INDRA

Indra Smart PRO
User Guide

Content

Models:

190105A101 Type 1 Tethered
190105A102 Type 2 Tethered
190105A103 Type 2 Socketed

Important Safety Notes

WARNING: Smart PRO charger installation must only be performed by a certified electrician who has been trained in dealing with high voltage electricity.

WARNING: Use the Smart PRO only as directed.

WARNING: Do not use the Smart PRO if it is defective, appears broken, cracked or fails to operate or is otherwise damaged. In this case, you must report the damage immediately to your original installation partner, quoting the serial number as shown on the product label.

WARNING: Do not insert any foreign objects into the Smart PRO or its charging cable.

WARNING: Do not expose the Smart PRO or its components to open flames.

WARNING: Do not expose the Smart PRO to heating equipment.

WARNING: Do not immerse the Smart PRO or its components in water or other fluids.

WARNING: The Smart PRO is not to be used by persons (including children) with reduced physical, sensory or mental capabilities; or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the device by a person responsible for their safety.

Users with implanted cardiac pacemakers or implanted cardiac defibrillators should not stand close to the unit during charging.

WARNING: Install the Smart PRO in a location that mitigates damage from flooding.

WARNING: Operating or storing the Smart PRO in temperatures outside its specified range may cause damage to the charger.

CAUTION: Ensure that no water sources are above or near the Smart PRO, such as taps or sprinklers.

CAUTION: Ensure that the charging cable is correctly and neatly stowed after use, to prevent any inadvertent tripping hazards.

Introduction

Welcome

Congratulations on your purchase of a Smart PRO! The Indra team hope you'll be delighted with the features, quality and user experience of the Smart PRO.

This manual covers how to get started with your Smart PRO, explains key features, the troubleshooting tips along with important safety and warranty information.

It is important that you read this manual carefully before using the Smart PRO, so you're completely familiar with all features and safety advice and are able to get the most from your Smart PRO.

Overview

The Smart PRO is a permanently installed electric vehicle charger providing up to 32 Amps (7.2kW) at 230V, 50Hz. There are 3 Smart PRO variants:

• Smart PRO Type 1 (170915A104) has a SAE J1772 (Type 1) tethered charging connector to be used with Type 1 socket fitted EVs;

• Smart PRO Type 2 (170915A105) has an IEC 62196 (Type 2) tethered charging connector to be used with Type 2 socket fitted EVs;

• Smart PRO Type 2 Socket (170915A106) can be used with multiple types of charging cables, provided at least one end of the cable is fitted with an IEC 62196 male connector.

The Smart PRO works like conventional chargers, but also offers a range of smart charging modes, designed to take advantage of local generation (e.g. solar PV), variable rate tariffs (e.g. Time of Use), as well as schedule charging according to live carbon intensity of grid power. In all modes, the Smart PRO calculates the best charging schedule that gets your EV ready when you need it.

Features

• Available in Type 1, Type 2 and Untethered versions
• 3 charging modes: Smart, Boost & Home Alone
• Remote control and analytics via the Indra App
• Works with local generation e.g. Solar
• Economy tariff charging
• Minimises the carbon of a charging session
• Manual override on the charger and in the Indra App
• Integral cable storage and charging holster
• Supplied with a current sensor
• Remote software updates
• High weather protection rating (IP65)

Controls and Indicators

1 Primary Status LED
Multi-coloured, highlighting the operational state and mode

2 Charging Status Indication
Four individual LEDs indicating whether the unit is disconnected from your EV, Connected but Idle or Charging

3 Tethered Charging Cable
For tethered variants, a 5m long charging cable is attached

4 Charging Connector Holster
When not in use, and to prevent water ingress, the charging connector should be pushed into the unit's holster

5 BOOST Button
If you need to over-ride your pre-set schedule, press BOOST on the unit or in the App to charge instantaneously at maximum rate

6 Integrated Cable Storage
When not in use, simply wrap the charging cable around the unit

Operation

Getting started

As soon as installation is complete, your Smart PRO will be ready to start charging. All you need to do is plug your EV in and go, it's that simple.

Indra App

At the end of the install process, you will also automatically receive a welcome email from Indra with details of how to register for the Indra App.

The Indra App is designed to get the most out of your Smart PRO, from seeing the charger status, setting the charging mode, updating preferences, viewing charging history, get support and much more.

The Indra App is available through your phone's web browser and works on all major platforms (including Android, iOS & Windows).
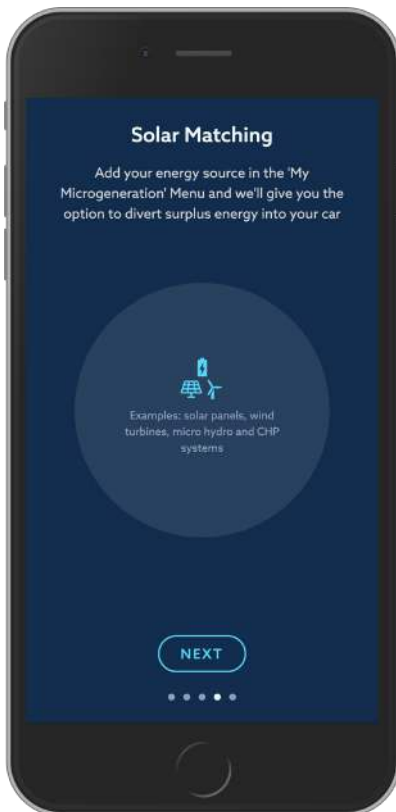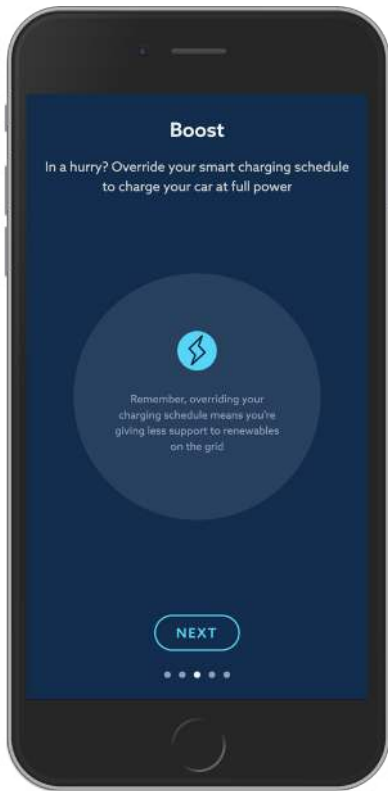
Once you create an account and sign-in for the first time, you will be guided through the initial set-up and details of the key smart features how to use them:
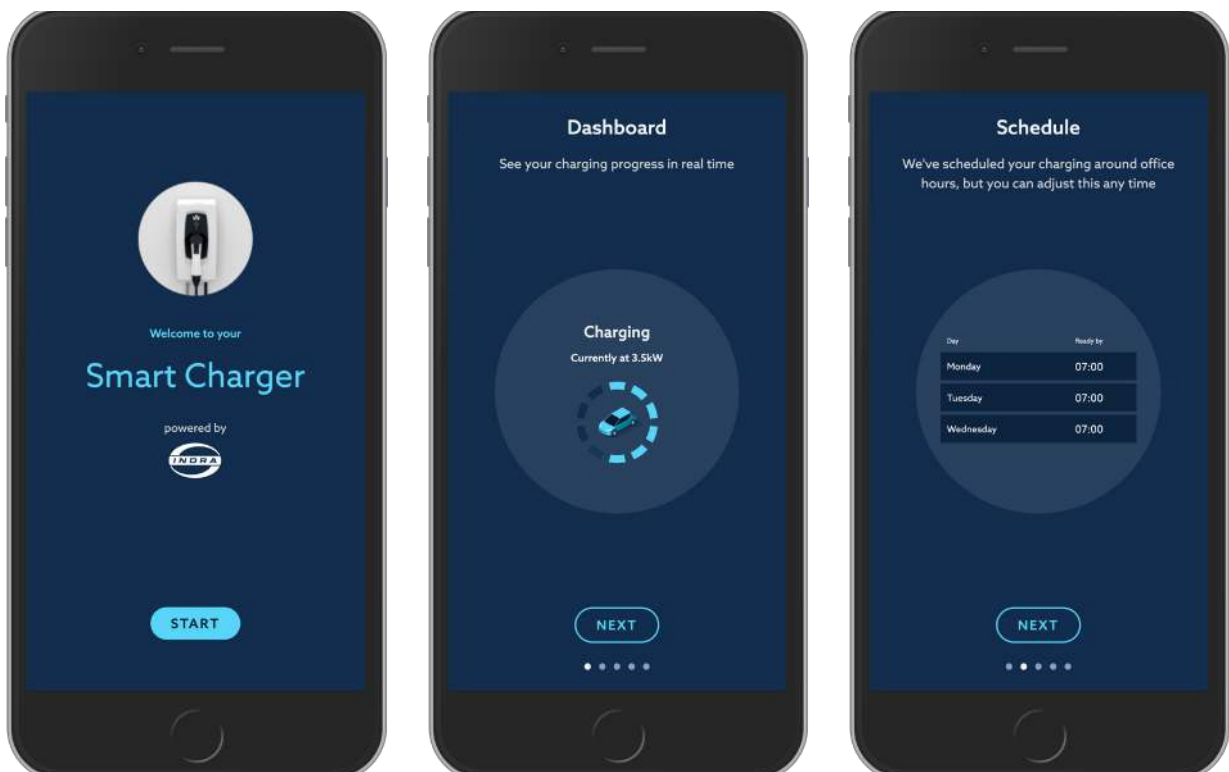
1. Welcome screen

2. Dashboard and how you see your current charger and session details

3. Scheduling feature (with default ready by set for 7am weekdays and 9am at weekends) and how to customise this later.

6

Boost

In a hurry? Override your smart charging schedule to charge your car at full power

Remember, overriding your charging schedule means you're giving less support to renewables on the grid

NEXT

Charge off-peak

Add your tariff details, and we'll delay your charging until the off-peak period. We'll show you your charging costs too

How many time periods does your energy tariff have?

1   2   3   4

Unit rate (p/kWh)

START

Solar Matching

Add your energy source in the 'My Microgeneration' Menu and we'll give you the option to divert surplus energy into your car

Examples: solar panels, wind turbines, micro hydro and CHP systems

NEXT

4. Where to find Boost mode to override the Smart PRO smart schedules and charge your EV immediately

5. How to add local generation, like solar, and we will give you the option to divert surplus energy into your EV

6. Where to add your energy tariff details to ensure the cheapest charging session (and show you charging costs)

7

Using the Indra App

Boost Mode

Charging Status

Schedule Details

Session Data
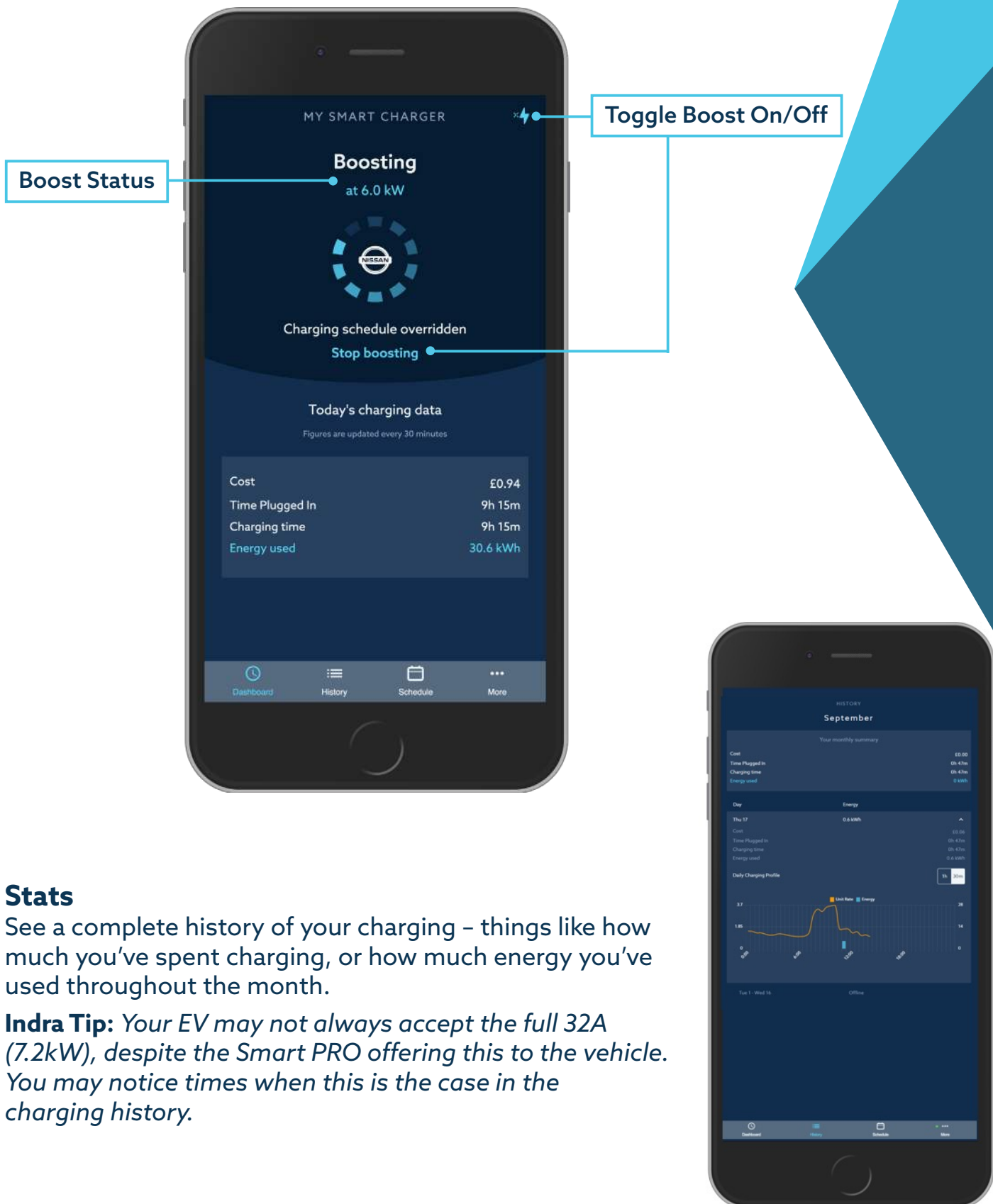
Navigation Buttons
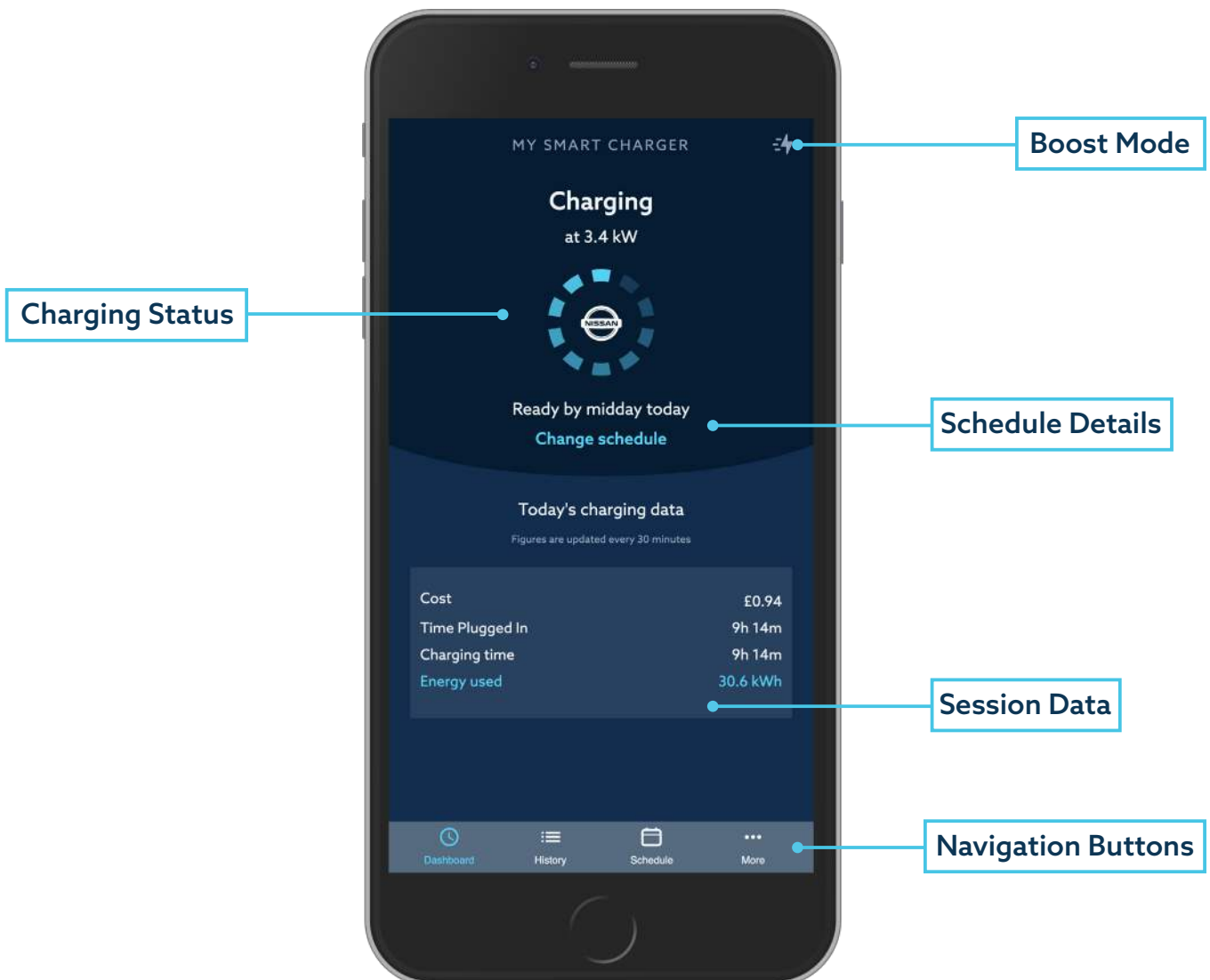
Smart Mode

The Smart PRO will operate in **Smart Mode** by default, automatically calculating your personalised charging schedule, every time you plug in. To do this the Smart PRO will use the information you provide in the Indra App - for example your energy tariff and when you need your EV – to make sure your EV is ready when you need it and at the lowest cost.

Indra tip: *don't worry if your EV doesn't start charging immediately when plugged in, Smart Mode is waiting for the best time to start charging. You can check when the charging session is due to start on the home page of the App.*

Boost Mode

Boost Mode allows you to override **Smart Mode** to charge at full power, immediately. This might not be the cheapest option on your tariff or use the most solar, but it will be the fastest!

INDRA Tip: *you can switch Boost Mode on and off either in the App or on the front panel of the Smart PRO itself.*

Toggle Boost On/Off

Boost Status

MY SMART CHARGER

Boosting
at 6.0 kW

Charging schedule overridden
Stop boosting

Today's charging data
Figures are updated every 30 minutes

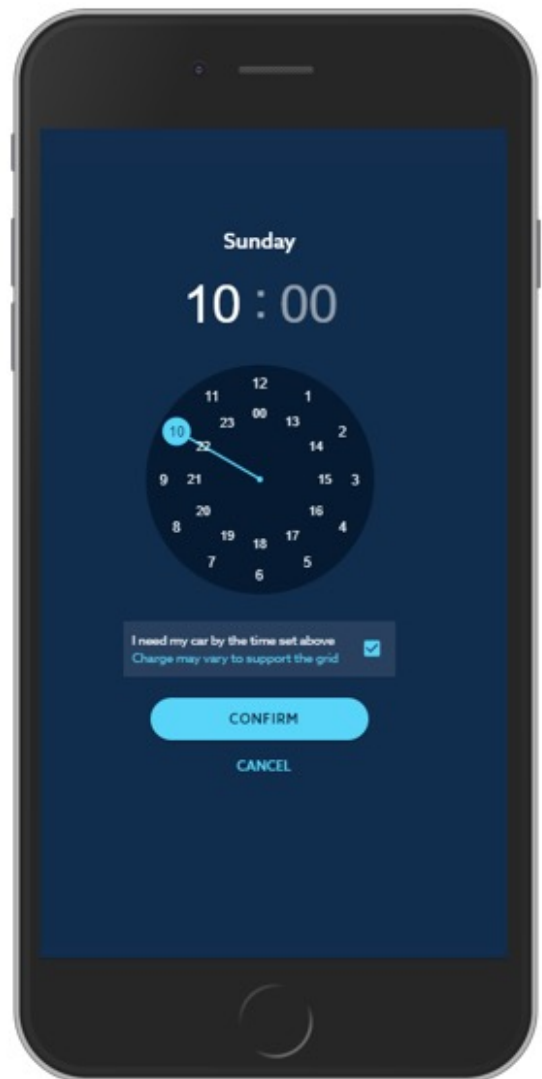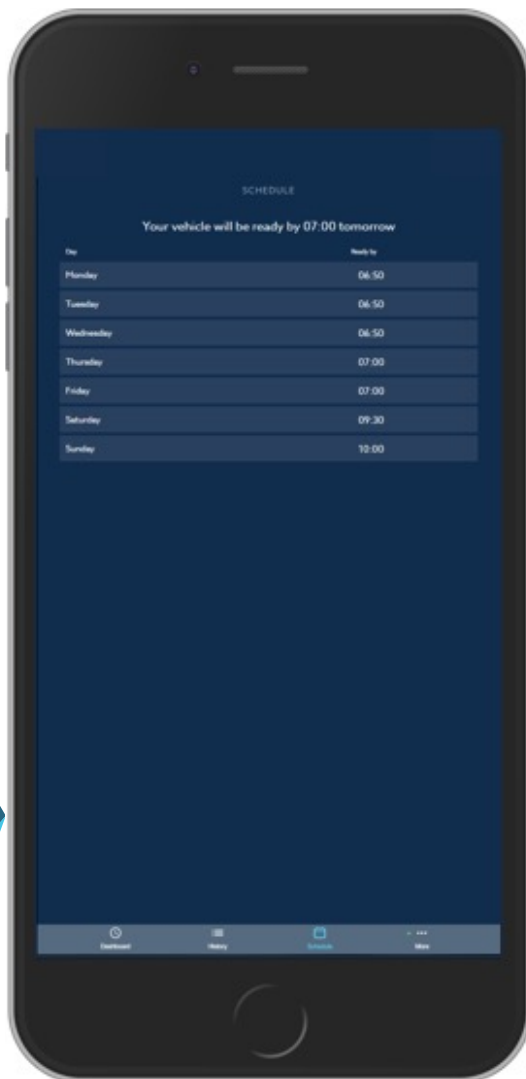|	
Cost	£0.94
Time Plugged In	9h 15m
Charging time	9h 15m
Energy used	30.6 kWh

Dashboard   History   Schedule   More

Stats

See a complete history of your charging – things like how much you've spent charging, or how much energy you've used throughout the month.

Indra Tip: *Your EV may not always accept the full 32A (7.2kW), despite the Smart PRO offering this to the vehicle. You may notice times when this is the case in the charging history.*

HISTORY
September

9

Charging Schedule

To set up your charging schedule, simply select the time you'd like your car to be charged by each day. When the charger is in Smart Mode, it'll make sure your car is ready to drive by these times.

SCHEDULE

Your vehicle will be ready by 07:00 tomorrow

Day	Ready by
Monday	06:50
Tuesday	06:50
Wednesday	06:50
Thursday	07:00
Friday	07:00
Saturday	09:30
Sunday	10:00

Sunday

10 : 00

I need my car by the time set above
Charge may vary to support the grid ☑

CONFIRM

CANCEL

Vehicle Details

To ensure scheduling is met, the associated battery capacity of your EV must be added. From the App dashboard, click on "More" where you will find "Vehicle Details". Within this page select the appropriate vehicle manufacturer and then the specific model of your EV.

INDRA tip: *Ensure the correct battery capacity is showing in the App, this is one of the most important things Smart Mode will use to calculate your personal schedule.*
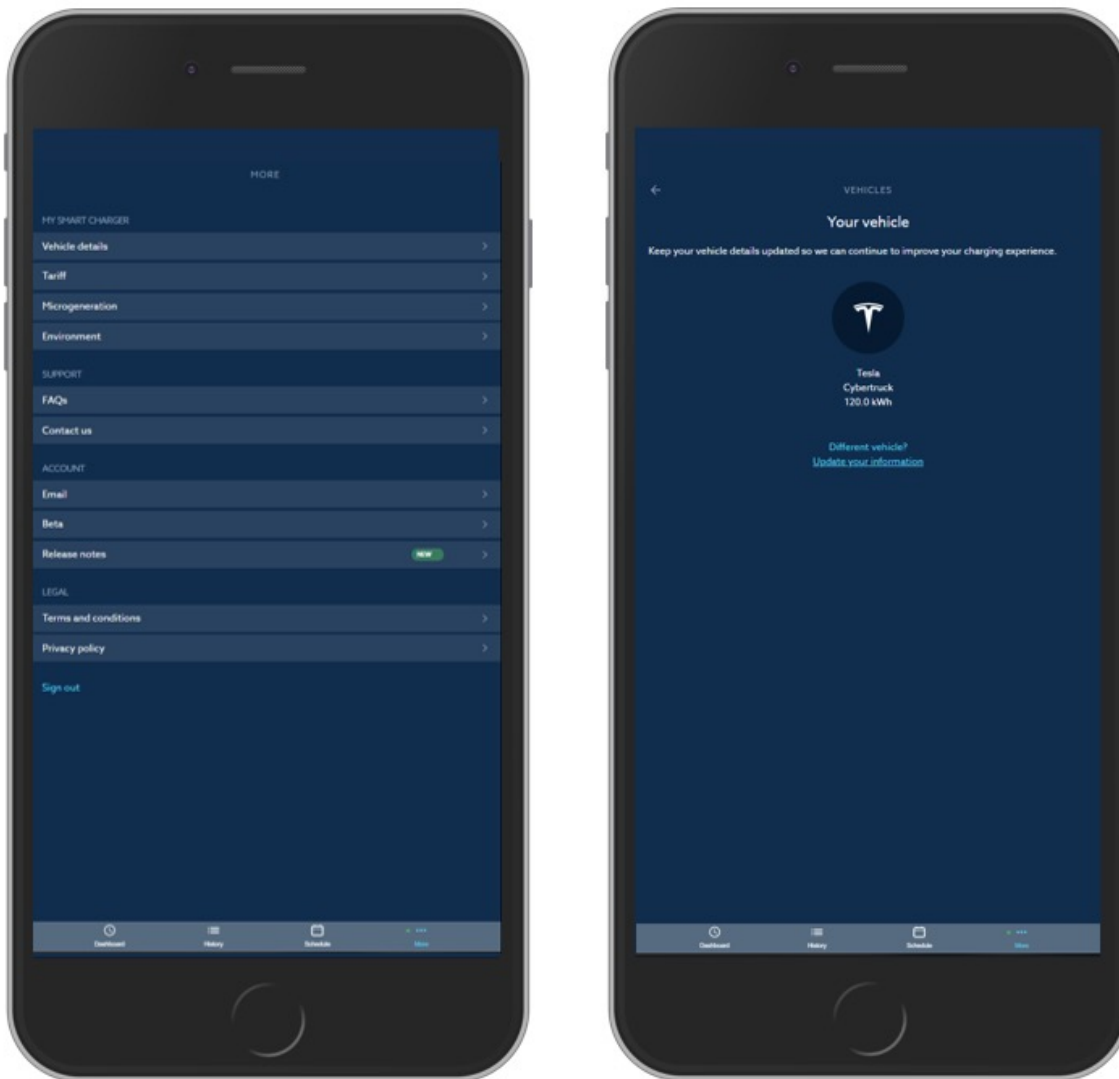
Solar Matching

Where solar PV (or other forms of local generation) has been installed, your Smart PRO can use surplus solar output to charge your EV, increasing your self-consumption. This can be set up within the INDRA App by navigating to "More" and then "Microgeneration".

Support & Frequently Asked Questions

Although the INDRA App has been designed to be intuitive and self-explanatory, should you have any further questions. Then please check out our "FAQs" which cover a host of topics; you'll find more ways to get help in the "Contact us" page.
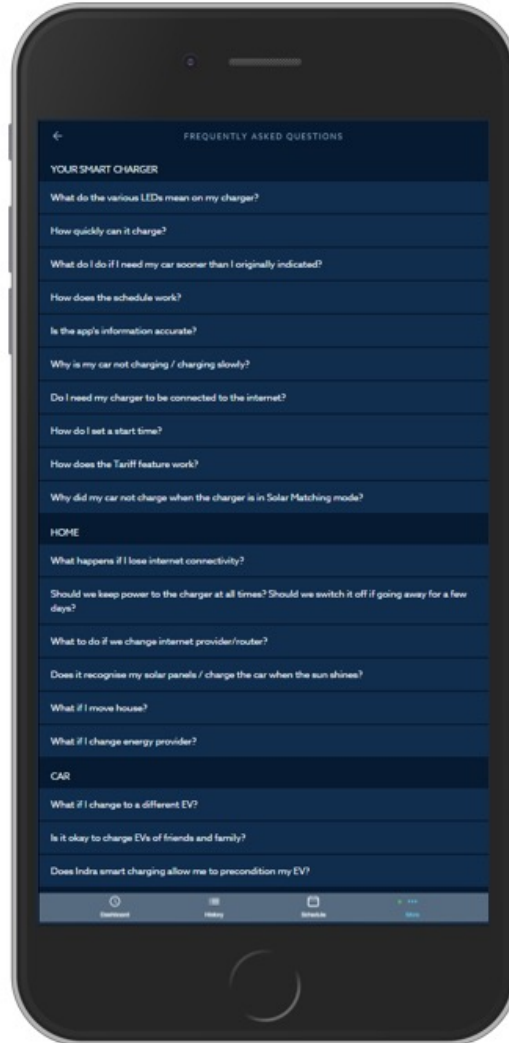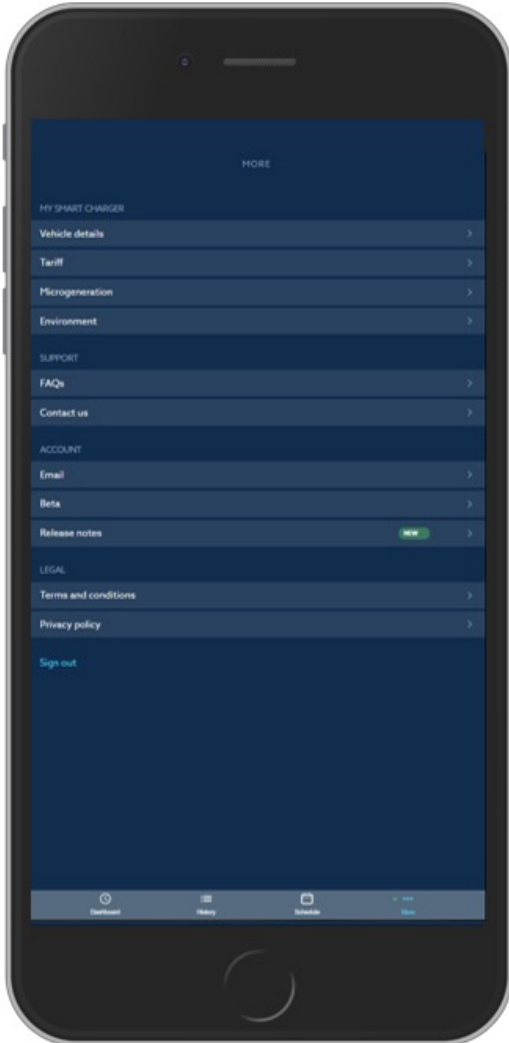
Charging Cable Stow age

⚠️ NOTE: APPROPRIATE CHARGING CABLE STOWAGE IS ESSENTIAL TO PREVENT INADVERTANT TRIPS/ FALLS OR DAMAGE TO THE EV CONNECTOR

Tethered Variants (190105A101 & 190105A102)

- Disconnect the Smart PRO connector from your EV.
  Seek manufacturer guidance on how to do so, as this is often EV specific (Nissan Leaf disconnection is via the EV's key fob for example)
- Coil the 5metre long charging cable around the circumference of the rear body of the Smart PRO, several times, leaving a very short tail.
- Push the male charging connector into the blank holster recess of the Smart PRO unit, so that it clips/ latches into position and is held.
- Ensure that no part of the coiled charging lead is trailing on or close to the ground.

Socketed Variant (190105A103)

- Disconnect the Smart PRO from your EV.
  Seek manufacturer guidance on how to do so, as this is often EV specific (Nissan Leaf disconnection is via the EV's key fob for example)
- Remove your charging cable connector from the EV socket FIRST.
- Completely detach your charging cable from the Smart PRO unit by first pushing gently inwards towards the rear of the charger unit *(this removes any pressure from the locking pin, allowing it to retract fully).*
- Secondly, carefully pull downwards on your charging cable connector to remove it from the Smart PRO device.
- Coil and stow this loose cable somewhere secure, and where it won't create a trip hazard.

Technical Specifications

General Specification	
Model Name	Smart PRO
Mode	Mode 3: Type 2 socket, Type 1 or Type 2 tethered cable
Overall Dimensions	200mm x 130mm x 420mm
Weight	3.5kg (excluding cable)
Operating temperature	-20°C to 50°C
Charging Cable Length	Up to 5m
Operating humidity	10% to 85%
Installation	Indoor / Outdoor wall mounted
Communications	Ethernet or Cellular Network (optional)
Communication Protocol	Kaluza proprietary, TLS
User Interface	Capacitive Touch Panel Customer Companion App
Certification	CE certified
Electrical Specification	
Max. output power	7.4kW (1P)
Input voltage	230V, AC ± 10% (1P)
Output current	Variable up to 32A
Nominal frequency	50Hz
Degree of protection	IP66 protection
Overvoltage category	CAT III

Troubleshooting

All LEDs are off
Unit is in a powered OFF state.
The unit has no power. Check the mains wiring and make sure that all connections are correct. Ensure that all RCD or selector switches are in the correct operational state. If the connections are correct and checked twice contact Customer support.

Primary LED White, lit in Steady State
Smart mode
The unit is connected to Indra. The unit will charge based on driver requirements and smart schedules.

Primary LED Blue, lit in Steady State
Boost mode
The 'Boost' button has been pressed. The unit is now charging at full power and will over-ride any scheduling commands.

Primary LED Yellow, lit in Steady State
Solar Match mode
The unit is using micro-generated, on-site electricity to charge the EV

Primary LED Red, lit in Steady State OR Primary LED Red, Flashing**
Fault mode
The unit has encountered an error.
Perform a hard restart on the unit by turning the rotary isolator switch on and off or by flipping the RCD inside the house consumer unit.
If the steady red light persists upon reboot, contact Customer Support.

Primary LED Purple, Solid on Start-up/immediately after a Power Cycle
Booting
The unit is now powering up and running its start-up sequence, this will last for a period of approximately 30 seconds.
Do not attempt to plug the device into an EV whilst booting is in progress.

Primary LED Blue, Flashing**
Software update in progress.
The unit is now downloading a software update from the cloud. Ensure that the unit is not disconnected from the internet, or power removed from the device, during this period/ procedure.

Primary LED Purple, Flashing** (continuing after Start-up sequence)
The charger cannot communicate with Indra.
The repeating flashing pattern gives an indication of the fault:
1 flash, repeating - Connected to the internet but unable to connect to INDRA. Contact Customer Support. **2 flashes, repeating** - There is a problem with the connection to your router. Check all cables are plugged in, that the ethernet cable functions and that other devices in the home are connected to the internet or try restarting the router. **3 or more flashes, repeating** - There is likely a problem with the router. Check that other devices in the home are connected to the internet and try restarting the router.

Troubleshooting continued

⊗ **Charging Status Indicators Off**
EV is not connected
Plug in your EV to enable charging
Where an untethered cable is being used, ensure the device end
is plugged in first, before plugging the opposite end into the EV

◯ **Charging Status Indicators White, Cycling Downwards**
Charging Mode
The charger is currently charging your vehicle.

◯ **Charging Status Indicators White, all lit in Steady State**
Idle
The charger is currently idle and not charging.

☼ **Charging Status Indicators White, all Flashing**
Delay
The charger knows a vehicle is connected but is currently Idle.
Either the car is fully charged or awaiting a scheduled charge.
If neither of the above applies, contact Customer Support.

Servicing, Maintenance & Support

If you run into any problems with your Smart PRO, please don't try to repair it yourself.

The Smart PRO MUST NOT be repaired by the customer. Repair of the charger is to be carried out ONLY by the manufacturer or their approved installation partners.

In the case that any Smart PRO system safety component (defined as any breaker, fuse, limit cut out, enclosure, grounding equipment) fails completely or partially; maintenance or replacement of the charger may be required.

Disposal

In accordance with European Directive 2002/96/EC on Waste Electrical and Electronic Equipment ("WEEE") and its implementation in national law, used electrical devices such as the Smart Pioneer must be collected separately and recycled in an environmentally responsible manner.

All end of life Smart Pioneer devices must be returned to Indra Renewable Technologies Ltd for appropriate recovery & recycling.

If this cannot be achieved, then the customer must take the end of life product to a designated collection facility (DCF) as detailed by their local authority (LA). Such facilities include civic amenity and waste collection sites.

Support and Contact Information

We're sure you'll enjoy charging with your Smart PRO, but if you do experience any issues or require technical support, please get in touch with your **installation retail partner** in the first instance.

You will require your **customer account number**, which can be found within the **'Contact Us'** section of the Indra App, along with your charger serial number, the date of installation, and a brief description of the issue

Open Source Declaration

This product contains Free/Open Source Software. For further information, please visit https://storage.googleapis.com/etp_oss/index.html

Contact Indra

For more information, please contact us;

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