

# Cabin Heater and COMFORT+ System

 User guide

 Manuel utilisateur



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# Cabin Heater Specifications:

Input (V/A): 120V ~ 60Hz / 15A

Operating Temperature: -40C to +40C

Certifications: UL Std. 1236, CSA Std. C22.2 N0. 107.2



Power Consumption:

	Cabin Temperature		
	-25C (-13F)	0C (32F)	+25C (77F)
1000W Cabin Heater	-25C (-13F)	0C (32F)	+25C (77F)
Power Consumption (W)	1000W	915W	830W
1200W Cabin Heater	-25C (-13F)	0C (32F)	+25C (77F)
Power Consumption (W)	1200W	1050W	900W



# Important Safety Instructions:

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1. **SAVE THESE INSTRUCTIONS** – This manual contains important safety and operating instructions for the Toyota COMFORT+ Cabin Heater. Read all instructions before installing or using this Heater.
2. This Heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes etc. and curtains at least 3 feet (0,9m) from the Heater during operation.
3. Extreme caution is necessary when any Heater is used by or near children and whenever the Heater is left operating unattended.
4. Do not operate any Heater after it malfunctions. Disconnect power at service panel and have Heater inspected by Toyota service facility.
5. Do not use outdoors.
6. To disconnect Heater, turn front panel switch to OFF and disconnect the Home Power Cable from the vehicle.
7. Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock or fire, or damage the Heater.
8. To prevent a possible fire, do not block air intakes or exhaust in any manner.
9. Do not use it in areas where gasoline, paint, or flammable vapors or liquids are used or stored.
10. Use this Heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
11. To reduce the risk of fire, do not store gasoline or other flammable vapors and liquids in the vicinity of the Heater.
12. An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If an extension cord must be used, make sure:
  - a) That the plugs of the extension cord are the same size, and shape as those of plug on charger (see Figure A on page 5);
  - b) That the extension cord is properly wired and in good electrical condition; and
  - c) That wire size of the extension cord conductors is large enough for the length of cord as specified in following Table:

<b>Minimum conductor AWG* size for extension cords for Toyota Comfort+</b>				
<b>Cord Length:</b>	25ft (7.6m)	50ft (15.2m)	100ft (30.5m)	150ft (45.6m)
<b>Min. Wire Size:</b>	<b>14 AWG (2.5mm<sup>2</sup>)</b>	<b>12AWG (4mm<sup>2</sup>)</b>	<b>10 AWG (6mm<sup>2</sup>)</b>	<b>8AWG (10mm<sup>2</sup>)</b>

\*AWG = American Wire Gauge

**NOTE:** Genuine Toyota COMFORT+ Home Power Cables are available in 5.0m (PK5A4-89J42) and 10m (PK5A4-89J44) lengths.

### 13. GROUNDING AND AC POWER CORD CONNECTION INSTRUCTIONS

It is recommended that a Ground Fault Interrupt (GFI) electrical outlet be used at all times when using this accessory to reduce the possibility of electrical shock.

Charger should be grounded to reduce risk of electric shock. Charger is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a GFI electrical outlet that is properly installed and grounded in accordance with all local codes and ordinances.

This battery charger is intended for use with a nominal 120-volt circuit, which has a grounding plug that looks like the plug illustrated in Figure A. Do not attempt to use an adapter or extension cord which does not have a dedicated ground connection as shown in Figure A.

**DANGER** – Never alter AC cord or plug provided. If an electrical outlet does not have a dedicated ground as shown in Figure A, do not use the charger or related accessories until a correct outlet has been installed by a qualified electrician. Improper connection can result in electric shock.

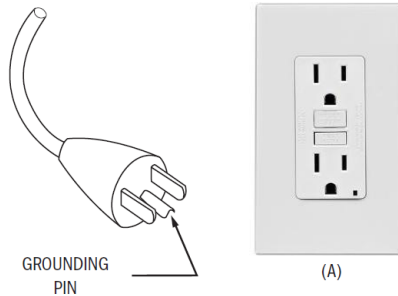


Figure A

14. The protective rubber cap of the Home Power Cable must always be fitted when the plug is not in use. If damage to the power input cable of the interior Heater is sustained, the appliance must be sent in for repair.
15. The appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
16. In order to avoid overheating, do not cover the Heater.

17. Read and follow the instructions/warnings located on the Home Power Cable:

### BEFORE USE

- A cord set Not Marked For Outdoor Use Is To be Used Indoors Only. See Label For Outdoor Marking.
- Inspect Thoroughly Before Each Use.

### DO NOT USE IF DAMAGED.

- Look For the **NUMBER OF WATTS** On Appliances To Be Plugged Into Cord.
- See **PRODUCT** or **LABEL** Markings for **SPECIFIC WATTAGE**.
- Do Not Plug More Than the **SPECIFIED NUMBER OF WATTS** Into This Cord.
- Do Not Run Through Doorways, Holes in Ceilings, Walls or Floors.
- Make sure Appliance is OFF Before Connecting Cord to Outlet.
- FULLY INSERT** Plug Into Outlet.
- Do Not Remove, Bend or Modify Any Metal Prongs or Pings of Cord.
- Do Not Use Excessive Force to Make Connections.
- Do Not Connect a Three-Prong Plug To a Two-Hole Cord



**THIS IS A POLARIZED CORD**

### DURING USE

- Keep Away From Water.
- DO NOT USE WHEN WET.**



- Keep Children and Pets Away From Cord.
- Do Not Plug One Extension Cord Into Another
- AVOID OVERHEATING.** Uncoil Cord and Do Not Cover it With any Material.
- Do Not Drive, Drag or Place Objects Over Cord.
- Do Not Walk on Cord.



### AFTER USE

- GRASP PLUG** to Remove From Outlet
- Always Store Cord **INDOORS.**
- Always Unplug When Not In Use.
- Do Not Unplug By Pulling On Cord.



**DO NOT REMOVE THIS TAG**

# Cabin Heater Operating Instructions:

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## Cabin Heater function and typical uses

The COMFORT+ cabin heater is a sleek and compact interior Heater that is permanently mounted inside the vehicle cabin. Equipped with positive temperature coefficient (PTC) technology, the cabin heater lowers its output as the car gets warm, so no excess electricity is used.

As the cabin heater heats up the interior of the vehicle, ice and snow buildup on the exterior of the vehicle may be reduced, potentially eliminating the need to scrape away ice or brush away snow. The warm air inside the cabin, combined with warm windows can also prevent condensation from forming, that can save time and give you a head start on your commute.

## Connecting the Cabin Heater

The cabin heater kit comes with a Bluetooth® Hub, Trickle Charger, and all associated cables. By pairing the Trickle Charger unit with the Bluetooth® Hub, the Trickle Charger unit can be used to control and schedule the cabin heater through the Toyota COMFORT+ APP. The APP allows you to program two "pickup" times, which determine when the vehicle needs to be preheated, and the duration of preheating. The temperature outdoors, in addition to the battery charging status, and power supply status can also be seen at a glance from the APP.

The kit is provided with a specialty *2.5m Home Power Cable* which allows you to connect your household electrical power supply to the vehicle/trickle charger via a bumper mounted socket.

The bumper mounted socket has a spring loaded flap to prevent dirt and contamination from entering the electrical contacts. Lift the lid of the socket to connect the *Home Power Cable*.

**CAUTION:** Read and follow all the important safety instructions on pages 4-6 before using the cabin heater.

**NOTE:** The *Home Power Cable* has an equipment-grounding conductor and a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances. To prevent damage to the charger *Home Power Cable*, always grasp the cable by the connector when connecting and disconnecting the cable.



Home Power Cable



Bumper Mounted Socket



Lift Socket Flap to Connect

## Controlling the Cabin Heater

Once programmed, the trickle charger and Bluetooth® hub can control the cabin heater. The cabin heater can be turned ON and OFF by the trickle charger unit according to the user-programmable schedule – this allows you to turn on the cabin heater only when it is required, reducing overall electricity consumption.

Refer to the “Bluetooth® Hub and mobile APP” section of this manual to learn more.

The cabin heater also has a front-panel mounted ON/OFF switch that can be used to turn off the cabin heater manually when it is not required. This function may be desirable in the summer months where only the trickle charger function is required.

## Maintenance

At the beginning and end of each winter season, clean and lubricate the contacts of the *Home Power Cable* and the bumper mounted socket with electronic parts cleaner and lubricant. After cleaning and lubrication of the *Home Power Cable* is complete, cover the terminals with the supplied rubber cap.

**CAUTION:** Some electronic parts cleaners and lubricants can damage the surface of your vehicle. Avoid contact between the cleaner and vehicle paint and plastics.

## Storage

Always store the Home Power Cable indoors, in a cool, dry place.  
Store the cable neatly to prevent damage.

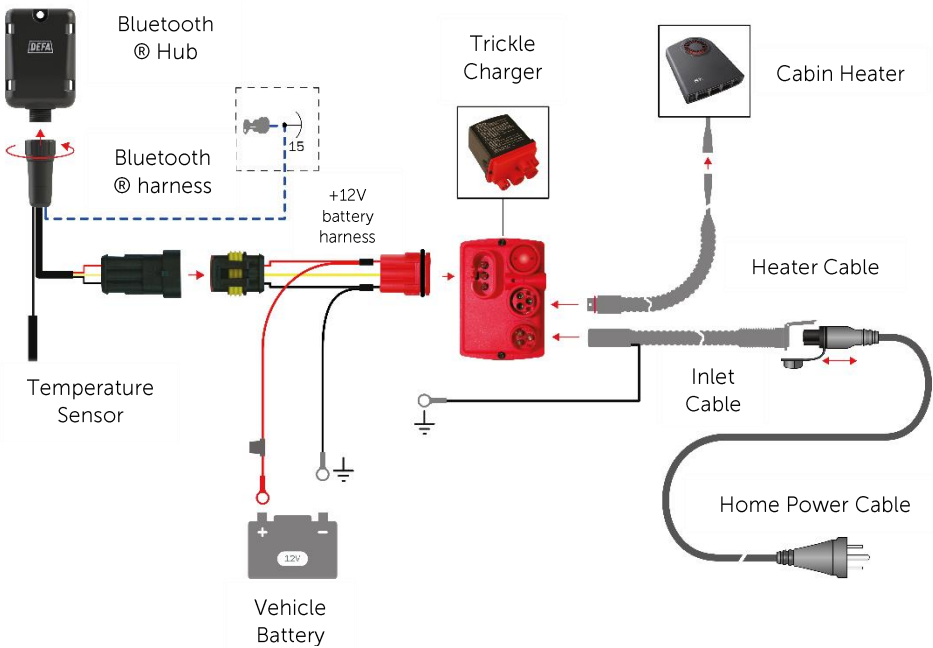


# System Configurations:

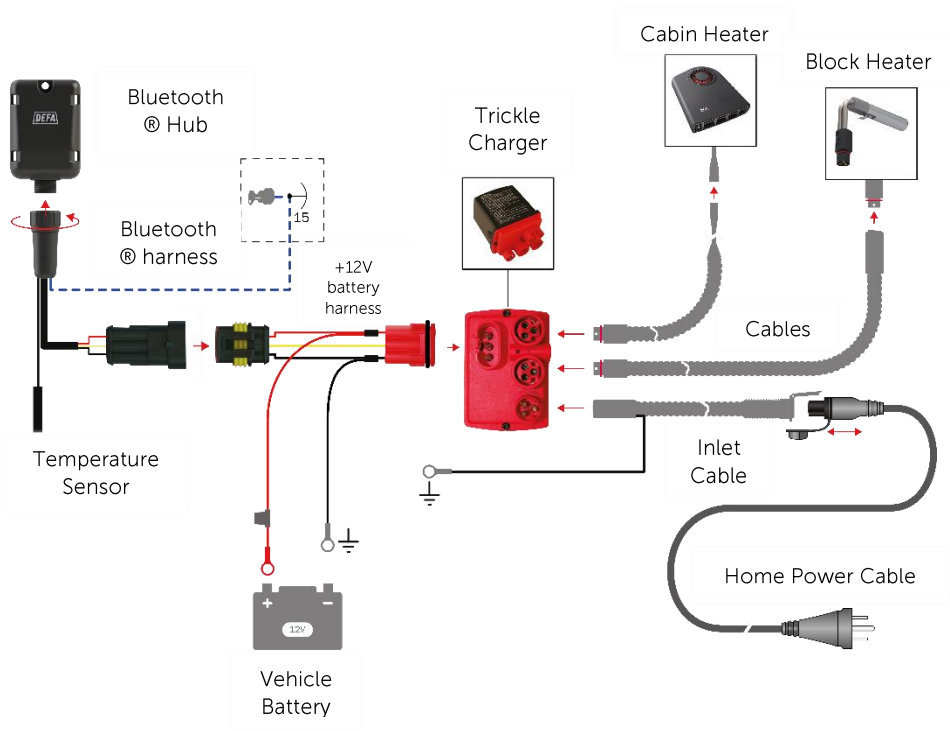
## Cabin Heater Configurations (Smart)

The cabin heater is controlled by the Bluetooth® Hub and Trickle Charger. The Bluetooth® Hub and associated Toyota COMFORT+ mobile phone application allows you to turn ON and OFF the connected accessories automatically, manually, or according to a user-programmable schedule. Strategically controlling the connected accessories allows the user to reduce electricity consumption by turning on the accessories only when required.

The following diagrams show the range of cabin heater configurations:



Trickle Charger, Cabin Heater, and Bluetooth® Hub (Smart)



Trickle Charger, Block Heater, Cabin Heater, and Bluetooth® Hub (Smart)

# Bluetooth® Hub and mobile APP:

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## Phone compatibility

To operate the Toyota COMFORT+ mobile application (APP) on your smartphone, the following hardware and software requirements must be met:

- a) Your mobile phone must be capable of Bluetooth® Smart (not classic Bluetooth®).
- b) Refer to the App Store to see which iOS versions are currently supported, and to the Google Play Store to see which Android versions are currently supported by the Toyota COMFORT+ app. Please note that OS requirements are subject to change without notification.

## Downloading the APP

The "Toyota COMFORT+" mobile APP is available for download, free of charge, from the Apple APP Store and Google Play Store respectively

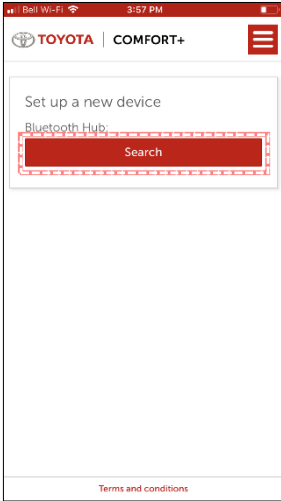
Once the APP is downloaded and installed on your smartphone, ensure that the Bluetooth® function is turned on and enabled within your phone settings.

## Setting up Bluetooth® Hub (Pairing)

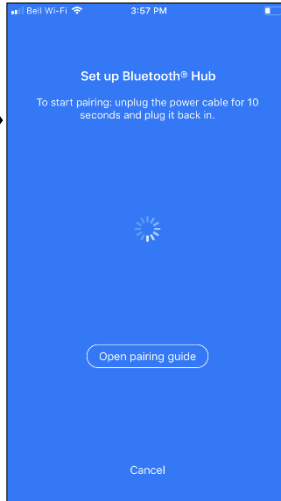
The Bluetooth® Hub installed on your vehicle needs to be paired with the Toyota COMFORT+ APP and your smartphone to control the Toyota COMFORT+ system.

To pair the Bluetooth® hub with your smartphone the following steps must be followed:

- a) You must be near your vehicle (within 10ft or 3m)
- b) You must have the Home Power Cable ready and plugged into a household electrical supply (do not connect to vehicle at this time).
- c) Launch the Toyota COMFORT+ APP and select "Search" for Bluetooth® Hub.
- d) The Bluetooth® Hub search screen should appear.
- e) Connect the Home Power Cable to the vehicle to power up the COMFORT+ system.
- f) When the Bluetooth® hub serial number is recognized, select "Pair this device" to complete the pairing process.
- g) The connected Bluetooth® Hub will now appear as "Bluetooth® Hub".
- h) Install any required updates to the Bluetooth® Hub to ensure correct functionality of the system.



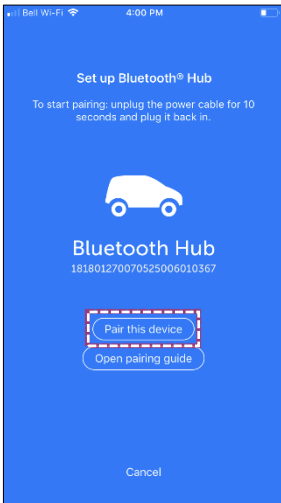
c)



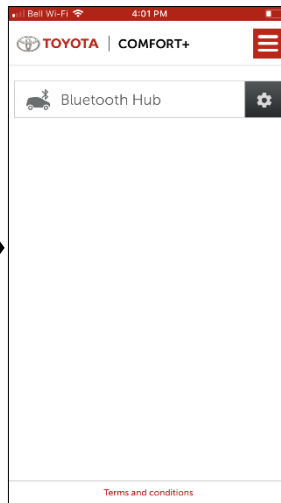
d)



e)



f)



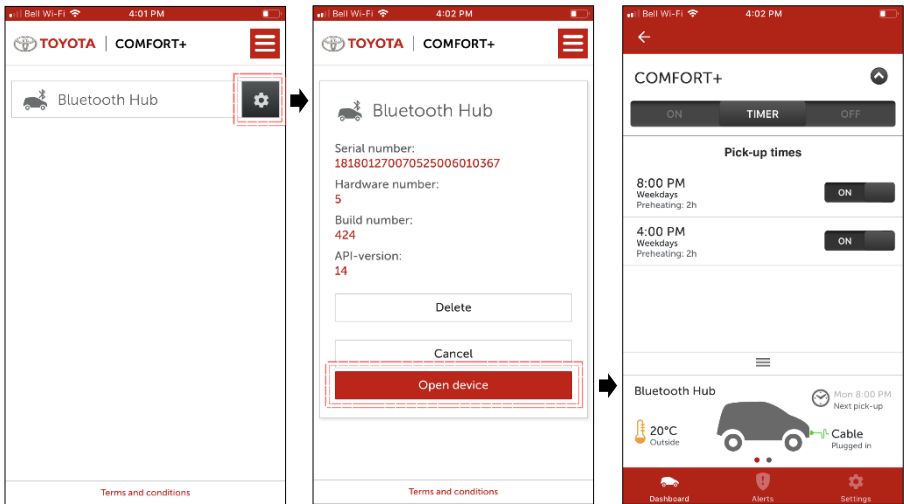
g)

**NOTE:** Up to 5 smart phones can be paired to one Bluetooth® Hub, however, only one phone can be connected and operating the COMFORT+ system at one time. The first phone that enters the range of the hub will connect automatically. After initial setup and programming, the COMFORT+ system operates even if you disable Bluetooth® on your phone. However, you must enable Bluetooth® and stay in range to be able to change programming and settings.

## APP user guide

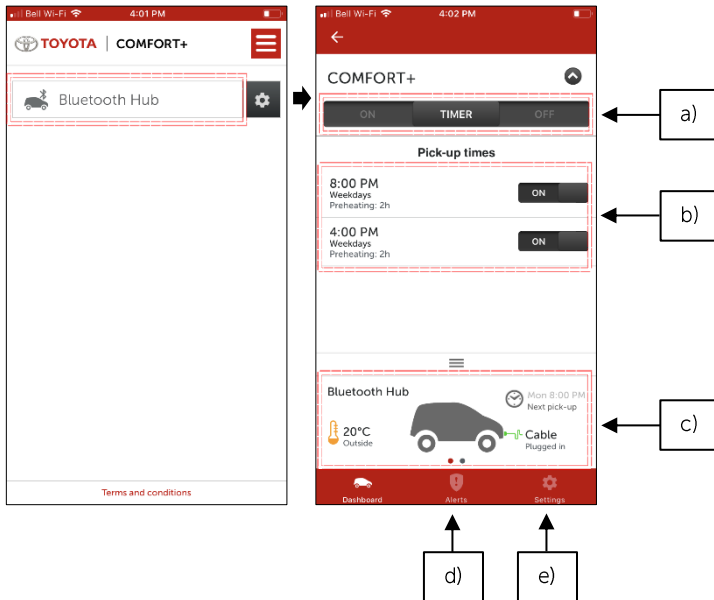
Once a Bluetooth® Hub has been paired with your smartphone, you must be within Bluetooth® range of the vehicle to modify the Bluetooth® Hub settings.

To modify and/or view the Bluetooth® Hub settings, select the settings icon. The Bluetooth® Hub's; serial number, hardware number, build number, and API are shown. You also have the option of deleting (unpairing) the Bluetooth® Hub, cancelling, or proceeding to programming by selecting the "Open device" button.



To modify and/or view the Bluetooth® Hub programming, select the programming icon. The dashboard of the COMFORT+ APP will show the following:

- a) System toggle switch (ON, TIMER, OFF)
- b) Pickup time programming buttons.
- c) Vehicle status (outside temperature, next pickup time, power supply cable and battery charging status)
- d) Alerts tab
- e) Settings tab (different than Bluetooth® Hub settings)



### System toggle switch (a)

The “system toggle switch” can be used to turn the system ON, allow the system to operate according to the TIMER, or to turn the system OFF.

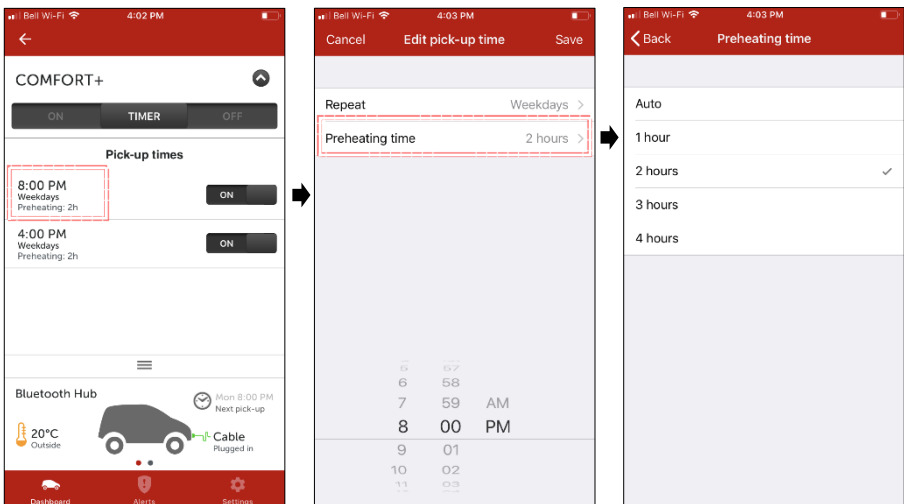
## Pickup time programming buttons (b)

When the "system toggle switch" is set to TIMER mode, the system will turn on and off according to the two pickup times. The customizable pickup times can be programmed according to your daily schedule. To activate the pickup time, slide the pickup time toggle switch to ON.

To change the pickup time schedule, select the pickup time you want to edit. The pickup time you choose represents the time when you want to use your vehicle. The preheating time represents how long before your pickup time the COMFORT+ will turn on and begin preheating.

You can manually set a preheating time or you can allow the built-in temperature sensor to determine when heating is required by selecting the "Auto" feature.

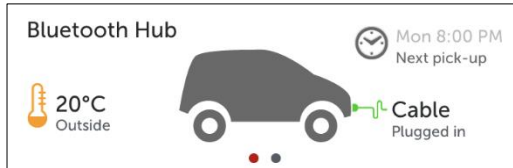
**NOTE:** the "Auto" feature does not operate the system above +10C.



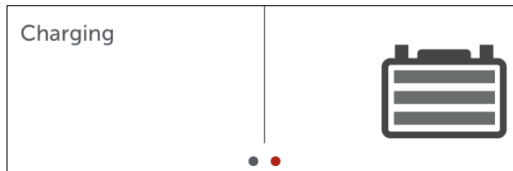
## Vehicle Status (c)

The vehicle status panels display key information about your vehicle and COMFORT+ system. Swipe left and right to toggle between them.

The exterior temperature, next pickup time, and power supply cable status is available on tile 1:



The battery charging status is available on tile 2:



## Alerts tab (d)

A cable alarm is used to notify the user that the vehicle has been turned ON with the power supply cable still connected to the vehicle. This alarm is meant to prevent the user from driving off while still connected to the Home Power Cable.

For the cable alarm feature to function, the following conditions must be met:

- Mobile phone must be running the Toyota COMFORT+ APP.
- Mobile phone must have Bluetooth® enabled.
- Mobile phone must be within Bluetooth® range of the vehicle.
- Vehicle IGN must be turned ON.
- Vehicle must be plugged in to a power supply.

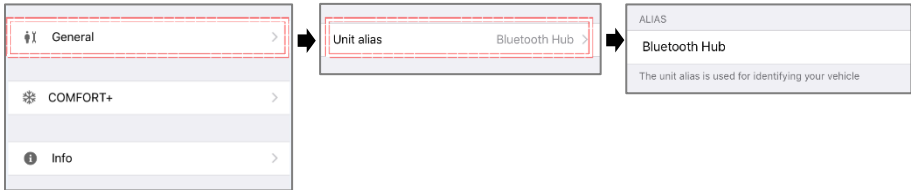
**NOTE:** Some hybrid vehicles may not support the cable alarm feature.



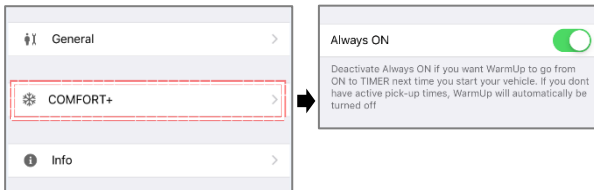
## Settings tab (e)

Additional system settings are accessible via the "Settings" tab.

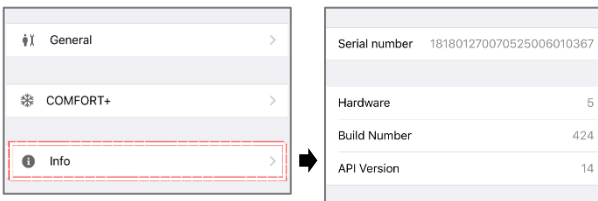
You can assign a custom name/alias to your vehicle by selecting the "General" tab:



If the system toggle switch is set to ON, the Toyota COMFORT+ system will operate each time you connect a power supply, this is referred to as "Always ON" mode. If you want the system to default back to TIMER the next time the vehicle is connected to a power supply, turn off the "Always ON" feature accessible by selecting the "COMFORT+" tab:



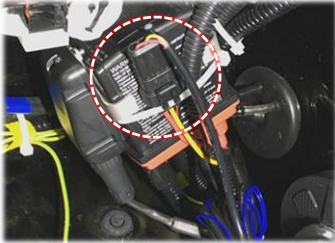
Bluetooth® Hub serial number, hardware, build number, and API version is accessible in the "Info" tab:



## Emergency override

In the event when the Toyota COMFORT+ mobile phone application cannot be used to turn ON the cabin heater and other connected accessories, a temporary Override Plug can be used to turn ON the connected accessories. The override plug is intended for use in emergency situations and should be used as a temporary way to turn on the block Heater or cabin Heater.

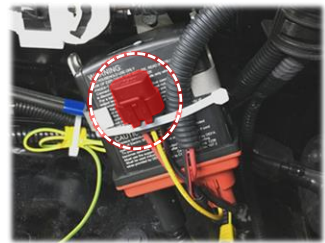
Before using the override plug, ensure the vehicle is turned off and the power supply to the charger is disconnected. Locate and disconnect the Bluetooth® Hub connector secured to the side of the trickle charger. Obtain red Override Plug and connect it to the Bluetooth® Hub connector.



1. Locate and disconnect the Bluetooth® Hub connector



2. Obtain red dust cap



3. Connect red dust cap to Bluetooth® Hub connector



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