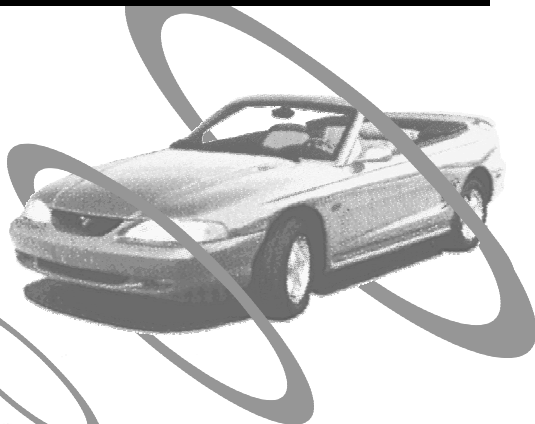


**REMOTE  
CONTROL  
ENGINE  
STARTER**

**AstroStart\***

**USER'S MANUAL**

**Model  
2503**



For all manual transmission  
gas- and diesel-powered vehicles.

(Carburetor models  
require an optional solenoid.)

(FRANÇAIS AU VERSO)



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

**NEVER INSTALL THIS PRODUCT ON AN  
AUTOMATIC TRANSMISSION VEHICLE**

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

**PATENT NUMBERS**

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**

# MODEL 2503

## 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 Control Engine Starter. Your Remote Starter is the result of intensive research by a company specializing in the design of high-quality electronic automotive products.

AstroStart devices are designed to provide many years of reliable, trouble-free service. Advanced microchip circuitry incorporate billions of possible access codes which make it practically 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 AstroStart works and can take advantage of all these features. Some of the functions described below may not be applicable to your vehicle.

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# MODEL 2503

## SAFETY PRECAUTIONS

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

- Immediately report any malfunction to the Astroflex 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.
- Check safety features regularly; they prevent your Remote Starter from operating under certain conditions (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 to desired position. (When Remote Starter starts your engine, it will also turn on your climate control system.)

Make sure:

- windshield wipers are "OFF";
- gearshift is in NEUTRAL;
- hand brake is ON;
- system has beeped once to confirm that it is ready to receive a command. ✱

✱ The system generates the beep to send a code every time key is not in the ignition and brakes are applied, or every time key is turned from "ON" to "OFF".

Code 1 System ready.

If system beeps more than once (i.e., sends a code other than Code 1), refer to following table to correct the situation.

Code 2 Gearshift is not in NEUTRAL.

Code 3 Hand brake is not ON properly.

Code 4 Sequence not recognized ☼.

Code 5 Programming problem. Contact your service center.

Code 6 Internal communication problem. Consult your service center.

☼ This sequence is part of your Remote Starter's safety system which constantly checks position of your gearshift. This sequence is reset every time gearshift is moved from any gear into neutral while hand brake is off.

## THE REMOTE CONTROL

The remote control works off a small long-life 12 volt alkaline battery.

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 an electronic code learning device, up to three additional remote controls can be assigned to your vehicle. See your dealer for replacement batteries or additional remote controls.

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## USING YOUR REMOTE CONTROL

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

Indicator light will flash momentarily then remain steady while transmitting command.

A command will not be transmitted properly if you do not press button long enough (i.e., until indicator light goes out by itself).

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## CONFIRMING COMMANDS

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Your system will confirm that a command has been received properly by sounding horn (if horn was connected during installation) or flashing parking lights.

In this manual, confirmation signals are written in an abbreviated form; for example:

(horn: 1, lights: 2) means that horn will sound once and parking lights will flash twice.

# MODEL 2503

## COMMAND CODES

COMMAND	3 BTS	CONFIRMATION
START/STOP		PARKING LIGHTS, 1
LOCK		PARKING LIGHTS, 1
UNLOCK		PARKING LIGHTS, 2
TRUNK RELEASE	&	PARKING LIGHTS, 2
SENTINEL MODE	&	PARKING LIGHTS, 4 / 2 / 3
START	&	PARKING LIGHTS, 1 - HORN, 1 ♥
CAR FINDER	&  /  &	PARKING LIGHTS, 1 MIN. - HORN, 1 MIN.
UTILITY OUTPUT	&  /  &	PARKING LIGHTS, 1

♥ Horn confirmations require an additional connection or parts (not included).



Confirmation of these three commands can be programmed as **ACTIVE** or **INACTIVE** during installation. When programmed as **INACTIVE**, there is no confirmation.

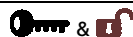
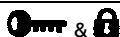
Shaded areas correspond to options that can be programmed during installation.

A maximum of two of these commands can be selected; see option list opposite.

"Car finder" and "Controlled output" functions can be allocated to either of



commands depending on available options.



Sentinel	Start	1
Sentinel	Utility output	2
Sentinel	Car finder	3
Utility output	Start	4
Utility output	Car finder	5
Car finder	Start	6

Option 1 is factory set. Ask your dealer if this option was changed during installation and if so, check  appropriate box.

## START COMMANDS

### STARTING AND STOPPING YOUR ENGINE

**To start your engine:** press the button (horn: 0, lights: 1).

System automatically sets ignition contact time depending on your vehicle.

Parking lights will stay on all the time engine is running.

**To stop engine:** enter same command.

## TRIGGER INPUT

Your Remote Starter is equipped with a negative trigger input.

This input can be connected to another remote control device or timer output.



If this input is connected, consult device manual or ask your technician which command is associated with start/stop function.

All start/stop functions controlled by this input operate in same way as input controlled by remote control.

## START ONLY &

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

This command sounds the horn to confirm your vehicle has started when you cannot see it.

Press the  &  buttons simultaneously; if command has been received properly, you will get a confirmation (horn: 1, lights: 1).

Remote Starter will then send another message to confirm that engine has started properly (horn: 2, lights: 1).

Parking lights will remain on all the time engine is running.

You may repeat this command as often as you wish; it does not stop engine.

## CONTINUOUS MODE

Continuous Mode consists of sending a "Start" command while engine is already running with key in ignition so that you can then remove ignition key.

This mode allows you to leave engine running when you leave vehicle for a short period of time and also leaves heating/air-conditioning system on.

Enter a "Start" command while engine is running.

Parking lights, engine and preset accessories will stay on for programmed time.

Remove key, exit vehicle and lock doors. Steering column will be locked and all safety devices will remain active.

## SENTINEL (LOW TEMPERATURE) MODE

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



Sentinel Mode is designed to start your engine automatically (is desired) when temperature falls below  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ).

Engine will run for programmed time, after which Sentinel Mode will wait 2½ hours and then start engine again if temperature is still below  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ).

All actions that normally stop engine when it is started by remote control (applying brakes, opening hood, etc.) have same effect in this mode.

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## To activate Sentinel Mode

Press the  &  buttons simultaneously (horn: 0, lights: 1).

Lights will flash once then, if temperature is below  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ), engine will start after a  $4\frac{1}{2}$ -second pause. This pause lets you distinguish between a regular start and an automatic (low temperature) start.

If temperature is above  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ), Sentinel waits until it goes below  $-15^{\circ}\text{C}$  ( $5^{\circ}\text{F}$ ) before starting.

If system cannot execute the command (for example, hood is open), confirmation will be different (horn: 0, lights: 3).

To deactivate this mode, enter command again (horn: 0, lights: 2).

## UPON ENTERING YOUR VEHICLE ...

Do not apply brakes; this will turn off engine immediately.

Insert ignition key and turn it to "ON" position.



DO NOT TURN IGNITION KEY TO "START" POSITION

Drive as usual.

Remember that the engine will also stop if hand brake is released or gearshift is moved before turning key to "ON" position.

## WHAT WILL STOP YOUR ENGINE

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

- Remote control sends a stop message.
- Hood is open.
- Brakes are applied.
- Gearshift is not in "NEUTRAL".
- Hand brake is not ON properly.
- Engine exceeds 3000 rpm.
- Main switch is OFF.

## MAIN SWITCH

Main switch is usually installed under dashboard.

It is a toggle ON/OFF switch that is used to cancel start functions only.

It does not disable other commands which remain active.





## DOOR 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;
- opening trunk or unlocking tailgate;
- interior lights.


### LOCKING DOORS

Press the  button (horn: 0, lights: 1) or ((horn: 0, lights: 0)  programmable during installation).

Doors are locked and parking lights flash once to confirm command has been received.


### UNLOCKING DOORS


Press the  button (horn: 0, lights: 2) or ((horn: 0, lights: 0)  programmable during installation).


Doors are unlocked and parking lights flash twice to confirm command has been received. 

### OPENING TRUNK AND UNLOCKING DOORS

This command opens trunk and unlocks doors (horn: 0, lights: 2) or ((horn: 0, lights: 0) (programmable during installation).

Press the  buttons simultaneously.

Trunk is opened, doors are unlocked, and parking lights flash twice to confirm command has been received. 

 If confirmation has been programmed as inactive during installation, there is no confirmation.

If you are not sure you have received confirmation, repeat command.

System will repeat confirmation as often as you wish (if confirmation is programmed as active.)

### 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.

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## OTHER COMMANDS

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### **DOME LIGHT**

Programmable as Active or Inactive during installation.

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 or brakes are applied.

### **CAR FINDER**

Programmable as Active or Inactive during installation.

This function sounds horn on and off and flashes parking lights to help you locate your vehicle in a large parking lot or to deter potential thieves or assailants by attracting attention.

Enter command from table (horn: 1 min., lights: 1 min.).

Car Finder Mode operates for one minute; you can, however, deactivate it before one minute is up by repeating command or applying brakes.

### **UTILITY OUTPUT**

Programmable as Active or Inactive during installation.

This command controls one of your vehicle's accessories depending on which one was connected during installation (headlights, defroster, etc.). For details, consult your technician.

Enter command from table. Controlled output is activated for one second or one minute, depending on initial programming.

When output has been programmed for one minute, you can deactivate it by repeating command.

### **ENGINE RUNTIME**

Your engine will stop automatically after a preset time.

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

Runtime is programmable during installation.

Manufacturer preset time is 15 minutes but you can have it changed to suit your needs.

### **IF ENGINE FAILS TO START**

If your system cannot start your vehicle at first attempt, it will wait a few seconds and then try again (it could try again twice depending on reason for failure to start), after which it will shut down automatically and wait for new command.

## SAFETY CHECKS

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

### HOOD SWITCH

- Start your vehicle with Remote Starter.
- Open hood.

The engine should stop as soon as hood is opened.

If engine does not stop, first **turn main switch to "OFF" position and leave it "OFF" until situation is corrected** contact your local service center.

### DETECTING "NEUTRAL" GEARSHIFT POSITION

Your starter is designed to check gearshift position at all times.

Your vehicle will not start or will stop if gearshift is not in "NEUTRAL".

Check as follows:

- Start your vehicle with remote control as usual.
- Move gearshift slightly as if putting it in gear.
- Repeat above steps moving gearshift in all directions.

If engine does not stop immediately when gearshift is moved in all directions, first **turn main switch to "OFF" position and leave it "OFF" until situation is corrected** contact your local service center.

### CHECKING HAND BRAKE

Your starter is designed to check hand brake position at all times.

Your vehicle will not start or will stop if hand brake is not in "ON" position.

Check as follows:

- Start your vehicle with remote control as usual.
- Release hand brake without applying brakes.
- Engine should stop as soon as you release hand brake.

If engine does not stop, first **turn main switch to "OFF" position and leave it "OFF" until situation is corrected** contact your local service center.

## REPLACING OR BOOSTING VEHICLE BATTERY

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



Reversing polarity during this operation 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.

### ASTROSTART accessories

Astroflex warrants to the original end-user purchaser that it will repair any AstroStart 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.
- Installation, repair and service of any covered Module or Accessory must be performed by an authorized Astroflex technician.

### 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, (iii) has been installed or repaired by anyone other than an authorized technician, or (iv) has 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 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 below and pay the postage costs for the return 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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