

# V2L Adapter (Vehicle-to-Load) User Manual

## 1. Product Overview

The V2L (Vehicle-to-Load) adapter converts your electric vehicle's charging port into a standard AC power outlet, allowing you to power external electrical devices using your EV's high-voltage battery. This portable power solution is ideal for camping, emergency backup, outdoor activities, and roadside assistance.

### CRITICAL REQUIREMENT:

- **Your EV MUST have factory V2L (Vehicle-to-Load) capability to use this adapter**
- **This adapter does NOT add V2L functionality to vehicles that don't already have it**
- **It only provides a convenient AC outlet connection for EVs with factory-enabled V2L discharge capability**
- **Vehicle-Specific: Some adapters are brand-specific (e.g., BYD-only, Xpeng-only, MG-only) and will not work with other vehicles**

## 2. Safety Warnings

### DANGER - Risk of Electric Shock, Fire, or Personal Injury

- **Do not** modify or manipulate the adapter!
- **Do not** drive over the adapter!
- **Do not** draw more than rated current (16A max)!
- **Do not** connect unsuitable plugs and cables!
- **Do not** use the adapter if damaged, cracked, or insulation is compromised!
- **Do not** use if socket and plug are wet!
- **Do not** use in rain, thunderstorms, or standing water!

### General Safety Instructions:

- Only connect undamaged, designated and labeled plugs & cables to the adapter
- Avoid using multiple adapters/power strips as they can lead to overload
- Never draw more than 16A from the adapter
- Socket will provide high voltage [230V] - handle with care
- Don't unplug before turning off load
- Always operate in the specified order of steps
- Keep away from children - not a toy

## 3. Operating Instructions

### 3.1 Before Use

1. **Check adapter before use** - Do not use if damaged!
2. **Verify vehicle compatibility** - Ensure your EV supports V2L via the charging port type
3. **Check vehicle battery level** - Maintain minimum 15-20% SOC to avoid deep discharge
4. **Inspect plugs and sockets** - Ensure they are dry and free from debris

### 3.2 Starting Discharging

**Step 1:** Unlock the vehicle (disarm anti-theft system)

**Step 2:** Open the vehicle charge port door and cap

**Step 3:** Insert the V2L adapter into the vehicle's charging port until it clicks securely into place

**Step 4:** Activate V2L mode in your vehicle (refer to your vehicle owner's manual for specific procedure)

- Typically involves: Infotainment screen → EV/Energy Menu → V2L or Discharge Settings → Enable V2L

**Step 5:** Open the protective cover on the adapter's output socket

**Step 6:** Plug your electrical device into the adapter's AC outlet

**Step 7:** Turn on your device and enjoy mobile power

**Note:** Some vehicles require pressing a discharge button or setting a discharge duration (default often 5 hours).

### 3.3 Stopping Discharging

**Step 1:** Turn off your electrical device(s)

**Step 2:** Unplug device(s) from the adapter

**Step 3:** Deactivate V2L mode in vehicle settings (or press unlock on vehicle remote/key fob)

**Step 4:** Wait for adapter to unlock from vehicle (usually automatic)

**Step 5:** Remove the V2L adapter from vehicle charge port within 15-30 seconds of unlocking (otherwise it may re-lock)

**Step 6:** Close protective cover on adapter socket

**Step 7:** Close vehicle charge port cap and door

**Step 8:** Store adapter in cool, dry place

## 4. Emergency Procedures

### 4.1 If adapter fails to disconnect:

1. Unlock vehicle using remote or door handle
2. If still locked, check vehicle manual for emergency charge port release procedure
3. Some vehicles have manual pull ring/latch near charge port for emergency unlocking

### 4.2 If smoke or burning smell detected:

1. Immediately unplug adapter from vehicle
2. Turn off vehicle
3. Do not use adapter again;

## 5. Troubleshooting

| Problem             | Possible Cause                 | Solution                                        |
|---------------------|--------------------------------|-------------------------------------------------|
| Adapter not working | Vehicle doesn't support V2L    | Verify vehicle V2L capability in owner's manual |
|                     | V2L not activated in vehicle   | Enable V2L in vehicle settings                  |
|                     | Adapter not properly connected | Reinsert until click sound heard                |
|                     | Battery SOC too low            | Charge vehicle to above 15-20%                  |

| Problem                   | Possible Cause                    | Solution                                                                    |
|---------------------------|-----------------------------------|-----------------------------------------------------------------------------|
| Power cuts off during use | Overload protection triggered     | Check device wattage; reduce load; wait 5-15 minutes to cool                |
|                           | Device draws too much current     | Use device with lower power rating                                          |
|                           | Vehicle battery depleted          | Charge vehicle                                                              |
| Adapter gets hot          | Normal operation during high load | Allow to cool; ensure ventilation                                           |
|                           | Thermal safety feature activated  | Unplug adapter; let cool 5-15 minutes; restart                              |
| Dropped adapter in water  | Water ingress                     | Dry thoroughly before use; contact manufacturer if unsure                   |
| Dropped adapter on ground | Physical damage                   | Check for loose parts or rattling; contact manufacturer if damage suspected |

## 6. Maintenance & Storage

- **Regular Inspection:** Check adapter, cable, and plugs before each use for wear, damage, or corrosion
  - **Cleaning:** Clean only with dry cloth; do not use water or harsh chemicals
  - **Storage:** Store in cool, dry place; avoid direct sunlight and extreme temperatures
  - **Cable Care:** Do not wrap cable tightly or place heavy objects on it; avoid kinks
- Storage:** If unused for months, recommend periodic checking (every 3 months) to preserve internal components.

### Technical Specifications:

| Parameter                  | Specification                   |
|----------------------------|---------------------------------|
| Vehicle Side Plug          | Type 2                          |
| Socket Outlet Types        | Type F EU (Schuko)              |
| Maximum Continuous Current | 16A                             |
| Max Output Power           | 3.7 kW (single phase)           |
| Rated Voltage              | 250V AC                         |
| Ingress Protection         | IP44 (moisture proof)           |
| Operating Temperature      | -20°C to +50°C                  |
| Flame Retardant Grade      | UL94-V0                         |
| Mechanical Life            | >10,000 plug-in/pull-out cycles |
| Pins                       | Copper alloy, silver plated     |
| Contact Resistance         | <5mΩ                            |
| Insulation Resistance      | >1,000mΩ                        |
| Housing Material           | Thermoplastic                   |

**Disclaimer:** Third-party V2L adapter manufacturers are not affiliated with or endorsed by vehicle brands (BYD, Chary, MG, Xpeng, etc.). Products are for identification purposes only.

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Jiangsu qiaoyi new energy technology co., ltd

Manufacturer Address:

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