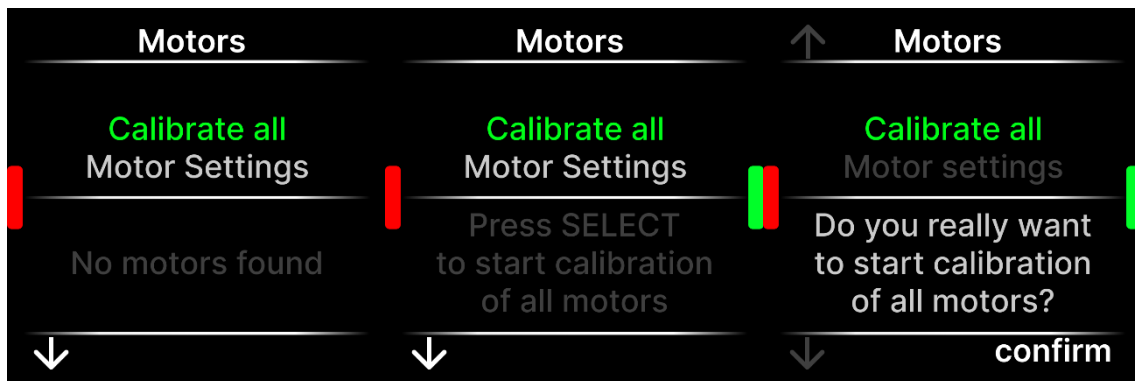


6.4.5.1 Calibrate all

“Calibrate all” becomes available when at least one motor is detected in the LBUS chain.

Selecting “Calibrate all” displays a confirmation dialog.

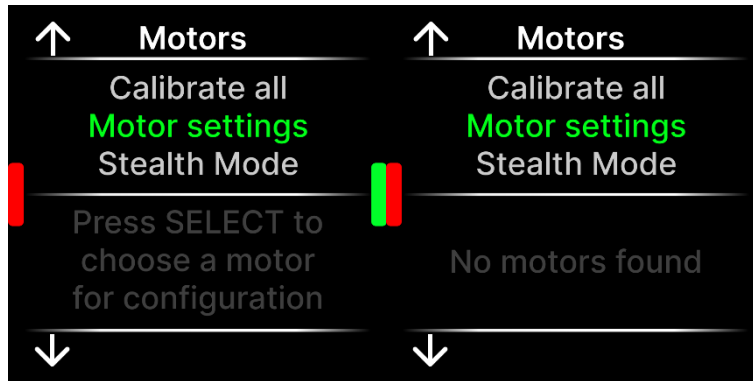
After confirmation, all connected motors begin calibration simultaneously.



6.4.5.2 Motor Settings

Motor Settings becomes available when at least one motor is detected in the LBUS chain.

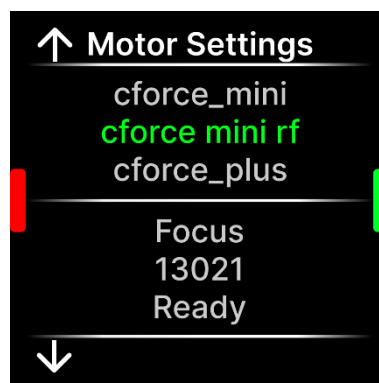
Selecting “Motor Settings” opens the motor list, which displays all connected motors.



Each motor is listed by name.

The lower half of the screen displays additional information for the selected motor, including:

- Assigned axis
- Serial number
- Current motor status



Select a motor to open its settings page.

The available settings include:

- Axis
- Direction
- Ramp
- Torque
- Calibrate

If the selected motor is disconnected while the settings page is open, the page closes automatically and the display returns to the motor list.

6.4.5.2.1 Axis

Assign the selected motor to one of the following axis:

- Focus
- Iris
- Zoom
- AUX

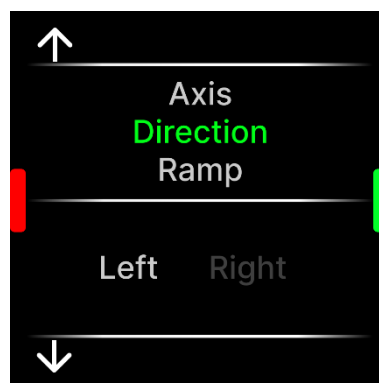
Three dots displayed beside the setting, indicates additional options are available in that direction.



6.4.5.2.2 Direction

Set the motor rotation direction to either:

- Left
- Right



6.4.5.2.3 Ramp

The available settings include:

- Min
- Short
- Long
- Max

Three dots displayed beside the setting, indicates additional options are available in that direction.



6.4.5.2.4 Torque

The available settings include:

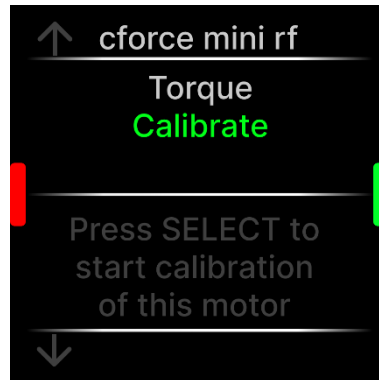
- Min
- Weak
- Strong
- Max

Three dots displayed beside the setting, indicates additional options are available in that direction.



6.4.5.2.5 Calibrate

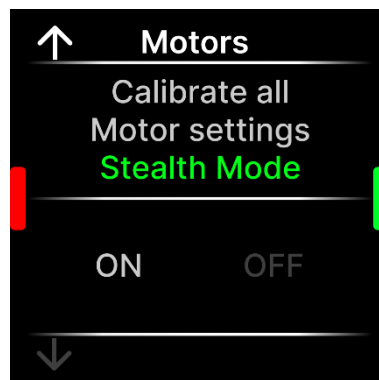
Selecting Calibrate immediately starts calibration of the selected motor.



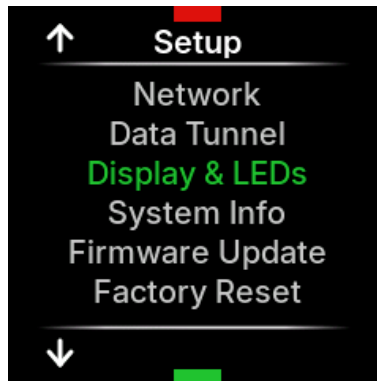
6.4.5.3 Stealth Mode

For convenience, the Stealth Mode setting, normally located in the Display & LEDs menu, is also available from the Motors menu.

Use this setting to enable or disable LBUS-wide Stealth Mode.

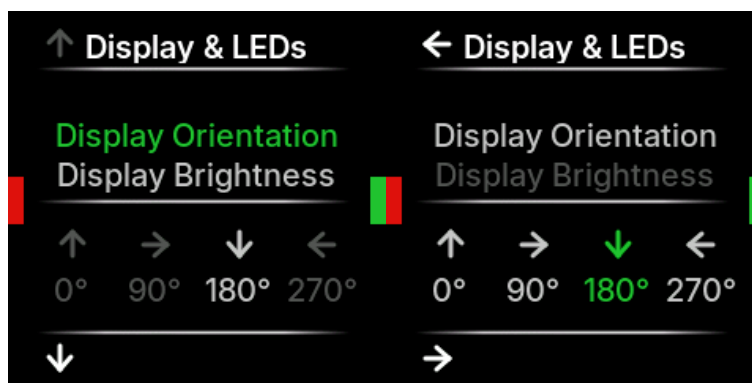


6.4.6 Display & LEDs



The Display & LEDs menu contains settings for Display Orientation, Display Brightness, Display Sleep Mode, LED Brightness, LED Sleep Mode and Stealth Mode.

6.4.6.1 Display Orientation



The cGate can be mounted in different orientations using the compatible mounting tools (please refer to section 8.4 “Mounting Option” on page 94 in this manual).

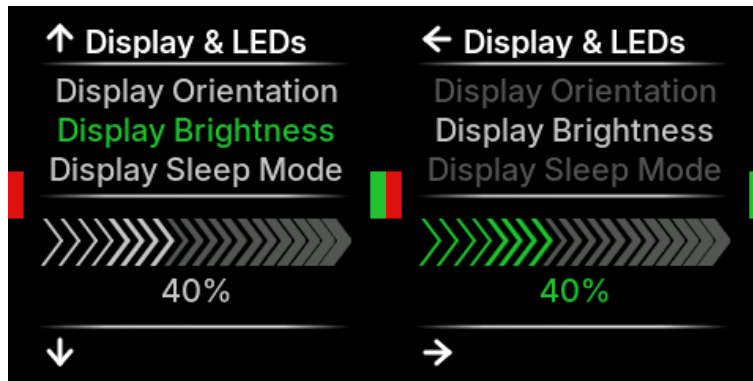
To match the graphical user interface to the mounting situation, four different display orientations can be selected.

The orientation can be changed in two ways. Either through the quick button functions while on the main screen, or in the Display & LEDs settings menu under Display Orientation.

Please also refer to section 6.1.3 “Quick Buttons” on page 16 in this manual.

Display Orientation	Orientation of the LBUS connectors
0°	Facing straight up
90°	Facing right
180°	Facing straight down
270°	Facing left

6.4.6.2 Display Brightness

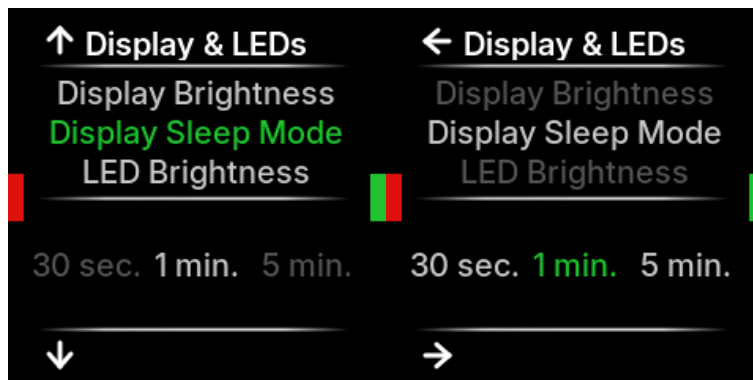


The Display Brightness can be adjusted in 10% increments.

The display brightness can be changed in two ways. Either through the quick button functions while on the main screen, or through the Display & LEDs settings menu under Display Brightness by using the corresponding LEFT / RIGHT button.

Please also refer to section 6.1.3 “Quick Buttons” on page 16 in this manual.

6.4.6.3 Display Sleep Mode



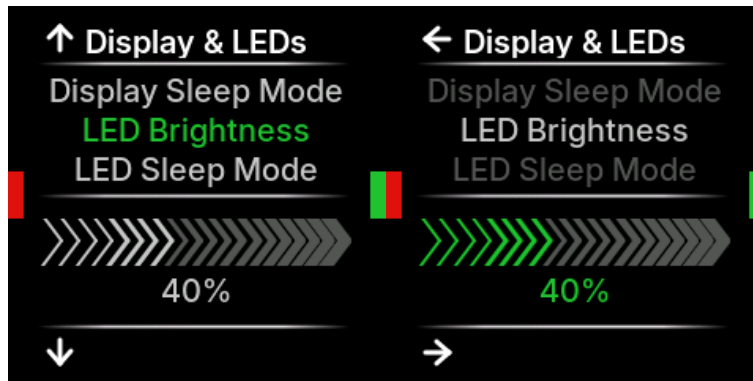
The Display Sleep Mode can be set to OFF, 10 sec, 30 sec, 1 min or 5 min.

Display Sleep Mode turns off the cGate’s display after a determined period of time.

This feature is only available on the main info page and will count down after the last button press. The display can be woken up by simply pressing any button.

The Sleep Mode countdown will start again after the last button press.

6.4.6.4 LED Brightness

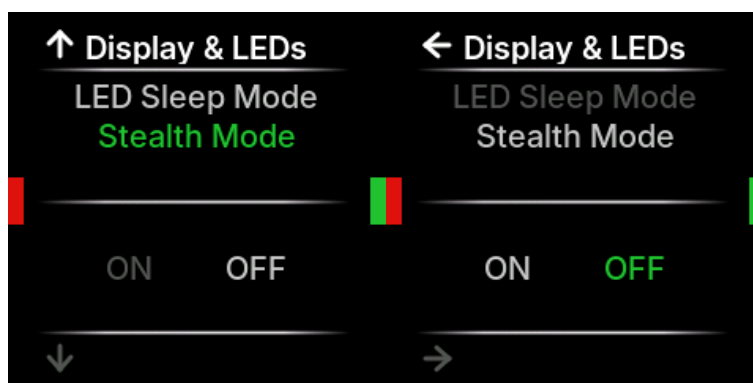


The LED Brightness can be adjusted in 10% increments.
When the brightness is set to 0%, the LEDs are turned off.

6.4.6.5 LED Sleep Mode

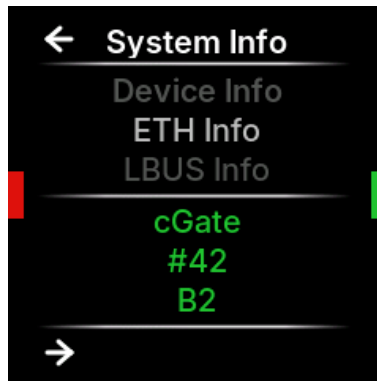
The LED Sleep Mode can be set to OFF, 10 sec, 30 sec, 1 min or 5 min.
LED Sleep Mode turns off the cGate's LED Status bar after a determined period of time.
This feature is only available on the main info page and will count down after the last button press. The Status LED bars can be woken up by simply pressing any button.
The Sleep Mode countdown will begin again after the last button press.

6.4.6.6 Stealth Mode



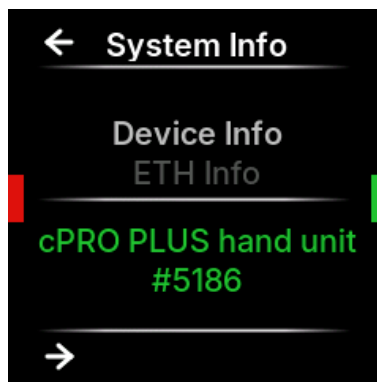
The Stealth Mode menu allows you to turn the stealth mode ON or OFF for all connected LBUS devices. When Stealth Mode is set to ON, the LED illumination on all connected LBUS devices (over LBUS and Ethernet) are turned OFF. This is particularly useful in dark environments or to avoid unwanted reflections due to the camera angle.

6.4.7 System Info



The System Info menu includes the sub menus Device Info, ETH Info and LBUS Info.

6.4.7.1 Device Info



In the Device Info menu, a connected LBUS device can be selected.

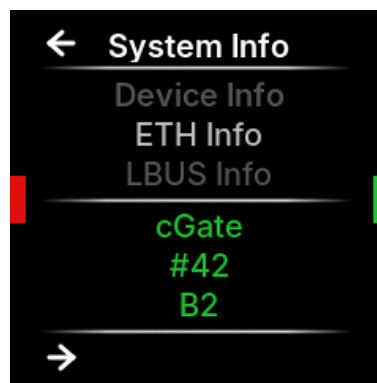
The Device Info can also be entered through the shortcut INFO from the main screen. In that case, please use the UP / DOWN buttons to scroll through the device list. Please also refer to section 6.1.1 "Overview" on page 15 in this manual.

The Device Info lists all LBUS devices (including cGates) that are connected directly to the cGate or remotely via Ethernet.

↑ Device Info	↑ Device Info
cPRO PLUS hand unit	cGate
serial: #4321	pair ID: A0
bootloader: v2.4.11	serial: #123
radio: v1.18	bootloader: v2.4.10
software: v6.0.2	software: v1.0.0
revision: 235	revision: 130
build date: 23/10/25	build date: 11/03/25
↓ Setup	↓ Setup

Additional information about the selected LBUS device contains the device ID, the Pair ID (if applicable, e.g. for a cGate), the serial number, the bootloader version, the radio firmware version (if applicable e.g. for a hand unit), the main software version, the revision number of the main software and the build date.

6.4.7.2 ETH Info



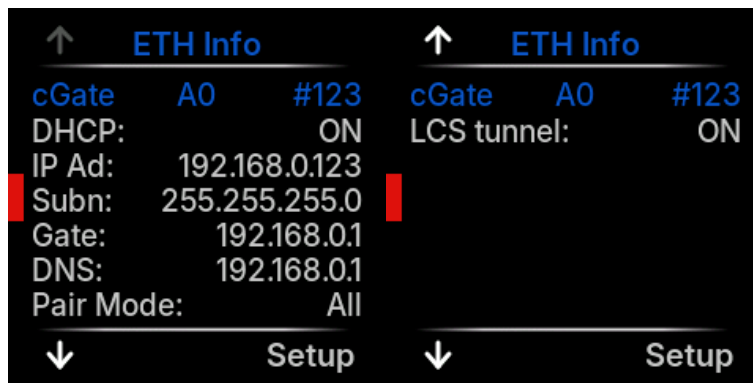
In the ETH Info menu, a connected ETH device can be selected.

The ETH Info can also be entered through the shortcut ETH from the main screen. In that case, please use the UP / DOWN buttons to scroll through the ETH device list. Please also refer to section 6.1.1 "Overview" on page 15 in this manual.

The ETH Info lists all ETH devices (including cameras and cGates) that are connected directly to the cGate or remotely via Ethernet.

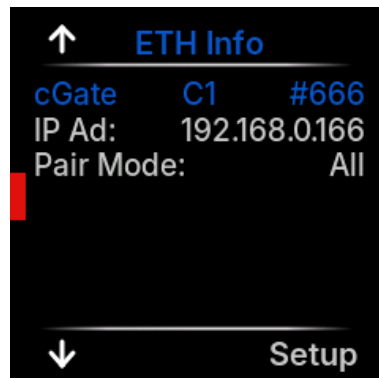
Additional information about the selected ETH device will be displayed as follows:

Own device:



Device	Pair ID	Serial No.
DHCP	ON / OFF	
IP Address	e.g. 192.168.000.094	
Subnet	e.g. 255.255.255.000	
Gateway	e.g. 192.168.000.001	
DNS	e.g. 192.168.000.001	
Pair Mode	All / Group / None	
LCS Tunnel	ON / OFF	

Remote Device:



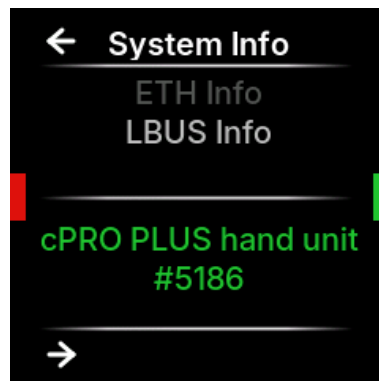
Device	Pair ID	Serial No.
IP Address	e.g. 192.168.0.94	
Pair Mode	All / Group / None	

Camera ETH Info:

If a camera is connected to a cGate and active within the LBUS system, an ETH Device Info for the active camera becomes available. The last screen in the ETH Info menu will show the active camera's information.

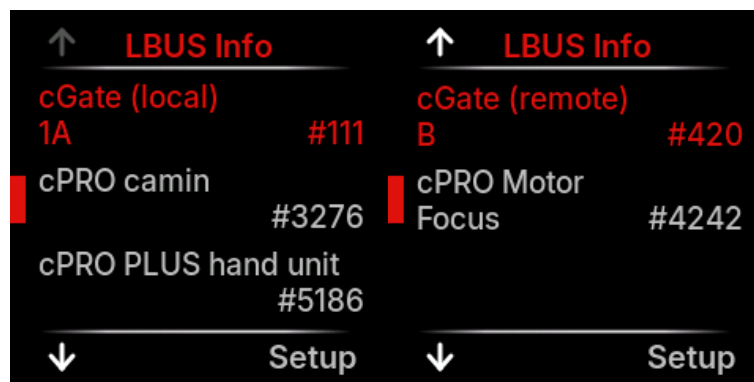
Currently, the camera name, the IP address and the status of the camera are displayed.

6.4.7.3 LBUS Info



In the LBUS Info menu, a connected LBUS device can be selected.

The LBUS Info can also be entered through the shortcut LBUS from the main screen. In that case, please use the UP / DOWN buttons to scroll through the LBUS device list. Please also refer to section 6.1.1 "Overview" on page 15 in this manual.



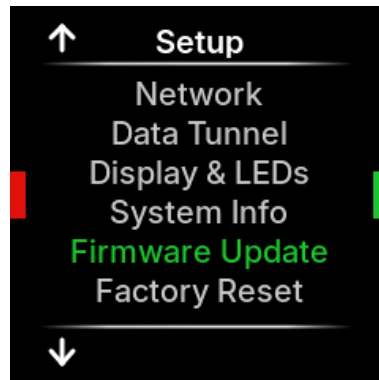
The LBUS Info groups all LBUS devices that are connected to a specific cGate.

"Local" marks the cGate that is physically in front of you whereas "remote" marks cGates which are connected remotely via Ethernet.

In the example above, a cPRO camin and a cPRO PLUS hand unit are connected to a local cGate whereas a cPRO motor is connected to a remote cGate via Ethernet.

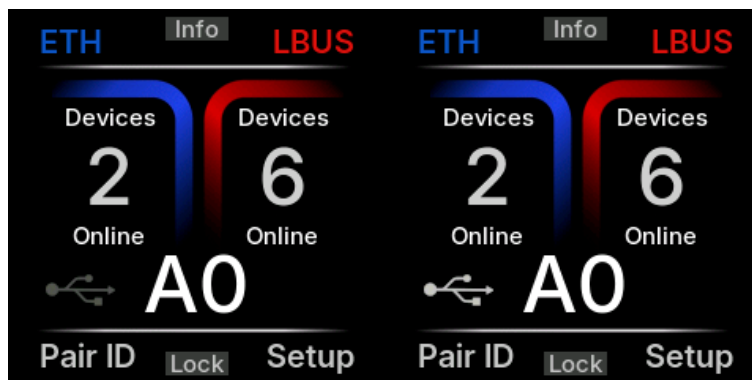
If no LBUS data is tunneled due to the pair mode settings, the remote cGate is marked as "denied" without showing any additional information about connected LBUS devices behind the denied cGate.

6.4.8 Firmware Update



To perform a firmware update, a USB-C drive formatted in ExFAT or FAT32 is required. It must contain the corresponding update file in the root directory.

The USB drive will be recognized and mounted automatically as soon as it's connected to the USB-C slot of the cGate.

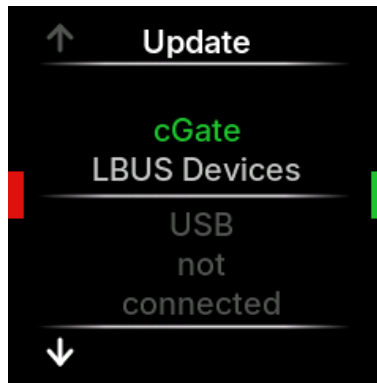


When the USB drive is connected, a USB icon (dark gray) will appear on the main screen. The USB icon will turn light gray / white as soon as the USB drive is mounted and fully operational. Please also refer to section 6.2 “USB Symbol” on page 17 in this manual.

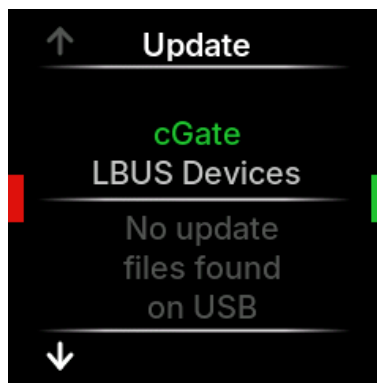
In the Firmware Update menu you can select “cGate” for updating the local cGate or “LBUS Devices” for updating locally connected as well as remotely connected LBUS device via Ethernet.

Notice

Please note, that remote cGates cannot be updated via Ethernet as the Ethernet connection will be cut during the update process. cGate connected via LBUS can be updated.



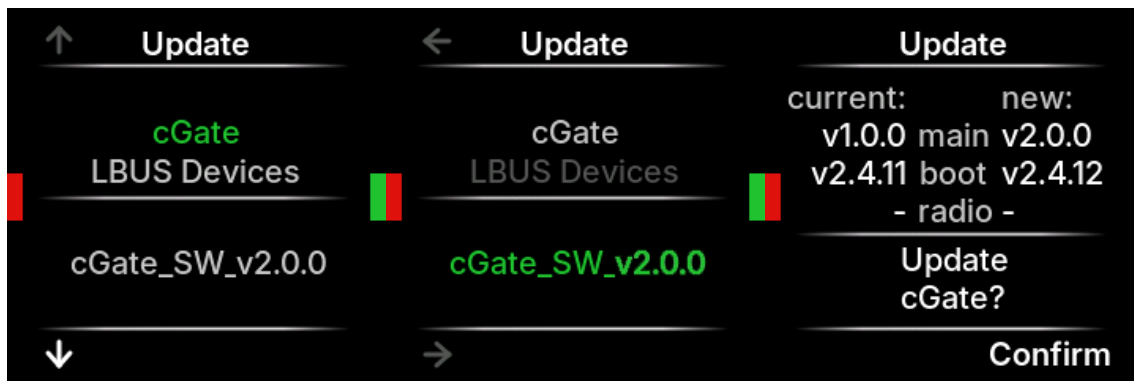
If there is no USB stick connected, the message “USB not connected” is displayed in the lower sector of the screen.



If there is no valid update file on the USB stick, the message “No update files found on USB” is displayed in the lower sector of the screen.

If there is no updatable LBUS device connected, the corresponding message will be displayed.

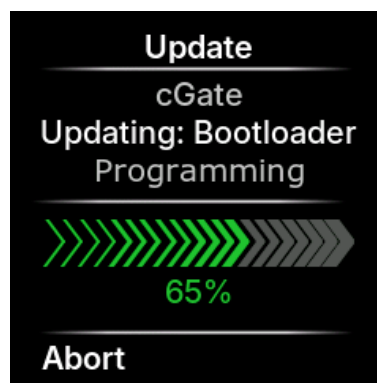
6.4.8.1 Updating a cGate



Use the UP / DOWN buttons to navigate to “cGate” and press SELECT to confirm.

If multiple update files are available, navigate through the list using the LEFT / RIGHT buttons. SELECT the desired update file and check the version numbers.

CONFIRM your selection to start the firmware update.

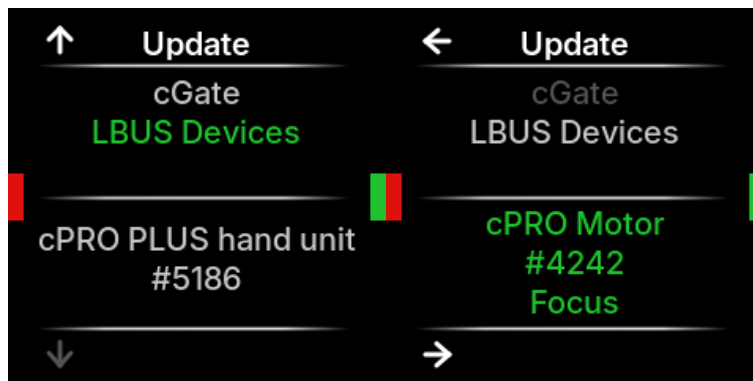


The firmware update proceeds in multiple steps. First, the bootloader is updated, followed by the main software.

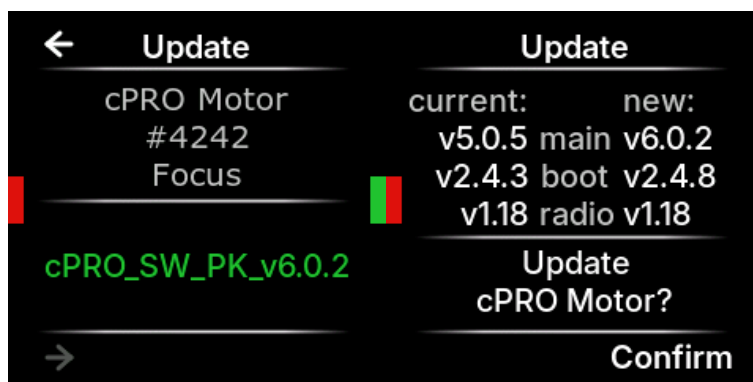
During the bootloader update, the update process can be canceled at any time. Press "Abort" and confirm the cancellation to stop the update, e.g. in case you have selected the wrong update file.

When aborting the software update, the software will not be installed correctly and the update process has to be started again.

6.4.8.2 Updating other LBUS Devices



Use the UP / DOWN buttons to navigate to “LBUS Devices” and press SELECT to confirm. Navigate to the LBUS device you want to update by using the LEFT / RIGHT buttons and press SELECT to confirm.



If multiple update files are available, navigate through the list using the LEFT / RIGHT buttons. SELECT the desired update file and check the version numbers.

CONFIRM your selection to start the firmware update.

Notice

To update an LBUS device, it must be connected within the LBUS daisy chain of the updating cGate locally or remotely. Any LBUS device which is available in the network (depending on the Group ID settings “Group” or “All”) can be updated.

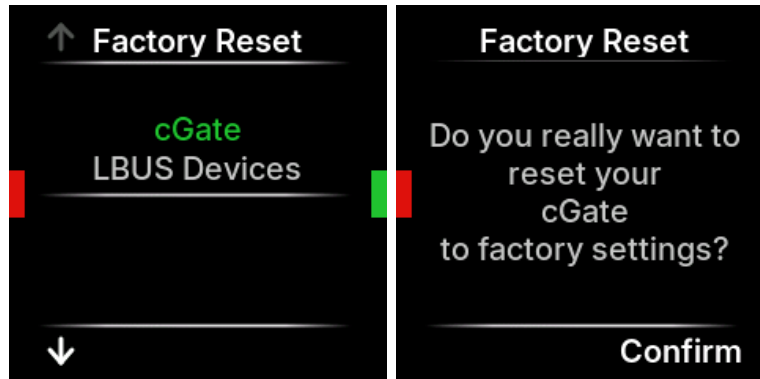
Notice

Please note, that remote cGates can not be updated because all network settings including DHCP settings, IP address etc. will be reset to factory defaults and existing network connections will be disconnected.

6.4.9 Factory Reset

Within the Factory Reset menu, you can reset the cGate, a specific LBUS Device or all connected LBUS devices to manufacturer settings.

6.4.9.1 cGate

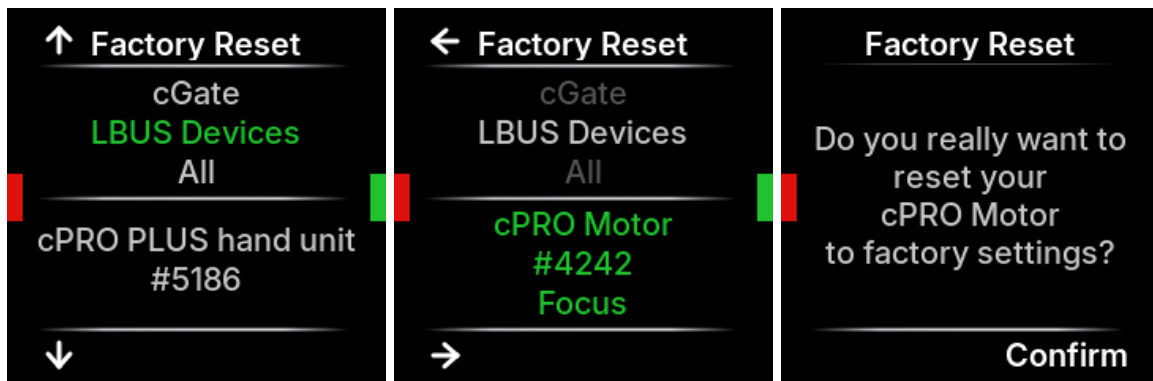


To reset the local cGate, SELECT “cGate” and press “Confirm”. All the cGate’s settings will be reset to factory defaults.

Notice

Please note, when resetting a cGate, all network settings including DHCP settings, IP address etc. will be reset to factory defaults and need to be reconfigured if required. Existing network connections will be disconnected.

6.4.9.2 LBUS Devices



To reset a specific local or remote LBUS device, SELECT “LBUS Devices” and search for the LBUS device you want to reset using the LEFT / RIGHT buttons. SELECT the device and press “Confirm”.

All settings on the selected LBUS device will be reset to factory defaults.

Notice

Please note, when resetting a cGate, all network settings including DHCP settings, IP address etc. will be reset to factory defaults and need to be reconfigured if required. Existing network connections will be disconnected.

6.4.9.3 All



To reset all local and remote LBUS device, SELECT “All” and press “Confirm”.

All settings on all connected LBUS device, including the local cGate, will be reset to factory defaults.

Notice

Please note, when resetting a cGate, all network settings including DHCP settings, IP address etc. will be reset to factory defaults and need to be reconfigured if required. Existing network connections will be disconnected.

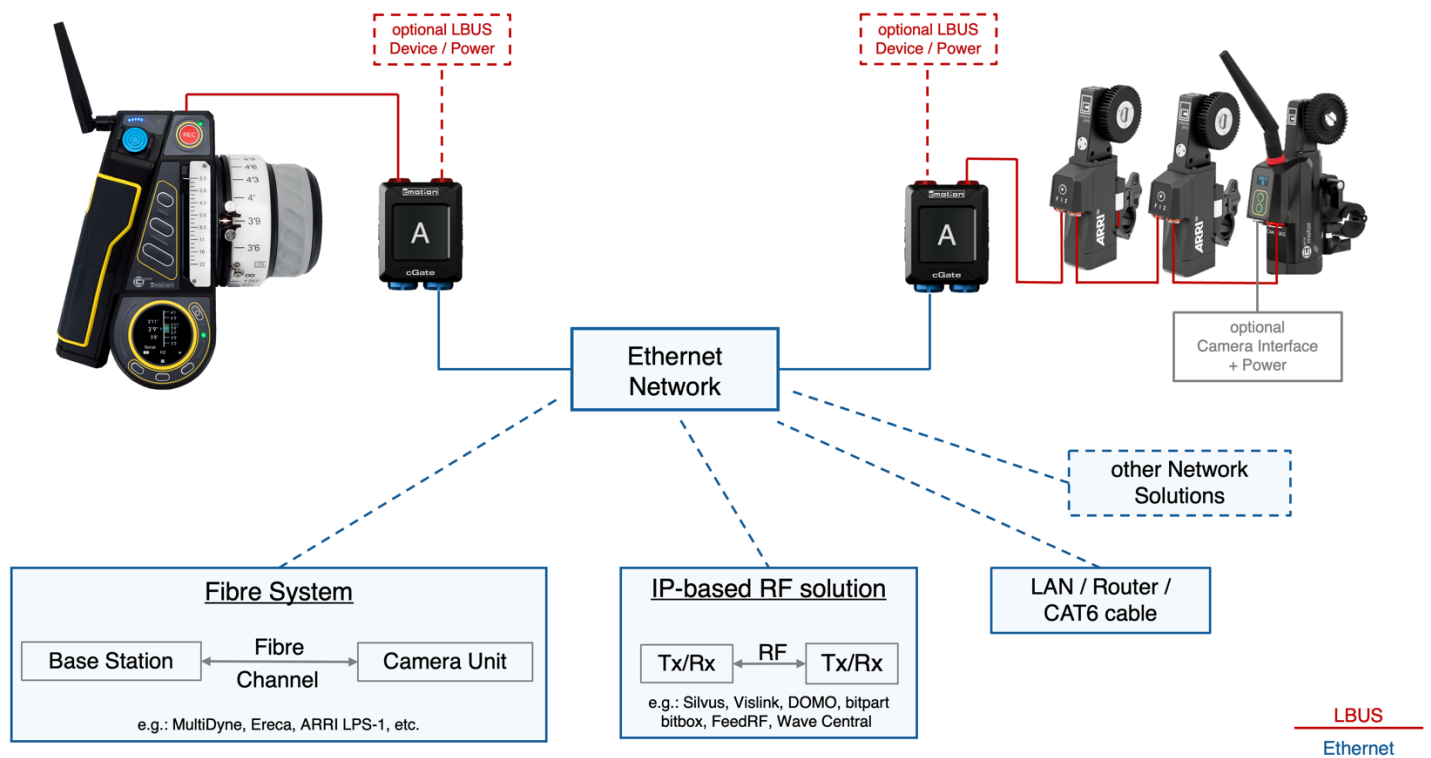
7. Network Configuration

7.1 Use cases cPRO system

7.1.1 General network setup overview

cGate can be used to bridge lens and camera control of the cPRO system (LBUS data) from any LBUS controller over existing IP infrastructure, including Ethernet (LAN), IP-based RF solutions or any supported fiber channel system.

Please refer to the user manual of the corresponding network on how to enable data traffic.

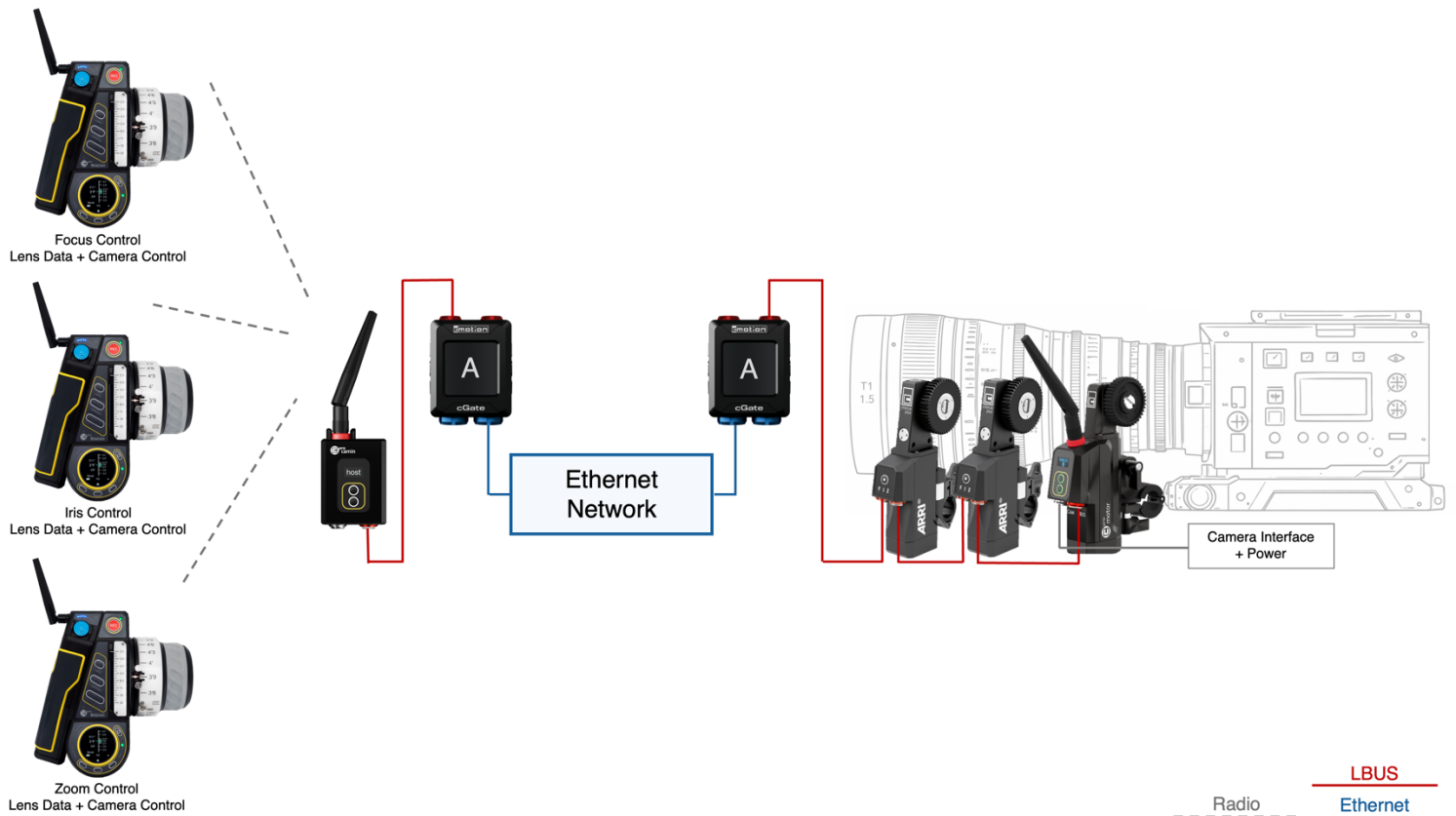


7.1.2 Split control from the same location

To control a single camera from the same location, a cPRO camin can be used to connect up to three cPRO hand units wirelessly through a single cGate access point to the IP network.

For a hardwired configuration, up to two cPRO hand units can connect to a single cGate access point.

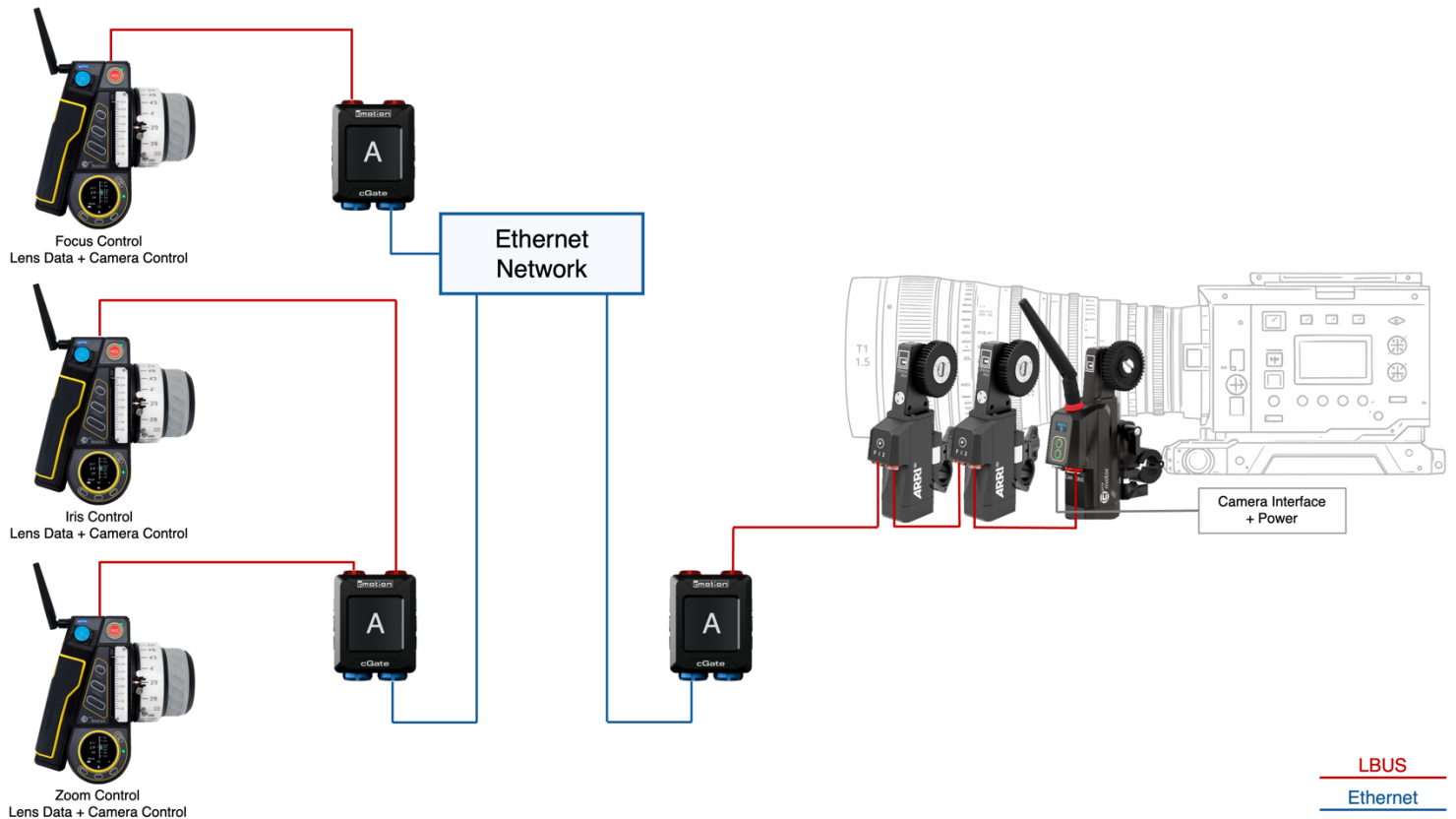
All hand units receive synchronized lens data and allow camera control.



7.1.3 Split control from different locations

To control a single camera from different locations, each location requires an individual cGate to access the IP network. In the example below Focus is controlled from one location and Iris and Zoom are controlled from another location.

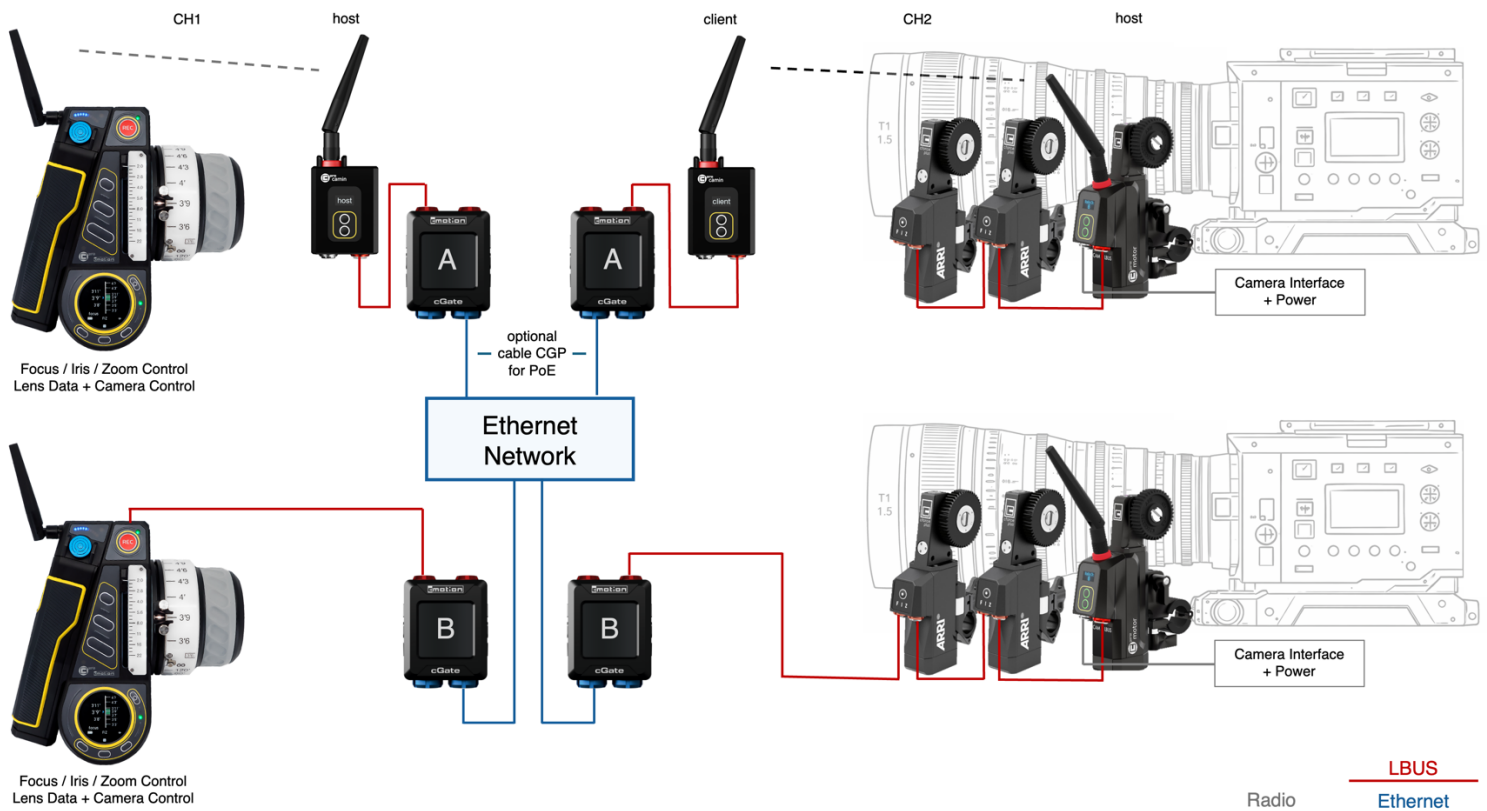
All hand units receive synchronized lens data and allow camera control.



7.1.4 Multi-camera setup

To control multiple cameras independently in a single network, all cGates within each camera set must be configured with a different pair ID and the cGate Pair Mode must be set to "Group".

In general, a wireless hand unit or a wireless camera can be used in any setup by connecting a cPRO camin (in host or client mode, depending on its position) as shown in the example of cGate Group A.



A PoE Adapter cable (e.g. cable CGP-1) can be used in combination with a regular cGate Ethernet cable (e.g. CGI-1) to power a cGate and up to two cPRO hand units, or a cGate and a cPRO camin directly from a PoE capable network, without using an external battery.

Notice

Please note, powering cforce motors is not possible through the PoE adapter cable.

7.2 Use cases ARRI system

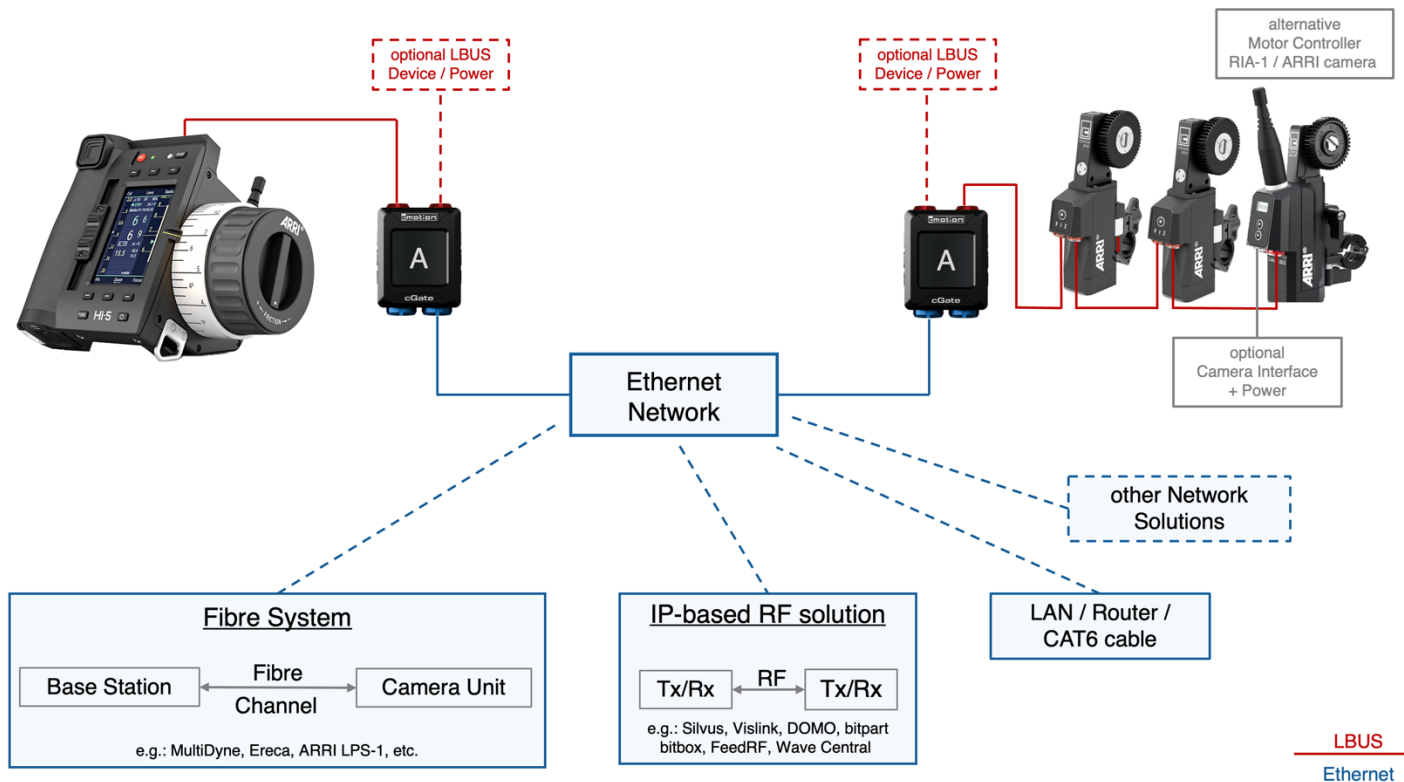
7.2.1 General network setup overview

cGate can be used to bridge lens and camera control of the ARRI system (LBUS / LCS data) from any LBUS controller over existing IP infrastructure, including Ethernet (LAN), IP-based RF solutions or any supported fiber channel system.

Please refer to the user manual of the corresponding network on how to enable data traffic.

Turn the LCS tunnel ON through the cGate menu, to enable synchronized lens data and camera control on the Hi-5 hand unit. Please also refer to section 6.4.2.3 “LCS tunnel” on page 24 in this manual.

LCS data may not be available in all configurations.



Notice

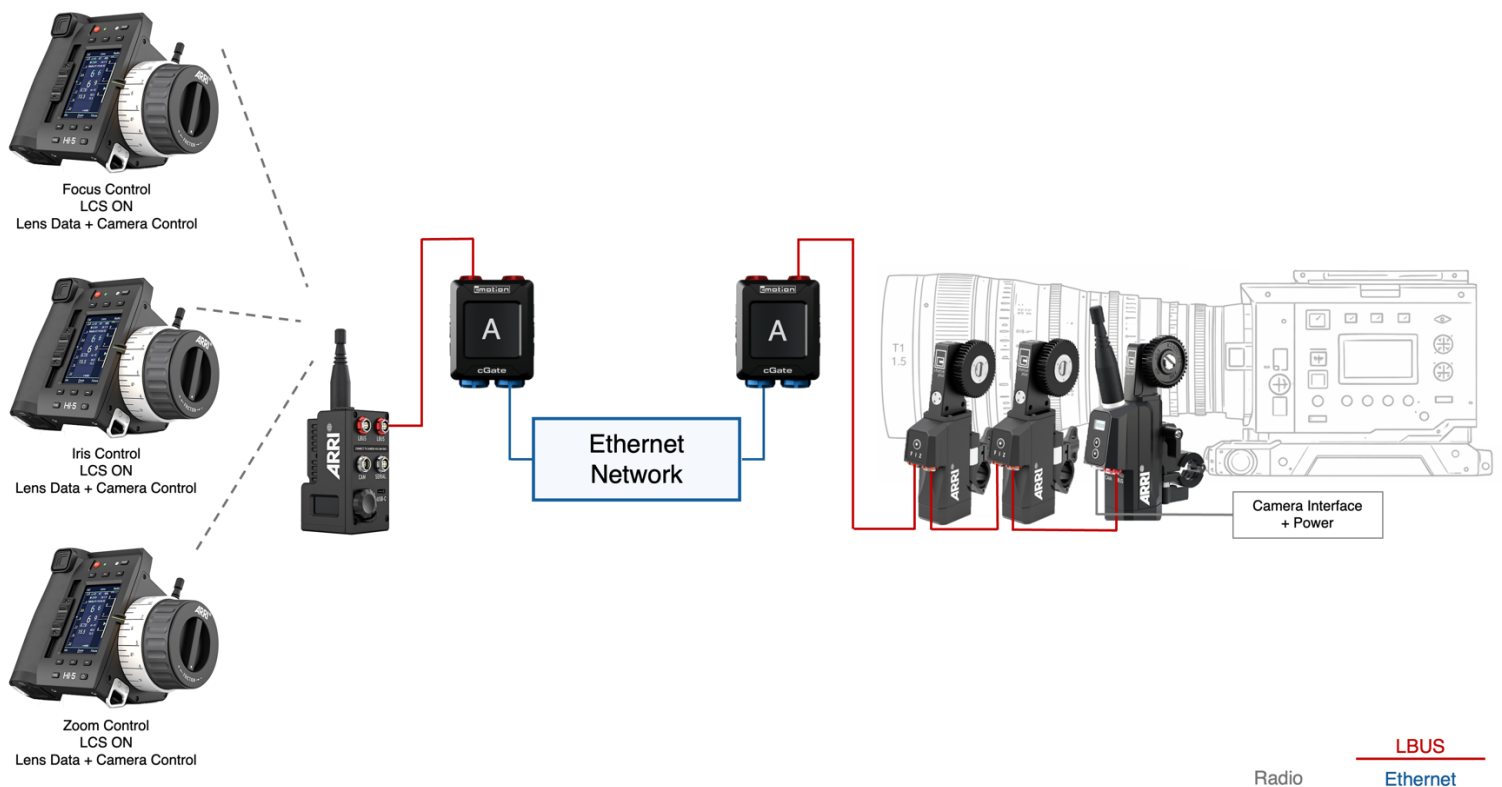
Please note, the ARRI system needs a motor controller within the network (e.g. RIA-1, cforce mini RF or an ARRI camera) to display lens data and to allow camera control through the Hi-5. The motor controller can be located either on the motor side or on the hand unit side.

7.2.2 Split control from the same location

To control a single camera from the same location, a RIA-1 can be used to connect up to three Hi-5 hand units wirelessly through a single cGate access point to the IP network.

For a hardwired configuration, up to two Hi-5 hand units can be connect to the RIA-1 through a single cGate access point.

Turn the LCS tunnel ON through the cGate menu to enable synchronized lens data and camera control on all Hi-5 hand units in this configuration. Please also refer to section 6.4.2.3 “LCS tunnel” on page 24 in this manual.



Notice

Please note, the ARRI system needs a motor controller within the network (e.g. RIA-1, cforce mini RF or an ARRI camera) to display lens data and to allow camera control through the Hi-5. The motor controller can be located either on the motor side or on the hand unit side. Connecting two Hi-5 hand units directly to a cGate prevents lens data and camera control on both hand units.

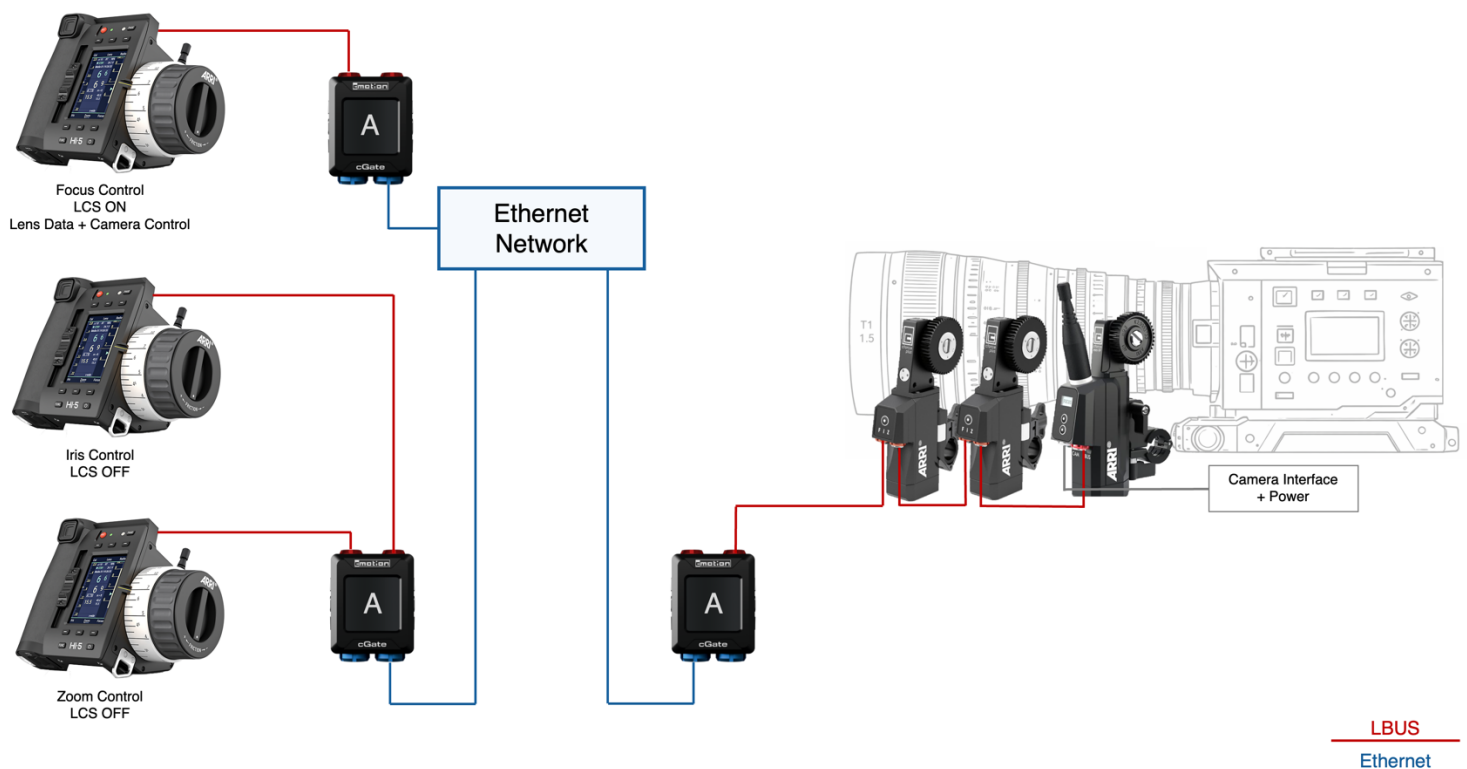
7.2.3 Split control from different locations

To control a single camera from different locations, each location requires a cGate to access the IP network. In the example below Focus is controlled from one location and Iris and Zoom are controlled from another location.

In this configuration, synchronized lens data and camera control is available on one Hi-5 hand units in the network. Motor control is shared between all hand units.

Turn the LCS tunnel ON for the Hi-5 which requires lens data and camera control.

Turn the LCS tunnel OFF on all other Hi-5 hand units.



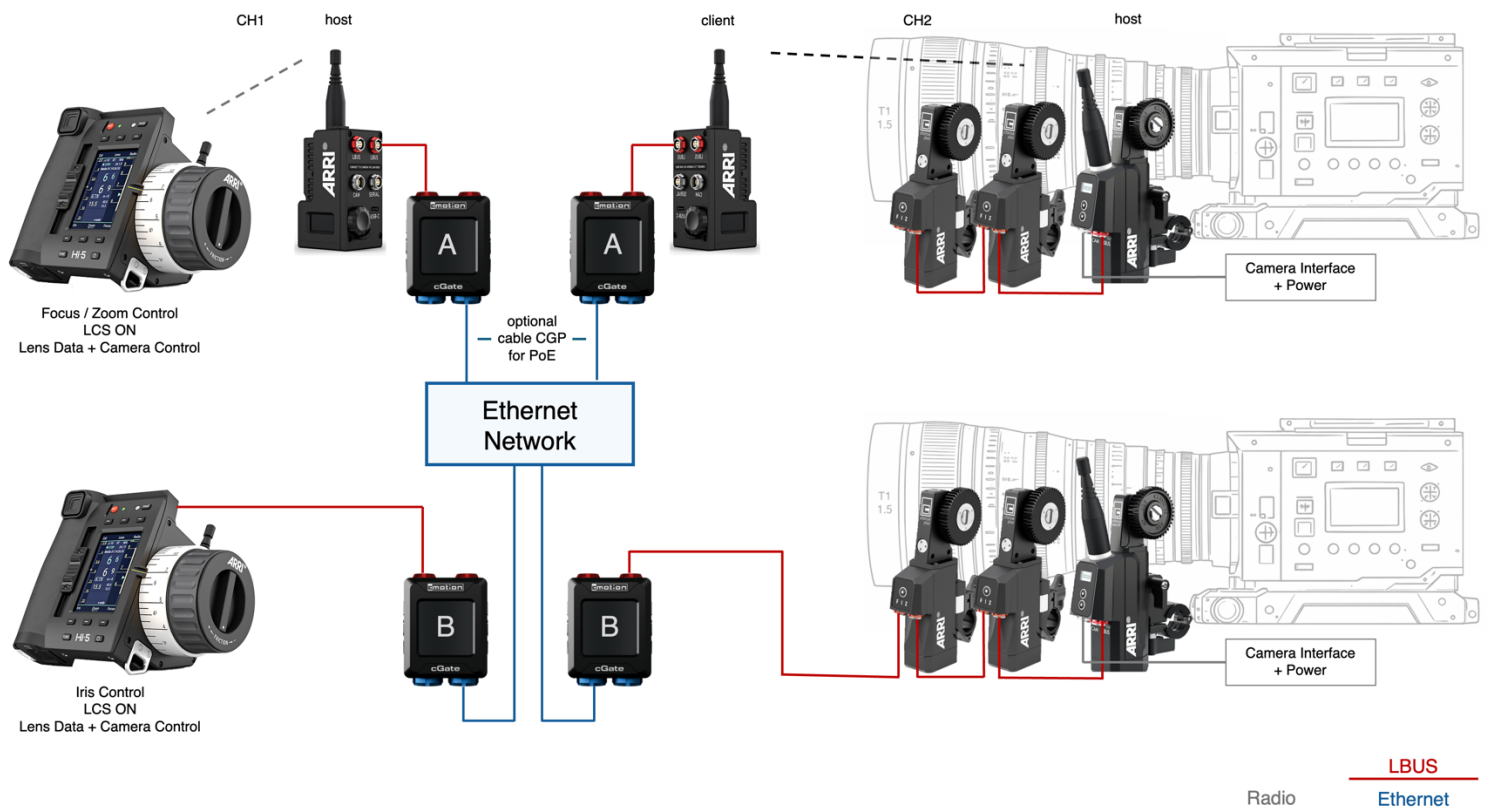
Notice

Please note, the ARRI system needs a motor controller within the network (e.g. RIA-1, cforce mini RF or an ARRI camera) to display lens data and to allow camera control through the Hi-5. The motor controller can be located either on the motor side or on the hand unit side. Connecting two Hi-5 hand units directly to a cGate prevents lens data and camera control on both hand units.

7.2.4 Multi-camera setup

To control multiple cameras independently in a single network, all cGates within each camera set must be configured with a different pair ID and the cGate Pair Mode must be set to "Group".

In general, a wireless hand unit or a wireless camera can be used in any setup by connecting a RIA-1 (in host or client mode, depending on its position) as shown in the example of cGate Group A.



A PoE Adapter cable (e.g. cable CGP-1) can be used in combination with a regular cGate Ethernet cable (e.g. CGI-1) to power a cGate and up to two Hi-5 hand units, or a cGate and a RIA-1 directly from a PoE capable network, without using an external battery.

Notice

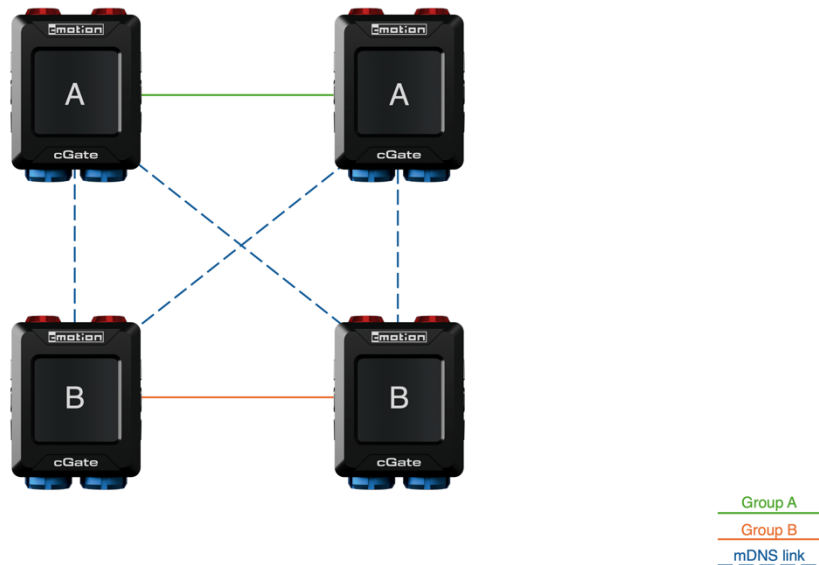
Please note, powering cforce motors is not possible through the PoE adapter cable.

7.3 cGate network communication

To separate a pair of cGates within a network, the Pair Mode must be set to “Group”. The Pair ID defines which cGates should exchange LBUS data between each other.

DHCP settings can be used to establish the communication between the cGates as described in the following sections in this manual.

If the network settings are not correct, the cGates will generate an IP address automatically (mDNS service discovery) to establish the communication between each other.



7.3.1 DHCP ON connected to a router

Two cGates with DHCP turned ON are connected to a router. Manually configured IP settings will be ignored.

The cGates receive the IP-Address from the DHCP server to establish the communication between each other.

7.3.2 DHCP ON connected to a switch

Two cGates with DHCP turned ON are connected to a switch. Manually configured IP settings will be ignored.

In a network without a DHCP server, the cGates will generate an IP address automatically (mDNS service discovery) to establish the communication between each other.

7.3.3 DHCP OFF connected to a router or a switch

Two cGates with DHCP turned OFF are connected to a router or a switch.

The cGates try to establish communication using their manual IP settings. If this is not possible, the cGates will generate an IP address automatically (mDNS service discovery) to establish the communication between each other.

7.4 Extended Camera Control

7.4.1 Sony Venice / Venice 2

7.4.1.1 Extended Camera Control Features - Sony

SONY VENICE / VENICE 2		ARRI Hi-5		cmotion cPRO	
Interface / Camera Function		Hi 8pin Remote	ETH via cGate	Hi 8pin Remote	ETH via cGate
REC	Feedback	✓	✓	✓	✓
	Trigger	✓	✓	✓	✓
FPS	Feedback - fixed FPS	—	✓	—	✓
	Feedback - variable FPS	✓	✓	✓	✓
	Dynamic List	✓	✓	✓	✓
Shutter (Speed / Angle)	Feedback - Angle	RCP mode only	✓	RCP mode only	✓
	Feedback - Speed	—	✓	—	✓
	Dynamic List - Angle	RCP mode only	✓	RCP mode only	✓
	Dynamic List - Speed	—	—	—	✓
	Custom - Angle	—	—	—	— (bugfix)
	Custom - Speed	—	—	—	✓
Exposure Index	Feedback	RCP mode only	✓	RCP mode only	✓
	Dynamic List	RCP mode only	✓	RCP mode only	✓
ND	Feedback	✓	✓	✓	✓
	Dynamic List	✓	✓	✓	✓
WB / Tint	Feedback	✓	✓	✓	✓
	Dynamic List	RCP mode only	✓	RCP mode only	✓
	Custom	✓	✓	✓	✓
User Buttons	Trigger	ND (+/-) only	all camera functions	ND (+/-) only	all camera functions
Voltage	Feedback	—	—	—	✓
Remaining Rec Time	Feedback	—	—	—	✓
Playback	Replay Last Clip	✓	✓	✓	✓
	FFWD / FRW	✓	✓	✓	✓
	Next / Previous Clip	✓	✓	✓	✓
	Playback Position Info	—	—	—	✓
Metadata feed		via Hi12p (LENS)	via Hi12p (LENS)	via Hi12p (LENS)	via Hi12p (LENS)

Sony Camera Control Licenses:

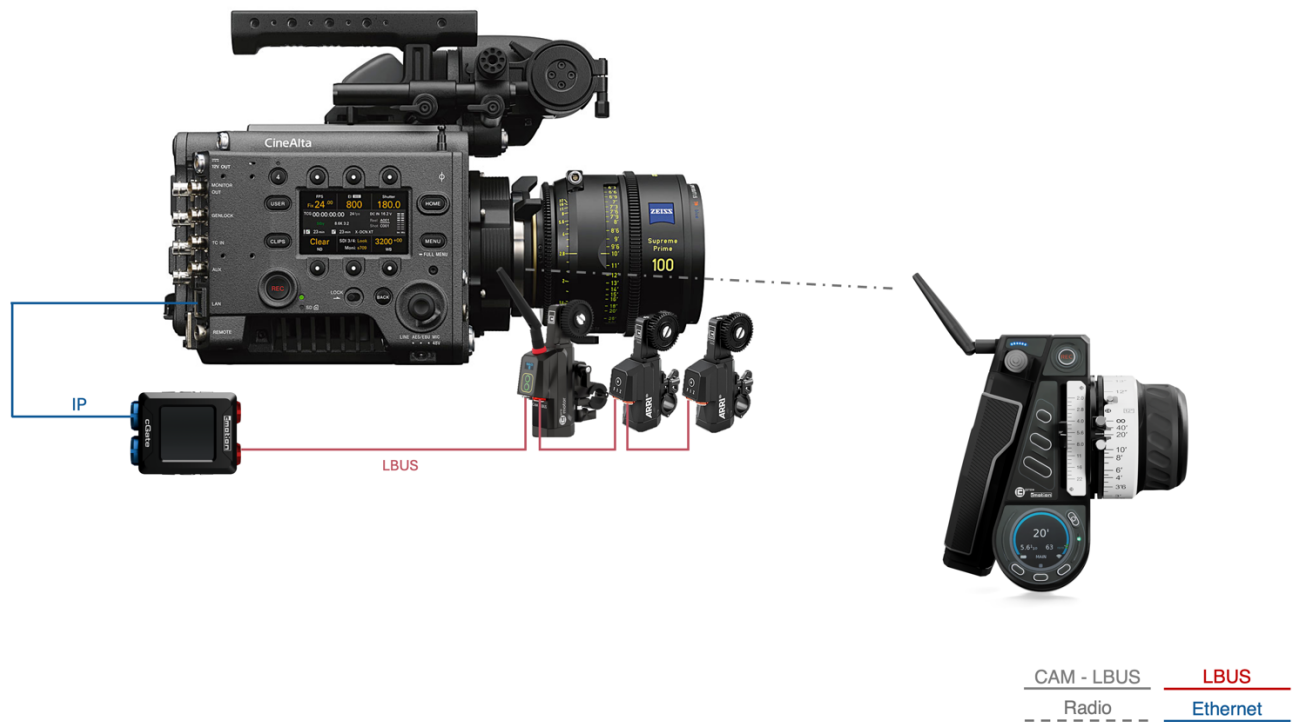
Extended camera control features via cGate require a camera control license for the corresponding hand unit.

- Sony camera control license for cPRO
- Sony Venice Camera Control License Key for Hi-5 and Hi-5 SX

Existing Sony camera control licenses for cPRO and Hi-5 include all extended camera control features via cGate for Sony Venice / Venice 2 already. Additional camera control licenses are not required.

7.4.1.2 Quick Start – Sony

7.4.1.2.1 Setup Overview – Sony



7.4.1.2.2 Prepare the camera - Sony

This step may be skipped if your camera has been set up for remote control operation via cGate or any other device before.

Configure the IP address of the camera in the technical camera menu.

- Press and hold the Menu Button on the camera until you enter the technical camera menu.
- Navigate to the “Authentication” menu.
- Set a username and a password for the network authentication.
 - The standard username is “admin”, but feel free to choose a different name.
 - The password must consist of a minimum of 8 digits and must contain at least one alphabetical letter and at least one number.
- After setting the username and the password, leave the “Authentication” menu.
 - The “Network” menu is only available after setting the authentication credentials.

- Navigate to and enter the “Network” menu to configure the network settings.
- Select LAN to enable the LAN menu.
- Enter the LAN settings.
 - If DHCP is set to “ON”, the DHCP server will assign an IP address automatically.
 - If DHCP is set to “OFF”, you can enter an individual static IP address.

7.4.1.2.3 Prepare the cGate - Sony

- Check the IP address of the Sony Venice.
 - Press and hold the Menu Button on the camera until you enter the technical camera menu.
 - Navigate to and enter the “Network” menu.
 - Enter the LAN settings to find the IP settings of the camera.
 - Remember the network settings (IP Address and Subnet Mask) of the camera.
 - Please also refer to the camera user guide where to find the network settings of your camera.

It is important to set the IP address of the cGate within the same subnet as the camera, but with an individual device section.

Example Settings:

Sony Venice:

IP address: 192.168.2.**50**

Subnet Mask: 255.255.255.0

“192.168.2” is the network portion and “50” is the device section.

The Subnet Mask defines the network portion.

cGate:

IP address: 192.168.2.**51**

Subnet Mask: 255.255.255.0

- Set the IP address of the cGate within the same subnet as the camera.
 - Enter the cGate settings menu by pressing the “Setup” button.
 - Navigate to and enter the “Network” menu.

- If DHCP on the camera is set to “ON”, set DHCP on the cGate to “ON”. Or, if set to “OFF”, make sure the static IP settings of the cGate match with the camera’s IP settings. When DHCP is “ON”, the DHCP server will assign an IP address automatically.
- If DHCP on the camera is set to “OFF”, set DHCP on the cGate to “OFF”. Or, when set to “ON”, make sure the static IP settings of the camera match the cGate’s IP settings. (please also see the example above).

7.4.1.2.4 Create and save a camera profile - Sony

To connect a Sony Venice to a cGate, you must create a camera profile first.

- Enter the cGate settings menu by pressing the “Setup” button.
- Navigate to and enter the “Device Connections” menu.
- Select “Add new”, then select “Add manually”.
- Select “Sony” from the protocol selection menu.
 - Set a profile name.
 - Enter the username (as set on the camera).
 - Enter the password (as set on the camera).
 - Enter the IP address (as set on the camera).
- Once all data is entered, save the profile and leave the menu by pressing SAVE.

7.4.1.2.5 Connect the created camera profile - Sony

- Enter the cGate settings menu by pressing the “Setup” button.
- Navigate to and enter the “Device Connections” menu.
- Select “Known Devices”
- Select the created profile and press CONNECT.
 - The connection request is sent to the camera and the camera status will be displayed on the screen
- If connection was successful, the screen will change to the “Device Connections” menu, where you can check the connection status.

The camera should be activated automatically and be available in the LBUS system.

Please also refer to section 7.4.1.2.6 “Check that the camera is active” on page 80 in this manual.

- If connection was not successful, the screen jumps back to the profile list where you can edit your settings.

7.4.1.2.6 Check that the camera is active - Sony

- Enter the cGate settings menu by pressing the “Setup” button.
- Navigate to and enter the “Device Connections” menu.
- Select “Connected Device”
- Check the camera’s name, its IP-address and its connection status
 - The camera should have been set to “active” automatically
 - In case it’s status says “Ready”, SELECT “Set Active”.

The camera should now be activated and available in the LBUS system.

7.4.1.3 Trouble Shooting - Sony

- **“Camera not found”**

If the camera is not found and it’s IP-address was checked already and is correct, it is likely, that the two devices are not on the same subnet.

Please refer to the Network Guide section for more information on subnet masks.

Basically, the subnet mask and the network portion of the IP address need to be the same and the device section of the IP address needs to be different.

If your device wasn’t found within a couple of searches,

- your cGate may not be in the same subnet as the camera (please refer to section 7.4.1.2.3 “Prepare the cGate” on page 78 in this manual),
- you may have to execute the camera preparation (please refer to section 7.4.1.2.2 “Prepare the camera” on page 77 in this manual).

Camera:

IP address:	192.168.2.50
Subnet Mask:	255.255.0.0

Here “192.168” is the network portion, as defined by the Subnet Mask and “2.50” is the device section.

The camera is not in the same Subnet as the cGate.

cGate:
IP address: 192.168.2.51
Subnet Mask: 255.255.255.0

Here “192.168.2” is the network portion and “51” is the device section.

You can check the IP-address of the cGate in the ETH info. Make sure that that IP is in the same subnet as the Sony Venice.

– **“Authentication Failed”**

The credentials sent to the Sony Venice 2 are incorrect. After confirming, the screen jumps back to the profile list.

- Make sure that you choose the correct profile and that the user data (username and password) in the profile is correct.
- You can check and/or configure the username and password in the technical network menu of the Sony Venice or in the Device Connections menu of the cGate.

Please refer to section 7.4.1.2.2 “Prepare the camera” on page 77 and to section 7.4.1.2.4 “Create and save a camera profile” on page 79 in this manual.

7.4.2 Blackmagic cameras

7.4.2.1 Extended Camera Control Feature - Blackmagic

Blackmagic URSA Cine (also for Studio / Cinema / Pocket / Micro and PYXIS)		ARRI Hi-5	cmotion cPRO	
Interface / Camera Function		ETH via cGate	Blackmagic EXT (7p)	ETH via cGate
REC	Trigger Run/Stop	✓	✓	✓
	Status Information - Tally	✓	✓	✓
FPS	Set Fixed FPS	✓	✓	✓
	Set Variable FPS	✓	✓	✓
	Dynamic List (depending on camera model)	✓	✓	✓
Shutter (Speed / Angle)	Set Angle	✓	✓	✓
	Set Speed	✓	✓	✓
	Dynamic List - Angle (depending on camera model)	✓	✓	✓
	Dynamic List - Speed (depending on camera model)	✓	✓	✓
	Set Custom - Angle	✓	✓	✓
	Set Custom - Speed	✓	✓	✓
Exposure Index	Set Exposure Index	✓	✓	✓
	Dynamic List (depending on camera model)	✓	✓	✓
ND (for URSA Cine / Studio only)	Set ND	✓	✓	✓
	Dynamic List	✓	✓	✓
WB / Tint	Set WB / Tint	✓	✓	✓
	Dynamic List	✓	✓	✓
	Set Custom - WB / Tint	✓	✓	✓
User Buttons	Trigger User Buttons	—	—	—
Voltage	Status Information	—	—	—
Remaining Rec Time	Status Information	✓	✓	✓
Playback	Replay Last Clip	—	—	—
	FFWD / FRW	—	—	—
	Next / Previous Clip	—	—	—
	Playback Position Info	—	—	—
Metadata feed		—	—	—

Blackmagic Camera Control Licenses:

Extended camera control features via cGate require a camera control licenses for the corresponding hand unit.

- Blackmagic camera control license for cPRO
- Blackmagic URSA Cine License Key for Hi-5 and Hi-5 SX

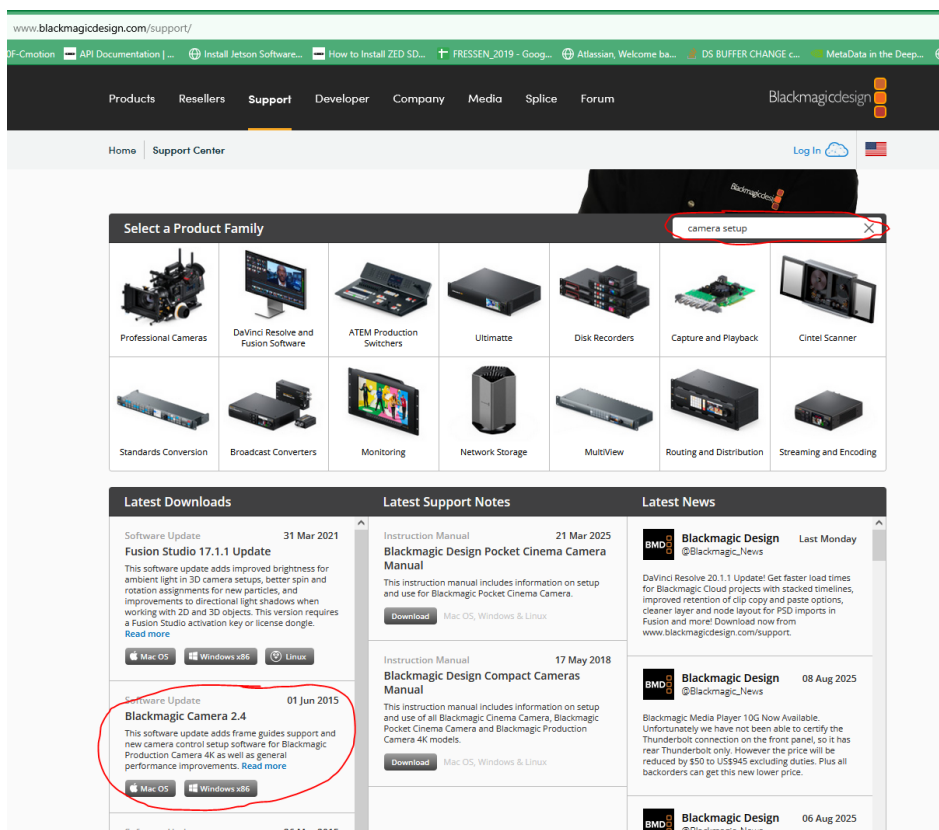
7.4.2.2 Quick Start – Blackmagic

7.4.2.2.1 Prepare the camera – Blackmagic

This step may be skipped if your camera has been set up for remote control operation via cGate or any other device before.

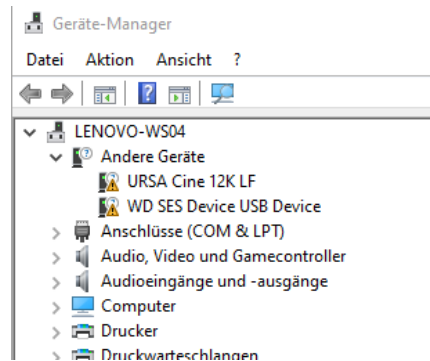
Activate the camera's Web Media Manager URL:

- Download the Blackmagic Camera Setup from the Blackmagic Support Center.
 - Go to: www.blackmagicdesign.com/support/ and enter “camera setup” in the search field.
 - In the downloads window you should find the current Blackmagic Camera Setup Software.
 - Download and install the Camera Setup Software.
 - Please refer to your camera's user manual for more information on the installation of the Camera Setup Software and how to connect your camera.
 - After the installation is finished, you should find the Camera Setup Software on your PC, named “Camera Setup Blackmagic”.

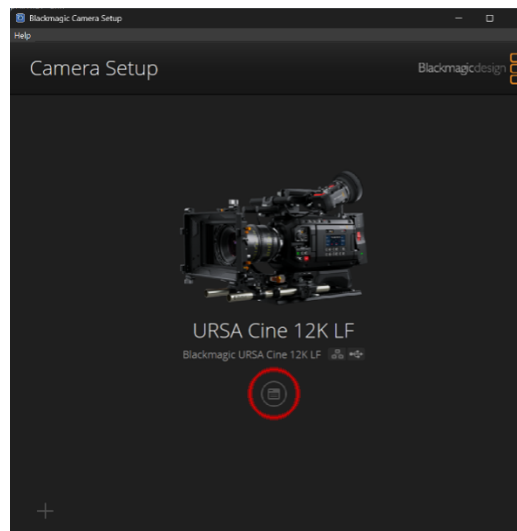


- Start the Camera Setup Software.
- Connect your Blackmagic camera to the PC via USB. Please refer to the camera's user manual to identify the right USB port of the camera to connect.

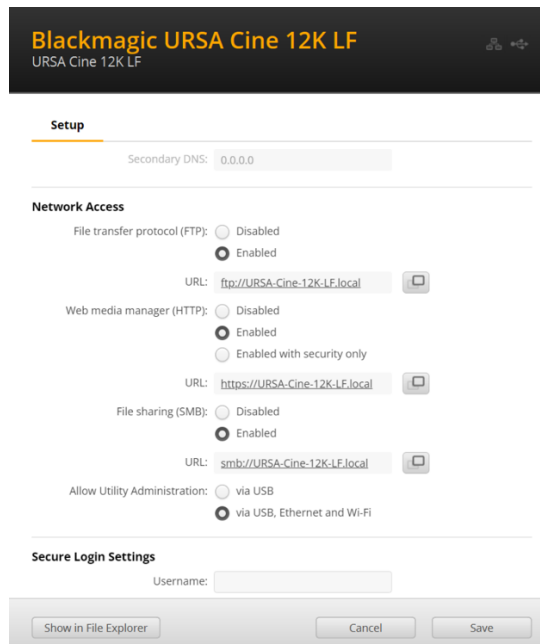
- Once the camera is connected to the PC via USB, it can be found in the windows device manager under the camera's name. e.g. "Blackmagic URSA Cine 12K LF".



- The camera will be displayed in the Camera Setup Software like shown on the image below.
 - Please note that a USB connection is mandatory for the following settings.
 - Please refer to the camera's user manual section "Camera Setup" or the Blackmagic Support Center for further information in case the camera cannot be found.



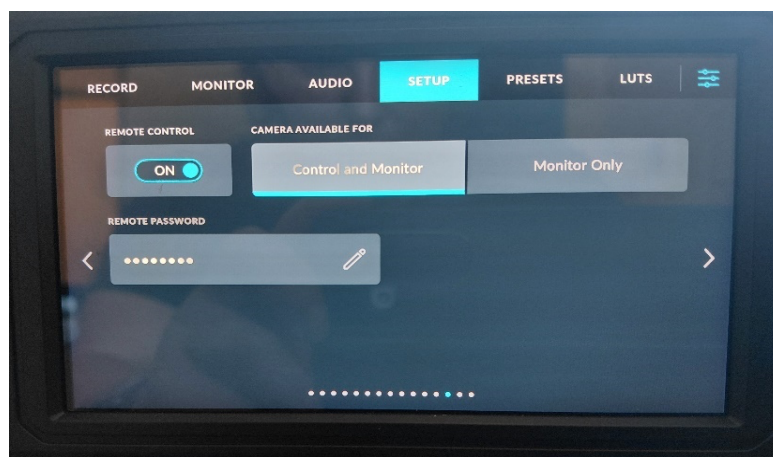
- Connect to the camera by pressing the button underneath the camera name.
- Navigate to the "Network Access" settings.
- Enable the Web media manager (HTTP) setting.
 - Please DO NOT choose "with security only".
 - Please DO NOT configure secure login.



For some cameras (e.g. the URSA 12K LF), it is also necessary to enable remote control on the camera itself.

Configure the camera for remote control access:

- Enter the camera’s setup menu.
- Navigate to the remote control settings.
- Enable “Remote Control” and choose “Control and Monitor”.
 - It might be necessary to set a password before being able to enable “Remote Control”.



The camera is now ready for external camera control and can be connected through your cGate.

7.4.2.2.2 Prepare the cGate - Blackmagic

- Check the IP address of the Blackmagic camera.
 - Press the Menu Icon on the cameras touch screen to enter the camera settings.
 - Navigate to and enter the “Setup” menu.
 - You can find the IP settings under “DHCP” or under “Static IP”
 - Remember the network settings (IP Address and Subnet Mask) of the camera.
 - Please also refer to the camera user guide where to find the network settings of your camera.

It is important to set the IP address of the cGate within the same subnet as the camera, but with an individual device section.

Example Settings:

Blackmagic camera:

IP address: 192.168.2.50

Subnet Mask: 255.255.255.0

“192.168.2” is the network portion and “50” is the device section.

The Subnet Mask defines the network portion.

cGate:

IP address: 192.168.2.51

Subnet Mask: 255.255.255.0

- Set the IP address of the cGate within the same subnet as the camera.
 - Enter the cGate settings menu by pressing the “Setup” button.
 - Navigate to and enter the “Network” menu.
 - If DHCP on the camera is set to “ON”, set DHCP on the cGate to “ON”. Or, if set to “OFF”, make sure the static IP settings of the cGate match the camera’s IP settings. When DHCP is “ON”, the DHCP server will assign an IP address automatically.
 - If DHCP on the camera is set to “OFF”, set DHCP on the cGate to “OFF”. Or, when set to “ON”, make sure the static IP settings of the camera match the cGate’s IP settings. (please also see the example above).

7.4.2.2.3 Connect the Camera - Blackmagic

Search and connect the camera automatically:

- Enter the “Device Connections” menu.
- Select “Add New”
- Select “Search”.
 - The search will start as described in section 6.4.3.2.2 “Search and Save” on page 33 and in section 6.4.3.2.3 “Search and Connect” on page 33 in this manual.
 - If no device was found, press the “Retry” button to restart the search.
 - A search takes approximately 3 - 5 seconds.

If your device wasn't found within a couple of searches,

- your cGate may not be in the same subnet as the camera (please refer to section 7.4.2.2.2 “Prepare the cGate” on page 86 in this manual)
- you may have to execute the camera preparation (please refer to section 7.4.2.2.1 “Prepare the camera” on page 83 in this manual).

If your camera was found, select it in the list of found devices.

- You then have the options to “Save” the profile for future use or to “Connect” to the camera directly.
 - Save a camera profile:
 - If you press “Save”, the IP address of the camera will be added to the camera profile automatically but can still be edited.
 - Choose a name for the camera profile and press “Save”.
 - Connect the camera from the “Known Devices” profile list.
 - Connect the camera directly without saving a camera profile
 - Select “Connect”, if you want to connect to the camera directly without saving the camera profile.

The camera will still be saved as the last known active camera and reconnected after a system restart.

Connect the camera manually (optional):

If your device was not found during the search or if you want to connect it directly, you can add the camera manually.

- Enter the “Device Connections” menu to create a camera profile:
 - Select “Add New”.
 - Select “Add Manually”.

- The profile editing dialogue will appear.
- Select “Blackmagic”.
- Enter the profile name.
- Enter the IP address of the camera.
- Once finished, press “Save”.
- Enter the “Known Devices” menu to connect the created camera profile:
 - Select the created camera profile from the list.
 - Press “Connect” to connect the camera.

7.4.2.3 Trouble Shooting - Blackmagic

- **“Camera not found”**

If your device wasn't found within a couple of searches,

- your cGate may not be in the same subnet as the camera (please refer to section 7.4.2.2.2 “Prepare the cGate” on page 86 in this manual)
- you may have to execute the camera preparation (please refer to section 7.4.2.2.1 “Prepare the camera” on page 83 in this manual).

As the automatic search for Blackmagic cameras uses service discovery protocols, a camera might be found even if the camera is not on the same subnet as the cGate.

Connection Examples:

Device	IP	Subnet Mask	Connection possible
Sony Venice	192.168.2.50	255.255.255.0	cGate 1
cGate 1	192.168.2.51	255.255.255.0	Sony Venice
cGate 2	192.168.2.52	255.255.0.0	Blackmagic Design
Blackmagic Design	192.168.2.53	255.255.0.0	cGate 2

In the example above, cGate 1 can be connected to the Sony Venice because the two devices have the same subnet mask and a valid unique IP-address. cGate 2 cannot be connected to the Sony Venice because the subnet mask is different.

cGate 2 can be connected to the Blackmagic camera either via automatic search or manually. cGate 1 may also find the Blackmagic camera via automatic search but will fail to connect because the subnet mask is different.

7.5 Lens Sync Setup

Lens Sync is designed for special applications such as 3D rigs, camera arrays, and multi-camera setups using lenses with different focal lengths. It allows synchronized axes to be controlled from a single cmotion or ARRI hand unit.

Initial Setup:

- Connect the devices as shown in the corresponding use case below.
- Make sure that all cGates are configured with the same Pair ID.
- Set the Sync Role of the cGate connected to the main camera to host (default).
- Set the Sync Role of all other cGates to client.

End-Stop Synchronization:

After motor calibration, the lenses are synchronized automatically based on their end-stops. This method generally works well when using identical lenses with matching focal-length and engravings.

Lens File Synchronization:

Use Lens File Synchronization when the lenses are not identical or when End-Stop Synchronization does not provide sufficiently accurate matching of the lens engravings.

- Create a lens file for each lens using a cPRO or Hi-5 hand unit.
- Export the lens files to a USB-C drive.
- Connect the USB-C drive to each cGate.
- On each cGate, go to SETUP / LENS / IMPORT and import the lens file for the corresponding camera / lens.
- Go to SETUP / LENS / LOAD and load the imported lens file from the cGate's internal memory.

cGate uses the lens data from the loaded lens files to match the lens engravings and to synchronize the lenses accurately.

If the sensor plane on each camera is different, a Focus Offset can be applied to compensate for the different positioning. Please refer to section 6.4.4.6.3 "Focus Offset" on page 47 in this manual.

Returning to End-Stop Synchronization:

To return to End-Stop Synchronization, unload the lens file on each cGates. Please refer to section 6.4.4.2 "Unload Lens" on page 39 in this manual.

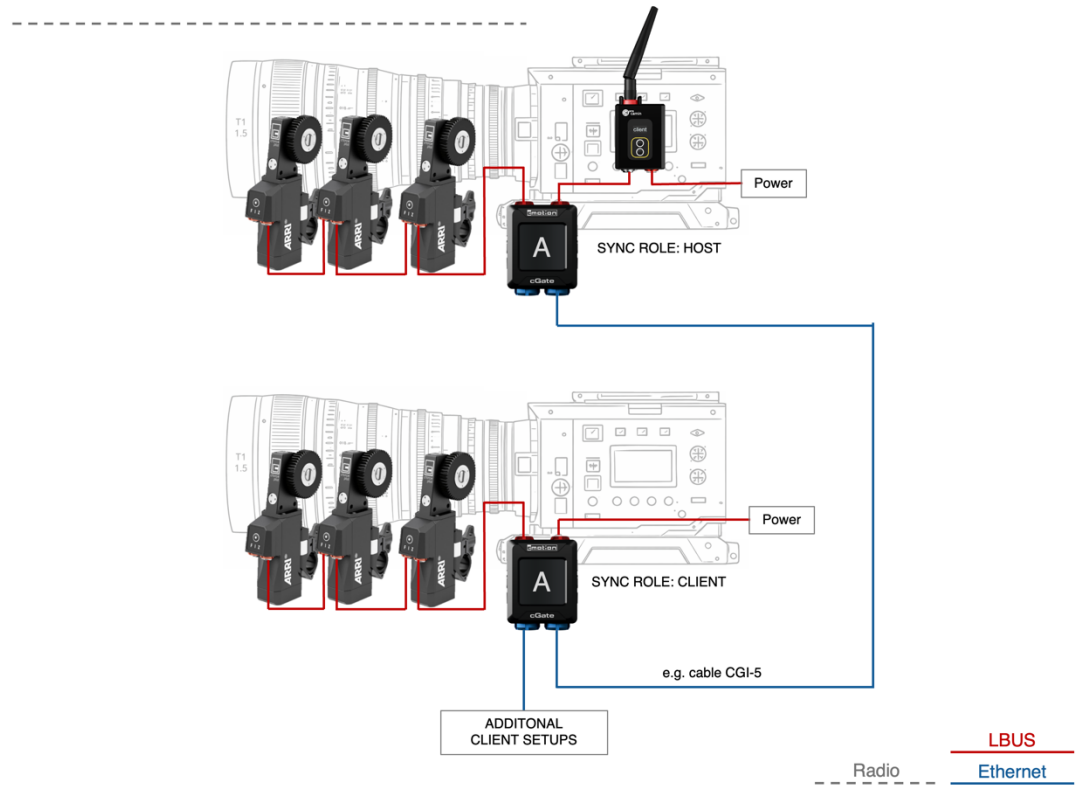
Notice

Please note, that synchronized camera control via cGate is currently not available.

7.5.1 Use Case cPRO system



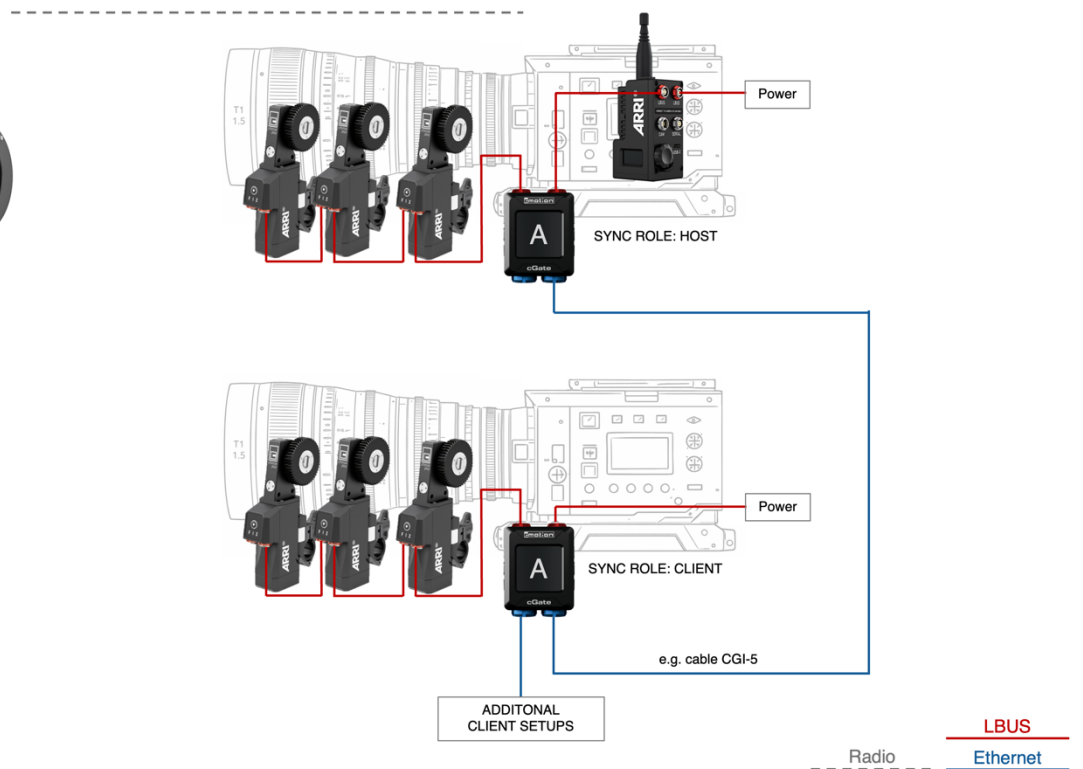
Focus / Iris / Zoom Control



7.5.2 Use Case ARRI system



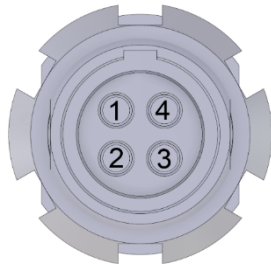
Focus / Iris / Zoom Control



8. Appendix

8.1 Pinouts

8.1.1 LBUS port



Connector type: LEMO EEG.0B.304

1	GND
2	CAN-L
3	V-BAT
5	CAN-H

8.1.2 Ethernet port



Connector type: LEMO EEG.1B.310

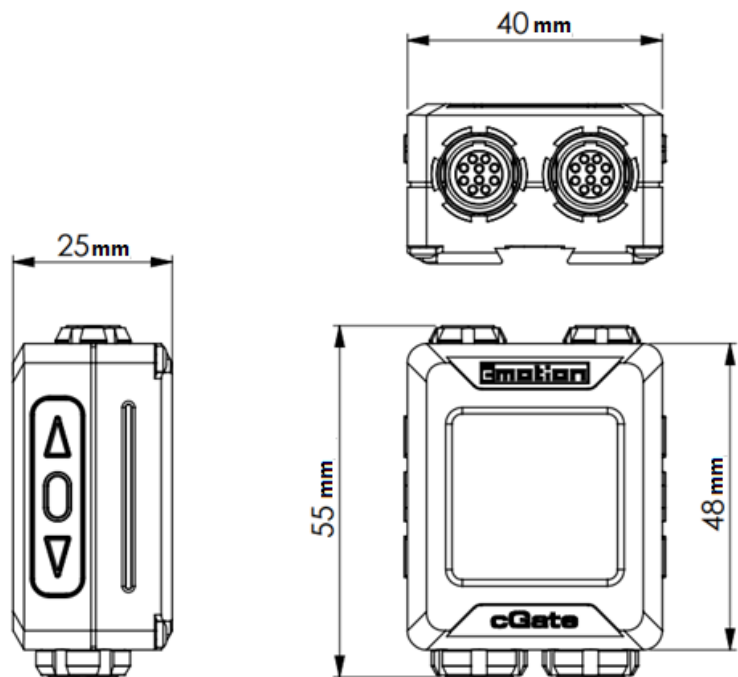
1	MX-1P (white-orange)
2	MX-1N (orange)
3	MX-2P (white-green)
4	MX-2N (green)
5	MX-3P (blue)
6	MX-3N (white-blue)
7	MX-4P (white-brown)
8	MX-4N (brown)
9	GND
10	VCC (7V-34V, max 0,5A)

8.2 Environmental Conditions

The cGate should only be used and stored under certain environmental conditions. Check the following conditions before commissioning and operation:

Electrical Requirements	
Power Input Range LBUS / ETH port (Pin 9 / 10)	4,5 – 34 V DC
Power Input Range USB-C	USB-C 4.75 - 5.25V DC
Power Consumption	Max. 4W (without USB-C device connected)
Operating Temperature	-20° C to +50° C / -4° F to +122° F
Storage Temperature	-30° C to +70° C / -22° F to +158° F
Humidity	0-95% RH from -20° C to +45° C / -4° F to +113° F

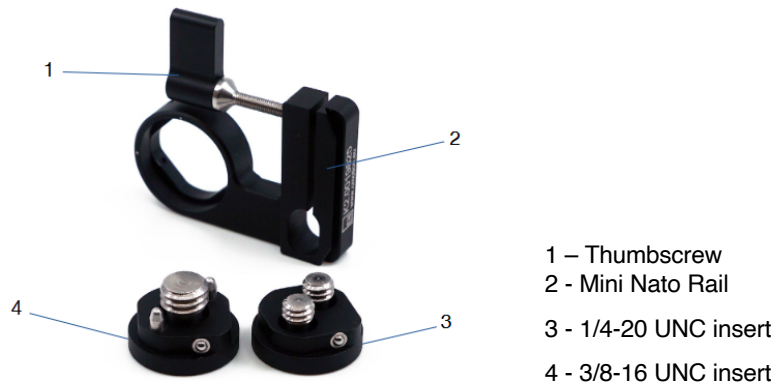
8.3 Dimensions and weight



Dimensions and weight	
length	55 mm (2.17 inches)
width	40 mm (1.57 inches)
height	25 mm (0,98 inches)
weight	91 g (0,20 lbs)

8.4 Mounting Options

8.4.1 Mounting with cGate / cPRO camin bracket



[K2.0019825] cGate / cPRO camin bracket

- Choose the 1/4-20 UNC or 3/8-16 UNC mounting insert, depending on the mounting options on your camera.
- Match the registration marks of the insert and the cGate / cPRO camin bracket and snap in the insert accordingly. The insert can be fixed in two different orientations, depending on the best suitable mounting option on your camera.
- Attach the cGate / cPRO camin bracket to a 1/4-20 UNC or 3/4-16 UNC threat on your camera.
- Slide the cGate onto the Mini Nato Rail of the cGate / cPRO camin bracket.
- Lock the cGate / cPRO camin bracket by turning the thumbscrew clockwise.

8.4.2 Mounting with cforce mini clamp



K2.0036610 cforce mini clamp - Console 2 19/15mm

- Slide the cGate onto the Mini Nato Rail of the clamp console.
- To fix the position turn the small thumbscrew clockwise.
- Open the clamp console by turning the thumbscrew counter-clockwise.
- When using 15mm rods, attach the 19/15mm clamp insert.
- Attach the clamp console on the rod.
- Tighten the clamp console by turning the thumbscrew clockwise.

8.4.3 Mounting with LCUBE bracket



K2.0009620 LCUBE bracket

- Attach the 3/8-16 UNC screw to a suitable thread.
- Slide the cGate onto the Mini Nato Rail of the LCUBE bracket.
- To release, press the button and slide the cGate off.

8.5 Part numbers

8.5.1 Main components

[C150-100] cmotion cGate

cmotion cGate is a unique miniature signal converter, that converts industry standard LBUS protocol into an Internet Protocol (IP) and vice versa.

Including: 1x cmotion cGate

[C150-200] cmotion cGate Basic Set

cmotion cGate is a unique miniature signal converter, that converts industry standard LBUS protocol into an Internet Protocol (IP) and vice versa.

Including: 1x [C150-100] cmotion cGate
1x [K2.0019825] cGate / cPRO camin bracket

8.5.2 Mounting accessories

[K2.0019825] cGate / cPRO camin bracket

Quick release bracket with 3/8" and 2x 1/4" inserts for cmotion cGate and cPRO camin.

[K2.0036610] cforce mini Clamp Console 2 19/15mm

Including: 1x K2.0038503 cforce mini Clamp Insert 2 15mm

Compatible with ARRI's CLM-5, cforce mini, cforce mini RF, Operator Control Unit OCU-1 and cmotion's cPRO motor, cmotion cGate.

[K2.0009620] LCUBE Bracket

Quick release bracket with 3/8" screw for LCUBE converters, also compatible with cmotion cGate.

8.5.3 Cables

[C150-K01] cable CGI-1

Connecting cable for cGate to Ethernet (Le m10p, RJ45) 0,25m / 10"

[C150-K02] cable CGI-2

Connecting cable for cGate to Ethernet (Le m10p, RJ45) 5m / 16'

[C150-K03] cable CGI-3

Connecting cable for cGate to Ethernet (Le m10p, RJ45) 0,45m / 18"

[C150-K04] cable CGI-4

Connecting cable for cGate to Ethernet (Le m10p, Le m10p right angle 0°) 0,45m / 18", compatible with all ARRI Alexa cameras.

[C150-K05] cable CGI-5

Connecting cable for cGate to Ethernet (Le m10p, Le m10p) 0,45m / 18", compatible with all ARRI Alexa cameras.

Recommended for Lens Sync application through multiple cGates.

[C150-K04] cable CGP-1

Connecting cable for cGate to Ethernet with PoE (Le m10p, RJ45 socket) 0,45m / 18"

8.6 Service contacts

cmotion GmbH

Biedermannngasse 28

1120 Vienna / Austria

www.cmotion.eu

support@cmotion.eu

Service Hotline: +43 1 78910960

camadeus Film Technologies, Inc.

www.camadeus.com

contact@camadeus.com

Service Hotline: +1 818 764 1234

Cineom Broadcast India Ltd.

Unit 4C, 4th Floor, Goldline Business Centre,

New Malad Link Rd, Malad (W),

400064, Mumbai / India

support@cineom.com

Service Hotline: +91 22 42109000

CVP UK

23 Shield Drive, West Cross Industrial Estate,

Brentford, Middlesex, TW8 9EX

United Kingdom

prorepairs@cvp.com

Service Hotline: +44 208 380 7400

SAMA Global Video Communications Inc.

Mullaedong 3-ga, Dongguk Mattrian#606, 76

Seonyu-ro, Youngdeungpo-gu

07294 Seoul

South Korea

Service Hotline: +82226361300

Service Technicians: hyun1@samagvc.com

8.7 Cleaning and maintenance

The cGate is a precision instrument. Do not drop it or subject it to physical shock.

The cGate is not waterproof and cannot be used underwater, unless mounted to a camera encased in a professional underwater housing.

If you accidentally drop a cGate into water, consult your nearest service center. Wipe off any water droplets with a dry cloth and do not attempt to turn the cGate on.

If the cGate has been exposed to salty air, wipe down the external components with a damp but well-wrung cloth.

Do not use cleaning agents that contain organic solvents to clean the button panels or display. For stubborn marks, please take the cGate to your nearest service center.

If the cGate is transferred suddenly from somewhere cold to somewhere warm, condensation may form on both external and internal components. To prevent condensation, put the cGate in a sealed plastic bag and let it adjust to the warmer temperature before use.

If condensation has formed on the cGate, do not power on as this could damage electrical components. Simply remove the power supply and wait until the condensation has evaporated.

8.8 International declarations

8.8.1 EU-Declaration of Conformity

The designated product conforms to the specifications of the following European directives:

Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility - OJ L 96, 29 March 2014

Directive 2011/65/EU of the European Parliament and the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment - OJ L 174, 1 July 2011, p. 88-110

The compliance with the requirements of the European Directives was proved by the application of the following standards:

- CISPR 32: 2015 EN 55032:2015+A11:2020
- CISPR 35:2016 EN 55035:2017+A11:2020
- EN IEC 63000:2019

To evaluate the respective information, we used:

http://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/index_en.htm

Year of affixed CE-marking: 2024



8.8.2 UK Declaration of Conformity

The designated product conforms to the specifications of the following United Kingdom regulations:

- Electromagnetic Compatibility Regulations 2016
- Radio Equipment Regulations 2017

The compliance with the requirements of the United Kingdom regulations was proved by the application of the following standards:

- EN 55032:2015 - EN 55032:2012/AC:2013
- EN 55035:2017 – CISPR 35:2016 (Modified)

The manufacturer bears sole responsibility for issuing this declaration of conformity. To evaluate the respective information, we used:

<https://www.gov.uk/guidance/ukca-marking-conformity-assessment-and-documentation#technical-documentation>

8.8.3 FCC Class A Statement

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

8.8.4 Industry Canada Compliance Statement

Complies with the Canadian ICES-003 Class A specifications.

Cet appareil numérique de la Classe A est conforme à la norme NMB-003 du Canada. This device complies with RSS 210 of Industry Canada. Cet appareil est conforme à CNR-210 d'Industrie Canada. This Class A device meets all the requirements of the Canadian interference-causing equipment regulations. Cet appareil numérique de la Classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.