

AstroStart

REMOTE
CONTROL
ENGINE
STARTER

USER MANUAL

Model 502



For all automatic
transmission gas- and
diesel-powered vehicles



(FRANÇAIS AU VERSO)



**CONSULT SAFETY PRECAUTION SECTION
BEFORE USING THIS PRODUCT.**

**NEVER INSTALL THIS PRODUCT ON A
MANUAL TRANSMISSION VEHICLE.**

**SOME FEATURES MAY REQUIRE
ADDITIONAL MATERIAL (NOT INCLUDED).**

PATENT NOS
CAN 1.130.426
USA 4.345.554 - 5.614.883
- 5.617.819 - 5.673.017

AND OTHER PATENTS PENDING

Manufactured in Canada by:
Astroflex

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GOVERNMENT REGULATIONS



This device complies with the requirements of Industry Canada (IC) - Management of Radiofrequencies, 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 separation 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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INTRODUCTION

Thank you for choosing the AstroStart Remote Starter. Your Remote Starter is the result of intensive research by a company specializing in the design of high-quality electronic automotive products.

It is designed to provide many years of reliable, trouble-free service. Its advanced microchip circuitry incorporates billions of possible access codes, which makes it virtually impossible to interfere with another remote control vehicle.

Your Remote Starter offers the ultimate in safety, is simple to use and has many features to make your life easier.

Please read the following instructions carefully so that you understand how your Remote Starter works and can take advantage of all the features. Some of the functions described below may not be applicable to your vehicle.

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SAFETY PRECAUTIONS

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

- Immediately report any malfunction to the AstroStart dealer that performed installation.
- Under no circumstance can this product or its use be modified.
- Always turn off main switch when vehicle is parked in an enclosed, unventilated area or is in for servicing.
- Always turn off 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 your windshield wipers 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.
- 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 the dealer in your area.

BEFORE USING YOUR REMOTE STARTER

Before leaving your vehicle, set the various controls in order to use your Remote Starter.

- 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.
- Make sure gearshift is in "P".

THE REMOTE CONTROL

Your remote control works off a small, long-life 12-volt alkaline battery (GP-23A).

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 three additional remote controls can be programmed for your vehicle.

We strongly recommend that you keep a replacement battery in your glove compartment.

See your dealer for replacement batteries or additional remote controls.

USING YOUR REMOTE CONTROL

To ensure that commands are transmitted properly, press desired button for 2 seconds.

Indicator light will flash while transmitting the command.

Your system can be configured (during installation) in such a way that the remote control will only access the starting function of your vehicle or it can access both the starting and door locking functions of the vehicle.













You can replace the buttons (rubber keypad) of your remote control by an alternate keypad (included in kit).

The replaceable keypad shows different pictograms to help you remember the commands; use the keypad that corresponds to your system options.

Remote included in kit may differ from the ones illustrated.



TABLE OF COMMANDS

COMMANDS SELECTED OPTION ⇒	BUTTONS			CONFIRMATION
	Option 1	Option 2	Option 3	LIGHTS
STOP				1
START / CONTINUOUS MODE				1
ACTIVATE / DEACTIVATE SENTINEL MODE	 	 		4 / 2 / 3 ♦
TRUNK			 	3
START / STOP				1
LOCK / UNLOCK				1 / 2 ♥
♦ . 4 = ACTIVATED / 2 = DEACTIVATED / 3 = SYSTEM NOT READY. ♥ . 1 = LOCKING / 2 = UNLOCKING				

Note : Make sure that the remote control is covered with the appropriate keypad, i.e. pictograms that correspond with the command options programmed to your system (See "Using your remote control").

CONFIRMATION

In all cases, your Remote Starter will confirm that command has been received properly by flashing parking lights. In this manual, confirmation signals are written in an abbreviated form; for example:

(lights: 2) Means that parking lights will flash twice.

Confirmations are explained in more detail under each command.

START COMMANDS

START /STOP

(Options 2 & 3)

The Start-Stop command is in fact the reason for being of your remote starter. It allows you to start or stop your vehicle without stepping outdoors.

- Press the  button once.

UPON STARTING

The parking lights will flash once to confirm the reception of the command, then will stay ON as long as the engine will be running under remote control.


UPON STOPPING

The engine and parking lights will turn off.

The command is only applicable when engine is running under remote control.

START

(Option 1 only)

To start the engine, press  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.

If more than one command is emitted, each successive start command resets runtime to the beginning, parking lights flash once to confirm command has been received.

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 new command.

WHEN ENTERING YOUR VEHICLE...

- Do not apply brakes; this will stop engine immediately.
- Insert ignition key and turn it to "ON" position.



DO NOT TURN IGNITION KEY TO "START" POSITION.

- Drive 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 remain on for the whole running time period.

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 timer output (optional).

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

(Option 1 only)

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.

To access the "Continuous Mode", carry out the "Start" command while the engine is idling. See "START" command on page 5.

Parking lights, engine and preset accessories will remain on for the duration of the programmed runtime.

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 "ON" position and depress brake pedal.

WHAT STOPS THE ENGINE

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

- Remote control sends a stop message.
- Hood is open.
- Brakes are applied.
- Gearshift is not in "P" or "N".
- Engine is over-revving.
- Main switch is **OFF**.

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.



STOP

(Option 1 only)

When engine is kept running by Remote Starter, you can stop it by pressing the  button (lights: 1).

Engine and parking lights will shut-down.

LOW TEMPERATURE MODE


In Low Temperature (Sentinel) mode, system starts your engine automatically when temperature falls below a preset level (programmable during installation), see table.

Threshold temperature is set for ✓			
-5 °C (23 °F)		-20 °C (-7 °F)	
-15 °C (5 °F)		-30 °C (-22 °F)	

Engine will run for programmed runtime (see "Engine runtime"), after which system will wait 2½ hours and then start engine again if temperature is still below preset level.

To activate/deactivate Low Temperature mode,

Option 1 • press  and  buttons simultaneously.

Option 2 • press  and  buttons simultaneously.

When mode is activated:

Parking lights will flash 4 times, then, if temperature is below preset level, engine will start.

If temperature is above preset level, system waits until it goes below preset level before starting. If system cannot execute command (for example, hood is open), confirmation will be different (lights: 3).

When mode is deactivated:

Parking lights will flash twice to confirm that mode is deactivated. Applying brakes also deactivates Low Temperature mode.

LOCK/UNLOCK COMMANDS

(Options 2 & 3)

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 / UNLOCK

(Options 2 & 3)

When the  command is sent, system locks or unlocks (toggle) the doors.

Upon locking: Parking lights flash once to confirm command has been received.

Upon unlocking: Parking lights flash twice to confirm command has been received.

DOME LIGHT SUPERVISION



Dome light will turn on for 30 seconds every time "Unlock" command is sent.

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

This function is optional and requires an additional connection and equipment during installation.

TRUNK RELEASE

(Option 3 only)

Press the  and  buttons simultaneously (lights: 3). Trunk is released and parking lights flash three times to confirm command has been received.

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

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 security system, the command will neutralize it. So remember to rearm it after trunk is closed ("Lock" command).

AUTOMATIC LOCK/UNLOCK

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

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

ANTITHEFT (CIRCUIT DISABLER)

(Options 2 & 3 only)

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

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

"Passive Arming" type Antitheft

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

DISARMING

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

If the ignition key is not turned to "ON" position within one minute, system automatically rearms, thus preventing any intruder from starting your vehicle, even with ignition key.

It can be connected so that horn sounds if an intruder tries to start your vehicle when it is in the active state.

"Active" type Antitheft

This type of Antitheft system arms by sending the "Lock" command (unless ignition key is in "ON" position) and disarms by sending the "Unlock" command.

This duration can be cancelled by repeating command (lights: 1).

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 center.

GEARSHIFT CHECK

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 key being in ignition, proceed with this simple check.

- Put gearshift in gear.
- 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 center.

- 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 center.

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.

LIMITED LIFETIME WARRANTY

ASTROSTART remote starters

Astroflex Inc., the manufacturer of the AstroStart remote starters ("Product"), warrants to the original end-user purchaser that the Product's various control modules protected with fuses ("Modules") shall be free from defects in material and workmanship for as long as the original end user purchaser continuously owns the automobile the Products was originally installed in and the Product remains continually installed in the automobile during the warranty period. In accordance with the terms of this limited warranty, Astroflex, at its expense (except as stated below), shall either repair or replace the Module or part thereof which is proven defective.

ASTROFLEX accessories

Astroflex warrants to the original end-user purchaser that it will repair any ASTROFLEX accessory part installed contemporaneously with the Product ("Accessory") which is defective due to workmanship for a period of two (2) years from the date of purchase provided the original end-user purchaser owns the automobile the Accessory was originally installed in and the Accessory remains continually installed in the automobile.

Warranty limitations

- The warranty period begins on the date the Module or Accessory was purchased. In the event the date of purchase can not be verified, the manufacturer's date as indicated by the serial number of the Product or Accessory covered by this warranty shall be the date the warranty period begins.
- Liability for defects or damage caused by improper installation, repair and service of any covered Module or Accessory.

Warranty is void if

- The Product has: (i) a defect or damage due to accident, neglect, fire, misuse, flood, lighting, shipping and handling, or other condition beyond the control of Astroflex, (ii) has been altered in any way, or (iii) has been improperly installed or used.

Warranty does not cover

- Costs of removing the Product or Accessory, sending the defective Product or Accessory to Astroflex, return of the repaired or replaced Product or Accessory and installation of the repaired or replaced Product or Accessory.
- Batteries.

Owner's responsibilities

- Provide a written proof of purchase for the Product/Accessory, showing the date of purchase, installer's name, and the name of the purchaser.
- Send the defective Product/Accessory, postage pre-paid, to Astroflex at the address that corresponds to the country in which the product was purchased (see address below) and pay the postage costs for the return of the Product/Accessory.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL, WRITTEN, EXPRESS OR IMPLIED. THERE ARE NO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. ASTROFLEX'S WARRANTY OBLIGATIONS AND PURCHASER'S REMEDIES HEREUNDER ARE SOLELY AND EXCLUSIVELY AS STATED HEREIN. ASTROFLEX'S LIABILITY, WHETHER BASED ON CONTRACT, TORT, WARRANTY, STRICT LIABILITY, OR ANY OTHER THEORY, SHALL NOT EXCEED THE PRICE OF THE INDIVIDUAL UNIT WHOSE DEFECT FOR DAMAGE IS THE BASIS OF THE CLAIM. IN NO EVENT SHALL ASTROFLEX BE LIABLE FOR ANY LOSS OF PROFITS, LOSS OF USE OF FACILITIES OR EQUIPMENT, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Similar exclusions or limitations, including those as to non-assignment, may be applicable in some Canadian Provinces. This warranty gives you specific legal rights and you may also have other rights which vary from state to state or province to province.


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