HOME EV CHARGING

STANDARD OPERATION PROCEDURE (SOP)

FOR ELECTRIC VEHICLE OWNERS

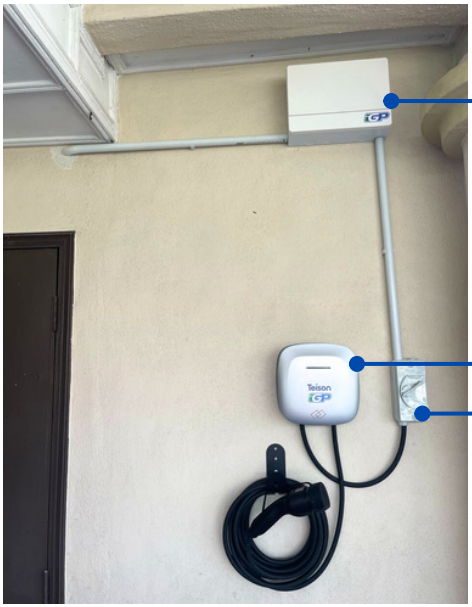
By Innovative Green Power (IGP)

Based on real installation, commissioning & support experience

+6012 595 4786 (WhatsApp)

innovativegreenpower.com

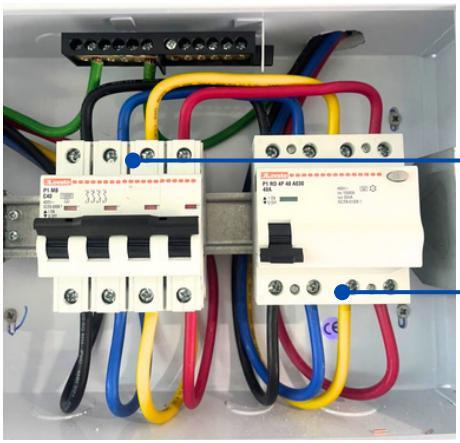
LIST OF COMPONENTS



DISTRIBUTION BOARD (DB)

EVSE/ WALLBOX

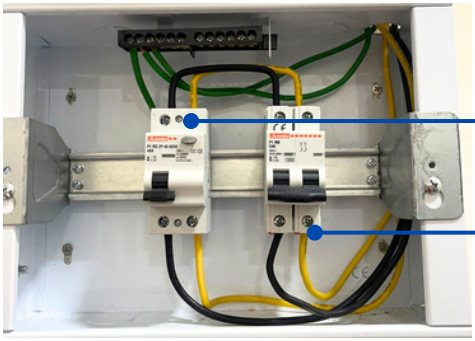
ISOLATOR SWITCH



THREE PHASE 40A 4 POLE RCCB TYPE A

THREE PHASE 40A 4 POLE MCB TYPE C

LIST OF COMPONENTS



SINGLE PHASE 40A 2 POLE RCCB TYPE A

SINGLE PHASE 40A 2 POLE MCB TYPE C

FUSE CASING

BLADE FUSE

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Why this Guide exists?

From years of installing, commissioning, and supporting home EV chargers, we have learned that most charging issues are not caused by faulty chargers, but by incorrect usage, switching power under load, or misunderstanding normal charging behaviour.

This SOP is designed to help new EV owners:

- Use their charger correctly and safely
- Shut down charging in the correct sequence
- Respond calmly and correctly when something does not work
- Contact the right party so issues can be resolved efficiently

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NORMAL DAILY USE

1. Before You Plug In

- Ensure the charger, cable, and socket are **dry and undamaged**
- Turn **ON** the charger power
- Wait until the charger shows **Ready / Standby**
- Ensure the vehicle is in **Park (P)** and switched off

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2. How to Start Charging

(Method depends on your charger type)

1. Ensure the charger is **powered ON** and shows **Ready / Standby**
2. Plug the charging cable **into the vehicle**

Then follow ONE of the following, depending on your charger:

- **Plug & Charge:** Charging starts automatically after plugging in
- **Card / RFID:** Scan your card to start charging
- **Mobile App:** Start charging using the charger's mobile app

3. Confirm charging has started on:

- Charger indicator light, and/or
- Vehicle screen or mobile app

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3. During Charging

- For most chargers, charging speed may increase or decrease slightly — this is normal
- Chargers with load management may adjust power more noticeably based on your home's electricity usage
- The cable may feel **warm**, especially during longer charging sessions
- **Do not** turn OFF the charger or operate any power switches while charging

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4. How to Stop Charging (Critical)

Stop charging using:

- Vehicle screen, key, or mobile app
- Wait until charging has **fully stopped**
- Unplug the charging cable from the **vehicle**
- Only then, turn OFF the charger power if required

Always stop charging and unplug before turning the charger OFF.

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WHEN SOMETHING GOES WRONG

1. Charging Does Not Start

If the charger still has power (lights or display ON):

- Check the charger indicator or display for any error messages
- Refer to the charger manual if needed
- Contact the appropriate party:
  - **Charger Supplier / Distributor** → charger or software-related issues
  - **Electrical Contractor / Installer** → electrical or installation-related issues

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2. Charger Has NO Power

Check the circuit breakers at your electrical panel

- If a breaker is tripped, reset it gently to the **ON** position

What this usually means:

- **MCB tripped** → overload or short circuit
- **RCCB tripped** → safety protection activated due to leakage
- If the breaker stays ON, you may continue using the charger
- If it trips again, **stop using the charger and contact your installer**

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3. Breakers Are Not Tripped

If the rest of the house still has power:

- Switch OFF the EV charger breaker
- Contact your **electrical contractor / installer**
- The EV charging circuit must be checked before reuse

If part or all of the house has no power:

- The main fuse may have blown
- Contact **TNB Careline: 15454**
- Review your recent usage to ensure your home power capacity was not exceeded

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4. Everything Else Works but the Charger Has No Power

- Contact the **EV charger supplier / distributor** for warranty support
- For warranty cases:
  - Installation documentation and test results may be required
  - Your installer may need to assist with technical verification
  - Service or inspection fees may apply if the issue is product-related and not installation-related

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STOP USING THE CHARGER IMMEDIATELY IF YOU NOTICE:

- Burning smell
- **Extremely hot cable, socket, or charger**
- *(If you cannot touch it comfortably with your hand, it is too hot)*
- Repeated tripping after reset

WHO TO CONTACT

- **Electrical or Installation Issues:** Your Electrical Contractor / Installer
- **Charger or Software Issues:** Charger Supplier / Distributor
- **Power Supply Issues: TNB Careline 15454**

PENGECAS EV DI RUMAH

PROSEDUR OPERASI STANDARD (SOP)

BERDASARKAN PENGALAMAN PEMASANGAN DAN SOKONGAN SEBENAR

Tujuan Panduan Ini?

Kebanyakan masalah pengecasan EV bukan disebabkan pengecas rosak, tetapi akibat cara penggunaan yang salah, mematikan kuasa semasa beban, atau salah faham tingkah laku pengecasan normal.

Panduan ini membantu anda menggunakan pengecas dengan selamat dan tahu siapa perlu dihubungi apabila berlaku masalah.

PENGGUNAAN HARIAN

1. Sebelum Sambung Pengecas

- Pastikan pengecas, kabel dan soket kering dan tidak rosak
- Hidupkan kuasa pengecas
- Tunggu status **Ready / Standby**
- Kenderaan dalam mod (P) dan dimatikan

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2. Cara Memulakan Pengecasan *(bergantung pada jenis pengecas)*

1. Pengecas dihidupkan dan dalam keadaan Ready
2. Sambungkan kabel ke kenderaan

Pilih SATU kaedah:

- Plug & Charge → mula secara automatik
- Kad / RFID → imbas kad
- Aplikasi → mula melalui aplikasi

Sahkan pengecasan pada pengecas atau skrin kereta.

3. Semasa Mengecas

- Kebanyakan pengecas akan melaras kelajuan sedikit — ini normal
- Pengecas dengan pengurusan beban akan melaras kuasa dengan lebih ketara mengikut penggunaan elektrik rumah
- Kabel mungkin terasa suam
- JANGAN matikan kuasa atau suis semasa mengecas

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4. Cara Menghentikan Pengecasan (Penting)

- Hentikan pengecasan melalui skrin kereta / kunci / aplikasi
- Tunggu sehingga pengecasan berhenti sepenuhnya
- Cabut kabel dari kenderaan
- Setelah itu, matikan kuasa pengecas jika perlu

PENGECAS EV DI RUMAH

PROSEDUR OPERASI STANDARD (SOP)

BERDASARKAN PENGALAMAN PEMASANGAN DAN SOKONGAN SEBENAR

APABILA BERLAKU MASALAH

Tidak mula mengecas (pengecas ada kuasa):

- Periksa lampu pada charger/ notifikasi pada apps
- Rujuk buku manual
- Hubungi:
  - Pembekal pengecas → masalah pengecas
  - Kontraktor elektrik → masalah pendawaian

Pengecas tiada kuasa:

- Periksa pemutus litar (breaker)
- Tekan reset sekali sahaja

Jika trip berulang → hentikan penggunaan dan hubungi kontraktor.

“**Breaker” tidak trip:**

- Rumah ada elektrik → matikan “breaker” pengecas, hubungi kontraktor
- Rumah tiada elektrik → hubungi **TNB 15454**

HENTIKAN PENGGUNAAN SERTA-MERTA JIKA:

- Terdapat bau terbakar
- Kabel / soket / pengecas terlalu panas *(Tidak selesa disentuh dengan tangan)*
- RCCB kerap trip

HUBUNGI

- Masalah elektrik → Kontraktor / Installer
- Masalah pengecas → Pembekal / Pengedar
- Masalah bekalan elektrik → **TNB 15454**

Obsesi kami terhadap kualiti melindungi keselamatan anda.

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HOME EV CHARGING

家用电动车充电器

标准操作程序（SOP）

基于实际安装与售后经验

本指南的目的

根据多年实际经验，大多数充电问题并非充电器损坏，而是由于使用方式不当、带负载断电或对正常充电行为的误
解。
本指南帮助您安全使用充电器，并在出现问题时采取正确行动。

日常使用

1. 插电前

- 确保充电器、电缆和插座干燥且无损坏
- 打开充电器电源
- 等待显示 **Ready / Standby**
- 车辆处于 P 档并关闭

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2. 开始充电（取决于充电器类型）

1. 充电器已通电并处于 Ready 状态
2. 将充电枪插入车辆

选择以下其中一种方式：

- 即插即充 → 自动开始
- 刷卡 / RFID → 刷卡启动
- 手机应用 → 通过应用启动

在充电器或车内屏幕确认充电状态。

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3. 充电过程中

- 大多数充电器功率会轻微变化，这是正常现象
- 带负载管理的充电器会根据家庭用电情况更明显地调节功率
- 电缆可能会感觉温热
- 充电过程中请勿关闭电源或开关

4. 停止充电（重要）

- 通过车机 / 钥匙 / 应用停止充电
- 等待充电完全停止
- 从车辆拔出充电枪
- 如需，才关闭充电器电源

出现问题时

无法开始充电（充电器有电）：

- 检查指示灯或错误提示
- 参考说明书
- 联系：
  - 充电器供应商 → 充电器问题
  - 电工 / 安装商 → 电器问题

充电器无电：

- 检查断路器
- 仅重置一次

若再次跳闸 → 停止使用并联系安装商。

断路器未跳闸：

- 家中有电 → 关闭充电器断路器，联系安装商
- 家中无电 → 致电 **TNB 15454**

如发现以下情况请立即停止使用：

- 烧焦气味
- 电缆 / 插座 / 充电器过热

(手无法舒适触碰)

- 反复跳闸

联系方式

- 电器问题 → 安装商
- 充电器问题 → 供应商 / 经销商
- 供电问题 → **TNB 15454**

我们对品质的坚持，守护您的安全。