QinFLOW

NO MORE COLD BLOOD & FLUIDS

Warrior lite

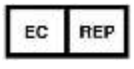
Blood and Fluid Warmer

Model QiF-03

Instructions for Use (IFU)

QIF-IFU00003-1 Rev. A8
June 2024

 Quality in Flow (QinFlow) Ltd. 23 Ha-Yetsira St. Petah Tikva Israel 4951251



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CE 0482

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Do not use the Warrior lite system before reviewing the training materials and carefully reading the following instructions for use (IFU)!

Training materials (IFU / Quick User Guide) are provided with the Warrior lite device and are also available on QinFlow's designated online resource drive for its distribution partners and end users. Scan QR Code.

Alternatively, browse to www.qinflow.com, select “Resources” and then “Customer Zone”. Follow instructions provided to gain access. Contact us at info@qinflow.com with any questions.

Training should follow the company’s written guidelines, which may be updated from time to time. It shall include careful review of the IFU. Demonstrations for training purposes shall be performed by a certified trainer. The company may release demonstration videos for training purposes.

Operating the Warrior lite device shall be done in accordance with the prevailing protocols in your organization.

Preamble: The Warrior Line of Blood & Fluid Warmers

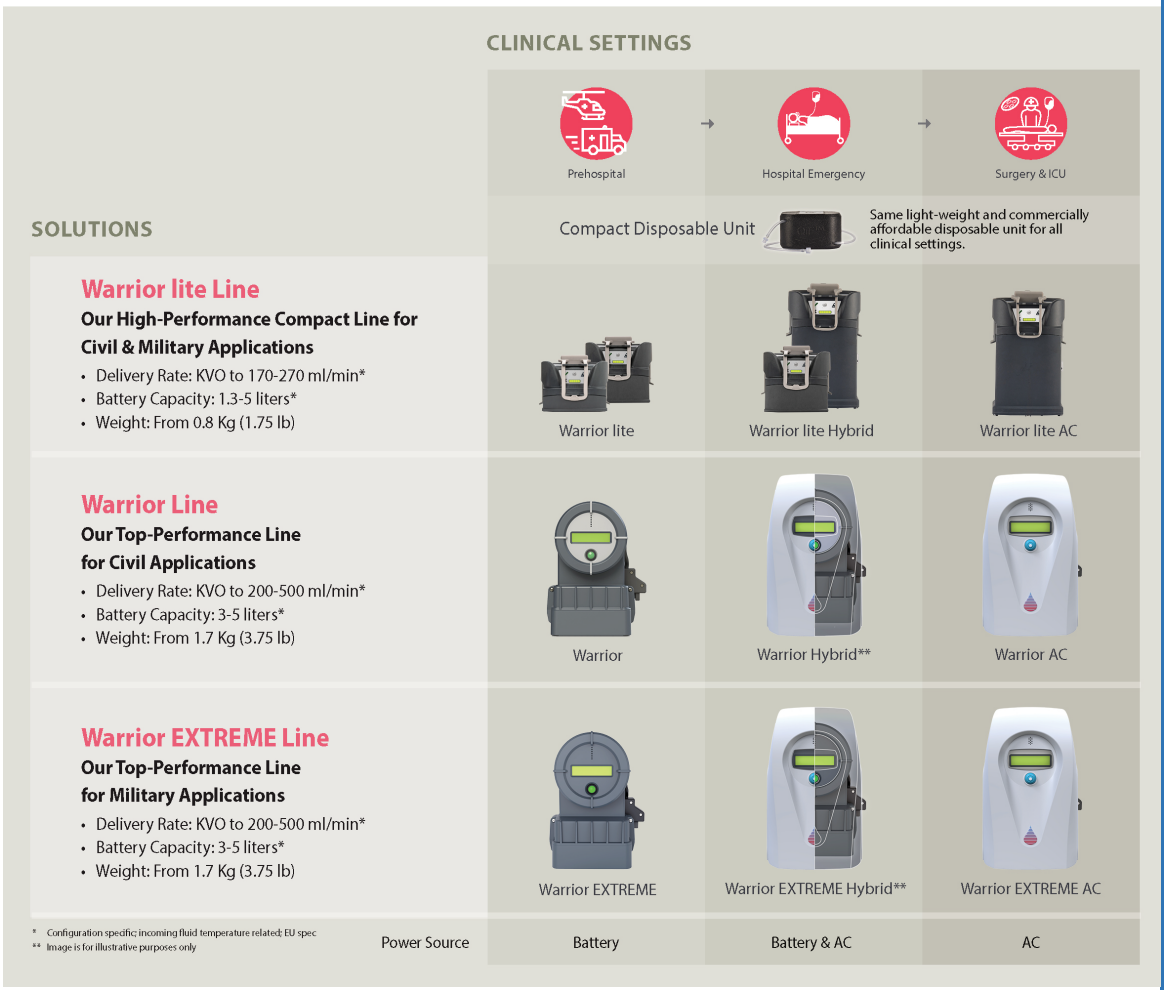


Figure 1. QinFlow Modular Product Lines

The Warrior line of products is composed of 3 sub product lines: (i) the **Warrior lite** line, (ii) the **Warrior** line, and (iii) the **Warrior EXTREME** line*. Each of these sub product line is offered in a battery-powered, AC-powered, and hybrid configurations (i.e. battery and AC power sources). Figure 1 below illustrates the various configurations. This IFU provides the guidelines for operating the various Warrior lite configurations.

The portable battery-powered **Warrior lite** is designed for space and weight constrained rescue gears at the point of injury or during critical care transports. For optimal operational fit, 2 battery options are offered: the small (aka "**lite**") battery and the large (aka "**Extra Power**") battery. The AC-operable Warrior lite, also known as **Warrior lite AC**, is designed primarily for Surgery and ICU departments, where portability is typically not demanded. When portability within the hospital is required, as is often the case for Emergency and Trauma Departments, the **Warrior lite Hybrid** is proposed. This latter configuration allows users to power the device from an electrical outlet or use it with battery during interfacility or intra-facility transports. Switching from portable mode to AC mode (and vice versa) is very simple and can be accomplished in seconds. For simplicity, and unless otherwise specified, the term Warrior lite will apply in this document to all the configurations discussed in this paragraph.

All Warrior configurations above use the same Compact Disposable Unit (or CDU); thus, allowing for immediate patients' handoff between setting at a reduced cost of ownership.

* Note: the **Warrior EXTREME** configurations are the military versions of the Warrior. The Warrior lite is designed for both civil and combat environments.

1. Indications for Use

The **Warrior lite Blood and Fluid Warmer** device is intended for warming blood, blood products, and intravenous fluids prior to administration.

2. Intended Use

The Warrior lite Blood and Fluid Warmer device is indicated for use in diseases and conditions which may lead to or have led to hypothermia.

3. Intended Users

It is intended to be used by healthcare professionals in hospitals and other controlled medical environments, to help prevent hypothermia.

4. Components' Overview

The Warrior lite offering includes the following components:

Table 1. System Components

Core Components	
Base Unit (BU) Hosts the controller, ON/OFF switch, and user indication panel (LED). A Mount Adapter is secured to the back of the Base Unit (BU). The BU Connects with the battery or AC Power Supply Module (bottom) and with the Compact Disposable Unit (top).	
lite Battery Rechargeable, Li-ion, 18.0V, 3.0Ah, 54.0Wh	
– OR –	

Extra Power Battery

Rechargeable, Li-ion, 18.0V, 5.5Ah, 99.0Wh

– AND / OR –

AC Power Supply Module for the Warrior lite

AC/DC power supply, 19v output, 450Watt, including power cord; ON/OFF switch that enables power transmission to the BU.

Charging Components (for Battery Configuration Only)	
Battery Charger lite battery charger: 100–240 VAC | 50–60 Hz | 1.0A or Max 1.6A Extra Power battery charger: 100–240 VAC | 50–60 Hz | 1.6A or Max 2.0A Both chargers include the power cord.	
Charging Adapter Connects the battery with the charger (note: different Charging Adapter part numbers for the lite battery and the Extra Power battery)	
Optional Accessories	
Spare Battery As per the description above	See images above
Mounting Unit Connectivity to standard pole, rail or stretcher in critical care transport platforms and hospitals	
Extension Cable 140 cm extension between the Base Unit and the Compact Disposable Unit	
12-24V Charger The 12-24V charger provides an additional charging option for users that have access to 12-24V charging port.	
CDU Basket Secure the CDU to bed rail when an Extension Cable is used	

Carrying / Packaging Components
Soft Carrying Bag The Warrior lite core and charging components are provided in a carrying bag. The bag can contain up to 2 lite or Extra Power batteries. The detachable compartment (see image on the right) can be used for carrying three CDUs or the optional accessories. Note: the same Soft Carrying Bag part number is used for both battery configurations (i.e. lite and Extra Power configurations). The Soft Carrying Bag does not fit the AC Power Supply Module. 
Shipping Box for AC Power Supply Module & Power Cord When purchased separately or as part of a Hybrid configuration, the AC Power Supply Module with its power cord are packaged and shipped in a dedicated carton box. **Shipping Box for Warrior lite AC** When purchased as part of a complete Warrior lite AC set, the BU, AC Power Supply Module, power cord, and applicable accessories (e.g. Mount accessory or Extension Cable) are packaged and shipped in a dedicated carton box.
Per-Patient Consumable
Compact Disposable Unit (CDU) The CDU, which contains the warming apparatus, is the per-patient sterile consumable. It is positioned between the IV / blood tubing and the patient. It connects with the BU (directly or with an Extension Cable). The CDUs are shipped in a box containing 12 units. 

5. System Description

The Warrior lite inline Blood and Fluid Warmer is used for warming blood, blood product and IV fluids in order to prevent hypothermia. The system can operate with MAINS power or with battery power. In both options, it offers very high performance levels. When operated with a battery, the system is truly portable.

The device's temperature set point is 38 °C ± 2 °C (100.4 °F ± 3.6 °F). The Warrior lite provides indications to the user regarding the status of the warming via a visual LED panel.

The minimum hardware required to operate the device include the BU, energy source (lite battery, or Extra Power battery, or AC Power Supply Module), and CDU.

6. Detailed Components Review

The Warrior lite core components include Base Unit (with Mount Adapter secured to its back panel), a rechargeable battery and/or an AC Power Supply Module with its dedicated power cord. For the purpose of optimizing the Warrior lite to different clinical settings and operational requirements, the Warrior lite is offered with two rechargeable battery options: the lite battery and the Extra Power battery. The batteries differ in terms of their warming volume and delivery rate. NOTE: unless

specific battery type is indicated, the term “battery” in this document shall mean both types of batteries.

Charging components include a Charger and Charging Adapter.

Optional accessories include Spare lite or Extra Power battery, Mount Accessory, Extension Cable, 12-24V Charger, and CDU Basket.

The components of portable Warrior lite configurations are typically arranged in a Soft Carrying Bag. Warrior lite AC and a standalone AC Power Supply Module are packaged and shipped in a carton box.

The Warrior lite system is used with a single-patient use disposable cartridges, also known as “Compact Disposable Unit”, or simply “CDU”.

6.1. Core Components

6.1.1. Base Unit

The Base Unit provide system’ s controlling and user indication functions. It is comprised of the following components:

1. **LED Indication Panel**. The LED indications panel is located on the front of the Base Unit. It indicates the fluid outflow temperature (green checkmark), battery charging level through 5 battery bars, outgoing temperature below set temperature (blue triangle) and troubleshooting required (red X). These information signals are further described in section 8 below. The indication panel also includes an On/Off switch, which is primarily used for battery level testing.
2. **Silicon Strap / Connector Cover**. The front Silicone Strap covers the connector when the system is not in use, and secures the CDU once it is connected to the Base Unit, as further detailed below.
3. **Side Latches**. The side latches will hold the battery (lite or the Extra Power) or the AC Power Supply Module.
4. **Connector**. Once the Silicone Strap is released, the user is able to access the connector to attach the CDU, either directly or with an Extension Cable. If the connector is not in used, it is recommended to protect the connector with the Silicone Strap.
5. **Mount Adapter**. The Mount Adapter is secured to the back of the Base Unit. It allows to mount the Warrior lite to a pole or rail using standard mounts, hang it with a third-party carabiner, or attach it to an object using a third-party strap (note: the carabiner and the strap are not part of the offering). For installation instructions of the Warrior lite Mounting Adapter, see document QIF-INS00001-1.
6. **Power Source Contacts**. Battery (lite or Extra Power) or AC Power Supply Module will connect at the bottom of the Base Unit.
7. **Product Label**. The Product label is attached at the bottom of the Base Unit. It includes the serial number of the device, manufacturing date, and relevant regulatory data.

Figure 2. Base Unit Views

6.1.2. Power Source Options

Three power sources are available for the Warrior lite:

1. **lite Battery**: Rechargeable, Li-ion, 18.0V, 3.0Ah, 54.0Wh.
2. **Extra Power Battery**: Rechargeable, Li-ion, 18.0V, 5.5Ah, 99.0Wh.
3. **AC Power Supply Module**: AC/DC power supply, 19v output, 450Watt, including power cord. The AC Power Supply module includes an ON/OFF switch that enables power transmission to the Base Unit.

The Product Label is attached at the bottom of each component. It includes the serial number of the device, manufacturing date, and relevant regulatory data.

6.2. Charging Components

When operated with a battery, the charging components of the lite and Extra Power battery are as follows:

Table 2. Charging Components

	Compatible with lite Battery	Compatible with Extra Power Battery	Compatible with Both Batteries
Charger	FY2101000 or MASCOT 2240Li5C	FY2102000	MASCOT2541Li5C
Charger Adapter	QIF03-CHA1001	QIF03-CHA1002	QIF03-CHA1001

6.3. Optional Accessories

Optional accessories include Spare Battery, Mount Accessory, Extension Cable, 12-24V Charger, and CDU Basket:

- **Spare Battery**. Spare battery provides enhanced operational range. If needed, the batteries can be easily swapped during operation, as further explained below. Unless MASCOT2541Li5C charger and QIF03-CHA1001 charger adapter are used, we do not recommend a mix of lite and Extra Power batteries due to their distinct charging components.
- **Mount Accessory**. The Mount Accessory allows to mount the Warrior lite to a pole or rail. Users may use their own mounting solutions as long as these solutions meet the regulatory requirements. The Mount Accessory connects with the Mount Adapter. Assembly of the Mount Adapter to the Base Unit should be done in a straight in and out movement, to prevent damage to the Mount Adapter's ridge mechanism. Lift the fixation snap prior to sliding the unit out. For more details regarding the Mount Accessory, see installation instructions of the Warrior lite Mounting Adapter (document QIF-INS00001-1). Succinctly, the Mount Adapter includes the following parts:
  1. **Fixation Snap**. To secures the Mount Adapter to the Base Unit.
  2. **Ridge**. To slide the Mount Adapter in and out of the Base Unit.
  3. **Carabiner / Hook Connection**. Slit to secure the system with a carabiner / hook.
  4. **Mount Connection**. Screw holes to connect the Mount Accessory.
  5. **Strap Connection**. Slits to secure the system with a 3rd party strap.

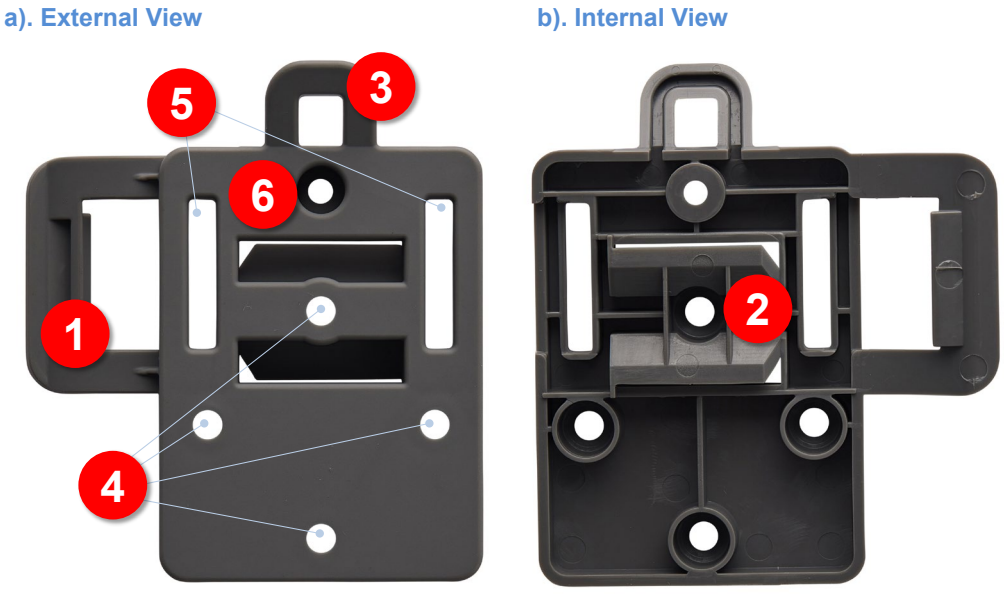


Figure 3. Mount Adapter

- **Extension Cable**. The Extension Cable allows users greater operational flexibility by means of extending the distance between the Base Unit and the Compact Disposable Unit by 140 cm / ~4.6 ft. For Technical sheet of the Extension Cable, see document QIF-TDS00001-1.
- **12-24V Charger**. The 12-24V charger provides an additional charging option for users that have access to 12-24V charging port.
- **CDU Basket**. The CDU Basket is designed to secure the CDU to bed rail when Extension Cable is used. This accessory is typically used in hospital settings and not in the field.

6.4. Compact Disposable Unit

All Warrior line configurations operate with the same Compact Disposable Unit (CDU). The CDU is a sterile, single patient use disposable cartridge which includes a heat exchanger with standard inlet and outlet Luer connectors. The Fluid Bag is connected with a standard IV / blood administration set to the CDU Inlet Luer. The Outlet Luer of the CDU is connected to a standard catheter. The priming volume is 19 milliliter.

The CDU can be best described as a 'smart line extension'. It contains a medical grade stainless steel coil that serves as the heating apparatus and fluid path. The coil has the same internal diameter of standard tubing. Much like the tubing, the CDU (i) is a sterile component, (ii) it needs to be primed prior to connecting it to patient in order to remove air, (iii) it needs to be replaced whenever the line is replaced, and (iv) it needs to be disposed in the same fashion that the line is disposed.

Key features of the CDU include:

1. **Connector to Base Unit**. The CDU connects with the Warrior lite Base Unit either directly (by placing the CDU on the male connector at the top of the Base Unit) or through an Extension Cable.
2. **Protrusion Marks**. Tactile feedback regarding the correct CDU orientation is provided via protrusion marks on the CDU surface. Note: if you feel too much resistance when connecting the CDU to the Base Unit or the Extension Cable, simply rotate the CDU by 180 degrees and proceed.
3. **Inlet Luer**. The short PVC marked "IN" is designed to connect with the tubing via a standard Luer-Lock connection that should be compatible with third-party tubing options.
4. **Outlet Luer**. The long PVC marked "OUT" is designed to connect with the catheter. The length of the outgoing line is ~47cm / 18.5".
5. **Stop Flow Apparatus**. A stop-flow apparatus on the distal line of the CDU is designed to prevent unintended leakage when disconnecting the CDU from the line and patient.
6. **Label**. A Label is attached at the top of the unit. It includes indication for correct CDU positioning.

a). Front & Side View

b). Bottom View

Figure 4. Compact Disposable Unit (CDU)

Figure 5. Warrior lite Base Unit Connected To CDU (All Configurations)

Figure 6. Illustration of CDU Connected Through An Extension Cable

6.5. Fluid Warming Capacity & Maximum Delivery Rate

The warming volume of the Warrior lite when operated with battery as well as the maximum delivery rate depend on several parameters, such as: (i) power source configuration (AC Power Supply Module, lite, or Extra Power battery), (ii) charge level of the battery, (iii) inlet fluid temperature, and (iv) ambient temperature, to name just a few. A set of internal sensors on the CDU constantly measure the fluid temperature. Based on these readings the Base Unit auto-regulates the power distribution to the heat exchanger withing the CDU so as to secure 38 ± 2 ° C output.

lite Battery Capacity

- A fully-charged Warrior lite battery can warm up to 1.3 liter of parenterally administrated blood / fluids with an inlet temperature of 4 °C (39.2 °F) and up to 2.5 liter of parenterally administrated blood / fluids with an inlet temperature of 20 °C (68 °F).
- The maximum delivery rate at inlet temperature of 4 °C (39.2 °F) is 170 ml/min.
- The maximum delivery rate at inlet temperature of 20 °C (68 °F) is 250 ml/min.

Extra Power Battery Capacity

- A fully-charged Extra power battery can warm up to 3 liters of parenterally administrated blood / fluids with an inlet temperature of 4 °C (39.2 °F) and up to 5 liters of parenterally administrated blood / fluids with an inlet temperature of 20 °C (68 °F).
- The maximum delivery rate at inlet temperature of 4 °C (39.2 °F) is 180 ml/min.
- The maximum delivery rate at inlet temperature of 20 °C (68 °F) is 270 ml/min.

AC Power Supply Module Capacity

- The maximum delivery rate at inlet temperature of 4 °C (39.2 °F) is 180 ml/min.
- The maximum delivery rate at inlet temperature of 20 °C (68 °F) is 270 ml/min.

Note: Infusing IV fluids / blood at flow rates exceeding the specifications defined in this section, by means of using a pressure infusion bag or other flow-inducing methods, may result in output temperature lower than 38 ± 2°C. The system will continue warming to the best of its capabilities, yet set temperature may not be reached. In such a case, the appropriate indication will appear on the LED panel. See section 8 for more information regarding indications.

7. Operating Steps of the Warrior lite

STEP 1: PREPARE

This step is performed ahead of clinical intervention, preferably during shift change or periodic review of the equipment.

7.1. Charging the Battery

The Warrior lite is powered by a researchable lite or Extra Power battery. The battery should be fully charged prior to operation.

The lite battery shall be charged using the supplied Battery Charger model FY2101000, or MASCOT2240Li5C, or MASCOT2541Li5C and charger adapter model QIF03-CHA1001. Charging requires 120/240 [V], 50/60 Hz.

The Extra Power battery shall be charged using the supplied Battery Charger model FY2102000 or MASCOT2541Li5C and charger adapter model QIF03-CHA1002. Charging requires 120/240 [V], 50/60 Hz.

➥ Note: charging a fully depleted Extra Power battery with MASCOT2541Li5C will last approximately 4 hours. In such a case, the lite charger adapter shall be used (QIF03-CHA1001).

⚠ **WARNING:** Always connect battery to charger and AC electrical outlet source with dry hands!

Charging the lite battery:

7.1.1. Plug the lite battery charger into the lite battery using its designated Charger Adapter.

➥ **Note**: there is one way to connect the adapter to the battery: the protrusion on the adapter should face towards the battery; the label should face outside. Rotate the adapter 180 degrees and reinsert it into the battery if it does not plug in.

➥ **Note**: as a safety mechanism, the lite battery Charger Adapter cannot plug into the Extra Power battery.

7.1.2. Plug the lite battery charger into an AC electrical outlet.

➥ Note: the lite battery shall only be charged by its designated Charger Adapter (QIF03-CHA1001).

➥ Note: in the event that the lite battery temperature is high, and as a safety mechanism, charging will only commence once it cools down.

Charging the Extra Power battery:

7.1.3. Plug the Extra Power battery charger into the Extra Power battery using its designated Charger Adapter.

➥ Note: there is one way to connect the adapter to the battery: the protrusion on the adapter should face towards the battery; the label should face outside. Rotate the adapter 180 degrees and reinsert it into the battery if it does not plug in

➥ Note: the lite battery Charger Adapter can plug into the Extra Power battery however charging time will double.

7.1.4. Plug the Extra Power battery charger into an AC electrical outlet.

➥ Note: in the event that the Extra Power battery temperature is high, and as a safety mechanism, charging will only commence once it cools down.

The following guidelines apply to both batteries:

Allow the battery to charge until it reaches full capacity: a green LED on the charger will indicate that the battery has reached full capacity. For a fully depleted battery, and assuming that charging starts immediately (i.e. the battery does not need to cool-down, as explained above), the charging process is expected to last approximately 3 hours.

Once the battery reaches full capacity, disconnect it from the charger and place the battery inside the Base Unit or store it for later use. There is no degradation in the battery capacity should you select to keep the battery connected to the charger for longer time.

The battery does not have a memory effect and may be recharged even though it has not been fully discharged. If the battery has reached its end of life, please contact your QinFlow representative for purchasing a new battery.

Note: when connecting the battery to the charger, red LED on the charger should show up. If the charger shows green LED, the battery might be fully charged, or that the charger is not plugged properly to the charger adapter, or that the charger adapter is damaged.

➥ **Important!** Recharge the battery after each use and ensure that it is fully charged as part of your preparation-for-use protocols. To check battery status, simply connect it to the Base Unit and press the On/Off switch on the BU lite indications panel.

Store only fully charged batteries.

When placed in long storage, charge the battery every 4-6 months.

⚠ **WARNING:** Never throw the battery into the trash. The battery should be disposed of at a designated battery disposable collection point.

7.2. Connecting Power source to the Base Unit

Insert the battery/AC Power Supply Module into the Base Unit and properly lock the latches which are located on both sides of the Base Unit. The latches fit both types of batteries (i.e. the lite and the Extra Power battery) and the AC Power Supply Module. NOTE: to protect the Base Unit's connectivity pins, place the battery/AC Power Supply Module directly below the Base Unit and connect the parts in a straight movement.

(a) Side Latches Holding a Battery **(b) Side Latches Holding AC Power Supply**

Figure 8. Base Unit latches Connected to (a) Battery and (b) AC Power Supply Module

Pay attention to the correct power source insertion orientation. If you attempt to insert the power source in the wrong orientation, the power source will not dock with the Base Unit. If this happens, turn the power source 180 degrees and reinsert it into the Base Unit.

When operating the Warrior lite with an AC Power Supply Module: plug the AC Power Supply Module to MAINS electricity using the grounded cable provided with the AC Power Supply Module. Then switch On the AC Power Supply Module by moving the On/Off switch on the rear side of the AC Power Supply Module to “On”.

⚠ **WARNING:** use only the grounded cable provided with the AC Power Supply Module.

When operating the Warrior lite with a battery mode: for instructions on how to replace the battery during administration, see section 7.7.

For checking the battery level and the integrity of the indications panel LED lights, switch on the Base Unit by pressing the On/Off switch on the BU lite indications panel. The battery bar lights will illuminate, followed by indication panel LED lights. Since CDU is not connected, the lights will turn off automatically after a few seconds.

If possible, keep a spare battery to ensure continuous operation in the event that your battery runs out of power during administration.

When operating the Warrior lite with and AC Power Supply Module, all 5 LEDS of the battery indication shall be illuminated.

7.3. Preparing the CDU

Ensure that the CDU package integrity has not been compromised and that the date has not expired.

Do not use the CDU if the sterile package is damaged or is not fully sealed.

YY/MM; Do not use if the date has passed the end of the indicated expiration month (i.e. 20/03, valid until 31st of March 2020).

If possible, keep a spare CDU for troubleshooting purposes.

STEP 2: CONNECT

The following steps will be performed in the clinical settings.

7.4. Connecting the Compact Disposable Unit To the Fluid Bag and Flushing the Air out of the Line

⚠**WARNING:** Follow all the instructions provided by the manufacturer of the blood/intravenous fluid administration set when administrating blood or fluids through the Warrior lite.

Do not reuse the CDU. The Compact Disposable Unit is for a single use only.

Do not re-sterilize the Compact Disposable Unit.

The Warrior lite is compatible with any standard IV / blood administration set that utilizes standard Luer connections.

Open the CDU sterile package.

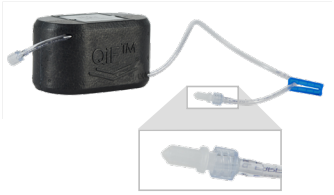
Remove the Inlet Luer cap from the short inlet tube of the CDU (marked as “IN” on the CDU casing).

Connect the IV / blood tubing outlet Luer to the Inlet Luer of the CDU, and tighten until resistance is met.

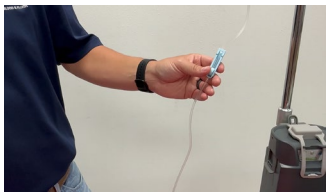
➥Note: When connecting the IV / blood tubing to the Inlet Luer, do not over tighten! (apply similar force as applied when connecting the IV / blood tubing to the catheter).

Remove the Outlet Luer cap from the outlet end of the long outlet tube (marked as "OUT" on the CDU casing).

The outlet tube connects to the catheter.



Flush the line with the intravenous fluid / blood. The priming volume is approximately 19 ml. After all air is removed, you may connect the CDU to the catheter.



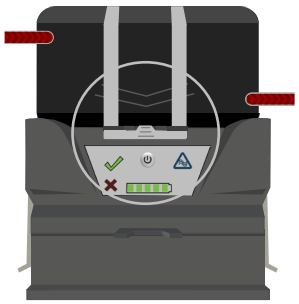
⚠ **WARNING**: Always flush the line with intravenous fluid / blood / blood product before administrating to patient.

➥**Note**: The CDU is a single use item, supplied sterile and ready for use. If cleaning during use is necessary, wipe the external surfaces of the Compact Disposable Unit with a damp cloth with water or alcohol (Iso-Propanol/Ethanol).

7.5. Connecting the CDU to the Base Unit

Remove the connector cap at the top of the Base Unit and connect the CDU to the connector. Optionally, you may use an Extension Cable.

➥ Note: When connecting the CDU to the Base Unit, verify that the protruding arrows on the CDU face the front of the Base Unit (i.e. the indications panel). See the image (a) below. If using an Extension Cable, verify that (i) the protruding arrows on the CDU are aligned with the protruding arrows on the Extension Cable's male connector (image (b) below) and that (ii) the LED panel is aligned with the protruding arrows on the Extension Cable female connector (image (c) below).

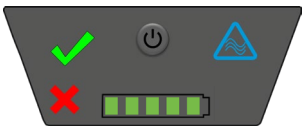


(a)

(b)

(c)

➥ Note: When connecting the CDU to the Base Unit, the system will turn on automatically and commences integrity check. Make sure that all indication lights turn on; do not operate the device if LED indications do not work properly. Thereafter, heating will commence automatically. If the system does not turn on automatically when connecting the CDU, press on the On/Off button. If the system turns on and immediately off, make sure that the CDU orientation is correct (protruding arrows face LED panel)



➥ Note: Secure the CDU to the Base Unit using the silicone strap.

⚠ **WARNING:** Do not use the Warrior lite in MRI, X-ray and CT environments.

⚠ Warming medications through the Warrior lite was not validated.

⚠ No modification of this equipment is allowed!

Use of the Warrior lite inconsistent with these Instructions for Use may result in failure of the system or injury to patient or to the caregiver.

7.6. Warming Blood / Blood Products or Intravenous Fluids

⚠ **WARNING:** Always flush the line with intravenous fluid / blood / blood product before administration to the patient

Once the CDU is primed and connected to the Base Unit, you can start delivering warm IV fluid / blood / blood products to your patient. The system will reach the set-point temperature in a few seconds.

Verify that the system operates normally by checking the indications panel from time to time. System indications and troubleshooting are detailed in section 8.

When operating the device in tandem with intermittent flow infusers (e.g. hand pump, push-pull, or syringe), and in order to achieve optimal warming performance, operate these infusers in a continuous and unified fashion and be sensitive to the signs of over pressurization (in such a case, stop infusing if and troubleshoot your entire setup from bag to patient). Follow the user manual of each device.

➥ Note: Follow the fluid or blood administration instructions provided by the manufacturer of the IV fluids / blood administration set and the protocols of your organization.

➥ Note: You can administer several fluid bags using the same CDU. The Warrior lite does not need to be shut off while replacing the IV fluid / blood bag.

➥ Note: During infusate administration, the Base Unit can be positioned beside the patient in an upright position or on its back, ensuring the indication panel is visible to the caregiver. The Warrior lite can also be mounted on an IV pole, rail, gurney, or rack using the Mount Adapter. Strap and carabiner can also be used to fix the Warrior lite.

➥ Note: The CDU can be located beside the patient or hung on a pole / gurney in a secured position to avoid a sudden pull.

⚠ **WARNING:** Do not cover the Indication Panel.

⚠ **WARNING:** Do not use the Warrior lite if there is a malfunction in the indication panel.

7.7. Battery Level, Battery Replacement, and Shifting From Battery Source to MAINS Source (and Vice Versa)

The battery status is reported by 5 green LED bars on the indications panel.

The number of active LED bars indicate the charge level.

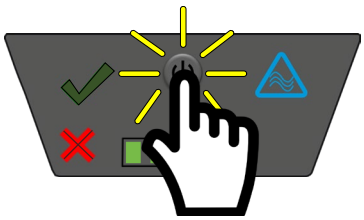
When the battery is near exhaustion, all battery LED bars blink. The system will continue to warm fluids until it is fully depleted. At this point, the system will shut off without notice.

During battery replacement there is no need to stop the fluid flow; however, unheated fluid will flow through the system during this time.

To replace the lite battery/Extra power battery and resume heating, follow the instructions below without delay.

7.7.1. Battery Replacement

A. Shut off the Warrior lite Base Unit by pressing the On/Off switch on the BU lite indications panel.
Note: to avoid accidental power off, the system will turn off after long press of ~3 seconds.



⚠ **WARNING:** While the Base Unit is in the “Off” position, the fluid/blood continues flowing through the system without being warmed until the system is turned on, completes initialization, and resumes warming.

B. Remove the empty battery from the Warrior lite by releasing the two side latches and pulling out the battery.

C. Replace the empty battery with a fully charged battery and lock the side latches.

   NOTE: to protect the Base Unit's battery pins, place the battery directly below the Base Unit when inserting the battery.

   Pay attention to the correct battery insertion orientation. If you insert the battery in the wrong orientation, the battery will not dock with the Base Unit. If this happens, turn the battery 180 degrees and reinsert it into the Base Unit.

7.7.2. Shifting From Battery Source to MAINS Source

A. Disconnect the battery from the BU by repeating action A and B in section 7.7.1.
B. Connect AC Power Supply Module to its power cable. Connect the power cable to a working electrical outlet, as explained in section 7.2.
C. Connect the AC Power Supply Module to the Base Unit and properly lock the latches which are located on both sides of the Base Unit, as explained in section 7.2.
D. Turn the on/off switch on the AC Power Supply Module to "ON", as explained in section 7.2.
E. If a CDU is connected, the system shall turn on automatically after inserting the AC Power Supply Module and pressing the "ON" switch (if not, press the On/Off switch on the BU lite indications panel). The indication panel LED lights will light up and the system will start warming the fluids inside the CDU. Start (or continue) flowing IV fluid / blood through the CDU. The system will reach the set-point temperature in a few seconds.

7.7.3. Shifting From MAINS Source to Battery Source

A. Shut of the AC Power Supply Module by pressing on the On/Off switch on the side of the unit, next to the power cord housing.

B. Disconnect the AC Power Supply Module from the BU by releasing the side latches.

C. Connect the battery into the Base Unit and properly lock the side latches.
D. If a CDU is connected, the system shall turn on automatically after inserting the AC Power Supply Module (if not, press the On/Off switch on the BU lite indications panel). The indication panel LED lights will light up and the system will start warming the fluids inside the CDU. Start (or continue) flowing IV fluid / blood through the CDU. The system will reach the set-point temperature in a few seconds.

7.8. Stopping Fluid / Blood Warming

Notes Regarding Stopping the Warm IV Fluids / Blood Administration Process:

A. When you decide to stop the blood / intravenous fluid administration, stop the flow using the stop-flow apparatus on the CDU, and disconnect the CDU outlet from intravenous catheter and Base Unit. You may want to use the stop-flow apparatus on the distal line of the CDU to prevent unintended leaking.

B. When the CDU is disconnected from the Base Unit, the Base Unit will shut off automatically and stop warming.

C. If you wish to stop the warming without disconnecting the CDU, press the on/off button for ~ 3 seconds until the indication panel shuts off. In case that the Warrior lite operates with the AC Power Supply Module, turn off the on/off switch on the AC Power Supply Module.

D. If you wish to disconnect the CDU from your device and reconnect it to another Warrior device (e.g. transfer patient from Warrior lite device at the point of injury to a Warrior device positioned on a critical care transport platform), simply unplug the CDU from the source device and re-plug it to the target device, without disconnecting the patient.

E. Clean reusable components in accordance with the cleaning guidelines in section 10. Cover the Base Unit connector.

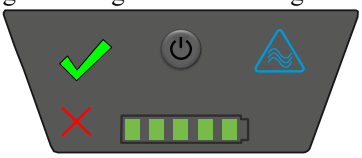
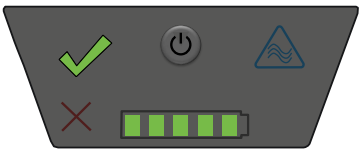
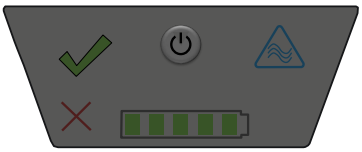
F. Fully charge the battery. In the event that the lite battery/Extra power battery temperature is high, and as a safety mechanism, the charging will only commence once it cools down.

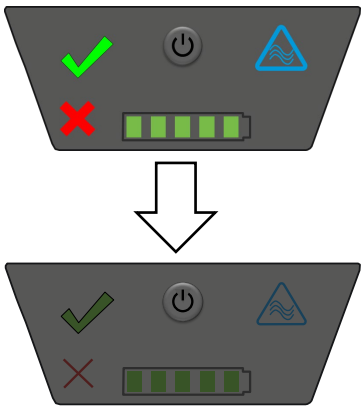
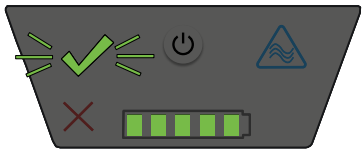
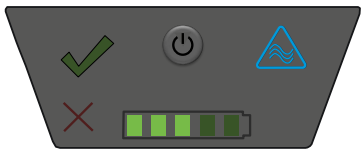
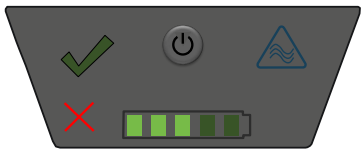
G. Dispose of the CDU taking biohazard precautions.

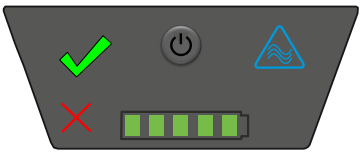
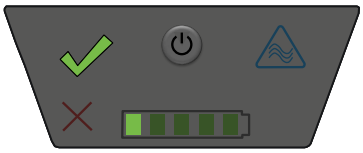
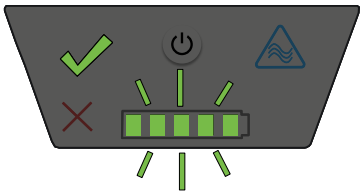
8. System Notifications and Troubleshooting

The following table provides descriptions of the system visual indications and messages and suggested user actions to resume operation (where applicable).

Table 3. System Notifications and Troubleshooting

State	Indications on Panel	User Action (if required)
COMMON SYSTEM INDICATIONS		
Activation and Start Heating: flushed CDU is connected to the Base Unit. The system is powered on and commences initialization.	All indication panel lights turn on for few seconds. Thereafter, the blue and red indications disappear while the battery lights remain on and the green ✓ light starts blinking. 	A. Monitor the indications panel and make sure that all indications appear during activation. B. Do not operate the unit if part of the indications are not presented during the initialization stage
Reaching Set Temperature: flushed CDU is connected; the system starts heating until reaching set temperature (38 ± 2 °C / 100.4 ± 3.6 ºF).	The battery lights are on and the green ✓ light blinks. When blinking stops and steady ✓ light appears, it indicates that set temperature has been reached. 	Keep monitoring the indications panel. After connecting the CDU, there is no need to wait for the green ✓ light to stop blinking before resuming the flow. Target temperature will be reached in seconds.
SYSTEM HANDLING & TROUBLESHOOTING MESSAGES		
No Indications on Panel: CDU is connected but the system does not turn on and perform initialization.	No indications on panel 	**<u>Battery as power source</u>**: A. Press the On/Off switch on the BU indications panel. B. If there are no indications on the panel, replace the battery with a fully charged battery. If note resolved, move to clause [C] below **<u>AC Power Supply Module as power source</u>**: A. Make sure the AC Power Supply Module is connected to a working electrical outlet and that the on/off switch on the AC Power Supply Module is at “on” mode. B. Press the On/Off switch on the BU indications panel. **<u>If not resolved (applies to both powering options)</u>**: C. Replace the CDU D. If the problem is not resolved, do not use the device and contact QinFlow or its representative for service.

State	Indications on Panel	User Action (if required)
System turns on and immediately off: CDU is connected. The system turns on yet shuts down after a few seconds.	The indications on the panel disappear after a few seconds 	A. Check that the CDU protrusions are positioned towards LED panel. If using an Extension Cable, check that the protrusions on the cable's connector and the CDU align. If not, rotate CDU 180 degrees. **Battery Power Source**: B. If not resolved – replace battery. **AC Power Source**: B. If not resolved – check that on/off switch on the AC Power Supply Module and electrical connections are intact. **<u>If not resolved (applies to both powering options)</u>**: C. Replace the CDU D. If the problem is not resolved, do not use the device and contact QinFlow or its representative for service.
Green indication continues blinking: flushed CDU is connected; the system starts heating yet does not reach set temperature (38 ± 2 °C / 100.4 ± 3.6 ºF).	The battery lights are on and the green ✓ light blinks. 	A. There is no flow during system initiation. Resume flow. B. Too high flow during system initiation. Consider reducing the flow. C. High intermittent flow. Consider reducing the flow. D. Incoming fluids above 30 °C. Warming adjustment may take longer to accomplish. Do not use pre-warmed bags.
Fluid/Blood Temperature Is Below Set-Point Temperature (i.e. below 36 °C / 96.8 °F): the flow-rate is higher than the system's delivery capabilities*. * The max delivery rate is dependent on power source type, charging status (if applicable), incoming fluid temperature, and ambient conditions	The battery lights and the blue indication are on 	Consider reducing the flow rate until the blue indication light disappears
Trouble Shooting Required: (system error X sign results from either internal communication problem between the CDU and the BU or represents warming cutoff to prevent overheating)	The battery lights and a steady red X light are on 	A. Fix flow complications, ensure that the CDU is primed, and restart the unit (long press to shut off; short press to re-activate). B. If not resolved – replace the CDU with a new one, flush the air out of the fluid line, and connect it to the BU. C. If not resolved – do not use the device; contact QinFlow or its representative for service.

State	Indications on Panel	User Action (if required)
BATTERY-RELATED INDICATIONS		
System Indications and battery Level Check: the system is powered on through the On/Off switch on the BU lite indications panel and commences initialization. Note: warming will not start until CDU is connected	The battery indication lights turn on for few seconds to indicate the battery status. Thereafter, all indication panel lights turn on for few seconds. 	A. Monitor the indications panel. B. If the initialization passed successfully, all the indication panel lights turn on and then turn off after approximately 3 seconds. C. Make sure that all indication panel lights appear during activation. D. Do not operate the unit if some or all the indications are not presented during the initialization stage Note: if the initialization process fails, the battery light and X light will appear.
Battery Level is Low	One bar remains on the battery bar indication. (the battery indication can be shown during operation along with green ✓ light) 	Keep track on the battery status; the battery is close to be depleted. Consider to replacing the battery.
Battery Level is Critically Low (soon to be completely depleted)	All battery LED lights blink. Note: at this state the blue light may turn on as well, subject to flow rate. 	The system will continue to warm fluids until the battery is fully depleted. At a certain point, the system will shut off without notice. In such a case, replace the empty battery with a fully charged lite battery (see section 7.7 for instructions).

9. Specifications and Characteristics

➥ **Note:** Operating the Warrior lite out of its design specifications may result in a lower outflow temperature and/or damage to the system.

Table 4. Certifications Per Product Configuration

	Battery mode	AC mode
Certified for	IEC60601-1 IEC60601-1-6 IEC60601-1-12 IEC60601-1-2	IEC60601-1 IEC60601-1-6 IEC60601-1-2
Complies with	MIL-STD 461G RE102 & RS103	N/A

9.1. Electrical Specifications

Table 5. Electrical Specifications

Parameter	Value
Nominal Input Voltage	• Battery: 18 VDC (fully charged battery) • AC Power Supply Module: 100-240VAC 50-60Hz; 2.2-5.3A
Max Current	26 A
lite battery life expectancy	Up to 250 full charging cycles or 3 years (the earliest of the two events)
Extra Power battery life expectancy	Up to 350 full charging cycles or 3 years (the earliest of the two events)
lite battery Charger – • FY2101000 or • MASCOT 2240Li5C	 100 – 240 VAC 50 – 60 Hz Max 1.0 A
Extra power battery charger – FY2102000	 100 – 240 VAC 50 – 60 Hz Max 2.0 A
Common charger for both batteries – MASCOT2541Li5C	 100 – 240 VAC 50 – 60 Hz Max 1.6 A
Defibrillation Proof Applied Part	Battery mode: type **CF**  Defibrillation proof CF applied part AC mode: type **BF**  Defibrillation proof BF applied part

9.2. Physical Properties

Table 6. Physical Properties

Parameter	Value
Warrior lite Base Unit with lite battery	
Weight	Approximately 800 g (1.76 lb)
Dimensions (H × W × L)	Approximately 84×88×115 mm (3.30×3.46×4.52 in)
Warrior lite Base Unit with Extra Power battery	
Weight	Approximately 1088 g (2.39 lb)
Dimensions (H × W × L)	Approximately 105×88×115 mm (4.13×3.46×4.52 in)
Warrior lite Base Unit with AC Power Supply Module	
Weight	Approximately 1.461kg (3.22 lb)
Dimensions (H × W × L)	Approximately 220×125×100 mm (8.66×4.92×3.93 in)
Compact Disposable Unit	
Weight (in sterile pouch)	Approximately 117 g (0.26 lb)
Dimensions (H × W × L)	Approximately 72.2×68.5×117.5 mm (2.84×2.70×4.63 in)

9.3. Environmental Conditions

Table 7. Environmental Conditions

Parameter	Value
Both Operating Modes (Battery & AC modes)	
Storage & Transport conditions	-20 °C to 70 °C & 93% RH (-4 °F to 158 °F & 93% RH)
Transient Operating Conditions	-20 °C to 70 °C & 93% RH (-4 °F to 158 °F & 93% RH)
Battery Mode (both batteries)	
Operation Temperature & Humidity	-5 °C to 50 °C & 90% RH (23 °F to 122 °F & 90% RH)
Atmospheric Pressure/(Altitude)	549 to 1,060 hPa (-400 to 4,572 meters); (-1312 to 15,000 ft)
Water and particles Ingress rate*	IP56
AC Mode	
Operation Temperature & Humidity	-5 °C to 50 °C & 90% RH (23 °F to 122 °F & 90% RH)
Atmospheric Pressure/(Altitude)	549 to 693 hPa (-400 to 3200 meters); (-1312 to 10,499 ft)
Water and particles Ingress rate*	IP22
Shelf / Service Life	
CDU Shelf Life	3 years
Base Unit Service Life**	5 years

* The system's Ingress Protection rating (aka "IP rating") with respect to water and particles assumes that the Base Unit is connected to the CDU and battery/AC Power Supply Module.

** The Base Unit does not require any calibration or maintenance. At the end of the service life period, turn to QinFlow for Base Unit refurbishing options.

9.4. Electromagnetic Compatibility (EMC) Conditions

Table 8. Electromagnetic Compatibility Conditions

Emission Test	Compliance	Electromagnetic environment - guidance
Battery Operated Mode Classification – Class II		
RF emissions CISPR 11	Group 1	The QIF-03 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment
RF emissions CISPR 11	Class B	The QIF-03 is battery powered equipment.
Harmonic emissions IEC 61000-3-2	Not required	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Not required	
AC Power Supply Module Operated Mode Classification – Class I		
RF emissions CISPR 11	Group 1	NA
RF emissions CISPR 11	Class A	The QIF Blood and Fluid Warmer is suitable for use in all establishments, including domestic establishments and those directly connected to the public low voltage power supply network

Emission Test	Compliance	Electromagnetic environment - guidance
		that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	NA
Voltage fluctuations/flicker emissions IEC 61000-3-3	Complies	NA

Warning: This equipment/system is intended for use by healthcare professionals only. This equipment/system may cause radio interference or may disrupt the operation of nearby equipment. It may be necessary to take mitigation measures, such as re-orienting or relocating the Warrior lite device or shielding the location.

Warning: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

Warning: Use of accessories, and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

Warning: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the QIF-03, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

Warning: QIF-03 needs special precautions regarding EMC and needs to be installed and put into service according to the specific instructions for maintaining basic safety and essential performance with regard to electromagnetic disturbances for the expected service life provided in section 7.

Essential performance of the Warrior lite device is that the outflow temperature stabilizes on 38 ± 2 °C (100.4 ± 3.6 ºF).

Warrior lite device shall only be used with the cables provided by the manufacturer. Base Unit cable length is approximately 1.4 Meter (approximately 55 in.).

Portable and mobile RF communications equipment can affect the Warrior lite device.

The system may recognize the disturbance and initialize a self-test.

Table 9. Electromagnetic Interference Resistance

Immunity Test	IEC 60601 Level	Compliance Level	Electromagnetic Environment - Guidance
Electrostatic discharge (ESD), IEC 61000-4-2	8 kV contact 15 kV air	8 kV contact 15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 5 %.
Electrical fast transient/burst, IEC 61000-4-4	2 kV for power supply lines 1 kV for SIP/SOP lines	Complies	Relevant only when used with AC Power Supply Module
Surge, IEC 61000-4-5	1 kV line to line 2 kV line to earth	Complies	The QIF-03 is battery powered equipment. Relevant only when used with AC Power Supply Module

Immunity Test	IEC 60601 Level	Compliance Level	Electromagnetic Environment - Guidance
Voltage dips and interruptions on power supply input lines IEC 61000-4-11	0 % UT for 0,5 cycle 0 % UT for 1 cycle 70 % UT for 25/30 cycles 0 % UT for 250/300 cycles	Complies	The QIF-03 is battery powered equipment. Relevant only when used with AC Power Supply Module
Power frequency magnetic field, IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE: UT is the AC mains voltage prior to application of the test level.

Table 10. Electromagnetic Interference Resistance

Immunity test	IEC 60601 level	Compliance level
IEC 61000-4-6 Conducted RF	3 Vrms 150 kHz to 80 MHz 6 Vrms in ISM bands (6.765 MHz to 6.795 MHz; 13.553 MHz to 13.567 MHz; 26.957 MHz to 27.283 MHz; and 40.66 MHz to 40.70 MHz) and amateur bands (1.8 MHz to 2.0 MHz, 3.5 MHz to 4.0 MHz, 5.3 MHz to 5.4 MHz, 7 MHz to 7.3 MHz, 10.1 MHz to 10.15 MHz, 14 MHz to 14.2 MHz, 18.07 MHz to 18.17 MHz, 21.0 MHz to 21.4 MHz, 24.89 MHz to 24.99 MHz, 28.0 MHz to 29.7 MHz and 50.0 MHz to 54.0 MHz)	[V] = 3 Vrms [V] = 6 Vrms
IEC 61000-4-3 Radiated RF	10 V/m 80 MHz to 2.7 GHz	[E] = 10 V/m
Proximity fields from RF wireless communications equipment	385 MHz	27 V/m
	450 MHz	28 V/m
	710 MHz	9 V/m
	745 MHz	
	780 MHz	
	810 MHz	28 V/m
	870 MHz	
	930 MHz	
	1720 MHz	
	1845 MHz	
	1970 MHz	
	2450 MHz	
	5240 MHz	9 V/m
	5500 MHz	
	5785 MHz	
IEC 61000-4-39 Immunity to magnetic fields in close proximity	8 A/m 30 kHz 65 A/m 134.2 kHz 7.5 A/m 13.56 MHz	8 A/m 30 kHz 65 A/m 134.2 kHz 7.5 A/m 13.56 MHz

Table 11. Recommended Safety Distances between Portable and Mobile RF Telecommunications Devices

Recommended safety distances between portable and mobile RF telecommunications devices and the Warrior lite			
The Warrior lite is intended for use in an electromagnetic environment in which radiated RF disturbance variables are controlled. The customer or user of the Warrior lite can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Warrior lite as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	**Protection distance according to transmitter frequency m**		
	150 kHz to 80 MHz $d = 1.17\sqrt{P}$	**80 MHz to 800 MHz** $d = 0.35\sqrt{P}$	**800 MHz to 2.5 GHz** $d = 0.7\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.69	3.69	7.38
100	11.67	11.67	23.33
For transmitters rated at a maximum output power not listed above, the recommended distance can be determined using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.			
NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.			
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

10. Cleaning the System

10.1. Cleaning the CDU

a. STERILE EO The CDU is provided sterile and ready for use.

b. The CDU is a single patient use item; do not reuse it!

c. **WARNING**: Do not submerge, sterilize or autoclave the CDU.

10.2. Cleaning and disinfecting the Reusable Components

The Warrior lite reusable parts -- Base Unit, battery, Extension Cable, AC Power Supply Module, Mount Accessory, and CDU Basket -- are supplied non-sterile and should be surface cleaned/disinfected after each patient use.

Before cleaning, disconnect the BU from the power source (Battery or AC Power Supply Module).

Note: the following procedures are not guaranteed to control the spread of pathogens.

Consult the local hospital infection control administrator regarding cleaning procedure policies at your institution.

The following process was validated in accordance with 2015 FDA guidance “Reprocessing Medical Devices in Health Care Settings: Validation Methods and Labeling”:

a. Cleaning and disinfection procedure shall perform with damp cloth with 70 % medical grade alcohol solution (i.e Isopropyl, Ethanol), Deconex® SOLARSEPT or a medical grade wipe soaked with 70% alcohol.

b. After each use, clean all exterior surfaces of the reusable parts.

c. Use a soft bristle brush, moistened with 70% medical grade alcohol / Deconex® SOLARSEPT solution, to thoroughly clean all grooves.

d. Repeat wiping the components using a damp cloth.

e. The components shall be placed on a clean surface and allowed to completely dry.

* If the device is determined not to be visually clean at the end of the cleaning step, please repeat the relevant previous cleaning steps or contact the manufacturer for further instructions.

WARNING: Do not submerge, sterilize or autoclave the Warrior lite reusable parts.

11. System Precautions

a. Do not use the Warrior lite if the visual indications are not functioning.

b. For blood / blood product / intravenous fluid infusion instructions, refer to your facility / organization protocol.

c. Follow all the instructions provided with the blood / intravenous fluid administration set when infusing blood / blood product / intravenous fluid through the CDU.

d. In case of a problem or error that is not resolved following the troubleshooting instructions, contact the manufacturer or its representative. Do not use this system until it is repaired or replaced by Quality in Flow Ltd., or one of its representatives.

e. AC Power Supply Module: Connect the AC Power Supply Module to the mains power net only using the supplied AC power cable.

12. Warnings

a. Never throw the battery into the trash. The battery contains toxic materials and needs to be disposed of at a designated battery disposable collection point.

b. Pushing IV fluids / blood at flow rates higher than 170 ml/min (with lite battery) or 180 ml/min (with Extra Power battery) by using for example a pressure infusion bag or a pump may result in output temperature lower than 38 ± 2 °C.

c. Do not use the Warrior lite in MRI, X-ray and CT environments.

d. Warming medications through the Warrior lite was not validated.

e. No modification of this equipment is allowed!

f. Use of the Warrior lite not according to its instructions may result in failure of the system or injury to user or patient.

g. Do not use the CDU if the sterile package is damaged.

h. The CDU is for single use only and does not require any calibration or maintenance. Do not reuse it! Re-use of the product can cause Infection and contamination.

i. Do not re-sterilize the Compact Disposable Unit.

j. AC Power Supply Module: To avoid the risk of electric shock, the AC Power Supply Module must only be connected to a power supply MAINS with protective earth.

13. Disclaimer

Quality in Flow Ltd. shall not be held responsible in any manner for any bodily injury and/or property damage arising from operation or use of the Warrior lite, other than that which adheres strictly to the instructions and safety precautions contained herein and in all supplements hereto.

14. Warranty

The Warrior lite is manufactured by Quality in Flow Ltd. and is warranted to be free from manufacturer defects. The system is covered for one year from date of purchase.

15. Support, Service, and Subsequent Order Information

For support, service, complaint and subsequent order information contact the representative in your country. Alternatively, Contact us at info@qinflow.com.

Note: we offer premium support packages with extended warranty options. Contact us for more information.

16. Part Number Information

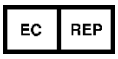
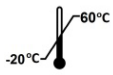
Table 12. Part Numbers

Part Number	Description	Comments
PART I: Complete SKUs		
Intro Sets		
Q1301S0000	Warrior lite Intro Set (lite battery)	Set includes Base Unit, 1 x lite battery, charging components, and carrying bag
Q1310S0000	Warrior lite Intro Set (Extra Power battery)	Set includes Base Unit, 1 x Extra Power battery, charging components, and carrying bag
Q230000000	Warrior lite AC Intro Set	Set includes Base Unit and AC Power Supply module with power cord
Q2301S0000	Warrior lite Hybrid Intro Set (lite battery)	Set includes Base Unit, 1 x lite battery, charging components, carrying bag, and AC Power Supply module with power cord
Q2310S0000	Warrior lite Hybrid Intro Set (Extra Power battery)	Set includes Base Unit, 1 x Extra Power battery, charging components, carrying bag, and AC Power Supply module with power cord
Extended Sets		
Q1302S0000	Warrior lite Extended Set (lite battery)	Set includes Base Unit, 2 x lite battery, charging components, and carrying bag
Q1320S0000	Warrior lite Extended Set (Extra Power battery)	Set includes Base Unit, 2 x Extra Power battery, charging components, and carrying bag
Q230003000	Warrior lite AC Extended Set	Set includes Base Unit, AC Power Supply module with power cord, Mount Accessory and Extension Cable
Q2302S3000	Warrior lite Hybrid Extended Set (lite battery)	Set includes Base Unit, 2 x lite battery, charging components, carrying bag, AC Power Supply module with power cord, Mount Accessory and Extension Cable
Q2320S3000	Warrior lite Hybrid Extended Set (Extra Power battery)	Set includes Base Unit, 2 x Extra Power battery, charging components, carrying bag, AC Power Supply module with power cord, Mount Accessory and Extension Cable
PART II: Components		
Base Unit		
QIF03-BUA1000	Base Unit	Warrior lite's controller and user indications
Energy Sources		
QIF-ACL10000	AC Power Supply Module	
QIF03-BTA1000	lite Battery	

Part Number	Description	Comments
QIF03-BTA2000	Extra Power Battery	
Components Related To lite Battery		
FY2101000 or MASCOT 2240Li5C Or MASCOT2541Li5C	lite Battery Charger	
QIF03-CHA1001	lite battery Charger Adapter	Adapter for charging the lite battery
MASCOT2544Li5CLT	12-24V Charger for lite Battery	Optional accessory
Components Related To Extra Power Battery		
FY2102000 or MASCOT2541Li5C	Extra Power Battery Charger	MASCOT2541Li5C should be used with lite battery Charger Adapter (QIF03-CHA1001)
QIF03-CHA1002	Extra Power battery Charger Adapter	Adapter for charging the Extra Power battery
MASCOT2544Li5CEP	12-24V Charger for Extra Power Battery	Optional accessory
Other Accessories		
QIF03-SBG2000	Carrying Bag	For both types of batteries
QIF03-MUA1000	Mounting Accessory	Optional pole or rail mounting unit for all Warrior lite configurations
QIF-CBL00019	Extension Cable	Optional 140 cm / ~4.6 ft. Extension Cable for all Warrior lite configurations
QIF-MCH00041	CDU Secure Basket	Optional CDU connection to rail when Extension Cable is used
Spare Parts		
QIF-MCH00134	Silicone Strap	
QIF-MCH00111	Mount Adapter	
QIF-MCH00106	Side Latch	
QIF-MCH00110	Lexan cover for LED Panel	
Compact Disposable Units (CDU)		
QPORT0500	CDU (Each)	
QPORT0500BX12	Box of 12 CDUs (Box)	

17. Symbols and Legends

Table 13. Symbols and Legends

Symbol	Description
	Manufacturer
	Authorized representative in the European community
	Catalogue number
	Serial Number
	Warning
	Refer to instruction manual/booklet
	Defibrillation proof BF applied part
	Defibrillation proof CF applied part
	Temperature limitation
	Do NOT reuse
 YY/MM	Use by YY/MM (meaning the end of the indicated month. i.e., 20/03 is valid until March 2020)
	Do NOT re-sterilize
	Sterilized using Ethylene Oxide
	Do NOT use if package is damaged
	Keep away from sunlight
	Do NOT throw to trash
IP56	Water and particles ingress rate: dust protected; Powerful water jets protected
	Non pyrogenic fluid path - the CDU is free of substances that might produce fever
Temp. set point: 38 °C (100.4 °F)	Temperature is set to 38 °C (100.4 °F)
	Medical Device Name