

# V2L-FT VEHICLE-TO-LOAD ADAPTER

for Forthing electric vehicles with V2L support

## USER MANUAL



### INTRODUCTION

V2L-FT adapter is designed to power various standard 230 Vac electrical devices with standard household plugs (power tools, cookers, ovens, refrigerators, lights, computers, charge electric bicycles/scooters/etc and other electrical appliances) from Forthing electric vehicles that feature on-board V2L (vehicle-to-load) system. Using V2L-FT in combination with Metron portable EV charger you can also charge any other electric car from your Forthing car. Metron V2L-FT adapter maximum load is up to 3.7 kW (depending on the socket outlet).

Any other use is not allowed and is regarded as improper use.

Before using the adapter, please thoroughly read this manual and follow the instructions provided therein. Please keep the manual for future use. If you are unsure about the proper usage, please contact the manufacturer or your dealer before usage.

### IMPROPER USE

Improper use can lead to property damage or personal injury. In such cases, the manufacturer and retailer accept no liability. Warranty will be voided in case of improper use. You must not:

- modify/manipulate the adapter!
- drive over the adapter!
- draw more than 16 A (3680 W)!
- connect unsuitable plugs and cables!
- use the adapter if damaged!

### GENERAL SAFETY INSTRUCTIONS



- Carefully read this security instructions before using the product!
- Never draw more than 16 A from the adapter V2L-FT!
- Children are not allowed to use the adapter.
- Keep animals away while using the adapter.
- Avoid liquids entering the adapter. Never use the adapter if the socket or plug are wet.
- Only connect undamaged, designated and labelled plugs & cables to the adapter.

### SYMBOLS USED

The following symbols are used in this manual and on the product:

	This symbol indicates a danger with a risk of causing serious injury or death or damage if not avoided.
	CE symbol is a mark of conformity indicating that a product complies with European Union directives and regulations.
	This symbol signifies the requirement for separate disposal of electrical and electronic waste. See chapter disposal.
	Please read the manual before using the adapter.
	Risk of electric shock due to dangerous voltage when used incorrectly.
T <sub>amb</sub>	Do not use and store the adapter below or above the specified temperature.

## GET STARTED



- Check adapter before use. Do not use the adapter if damaged!
- Socket will provide a high voltage [230 V]!
- Never draw more than 16 A from the adapter V2L-FT!
- Do not use the adapter if the socket and plug are wet.
- Only connect undamaged, designated and labelled plugs & cables to the adapter.
- Avoid using multiple adapter/power strips as they can lead to overload.
- Don't unplug before turning off.
- Always operate in the specified order of steps.

Switch off your vehicle and leave it unlocked.

Open the charge port and insert V2L-FT adapter **[1]** and press the switch on the underside **[2]**.

The adapter will be locked in the car's socket you will have 230 V AC mains electricity available at the socket **[3]**, so you can now power various electrical devices.

When you want to switch off the 230 V power supply simply press the switch **[2]** again.

To unplug the adapter from the vehicle you need to unlock it first by pressing the "unlock" button on the key fob **[4]**.



If the V2L-FT cuts-off power during use it may be due to an overload or low battery charge. Check the vehicle condition and charge level to determine why there is no output power.



Vehicle to load type adapter can work with Hyundai and Kia electric vehicles only. It will NOT work on other electric vehicles.

## TECHNICAL SPECIFICATIONS

Vehicle side plug type	Type 2
Socket outlet types	Type F (Schuko) or Type E (French) or Type G (UK) or others on request
Maximum continuous current	16 A (13 A for Type G)
Ingress protection rating	IP44 (moisture proof)
Operating Ambient Air Temperature Range	from -40°C to +50°C
UV resistance	YES
Socket outlet overtemperature protection	YES
Dimensions [Φmax / Length]	70 mm / 280 mm
Weight	440 g

Socket outlet overtemperature protection function description:

V2L-FT adapter has a very high quality socket built-in that won't overheat at continuous current of 16 A (13 A for Type G). However, if bad or low quality plug is inserted in adapter's socket it can dissipate a lot of heat. This heat is then detected by adapter's temperature sensor. If or when it exceeds allowed temperature range the adapter sends a signal to the car to disconnect power. When it sufficiently cools down the adapter automatically sends a signal to the car to apply power back. This process can repeat endlessly.

The adapter is IP rated 44, which means that the adapter is waterproof during usage. Nevertheless, please avoid the plugs to get wet and do not use the adapter if the plugs are wet.



- Never draw more than 16 A from the adapter V2L-FT!
- Do not use if plugs/sockets are wet!

## CLEANING & STORAGE

Use only a dry or damp cloth for cleaning the unplugged adapter. Do not use cleaning detergents. Please secure the adapter while transporting it in your vehicle to avoid damage. Store at a dry place.



- The adapter must be completely unplugged before cleaning!
- Avoid water getting to contact parts!
- Secure adapter while transporting!

## DISPOSAL



The symbol "crossed-out trash can" signifies the requirement for separate disposal of electrical and electronic waste. These devices may contain hazardous and environmentally harmful substances. Please take such devices to a designated collection point for the recycling of electrical and electronic equipment and do not dispose of them in regular household waste. You can obtain further information from local waste disposal services or the company from which you purchased the product.



## GREEN PRODUCTION

All our products are produced in a carbon neutral way by using "Sustainable energy cycle" method. Production plant where we make charging cables and portable charging stations is the first fully sustainable production facility for EV charging cables. All energy needed for the heating and cooling of the building, production process and for transportation of goods and employees (except deliveries of heavy materials by trucks), is produced by 2 photovoltaic power plants and stored in 4 storage batteries. Almost all of the raw materials we use (cables, plugs) are produced in EU, to shorten supply routes and support local economy. [Buying our products helps developing sustainable economy.](#)

## LIMITED WARRANTY

METRON warrants its product to the original consumer purchaser that it will repair, or replace, any product that is determined to be defective for the following terms: **three (3) years from date of purchase on all components.**

To be eligible for repair or replacement under this warranty, the product in question must be sent back to METRON within the warranty period and the original consumer purchaser must comply with the following conditions:

- The product thereof must not have been modified or altered in any way by an unauthorized source;
- The product thereof must have been used in accordance with the user manual.

This limited warranty does not cover:

- Damage due to improper use;
- Accidental or intentional damage;
- Misuse, abuse, corrosion, or neglect;
- Product impaired by severe natural conditions, such as excessive hail storms, lightning strikes, tornados, flooding, ice or other natural occurrences;
- Damage due to improper packaging on return shipment.

Any and all labor charges for troubleshooting, removal or replacement of the product are not covered by this warranty and will not be honored by METRON. All shipping costs regarding repair or replacement of the product is to be pre-paid by the original consumer purchaser.