## **GENUINE REMOTE ENGINE START**

## **USER'S INSTRUCTIONS**

Parts number: C960 V7 620

Thank you for purchasing a genuine Mazda accessory.

Before use, be sure to thoroughly read these instructions.

Please read the contents of this booklet in order to properly use the Remote Engine Start. Your safety depends on it.

After using this instruction manual, store it in a place where it can be easily located. Note, consult your authorized Mazda dealer, or a dealer appointed store, for proper vehicle installation of the Remote Engine Start.

If the vehicle equipped with this product, or the product itself, is sold, transferred or loaned to another party, be sure to give this instruction manual to the new owner, so he or she can use this product safely and correctly.

#### <Safe and correct use of the product>

Various warnings and cautions are displayed in this manual to assist you in the safe and correct use of the product and as precautions against you or others being injured, or the product being damaged.

Depending on the degree of possible injury or damage that may be incurred, precautionary items have been divided into 'Warnings' and 'Cautions' and illustrated with symbols to depict the nature of the precautionary content.

<b>MARNING</b>	A WARNING indicates a situation in which serious injury or death could result if the warning is ignored.
<u>^</u> CAUTION	A CAUTION indicates a situation in which bodily injury or damage to objects, or both, could result if the caution is ignored.
ADVICE	Always follow the ADVICE noted to ensure vehicle safety and performance. Vehicle damage could result, or proper performance may be compromised if the advice is ignored.
NOTE	A NOTE indicates information or a point related to vehicle usage. Vehicle damage could result, or proper performance may be compromised if the note is ignored.

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## 1. Remote Engine Start features

- The Remote Engine Start allows the user to start the engine of a vehicle from a remote location using a remote control.
- The user can turn on the air conditioner / heater beforehand so the cabin of the vehicle can be cooled or heated ahead of time.
- The user can check the status of the vehicle from a remote location.

## 2. Safety precautions

#### **MARNING**

Do not install this device on a vehicle equipped with a manual transmission.

- Only install this device on designated vehicles which the harness fits.
- This device can only be installed on vehicles equipped with AT / CVT. Do not install this product on a vehicle equipped with a manual transmission because it is hazardous.



Do not start the engine while inside an enclosed space or garage.

Never start up the engine while inside an enclosed space where the exhaust fumes can build up, such as a poorly ventilated garage, an underground parking garage or a parking tower. The exhaust fumes are hazardous and can cause poisoning or intoxication.



Ensure that the periphery of the vehicle is safe.

 Use this device only where you can thoroughly check that the periphery of the vehicle is safe. In particular, using the device while a child or pet is close by can result in an unexpected accident.



Do not disassemble or modify this device.

Never disassemble or modify this device, or install it in a location not specified in this manual. Otherwise, it may not operate correctly and/or may result in an accident or breakdown. In addition, this situation is not covered under warranty.



### **⚠** WARNING

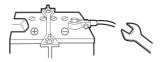
Do not start up the engine using the Remote Engine Start when parked on an incline.

 If the vehicle were to move unintentionally due to the engine vibration, jolt, etc., it could result in a serious accident.



Performing safe maintenance and inspection.

When performing vehicle inspection and maintenance, remove the (-) terminal on the vehicle battery. Never start up the engine with the remote control during inspection or maintenance at a gas or service station, etc. Otherwise, an accident may occur, such as getting a hand or clothes caught in the rotating parts. Do not perform inspection or maintenance in the engine compartment while the hood switch is pressed.



Keep the remote control in a safe and secure place.

Keep the remote control out of the reach of children.
Otherwise, they may swallow the lithium battery accidentally and choke.



Do not operate this device while other people are inside the vehicle.

In order to prevent an unexpected jump start, etc., never start the engine while a pet or someone (especially children) is inside the vehicle. Stopping the engine automatically using the Remote Engine Start settings is hazardous (while someone is inside) because the temperature inside the vehicle may become too hot. In addition, there is also a risk of children accidently pressing the climate control switch and setting the temperature too high or too low.



## ⚠ WARNING

#### Fire prevention.

- Do not start the engine when the vehicle is near something flammable (oil or dry grass). Otherwise, the high temperature from the exhaust fumes or exhaust pipe could cause a fire.
- Do not start the engine while the vehicle is wrapped with a body cover. Otherwise, the high temperature from the exhaust fumes or exhaust pipe could cause a fire.



Do not pour water on the remote control.

The remote control is water resistant for exposure during daily life, but it may break down if submerged in water or if water gets inside the device.



Do not perform standard inspection and maintenance right after warming up the engine.

Performing inspection or maintenance before operation and immediately after warming up your vehicle could result in a burn injury. First, wait 5 minutes once the engine has stopped. Then, after checking all the parts for heat hazards, proceed with the inspection and maintenance.



Check points when the vehicle is parked.

- Perform the following safety checks thoroughly when the vehicle is parked to prevent potential accidents when starting the engine.
  - Engage the parking brake.
  - Put the shift lever in the "P" position.
  - Be sure there is no advanced or smart key inside the vehicle.
  - · Close all doors and windows.
  - · Lock the doors.
  - Check that the hood is closed.
  - Turn off the windshield wipers.
  - If the vehicle is equipped with automatic lights, turn off the automatic light settings.
  - Be sure that the steering lock is engaged.



#### 3. General information

-Laws in some communities may restrict the use of remote starters. For example, some laws may require a person using the remote start to have the vehicle in view when doing so. Check local regulations for any requirements on remote starting of vehicles.

-This device complies with part 15 of FCC Rules and Industry Canada's licence-exempt RSSs.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.
- -Consult your authorized Mazda dealer for installation of the remote control engine starter system.

#### -FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## 4. Operating precautions

#### **Usage Environment**

- •The remote control signal (or the response signal from the controller) may not reach the controller (or the remote control) if there are strong radio waves transmitting nearby, or if there are obstacles blocking the signal.
- The engine may be slow to start during severe cold weather conditions.

#### Vehicles with Remote Control Door Lock Function

 Door Lock and Door Unlock Function by the remote control keyless entry or advanced keyless entry system equipped the vehicle can be performed while the engine is running by the Remote Engine Start.

However, if Door Lock and Door Unlock Function do not work due to interference caused by engine noise, etc., perform these Door Lock and Door Unlock operations on the vehicle remote control, etc. after stop the engine.

#### Vehicles with Automatic Lights

• When vehicles equipped with automatic lights are set to the "AUTO" position for the light switch, the lights turn on if the engine is started at night with the remote control. However, if the engine automatically stops after warming up, the lights will also turn off at the same time to prevent the battery from draining. However, to avoid light interference, set the automatic light switch to the "OFF" position when using the remote control to turn on the engine at night.

#### Do Not Perform Unnecessary Idling

• To help protect the environment, conserve energy and avoid inconveniencing others, do not perform idling when it is unnecessary or longer than necessary.

#### Remote Control Handling Instructions

The remote control is a sensitive electronic device similar to a cellular telephone. Please follow the handling instructions below to avoid damage to or breakdown of

the remote control.

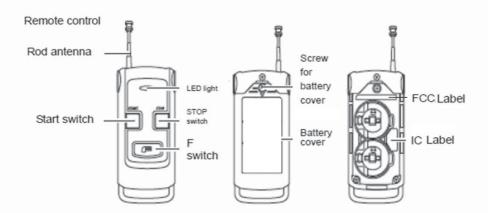
- Avoid storing or using the remote control in places that expose it to direct sunlight, places that have high humidity, places with extremely high temperatures (on top of the dashboard, etc.) or places with extremely low temperatures (leaving inside the vehicle while parked at ski resorts, etc.).
- Do not store or use the remote control in places where it comes into direct contact with water.
- Avoid exposure to strong impacts such as dropping it on the floor or hitting it against something hard.
- If the remote control gets very dirty, use a cloth soaked in a watered-down, mild or neutral detergent, ring out the liquid solution and wipe down the remote control. (Never use benzene, thinner or chemically treated cloth/wipes.)
- Avoid attaching a lot of keys to the key ring on the remote control, or sitting down while the remote control is in your pocket, as it can cause the remote control to deform and may result in damage.
- While carrying the remote control, if the keys, etc., come into contact with a vehicle, it can lead to remote control breakdown or malfunction due an electrostatic discharge. Therefore, be careful of this risk during time periods when electrostatic discharges occur frequently.
- Be sure that the battery cover and clasp are securely locked. Otherwise, if water accidently gets inside the internal part of the transmitter, it can cause breakdown.
- Do not use in restricted areas such as on board airplanes or inside hospitals.
- The remote control can negatively impact electronic and medical devices.
- Be sure to follow the instructions and rules posted inside medical clinics or facilities regarding the use of electronic devices.
- If the remote control is used on board airplanes, where usage is restricted, you may be subject to punishment due to airline rules and regulations.

#### 5. Part names

#### Remote Control

#### A CAUTION

- Keep the remote control out of the reach of children. Otherwise, they may swallow the lithium battery accidentally and choke.
- Do not drop the remote control or hit it against something hard. Otherwise, it can result in breakdown or malfunction.
- Do not pour water on the remote control or submerge it. It can result in breakdown or malfunction.



By removing the battery cover, the user can easily check the FCC label and IC label.

## 6. Basic functions for Remote Engine Start

#### **Engine Start & Stop Function**

The remote control is equipped with engine start, engine stop and automatic stop (set with timer) functions. In addition, the engine start operation will perform when conditions outlined on page 14 are satisfied. The air conditioner / heater can be turned on beforehand so the cabin of the vehicle can be cooled or heated ahead of time.



Engine start → p.14

Engine stop  $\rightarrow$  p.15

#### Rear Defrost Function

The rear defrost turns on in the following situations.

- When the cabin temperature is 5°C (41°F) or less, 7 seconds after the engine start operation performed on the Remote Engine Start.
- When the rear defrost operation is performed on the remote control.



Directions for rear defrost operation on remote control  $\rightarrow$  p.19

#### **ADVICE**

- The internal temperature of the vehicle cabin varies slightly depending on the installed location of the controller.
- The rear defrost will automatically stop when the engine stops.
- The rear defrost will automatically stop after 15 minutes of operation on some vehicle models.
- When the cabin temperature falls to 5°C (41°F) or less after 7 seconds from the engine start, the rear defrost will not turn on automatically.
- · The rear defrost cannot be turned off using the remote control.
- On some vehicle models, dash light does not turn on when the rear defrost is turned on with the Remote Engine Start.

#### Car Find Function

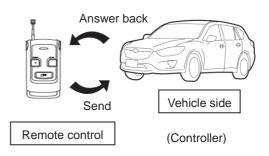
If the car find operation is performed on the remote control, the hazard lights will flash twice and the horn will sound twice so you can confirm the vehicle's location. This function is convenient when looking for your vehicle in a large parking lot, etc.



Directions for car find operation  $\rightarrow$  p. 20

#### **Answer Back Function**

This device conducts bidirectional communication between the remote control and the controller (vehicle side). This device performs bidirectional communication between the remote controller and the controller in the vehicle. The user can verify operations including engine starting/stopping, remaining warm-up time, and car find using the LED on the remote controller.

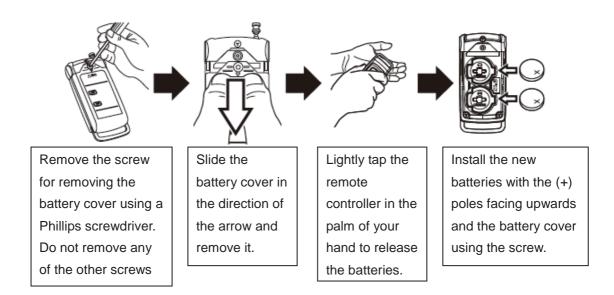


#### Note

- 1. The reference operating range of the remote control is approx. 300 ft(91m). However, this range can be reduced by interference caused by any of conditions as follows.
  - There is any obstruction nearby (Buildings, walls, other vehicles, etc.).
  - There is any radio wave transmission nearby (television, radio, cellular, another remote controller, etc.)
  - The battery becomes weak.
- 2. When there is a signal being transmitted that is close to the frequency band used by this device in the surrounding area, transmission between the remote control and controller shall be restricted. In this situation, the remote control will display a send error and/or a receive error.
- 3. When conducting consecutive operations with the remote control switches, wait "2 seconds or longer" after the "Send mark" on the LED has turned off, and then perform the next operation. The operation signal will not be received if the second operation is performed within 2 seconds of the first.
- 4. If a send error is displayed, the radio transmission in the area is restricted. Wait until the display mark turns off before operating the remote control.
- 5. A receive error may display on the remote control even if the engine has started, depending on the radio transmission conditions in the area.

## 7. Low battery warning & replacement directions

If the battery power is depleted, the LED light (red) turns on when a switch is pressed and battery power depleted is indicated. In this case, as battery replacement will be required soon, replace the batteries with new ones according to the following procedure.



#### **ADVICE**

When replacing the batteries, be sure to replace both batteries at the same time.

## - WARNING

Keep the batteries out of the reach of children. In the event that a battery is accidently swallowed, consult with a physician right away.

## 8. Basic operations

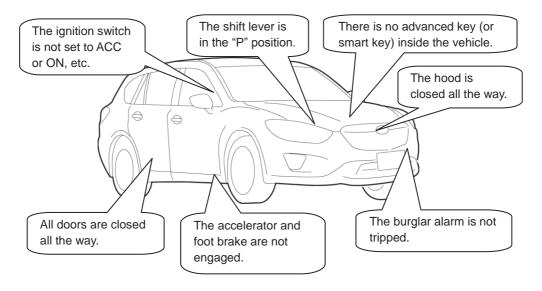
Check points when the vehicle is parked.

When using the engine start function with this device, follow the instructions below when parking, in order to avoid vehicle theft or an accident from occurring.

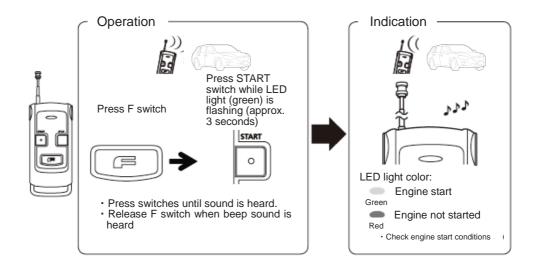
- Be sure to always engage the parking brake.
- Put the shift lever in the "P" position.
- Be sure there is no advanced or smart key inside the vehicle.
- · Close all doors and windows.
- · Lock the doors.
- · Close the hood.
- · Turn off the windshield wipers.

#### **Engine Start Conditions**

When using the Remote Engine Start, be sure to always check the start conditions listed below beforehand. Even if just one of the conditions has not been satisfied, the device will interpret this as a hazard and will not operate. Even if the user tries to operate the remote control, the engine will not start.



#### 8-1. Engine start operation



#### Rear defogger operation function —

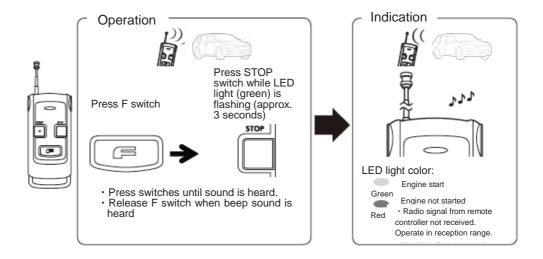
- You can force the rear defogger to turn on by pressing the F switch two times and then the START switch. The rear defogger turns off automatically when the engine is turned off.
- If the cabin temperature is 5 degrees C or less, the rear defogger turns on automatically approx. 10 s after the engine is warmed up.

#### **ADVICE**

- After the engine start operation is initiated, the controller will automatically send an answer back signal 2 3 times.
- If there is a transmission error, there will not be an answer back signal after the second time.
- If the engine start conditions are not satisfied, the engine start operation cannot be performed.
- For vehicles equipped with an automatic wiper function, when the engine start operation is activated with the remote control, the wipers will not turn on even when the wiper switch is set to the "AUTO" position and it begins to rain.

## 8-2. Engine stop operation

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#### Note

- On some vehicle models, the engine also stops when the shift lever is pressed.
- The controller buzzer will sound if the engine is stopped for reasons other than a normal engine stop or the pre-set engine warm-up time has elapsed.

• Other Engine Stop Conditions

The engine will stop if one of the following conditions is true.

- 1) The hood is opened.
- 2) The shift lever is put in a position other than the "P" position.
- 3) A door is opened.
- 4) The push start switch is pressed.
- 5) The pre-set warm up time has elapsed.
- 6) The brake pedal is engaged.
- 7) The accelerator pedal is engaged (the engine stops by the rpm restriction).
- 8) There is an advanced key or smart key inside the vehicle.

To run the vehicle...

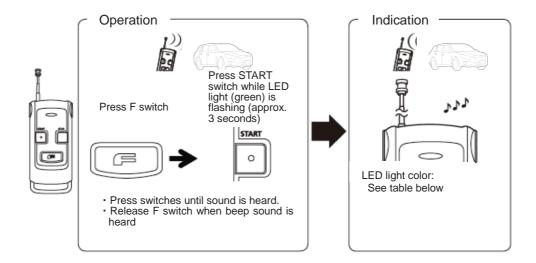
- If the vehicle engine is started with the remote control, stop the engine with the remote control or opening the vehicle's door.
- Restart the engine with the push start switch.

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If the engine is started with the push start switch, it cannot be stopped with the remote control.

## 8-3. Warm up time check

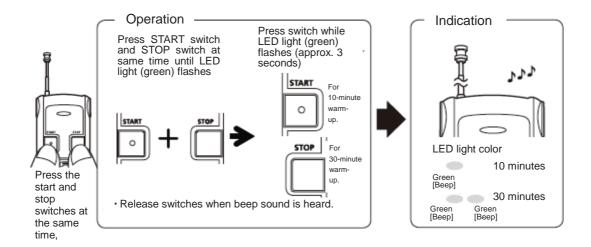
This operation only applies when the engine has been started with the remote control.



The remaining time until the engine turns off automatically is indicated by the number of times the LED light flashes.

LED light color	Number of flashes	Remaining time
Green	1 time	0 to 5 minutes
	2 times	5 to10 minutes
	3 times	10 to 20 minutes
	4 times	20 to 30 minutes
Red	Communication failure	

#### 8-4. Warm up time settings



#### Note

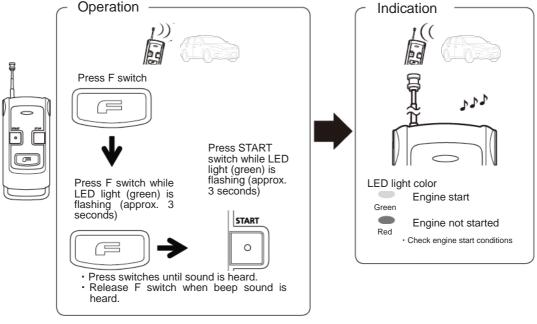
Some vehicle models stop the rear defrost after 15 minutes, even if the warm up time is set to 30 minutes.

#### **△** CAUTION

To help protect the environment, conserve energy and avoid inconveniencing others, do not perform idling when it is unnecessary, or longer than necessary.

#### 8-5. Engine start operation with rear defrost start Up

When starting the engine using this operation, the rear defogger turns on automatically



#### ADVICE

The rear defrost operation cannot be performed without starting the engine.

#### **ADVICE**

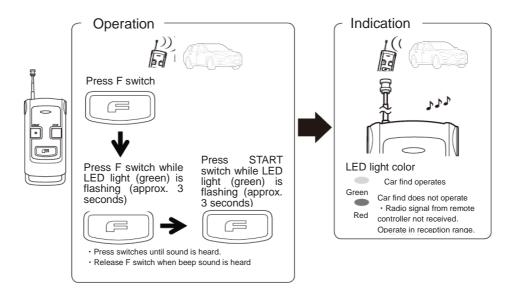
- After the engine start operation is initiated, the controller will automatically send an answer back.
- On some vehicle models, dash light does not turn on when the rear defrost is turned on with the Remote Engine Start.
- The rear defrost will automatically stop when the engine stops.
- The rear defrost will automatically stop after 15 minutes of operation on some vehicle models.

#### Note

• The rear defrost will turn on about 7 seconds after the engine starts, when performing this rear defrost operation.

#### 8-6. Car find function

When the engine is turned off or after starting the engine using the remote controller, perform this operation to activate the hazard warning lights 2 times.



#### Note

When the hazard warning switch has already been pressed to flash the hazard warning lights, the flashing of the hazard warning lights using the car find function does not operate (operation using the hazard warning switch takes precedence). Even in such cases, the remote controller notifies the user that communication with the vehicle was completed using the same display as indicated above and the beep sound.

# Request for Dealer Performing Installation Service

Be sure to explain the device operation to the customer.

• Note that some contents of this instruction manual may not match the actual device due to changes in the vehicle or product specification.