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1 EVBox Elvi - Installation Details

To be completed by the Installer. Keep this Manual safe, for your records.

Model Number:	
Lead or Socket version:	
Max kW Rating:	
Registration #:	
Security Code:	
Installer Company:	
Installer Name:	
Installer Contact Details:	
Commission Date:	
Connected to Smart Charge Network - Y/N:	
Network Configuration:	
RFID Card or Fob #:	



2 Introduction

Thank you for choosing the EVBox Elvi.

This User manual tells you how to use and fault find any potential issues with the EVBox Elvi. Carefully read the safety information before you start.

These instructions are valid for several models of the charging station. It is possible that some features and options described may not apply to your charging station.

2.1 Get in touch

If you have any suggestions how we can improve our offer, or if you see an error, we'd love to hear from you. You can contact us by going to <u>https://ev-hub.com.au/</u>

All EVBox manuals can be downloaded from evbox.com/manuals.

3 Safety precautions

3.1 Warning: Risk of electric shock

- Read the supplied documentation carefully to familiarize yourself with all safety instructions and regulations before using this product.
- This product is designed and tested in accordance with international standards.
- The use of this product is limited to those applications it is designed for.
- Installation, maintenance and repairs of this product are only to be performed by qualified personnel.
- Incorrect installation or repairs may cause hazardous situations for the user of this product.
- This product is used in combination with a power source.
- Always switch off power before any maintenance activity.
- This product contains no user-serviceable parts. Consult EV Hub or your distributor for more information. Do not attempt to service or repair the charging station yourself!
- Make sure that the product is only used under the correct operating conditions.
- Cord extension sets are not allowed to be used.
- Make sure that the power line to the wall dock is installed on a dedicated circuit breaker (MCB) on your service panel. The installation must incorporate an adequate residual-current device (RCD) Type A. The MCB must be in line with the capacity of the EVBox Elvi charging cable used (3.7, 7.4, 11, 22 kW). In case the amperage rating of the charging cable is different than the amperage rating of the (MCB), the installer/user must change the station settings in the mobile app for station management and/or backend portal account as provided by the operator or service provider for this product.

The installing party must always ensure that the charging station is installed according to the local regulations. The installation settings of the service panel must always be adjusted by a qualified electrician.

EV Hub and EVBox is not responsible for any damage that occurs if this product is transported in a different packaging than the packaging in which the product was originally supplied. Store this product in a dry environment; the storage temperature must be between -25 °C and +60 °C.



4 Components & Features

4.1 Product Classification

- EV Supply Equipment connected to AC supply network
- Permanently connected
- AC EV Supply Equipment
- Outdoor use
- Equipment for locations with non-restricted access
- Stationary equipment, mounted on walls, poles or equivalent means: surface mounted
- Class I Equipment
- Mode 3 EVSE
- Operating temperature range: -25°C to 45°C
- Enclosure ratings: IP55, IK10







4.2 Elvi - Socket













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5 Activate EVBox Elvi

Your EVBox Elvi Charger can be configured, at commissioning, two ways to operate:

- 1. Autostart: The Charger will simply start when plugged in and stop when the plug is removed.
- 2. **App or RFID Smart Card:** Whilst your Electrician installs your EVBox Elvi Charger, he/she will connect it to the Smart Charge backend management software.

Download your Smart Charge station management application from your App Store, via <u>www.smart-</u> <u>charge.com.au</u>, or by scanning the QR code below.

Once you have set up your Account in the App, Smart Charge will either connect the Smart RFID card or Key Fob that was sent with the EVBox Elvi Charger or send you a new one. Please email the support@smart-charge.com.au with your requirements.

Your EVBox Elvi Charger will be set up to only recognise registered RFID Smart Cards, with Accounts, that are registered under your Charger. No exchange of payment required. Just secure access.

If you lose your Smart Card, then notify Smart Charge at <u>support@smart-charge.com.au</u> ASAP, to have your old one cancelled, and new one issued.

Benefits of connecting EVBox Elvi to Smart Charge backend management software:

- Remote access for Smart Charge to monitor the performance of the Charger,
- Early notification of issues,
- Remote Software updates,
- Remote activation or stopping if ever required,
- Remote cancellation of lost RFID cards, and issue of new cards or Key Fobs,
- Integration of your EVBox Elvi with a Home Energy Management System for smart charging, dynamic load balancing, and Energy Retailer Tarif optimising.





6 Smart Charging

EV chargers draw a relatively large electrical load, between 2.2 kW and 22 kW, dependent on a single or three phase connections. These additional loads may exceed the design capacities of the electrical supply circuits within a home or business, and on the distribution networks.

A household main supply is typically - single phase 60 Amps. Load levels of existing appliances will have an impact on the rate and when an EV can charge, without overloading the system.

To achieve this on a real-time basis requires either an expensive electrical main supply upgrade to the premises, or the integration of a Smart EV Charging. Smart Charging can coordinate the electrical ecosystem, including solar, battery, pool pump, inverters, by dynamically varying the EV Charger output based on loading from other appliances or from external market linked signals.

The Smart Charge - Smart Charging integration helps users to understand, optimize, and control their energy usage.

EV owners/managers can rest assured that they're using their site's power capacity as efficiently and as safely as possible.

What's more, the Smart Charge - Smart Charging allows users to harness the solar power they generate to power their charging stations.

Contact Smart Charge at support@smart-charge.com.au for me details.





7 Charge with EVBox Elvi

Start charging

- 3. Plug your charging cable into your vehicle and the EVBox Elvi if a Socket version.
- 4. To start and stop a charging session, you can use a registered charge card, key fob, or your mobile Smart Charge application.
- 5. In case of charge card activation, hold your charge card (RFID Card) in front of the reader, marked with icon.
- 6. EVBox Elvi reacts with a beep. This means that your card has been authorized.
- 7. The EVBox Elvi LED ring turns blue when it starts charging.

Stop charging

- 1. In case of charge card activation, hold your charge card (RFID Card) in front of the reader, marked with icon.
- 2. EVBox Elvi reacts with a beep. This means that your charge card/key fob has been authorized. The EVBox Elvi LED ring turns green when it stops charging.
- 3. Unplug your charging cable from your vehicle and EVBox Elvi and place it back into your car. Alternatively, you can unplug your charging cable from your vehicle, if a tethered lead, and hang it back up safe and securely.

	What you see	What it means	What to do
0	LED ring off or green	EVBox Elvi is ready for use.	Plug the charging cable into EVBox Elvi.
0	LED ring green, flashing	Your charge card is being verified.	Wait until LED ring turns blue.
0	LED ring yellow	The car is fully charged.	Unplug the charging cable from EVBox Elvi and place it back into your car.
0	LED ring yellow, flashing	Charging session is in queue (applicable in the Smart Charging environment only).	When power becomes available, charging will start or resume, and the LED ring will turn blue.
0	LED ring blue	EVBox Elvi is charging the car.	The car is charging.
0	LED ring red	EVBox Elvi is experiencing an error.	Check the troubleshooting chapter in this man- ual for solutions. If this does not solve the issue, contact your installer or supplier of EVBox Elvi, or write us at upport@smart-charge.com.au
0	LED ring red, flashing	Your charge card is not autho- rized to charge.	Contact your charge card service operator.



8 Network Options and Accessibility

Your EVBox Elvi Charger can be set up on the Smart Charge Electric Vehicle Charging network, in the following ways: Public, Semi-Public and Private chargers:

Public: Charging stations that can be viewed and used by any EV drivers on the Smart Charge network. Also, visible and accessible on the Network Map and Plugshare by all EV Owners.

- **Annual License =** Approx. \$280 p.a. for App access, monthly reconciliation and transfer of funds received.
- **Common Use =** For Public to get accessibility i.e., Shopping Centres, Restaurants/Cafes, Hotel, public Convenience locations, Apartment Complexes

Semi-Public: Select charging stations that are be used by a set limited group of EV drivers only. E.g., Companies with employees, pool vehicles, Apartments with shared charging stations.

- **Annual License** = Approx. \$250 p.a. for App access, monthly reconciliation and transfer of funds received.
- **Common Use** = Apartment Complexes that the Public cant access e.g., has known Users

Private (Business): Charging stations that are only be used by 1 to 5 private EV Drivers. e.g., Tenant or Landlord which use a shared parking environment with specific parking space.

• **Annual License** = Approx. \$50 p.a. for access and an annual report of usage for FBT and other requirements.

Private (Home): Charging stations installed in Homes, used by 1 or 2 EVs and Users.

- **Annual License** = \$0 p.a., as there is generally no reporting or transfer of payment required.
- Benefits = Backend access for Smart Charge to monitor the performance of the Charger, early notification of issues, software updates, remote activation or stopping, remote issue of RFID Smart Cards for security, integration of smart charging, dynamic load balancing, and Energy Retailer Tarif signalling.

Note: Pricing mentioned above is for budget purposes only and may be subject to change. Please check with Smart Charge at support@smart-charge.com.au



8.1 Accepting One-off Payments, as a Private User





9 Maintenance Instructions

9.1 Maintenance by user

The user of Elvi is responsible for the condition of the charging station, whereby both the law regarding the safety of persons, animals, and property must be observed, as well as the installation regulations in force in the country of use. Have Elvi and its installation inspected by a qualified electrician on a regular basis and in compliance with installation regulations applicable in your country. For Australia and New Zealand, the Residual Current Device (RCD) and integrity of the Charging Cable should be checked at least once per annum.

- CAUTION: Do not use a hose or a high-pressure spray to clean Elvi.
- CAUTION: Do not use aggressive chemical cleaners or solvents to clean Elvi.
- 1. Remove dirt and natural organic matter on the outside of Elvi using a damp soft cloth.
- 2. Check the charging plug for dirt. Clean if necessary.
- 3. Check the charging plug for damage. A qualified electrician must replace the charging cable if the charging plug is damaged.

9.2 Maintenance by a qualified electrician

Only a qualified electrician is permitted to do the following maintenance procedures.

9.2.1 Remove the station

See the corresponding illustrations in Section 9 of this Manual.

- 1. Switch off power to the charging station at the power supply cabinet.
- 2. Push the two unlock tools, slot first, fully upwards into the holes on the bottom of the station until you hear a click.
- 3. With both hands, pull the station from the wall dock in a straight line to disengage the station electrical connector from the wall dock.

Note: To prevent damage to the locking tabs or the electrical connector, do not twist or skew the station.

4. Remove the two unlock tools from the wall dock.

9.2.2 Replace the charging cable

See the corresponding illustrations in the EVBox Elvi Installation Manual.

Note: When working on the station, place the station on a soft surface to protect it from damage. Be careful not to damage the locking tabs on the station.

- 1. Remove the station.
- 2. Remove the bolt at the back on the Charging Cable connection using the Torx T30 bit.
- 3. Turn the station over and remove the charging cable from the station.
- 4. If the rubber seal is not on the charging cable plug, remove the rubber seal from the station socket.
- 5. On the new charging cable, make sure that the rubber seal is in place and not twisted. The rubber seal must fit correctly to ensure that the enclosure rating is met.
- 6. Push the charging cable firmly into the station.
- 7. Turn over the charging station and place it on a soft surface.

www.ev-hub.com.au



- 8. Install the Torx M6 x 45 bolt using a Torx T30 bit.
- 9. Install the station.

10Remove Station



Warning: Risk of electric shock.

Before removing the charging station from the wall dock, make sure that the power line you're using is switched off on your service panel. The LED ring of the charging plug must be off.

Take out the keys from the folder in the box. Insert the keys into the slots in the bottom of the wall dock. This releases the snap-fit connection of the charging station to the wall dock. Make sure to push them in until they only stick out approx. 50 mm and cannot be pushed in any further.

Now you can remove your charging station from the wall dock. Pull the charging station away from the wall dock in a straight line.

Important: Do not twist or skew the charging station, as that might damage the station's snap fits and/or connectors.

Be aware that the charging station is still fixed on the connector (socket) of the wall dock, and it requires some force to pull it off.

Take out the keys from EVBox Elvi wall dock.







11 Troubleshooting

Troubleshooting must only be done by a qualified electrician unless otherwise stated. Incorrect installation, repairs or modification can result in danger to the user and may void the warranty and liability.

This is a general troubleshooting guide listing the most common issues. If you are not able to solve an issue, visit <u>www.ev-hub.com</u> for further help from our support team.

Problem	Possible cause	Solution
LED ring is off.	The charging station is in idle mode and the LED ring idle state is set to off or timer. (The LED ring comes on when the charging station is used.)	 Use the EVBox Connect app to set the LED ring idle state to on or timer. The LED ring will stay on continuously.
Charging station does not react	No power to charging station	 Check that the residual current device and circuit breaker on the service panel are on (check by user). Check that the supply cable entering the charging station is live. The LED ring should be on. Turn the charging station off. Turn it on again after 20 seconds by flipping the circuit breaker or main switch to EVBox Elvi.
Residual-current device prevents charging. LED ring flashes red 10x.	 Grounding error in the charging station Special ground resistance needed for the vehicle Fault in the vehicle or defective charging cable 	 Contact your service technician for inspection and solution. There are no user-serviceable parts.
LED ring lights up red constantly.	Grounding fault.	 Check whether your electrical installation is properly grounded. Contact your service technician in case of doubt and for solving the local grounding situation.
LED ring lights up yellow constantly	 Vehicle is on a timer Vehicle is fully charged Grounding resistance is too high (with specific vehicles, this must be < 50 Ohm) 	 Check that the charging cable plug is inserted into EVBox Elvi properly (check by user). Change the setting of the timer in the vehicle (check by user). Replace the charging cable (user-serviceable). Check that the ground resistance is correct (grounding measurement by electrician).

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12 EVBox Elvi – Specification

Charging capacity	Upgradable 3.7–22 kW		
Charge mode	Mode 3 (IEC 61851-1)		
Number of connectors	1		
Connector options	Fixed cable or Type 2 socket		
Fixed cable type	Type 2 (IEC 62196-2) plug		
Fixed cable length	4 m or 8 m for Elvi models without dynamic load balancing 6 m for Elvi models compatible with dynamic load balancing		
Connection capacity	Selectable 1-phase or 3-phase, 230–400V, 16 A and 32 A, 50-60 Hz		
Metering	Optional 3-phase S-Bus MID-certified kWh meter in wall dock		
Enclosure ratings	IP55, IK10 (IEC 60529)		
AS/NZ Certified	Yes (SAA Approved)		
Compliance	IEC 61851-1, IEC 61851-21-2, CE EMC EU/2014/30, CE Low voltage EU/2014/35, RED EU/2014/53		
Authorization	Autostart / Keyfob / RFID card - controller with RFID reader type Mifare 13.56 MHz		
Smart Charging	Dynamic load balancing, solar integration, and scheduled charging via EV Hub Smart Charge		
Dimensions (W x H x D)	Fixed cable - 186 x 328 x 161 mm With socket - 186 x 328 x 219 mm		
Mounting	Wall or pole		
Standard colours	Misty Black, Polar White		



13 Warranty

13.1 EVBox warrants to Customer on delivery and for a period of three (3) years thereafter that the Products are free from material defects in material and workmanship and conform in all material aspects with the specifications as explicitly listed in the Documentation, except for charging cables, their connectors and software, for which the warranty is limited to three (3) months from delivery. Except as stated in this clause 1, EVBox provides no warranties of any kind in respect of the Products.

13.2 Subject to clause 3, EVBox shall, at its option, repair or replace defective Products, or refund the price of defective Products if:

(a) Customer gives notice in writing during the warranty period within a period of fourteen (14) days after the Customer has discovered or should reasonably have discovered that some or all of the Products do not comply with the warranty as set out in clause 1;

(b) Customer returns such Products to EVBox (at the location specified by EVBox) at Customer's cost and following the RMA (return merchandise authorization) instructions from EVBox, if the nature of the Product allows such return; and

(c) EVBox is given a reasonable opportunity of examining such Products and provided by Customer with all information it may reasonably require to proceed to such examination. With respect to repair, EVBox is entitled to apply problem-avoiding restrictions and/or Workarounds.

13.3 EVBox shall not be liable for the Products' failure to comply with the warranty in clause 1 if:

(a) Customer makes any further use of such Products after giving a notice in accordance with or failed to provide notification within fourteen (14) days as set out in clause 2;

(b) The Error arises because Customer failed to follow EVBox's oral or written instructions as to the storage, installation, commissioning, use or maintenance of the Products or (if there are none) good trade practice (such as but not limited to use of the Products with parts, accessories or software not provided or approved by EVBox);

(c) The Error arises as a result of EVBox following any customisation or Product specification supplied by Customer;

(d) Repairs or other interventions on the Products are performed by persons not trained for this purpose, against EVBox's oral or written instructions, or with parts not supplied or approved by EVBox; or

(e) The Error arises as a result of fair wear and tear, wilful damage or negligence by Customer and/or a third party, or abnormal working conditions (such as but not limited to damages resulting from vandalism, animals, high-pressure cleaners, or Error in connected vehicles).

13.4 In all cases, the following are excluded from the coverage of the warranty:

(a) Travel costs and labour costs of repair, including time spent on preliminary work or on disassembly and reassembly, if the repair of the Products is to take place at the installation site due to the nature of the Products;

(b) Cleaning, routine maintenance and preventative maintenance operations of the Products as defined in the Documentation, as well as the supply of products necessary for these operations;



(c) Restarting operations after the Product has been secured, for example by circuit breakers, ground fault circuit interrupters (GFCIs), fuses or emergency stops; and

(d) In general, all operations on site, especially if no parts need to be replaced.

13.5 The Agreement shall apply to any repaired or replacement Products supplied by EVBox.

This warranty statement is subject to change.

Please refer to evbox.com/general-terms-conditions for the latest version.

14 Disclaimer

The present document is drawn up by way of information only and does not constitute an offer binding upon EV Hub. EV Hub has compiled the contents of this document to the best of its knowledge. No express or implied warranty is given for the completeness, accuracy, reliability or fitness for particular purpose of its content and the products and services presented therein.

Specifications and performance data contain average values within existing specification tolerances and are subject to change without prior notice. Prior to ordering, always contact EV Hub for the latest information and specification. EV Hub explicitly rejects any liability for any direct or indirect damage, in the broadest sense, arising from or related to the use and/or interpretation of this document.

Smart EV Solutions Pty Ltd trading as both EV Hub and Smart Charge. ABN: 74 650 654 916

National Equipment Registration Responsible Supplier # E9093





15 Smart Charge - App Operation

Download the App

www.smart-charge.com.au

#1.1 - Find and Install the App



Find the App on your App Store by either searching, clicking on the links on the website, or scanning the QR Code above. Hit Install.

#1.4 - Complete the Form

<	REGISTRATION	🙀 Smart Charge
Mr.		
		required
First na	me *	
		required
Last na	me *	
		required
Email *		
		required
Phone/	Cell	
Passwo	ord *	
		required

Fill out the Form with your Name, Address, Email Address and Mobile Number. #1.2 - Register your Account

Guest	cietered		
NOT THE	gistered		Parade
IJ	Мар	>	
Ð	History	>	A ST
0	About	>	W S
*	FAQ	>	
Θ	Login or Register	>	R
			C

Once downloaded, click on 'Open' then expand the Menu by clicking on the three horizontal bars found at the top left-hand side. Click on 'Login or Register'.

#1.5 - Add Payment

<	R	EGIST	RATIO	ON	💥 Smar	t Charge
Address Unit 35	5, 40 Na	athan A	ve			
city * Ashgro	ove					
						required
Queen	sland					*
						required
Austra	lia					*
Post Coc 4060	le*					required
						requirec
Subsc	ription	Code				
-		1000			_	

Please ignore 'Subscription Code', unless you are part of a Company Fleet Management Program. Click 'Add Payment'.



#1.3 - Choose Pricing Plan



Choose a Pricing Plan - either 'Pay as you go', or a 'Package'. Note that Package Plans offer discounts and carry a validity of 18 months. Click 'Create Profile'.

#1.6 - Finish Registration



Once you have entered your Credit Card details, click on 'Save'.

Page 2 – Charging your Vehicle @ Public location

#2.2 - The Menu



Log in. Click on and open the 'Menu'.

#2.4 - Connector Status



Check the green 'Available' icon for Connector Status. Also, the Connector Type available, kWh output and Cost of Charge.

#2.3 - Wallet



Your Menu may show a 'Wallet' if you have deposited credit into a Package.

#2.5 - Select the Connector



Once at the Charger, plug in the Connector to your vehicle and click on 'Click to Start' under that Connector Type on the App.

#2.4 - Locate your Charger

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To locate your Charger, look for the Green flag on the Map. Click on the Flag

#2.6 - Start & Stop



Press 'Start' to begin your charge. Once your charge is finished, then press 'Stop' button.

Smart Charge 24/7 Support -1800 998 896

support@smart-charge.com.au