

AstroStart[®]

REMOTE CONTROL ENGINE STARTER

USER MANUAL



Model RS-623

For all gas- diesel-powered or hybrid vehicles

(FRANÇAIS AU VERSO)



CONSULT SAFETY PRECAUTION SECTION
BEFORE USING THIS PRODUCT.

SOME FEATURES MAY REQUIRE
ADDITIONAL MATERIAL (NOT INCLUDED).

GOVERNMENT REGULATIONS



This device complies with the requirements of Industry Canada (IC) - Management of Radio Frequencies, as specified in document CNR-210. Its use is authorized only on a no-interference, no-protection basis; in other words, this device must not be used if it is determined that it causes harmful interference to services authorized by IC. In addition, the user of this device must accept any radio interference that may be received, even if this interference could affect the operation of the device.



This device complies with Part 15 of the FCC rules.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference and
- (2) this device must accept interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

Warning:

Changes or modifications not expressly approved by <manufacturer> could void the user's authority to operate the equipment.


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THANK YOU FOR CHOOSING AN ASTROSTART REMOTE CAR STARTER!

Like you, Astroflex Electronics is concerned with the environment. This is why we are suggesting that you use the two-minute runtime when you remote-start your vehicle to warm up engine fluids. Ask your dealer.

We take this opportunity to remind you to properly defrost your windows and remove all the snow on your vehicle before driving on public roads.

Rolling igloos are extremely dangerous!

We wish you an excellent journey with your remote engine starter!

USER GUIDE FOR REMOTE ENGINE STARTER MODEL RS-623

Model RS-623 is a remote control that offers the basic start functions including all the features required to achieve safe remote starting.

In addition to the starting functions, it offers central locking features that allows you to control the door locks as well as releasing the trunk. These features are optional and may require additional material and connecting at time of installation.

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SAFETY PRECAUTIONS

Before using this product, carefully read the following safety precautions.

GENERAL RULES

- **Never perform a remote start** when a person or animal is inside the vehicle.
- **Do not allow** any person or animal to remain inside the vehicle when the engine is running under remote starter control (continuous mode).
- Immediately report any malfunction to the AstroStart dealer that performed the installation.
- **Under no circumstance can this product or its use be modified.**
- Always turn off the main switch when vehicle is parked in an enclosed, unventilated area or is in for servicing.
- Always turn off the main switch when not using your remote starter for extended periods of time.
- Keep remote controls **away from children.**
- Have your engine tuned regularly to ensure optimum performance of your remote starter.
- Make sure that the windshield wipers and the headlights are turned off before leaving vehicle.
- Regularly check safety features that stop engine (see SAFETY CHECKS on page 9.)
- Make sure you comply with all local regulations, which may prohibit leaving your engine running when vehicle is unattended in a public place.
- To ensure continued safe operation of your remote starter, ask your AstroStart dealer to periodically check and/or tune the remote starting system.
- Always advise service personnel that your vehicle is equipped with a remote starter.
- **We strongly recommend** that you have your remote starter checked annually. Contact a dealer in your area.
- **All users of the vehicle should be aware** of the safety precautions and operation procedures.
- Make sure that the warning sticker is present on the driver's window.

SPECIFIC RULES FOR MANUAL TRANSMISSION VEHICLES

- Make sure that the parking brake is operational, i.e. **it can prevent the vehicle from moving.**
- If the shift lever is accessible without having to open a door of the vehicle (for example, by entering via the lift-gate or rear hatch) or in the case of a convertible vehicle, it is strongly recommended to have a motion detector (microwave) installed with the system. This device prevents the engine from starting should any activity be detected near the gearshift.

SAFETY SEQUENCE FOR MANUAL TRANSMISSION VEHICLES

Your remote starter was designed to force you to perform a series of actions that will ensure that the gearshift lever is in neutral position when you exit the vehicle.

This series of actions is called a "Safety sequence" and is aimed at preventing any remote start in situations where remote starting the engine would not be safe.

Should the hatchback or any door be opened at any time, the intrusion will be detected and the safety sequence will be cancelled by the system, thus preventing a remote start. In such cases, the sequence must be repeated to allow for an eventual remote start.

The system offers two execution modes for the sequence. These options must be set at time of installation. The first mode is initiated by the parking brake and the other by the remote control.

The safety sequence must be performed as follows.

SEQUENCE ACTIVATED BY THE PARKING BRAKE

1. While engine is running (key in ignition switch), apply the brakes and hold the pedal down.
2. Move gearshift lever to neutral.
3. Apply the parking brake Once Twice

Note: The system can be set - at time of installation - to require that the parking brake be applied once or twice.

If set for two actuations, pause one second between the two.

4. Remove key from ignition (the system keeps the engine running).
5. Exit the vehicle.
6. Within 60 seconds, close **all** doors.
7. The system will stop the engine except if either the Turbo mode or the continuous mode is activated. The parking lights blink once to confirm the sequence is valid (vehicle is ready for a remote start command).

SEQUENCE ACTIVATED BY THE REMOTE CONTROL

1. While engine is running (key in ignition switch), apply the brakes and hold the pedal down.
2. Move gearshift lever to neutral.
3. Apply parking brake.
4. Send the start command.
5. Remove key from ignition (the system keeps the engine running).
6. Depending on programmed option:

<input type="checkbox"/> Within 60 seconds exit the vehicle, close back all the doors then, using the remote, send the STOP command.	<input type="checkbox"/> Within 60 seconds exit the vehicle then close back all the doors.
Note that the Turbo mode is not available with this option.	The system will stop the engine except if either the Turbo mode or the continuous mode is activated

Parking lights will blink once to confirm that the sequence is valid (vehicle is ready for a remote start command).

NOTES : If you release the brake pedal and depress it once more during or after the execution of the safety sequence, the safety sequence will be invalidated and any remote start will be impossible.

If the engine stops when the key is removed from the ignition, the safety sequence is invalid.

Perform a new safety sequence. If problem persists, consult your installer.

PREPARING SYSTEM

When you exit the vehicle, **you need to prepare** the remote starter for its next use.

- If the vehicle is equipped with a manual transmission, make sure that the remote starter system has detected a valid safety sequence.
- If the vehicle is equipped with an automatic transmission, make sure that the transmission lever is in the "P" position.
- Set heating/air conditioning controls to desired position (when the remote starter starts your engine, it will also turn on your climate control system).
- Turn your windshield wipers to the **OFF** position to avoid strain on the mechanism should a start command be sent to the vehicle when, for example, heavy snow immobilizes the wipers.
- Make sure that the headlights are turned off.
- Make sure that you do not leave your keys inside the vehicle.

THE REMOTE CONTROL

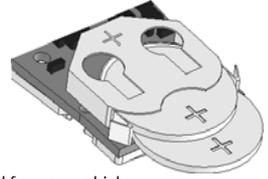
Your remote control works off two small 3 volts lithium batteries (CR2016).

When replacing the batteries, make sure to place the new batteries in the up right position (see the illustration), also make sure to put the small isolating strip back.

See your dealer for replacement batteries or additional remote controls.

The range of your remote control can be affected by a weak battery, interference from nearby metal structures, hydro poles, or crowded parking lots.

With its electronic CODE LEARNING feature, up to four remote controls can be programmed for your vehicle.



USING YOUR REMOTE CONTROL

To ensure that commands are transmitted properly, press desired button for 2 seconds. A command will not be executed if you do not press button long enough.

Indicator light will flash while transmitting the command.

Remote included in kit may differ from the one illustrated.



TABLE OF COMMANDS

COMMANDS	BUTTONS	CONFIRMATION	
		LIGHTS	HORN
STOP (BUTTON HELD IN > 4 SEC.)		1	-
START		1/1	1
LOW TEMPERATURE MODE		1/2/3/4	-
PANIC (BUTTON HELD IN > 4 SEC.)	OR	30/60 SEC.	
TRUNK / ACCESSORY		3	-
UNLOCK		2	-
LOCK		1	1
UTILITY		1	-

THIS CONFIRMATION IS SENT ONLY WHEN COMMAND IS REPEATED WHILE ENGINE IS ALREADY RUNNING.

1 = DEACTIVATION OR SYSTEM NOT READY / 2 = ACTIVATION 4 MIN. / 3 = ACTIVATION 8 MIN. / 4 = ACTIVATION 18 MIN. – DURATIONS ARE DOUBLED IN DIESEL MODE.

PROGRAMMABLE DURING INSTALLATION – 2ND LOCK

CONFIRMATION

In all cases, your remote starter will confirm that a command has been received properly by flashing parking lights.

The horn provides certain confirmations when connected to system (requires optional wiring and material). In this manual, confirmation signals are written in an abbreviated form; for example: (lights: 2) means that parking lights will flash twice.

The remote transmitter a visual confirmation by means of an LED. Immediately following a transmission, the LED will flash (single blink) green if the command was successfully received by the system or red if the command was not received.

In the case of a start command, the LED provides a first confirmation to acknowledge the command reception by the system then, a second confirmation is sent to indicate if the starting was successful or not.

The start command is ignored if the system is not ready, see "If engine fails to start" on page 5.

THE START / STOP COMMAND

START

To start the engine, press the  button (lights: 1).

The system automatically adjusts ignition duration for your type of vehicle; parking lights flash once then stay on all the time engine is running.

Parking light confirmation is sent as many times as command is repeated so you are sure that system has received the command. Horn sounds once if option "Confirmation on 2nd start" was set during installation.

IF ENGINE FAILS TO START

If your system cannot start the engine at first attempt, it will wait for a few seconds and then try again. It could try again twice depending on reason for failure to start.

After three attempts, it will shut down automatically and wait for a new command.

UPON ENTERING YOUR VEHICLE...



DO NOT TURN IGNITION KEY TO START POSITION

Automatic transmission vehicle	Manual transmission vehicle
<ul style="list-style-type: none">To avoid turning the engine off when taking place behind the steering wheel, <u>do not apply the brakes</u> until you have placed the key in the ignition and turned it to the RUN position.Drive off as usual.	<ul style="list-style-type: none">To avoid turning the engine off when taking place behind the steering wheel, <u>do not apply the brakes and do not remove the parking brake</u> until you have placed the key in the ignition and turned it to the RUN position.Drive off as usual.

ENGINE RUNTIME

Your engine will stop automatically after a preset time of 2 min. , 4 min. , 8 min. or 18 min. depending on settings during installation. Runtime doubles for diesel engine vehicles.

Parking lights will stay on as long as engine is running.

STOP

When engine is kept running by Remote Starter, you can stop it by pressing and holding the  button for at least 4-seconds.

Engine and parking lights will shut down.

This command also terminates panic mode.

TRIGGER INPUT

Your remote starter is equipped with a negative trigger (pulse) input.

This input can be connected to another remote control device or to an AstroStart RTS-2 timer output (optional), part no. 310-903-502.

If this input is connected, consult this device's manual or ask your technician which command controls the Start/Stop function.

The Start/Stop commands received on this input are ignored while the engine is running on a remote start.

All Start/Stop functions controlled by this input behave in the same way as functions controlled by remote.



CONTINUOUS MODE

The "Continuous Mode" function allows to remove the key from the ignition while leaving the engine running. This convenient feature allows you to leave the vehicle for short periods of time while the climate controls remain on.

AUTOMATIC TRANSMISSION VEHICLES	To access Continuous Mode, send start command while engine is idling (see "START" on page 5). If Turbo Mode is active, you must press a second time on the  button of the remote to set the runtime according to the preset settings. Parking lights, engine and preset accessories will remain on for the duration of the programmed runtime.
MANUAL TRANSMISSION VEHICLES	To access Continuous Mode, send start command before removing the key from ignition when performing the safety sequence described on page 3. See "START" on page 5. Note: Do not send the STOP command if you perform sequence activated by the remote control (Step 6). If Turbo Mode is on, it will be activated when the safety sequence is executed.

Remove key, exit vehicle and lock doors. All safety devices will remain active.

If you return to your vehicle before runtime has elapsed, just turn the key to the RUN position and depress brake pedal.

TURBO MODE

(Activated at time of installation)

This mode allows the engine to be left running at idle speed for a short period of time so that the turbocharger can cool down as recommended by certain car manufacturers.

This mode activates the **continuous mode** at a **reduced runtime** (one or two minutes according to the programming).

To activate the Turbo Mode, press on the  (2 sec.) button (refer to 'Continuous Mode').

WHAT STOPS THE ENGINE

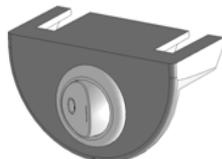
For your safety, engine will not start or will stop if:

- ignition switch is in the RUN position (prevents starting);
- remote control sends a Stop command;
- hood is open;
- brakes are applied;
- engine is over-revving (programmable during installation);
- main switch is OFF;
- safety sequence not valid (manual transmission vehicle only - parking brake not applied, opening of door detected while remote starter was not keeping engine running).

MAIN SWITCH

The main switch is usually mounted under the dashboard. It is a toggle ON/OFF switch that is used to cancel start functions.

It does not disable other commands which remain active (lock/unlock commands, etc.).



OTHER COMMANDS

LOW TEMPERATURE MODE

In Low Temperature (Sentinel) mode, system starts your engine at 2½ hour intervals when the temperature falls below a preset level.

The engine runs for the duration that was set during the previous usage. Each repeated command changes the runtime to the next setting (see table).

To activate/deactivate Low Temperature mode press  and  buttons simultaneously.

Parking lights will flash according to corresponding runtime as listed in the above table.

In the case of a manual transmission vehicle, the system must have detected a valid security sequence to allow the activation of Low Temperature mode. (see "Safety sequence for manual transmission vehicles" on page 3).

If the system cannot execute the command (for example, security sequence not valid, hood is open), the low temperature mode is deactivated, in this case the confirmation will be different (lights: 3).

Applying brakes deactivates the Low Temperature mode.

Le seuil de température a été programmé à ✓		
-5 °C (23 °F)		-20 °C (-7 °F)
-15 °C (5 °F)		-30 °C (-22 °F)

	Setting	Confirmation	
	Deactivated	1 blink	   
	4 minutes	2 blinks	
	8 minutes	3 blinks	
	18 minutes	4 blinks	
Runtime is doubled in diesel mode			

LOCK/UNLOCK COMMANDS

If your vehicle is equipped with electric door locks, several functions can be operated by remote control.

These features are optional and may require purchasing additional equipment. Consult your dealer for advice.

Following systems can be controlled:

- Door locks.
- Trunk or hatchback release.
- Interior lights.

LOCK

Press the  button. Doors are locked and parking light flashes once to confirm command has been received.

Parking light confirmation is sent as many times as command is repeated so you are sure that system has received the command. The system may be configured to provide one horn honk on reception of every command, this function is optional and may require additional equipment not included.

UNLOCK

Press the  button. Doors are unlocked and parking light flashes twice to confirm command has been received.

The "Unlock" function can be programmed and connected in such a way that the first Unlock command only unlocks the driver's door, while a following Unlock command unlocks the other door(s).

Parking light confirmation is sent as many times as command is repeated so you are sure that system has received the command. The system may be configured to provide two horn honk on reception of every command, this function is optional and may require additional equipment not included.

Dome light will turn on for 30 seconds every time (optional connection during installation):

- Unlock command is sent.
- Engine is stopped (ignition switch).
- Continuous mode is activated.

This 30-second duration is cancelled when Lock command or Trunk command is sent, brakes are applied or key is inserted in ignition and turned to RUN position.

AUTOMATIC LOCK/UNLOCK

Programmable as **Active** or **Inactive** during installation.

This function locks the doors when ignition key is in RUN position, engine is running and brakes are applied. Doors are unlocked when key is turned from RUN to OFF or when Continuous Mode is activated.

If "Unlock" function is set to unlock only driver's door on the first command, the "Automatic Unlock" function will unlock driver's door only. If dome light is connected to system, it is activated when an automatic unlock occurs.

This function is : Active Inactive .

TRUNK RELEASE / ACCESSORY ACTIVATION

Press the  and  buttons simultaneously (lights: 3). According to what is connected to the system; the trunk is released or the accessory is activated , the parking lights flash three times to confirm command has been received.

The command cannot be executed if ignition key is in RUN position. In this case, parking lights flash once to confirm that command has been received but could not be executed.

If you are not sure you have received confirmation, repeat command. System will repeat confirmation as often as you wish.

If your vehicle is equipped with a factory installed security system and that this system is neutralized by the trunk release command, remember to rearm it after trunk is closed ("Lock" command).

UTILITY COMMAND

This command allow you to control one of the vehicle's accessory depending on what was connected during installation (headlights, defroster, etc.). For more information, check with your technician.

To activate this function, simultaneously press the  and  buttons.

The accessory associated to this command is activated for the duration set at time of installation.

The delay can be canceled by repeating the command.

When accessory is deactivated after the delay has expired, the parking lights blink once then the remote control sends a confirmation.

ANTITHEFT (CIRCUIT DISABLER)

Programmable as **Active** or **Inactive** during installation.

Your Remote Starter is equipped with an antitheft system. This system, when enabled, consists of an output that controls a relay that cuts all circuits required to operate your vehicle (optional connection).

There are two types of antitheft systems.

'PASSIVE ARMING' TYPE ANTITHEFT

This type of antitheft system arms automatically when ignition key is turned from 'RUN' to 'OFF' and remains 'OFF' for one minute. It can also be armed manually by sending a 'Lock' command (unless ignition key is in 'RUN' position).

DISARMING

Antitheft system is disarmed for one minute when you send an 'Unlock' command.

If ignition key is not turned to 'RUN' position within one minute, system automatically rearms, thus preventing an intruder from starting your vehicle, even with ignition key. The indicator light (optional) blinks rapidly during rearming, and then continuously when antitheft system is armed.

It can be connected so that horn sounds if an intruder tries to start your vehicle when antitheft is armed.

'ACTIVE' TYPE ANTITHEFT

This type of antitheft system is armed by sending a 'Lock' command (unless ignition key is in 'RUN' position) and is disarmed by sending an 'Unlock' command. The indicator light (optional) blinks continuously when antitheft system is armed (if the AstroStart security system is not armed) .

PANIC

Panic mode is used to attract attention if you are in difficulties.

This command will not be executed if engine is kept running by ignition key. Use the stop command to abort panic mode or depress brake pedal.

Press and hold the  or  button for at least 4 seconds. This command activates **parking lights, horn, and dome light**, depending on which is connected to system, for 30 seconds.

REAR WINDOW DEFOGGER

Your system is equipped with a feature that automatically turns on the rear window defogger upon a remote start whenever the ambient temperature is below -5°C (23°F).

This feature is optional and may require additional equipment not included.

CODE LEARNING OF ADDITIONAL TRANSMITTER(S)

Four different remote controls can be programmed for a given vehicle. If a fifth remote is added, the first remote is deleted.

Note: When the first code learning command is sent, all the old codes are cleared out. Therefore if you want to add a new remote, all the old ones must be reprogrammed as well.

One or more remote transmitters can be added. To do this, programming is accessed as follows:

- Open hood.
- Insert key in the ignition and turn to the RUN position.
- Apply the brakes once.
- You now have 10 seconds to turn the key from RUN to the STOP position 3 times.
- If this sequence is correctly carried out, the control module flashes parking lights (4 flashes). You may then proceed to the next step.
- Press any button on the new remote control. When access code of new remote control is memorized, the control module will confirm with flashing parking lights (1 flash).
- Repeat the above procedures for each remote control that has to be programmed (up to 4 remotes).
- Apply the brakes, parking lights flashes twice to indicate that the system is no longer into learning mode.

New remote(s) is (are) now added to the system.

REPLACING OR BOOSTING VEHICLE BATTERY

If you have to replace or boost your battery for any reason, turn main switch to OFF position **and leave it OFF until battery is replaced or fully charged.**

**REVERSING POLARITY WHEN BOOSTING YOUR BATTERY
COULD PERMANENTLY DAMAGE YOUR REMOTE STARTER.**

SAFETY CHECKS

In order to maintain a high safety standard, proceed with the following checks every month.

HOOD SWITCH

- Remote start your vehicle.
- Open hood.

Engine should stop as soon as hood is opened.

If engine does not stop immediately, turn main switch to OFF position **and leave it off until situation is rectified.** Contact your service centre.

GEARSHIFT CHECK APPLICABLE TO AUTOMATIC TRANSMISSION VEHICLES

If key must be in ignition for gearshift to be moved out of P, your vehicle is safe as long as keys are kept away from children. If, on the other hand, gearshift can be put in gear without the key being in the ignition, proceed with this simple check.

- Put gearshift in gear (D).
- Remain in the vehicle and be ready to apply brakes.
- Start vehicle with remote starter.
- Repeat these steps with gearshift in every position other than **Park** and **Neutral**.

If starter reacts within 90 seconds (which would be abnormal), turn main switch to OFF position and leave it off until situation is rectified. Contact your service centre.

- With gearshift in P, start vehicle with remote starter.
- Remain in vehicle and be ready to apply brakes.
- Without applying brakes, move gearshift out of P.

If, without applying brakes, engine does not stop immediately (which would be abnormal), turn main switch to OFF position and leave it off until situation is rectified. Contact your service centre.

GEARSHIFT CHECK APPLICABLE TO MANUAL TRANSMISSION VEHICLES

Make sure the parking brake is operational, i.e. it has the capability of immobilizing the vehicle.

If the parking brake cannot stop the wheels from turning, which is not safe, place the main switch in "OFF" position until the situation is rectified.

DETECTION OF PARKING BRAKE STATUS

1. Carry out the safety sequence, then remote start the engine to confirm the safety sequence is valid. Make sure not to apply the brakes.
2. Release the parking brake.

The engine must stop immediately upon releasing the parking brake. If the engine does not stop, which is not safe, place the main switch in "OFF" position until the situation is rectified. Consult your service centre.

DETECTION OF DOOR OPENING

Make sure that the opening of **each** door (open one by one) will break safety sequence.

1. Carry out the safety sequence, then remote start the engine to confirm the safety sequence is valid.
2. Stop the engine using the remote control. Make sure you do not apply the brakes and that the parking brake remains applied until step 4.
3. Open then close **only one door** once the engine has stopped.
4. Try to start the engine using the remote control.

The engine should not be able to be remote started.

Repeat this test **for every door** of the vehicle (**including hatchback** if applicable).

If the vehicle is equipped with fold-down rear seat backrests, the trunk has to be considered as a door since it is an opening that can give access to the passenger compartment. It **must** therefore be included in the safety sequence.

If the engine starts, which is not safe, place the main switch in "OFF" position until the situation is rectified. Consult your service centre.