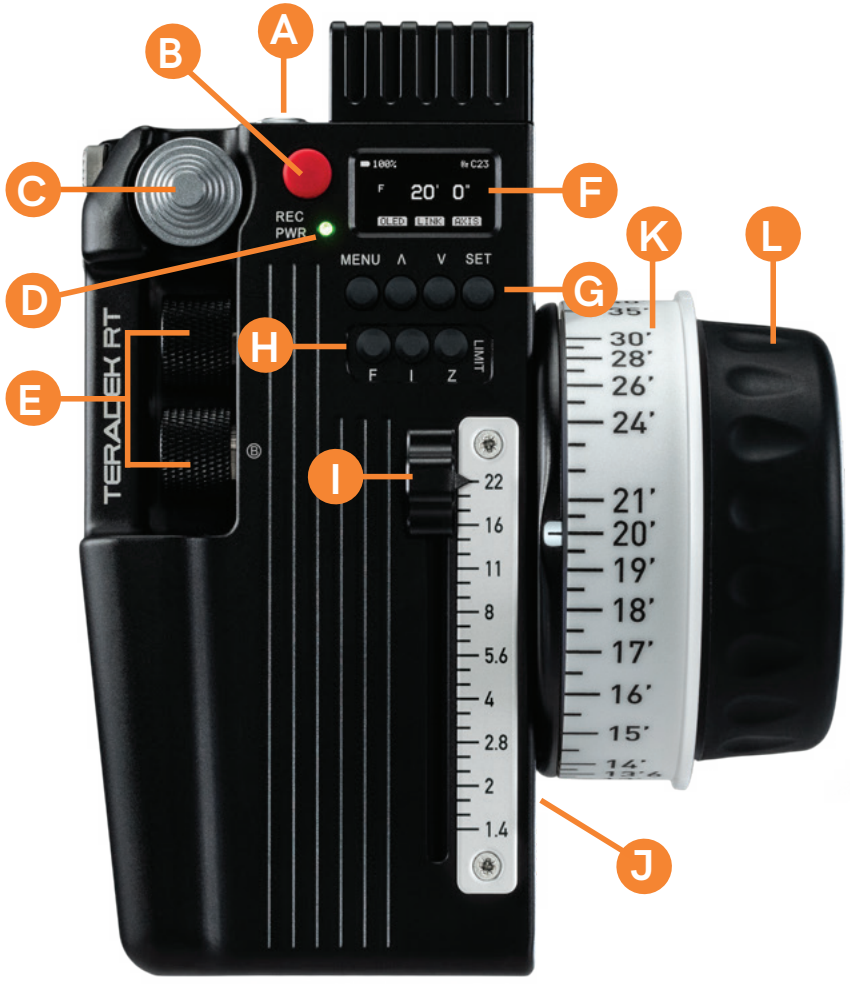
TERADEK

CTRL.3

3-Axis Controller

Quick Start Guide

PHYSICAL PROPERTIES



A: Wired-mode input
B: REC/PWR button
C: Force joystick
D: Status LED
E: A/B thumbwheels
F: OLED Menu screen
G: Menu buttons
H: Limit buttons
I: Slider
J: Mini-USB
K: Lens ring
L: Knob

COMPATIBLE DEVICES

The CTRL.3 controller is compatible with both Teradek RT and SmallHD devices.

TABLE OF CONTENTS

3-AXIS CONTROLLER

The CTRL.3 is a lightweight, ergonomic 3-axis lens controller with built-in lens mapping and data storage. When paired with any compatible SmallHD monitors with integrated Bolt receivers, the CTRL.3 can overlay lens focal distance directly on the monitor, creating the world's first all-in-one wireless video & lens control solution. In addition to F/I/Z control, the CTRL.3 system enables you to remotely start/stop select HD cameras such as ARRI, Blackmagic, Phantom Flex, RED, Sony, and LANC-compatible models.

WHAT'S INCLUDED

- 1x CTRL.3 Controller
- 5x White Disc (Type B)
- 1x Micro-USB to USB - 3 ft Cable
- 1x SmallHD Monitor Interface Cable
- 1x Pre-Marked Focus Ring - 20″ min. focus
- 1x Pre-Marked Focus Ring - 3′6″ min. focus
- 1x Pre-Marked focus Ring - 6″ min. focus
- 1x Pre-Marked focus Ring - 10″ min. focus
- 1x Pre-Marked Iris Ring - 1-32
- 1 x Iris Strip Slider 0
- 1 x Iris Strip Slider 10
- 1 x Iris Strip Slider 20
- 1 x Iris Strip Slider 30

POWER AND CONNECT

1. Connect power to the receiver's **PWR** port.
2. Attach the motor(s) to the rods/lens.
3. Connect the motor(s) to the receiver using a 4-pin connector. If connecting two or more motors, use a 4-pin to 4-pin connector to daisy-chain them together. The motor(s) will then begin calibrating.
4. Insert an LP-E6 battery in the controller, then press the **REC/PWR** (C) button to turn on the controller.
5. Use one of two methods to pair your controller with the receiver (**see page 4**).

PAIR CONTROLLER AND RECEIVER

If the controller has not been paired to a receiver, you can use one of the following two methods to pair both devices.

WIRELESS PAIRING

Press the **MENU** button on the controller, then navigate to **WIRELESS>FIND RECV** to scan for active receivers and automatically pair. The LED on the controller will turn green once paired.

WIRED PAIRING

Connect a 5-pin connector from the controller's wired-mode input to the **IN-1** input on the receiver. The controller and receiver will remain paired even after disconnecting the 5-pin connector. The LEDs on the controller and receiver will turn blue once paired.

CAMERA RUN/STOP

1. Connect a camera cable from the **CAM/Control** port on the receiver to the camera, then navigate to **MENU>CAMERA** on the CTRL.3 to indicate which camera you have connected.

2. Press the **REC/PWR** button on the controller (C) to start/stop recording on the camera.

NOTE: If using a RED camera, the camera serial communication setting must be set to RCP (Redlink Command Protocol) for the unit to operate.

CONTROLLER MENU OPERATION

Press the MENU button, then use the ▲, ▼ and SET button to navigate through the different menu options.

POWER OFF - Turn OFF the controller
LENS - Configure lens mapping function
RANGE FNDR - Configure/Calibrate TOF.1
MOTORS - Configure the attached motor(s
INPUTS - Configure the controller's knob
WIRELESS - Configure the wireless settings
CAMERA - Select the make of the camera
SCREEN - Change display settings
BUTTONS - Assign functions to the buttons
RX CONFIG - Configure auxiliary controllers
IO CONFIG - Configure communication mode
STATUS - Contains list of connected devices
ADV - Contains device info menu, licenses, and advanced functions for debugging
FACTORY - Reset licensing and/or serial number

CONTROLLER STATUS LEDS

The controller status LED indicates when the system is ON and provides the system's current status during operation.

OFF - Unit is powered off
YELLOW - No wireless connection
RED - Camera is recording
ORANGE - PC/Bootloader mode
WHITE - Checking RF module status
GREEN - Wireless is synched
BLUE - Wired-mode connection

LENS MAPPING

CTRL.3 features built-in lens mapping, which allows users to auto-calibrate lenses to pre-marked focus rings with the touch of a button. Lens Mapping is included as a standard feature with the CTRL.3.

CREATE A LENS MAP

1. Navigate to **LENS>LENSMAP>CREATE**.
2. Select the lens brand, then create a name to identify the lens map.
3. Select **Yes** to map a prime lens, then enter the lens' fixed focal length (e.g. 35mm, 85mm). Select **No** if mapping a zoom lens, then create a focal length (zoom) table (e.g. 24-70mm, 70-200mm).
4. After setting the focal length, you will be prompted to create an Iris table. Make sure a motor is attached to the corresponding ring, and both the motor and controller are set to the same class (Focus, Iris, Zoom).

5 Move the controller knob so that the motor adjusts the lens ring to the minimum stop.

6 Using the ▲ and ▼ buttons on the controller, enter the corresponding mark, then select **OK**.

NOTE: Entering every lens mark is not required, but it is recommended in order for the Lens Map to be more accurate.

7 Press the **MENU** button, then select **TABLE DONE**.

8 You will then be prompted to create an iris or focus distance table, depending on the type of lens. Select **YES**, then repeat steps 5 through 7 for each motor you want to map.

9 Attach a lens ring to the controller's knob.

10 Navigate to **LENS>LENSRING>SELECT** and select the corresponding lens ring size.

FIZ LIMITS

CTRL.3 limit buttons allow you to set a limit range for either the Focus, Iris, or Zoom controls. Setting limits restricts the motor from adjusting the lens past a set limit.

1. Move the input to the high or low end of the limit you want to set.
2. Press and hold down the limit button for the corresponding axis **(H)**.
3. While continuing to hold down the limit button, move the input to the other end of the limit you want to set, then release. The limit range is now set.
4. To remove the limit range, press the limit button.
5. To completely lock the motor, press and release the limit button without moving the corresponding input.

LENS DATA OVERLAY

SmallHD monitors include a Lens Data Overlay feature that displays your CTRL.3 lens map on the monitor. Below are steps to enable Lens Data Overlay.

1. Update your CTRL.3 controller and SmallHD monitor with the latest firmware.
2. From the controller, navigate to **LENS>LENSMAP** and select one of the configured lens maps.
3. Press the MENU button to return to the main menu, then navigate to **IO CONFIG>SMALLHD**.
4. Select **YES** to activate SmallHD Comms.

5 Connect a cable from the controller's wired mode connector to the monitor's USB port.

6 Tap the SmallHD monitor's screen and navigate to **ADD NEW TOOL>ADD ONS**.

7 Select **TERADEK RT.** The Lens Map Overlay will appear to the right and move according to the controller's knob movements.


TERADEK RT
REC
PWR
100%
C23
F
2' 0"
MENU
∧
V
SET
F
I
Z
4'
3'6
3'
2'9
2'6
2'3
2'
21"
20"
19"
18"
17"


3'9"
3'6"
3'3"
3
2'9"


TERADEK RT

Teradek regularly releases new firmware versions to improve performance, add features, or fix vulnerabilities.
teradek.com/pages/downloads contains all the latest firmware and software updates.
Visit **support.teradek.com** for tips, information, and to submit help requests to Teradek's support team.

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