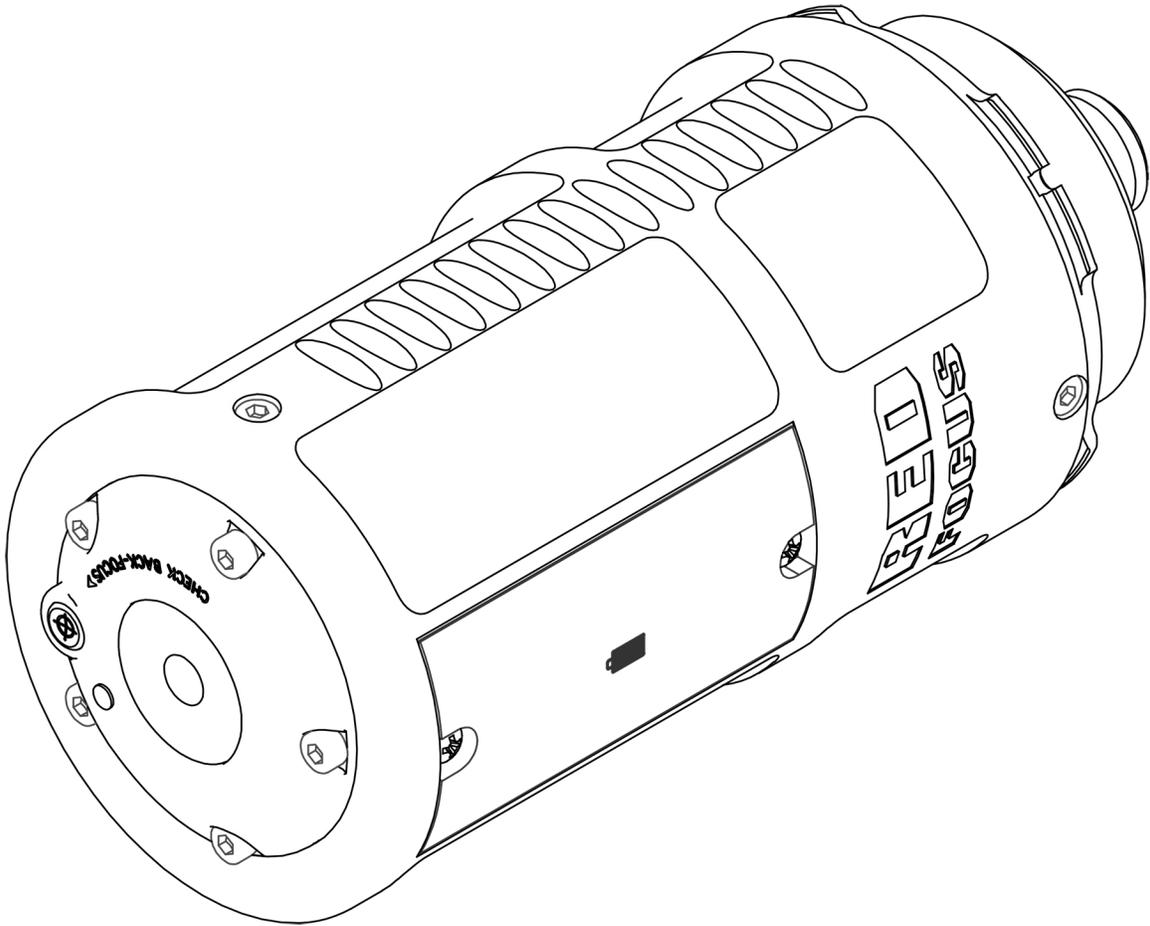




RED FOCUS OPERATION GUIDE



RED ONE | EPIC | EPIC-W | SCARLET | WEAPON
SCARLET-W

RED.COM

RED FOCUS OPERATION GUIDE

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COMPLIANCE STATEMENTS

INDUSTRIAL CANADA EMISSION COMPLIANCE STATEMENTS

This device complies with Industry Canada license-exempt RSS standards RSS 139 and RSS 210. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This Class B digital apparatus complies with Canadian ICES-003.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

FEDERAL COMMUNICATIONS COMMISSION (FCC) STATEMENTS



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate

radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the separation between the equipment and receiver.
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ▶ Consult the dealer or an experienced radio/TV technician for help.

In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the users authority to operate this equipment.

NOTE: This device complies with Part 15 of the FCC Rules.

Operations subjected to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including that may cause undesirable interference.



CAUTION: Exposure to Radio Frequency Radiation.

The device shall be used in such a manner that the potential for human contact is minimized

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.



CAUTION: Regulations of the FCC and FAA prohibit airborne operation of radio-frequency wireless devices because their signals could interfere with critical aircraft instruments.

RED FOCUS OPERATION GUIDE



CAUTION: If the device is changed or modified without permission from RED, the user may void his or her authority to operate the equipment.

AUSTRALIA AND NEW ZEALAND STATEMENTS

RED declares that the radio equipment described in this document comply with the following international standards.

- ▶ IEC 60065 - Product Safety
- ▶ ETSI EN 300 328 - Technical requirement for radio equipment

RED declares digital devices described in this document comply with the following Australian and New Zealand standards.

- ▶ AS/NZS CISPR 22 – Electromagnetic Interference
- ▶ AS/NZS 61000.3.2 – Power Line Harmonics
- ▶ AS/NZS 61000.3.3 – Power Line Flicker

JAPAN STATEMENTS



This is a Class B product based on the standard of the Voluntary Control Council for Interference (VCCI) for information technology equipment. If this equipment is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

本機器は、情報処理装置等電波障害自主規制協議会(VCCI)の基準に基づくクラスB情報技術装置です。この装置は家庭環境で使用することを目的としていますが、ラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをしてください。

EUROPEAN UNION COMPLIANCE STATEMENTS



RED declares that the radio equipment described in this document comply with the R&TTE Directive (1999/5/EC) issued by the Commission of the

European Community.

Compliance with this directive implies conformity to the following European Norms (in brackets are the equivalent international standards).

- ▶ EN 60065 (IEC 60065) – Product Safety
- ▶ ETSI EN 300 328 Technical requirement for radio equipment
- ▶ ETSI EN 301 489 General EMC requirements for radio equipment.

INFORMATION

Products with the CE marking comply with the EMC Directive (2004/108/EC) and the Low Voltage Directive (2006/95/EC) issued by the Commission of the European Community. Compliance with these directives implies conformity to the following European Product Family Standards.

- ▶ EN 55022 (CISPR 22) – Electromagnetic Interference
- ▶ EN 55024-1 (CISPR 24) – Electromagnetic Immunity
- ▶ EN 61000-3-2 (IEC61000-3-2) – Power Line Harmonics
- ▶ EN 61000-3-3 (IEC61000) – Power Line Flicker
- ▶ EN 60065 (IEC60065) – Product Safety

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)



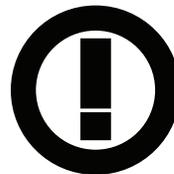
The Waste Electrical and Electronic Equipment (WEEE) mark applies only to countries within the European Union (EU) and Norway. This symbol on the product and accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product to designated collection points where it will be accepted free of charge. Alternatively, in some countries you may be able to return your

products to your local retailer upon purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with you national legislation.

For business users in the European Union, if you wish to discard electrical and electronic equipment, contact your dealer or supplier for further information.

USAGE RESTRICTIONS FOR PRODUCTS THAT INCORPORATE R.C.P.



Products that fall into this category are denoted by inclusion of the Class 2 identifier symbol (exclamation mark in a circle) accompanying the CE Mark on the products regulatory label, example to the left.

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FRANCE

Usage Restrictions - Geographic Area Where Restriction Applies : France

For mainland France

- ▶ 2.400 - 2.4835 GHz (Channels 1-16) authorized for indoor use
- ▶ 2.400 - 2.454 GHz (Channels 1-10) authorized for outdoor use

Restrictions d'utilisation - Zone géographique où les restrictions s'appliquent : France

Pour la France métropolitaine

- ▶ 2.400 - 2.4835 GHz (Canaux 1 à 16) autorisé en usage intérieur
- ▶ 2.400 - 2.454 GHz (Canaux 1 à 10) autorisé en usage extérieur

NORWAY

This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund

Dette gjelder ikke for det geografiske området innenfor en radius av 20 km fra sentrum av Ny-Ålesund

RESPONSIBLE PARTY

RED Digital Cinema

34 Parker

Irvine, CA 92618

USA

SAFETY INSTRUCTIONS

- ▶ DO NOT use the camera or accessories near water. Avoid exposing your camera to moisture. The unit is not waterproof, so contact with water could cause permanent damage to the unit as well as electric shock and serious injury to the user. DO NOT use the camera in the rain or under other conditions with high moisture without appropriate protection, and immediately remove power source if camera or accessories are exposed to moisture.



WARNING: To reduce the risk of fire or electric shock, do not expose the camera to rain or moisture.

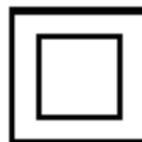
- ▶ DO NOT expose the camera to laser beams, as laser beams may damage the sensor.
- ▶ DO NOT expose your camera to excessive vibration or impact (shock). Be careful not to drop your camera. Internal mechanisms may be damaged by severe shock. Mechanical alignment of optical elements may be affected by excessive vibration.
- ▶ ELECTROMAGNETIC INTERFERENCE: The use of devices using radio or other communication waves may result in the malfunction or interference with the unit and/or with audio and video signals.

- ▶ Clean only using a dry cloth. When cleaning your camera, remember that it is not waterproof and moisture can damage electronic circuitry. DO NOT rinse or immerse any element of the camera, lens or other accessory, keep them dry at all times. DO NOT use soaps, detergents, ammonia, alkaline cleaners, and abrasive cleaning compounds or solvents. These substances may damage lens coatings and electronic circuitry.
- ▶ Maintain sufficient ventilation—DO NOT block any ventilation openings or obstruct cooling fan airflow.



CAUTION: Proper camera ventilation requires a minimum 0.5" (1.25 cm) clearance between the camera ventilation openings and external surfaces. Verify that objects that can block the fan intake and exhaust ports do not impede airflow. Failure to permit adequate airflow may result in overheating of the camera, degraded operation and in extreme situations, damage to the camera.

- ▶ DO NOT operate or store near any heat sources such as radiators, heat registers, stoves, or any other apparatus that produce heat. Store in a protected, level and ventilated place. Avoid exposure to temperature extremes, damp, severe vibration, strong magnetic fields, direct sunlight or local heat sources during storage. Remove any batteries from the camera before storage. Recommended storage and usage temperatures for your camera, lenses and other accessories are:
 - ▶ Operating range: 0°C to 40°C (32°F to 104°F)
 - ▶ Storage range: -20°C to 50°C (-4°F to 122°F)
- ▶ If there are any performance issues with your camera or accessories when operating within this temperature range, submit a Support ticket at <https://support.red.com>.
- ▶ Modules and expanders, expanders, and lens mounts are NOT HOT SWAPPABLE, meaning you cannot remove or install these items while the camera is turned on. Before installing or removing these items, you MUST turn off the camera. Failure to do so may result in damage to the item or camera that is not covered under warranty.
- ▶ DO NOT bypass the third prong of the grounding-type plug on the power cord of the DSMC AC Power Adaptor. A grounding-type plug has two blades and a third "grounding" prong. The third prong is provided for your safety. A grounding-type plug shall be connected to an outlet with a protective earthen connection. If the grounding-type plug does not fit into your outlet, do not attempt to modify the plug or outlet, consult a qualified electrician.
- ▶ Protect all power cords from being pinched, walked on or driven over by a vehicle. Replace any power cords suspected of sustaining damage due to crushing or other forms physical damage.



Products marked with this symbol are class 2 devices. These devices are not provided with a grounding type plug.

RED FOCUS OPERATION GUIDE



CAUTION: The power cord plug for the DSMC AC Power Adaptor is used as the power disconnect. To disconnect all power from the DSMC AC Power Adaptor, unplug the power cord plug from the wall outlet. During use, the power cord plug should remain easily accessible at all times.

- ▶ Lithium-ion batteries may be subject to special handling requirements pursuant to federal and local laws. Refer to specific shipping instructions included with your battery regarding proper transport of your battery. Do not handle your battery if it is damaged or leaking. Disposal of batteries must be in accordance with local environmental regulations. For example, California law requires that all rechargeable batteries must be recycled by an authorized recycle center. Storing batteries fully charged or in high temperature conditions may permanently reduce the life of the battery. Available battery capacity may also be temporarily lessened after storage in low temperature conditions.



WARNING: DO NOT expose the battery to excessive heat.



WARNING: Danger of explosion if an incorrect battery is charged with the RED Charger or is used to power the camera and accessories. Replace only with the same or equivalent type battery.



CAUTION: Refer all service and repair to qualified RED service personnel. To reduce the risk of electric shock, and damage to the camera or accessories, DO NOT attempt to perform any servicing other than any procedures that are recommended in the operating instructions.



INDOOR USE ONLY: Products marked with this symbol are designed for use indoors only.

BATTERY STORAGE AND HANDLING



WARNING: Failure to read, understand, and follow these instructions may result in overheating, chemical leakage, smoke emission, fire, or other potentially harmful results.

- ▶ Always follow proper battery handling and storage practices. Improper handling and/or failure to abide by proper storage instructions may cause permanent damage to batteries, or degrade battery charge holding capacity. Improper handling practices or failure to comply with instructions may also put you at risk.
- ▶ Lithium-Ion batteries, like the REDVOLT[®], REDVOLT XL, and RED BRICK[®], self-discharge over time. When storing for long periods of time, store batteries separately from the camera or charger and remember to charge batteries to a capacity level of 40% to 60%. If batteries will be stored for long periods of time, RED recommends that you check the charge level at least once every six (6) months, and recharge batteries to a capacity level of 40% to 60%.
- ▶ When not in use, remove the battery from the camera or charger and store the battery in a cool, dry place. Avoid extreme hot temperatures (such as inside a hot car), corrosive gas, and direct sunlight. The optimal storage temperature for batteries is between -20°C to 20°C (-4°F to 68°F).



WARNING: Batteries stored in a discharged state for long periods of time may self-discharge and lose the ability to hold a charge.



WARNING: If recharging operation fails to complete even when a specified recharging time has elapsed, immediately stop further recharging.

- ▶ DO NOT store batteries in a fully charged state for extended periods of time.
- ▶ DO NOT store batteries in a fully discharged state for extended periods of time.
- ▶ DO NOT store batteries in the camera, in a camera module, or in a charger for extended periods of time.
- ▶ DO NOT use batteries for purposes other than their intended use.
- ▶ DO NOT store batteries in extreme hot or cold temperatures.
- ▶ DO NOT store batteries in direct sunlight.
- ▶ DO NOT use third-party chargers with your RED batteries.
- ▶ DO NOT disassemble or modify the battery.
- ▶ DO NOT overcharge batteries. Overcharging may increase internal temperature beyond the recommended limits and cause permanent damage to the battery.

RED FOCUS OPERATION GUIDE

- ▶ DO NOT connect the positive (+) and negative (-) terminals to a metal object such as a wire.
- ▶ DO NOT transport or store the battery together with metal objects such as jewelry, hairpins, etc. as they may generate heat if they come into contact with the battery.
- ▶ DO NOT discard the battery into fire or heat.
- ▶ DO NOT store, use, or recharge the battery near a heat source such as a fire or a heater.
- ▶ DO NOT allow the battery to get wet.
- ▶ DO NOT pierce the battery with pointed or other sharp objects.
- ▶ DO NOT step on, throw, or strike the battery with a hammer.
- ▶ DO NOT use a battery that appears to be deformed or damaged.
- ▶ DO NOT directly solder the battery.
- ▶ DO NOT put the battery into a microwave oven or a pressurized container.
- ▶ DO NOT use or subject the battery to intense sunlight or hot temperatures such as in a car in hot weather.
- ▶ DO NOT use it in a location where static electricity may be present.
- ▶ DO NOT exceed the recharging temperature range of 0°C to 40°C (32°F to 104°F).
- ▶ RED recommends that you only use RED chargers to recharge RED batteries.
- ▶ Store the battery in a location where children cannot reach it.
- ▶ If the battery leaks or gives off a bad odor, discontinue use immediately.
- ▶ If the battery gives off an odor, generates heat, becomes discolored or deformed, or in any way appears abnormal during use, recharging or storage, immediately remove it from the equipment or battery charger and discontinue use.
- ▶ If electrolyte begins leaking from the battery and comes into contact with your skin or clothing, immediately wash it away with running water. Failure to do this may result in skin inflammation.
- ▶ If the battery leaks and the electrolyte reaches the eyes, do not rub them. Instead, rinse the eyes with clean running water and immediately seek medical attention. Failure to do this may result in eye injury.
- ▶ If you find discoloration, a bad odor due to leakage, overheating and/or other irregularities when using the battery for the first time, submit a Support ticket at <https://support.red.com>.



NOTE: For more information regarding RED battery charging and instructions for care, refer to our [Terms and Conditions](#).

SHIPPING DISCLAIMER

Shipment of Lithium Ion cells and batteries is subject to national and international shipping requirements. A Class 9 Certified shipper is required to transport these products within the United States. REDVOLT, REDVOLT XL, and RED BRICK batteries are considered Dangerous Goods. Other products such as REDVOLT AA and RED Li 7.2V batteries may also be classified as Dangerous Goods when purchased in bulk. Applicable laws prohibit the shipping of batteries that are physically damaged. We urge you to look into the formal rules and regulations of shipping Class 9 Dangerous Goods prior to preparing your shipment. For more information on these regulations, visit www.iata.org and www.dot.gov.

For more information, see our FAQs for [Dangerous Goods \(Regulated Items\)](#).

CHAPTER 1:

RED FOCUS INTRODUCTION

The RED® Focus is a self-powered, illuminated PL mount diascope used to set PL backfocus/flange distance on the RED ONE®, EPIC, EPIC-W®, SCARLET®, WEAPON®, and SCARLET-W® cameras. The PL mount must be installed on the camera when using the RED Focus.



Figure: RED Focus Package

RED FOCUS COMPONENTS

Each RED Focus package contains the following items:

- ▶ RED Focus
- ▶ REDVOLT® AA (2-Pack)
- ▶ RED Focus Case

RED FOCUS OPERATION GUIDE

ADDITIONAL RESOURCES

The following resources offer additional information about RED, the DSMC[®] system, and the RED community:

- ▶ **RED.com:** Check the [official RED website](#) for the latest information about RED products.
- ▶ **RED Learn Articles:** RED offers [in-depth technical articles](#) about RED cameras, post-production, and digital cinematography.
- ▶ **RED Downloads:** Go to [RED Downloads](#) to download the latest firmware, operation guides, and post-production software.
- ▶ **DSMC Toolkit:** Go to [RED Downloads](#) to find the DSMC Toolkit, which offers many helpful tools and resources to customize and improve your camera workflow.
- ▶ **RED Support:** Check the [RED SUPPORT site](#) for FAQs, or to file a support ticket.
- ▶ **In-Camera Help:** Select the Help button on an in-camera screen to open up the help for that screen.
- ▶ **REDUSER:** Discuss all things RED on the [REDUSER](#) third-party forum.

CHAPTER 2:

RED FOCUS BASIC OPERATION

This section describes the physical control, indicator, and display of the RED[®] Focus.

RED FOCUS FEATURES



Figure: RED Focus Features

#	FEATURE	DESCRIPTION
1	LED Indicator	When enabled, the LED illuminates green when turned on
2	Power Button	Press to turn RED Focus on

DISPLAY

The RED Focus projects a Siemens[®] star image onto the camera sensor for adjusting back focus.

RED FOCUS OPERATION GUIDE

TURN ON/OFF RED FOCUS

To turn on the RED Focus, press the **Power** button. The Power LED illuminates green indicating that the RED Focus is on and ready.

After three (3) minutes, the RED Focus automatically turns off. You cannot turn off the RED Focus by pressing or holding down the Power button.

NOTE: To manually turn off the RED Focus, remove the batteries. To remove the batteries, go to "[Install/Remove Batteries](#)" below.

INSTALL/REMOVE BATTTERIES

REQUIRED TOOL(S): Phillips® #1 screwdriver

To install/replace the batteries, follow the instructions below:

1. Remove the two (2) screws from the battery cover with a Phillips #1 screwdriver.
2. Remove the battery cover.
3. Install, remove, or replace the batteries.
4. Install the battery cover.
5. Install the two (2) screws through the battery cover and tighten with a Phillips #1 screwdriver.

POWER CONSUMPTION

The RED Focus draws 42 mA of power when turned on for three (3) minutes. At this power consumption, two (2) 1.5 V AA batteries power the RED Focus for approximately 52 hours (depending on the battery quality and charge when installed).

CHAPTER 3: USE WITH RED ONE

RED ONE BACK FOCUS ADJUSTMENT

REQUIRED TOOL(S): 5/32" hex key

To adjust the back focus on the RED ONE®, follow the instructions below:

1. Place the camera on a level, stable surface or mount the camera on a tripod.
2. Ensure that a display is installed.
3. Ensure a RED ONE PL mount is installed.
4. Loosen the two (2) focus ring bolts using a 5/32" hex key.
5. Rotate the focus ring in both directions to ensure that it moves freely.
6. Install the RED® Focus on the RED ONE PL mount.
 - A. Remove the camera lens or sensor cover.
 - B. Install the RED Focus on the RED ONE PL mount.
 - C. Lock the camera lock ring.

7. Turn on the RED ONE.

NOTE: Allow the camera to boot up completely.

8. Press the **Power** button on the RED Focus.
9. Press **User Key 2** on the camera.

NOTE: An "X" displays in the center of the display and does not line up with the image projected on the display by the RED Focus.

10. Adjust the camera focus ring until the image is in focus.

NOTE: Go to **Audio/Video Menu > Viewfinder > False Color > Focus** to double-check for proper focus.

NOTE: The center of the image will never be in perfect focus.

11. Tighten the camera focus ring screws. DO NOT exceed 22.22 in-lb, or damage may occur.

NOTE: Some shifting may occur while tightening the focus ring. Recheck the back focus again and adjust as necessary.

12. Remove the RED Focus from the RED ONE PL mount.

- A. Unlock the camera lock ring.
- B. Remove the RED Focus.
- C. Install a camera lens or sensor cover.

CHAPTER 4: USE WITH EPIC AND SCARLET

ADJUST BACK FOCUS OF EPIC AND SCARLET

REQUIRED TOOL(S): T-10 TORX® driver

To adjust the back focus on EPIC/SCARLET®, follow the instructions below:

1. Place the camera on a level, stable surface or mount the camera on a tripod.
2. Ensure that a display is installed.
3. Ensure that a DSMC® PL mount is installed.
4. Remove the screw-in plug that covers the back focus adjustment screw using a T-10 TORX driver.

NOTE: The screw-in plug is indicated by a Siemens star with an arrow pointing to its location.

5. Install the RED® Focus on the DSMC PL mount.
 - A. Remove the camera lens or sensor cover.
 - B. Install the RED Focus on the DSMC PL mount.
 - C. Lock the camera lock ring.
6. Turn on the camera.
7. Press the **Power** button on the RED Focus.

NOTE: If the RED Focus turns off while still in use, press the **Power** button again.

8. Go to **Menu > Settings > Display > Tools**.
9. Select **Magnify**.
10. Select **Focus** from the **False Color** drop-down menu.

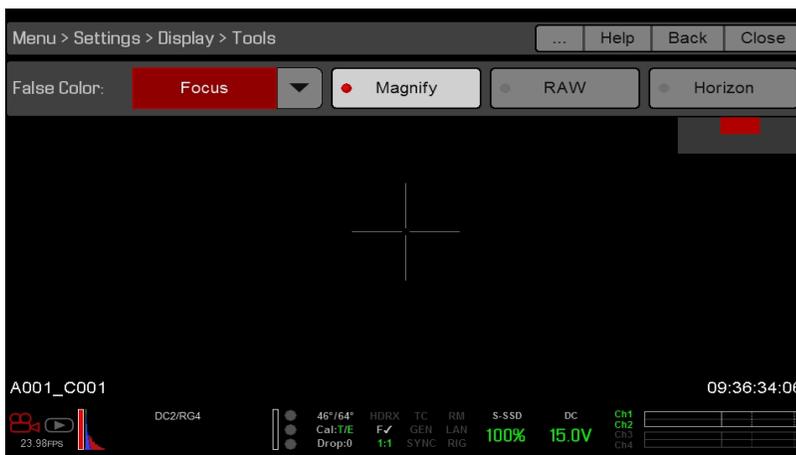


Figure: False Camera

11. Loosen the back focus adjustment screw using a T-10 TORX driver.

RED FOCUS OPERATION GUIDE

12. Rotate the back focus adjustment screw to achieve optimum focus.

▶ **Clockwise:** Moves the sensor forward.

▶ **Counterclockwise:** Moves the sensor backward.

NOTE: The center of the image will never be in perfect focus.

NOTE: The back focus adjustment mechanism is self-locking, and does not require a supplementary locking screw.

13. Remove the RED Focus.

A. Unlock the camera lock ring.

B. Remove the RED Focus.

C. Install a camera lens or sensor cover.

14. Install the screw-in plug in the back focus adjustment opening using a T-10 TORX driver.

CHAPTER 5:

USE WITH WEAPON AND SCARLET-W

ADJUST BACK FOCUS OF WEAPON AND SCARLET-W

REQUIRED TOOL(S): T-10 TORX® driver

To adjust the back focus on WEAPON® and SCARLET-W®, follow the instructions below:

1. Place the camera on a level, stable surface or mount the camera on a tripod.
2. Ensure that a display is installed.
3. Ensure that a DSMC® PL mount is installed.
4. Remove the screw-in plug that covers the back focus adjustment screw using a T-10 TORX driver.

NOTE: The screw-in plug is indicated by a Siemens star with an arrow pointing to its location.

5. Install the RED® Focus to the DSMC PL mount.
 - A. Remove the camera lens or sensor cover.
 - B. Install the RED Focus onto the camera.
 - C. Lock the camera lock ring.

6. Turn on the camera.
7. Press the **Power** button on the RED Focus.

NOTE: If the RED Focus turns off while still in use, press the **Power** button again.

8. Go to **Menu > Settings > Display > Tools**.
9. Select **Magnify**.
10. Select **Focus** from the **False Color** drop-down menu.

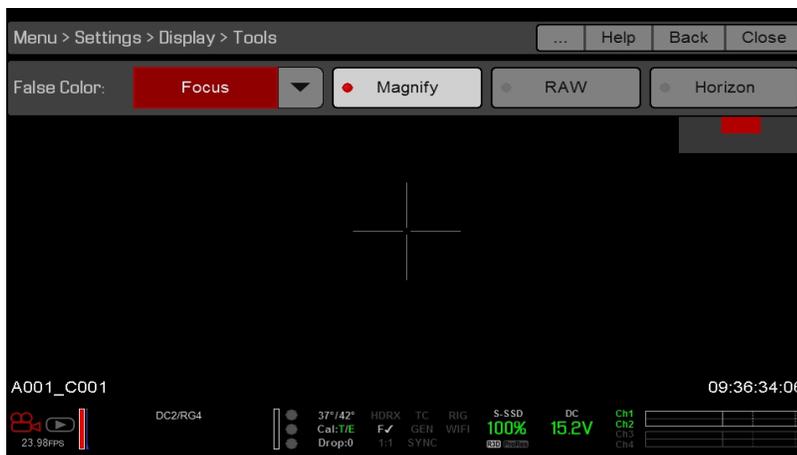


Figure: Select Focus

11. Loosen the back focus adjustment screw using a T-10 TORX driver.

RED FOCUS OPERATION GUIDE

12. Rotate the back focus adjustment screw to achieve optimum focus.

▶ **Clockwise:** Moves the sensor forward.

▶ **Counterclockwise:** Moves the sensor backward.

NOTE: The center of the image will never be in perfect focus.

NOTE: The back focus adjustment mechanism is self-locking, and does not require a supplementary locking screw.

13. Remove the RED Focus.

A. Unlock the camera lock ring.

B. Remove the RED Focus.

C. Install a camera lens or sensor cover.

14. Install the screw-in plug in the back focus adjustment opening using a T-10 TORX driver.

CHAPTER 6:

RED FOCUS MAINTENANCE

All RED® products are designed for rugged durability, but precision instruments demand proper care. Follow the instructions in this chapter to clean, maintain, and store the RED Focus.

WARNING: DO NOT rinse or immerse the RED Focus in water. Keep dry at all times.

WARNING: DO NOT use soaps, detergents, ammonia, acetone, alkaline cleaners, abrasive cleaning compounds, or solvents. These substances may damage lens coatings and electronic circuitry.

WARNING: DO NOT attempt to modify, dismantle, or open your RED Focus as doing so may expose you to electric shock and serious injury. There are no user-serviceable parts inside. Alteration or repairs made to the RED Focus, except by a RED authorized service facility, voids all warranties.

CLEAN RED FOCUS EXTERIOR SURFACES

- ▶ Use a filtered, non-residue gas duster to clean the exterior of the RED Focus.
- ▶ Clean with a damp, lint-free cloth. When cleaning your RED Focus, remember that the device is not waterproof and moisture can damage electronic circuitry.

STORE RED FOCUS

WARNING: DO NOT store the RED Focus in any place with extreme temperatures, direct sunlight, high humidity, severe vibration, or strong magnetic fields.

WATER DAMAGE

If your RED Focus has come in contact with water or you suspect water damage, submit a Support ticket at <https://support.red.com> immediately.

WARNING: DO NOT attempt to power any device that may have water damage.

WARNING: DO NOT place the device in a container of rice, silica gel, or desiccant packets in an attempt to dry the device.

CHAPTER 7:

TROUBLESHOOT YOUR RED FOCUS

RED FOCUS DOES NOT TURN ON

SYMPTOM

The RED® Focus does not turn on.

POTENTIAL RESOLUTIONS

- ▶ Reinstall the batteries.
- ▶ Replace batteries with fresh ones.

RED FOCUS IMAGE IS BLURRY

SYMPTOM

The RED Focus image is blurry after tightening focus ring bolts on the RED ONE®.

POTENTIAL RESOLUTION

Some shifting may occur while tightening the focus ring. Recheck the back focus again and adjust as necessary.

APPENDIX A: TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DESCRIPTION
Weight	1.59 lb
Dimensions	Length: 6.5" (165.1 mm) Diameter: 2.75" (69.85 mm)
Operating Temperature	10°C to 40°C (50°F to 104°F)
Storage Temperature	-5°C to 60°C (-20°F to 140°F)
Operating Humidity Range	20% to 80%, non-condensing
Storage Humidity Range	10% to 90%, non-condensing
Power Consumption	Approximately 5V DC, 5A
Camera Compatibility	RED ONE®, EPIC, EPIC-W®, SCARLET®, WEAPON®, and SCARLET-W®