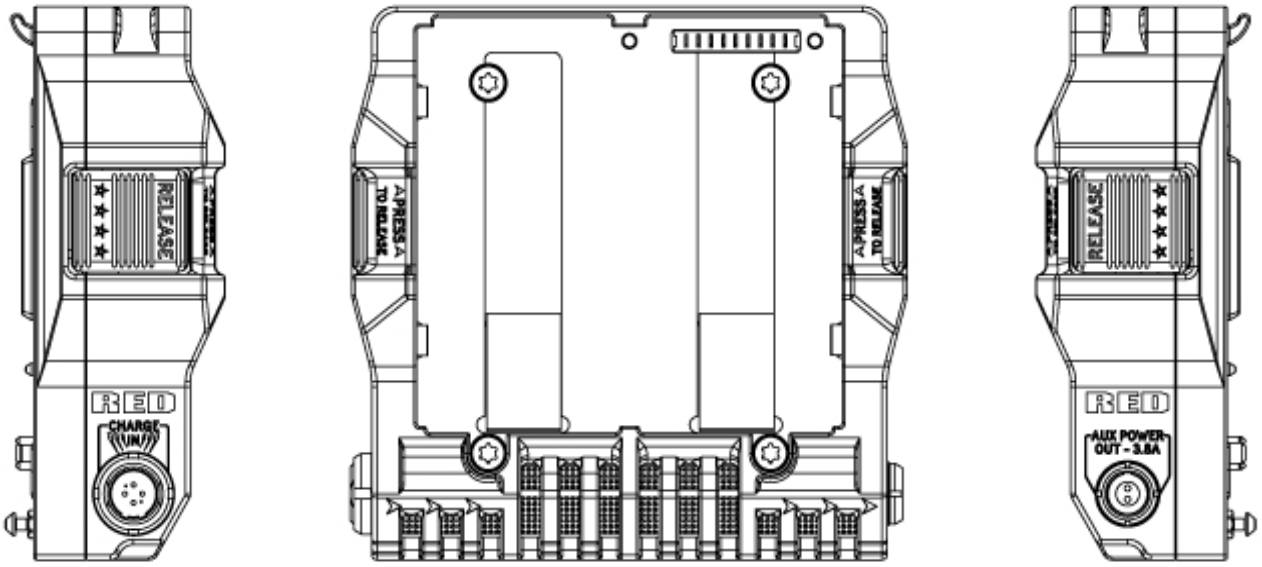
RED DSMC POWER
OPERATION GUIDE



POWER MODULES | CHARGERS
BATTERIES | CABLES | ACCESSORIES

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COMPLIANCE STATEMENTS

INDUSTRIAL CANADA EMISSION COMPLIANCE STATEMENTS

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

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 the 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: 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

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 CISPR 24 – Electromagnetic Immunity
- 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 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
- EN6100-3-2 (IEC610000-3-2) – Power Line Harmonics
- EN6100-3-2 (IEC610000) – Power Line Flicker
- EN 60065 (IEC60065) – Product Safety

Products with the ROHS marking comply with the Restriction of Hazardous Substances Directive (2011/65/EU) issued by the Commission of the European Community.

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.

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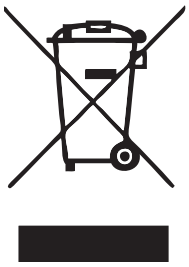
- EN 55024-1 (CISPR 24) – Electromagnetic Immunity
- EN 61000-3-2 (IEC610000-3-2) – Power Line Harmonics
- EN 61000-3-3 (IEC610000) – Power Line Flicker
- EN 60065 (IEC60065) – Product Safety

USAGE RESTRICTIONS FOR PRODUCTS THAT INCORPORATE RED COMMAND PROTOCOL

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.

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.

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 near water. Avoid exposing 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 in the rain or under other conditions with high moisture without appropriate protection, and immediately remove power source if exposed to moisture.

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

- DO NOT expose to excessive vibration or impact (shock). Be careful not to drop. Internal mechanisms may be damaged by severe shock.
- Clean only using a dry cloth. When cleaning, remember that it is not waterproof and moisture can damage electronic circuitry. DO NOT rinse or immerse, keep 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.

CAUTION: Proper ventilation requires a minimum 1/2" (1.25 cm) clearance between 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 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 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 of damage.

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

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 or 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-V™, 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.

- Batteries may become warm during charging.
- Discontinue use immediately if batteries become excessively hot, are punctured, begin leaking, or are otherwise compromised. For more information, submit a Support ticket at https://support.red.com.
- RED recommends that you fully charge batteries before the first use. DO NOT overcharge batteries.
- Use of chargers that do not meet RED battery specs, or that apply a higher current to “fast charge” batteries, may degrade the maximum battery capacity and reduce battery life.
- DO NOT disassemble, crush, puncture, short circuit, incinerate, or expose batteries to prolonged temperature above 60°C (140°F).
- 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.
- 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℃ to 40℃ (32℉ to 104℉).
- 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 immediately.

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

SHIPPING DISCLAIMER

Unless you have been certified to ship dangerous goods, you must work with a Dangerous Goods, Class 9-certified shipper to assist you with a shipment that includes a REDVOLT, REDVOLT-V, REDVOLT XL, and RED BRICK (or other regulated lithium ion batteries). Note that 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.

CHAPTER 1:
POWER INTRODUCTION

Figure: REDVOLTs and REDVOLT Travel Charger

This guide describes the power options for the EPIC®, SCARLET®, WEAPON®, SCARLET-W®, RED RAVEN®, RED EPIC-W®, and DSMC2® cameras.

The RED® Digital Still and Motion Camera (DSMC®) system delivers high performance digital imaging over a wide range of frame rates and optical formats. The DSMC system is supported by an expansive arsenal of power modules, batteries, and chargers that provide adaptable configuration solutions to meet your needs.

WARNING: Modules, 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.

NOTE: Throughout this guide, "DSMC2 camera" is used to refer to the following RED BRAIN types: WEAPON, SCARLET-W, RED RAVEN, RED EPIC-W, and DSMC2.

READ BEFORE YOU SHOOT

Read this operation guide carefully and in its entirety before assembling or operating your camera or other RED accessories. To see additional RED operation guides, go to RED Downloads at www.red.com/downloads.

TURN ON THE CAMERA

NOTE: If you have just turned off the camera, wait at least three (3) seconds before turning the camera back on.

1. Attach a power source to the camera.

   The Power Status LED illuminates red, indicating that an appropriate power source is connected.
2. Press and release the **PWR/REC** key on the right side of the camera.

   The Power Status LED turns off, and within five (5) seconds illuminates yellow as the camera turns on.

   The Power Status LED then illuminates green to confirm that the camera is turned on and ready to use.

NOTE: The Power Status LED flashes red when there is less than five (5) minutes of operating time remaining.

TURN OFF THE CAMERA

Use one of the following methods to turn off the camera:

- Go to **Menu** > **Power** and select **Shutdown**.
- Press and hold **PWR/REC** until the **Shutting Down...** notification shows on the display.

NOTE: The camera turns off automatically if the supply voltage drops to 11.5 V.

POWER STATUS

The power status of the current primary power source displays in the Lower Status Row of the graphical user interface (GUI). Navigate to the Power In menu at **Menu** > **Power** > **Power In** for the status of all connected power sources.

EPIC/SCARLET POWER OPERATIONS

This section describes the basic power operations for EPIC and SCARLET.

EPIC/SCARLET POWER INPUTS

Figure: SEARAY Connector (Top) and DC IN Connector (Bottom)

There are two (2) primary power inputs that provide power to the EPIC/SCARLET:

#	POWER INPUT	DESCRIPTION
1	SEARAY™ power connector	Provides power to the BRAIN® from attached EPIC/SCARLET modules
2	DC IN connector	Provides power to the BRAIN using a DSMC AC Power Adaptor or certain battery modules, such as the Backpack Quickplate (Short)

NOTE: Additionally, one (1) REDVOLT® battery may be used in conjunction with the DSMC Side Handle to provide short term power and support hot-swapping of other power sources.

EPIC/SCARLET POWER LEDS

This section describes the LED functions for the camera.

LED	COLOR/FLASHING	DESCRIPTION
Power Status LED (PWR)	Off	No power present
	Green	Power present; camera on
	Amber flashing	Power present; 5–10 min of battery time left
	Amber	Power present; camera booting
	Red flashing	Power present; < 5 min of battery time left
	Red	Power present; camera off
Record Status LED (REC)	Off	No media present
	Green	Ready to record
	Amber	Finalizing
	Red flashing (slow)	Recording; 25% media left
	Red flashing (fast)	Recording; 5% media left
	Red	Recording
Power Status LED (PWR) and Record Status LED (REC)	Both green flashing	Firmware update in progress
	Both red flashing	Firmware update error

EPIC/SCARLET POWER PRIORITY

When multiple power sources are connected to the EPIC/SCARLET, power consumption is prioritized in this sequence:

1. DC IN (AC power adapter or external battery)
2. Rear battery module batteries (lowest state of charge first)
3. REDVOLT battery in an attached DSMC Side Handle

EPIC/SCARLET POWER CONSUMPTION

The EPIC/SCARLET draws approximately 60 W when recording in 5K resolution, at 24 FPS.

Under typical conditions batteries provide the following operating time:

- **REDVOLT**: Powers the camera and accessories for approximately 30 minutes.
- **REDVOLT-V**: Powers the camera and accessories for approximately 35 minutes.
- **REDVOLT XL**: Powers the camera and accessories for approximately 90 minutes.
- **RED BRICK**: Powers the camera and accessories for approximately 120 minutes.

APPROVED EPIC/SCARLET EXTERNAL DC POWER

The EPIC/SCARLET accepts input voltages of 11.5 VDC to 17 VDC, and can draw a maximum current of 12 A. The camera can be powered continuously by connecting one (1) of the following to the DC IN port on the EPIC/SCARLET:

- **DSMC AC Power Adaptor**
- **RED BRICK Charger**: Offers two (2) ways to connect to your camera:
  - Use a RED ONE DC Power Cable (P/N 790-0060) and a 2B-to-1B Power Adaptor Cable (P/N 790-0138).
  - Use a RED 2B-to-1B Power Cable (P/N 790-0556, 790-0654).
- **RED BRICK**: Requires a Backpack Quickplate or Battery Belt Clip (DSMC). Also supported by a RED Quickplate or RED Cradle using a 2B-to-1B Power Adaptor Cable.
- **REDVOLT-V**: Requires a Backpack Quickplate or Battery Belt Clip (DSMC). Also supported by a RED Quickplate or RED Cradle using a 2B-to-1B Power Adaptor Cable.
- **XLR DC power source**: Requires an XLR Power Cable.

WARNING: While third-party batteries may be mechanically compatible with the camera system, the manufacturer is responsible for the performance and stability of third-party options, not RED. Damage to the camera system or third-party devices caused by using third-party power options is not covered under warranty. The camera may be unable to determine and display the voltage or remaining battery capacity of third-party power options.

DSMC2 POWER OPERATIONS

This section describes the basic power operations for DSMC2 cameras.

DSMC2 POWER INPUTS

NOTE: The DSMC2 BRAINs themselves do not have DC IN power ports. A port expander or power module is required to power each camera.

The following devices have DC IN ports:

- DSMC2® REDVOLT XL Module
- DSMC2 Base Expander
- DSMC2 V-Lock I/O Expander
- DSMC2 Jetpack Expander
- DSMC2 Jetpack-SDI Expander
- DSMC2 REDVOLT Expander
- DSMC2 V-Lock Battery Module
- DSMC2 Gold Mount Battery Module
- DSMC2 Production Module (V-Lock)
- DSMC2 Production Module (Gold Mount)

DSMC2 POWER LEDS

This section describes the LED functions for the camera.

NOTE: When the camera is powered only by battery and not AC power, the Power Status LED (PWR) on the expander or module does not turn on. You can press the button on the battery to check the battery charge level.

LED	COLOR/FLASHING	DESCRIPTION
Power Status LED (PWR)	Off	No power present; camera off
	Green	Power present; camera on
	Amber flashing	Power present; 5–10 min of battery time left
	Amber	Power present; camera booting
	Red flashing	Power present; < 5 min of battery time left
Record Status LED (REC)	Off	No media present
	Green	Ready to record
	Amber	Finalizing
	Red flashing (slow)	Recording; 25% media left
	Red flashing (fast)	Recording; 5% media left
	Red	Recording
Power Status LED (PWR) and Record Status LED (REC)	Both green flashing	Firmware update in progress
	Both red flashing	Firmware update error

DSMC2 POWER PRIORITY

When multiple power sources are connected to the camera, power consumption is prioritized in this sequence:

1. Any power supply connected to the DC IN port or the expander
2. Any power supply connected to the DC IN port on a rear battery module
3. Rear battery
4. REDVOLT battery in the DSMC2 REDVOLT Expander

DSMC2 POWER CONSUMPTION

The DSMC2 cameras draw approximately 3.3 A (50 W) when configured with the DSMC2 Base Expander, DSMC2 RED Touch 7.0" LCD, and RED MINI-MAG 512GB.

Under typical conditions batteries provide the following operating time:

- **REDVOLT**: Powers the camera and accessories for approximately 30 minutes.
- **REDVOLT-V**: Powers the camera and accessories for approximately 35 minutes.
- **REDVOLT XL**: Powers the camera and accessories for approximately 90 minutes.
- **RED BRICK**: Powers the camera and accessories for approximately 120 minutes.

APPROVED DSMC2 EXTERNAL DC POWER

The DSMC2 cameras accept input voltages of 11.5 V to 17 V DC, and can draw a maximum current of 9 A. The camera can be powered continuously by connecting one (1) of the following to an attached module or expander:

- **DSMC AC Power Adaptor**
- **RED BRICK Charger**: Offers two (2) ways to connect to your camera:
  - Use a RED ONE DC Power Cable (P/N 790-0060) and a 2B-to-1B Power Adaptor Cable (P/N 790-0138).
  - Use a RED 2B-to-1B Power Cable (P/N 790-0556, 790-0654).
- **RED BRICK**: Requires a DSMC2 V-Lock I/O Expander, Battery Belt Clip (DSMC), or DSMC2 V-Lock Battery Module. Also supported by a RED Quickplate or RED Cradle using a 2B-to-1B Power Adaptor Cable.
- **REDVOLT-V**: Requires a DSMC2 V-Lock I/O Expander, Battery Belt Clip (DSMC), or DSMC2 V-Lock Battery Module. Also supported by a RED Quickplate or RED Cradle using a 2B-to-1B Power Adaptor Cable.
- **XLR DC power source**: Requires an XLR Power Cable.

WARNING: While third-party batteries may be mechanically compatible with the camera system, the manufacturer is responsible for the performance and stability of third-party options, not RED. Damage to the camera system or third-party devices caused by using third-party power options is not covered under warranty. The camera may be unable to determine and display the voltage or remaining battery capacity of third-party power options.

AUTO BOOT ON POWER

The DSMC2 Jetpack Expander, DSMC2 Jetpack-SDI Expander, DSMC2 REDVOLT Expander, DSMC2 V-Lock I/O Expander, and DSMC2 Production Module feature a selector switch that enables the camera to automatically boot when power is provided via the DC IN connector on the expander. The Auto Boot on Power switch (identified by a line or a white star) is located on top of the device.

When Auto Boot on Power is enabled, the camera disables all power sources that are not the DC IN connector on the expander or module, including batteries and the DC IN connectors on any modules.

Figure: Auto Boot on Power Switch

ENABLE AUTO BOOT ON POWER

1. Toggle the **Auto Boot on Power** switch to On (identified by a line or a white star).
2. Connect a power source to the DC IN connector.

   The camera turns on automatically.
3. Use one of the following methods to turn off the camera:
   - Go to **Menu** > **Power** and select **Shutdown**.
   - Press and hold **PWR/REC** until the **Shutting Down...** notification shows on the display.

     NOTE: Simply disconnecting the power source may result in data loss.

DISABLE AUTO BOOT ON POWER

1. Toggle the Auto Boot on Power switch to Off (identified by a circle or a black star).

   The camera will not turn on automatically.

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:

EPIC/SCARLET POWER MODULES

EPIC/SCARLET modules enable you to configure your camera for your exact shooting requirements and are designed to support REDVOLT®, REDVOLT-V™, REDVOLT XL, and RED BRICK® batteries. Most modules require an adaptor module to attach to the BRAIN®. Specific module attachment requirements may vary.

EPIC/SCARLET power module options include (this table does not include any collections or packages, which are made up of the items below):

ITEM	PART NUMBER	DETAILS
DSMC Side Handle	720-0012	"DSMC Side Handle" on the next page
Module Adaptor	720-0008	"Module Adaptor" on page 20
+1 Adaptor Module	720-0018	"+1 Adaptor Module" on page 20
Pro Battery Module (Dual)	720-0005	"Pro Battery Module (Dual)" on page 27
Pro Battery Module (Quad)	720-0006	"Pro Battery Module (Quad)" on page 28
REDVOLT XL Module	740-0031	"REDVOLT XL Module" on page 29
Quickplate Module	790-0343	"Quickplate Module" on page 36
Backpack Quickplate (Short)	790-0342	"Backpack Quickplate (Short)" on page 38
Backpack Base Plate	790-0384	"Backpack Quickplate (Short)" on page 38

WARNING: DO NOT use more than one (1) EPIC/SCARLET battery module at a time. Using multiple battery modules may damage the camera and is not covered under warranty.

WARNING: Modules 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.

NOTE: EPIC/SCARLET adaptor modules provide advanced support and compatibility with other modules; however, there are restrictions and incompatibilities. For more information, go to "EPIC/SCARLET Module Compatibility" on page 94.

DSMC SIDE HANDLE

Figure: DSMC Side Handle Front (Left), DSMC Side Handle Rear (Right)

The DSMC® Side Handle provides programmable menu controls and a battery compartment that supports one (1) REDVOLT® battery. The backlit LCD displays camera parameter values and illuminates for operation in the dark. Insert a REDVOLT in the DSMC Side Handle to power the EPIC/SCARLET camera, modules, and attached accessories. Inserting a REDVOLT in the DSMC Side Handle also enables you to hot swap batteries and power sources connected to the SEARAY™ and DC IN power connectors on the BRAIN®.

For more information, see the EPIC/SCARLET Operation Guide at www.red.com/downloads.

INSERT A REDVOLT

1. Press the battery door release button on the top of the DSMC Side Handle to open the battery door.
2. Press up on the red retainer and insert a REDVOLT battery until it is fully seated.
3. Close the DSMC Side Handle battery door.

REMOVE A REDVOLT

1. Press the battery door release button on the top of the DSMC Side Handle to open the battery door.
2. Press up on the red retainer.
3. Continue to apply pressure to the red retainer and remove the REDVOLT battery.

EPIC/SCARLET ADAPTOR MODULES

This section describes the EPIC/SCARLET adaptor modules.

MODULE ADAPTOR

The Module Adaptor mounts to the back of the EPIC/SCARLET BRAIN and provides power and support for connected modules. The Module Adaptor includes 1/4-20 mounting holes for customized configuration support. Most EPIC/SCARLET modules require the use of an adaptor module.

WARNING: The Module Adaptor is NOT compatible with the +1 Adaptor Module.

+1 ADAPTOR MODULE

Figure: +1 Adaptor Module

The +1 Adaptor Module mounts to the back of the EPIC/SCARLET BRAIN, providing power and support for connected modules. The +1 Adaptor Module also offers a 4-pin 0B auxiliary power (DC) port for camera accessories, and an EVF/LCD port for the use of an additional viewfinder or display.

WARNING: The +1 Adaptor Module IS NOT compatible with the Module Adaptor.

WARNING: DO NOT use the EVF/LCD port on the +1 Adaptor Module if a Pro I/O Module is connected to the EPIC/SCARLET BRAIN. The Pro I/O Module overrides the EVF/LCD and AUX power out ports when connected.

WARNING: DO NOT attempt to power a third-party device without first verifying the cabling and connections are correct, since that may cause damage. Damage to the device, the module, or other components of the camera system caused by attempting to power a third-party device incorrectly may not be covered under warranty.

NOTE: The +1 Adaptor Module requires that your camera is on firmware v4.0.8 or later.

NOTE: Use a 4-Pin to 2-Pin Adaptor Cable to support 2-pin camera accessories.

+1 ADAPTOR MODULE CONNECTIONS

Figure: +1 Adaptor Module

#	CONNECTOR	CONNECTOR TYPE	CONNECTOR FUNCTION
1	Mounting	1/4-20 mounting	Supports bolt-on auxiliary equipment
2	EVF/LCD[1]	N/A	Custom digital video and power interconnection between the camera and RED EVF or LCD; Pinout not published
3	Auxiliary power out (PWR)	4-pin 0B	Supplies unregulated (+) 11.5 to 17 VDC battery pass-through; Connect to 2-pin 0B accessories with RED 4-Pin to 2-Pin Adaptor Cable; Max sustained current is 2 A
4	REDMOTE® dock connector	8-point POGO connector	Power and support for the REDMOTE
5	Dock connector	SEARAY connector	Supports power and communication with modules

1. DO NOT use the EVF/LCD port on the +1 Adaptor Module if a Pro I/O Module is connected to the DSMC BRAIN. The Pro I/O Module overrides the EVF/LCD and AUX power out ports when connected.

NOTE: The default auxiliary power output setting is on. Use the on-screen menu to toggle this setting ON/OFF. In the menu screen, go to: **Power** > **Power Out** > **+1 PWR**. After a camera firmware upgrade or factory reset, the default auxiliary power output setting is turned on. Thereafter, the last power output setting is restored.

AUXILIARY POWER OUT (PWR)

The auxiliary power output supplies unregulated +11.5 to +17 VDC battery pass-through power. The maximum sustained current draw is 2.0 A.

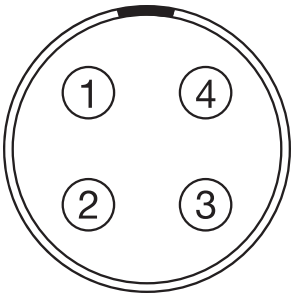


Figure: Front Face of the Power (PWR) Connector

4-PIN 0B PWR CONNECTOR			
PIN	**SIGNAL**	**DESCRIPTION**	**DIRECTION**
1	GROUND	Common ground	N/A
2	Not used	N/A	N/A
3	Not used	N/A	N/A
4	+11.5 to 17 VDC	+11.5 to 17 VDC unregulated battery pass-through power	Out

COMPATIBLE CABLES

- **790-0334**: 4-Pin to 2-Pin Adaptor Cable

EPIC/SCARLET ADAPTOR OPERATIONS

This section describes the installation and removal of EPIC/SCARLET module adaptors.

INSTALL THE +1 ADAPTOR MODULE

REQUIRED TOOL(S): T20 TORX® driver

1. Turn off the camera.
2. Remove the REDMOTE, if attached.
3. Position the +1 Adaptor Module over the V-mount on the rear of the BRAIN.

Figure: Install the +1 Module Adaptor

4. Insert the HDMI connector into the HDMI port on the BRAIN.

Figure: Insert the HDMI Connector to the BRAIN

5. Apply pressure and tighten the four (4) captive screws in a cross pattern (“X” pattern) approximately two (2) turns each using a T20 TORX driver. DO NOT FULLY TIGHTEN.

Figure: Install Screws

6. Fully tighten the four (4) screws in a cross pattern (“X” pattern).
   WARNING: DO NOT OVERTIGHTEN.

REMOVE THE +1 ADAPTOR MODULE

REQUIRED TOOL(S): T20 TORX driver

1. Turn off the camera.
2. Loosen the four (4) captive mounting screws in a cross pattern (“X” pattern) using a T20 TORX driver.
3. Disconnect the HDMI connector from the BRAIN.
4. Remove the +1 Adaptor Module from the BRAIN.

EPIC/SCARLET POWER MODULE OPERATIONS

This section describes the attachment and removal of EPIC/SCARLET modules. These instructions are applicable to all EPIC/SCARLET modules, except adaptor modules. The Pro Battery Module (Quad) is shown.

WARNING: DSMC modules attach to an adaptor module. DSMC modules DO NOT attach directly to the BRAIN.

WARNING: Before installing or removing modules, you MUST turn off the camera.

NOTE: The REDVOLT XL Module is an exception to the adaptor module requirement. For more information, go to "Install the REDVOLT XL Module" on page 34.

ATTACH A DSMC POWER MODULE

REQUIRED TOOL(S): T20 TORX driver

1. Turn off the camera.
2. Insert the lip at the top of the module into the recess at the top of the adaptor module.

Figure: Insert Module Lip

3. Rotate the module down flush with the rear of the adaptor module.

Figure: Press Module Flush

4. Apply pressure and use a T20 TORX driver to rotate the lock on the adaptor module clockwise to the **Lock** position.

REMOVE A DSMC POWER MODULE

REQUIRED TOOL(S): T20 TORX driver

1. Turn off the camera.
2. Use a T20 TORX driver to rotate the lock on the adaptor module counterclockwise to the **Unlock** position.
3. Rotate the module upwards and away from the adaptor module to disengage.
4. Remove the module.

PRO BATTERY MODULE (DUAL)

Figure: Pro Battery Module (Dual)

The Pro Battery Module (Dual) provides power to the EPIC/SCARLET camera using two (2) REDVOLT batteries. The Pro Battery Module (Dual) also supports hot swapping of REDVOLT batteries. Attaching outrigger handles and other tactical gear is convenient using the 1/4-20 mounting points on the top of the module.

For installation and removal instructions, go to "EPIC/SCARLET Power Module Operations" on page 25.

WARNING: DO NOT use more than one (1) battery module at a time. Using multiple battery modules may damage the camera and is not covered under warranty.

NOTE: A Module Adaptor or +1 Adaptor Module is required to mount the Pro Battery Module (Dual) to the BRAIN.

NOTE: The Pro Battery Module (Dual) does not charge batteries.

PRO BATTERY MODULE (DUAL) LEDS

Both battery compartments have an LED and battery eject button to show the corresponding battery status.

COLOR/FLASHING	DESCRIPTION
Off	No battery
Green	Battery is charged, but is not in use
Green flashing	Battery in use
Amber flashing	Battery has 10 minutes of run time remaining; Accessing media (when formatting)
Red	Battery needs to be recharged
Red flashing	Battery has five (5) minutes of run time remaining

INSERT A BATTERY

1. Align and insert the REDVOLT battery.
2. Apply pressure to the battery until a click is heard, signalling the battery is properly seated.

REMOVE A BATTERY

1. Press the **Eject** button to release the REDVOLT from the module.
2. Remove the battery.

PRO BATTERY MODULE (QUAD)

Figure: Pro Battery Module (Quad) with REDVOLTs (Left) and REDVOLT XL (Right)

The Pro Battery Module (Quad) harnesses the power of four (4) REDVOLT batteries or two (2) REDVOLT XL batteries. Similar to the Pro Battery Module (Dual), this module enables hot swap support for continuous power to the camera without missing a shot. The module also offers 1/4-20 mounting points for configuration support.

For installation and removal instructions, go to "EPIC/SCARLET Power Module Operations" on page 25.

WARNING: DO NOT use more than one (1) battery module at a time. Using multiple battery modules may damage the camera and is not covered under warranty.

NOTE: A Module Adaptor or +1 Adaptor Module is required to mount the Pro Battery Module (Quad) to the EPIC/SCARLET BRAIN.

NOTE: The Pro Battery Module (Quad) does not charge batteries.

PRO BATTERY MODULE (QUAD) LEDS

Each battery compartment has an LED and battery eject button to show the corresponding battery status.

COLOR/FLASHING	DESCRIPTION
Off	No battery
Green	Battery is charged, but is not in use
Green flashing	Battery in use
Amber flashing	Battery has 10 minutes of run time remaining; Accessing media (when formatting)
Red	Battery needs to be recharged
Red flashing	Battery has five (5) minutes of run time remaining

INSERT A BATTERY

1. Align and insert the selected REDVOLT or REDVOLT XL battery.
2. Apply pressure to the battery until a click is heard, signalling the battery is properly seated.

REMOVE A BATTERY

1. Press the **Eject** button(s) to release a battery from the module.
   - **REDVOLT**: Press the **Eject** button next to the desired battery.
   - **REDVOLT XL**: Press both **Eject** buttons next to the battery.
2. Remove the battery.

REDVOLT XL MODULE

Figure: REDVOLT XL Module

The REDVOLT XL Module provides flexible mounting and power solutions for the EPIC/SCARLET. The reversible switch plate on the REDVOLT XL Module enables you to mount the module to the EPIC/SCARLET or another module. When the module is attached to the EPIC/SCARLET, a connected REDVOLT XL battery powers the system. Batteries can also be hot-swapped, as long as power is provided from a REDVOLT-equipped DSMC Side Handle or a DSMC AC Power Adaptor is connected to the DC IN port on the EPIC/SCARLET. The on-board 2-pin 0B AUX port provides a convenient 3.8 A power source for additional camera accessories.

A protective baseplate is included with the REDVOLT XL Module to serve as a portable and stand-alone battery charger. The module is capable of charging a REDVOLT XL battery while connected to the EPIC/SCARLET, as long as it is turned off.

WARNING: DO NOT attempt to power a third-party device without first verifying the cabling and connections are correct, since that may cause damage. Damage to the device, the module, or other components of the camera system caused by attempting to power a third-party device incorrectly may not be covered under warranty.

NOTE: The REDVOLT XL Module ONLY supports REDVOLT XL batteries. DO NOT use a REDVOLT battery.

NOTE: The REDVOLT XL Module requires that your camera is on firmware v5.1.29 or later.

REDVOLT XL MODULE CONNECTIONS

Figure: REDVOLT XL Module

#	CONNECTOR	CONNECTOR TYPE	CONNECTOR FUNCTION
1	AUX POWER OUT - 3.8 A	2-pin 0B	Provides 3.8 A max current out for 2-pin based accessories when the module is receiving power
2	CHARGE IN	6-pin 1B	Provides power to the REDVOLT XL Module, the AUX POWER OUT port, and an approximate 2 A charge current to an attached REDVOLT XL battery

AUX POWER OUT

The 2-pin 0B AUX POWER OUT port provides a maximum 3.8 A of current for camera accessories.

NOTE: The AUX POWER OUT port is always active whenever a REDVOLT XL battery is attached to the module, regardless of camera state or presence of a DC power source.

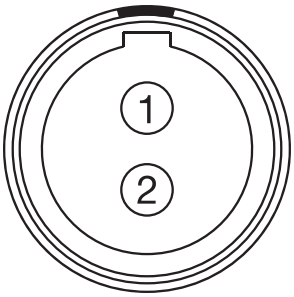


Figure: Front Face of AUX POWER OUT Connector

2-PIN 0B AUX POWER OUT CONNECTOR

PIN	SIGNAL	DESCRIPTION	DIRECTION
1	GROUND	Common ground	N/A
2	+11.5 to +17 VDC	+11.5 to 17 VDC unregulated battery pass-through power	Out

NOTE: Mating connector is EEG.0B.302.CLL.

CHARGE IN

Use the 6-pin 1B CHARGE IN port to charge batteries and provide power to the AUX POWER OUT port.

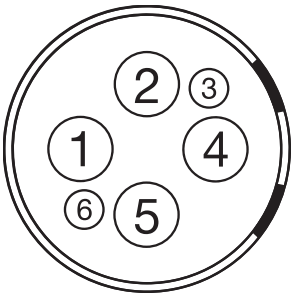


Figure: Front Face of CHARGE IN Connector

6-PIN 1B CHARGE IN CONNECTOR			
PIN	**SIGNAL**	**DESCRIPTION**	**DIRECTION**
1	+VBATT	Power input, +11.5 to +17 VDC	Out
2	+VBATT	Power input, +11.5 to +17 VDC	Out
3	SCL-BATT	Serial battery bus clock	Out
4	GROUND	Power return (camera ground)	Out
5	GROUND	Power return (camera ground)	Out
6	SDA-BATT	Serial battery bus clock	Out

NOTE: Mating connector is FGJ.1B.306.CWLD72Z.

COMPATIBLE CABLES

- **790-0138**: RED 2B-to-1B Power Adaptor Cable
- **790-0164, 790-0646**: XLR Power Cable (10')
- **790-0165, 790-0647**: XLR Power Cable (30')

REDVOLT XL MODULE INDICATOR LEDS

The REDVOLT XL Module indicator LEDs display information about the current state of an equipped REDVOLT XL Battery when the module is used as a desktop charging station. Refer to the following table for information about the different REDVOLT XL charging states.

COLOR/FLASHING	DESCRIPTION
Green	Battery is fully charged
Green flashing	Charging; half second on, half second off
Green/Red flashing	Lamp self test at power up; half second red, half second green
Green/Red flashing (alternating)	Error; alternating, half second green, half second red, repeat
Red flashing	Battery discharge alert; heartbeat (red) pulse once per minute indicates that the battery is discharging and should be removed from module[1]

1. The REDVOLT XL Module draws a small amount of power any time a battery is attached, when there is no charging source available.

CHARGE WITH THE REDVOLT XL MODULE

Figure: REDVOLT XL Module Front (Left), and Rear (Right)

The REDVOLT XL Module charges one (1) REDVOLT XL battery when a DSMC AC Power Adaptor is connected to the 6-pin 1B CHARGE IN connector. The REDVOLT XL Module can fully charge a discharged REDVOLT XL battery in approximately four (4) hours.

The REDVOLT XL Module can charge a REDVOLT XL battery while attached to the camera, but only when the camera is off. When the camera is on, power is drawn from the battery rather than the attached power supply, resulting in a net loss of power. Connect a power source to the 6-pin 1B CHARGE IN port to provide power to the AUX POWER OUT port for additional camera accessories.

To charge a REDVOLT XL battery with the REDVOLT XL Module, follow the instructions below:

1. Attach the protective baseplate to the REDVOLT XL Module.
2. Connect the 6-pin 1B connector from a DSMC AC Power Adaptor to the CHARGE IN port.
3. Insert a REDVOLT XL battery into the REDVOLT XL Module.

WARNING: DO NOT use the REDVOLT XL Module as a desktop charger without the protective baseplate to cover the rear connectors. This may cause irreparable damage to the rear connectors on the module and is not covered under warranty.

INSTALL THE REDVOLT XL MODULE

The REDVOLT XL Module is designed with a reversible switch plate, enabling direct installation to the EPIC/SCARLET BRAIN or mounting to other modules.

For more information on installing and removing the REDVOLT XL Module, go to:

- "EPIC/SCARLET Adaptor Operations" on page 23.
- "EPIC/SCARLET Power Module Operations" on page 25.

REDVOLT XL MODULE SWITCH PLATE

Figure: REDVOLT XL Module Switch Plate

To configure the switch plate for different mounting variations, follow the instructions below:

1. Loosen the six (6) M3x0.5 x 8 mm screws attaching the SWITCH PLATE evenly using a T10 TORX driver.
2. Remove the six (6) screws. DO NOT discard screws.
3. Install the switch plate to the desired mounting configuration:
   - **4-BOLT-PLATE (Left image)**: Supports attachment directly to the BRAIN.
   - **MODULE PLATE (Right Image):** Supports attachment to DSMC modules.
4. Insert and tighten the six (6) M3x0.5 x 8 mm screws evenly. DO NOT FULLY TIGHTEN.
5. Fully tighten the six (6) M3x0.5 x 8 mm screws evenly. DO NOT exceed 70 in-oz, or damage may occur.

   WARNING: DO NOT OVERTIGHTEN.

NOTE: For more information or replacement screws, contact a Sales Representative.

INSERT A REDVOLT XL

1. Align and insert the REDVOLT XL.
2. Apply pressure to the battery until a click is heard, signaling the battery is properly seated.

Figure: Insert a REDVOLT XL Battery

REMOVE A REDVOLT XL

1. Press the battery release buttons on both sides of the REDVOLT XL Module.
2. Remove the REDVOLT XL.

Figure: Remove a REDVOLT XL Battery

QUICKPLATE MODULE

Figure: Quickplate Module

The Quickplate Module attaches to a +1 Adaptor Module or Module Adaptor to provide RED BRICK or REDVOLT-V power support for EPIC/SCARLET. Unlike the Backpack Quickplate, the Quickplate Module does not require a connector cable or Backpack Baseplate. Use a battery-equipped DSMC Side Handle or a DSMC AC Power Adaptor to keep the camera running while hot swapping batteries.

The Quickplate Module also provides two (2) auxiliary ports to provide power for camera accessories. AUX ports draw power from an attached RED BRICK or REDVOLT-V if one (1) is attached. If a RED BRICK or REDVOLT-V is not attached, ports draw power from the BRAIN through the SEARAY connector.

WARNING: DO NOT attempt to power a third-party device without first verifying the cabling and connections are correct, since that may cause damage. Damage to the device, the module, or other components of the camera system caused by attempting to power a third-party device incorrectly may not be covered under warranty.

NOTE: The Quickplate Module requires that your camera is on firmware v5.1.14 or later.

QUICKPLATE MODULE CONNECTORS

The Quickplate Module is designed with two (2) industry-standard 2-pin 0B AUX ports to power camera accessories when shooting. The two (2) auxiliary connectors provide a maximum combined output of 3.8 A. For example, if one (1) port is drawing 2 A, the other can provide up to 1.8 A.

NOTE: Align the key and red mark on the AUX port with the key on the cable connector to connect.

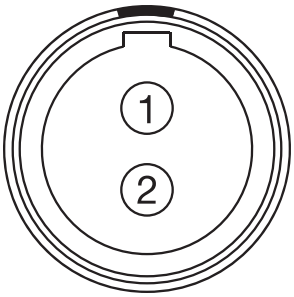


Figure: Front Face of Quickplate Module AUX Connector

2-PIN 0B AUX CONNECTORS

PIN	SIGNAL	DESCRIPTION	DIRECTION
1	GROUND	Common ground	N/A
2	+11.5 to +17 VDC	+11.5 to 17 VDC unregulated battery pass-through power	Out

NOTE: Mating connector is EEG.0B.302.CLL.

ATTACH THE QUICKPLATE MODULE

Figure: Quickplate Module Attached to Camera

The Quickplate Module attaches to a Module Adaptor or +1 Adaptor Module in the same way that other DSMC modules attach. For more information, go to "EPIC/SCARLET Power Module Operations" on page 25.

BACKPACK QUICKPLATE (SHORT)

Figure: Backpack Quickplate (Short) and Backpack Base Plate

The Backpack Quickplate and Backpack Quickplate (Short) attach to the Backpack Base Plate to support a RED BRICK or REDVOLT-V. The Backpack Quickplate provides power to the DC IN rear power connector on the BRAIN using the attached 6-pin 1B cable.

The Backpack Base Plate is a receiving platform for power modules like the Backpack Quickplate and Backpack Quickplate (Short). The Backpack Base Plate attaches to the BRAIN using four (4) screws. A slide-and-lock mechanism provides easy installation and enables you to adjust the height of a Backpack Quickplate.

WARNING: DO NOT attempt to power a third-party device without first verifying the cabling and connections are correct, since that may cause damage. Damage to the device, the module, or other components of the camera system caused by attempting to power a third-party device incorrectly may not be covered under warranty.

NOTE: The Backpack Base Plate is required to mount the Backpack Quickplate or Backpack Quickplate (Short).

BACKPACK QUICKPLATE CONNECTORS

The Backpack Quickplate offers one (1) P-Tap connector that provides power (70 W max) for camera accessories.

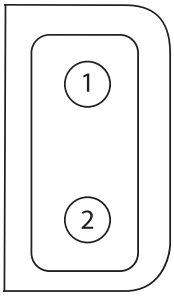


Figure: Backpack Quickplate P-Tap Connector

2-PIN P-TAP CONNECTOR

PIN	SIGNAL	DESCRIPTION	DIRECTION
1	GROUND	Common ground	N/A
2	+11.5 to +17 VDC	+11.5 to 17 VDC unregulated battery pass-through power	Out

CAN BACKPACK QUICKPLATE (SHORT) CONNECTORS

The Backpack Quickplate (Short) offers two (2) 0B 2-pin AUX ports that provide a maximum combined output of 3.8 A.

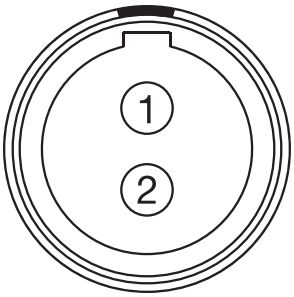


Figure: Backpack Quickplate (Short) AUX Connector

2-PIN 0B AUX CONNECTORS

PIN	SIGNAL	DESCRIPTION	DIRECTION
1	GROUND	Common ground	N/A
2	+11.5 to +17 VDC	+11.5 to 17 VDC unregulated battery pass-through power	Out

NOTE: Mating connector is EEG.0B.302.CLL.

INSTALL BACKPACK BASE PLATE AND BACKPACK QUICKPLATE (SHORT)

REQUIRED TOOL(S): 3.0 mm Hex driver

1. Turn off the camera.
2. Place the Backpack Base Plate on the rear of the BRAIN.
3. Insert four (4) M4x0.7 mm x 8 mm mounting screws into the Backpack Base Plate mounting holes.
4. Use a 3.0 mm Hex driver to tighten screws in a cross pattern (“X” pattern) approximately two (2) turns each.
   DO NOT FULLY TIGHTEN.
5. Fully tighten the four (4) screws in a cross pattern (“X” pattern).
   WARNING: DO NOT OVERTIGHTEN.
6. Loosen the wingnut clamp on the Backpack Base Plate.
7. Slide the Backpack Quickplate (Short), with the V-Mount receiver facing away from the BRAIN, into the dovetail rails on the Backpack Base Plate.
8. Tighten the wingnut clamp on the Backpack Base Plate.
   WARNING: DO NOT OVERTIGHTEN.
9. Connect the 6-pin 1B connector to the **DC IN** port on the BRAIN.

Figure: Backpack Quickplate (Short) Collection with a RED BRICK

NOTE: The release button is black on the Backpack Quickplate and red on the Backpack Quickplate (Short).

INSERT A BATTERY

1. Slide the RED BRICK or REDVOLT-V onto the back of the Backpack Quickplate so that it fits into the V-Mount on the back of the Backpack Quickplate.
2. Apply pressure until the battery is fully seated.

NOTE: You may not hear a click when the battery is fully connected.

REMOVE A BATTERY

1. Press the release button on the side of the Backpack Quickplate to remove the RED BRICK or REDVOLT-V.
2. Pull up on the battery to disengage it from the V-mount.

CHAPTER 3:
DSMC2 POWER MODULES

DSMC2 modules enable you to configure your camera for your exact shooting requirements and are designed to support REDVOLT, REDVOLT-V, REDVOLT XL, and RED BRICK batteries.

DSMC2 power module options include (this table does not include any collections or packages, which are made up of the items below):

ITEM	PART NUMBER	DETAILS
DSMC2 REDVOLT XL Module	740-0034	"DSMC2 REDVOLT XL Module" on the next page
DSMC2 V-Lock Battery Module	720-0052	"DSMC2 V-Lock Battery Module" on page 47
DSMC2 Gold Mount Battery Module[1]	720-0053	"DSMC2 Gold Mount Battery Module" on page 52
DSMC2 Production Module (V-Lock)	720-0054	"DSMC2 Production Module" on page 57
DSMC2 Production Module (Gold Mount)	720-0056	"DSMC2 Production Module" on page 57

WARNING: Modules, 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.

DSMC2 REDVOLT XL MODULE

Figure: DSMC2 REDVOLT XL Module

The DSMC2 REDVOLT XL Module mounts seamlessly to the back of the DSMC2 BRAIN—and select other I/O expanders—to provide support for long-lasting and rechargeable REDVOLT XL batteries. The DSMC2 REDVOLT XL Module features a smaller, more ergonomic design compared to the REDVOLT XL Module with one (1) dual-action release button for removing an attached battery.

The DSMC2 REDVOLT XL Module offers a DC IN power port that can be used to power the camera system when the module is attached to the BRAIN®. An included protective baseplate enables the DSMC2 REDVOLT XL Module to serve as a portable and stand-alone REDVOLT XL battery charger. Plug in the DSMC® AC Power Adaptor to the 6-pin 1B DC IN connector on the module and connect a REDVOLT XL battery. While the module is mounted to the BRAIN, it only charges an attached REDVOLT XL battery if the BRAIN is powered off.

Two (2) rear facing auxiliary ports provide power for external camera accessories, while remaining out of your way while shooting.

WARNING: DO NOT attempt to power a third-party device without first verifying the cabling and connections are correct, since that may cause damage. Damage to the device, the module, or other components of the camera system caused by attempting to power a third-party device incorrectly may not be covered under warranty.

NOTE: The DSMC2 REDVOLT XL Module ONLY supports REDVOLT XL batteries. DO NOT use a REDVOLT battery.

INSERT A REDVOLT XL

1. Align and insert the REDVOLT XL.
2. Apply pressure to the REDVOLT XL until a click is heard, signalling the battery is properly seated.

REMOVE A REDVOLT XL

1. Press the **Eject** button on top of the DSMC2 REDVOLT XL Module.
2. Remove the REDVOLT XL.

DSMC2 REDVOLT XL MODULE CONNECTIONS

Figure: DSMC2 REDVOLT XL Module

#	CONNECTOR	CONNECTOR TYPE	CONNECTOR FUNCTION
1	AUX POWER OUT - 3.8 A	2-pin 0B	Provides a combined 3.8 A max current out for 2-pin based accessories when the module is receiving power
2	DC IN	6-pin 1B	Provides power to the camera system, the AUX POWER OUT port, and an approximate 2 A charge current to an attached REDVOLT XL battery

AUX POWER OUT

The 2-pin 0B AUX POWER OUT port provides a combined maximum 3.8 A of current for camera accessories. That total current is provided through one AUX POWER OUT port, or split between the two ports.

NOTE: The AUX POWER OUT port is always active whenever a charged REDVOLT XL battery is attached to the module, regardless of camera state or presence of a DC power source.

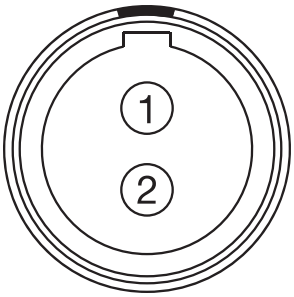


Figure: Front Face of AUX POWER OUT Connector

2-PIN 0B AUX POWER OUT CONNECTOR

PIN	SIGNAL	DESCRIPTION	DIRECTION
1	GROUND	Common ground	N/A
2	+11.5 to +17 VDC	+11.5 to 17 VDC unregulated battery pass-through power	Out

NOTE: Mating connector is EEG.0B.302.CLL.

DC IN

Use the 6-pin 1B DC IN port to charge batteries and provide power to the AUX POWER OUT port.

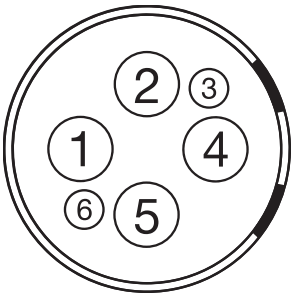


Figure: Front Face of DC IN Connector

6-PIN 1B DC IN CONNECTOR

PIN	SIGNAL	DESCRIPTION	DIRECTION
1	+VBATT	Power input, +11.5 to +17 VDC	Out
2	+VBATT	Power input, +11.5 to +17 VDC	Out
3	SCL-BATT	Serial battery bus clock	Out
4	GROUND	Power return (camera ground)	Out
5	GROUND	Power return (camera ground)	Out
6	SDA-BATT	Serial battery bus clock	Out

NOTE: Mating connector is FGJ.1B.306.CWLD72Z.

COMPATIBLE CABLES

- **790-0138**: RED 2B-to-1B Power Adaptor Cable
- **790-0164, 790-0646**: XLR Power Cable (10')
- **790-0165, 790-0647**: XLR Power Cable (30')

DSMC2 REDVOLT XL MODULE INDICATOR LEDS

The DSMC2 REDVOLT XL Module indicator LEDs display information about the current state of an equipped REDVOLT XL Battery when the module is used as a desktop charging station. Refer to the following table for information about the different REDVOLT XL charging states.

COLOR/FLASHING	DESCRIPTION
Green	Battery is fully charged
Green flashing	Charging; half second on, half second off
Green/Red flashing	Lamp self test at power up; half second red, half second green
Green/Red flashing (alternating)	Error; alternating, half second green, half second red, repeat
Red flashing	Battery discharge alert; heartbeat (red) pulse once per minute indicates that the battery is discharging and should be removed from module[1]

1. The DSMC2 REDVOLT XL Module draws a small amount of power any time a battery is attached, when there is no charging source available.

CHARGE WITH THE DSMC2 REDVOLT XL MODULE

The DSMC2 REDVOLT XL Module can charge one (1) REDVOLT XL battery, but only when the camera is off. When the camera is on, power is drawn from the battery rather than the attached power supply, resulting in a net loss of power. The DSMC2 REDVOLT XL Module can fully charge a discharged REDVOLT XL in approximately four (4) hours.

To charge a REDVOLT XL battery with the DSMC2 REDVOLT XL Module, follow the instructions below:

1. Turn off the camera.
2. Attach the protective baseplate to the DSMC2 REDVOLT XL Module.
3. Connect the DSMC AC Power Adaptor to the DC IN port on the DSMC2 REDVOLT XL Module.

NOTE: The battery does not charge if the power source is connected to the DC IN port on the BRAIN.

4. Insert a REDVOLT XL battery into the DSMC2 REDVOLT XL Module.

WARNING: DO NOT use the DSMC2 REDVOLT XL Module as a desktop charger without the protective baseplate to cover the rear connectors. This may cause irreparable damage to the rear connectors on the module and is not covered under warranty.

DSMC2 V-LOCK BATTERY MODULE

Figure: DSMC2 V-Lock Battery Module

The DSMC2 V-Lock Battery Module is a low profile cable-free module that enables you to power your DSMC2 BRAIN and camera accessories using RED BRICK, REDVOLT-V, or other standard V-Lock batteries. The V-Lock mount and protected release button ensure ongoing power even during mobile shoots.

This DSMC2 battery module offers a P-Tap connector on top and an auxiliary port on the side for powering peripherals and accessories. Together the P-Tap and auxiliary connectors support a maximum combined current of 3.8 Amps.

The module also offers a DC IN power port that can be used to power the camera system when the module is attached to the BRAIN. When DC IN power is supplied to the module, and the camera is turned off, the module can also trickle charge the attached V-Lock battery.

Manufactured from robust aluminum alloy, this DSMC2 battery module offers a blend of utility and power support in a lightweight and space-saving form factor. The DSMC2 V-Lock Battery Module is an ideal power solution for use with most DSMC2 expanders. Alternatively, connect the DSMC2 V-Lock Battery Module directly to your DSMC2 BRAIN for a low-profile, battery-only power configuration.

WARNING: DO NOT attempt to power a third-party device without first verifying the cabling and connections are correct, since that may cause damage. Damage to the device, the module, or other components of the camera system caused by attempting to power a third-party device incorrectly may not be covered under warranty.

NOTE: This design of the DSMC2 V-Lock Battery Module (720-0052) replaces the earlier version of the module (720-0049), which did not have the AUX OUT and DC IN ports. All other functionality is the same.

DSMC2 V-LOCK BATTERY MODULE CONNECTORS

Figure: DSMC2 V-Lock Battery Module

#	CONNECTOR	CONNECTOR TYPE	CONNECTOR FUNCTION
1	AUX Power (P-TAP) - 3.8 A[1]	2-pin Female	Provides a 3.8 A max current when the module is receiving power
2	AUX POWER OUT - 3.8 A[1]	2-pin 0B	Provides a 3.8 A max current out for 2-pin based accessories when the module is receiving power
3	DC IN	6-pin 1B	Provides power to the camera system, the AUX POWER OUT port, and an approximate 2 A charge current to an attached battery

1. The AUX Power (P-TAP) and AUX POWER OUT connectors share a 3.8 A max current. For example, if one (1) port is drawing 2A, the other port can provide up to 1.8A.

AUX POWER (P-TAP)

The DSMC2 V-Lock Battery Module offers one (1) P-Tap connector that provides power (3.8 A max) for camera accessories.

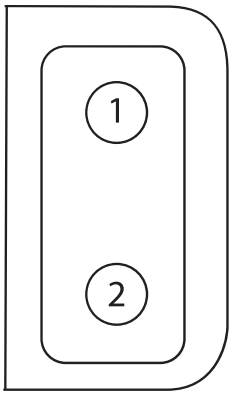


Figure: DSMC2 V-Lock Battery Module P-Tap Connector

2-PIN P-TAP CONNECTOR			
PIN	**SIGNAL**	**DESCRIPTION**	**DIRECTION**
1	GROUND	Common ground	N/A
2	+11.5 to +17 VDC	+11.5 to 17 VDC unregulated battery pass-through power	Out

AUX POWER OUT

The DSMC2 V-Lock Battery Module offers one (1) AUX POWER OUT port that provides power (3.8 A max) for camera accessories.

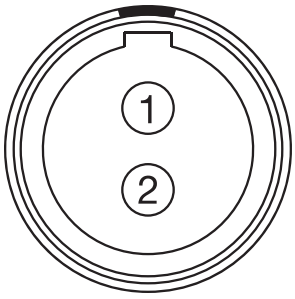


Figure: Front Face of AUX POWER OUT Connector

2-PIN 0B AUX POWER OUT CONNECTOR			
PIN	**SIGNAL**	**DESCRIPTION**	**DIRECTION**
1	GROUND	Common ground	N/A
2	+11.5 to +17 VDC	+11.5 to 17 VDC unregulated battery pass-through power	Out

DC IN

Use the DC IN port to provide power to the camera system. When power is applied to the DC IN port, Aux Power is available from the module, and the attached battery may be charged.

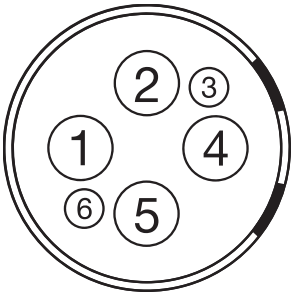


Figure: Front Face of DC IN Connector

6-PIN 1B DC IN CONNECTOR

PIN	SIGNAL	DESCRIPTION	DIRECTION
1	+VBATT	Power input, +11.5 to +17 VDC	Out
2	+VBATT	Power input, +11.5 to +17 VDC	Out
3	SCL-BATT	Serial battery bus clock	Out
4	GROUND	Power return (camera ground)	Out
5	GROUND	Power return (camera ground)	Out
6	SDA-BATT	Serial battery bus clock	Out

NOTE: Mating connector is FGJ.1B.306.CWLD72Z.

COMPATIBLE CABLES

- **790-0138**: RED 2B-to-1B Power Adaptor Cable
- **790-0164, 790-0646**: XLR Power Cable (10')
- **790-0165, 790-0647**: XLR Power Cable (30')

INSTALL THE DSMC2 V-LOCK BATTERY MODULE

REQUIRED TOOL(S): T20 TORX® driver

1. Turn off the camera.
2. Position the module on the rear of the camera or expander, aligning the connector on the front of the module with the connector on the rear of the camera or expander.
3. Apply pressure and tighten the four (4) captive screws in a cross pattern (“X” pattern) approximately two (2) turns each using a T20 TORX driver. DO NOT FULLY TIGHTEN.
4. Fully tighten the four (4) screws in a cross pattern (“X” pattern) using a T20 TORX driver.

WARNING: DO NOT OVERTIGHTEN.

INSERT A BATTERY

To insert a RED BRICK, REDVOLT-V, or other standard V-Lock battery in the DSMC2 V-Lock Battery Module , follow the instructions below:

1. Install the DSMC2 V-Lock Battery Module. For more information, go to "Install the DSMC2 V-Lock Battery Module " on the previous page.
2. Align and insert the battery.
3. Apply pressure to the battery until a click is heard, signaling the battery is properly seated.

REMOVE A BATTERY

To remove a RED BRICK, REDVOLT-V, or other standard V-Lock battery from the DSMC2 V-Lock Battery Module, follow the instructions below:

1. Press the **Eject** button to the left of the DSMC2 V-Lock Battery Module.
2. Remove the battery.

CHARGE BATTERIES WITH THE DSMC2 V-LOCK BATTERY MODULE

The DSMC2 V-Lock Battery Module can charge one (1) RED BRICK, REDVOLT-V, or other standard V-Lock battery, but only when the camera is off. When the camera is on, power defaults to the DC IN rather than the attached battery. The DSMC2 V-Lock Battery Module can charge a fully discharged RED BRICK in approximately 10.4 hours and a REDVOLT-V in approximately three (3) hours.

To charge a RED BRICK, REDVOLT-V, or other standard V-Lock battery with the DSMC2 V-Lock Battery Module, follow the instructions below:

1. Turn off the camera.
2. Attach the DSMC2 V-Lock Battery Module to the BRAIN or expander.
3. Connect the DSMC AC Power Adaptor to the DC IN port on the DSMC2 V-Lock Battery Module.

NOTE: The battery does not charge if the power source is connected to the DC IN port on a separate expander.

4. Insert the battery into the DSMC2 V-Lock Battery Module.

WARNING: DO NOT use the DSMC2 V Lock Battery Module as a desktop charger. This may cause damage to the rear connectors on the module and is not covered under warranty.

DSMC2 GOLD MOUNT BATTERY MODULE

Figure: DSMC2 Gold Mount Battery Module

The DSMC2 Gold Mount Battery Module is a low profile cable-free module that enables you to power your DSMC2 BRAIN and camera accessories using standard Gold Mount batteries. The Gold Mount and protected release button ensure ongoing power even during mobile shoots.

This DSMC2 battery module offers a P-Tap connector on top and an auxiliary port on the side for powering peripherals and accessories. Together the P-Tap and auxiliary connectors support a maximum combined current of 3.8 Amps.

The module also offers a DC IN power port that can be used to power the camera system when the module is attached to the BRAIN. When DC IN power is supplied to the module, and the camera is turned off, the module can also trickle charge a wide variety of attached Gold Mount batteries.

Manufactured from robust aluminum alloy, this DSMC2 battery module offers a blend of utility and power support in a lightweight and space-saving form factor. The DSMC2 Gold Mount Battery Module is an ideal power solution for use with most DSMC2 expanders. Alternatively, connect the DSMC2 Gold Mount Battery Module directly to your DSMC2 BRAIN for a low-profile, battery-only power configuration.

WARNING: DO NOT attempt to power a third-party device without first verifying the cabling and connections are correct, since that may cause damage. Damage to the device, the module, or other components of the camera system caused by attempting to power a third-party device incorrectly may not be covered under warranty.

DSMC2 GOLD MOUNT BATTERY MODULE CONNECTORS

Figure: DSMC2 Gold Mount Battery Module

#	CONNECTOR	CONNECTOR TYPE	CONNECTOR FUNCTION
1	AUX Power (P-TAP) - 3.8 A[1]	2-pin Female	Provides a 3.8 A max current when the module is receiving power
2	AUX POWER OUT - 3.8 A[1]	2-pin 0B	Provides a 3.8 A max current out for 2-pin based accessories when the module is receiving power
3	DC IN	6-pin 1B	Provides power to the camera system, the AUX POWER OUT port, and an approximate 2 A charge current to an attached Gold Mount battery

1. The AUX Power (P-TAP) and AUX POWER OUT connectors share a 3.8 A max current. For example, if one (1) port is drawing 2A, the other port can provide up to 1.8A.

AUX POWER (P-TAP)

The DSMC2 Gold Mount Battery Module offers one (1) P-Tap connector that provides power (3.8 A max) for camera accessories.

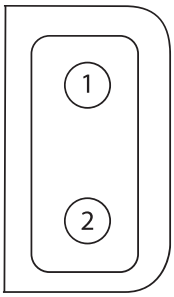


Figure: DSMC2 Gold Mount Battery Module P-Tap Connector

2-PIN P-TAP CONNECTOR			
PIN	**SIGNAL**	**DESCRIPTION**	**DIRECTION**
1	GROUND	Common ground	N/A
2	+11.5 to +17 VDC	+11.5 to 17 VDC unregulated battery pass-through power	Out

AUX POWER OUT

The DSMC2 Gold Mount Battery Module offers one (1) AUX POWER OUT port that provides power (3.8 A max) for camera accessories.

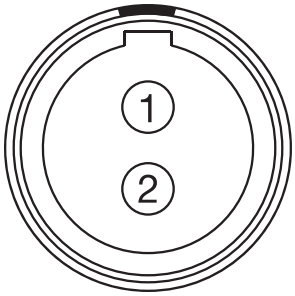


Figure: Front Face of AUX POWER OUT Connector

2-PIN 0B AUX POWER OUT CONNECTOR			
PIN	**SIGNAL**	**DESCRIPTION**	**DIRECTION**
1	GROUND	Common ground	N/A
2	+11.5 to +17 VDC	+11.5 to 17 VDC unregulated battery pass-through power	Out

DC IN

Use the DC IN port to provide power to the camera system. When power is applied to the DC IN port, Aux Power is available from the module, and the attached battery may be charged.

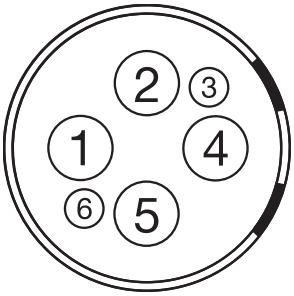


Figure: Front Face of DC IN Connector

6-PIN 1B DC IN CONNECTOR

PIN	SIGNAL	DESCRIPTION	DIRECTION
1	+VBATT	Power input, +11.5 to +17 VDC	Out
2	+VBATT	Power input, +11.5 to +17 VDC	Out
3	SCL-BATT	Serial battery bus clock	Out
4	GROUND	Power return (camera ground)	Out
5	GROUND	Power return (camera ground)	Out
6	SDA-BATT	Serial battery bus clock	Out

NOTE: Mating connector is FGJ.1B.306.CWLD72Z.

COMPATIBLE CABLES

- **790-0138**: RED 2B-to-1B Power Adaptor Cable
- **790-0164, 790-0646**: XLR Power Cable (10')
- **790-0165, 790-0647**: XLR Power Cable (30')

INSTALL THE DSMC2 GOLD MOUNT BATTERY MODULE

REQUIRED TOOL(S): T20 TORX driver

1. Turn off the camera.
2. Position the module on the rear of the camera or expander, aligning the connector on the front of the module with the connector on the rear of the camera or expander.
3. Apply pressure and tighten the four (4) captive screws in a cross pattern (“X” pattern) approximately two (2) turns each using a T20 TORX driver. DO NOT FULLY TIGHTEN.
4. Fully tighten the four (4) screws in a cross pattern (“X” pattern) using a T20 TORX driver.

WARNING: DO NOT OVERTIGHTEN.

INSERT A BATTERY

1. Install the DSMC2 Gold Mount Battery Module. For more information, go to "Install the DSMC2 Gold Mount Battery Module" on the previous page.
2. Slide the battery onto the DSMC2 Gold Mount Battery Module, ensuring that the Gold Mount T-studs are aligned in the corresponding slots.
3. Slide the battery until a click is heard, signaling the battery is properly seated.

REMOVE A BATTERY

1. While holding the battery, push down the black latch on the left side of the DSMC2 Gold Mount Battery Module.
2. Slide the battery to the left to remove the battery.

CHARGE WITH THE DSMC2 GOLD MOUNT BATTERY MODULE

The DSMC2 Gold Mount Battery Module can charge a wide variety of Gold Mount batteries but only when the camera is off. When the camera is on, power defaults to the DC IN rather than the attached battery. The DSMC2 Gold Mount Battery Module can fully charge a discharged 100 Wh, 14.4 V Gold Mount battery in approximately seven (7) hours.

NOTE: The DSMC2 Gold Mount Battery Module is unable to charge Anton/Bauer DIONIC® HC and DIONIC HCX series batteries due to unique safety circuits within the batteries.

To charge a compatible Gold Mount battery with the DSMC2 Gold Mount Battery Module, follow the instructions below:

1. Turn off the camera.
2. Attach the DSMC2 Gold Mount Battery Module to the BRAIN or expander.
3. Connect the DSMC AC Power Adaptor to the DC IN port on the DSMC2 Gold Mount Battery Module.

NOTE: The battery does not charge if the power source is connected to the DC IN port on a separate expander.

4. Insert the battery into the DSMC2 Gold Mount Battery Module.

WARNING: DO NOT use the DSMC2 Gold Mount Battery Module as a desktop charger. This may cause damage to the rear connectors on the module and is not covered under warranty.

DSMC2 PRODUCTION MODULE

Figure: DSMC2 Production Module (V-Lock) and DSMC2 Production Module (Gold Mount)

Designed for professional shooting configurations, the DSMC2 Production Module mounts directly to the BRAIN and offers a comprehensive array of video, power, communication, and pro audio connections. RED offers two (2) versions of this module:

- **DSMC2 Production Module (V-Lock)**: Incorporates a V-Lock mount that supports the RED BRICK, REDVOLT-V, or other standard v-lock batteries.
- **DSMC2 Production Module (Gold Mount)**: Incorporates a gold mount battery plate that supports standard gold mount batteries.

Aside from the battery plates, the two (2) versions of the DSMC2 Production Module are identical.

The DSMC2 Production Module is constructed from lightweight and durable aluminum alloy. The module includes three (3) BNC video connectors for maximum monitoring flexibility on-set. Two (2) connectors output a cloned 3G-SDI signal, and one (1) connector serves as an independent monitoring output.

To support production demands for on-board monitors, wireless video transmitters, wireless lens control, and focus assist systems, the module includes multiple auxiliary power outputs:

- Two (2) front-facing 3-Pin Fischer R/S ports support Remote Start/Stop functionality, and provide 24V power out up to a combined 2.5 Amps.
- A front-facing 2-Pin 0B AUX PWR port provides power out up to 3.0 Amps.
- A 2-Pin P-Tap connector on the top provides power out up to 3.0 Amps.
- A rear-facing USB 2.0 port with support for fast charging offers 5V at 1.5 Amps for powering small mobile devices.

Two (2) standard XLR connections are included for most professional audio needs. Each XLR input features a 3-position selector switch to designate the incoming audio signal type: Balanced Line Level, Balanced Mic Level, and Balanced Mic with +48V phantom power. Additionally, a 3.5mm line-level headphone jack allows users to monitor audio during takes and in playback mode.

The module features ports for power in (DC IN), Genlock (BNC), 5-Pin 0B Timecode port, GIG-E, and CTRL.

The module also features a selector switch that enables the BRAIN to automatically boot when power is provided via the DC IN connector on the module. This feature allows operators to use a connected DC input supply to turn the BRAIN on and off when the camera is mounted in remote or difficult to maneuver locations.

NOTE: The battery plate on the DSMC2 Production Module is always enabled, regardless of the Auto Boot on Power switch position.

NOTE: Only one (1) module can be used at a time.

WARNING: DO NOT attempt to power a third-party device without first verifying the cabling and connections are correct, since that may cause damage. Damage to the device, the module, or other components of the camera system caused by attempting to power a third-party device incorrectly may not be covered under warranty.

DSMC2 PRODUCTION MODULE CONNECTORS

For more information, see the operation guide for your camera, available at www.red.com/downloads.

INSTALL THE DSMC2 PRODUCTION MODULE

REQUIRED TOOL(S): T20 TORX® driver

1. Turn off the camera.
2. Position the module on the rear of the camera or expander, aligning the connector on the front of the module with the connector on the rear of the camera or expander.
3. Apply pressure and tighten the four (4) captive screws in a cross pattern (“X” pattern) approximately two (2) turns each using a T20 TORX driver. DO NOT FULLY TIGHTEN.
4. Fully tighten the four (4) screws in a cross pattern (“X” pattern) using a T20 TORX driver.

WARNING: DO NOT OVERTIGHTEN.

INSERT A BATTERY: DSMC2 PRODUCTION MODULE (V-LOCK)

To insert a RED BRICK, REDVOLT-V, or other standard V-Lock battery in the DSMC2 Production Module (V-Lock), follow the instructions below:

1. Install the DSMC2 Production Module (V-Lock). For more information, go to "Install the DSMC2 Production Module" above.
2. Align and insert the battery.
3. Apply pressure to the battery until a click is heard, signaling the battery is properly seated.

REMOVE A BATTERY: DSMC2 PRODUCTION MODULE (V-LOCK)

To remove a RED BRICK, REDVOLT-V, or other standard V-Lock battery from the DSMC2 Production Module (V-Lock), follow the instructions below:

1. Press the **Eject** button to the left of the DSMC2 Production Module (V-Lock).
2. Remove the battery.

INSERT A BATTERY: DSMC2 PRODUCTION MODULE (GOLD MOUNT)

1. Install the DSMC2 Production Module (Gold Mount). For more information, go to "Install the DSMC2 Production Module" on the previous page.
2. Slide the battery onto the battery mounting plate, ensuring that the Gold Mount T-studs are aligned in the corresponding slots.
3. Slide the battery until a click is heard, signaling the battery is properly seated.

REMOVE A BATTERY : DSMC2 PRODUCTION MODULE (GOLD MOUNT)

1. While holding the battery, push down the red latch on the left side of the DSMC2 Production Module (Gold Mount).
2. Slide the battery to the left to remove the battery.

CHAPTER 4:
RED BATTERIES

The REDVOLT, REDVOLT-V, REDVOLT XL, and RED BRICK are lightweight, rechargeable lithium-ion batteries designed to provide sustained power to the camera. These batteries provide long-term mobile power and attach to the camera via a power module or other RED accessory.

RED offers the following batteries:

ITEM	COMPATIBILITY	PART NUMBER	DETAILS
REDVOLT (37 Wh)	EPIC, SCARLET, DSMC2[1]	740-0020	"REDVOLT and REDVOLT XL" on the next page
REDVOLT XL (89 Wh)	EPIC, SCARLET, DSMC2[2]	740-0021	"REDVOLT and REDVOLT XL" on the next page
RED BRICK (153 Wh)	EPIC, SCARLET, DSMC2[3]	740-0002	"RED BRICK" on page 63
REDVOLT-V (43 Wh)	EPIC, SCARLET, DSMC2[4]	740-0043	"REDVOLT-V" on page 65

1. A DSMC2 REDVOLT Expander is required to use a REDVOLT battery with these cameras.
2. A DSMC2 REDVOLT XL Module is required to use a REDVOLT XL battery with these cameras.
3. A DSMC2 V-Lock I/O Expander, Battery Belt Clip, RED Quickplate, RED Cradle, DSMC2 V-Lock Battery Module, or DSMC2 Production Module (V-Lock) is required to use a RED BRICK battery with these cameras. The RED Quickplate and RED Cradle require a 2B-to-1B Power Adaptor Cable.
4. A DSMC2 V-Lock I/O Expander, Battery Belt Clip, RED Quickplate, RED Cradle, DSMC2 V-Lock Battery Module, or DSMC2 Production Module (V-Lock) is required to use a REDVOLT-V battery with these cameras. The RED Quickplate and RED Cradle require a 2B-to-1B Power Adaptor Cable.

WARNING: Read and adhere to all of the safety information here: "Safety Instructions" on page 5.

REDVOLT AND REDVOLT XL

Figure: REDVOLT XL (Left) and REDVOLT (Right)

REDVOLT and REDVOLT XL batteries are lightweight and rechargeable batteries designed to power the camera. REDVOLT batteries can be mounted to DSMC® power modules for extended mobile power, or inserted into the DSMC Side Handle for short term power.

NOTE: REDVOLT XL batteries require a REDVOLT Charger (Quad), or REDVOLT XL Module to recharge.

NOTE: REDVOLT batteries require a REDVOLT Travel Charger, REDVOLT Charger (Quad), or DSMC2® REDVOLT Expander to recharge.

NOTE: A DSMC2 REDVOLT XL Module is required to use a REDVOLT XL battery with DSMC2 cameras.

NOTE: A DSMC2 REDVOLT Expander is required to use a REDVOLT battery with DSMC2 cameras.

REDVOLT batteries are compatible with following DSMC power modules:

- "DSMC Side Handle" on page 19
- "Pro Battery Module (Dual)" on page 27
- "Pro Battery Module (Quad)" on page 28
- "REDVOLT XL Module" on page 29 (REDVOLT XL only)
- "DSMC2 REDVOLT XL Module" on page 42

REDVOLT batteries should only be charged using the following approved RED chargers:

- "REDVOLT Travel Charger" on page 68
- "REDVOLT Charger (Quad)" on page 69
- "RED BRICK Charger" on page 71

REDVOLT PERFORMANCE

The following table provides information on REDVOLT battery run and charging times.

BATTERY	NOMINAL ENERGY	RUN TIME[1]	CHARGE TIME (80%)	CHARGE TIME (FULL)
REDVOLT	37 Wh	30 minutes	60 minutes	90 minutes
REDVOLT XL	89 Wh	90 minutes	80 minutes	120 minutes

1. Approximate battery run times based on recording in 4K FF resolution at 24 FPS.

REDVOLT LED ARRAY

Figure: REDVOLT LED Array

The REDVOLT and REDVOLT XL battery LED arrays consist of three (3) LEDs and a status button. Press the status button to illuminate the LEDs, displaying the remaining battery charge level in 33.3% steps.

LED PATTERN	DESCRIPTION
Three (3) LEDs are on	71% to 100% capacity remaining
Two (2) LEDs are on	41% to 70% capacity remaining
One (1) LED is on	11% to 40% capacity remaining
One (1) LED flashes for three (3) seconds	0% to 10% capacity remaining
The two (2) outside LEDs flash for three (3) seconds	Battery error[1]

1. If you receive this battery error, submit a Support ticket at https://support.red.com.

RED BRICK

Figure: RED BRICK

The RED BRICK uses multiple lithium-ion rechargeable cells to provide long-term battery power to the camera for extended shooting sessions. RED BRICK batteries can be attached to the BRAIN® or equipment using a V-Mount battery plate and can also be used to power specific DSMC modules.

Charge the RED BRICK battery with the RED BRICK Charger. For more information, go to "RED BRICK Charger" on page 71.

NOTE: RED BRICK batteries require a RED BRICK Charger to recharge the battery.

NOTE: A DSMC2 V-Lock I/O Expander, Battery Belt Clip, RED Quickplate, RED Cradle, DSMC2 V-Lock Battery Module, or DSMC2 Production Module (V-Lock) is required to use a RED BRICK battery with DSMC2 cameras. The RED Quickplate and RED Cradle require a 2B-to-1B Power Adaptor Cable.

RED BRICK PERFORMANCE

The following table provides operational data on RED BRICK battery usage and charging times.

BATTERY	NOMINAL ENERGY	RUN TIME[1]	CHARGE TIME (80%)	CHARGE TIME (FULL)
RED BRICK	153 Wh	120 min	95 min	190 min

1. Approximate battery run times based on recording in 4K FF resolution at 24 FPS.

RED BRICK LED ARRAY

Figure: RED BRICK LED Array (Approximately 60%)

The RED BRICK battery LED array consists of five (5) LEDs and a status button. Press the status button to illuminate the LEDs, displaying the remaining battery charge level in 20% steps.

LED PATTERN	DESCRIPTION
Five (5) LEDs are on	80% to 100% capacity remaining
Four (4) LEDs are on	60% to 79% capacity remaining
Three (3) LEDs are on	40% to 59% capacity remaining
Two (2) LEDs are on	20% to 39% capacity remaining
One (1) LED is on	8% to 19% capacity remaining
One (1) LED flashes	0% to 7% capacity remaining
Five (5) LEDs are off	Battery is discharged and requires charging

REDVOLT-V

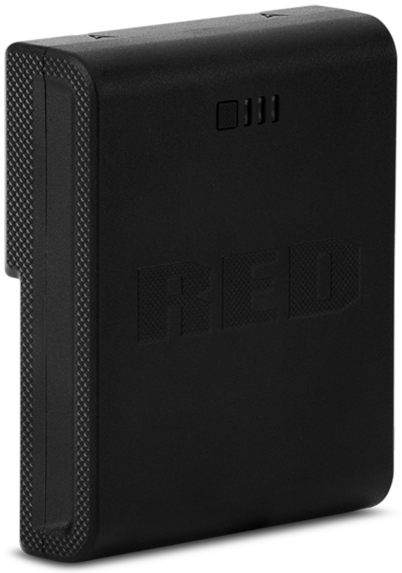


Figure: REDVOLT-V

Designed to fit with the profile of a DSMC2 camera body, the REDVOLT-V™ is the ideal battery for the filmmaker on the go and for use in gimbal and drone configurations. This 43Wh rechargeable lithium-ion battery provides more power than the original REDVOLT® and weighs less than 1 lb. Compatible with any RED V-Lock battery expander or module (V-LOCK Battery Module, V-LOCK I/O Expander).

Use the RED BRICK Charger to charge the REDVOLT-V before using the REDVOLT-V for the first time. For more information, go to "RED BRICK Charger" on page 71.

NOTE: REDVOLT-V batteries require a RED BRICK Charger to recharge the battery.

NOTE: A DSMC2 V-Lock I/O Expander, Battery Belt Clip, RED Quickplate, RED Cradle, DSMC2 V-Lock Battery Module, or DSMC2 Production Module (V-Lock) is required to use a REDVOLT-V battery with DSMC2 cameras. The RED Quickplate and RED Cradle require a 2B-to-1B Power Adaptor Cable.

REDVOLT-V PERFORMANCE

The following table provides operational data on REDVOLT-V battery usage and charging times.

BATTERY	NOMINAL ENERGY	RUN TIME	CHARGE TIME (80%)	CHARGE TIME (FULL)
REDVOLT-V	43 Wh	35 min	60 min	110 min

REDVOLT-V LED ARRAY

The REDVOLT-V battery LED array consists of three (3) LEDs and a status button. Press the status button to illuminate the LEDs, displaying the remaining battery charge level in 33% steps.

LED PATTERN	DESCRIPTION
Three (3) LEDs are on	71% to 100% capacity remaining
Two (2) LEDs are on	41% to 70% capacity remaining
One (1) LED is on	11% to 40% capacity remaining
One (1) LED flashes for three (3) seconds	0% to 10% capacity remaining
The two (2) outside LEDs flash for three (3) seconds	Battery error[1]
Three (3) LEDs are off	Battery is discharged and requires charging

1. To resolve the error, charge the battery. If you still receive the error after charging the battery, submit a Support ticket at https://support.red.com.

BASIC BATTERY OPERATIONS

This section describes the basic battery operations of REDVOLT, REDVOLT-V™, REDVOLT XL, and RED BRICK® batteries.

NOTE: A DSMC2 REDVOLT XL Module is required to use a REDVOLT XL battery with DSMC2 cameras.

NOTE: A DSMC2 V-Lock I/O Expander, Battery Belt Clip, RED Quickplate, RED Cradle, DSMC2 V-Lock Battery Module, or DSMC2 Production Module (V-Lock) is required to use a RED BRICK battery with DSMC2 cameras. The RED Quickplate and RED Cradle require a 2B-to-1B Power Adaptor Cable.

NOTE: A DSMC2 V-Lock I/O Expander, DSMC2 V-Lock Battery Module, or DSMC2 Production Module (V-Lock) is required to use a REDVOLT-V battery with DSMC2 cameras.

BATTERY DISCHARGE PROTECTION

REDVOLT, REDVOLT-V, REDVOLT XL, and RED BRICK batteries are equipped with discharge protection and shut off if output voltage falls below 10 V. Lithium-ion batteries self-discharge over time. Charging the battery restores the lost charge. For more information, go to "Battery Storage and Handling" on page 6.

PERFORM A FULL CHARGE

RED recommends that you perform a full charge, also known as a deep charge, at least once every 10 battery charge cycles. A full charge consists of discharging a battery completely, and then recharging it to maximum capacity. Performing a full charge helps maintain maximum battery capacity and calibrates sensors to provide accurate capacity readout information.

To perform a full charge, follow the instructions below:

1. Completely discharge the battery.
2. Connect the appropriate RED charger to a standard wall outlet or other sufficient power source.
3. Insert the discharged battery into the charger.
4. Charge the battery until the LED indicator turns green, signalling a fully charged battery.
5. Remove the battery from the charger. DO NOT overcharge for extended periods of time.

BATTERY STORAGE

When not in use, remove the battery from the camera or charger and store the battery in a cool, dry place. Avoid storage areas with fluctuating temperatures, extreme hot or cold temperatures, corrosive gas, and direct sunlight. The optimal storage temperature for batteries is between –20°C to 20°C (–4°F to 68°F). For more information, go to "Battery Storage and Handling" on page 6.

Lithium-Ion batteries, like the REDVOLT, REDVOLT-V, REDVOLT XL, and RED BRICK, self-discharge over time. Prior to storing for long periods of time, charge batteries to a capacity level of 40% to 60%. Use the LED indicator array on the batteries to ensure the level of charge is between 40% to 60%. Press the battery status button next to the LEDs to display the battery charge level. Verify that two (2) LEDs are illuminated on the REDVOLT, REDVOLT-V, REDVOLT XL, or three (3) to four (4) LEDs are illuminated on a RED BRICK.

For long term storage over six (6) months, 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%.

CHAPTER 5:
RED CHARGERS

RED chargers are used to charge REDVOLT, REDVOLT XL, and RED BRICK lithium-ion batteries.

RED battery charger options include:

ITEM	PART NUMBER	DETAILS
REDVOLT Travel Charger	790-0134	"REDVOLT Travel Charger" below
REDVOLT Charger (Quad)	740-0015	"REDVOLT Charger (Quad)" on the next page
RED BRICK Charger	740-0006	"RED BRICK Charger" on page 71
DSMC2 REDVOLT Expander	720-0040	"DSMC2 REDVOLT Expander" on page 74

WARNING: Read and adhere to all of the safety information here: "Safety Instructions" on page 5.

NOTE: The REDVOLT XL Module can also serve as a charger when used with the REDVOLT XL Module base.

REDVOLT TRAVEL CHARGER

Figure: REDVOLT Travel Charger

The REDVOLT Travel Charger is a compact and portable charger designed to charge a single REDVOLT lithium-ion battery. The charger times out automatically after 105 minutes if the battery does not reach a full charge.

The REDVOLT Travel Charger stops charging automatically if battery temperature exceeds 40°C (104°F), or drops below 0°C (32°F).

REDVOLT TRAVEL CHARGER LED INDICATOR

The REDVOLT Travel Charger LED indicator displays a specific color and pattern indicating the state of charge.

COLOR PATTERN	DESCRIPTION
Green	Charger on, battery fully charged
Green/Red flashing (alternating)	Charger on, fail condition
Amber flashing	Charger on, battery connected and charging
Red	Charger on, no battery connected

RECHARGE A REDVOLT BATTERY

1. Connect the REDVOLT Travel Charger to 100–240 VAC, 50/60 Hz power outlet.
2. Lower the REDVOLT directly onto the charger.
3. Apply pressure until an audible click is heard and the battery is fully seated.

   WARNING: DO NOT insert a REDVOLT at an angle or connector side first. This may cause damage the battery connector or charger.
4. Charge the battery until the LED indicator turns green, signalling a fully charged battery.
5. Remove the battery from the charger.

REDVOLT CHARGER (QUAD)

Figure: REDVOLT Charger (Quad)

The REDVOLT Charger (Quad) is the fastest way to charge up to four REDVOLT or two REDVOLT XL batteries. All batteries charge simultaneously, with up to 1.75 A distributed evenly to each cell until fully charged. The REDVOLT Charger (Quad) can charge multiple REDVOLT or REDVOLT XL batteries in two (2) hours or less.

NOTE: The REDVOLT Charger (Quad) stops charging automatically if battery temperature exceeds 40°C (104°F), or drops below 0°C (32°F).

REDVOLT CHARGER (QUAD) LED INDICATORS

The light on the REDVOLT Travel Charger displays a specific color and pattern indicating the state of charge.

COLOR PATTERN	DESCRIPTION
Green	Charger on, battery fully charged
Green/Red flashing (alternating)	Charger on, fail condition
Amber flashing	Charger on, battery connected and charging

RECHARGE REDVOLT BATTERIES

1. Connect the REDVOLT Charger (Quad) to a 100–240 VAC, 50/60 Hz power outlet.
2. Insert REDVOLT or REDVOLT XL battery into the charging bay.
3. Apply pressure until you hear a click to ensure the battery is fully seated.
4. Charge the battery until the LED indicator turns green, signalling a fully charged battery.
5. Press the **Eject** button on the desired battery charging bay(s) and remove the battery.
   - **REDVOLT**: Press the **Eject** button to eject the battery.
   - **REDVOLT XL**: Press both **Eject** buttons to eject the battery.

RED BRICK CHARGER

Figure: RED BRICK Charger

The RED BRICK Charger offers rechargeable support for RED BRICK (153 Wh) and REDVOLT-V (43 Wh) lithium-ion batteries. The RED BRICK Charger provides up to 4.75 A in constant current mode. The RED BRICK Charger charges two (2) attached RED BRICK batteries sequentially in approximately six (6) to eight (8) hours. The RED BRICK Charger charges (2) attached REDVOLT-V batteries sequentially in approximately two (2) to four (4) hours. The RED BRICK Charger can charge one (1) fully discharged RED BRICK in approximately three (3) hours and one (1) fully discharged REDVOLT-V in approximately two (2) hours.

The RED BRICK Charger also serves as a power supply using the 6-pin 0B auxiliary output port.

WARNING: DO NOT exceed 100 W power draw from the 6-pin 0B auxiliary output port.

NOTE: The RED BRICK Charger stops charging automatically if battery temperature exceeds 40°C (104°F), or drops below 0°C (32°F).

PREPARE THE RED BRICK CHARGER

When the RED BRICK Charger is brand new, it may be difficult to connect and disconnect the V-plate adaptor on the RED BRICK or REDVOLT-V. RED recommends that you perform a break-in sequence with a new RED BRICK Charger. Before charging a RED BRICK or REDVOLT-V in the charger, fully engage and then disengage the RED BRICK or REDVOLT-V approximately 20 times.

RED BRICK CHARGER CONNECTIONS AND FEATURES

Figure: RED BRICK Charger

#	CONNECTOR/FEATURE	DESCRIPTION
1	Carrying handle	Robust carrying handle
2	Battery charging LEDs	Indicates battery charge state
3	Auxiliary port LED	Indicates auxiliary connection state
4	LCD/EVF auxiliary port	13.8 V/100 W
5	Power switch	Toggles power to the charger on/off
6	DC input	22 V/5 A Max
7	Battery release	Eject battery from charger
8	Ventilation	Provides airflow to cool internal components
9	Battery contact connector	RED BRICK or REDVOLT-V seating connector
10	AC main input	IEC power cable in
11	Rotating support foot	90° rotation for balanced free-standing operation with batteries connected

RED BRICK CHARGER LED INDICATORS

COLOR PATTERN	DESCRIPTION
Green	Charger on, battery fully charged
Green flashing (1 second interval)	Charger on, battery waiting to charge
Green/Amber flashing (alternating)	Charger on, battery almost fully charged
Amber	Charger on, battery charging
Amber flashing	Charger on, battery charging (pre-charge)
Red/Green flashing (alternating)	Charger on, fail condition
Red	Charger on, battery charging failure
Red flashing (0.5 second interval)	Charger on, battery charging (low voltage)
Red flashing with pause	Charger on, battery charging paused

RECHARGE RED BRICKS

1. Connect the RED BRICK Charger to a 100–240 VAC, 50/60 Hz power outlet.
2. Turn on the RED BRICK Charger using the power switch.
3. Align and lower the RED BRICK or REDVOLT-V into the V-plate adaptor.
4. Charge the battery until the LED indicator turns green, signalling a fully charged battery.
5. Press the release tab and remove the battery by pulling it up and off of the RED BRICK Charger.

NOTE: When a 6-pin 0B is connected to the auxiliary power output, the charging process is suspended. The auxiliary LED illuminates and the battery LEDs on the charger flashes green. Once the cable is unplugged, the RED BRICK Charger resumes charging.

DSMC2 REDVOLT EXPANDER

Figure: DSMC2 REDVOLT Expander

DSMC2 REDVOLT EXPANDER LED INDICATOR

The DSMC2® REDVOLT Expander LED indicator displays a specific color and pattern indicating the state of charge.

COLOR PATTERN	DESCRIPTION
Off	No battery
Green	Battery fully charged
Green flashing	Battery connected and charging
Green/Red flashing (alternating)	Fail condition
Green/Red flash	Power ON LED Test
Red	Battery discharge alert

CHAPTER 6:

POWER ADAPTORS, CABLES, AND ACCESSORIES

RED® power adaptors, cables, and accessories are hand-made and expertly crafted to the highest standards. RED performance cables feature robust industry-standard LCD/EVF connectors, and are available in a variety of connector sizes and lengths to support displays, modules, and other camera accessories.

RED cables, adaptors, and accessories include:

ITEM	COMPATIBILITY	PART NUMBER	DETAILS
DSMC AC Power Adaptor	EPIC, SCARLET, DSMC2	740-0025, 740-0042, 740-0047	"DSMC AC Power Adaptor" on the next page
RED Cradle	EPIC, SCARLET	790-0007	"RED Cradle" on the next page
RED Quickplate	EPIC, SCARLET	790-0008	"RED Quickplate" on page 77
Battery Belt Clip (DSMC)	EPIC, SCARLET, DSMC2	790-0291	"Battery Belt Clip (DSMC)" on page 77
EVF/LCD Cables	EPIC, SCARLET, DSMC2	Many	"EVF/LCD Cables" on page 78
4-pin to 2-pin Adaptor Cable	EPIC, SCARLET	790-0334	"4-Pin to 2-Pin Adaptor Cable" on page 79
2-Pin 1B-to-Flying Lead Cable	EPIC, SCARLET	790-0366	"2-Pin 1B-to-Flying Lead Cable" on page 79
2B-to-1B Power Adaptor Cable[1]	EPIC, SCARLET, DSMC2	790-0138	"2B-to-1B Power Adaptor Cable" on page 79
Pro I/O Aux Power Out + GPIO Cable (6')	EPIC, SCARLET	790-0209	"Pro I/O Aux Power Out + GPIO Cable (6')" on page 80
XLR Power Cable (10')	EPIC, SCARLET, DSMC2	790-0164, 790-0646	"XLR Power Cable" on page 80
XLR Power Cable (30")	EPIC, SCARLET, DSMC2	790-0165, 790-0647	"XLR Power Cable" on page 80
RED 2B-To-1B Power Cable (10')	EPIC, SCARLET, DSMC2	790-0556, 790-0654	"RED 2B-To-1B Power Cable (10')" on page 79

1. While this cable is compatible with DSMC2 cameras, RED does not recommend using it with these cameras. If using the RED BRICK Charger, use the RED 2B-To-1B Power Cable instead.

POWER ADAPTORS AND ACCESSORIES

This section describes power accessories that provide external power options for the camera system.

DSMC AC POWER ADAPTOR

Figure: DSMC AC Power Adaptor

The DSMC® AC Power Adaptor provides a maximum sustained power load of 150 W (15 V at 10 A) for continuous shooting. An industry-standard 1B LCD/EVF connector attaches directly to the DSMC BRAIN®.

The output of the DSMC AC Power Adaptor is overcurrent protected, and the adaptor shuts down if an excess load condition occurs. If the output trips for any reason, remove any external loads from the camera (such as lights, motors, etc) and unplug the adaptor.

NOTE: The DSMC AC Power Adaptor is compatible with DSMC2® cameras.

RED CRADLE

Figure: RED Cradle

The RED Cradle enables you to simultaneously mount a RED BRICK and RED DRIVE or RED RAM.

NOTE: Requires a 2B-to-1B Power Adaptor Cable for use with the camera.

NOTE: The RED Cradle is compatible with DSMC2 cameras.

RED QUICKPLATE

Figure: RED Quickplate

The RED Quickplate provides a reliable solution for powering the camera with a RED BRICK.

NOTE: Requires a 2B-to-1B Power Adaptor Cable for use with the camera.

NOTE: The RED Quickplate is compatible with DSMC2 cameras.

BATTERY BELT CLIP (DSMC)

Figure: Battery Belt Clip (DSMC)

The Battery Belt Clip (DSMC) provides a portable power solution for lightweight hand-held configurations. The attached power cable with a 6-pin 1B DC-IN connector allows you to plug directly into the BRAIN DC IN port, without the use of a 2B-to-1B Power Adaptor Cable.

NOTE: The Battery Belt Clip (DSMC) is compatible with DSMC2 cameras.

RED CABLES

RED cables and accessories provide solutions for video monitoring, audio, and power supply requirements.

EVF/LCD CABLES

Figure: EVF/LCD Cable (18")

EVF/LCD Cables are high quality cables with industry-standard LCD/EVF connectors. They provide a clean video feed and power source from the EVF/LCD port on the BRAIN to an EVF or LCD display. EVF/LCD cables are available in straight or right angle connector options.

NOTE: These EVF/LCD cables are compatible with EPIC/SCARLET and DSMC2 cameras. The DSMC2 LCD/EVF Adaptor A is required to use these EVF/LDC cables with DSMC2 cameras.

RED offers the following EVF/LCD Cables:

ITEM	PART NUMBER
EVF Cable (6')	790-0052
EVF Cable (10')	790-0053
LCD Cable (6')	790-0055
LCD Cable (10')	790-0056
LCD/EVF Cable (18")	790-0151, 790-0641
LCD/EVF Cable (18", Right-to-Straight)	790-0153, 790-0642
LCD/EVF Cable (24", Right-to-Straight)	790-0451, 790-0651
LCD/EVF Cable (4', Right-to-Straight)	790-0161, 790-0644
LCD/EVF Cable (7", Right-to-Right)	790-0158
LCD/EVF Cable (12", Right-to-Right)	790-0162, 790-0645
LCD/EVF Cable (18", Right-to-Right)	790-0448, 790-0649
LCD/EVF Cable (32", Right-to-Right)	790-0449, 790-0650

4-PIN TO 2-PIN ADAPTOR CABLE

Figure: 4-Pin to 2-Pin Adaptor Cable

The 4-Pin to 2-Pin Adaptor Cable enables you to power 2-pin based accessories from the +1 Adaptor Module or Pro I/O Module.

NOTE: The 4-Pin to 2-Pin Adaptor Cable is compatible with EPIC and SCARLET cameras.

2-PIN 1B-TO-FLYING LEAD CABLE

The 2-Pin 1B-to-Flying Lead Cable provides a 1B LCD/EVF connector and flying leads for custom cable creation. Create a custom cable for powering camera accessories using 1B 12 V ports available on DSMC modules.

NOTE: The 2-Pin 1B-to-Flying Lead Cable is compatible with EPIC and SCARLET cameras.

2B-TO-1B POWER ADAPTOR CABLE

The 2B-to-1B Power Adaptor Cable enables support for RED ONE® power accessories that use 2B connectors.

NOTE: The 2B-to-1B Adaptor Cable is compatible with DSMC2 cameras.

RED 2B-TO-1B POWER CABLE (10')

The RED 2B-To-1B Power Cable (10') is a high-quality cable for powering your DSMC or DSMC2® camera from a RED BRICK Charger.

NOTE: The RED 2B-To-1B Power Cable is compatible with EPIC, SCARLET, and DSMC2 cameras.

PRO I/O AUX POWER OUT + GPIO CABLE (6')

Figure: Pro I/O Aux Power Out + GPIO Cable (6')

The Pro I/O Aux Power Out + GPIO Cable (6') connects to the 4-pin GPIO port and/or 4-pin PWR port on the Pro I/O Module. The Pro I/O Aux Power Out + GPIO Cable (6') cable allows you to remotely trigger the camera from an external device and/or provide unregulated +11 VDC to +17 VDC battery power to an external device.

WARNING: DO NOT attempt to make your own Pro I/O Aux Power Out + GPIO Cable.

NOTE: The Pro I/O Aux Power Out + GPIO Cable is compatible with EPIC and SCARLET cameras.

XLR POWER CABLE

Figure: XLR Power Cable

The XLR Power Cable enables you to power the camera from a 4-pin XLR power source. The XLR Power Cable is available in 30" or 10' lengths.

NOTE: The XLR Power Cable is compatible with EPIC, SCARLET, and DSMC2 cameras.

CHAPTER 7:

TROUBLESHOOT CAMERA POWER

RED BATTERIES AND CHARGERS

This section provides general troubleshooting information for DSMC® power-related products. For more information, see the RED Support page, available at https://support.red.com/home.

BATTERY DOES NOT FULLY CHARGE

In some cases, batteries may not fully charge. If you performed a typical full charge with a RED® charger and the battery does not fully charge, follow the instructions below:

1. Connect the battery to the charger again to perform a “top-off” charge.
2. If the problem persists, try charging the battery with a different RED charger. This helps to determine if the problem is with the RED charger.
3. If the problem still persists, there is a chance that the battery is degrading and losing some of its charge capacity. This is characteristic of all lithium-ion batteries.

NOTE: For more information, see our Terms and Conditions, available at www.red.com/terms-and-conditions, or submit a Support ticket at https://support.red.com.

POWER IS INTERRUPTED WITH THE RED CHARGER

If the RED Charger loses power when bumped or moved, follow these steps:

1. Remove and reinstall the battery into the V-plate adaptor and ensure battery fully engages.
2. Ensure the V-lock holds the battery securely and you hear a click when the battery is installed.
3. Check battery terminal connections. If any are damaged, submit a Support ticket at https://support.red.com.

INTERMITTENT POWER OR POWER FAILURE

If you are experiencing intermittent power or power failure with a module or accessory, ensure that sufficient power is supplied for all attachments. Follow these steps for further troubleshooting:

- Ensure all connectors are securely seated.
- Check for potential damage or fraying to any connected power cables.
- Connect your camera to a sufficient power source using the DSMC AC Power Adaptor to ensure that there is not a hardware malfunction.

POWER-RELATED ISSUES

LCD BLANK AT STARTUP

SYMPTOM

When you turn on the camera, the LCD does not show any image.

POTENTIAL RESOLUTIONS

- Turn off the camera. Wait at least three (3) seconds, and then turn the camera back on.

APPENDIX A:
TECHNICAL SPECIFICATIONS

EPIC/SCARLET POWER MODULES

This section provides the technical specifications for EPIC/SCARLET® power modules.

DSMC SIDE HANDLE

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.96" (126 mm) Width: 2.76" (70 mm) Depth: 3.31" (84 mm)
Weight	Approximately 1.01 lbs (458 g), Module only
Construction	Aluminum Alloy
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)

MODULE ADAPTOR

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.29" (109 mm) Width: 3.54" (90 mm) Depth: 0.87" (22 mm)
Weight	Approximately 0.61 lbs (278 g), Module only
Construction	Aluminum Alloy
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)

+1 ADAPTOR MODULE

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.29" (109 mm) Width: 3.54" (90 mm) Depth: 0.87" (22 mm)
Weight	Approximately 0.75 lbs (349 g), Module only
Construction	Aluminum Alloy
Operating Temperature	0°C to 40°C (32 to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Connectors	RED® EVF/LCD
	PWR (4-pin 0B), 2.0 Amp continuous load at 11.5-17 VDC
Firmware Requirement	DSMC firmware v4.0.8 or later

WARNING: DO NOT use the EVF/LCD port on the +1 Adaptor Module if a Pro I/O Module is connected to the DSMC® BRAIN®.

PRO BATTERY MODULE (DUAL)

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.29" (109 mm) Width: 3.86" (98 mm) Depth: 2.65" (67 mm)
Weight	Approximately 1.21 lbs (549 g), Module only
Construction	Aluminum Alloy
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)

PRO BATTERY MODULE (QUAD)

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.29" (109 mm) Width: 3.86" (98 mm) Depth: 4.35" (111 mm)
Weight	Approximately 1.65 lbs (748 g), Module only
Construction	Aluminum Alloy
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)

REDVOLT XL MODULE

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.29" (109 mm) Width: 4.41" (112 mm) Depth: 1.52" (39 mm)
Weight	Approximately 0.94 lbs (425 g), Module only
Construction	Aluminum Alloy
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Connectors	CHARGE IN (6-pin 1B DC-IN)
	AUX POWER OUT (2-pin 0B)
Firmware Requirement	DSMC firmware v5.1.29 or later

QUICKPLATE MODULE

SPECIFICAITON	DESCRIPTION
Dimensions	Height: 4.29" (109 mm) Width: 4.41" (112 mm) Depth: 1.52" (39 mm)
Weight	Approximately 0.70 lbs (317 g), Module only
Construction	Aluminum Alloy
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Connectors	AUX 1 (2-pin 0B)
	AUX 2 (2-pin 0B)
Firmware Requirement	DSMC firmware v5.1.14 or later

BACKPACK QUICKPLATE (SHORT) MODULE

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.29" (109 mm) Width: 3.54" (90 mm) Depth: 1.28" (33 mm)
Weight	Approximately 0.82 lbs (371 g), Module only
Construction	Aluminum Alloy
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Connectors	AUX 1 (2-pin 0B)
	AUX 2 (2-pin 0B)

DSMC2 POWER MODULES

This section provides the technical specifications for DSMC2® power modules.

DSMC2 REDVOLT XL MODULE

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.69" (119 mm) Width: 4.09" (103.8 mm) Depth: 1.69" (43 mm)
Weight	1.00 lbs (453 g)
Material	Aluminum
Mounting	4x M4 captive mounting screws
BRAIN/Expander Connection	Power delivery via DSMC2 Rear pogo connector (13-Pin)
Battery Compatibility	REDVOLT XL
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Operating Humidity	0% to 85%, non-condensing
Storage Humidity	0% to 85%, non-condensing
Firmware Requirement	Compatible with all DSMC2 firmware versions

DSMC2 V-LOCK BATTERY MODULE

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.57" (116.0 mm) Width: 4.06" (103.1 mm) Depth: 1.51" (38.3 mm)
Weight	0.824 lbs (374 g)
Material	Aluminum Alloy
BRAIN Mounting	4x M4 captive mounting screws
BRAIN Connections	Power delivery via rear pogo connector (13-Pin)
Connectors	DC IN (6-Pin 1B DC-IN socket)
	P-Tap Aux Power output (2-Pin), 3.8 A shared
	Aux Power output (2-Pin 0B), 3.8 A shared
Battery Compatibility	RED BRICK, REDVOLT-V®, and other standard V-Lock batteries
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Firmware Requirement	Compatible with all DSMC2 firmware v6.3.102 or later

DSMC2 GOLD MOUNT BATTERY MODULE

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.57" (116.0 mm) Width: 4.06" (103.2 mm) Depth: 1.16" (29.4 mm)
Weight	0.674 lbs (306 g)
Material	Aluminum Alloy
BRAIN Mounting	4x M4 captive mounting screws
BRAIN Connections	Power delivery via rear pogo connector (13-Pin)
Connectors	DC IN (6-Pin 1B DC-IN socket)
	P-Tap Aux Power output (2-Pin), 3.8 A shared
	Aux Power output (2-Pin 0B), 3.8 A shared
Battery Compatibility	Standard Gold Mount batteries
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Firmware Requirement	Compatible with all DSMC2 firmware v6.3.102 or later

DSMC2 PRODUCTION MODULE (V-LOCK)

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.57" (116.0 mm) Width: 5.38" (136.7 mm) Depth: 3.42" (86.8 mm)
Weight	2.0 lbs (907.2 g)
Material	Aluminum Alloy
BRAIN Mounting	4x M4 captive mounting screws
BRAIN Connections	Power delivery via rear pogo connector (13-Pin)
	Communication via Rear I/O connector (4x40 Pin)
Connectors	2x 3G-SDI outputs (75 Ω BNC), 60 Hz max frame rate
	Monitor output (75 Ω BNC), 60 Hz max frame rate
	2x 24V Aux Power/Remote Start/Stop Outputs (3-Pin Fischer), 2.5 A Shared
	Aux Power output (2-Pin 0B), 3.0 A
	Aux Power output (2-Pin P-Tap), 3.0 A
	DC IN (6-Pin 1B socket)
	2x Balanced Audio inputs (3-Pin, full size XLR female)
	Stereo Headphone output (3.5 mm jack)
	Timecode input/output (5-Pin 0B)
	Genlock input (75 Ω BNC)
	Gigabit Ethernet input/output (9-Pin 0B)
	CTRL (Tally OUT / RS-232 Rx and Tx) (4-Pin 00B)
	USB Power output (Type A socket), 1.5A
Auto Boot on Power	2-position slider switch
Audio	Dual 3-pin XLRs with preamplifiers, uncompressed, 24-bit, 48 KHz Input Formats: Balanced Line, Balanced Mic (w/o Phantom Power), Balanced Mic (w/ 48V Phantom Power)
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Operating Humidity	0% to 85%, non-condensing
Storage Humidity	0% to 85%, non-condensing
Firmware Requirement	Compatible with all DSMC2 firmware v7.2 or later.

DSMC2 PRODUCTION MODULE (GOLD MOUNT)

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.6" (116.0 mm) Width: 5.6" (142.2 mm) Depth: 3.7" (93.0 mm)
Weight	2.0 lbs (907.2 g)
Material	Aluminum Alloy
BRAIN Mounting	4x M4 captive mounting screws
BRAIN Connections	Power delivery via rear pogo connector (13-Pin)
	Communication via Rear I/O connector (4x40 Pin)
Connectors	2x 3G-SDI outputs (75 Ω BNC), 60 Hz max frame rate
	Monitor output (75 Ω BNC), 60 Hz max frame rate
	2x 24V Aux Power/Remote Start/Stop Outputs (3-Pin Fischer), 2.5 A Shared
	Aux Power output (2-Pin 0B), 3.0 A
	Aux Power output (2-Pin P-Tap), 3.0 A
	DC IN (6-Pin 1B socket)
	2x Balanced Audio inputs (3-Pin, full size XLR female)
	Stereo Headphone output (3.5 mm jack)
	Timecode input/output (5-Pin 0B)
	Genlock input (75 Ω BNC)
	Gigabit Ethernet input/output (9-Pin 0B)
	CTRL (Tally OUT / RS-232 Rx and Tx) (4-Pin 00B)
	USB Power output (Type A socket), 1.5A
Auto Boot on Power	2-position slider switch
Audio	Dual 3-pin XLRs with preamplifiers, uncompressed, 24-bit, 48 KHz Input Formats: Balanced Line, Balanced Mic (w/o Phantom Power), Balanced Mic (w/ 48V Phantom Power)
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Operating Humidity	0% to 85%, non-condensing
Storage Humidity	0% to 85%, non-condensing
Firmware Requirement	Compatible with all DSMC2 firmware v7.2.4 or later.

RED BATTERIES

This section describes the technical specifications for RED batteries.

REDVOLT

SPECIFICATION	DESCRIPTION
Dimensions	Height: 3.21" (82 mm) Width: 1.67" (43 mm) Depth: 1.68" (43 mm)
Weight	Approximately 0.55 lbs (249 g)
Battery Type	Rechargeable Lithium-ion Battery
Battery Capacity	37 Wh / 250 mAh
Nominal Voltage	14.8 VDC
Operating Temperature	5°C to 40°C (32°F to 104°F)
Charging Temperature[1]	5°C to 45°C (32°F to 113°F)
Storage Temperature[2]	–20°C to 20°C (–4°F to 68°F)
Charger Compatibility	REDVOLT® Travel Charger, REDVOLT Charger (Quad)

1. Temperature stated above is optimal. Batteries continue to charge up to 50°C (122°F). If batteries become too hot during charging, they will stop charging until they have returned to an acceptable temperature <45°C (<113°F).
2. Temperature stated above is optimal and recommended for long periods of storage. Batteries may be stored at temperatures between –20°C to 40°C (–4°F to 104°F) for shorter periods of time, with little to no extra negative effect.

REDVOLT XL

SPECIFICATION	DESCRIPTION
Dimensions	Height: 3.22" (82 mm) Width: 3.38" (86 mm) Depth: 2.55" (65 mm)
Weight	Approximately 1.57 lbs (712 g)
Battery Type	Rechargeable Lithium-ion Battery
Battery Capacity	89 Wh / 6150 mAh
Output Voltage	14.4 VDC
Operating Temperature	0°C to 40°C (32°F to 104°F)
Charging Temperature[1]	0°C to 45°C (32°F to 113°F)
Storage Temperature[2]	–20°C to 20°C (–4°F to 68°F)
Charger Compatibility	REDVOLT Charger (Quad), REDVOLT XL Module, DSMC2 REDVOLT XL Module

1. Temperature stated above is optimal. Batteries continue to charge up to 50°C (122°F). If batteries become too hot during charging, they will stop charging until they have returned to an acceptable temperature <45°C (<113°F).
2. Temperature stated above is optimal and recommended for long periods of storage. Batteries may be stored at temperatures between –20°C to 40°C (–4°F to 104°F) for shorter periods of time, with little to no extra negative effect.

RED BRICK

SPECIFICATION	DESCRIPTION
Dimensions	Height: 6.46" (166 mm) Width: 3.54" (90 mm) Depth: 2.05" (52 mm)
Weight	Approximately 2.29 lbs (1,038 g)
Battery Type	Rechargeable Lithium-ion Battery
Battery Capacity	153 Wh / 10.4 Ah
Output Voltage	14.8 VDC
Operating Temperature	0°C to 40°C (32°F to 104°F)
Charging Temperature[1]	0°C to 45°C (32°F to 113°F)
Storage Temperature[2]	–20°C to 50°C (–4°F to 122°F)
Charger Compatibility	RED BRICK Charger, DSMC2 V-Lock Battery Module

1. Temperature stated above is optimal. Batteries continue to charge up to 50°C (122°F). If batteries become too hot during charging, they will stop charging until they have returned to an acceptable temperature <45°C (<113°F).
2. Temperature stated above is optimal and recommended for long periods of storage. Batteries may be stored at temperatures between –20°C to 40°C (–4°F to 104°F) for shorter periods of time, with little to no extra negative effect.

REDVOLT-V

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.29" (109mm) Width: 3.54" (90mm) Depth: 1.18" (30mm)
Weight	Approximately .81 lbs (367g)
Battery Type	Rechargeable Lithium-ion Battery
Battery Capacity	43 Wh / 3,000 mAh
Output Voltage	14.4 VDC
Operating Temperature	0°C to 40°C (32°F to 104°F)
Charging Temperature[1]	0°C to 45°C (32°F to 113°F)
Storage Temperature[2]	–20°C to 50°C (–4°F to 122°F)
Charger Compatibility	RED BRICK Charger, DSMC2 V-Lock Battery Module

1. Temperature stated above is optimal. Batteries continue to charge up to 50°C (122°F). If batteries become too hot during charging, they will stop charging until they have returned to an acceptable temperature <45°C (<113°F).
2. Temperature stated above is optimal and recommended for long periods of storage. Batteries may be stored at temperatures between –20°C to 40°C (–4°F to 104°F) for shorter periods of time, with little to no extra negative effect.

RED CHARGERS

This section describes the technical specifications for RED chargers.

REDVOLT TRAVEL CHARGER

SPECIFICATION	DESCRIPTION
Dimensions	Height: 4.29" (109 mm) Width: 4.41" (112 mm) Depth: 1.52" (39 mm)
Weight	Approximately 0.48 lbs (218 g), Charger only
Power Supply	100-240 V, .8 A , 50-60 Hz
Power Output	16.8 V, 1.25 A
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Compatibility	REDVOLT

REDVOLT CHARGER (QUAD)

SPECIFICATION	DESCRIPTION
Dimensions	Height: 6.38" (162 mm) Width: 4.00" (102 mm) Depth: 1.52" (137 mm)
Weight	Approximately 4.68 lbs (2,125 g), Charger only
Power Supply	90-264 V, 2.0 A, 47-63 Hz
Power Output	16.8 V, 4.5 A
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Compatibility	REDVOLT, REDVOLT XL

RED BRICK CHARGER

SPECIFICATION	DESCRIPTION
Dimensions	Height: 10.25" (260 mm) Width: 3.20" (81 mm) Depth: 5.25" (133 mm)
Weight	Approximately 2.56 lbs (1,163 g), Charger only
Auxiliary Power Output	13.8 V, 100 W (max)
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	–20°C to 50°C (–4°F to 122°F)
Compatibility	RED BRICK, REDVOLT-V

APPENDIX B:

EPIC/SCARLET MODULE COMPATIBILITY

This chapter provides information on EPIC/SCARLET® module types, mounting priority, module restrictions, and compatibility.

EPIC/SCARLET MODULE TYPES AND PRIORITY

Attach modules to the EPIC/SCARLET BRAIN® in the order outlined below to optimize power distribution, cable position, and access to batteries, media, and controls.

Figure: DSMC Module Priority

Attach modules to the back of the BRAIN in the following order:

1. **Adaptor Modules**: The +1 Adaptor Module or Module Adaptor provide support for other modules.
2. **Battery Modules**: The Pro Battery Module (Dual), the Pro Battery Module (Quad), and the REDVOLT XL Module are examples of rear battery modules.
3. **Battery Modules**: The Pro Battery Module (Dual), the Pro Battery Module (Quad), and the REDVOLT XL Module are examples of rear battery modules.
4. **Media Modules**: The Rear SSD Module is the only rear mountable media module.
5. **Other Devices**: The Backpack Quickplate (Short) with Backpack Base Plate, R.C.P.™ Bridge, or REDMOTE.

PRO I/O MODULE

Figure: Module Adaptor and Pro I/O Module

When using a Pro I/O Module along with other EPIC/SCARLET modules, ensure that it is attached closest to the BRAIN, behind the Module Adaptor or +1 Adaptor Module. This improves access to cables, modules, and batteries, as well as ensuring proper power distribution.

WARNING: DO NOT use the EVF/LCD port on the +1 Adaptor Module if a Pro I/O Module is connected to the DSMC® BRAIN. The Pro I/O Module overrides the EVF/LCD and AUX power out ports when connected.

MODULE RESTRICTIONS

There are some restrictions when attaching multiple modules to the EPIC/SCARLET.

- DO NOT attach more than four (4) modules to the camera.
- DO NOT attach more than one (1) module per type.
- DO NOT connect more than one (1) power or battery module to the camera at a time. Backpack modules that provide power via the 6-pin 1B DC-IN power connector on the rear of the BRAIN are an exception.
- Follow any other module-specific requirements when attaching modules to the camera.

WARNING: It is important to read and understand the instructions for a module before you install and use it for the first time. Failure to comply with instructions may cause irreparable damage to your camera or equipment.

WARNING: Damage caused by a failure to comply with instructions and warnings is not covered under warranty.

NOTE: For more information about compatibility and restrictions, contact a Sales Representative.

MAXIMUM SUPPORTED MODULES

EPIC/SCARLET supports a maximum of four (4) modules at a time, or up to one (1) of each module type. A REDMOTE or other device may be attached at the rear of the camera configuration.

EPIC/SCARLET supports only one (1) rear battery module at a time. EPIC/SCARLET draws power from battery modules through the SEARAY™ connector. Attaching more than one (1) battery module may cause damage to the camera or other components. Backpack power modules are an exception to this rule. You may attach a backpack power module or other power source that provides input power via the 6-pin 1B DC-IN port on the BRAIN. This effectively enables support for a maximum of two (2) power sources from the rear camera configuration.

WARNING: DO NOT attach more than four (4) modules to the rear of the camera at any time. Attaching more than four (4) modules may cause power distribution problems or structural integrity issues such as: bowing, connector damage, or damage to the camera.

WARNING: DO NOT use more than one (1) battery module at a time. Using multiple battery modules may damage the camera and is not covered under warranty.

EPIC/SCARLET MODULE COMPATIBILITY MATRIX

DSMC MODULES	MODULE ADAPTOR	+1 ADAPTOR MODULE	PRO BATTERY MODULE (DUAL)	PRO BATTERY MODULE (QUAD)	BACKPACK QUICKPLATE	QUICKPLATE MODULE (SHORT)	REDVOLT XL MODULE	PRO I/O MODULE	REDMOTE
MODULE ADAPTOR	N/A	X	√	√	√	√	√	√	√
+1 ADAPTOR MODULE	X	N/A	√	√	√	√	√	√[1]	√
PRO BATTERY MODULE (DUAL)	√	√	N/A	X	√	√	X	√	√
PRO BATTERY MODULE (QUAD)	√	√	X	N/A	√	√	X	√	√
BACKPACK QUICKPLATE	√	√	√	√	N/A	√	√	√	X
QUICKPLATE MODULE (SHORT)	√	√	√	√	√	N/A	√	√	X
REDVOLT XL MODULE	√	√	X	X	√	√	N/A	√	X
PRO I/O MODULE	√	√[1]	√	√	√	√	√	N/A	√
REDMOTE	√	√	√	√	X	X	X	√	N/A

1. Only one (1) display out port is available at a time. DO NOT use the EVF/LCD port on the +1 Adaptor Module when supporting this configuration. Instead, use the provided EVF/LCD port on the Pro I/O Module.