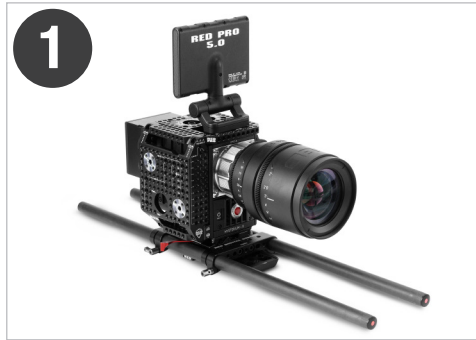




# RED 3-AXIS LENS CONTROL SYSTEM LAUNCH SEQUENCE



## PREPARE THE CAMERA

- ▶ **INSTALL A MOUNTING PLATFORM**  
A mounting plate system such as the DSMC® Tactical Cage or DSMC® Tactical Right Plate is required to mount the RED® W.M.D. (Wireless Motor Driver).
- ▶ **INSTALL A SUPPORT ROD SYSTEM**  
A support rod system such as the DSMC Modular Assault Plate or Quick Release Platform (Dovetail) is required to mount RED Lens Control Motors.
- ▶ **INSTALL SUPPORT RODS**  
15mm or 19mm support rods are required to mount the RED Lens Control Motors.



## INSTALL THE SYSTEM

- ▶ **INSERT THE W.M.D. GUIDE PIN**  
Remove the guide pin from the bottom of the unit. Insert the guide pin into the bottom right mounting hole on the back of the W.M.D.
- ▶ **MOUNT THE W.M.D.**  
Position the W.M.D. at the desired location on the mounting platform, using the guide pin for alignment. Push in and apply pressure to the 1/4-20 thumbscrew. Continue applying pressure while turning clockwise to initiate threading. Fully tighten to mount the W.M.D.
- ▶ **INSTALL MOTOR MOUNTING BRACKET (STANDARD)**  
Attach the RED Lens Control Motor Mounting Bracket (Standard) to the RED Lens Control Motors. Install 19mm-to-15mm Rod Reducers if necessary.
- ▶ **INSTALL LENS CONTROL MOTORS**  
Install the RED Lens Control Motors by mounting the RED Lens Control Motor Mounting Bracket (Standard) to the support rods. Use the tool-free thumbscrew to tighten the bracket clamp.



## CONNECT THE SYSTEM

- ▶ **CONNECT LENS CONTROL MOTORS**  
Connect the motor cables to the pivoting connectors on the RED Lens Control Motors. Connect the opposite ends to the W.M.D. focus, iris, and zoom connectors.
- ▶ **CONNECT START/STOP CABLES**  
Connect RED Start/Stop Cables to the W.M.D. and DSMC BRAIN. In the W.M.D. main menu, select **Start/Stop**. Choose the appropriate Start/Stop setting (Example: **EPIC+Tally**). For more information, go to the **Start/Stop Cable Chart** in this guide.
- ▶ **CONNECT POWER TO THE W.M.D.**  
Connect the appropriate power cable to the W.M.D. PWR port. Connect the opposite end to an appropriate 12 V power supply, such as a REDVOLT® XL Module.
- ▶ **CONNECT THE T.H.C.**  
Connect the RED CAN Command Cable to the CAN connector ports on the RED T.H.C. (Tactical Hand Controller) and W.M.D. Wireless settings are communicated to the T.H.C. via this cable. Toggle the T.H.C. power switch to "cable" (CAN) mode.



## CONFIGURE & SHOOT

- ▶ **PAIR THE T.H.C.**  
Use "cable" (CAN) mode to pair the T.H.C. Once paired, it retains wireless information for that W.M.D. Insert a charged RED Li Battery 7.2V. Toggle the power switch to "battery" (AUX) and remove the CAN cable. The wireless LED turns solid blue to signal a wireless connection.
- ▶ **SET MOTOR TYPE**  
In the W.M.D. main menu, navigate to **Focus/Iris/Zoom > Model**. Select your motor model (Example: **RED DLM1**).
- ▶ **CONFIGURE WIRELESS SETTINGS**  
In the W.M.D. main menu, navigate to **Wireless > Power**. Select **Low** when operating the T.H.C. in close proximity, or **High** for greater distances. The T.H.C. consumes less power in the **Low** setting. If operating multiple systems in the same vicinity, select a unique wireless channel.
- ▶ **INITIALIZE MOTORS**  
Press and hold the **Initialize** button on the T.H.C., or the **B** button on the W.M.D. for two (2) seconds. For more information, go to the **Additional Setup Information** section in this guide.

## PROFILES & METADATA



Select a default lens profile in the W.M.D. menu  
Example: Profiles > RED > Prime > 50mm

### SELECT A LENS PROFILE

Use the built-in library of lens profiles on the W.M.D. to select your lens.

1. In the W.M.D. main menu, select **Profiles**.
2. Select a lens profile type (Example: Prime, Zoom, or User).
3. Select the manufacturer, model, and focal distance.
4. Press the **Select** button.

### VIEW LENS METADATA

Once a lens profile is selected, you can view real-time lens metadata on the W.M.D.

1. In the W.M.D. main menu, select **Metadata**.

**NOTE:** If a lens does not support a particular function (Example: lenses without zoom) or if a motor is not connected, the value displays in a hexadecimal format.

### MODIFY A LENS PROFILE

The W.M.D. provides calibration support to fine-tune existing lens profiles, adjusting motor encoder positions for a particular lens.

1. In the W.M.D. main menu, select **Profiles**.
2. Select **Modify**.
3. Select the lens function to modify.
4. Perform fine-tuning adjustments for the selected lens.
  - A. Adjust the lens so that the physical marking position on the lens (Example: 15') matches the "Mrk" value on the W.M.D. screen.
  - B. Press **Select** to update. This updates the motor encoder position "At" value, to match the "Mrk" value.
  - C. Repeat for each focal position on the lens, as needed.
5. Press **Back** to return to the main menu, or **A** to lock the W.M.D.



# RED 3-AXIS LENS CONTROL SYSTEM LAUNCH SEQUENCE

## ADDITIONAL SETUP INFORMATION

### INITIALIZE THE SYSTEM

Initialize detects the range of motion for each motor and stores the data in the W.M.D. Settings are persistent and remain stored for approximately 14 hours. W.M.D. LEDs display motor initialization status. Red LEDs indicate motors that need to be initialized. Solid green LEDs indicate initialized motors that are ready for use. LEDs flash green during the initialization process.

- ▶ Press and hold the **Initialize** button on the T.H.C. for two (2) seconds to initialize all connected motors.
- ▶ Press and hold the **B** button on the W.M.D. for two (2) seconds to initialize all connected motors.
- ▶ Press and release the **Initialize** or **B** buttons to initialize only motors with unknown positions.

**NOTE:** The W.M.D. must be unlocked for buttons to be active. Press and hold the **A** button for two (2) seconds to unlock the unit.

### CONFIGURE FOCUS, IRIS, AND ZOOM MOTORS

The W.M.D. Focus, Iris, and Zoom menus feature a number of adjustments to fine-tune each specific motor/lens combination. After initializing the system, you may need to adjust the following motor settings:

- ▶ **Torque:** Choose from **Low**, **Medium**, or **High** settings. Keep the torque setting as low as possible.
- ▶ **Motor Direction:** Choose from **CW** (Clockwise) or **CCW** (Counterclockwise) settings.
- ▶ **Type/Model:** Choose from a list of compatible motor types and models.
- ▶ **Backlash:** Use encoder count range **0** to **3,000** to adjust for anti-backlash.
- ▶ **Endstop:** Use encoder count range **0** to **3,000** to adjust endstops.

In the W.M.D. main menu, navigate to the Focus, Iris, or Zoom motor and select the setting to adjust.

## T.H.C. CONTROLS

### SET A LENS LIMIT

Setting a lens limit provides precision control of Focus, Iris, or Zoom adjustments via the T.H.C.

1. Adjust a lens function to the desired min/max position (Example: zoomed out to capture full scene).
2. Press and hold the corresponding **Limit** button on the T.H.C.
3. While holding the **Limit** button, adjust the corresponding lens function knob/slider to the desired max/min position (Example: zoomed in on target).
4. Release the **Limit** button.

The lens limit is set and ready to use. Press and release the **Limit** button again to remove the limit.

### SET A LENS LOCK

Set a lens lock to disable a T.H.C. adjustment knob or slider to prevent interference or accidental adjustment.

1. Press and hold the desired **Limit** button on the T.H.C. for three (3) seconds. During this time, DO NOT adjust the corresponding knob/slider.
2. Release the **Limit** button after three (3) seconds. The corresponding limit LED flashes green when locked.

The lens lock is now set. Repeat steps 1 and 2 to remove the lens lock.

## FOR MORE INFORMATION

For more information, see the *RED 3-Axis Lens Control System Operation Guide*, available at [www.red.com/downloads](http://www.red.com/downloads), or check out the short tutorial video on the RED 3-Axis Lens Control System product page at [www.red.com/store](http://www.red.com/store).

## START/STOP CABLE CHART

