


Flux Safety & User Information

Auxiliary Charging & Energy Transfer for Small Craft

Thank you for testing Flux. Flux is an early-stage auxiliary charging module designed to transfer power from a compatible DC source to a compatible battery or charging system.

Flux is intended for kayak, canoe, small-boat, campsite, and field power setups where portability, controlled power transfer, and extended runtime are required.

 **Scan to access the latest instructions, setup videos, product updates, and support resources**



Flux HV / 48V Unit Information

Unit Description

Flux HV / 48V is an auxiliary DC charging and energy-transfer unit designed to transfer power from a compatible 12V DC source to a compatible 48V battery system or charge port.

This unit is intended to provide controlled charging support for electric kayak, canoe, and small-boat setups where extended runtime, portability, and removable power support are required.

This unit handles high-current DC input and higher-voltage DC output. Before making any connection, verify voltage, polarity, connector orientation, cable rating, fuse/breaker rating, and battery compatibility.

Configuration Notice

Flux HV / 48V units are built with a Victron Orion-Tr Smart 12/48-8A Isolated DC-DC Charger configuration.

Smart units can be viewed and configured through the VictronConnect app.

Always follow the label and unit-specific record for the actual unit being used.

Recommended Operating Limits

Item	Recommended Limit / Guideline
Unit type	Flux HV / 48V auxiliary DC charging module
Internal charger / converter	Victron Orion-Tr Smart 12/48-8A Isolated DC-DC Charger
Input source	Compatible 12V DC battery or power source only
Victron input voltage range	8-17V DC
Recommended input system	12V nominal DC source
Output system	48V nominal DC battery / compatible charge port
Victron nominal output voltage	48.2V DC
Victron output adjustment range	40-60V DC
Victron continuous output current	8A at nominal output voltage and 40°C
Victron short-duration output current	15A max for 10 seconds
Victron short-circuit output current	25A
Victron continuous output power	430W at 25°C / 360W at 40°C
Victron efficiency	89%
Victron no-load input current	Less than 220mA
Victron standby current	Less than 1mA
Victron isolation	200V DC between input, output, and case
Operating temperature	-20°C to +55°C
High-temperature derating	Derates above 40°C

Humidity limit	Max 95% non-condensing
Ventilation	Keep uncovered and allow airflow during operation
Water exposure	Splash-prone outdoor use only; do not submerge
Storage	Disconnect cables, cap connectors, and store dry

Unit-Specific Record

Field	Unit-Specific Value
Quantacraft model	Flux HV / 48V
Quantacraft unit serial number	_____
Internal Victron model	Orion-Tr Smart 12/48-8A Isolated DC-DC Charger
Victron part number	ORI124838120
Victron serial number	_____
Victron PIN, if Smart-enabled	_____
Victron PUK, if available	_____
Input rating marked on unit	12V DC input / ____ A max
Output rating marked on unit	48V DC output / 8A continuous
Installed input fuse / breaker rating	____ A
Installed output fuse / breaker rating	____ A
Supported battery system	Compatible 48V nominal battery / charge port
Supported charge connector	_____
Assembly date	_____
Final inspection date	_____
Inspected by	_____
Notes / configuration	_____

Important Unit Notes

Warning: The internal Victron Orion-Tr Smart 12/48-8A charger is not protected against reverse battery polarity. Always verify polarity before connecting the input source or output battery system.

The unit may become warm during operation. Keep it uncovered, well ventilated, and away from heat-sensitive materials. Some warmth may be normal; excessive heat is not.

Do not use this unit in standing water or fully wet conditions. Keep connectors clean, dry, and capped when not in use.

VictronConnect can be used to monitor and configure Smart-enabled Victron units; however, the Orion-Tr Smart DC-DC Charger does not display input current or output current in VictronConnect.

Do not change Victron charger settings unless instructed by Quantacraft Marine. Incorrect output voltage, battery preset, absorption voltage, float voltage, or input lockout settings may damage batteries or connected equipment.

Basic Connection Guidelines

Before connecting Flux HV / 48V, confirm the following:

1. Confirm the input and output labels on the unit.
2. Confirm the receiving battery system is compatible with 48V DC charging.
3. Confirm polarity before connecting.
4. Confirm the cable and connector ratings.
5. Confirm the fuse or breaker rating.
6. Make sure connectors are clean, dry, and fully seated.
7. Make sure the unit is stable, ventilated, and not covered by gear.

Do not connect Flux HV / 48V to an unknown battery, an unsupported charge port, a damaged battery, or any battery reporting fault warnings. Do not force connectors. If a connector does not fit easily, stop and verify the setup.

Basic Operating Sequence

1. Place Flux HV / 48V on a stable, dry, ventilated surface.
2. Make sure all switches, breakers, and connected devices are off.
3. Confirm input and output labels.
4. Connect the output side to the compatible 48V battery or charge port.
5. Connect the input side to the compatible 12V DC power source.
6. Verify that all cables are secure and strain-relieved.
7. Turn on or reset the unit as directed.
8. Monitor the unit, battery, cables, and connectors during use.
9. When finished, turn off or disconnect the input source first, then disconnect the output side.

10. Install connector caps after use.

48V DC Safety

This unit operates at a higher DC voltage than typical 12V accessory systems. Misuse may damage equipment, generate excessive heat, damage batteries, or create a safety hazard.

Do not touch exposed contacts. Do not use damaged cables. Do not connect or disconnect under load unless specifically instructed. Do not bypass fuses, breakers, connectors, or safety features. Do not open, modify, or service the unit.

If you notice excessive heat, smoke, a burning smell, arcing, melting, unexpected battery behavior, or repeated breaker trips, stop use immediately and disconnect the system if it is safe to do so.

Heat and Runtime

Stop using the unit immediately if any of the following occur:

- The case becomes uncomfortably hot to touch
- Connectors or cables become hot
- A fuse or breaker trips repeatedly
- The receiving battery reports a fault
- The unit shuts down unexpectedly
- You smell burning plastic or see smoke
- The unit is covered, enclosed, or unable to shed heat

For extended operation, inspect the unit periodically. In hot weather or direct sun, reduce runtime, improve airflow, or stop use if heat increases.

VictronConnect Setup for Smart Units

1. Download the VictronConnect app from the Apple App Store or Google Play Store.
2. Power the Flux HV / 48V unit according to the setup instructions.
3. Open VictronConnect on your phone or tablet.
4. Locate the Orion Smart device in the nearby device list.
5. Tap the device.
6. Enter the PIN shown on the side label or unit record.
7. Once connected, review live status and confirm the unit is operating normally.

In VictronConnect, you may be able to view input voltage, output voltage, charger state, off reason, warnings, errors, and configuration information.

Do not change charger settings unless instructed by Quantacraft Marine.

If the unit does not appear in VictronConnect, confirm the unit is powered, Bluetooth is enabled on your phone, and you are within range. Only one phone or tablet can connect at a time. If needed, power-cycle the unit and try again.

Quick Do / Do Not List

Do

- **Verify** voltage and polarity before connecting.
- Use only **compatible** batteries, charge ports, loads, and cables.
- Keep connectors **clean, dry, and capped** when not in use.
- **Monitor** the unit during operation.
- Stop use if anything gets **excessively hot**.
- Use VictronConnect to check status if the unit is Smart-enabled.

Ask before changing settings or connecting to a new battery system.

Do Not

- Do not **submerge** the unit.
- Do not **force connectors**.
- Do not **bypass** fuses or breakers.
- Do not use **damaged** cables or batteries.
- Do not connect to **unknown** batteries or **unsupported** charge ports.
- Do not change Victron settings unless instructed.
- Do not leave active charging **unattended**.

Do not open, modify, or rewire the unit.

Simple Operating Reminder

Verify. Connect. Monitor. Disconnect. Inspect.

If anything appears incorrect, stop and confirm the setup before continuing.

Support

For setup assistance, current instructions, product updates, and support information, scan the QR code or visit:

<https://www.quantacraftmarine.com/support>

Quantacraft Marine

Email: tyler@quantacraftmarine.com