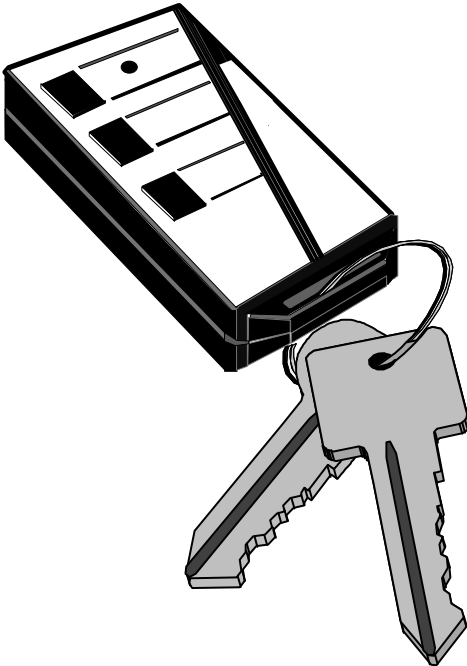# REMOTE CONTROL ENGINE STARTER

AstroStart

USER'S MANUAL

MODEL
RS-213

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

(Carburetor models require an optional solenoid.)

DO NOT INSTALL ON AUTOMATIC TRANSMISSION VEHICLES.

Manufactured in Canada by :

Astroflex

193-213-221-A1

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 is designed to provide many years of reliable, trouble-free service. Its advanced microchip circuitry incorporates billions of possible access codes which makes 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.

TABLE OF CONTENTS

SAFETY PRECAUTIONS

➢ 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".)

➢ 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 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 rectify 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.
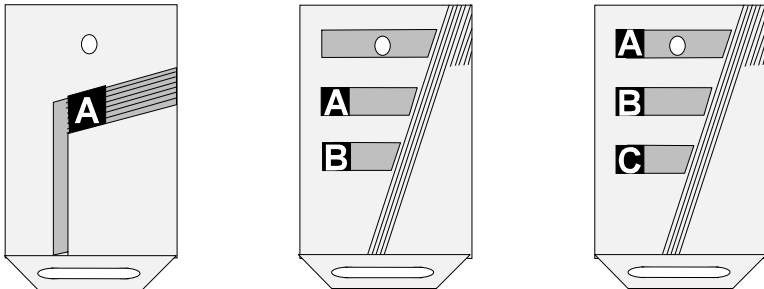
RS-213

REMOTE CONTROL

Your remote control works off a small, long-life 12-volt alkaline battery (GP-23A) that should last up to 6 months. 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 programmed for your vehicle. See your dealer for replacement batteries or additional remote controls.

USING YOUR REMOTE CONTROL

(1-, 2- or 3-button remote)

To make sure that commands are transmitted properly, press desired button for 2 seconds. Indicator light will flash momentarily then remain on 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).

Example: To start, press button "A" until indicator light goes out.

CONFIRMING COMMANDS

In most cases, your system will confirm that command has been received properly. This will be done either 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.

Astro**Start**

RS-213 COMMAND CODES

Command	1 BT	2 BTS	3 BTS	4 BTS	Confirmation	
Start/stop	A	A	A	1A	Lights	
Lock			B	1B	Lights	⟨⟩
Unlock			C	1C	Lights	⟨⟩
Trunk release			B&C	1B&C	Lights	⟨⟩
Sentinel mode		B *	A&B	1A&B	Lights	
Start only		A&B *	A&C	1A&C	Lights,	horn
Car finder			A&B / A&C	A&B / A&C	Lights,	horn
Controlled output			A&B / A&C	A&B / A&C	Lights	

Channels 2,3 and 4 on 4-button remote are not used on RS-213.

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

* Function "B" on 2-button remote control corresponds to command "A&B".
* Function "A&B on 2-button remote control corresponds to command "A&C".

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 A&B or A&C commands depending on available options.	A&B	A&C	✓
	Sentinel	Start only	1
	Sentinel	Controlled output	2
	Sentinel	Car finder	3
	Controlled output	Start only	4
	Controlled output	Car finder	5
	Car finder	Start only	6

Option 1 is programmed at factory. 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, enter command from table (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.

RS-213

START ONLY

With horn confirmation.

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

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

In Sentinel Mode, system can start your engine automatically when temperature falls below -15ºC (5ºF). Engine will run for programmed time, after which Sentinel Mode will wait 2½ hours and then start engine again if temperature is still below -15ºC (5ºF). All actions that normally stop engine when it is started by remote control (applying brakes, opening hood, etc.) have same effect in this mode.

To activate Sentinel Mode

Enter command from table (horn: 0, lights: 1).

Lights will flash once then, if temperature is below -15ºC (5ºF), engine will start after a 4½-second pause. This pause lets you distinguish between a regular start and an automatic (low temperature) start. If temperature is above -15ºC (5ºF), Sentinel waits until it goes below -15ºC (5ºF) before starting. If system cannot execute 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).

AstroStart

UPON ENTERING YOUR VEHICLE ...

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

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

WARNING:	DO NOT TURN IGNITION KEY TO "START" POSITION.

➢ Drive as usual.

✺ Remember that 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 if:

➢ 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.

RS-213

DOOR LOCK/UNLOCK COMMANDS

LOCKING AND UNLOCKING DOORS

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

Enter "Lock" command from table (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

Enter "Unlock" command from table (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).

Enter "Trunk release" command from table. 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.

Astro**Start**

OTHER COMMANDS

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 duration 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 deter potential vehicle thieves or assailants by attracting attention.

Enter command from table.

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

CONTROLLED 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.

RS-213

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.

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 rectified; 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 rectified; 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 rectified; 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.

AstroStart

RS-213

LIFETIME LIMITED WARRANTY

1. ASTROFLEX warrants the manufactured product against any defect in workmanship or material for the period specified below.

2. This Warranty excludes any other legal warranty, with the exception of the provisions pertaining to public order.

3. This Warranty only applies in favor of the original purchaser; it does not apply to subsequent purchasers.

4. This Warranty is valid for the life of the vehicle on which the product was originally installed, as long as it remains installed on the said vehicle, with the exception of those components covered by a shorter warranty.

5. If the conditions mentioned in paragraphs 3) and 4) are met, the Warranty applies solely to the control module of the remote starter.

6. All other accessories and tools (such as the transmitter, switch, antenna, DL-3 or DL-4 module, MultiTest tool, etc.) are warranted for a period of one year from the date of the purchase contract; the batteries are not covered by any warranty.

7. ASTROFLEX shall repair or replace any part of the product or the product itself, either (a) in accordance with the provisions in paragraph 5), free of charge during the first two years of the contract, or (b) in accordance with the provisions in paragraph 6), free of charge during the first year of the contract.

8. After two years from the date of the contract, ASTROFLEX shall repair any part of the product or the product itself in accordance with the provisions in paragraph 5), for a charge not exceeding $30.00. This amount must accompany the product to be repaired. The product will be returned, freight collect, to the purchaser.

9. If the purchaser cannot provide proof of purchase, the Warranty is limited to two years from the manufacturing date as confirmed by the product's serial number. The purchaser of this ASTROFLEX product shall return the product for warranty service, freight prepaid, to the appropriate address indicated at the end of this document.

10. This Warranty only applies to the product itself and does not apply to any material damages other than to the product itself.

11. ASTROFLEX does not warranty either the product itself or any damages that may be caused by the product if any of the following conditions apply:

    a)   the installation was not done by the installer-distributor, and in accordance with the instructions from ASTROFLEX;

    b)   the product was damaged after installation;

    c)   the purchaser used the product in an abusive manner or for a purpose other than stipulated in the user's guide;

    d)   the purchaser repaired the product himself or had the product repaired by someone not authorized by ASTROFLEX;

    e)   the product was repaired with parts not authorized by ASTROFLEX.

12. ASTROFLEX is not responsible for removal or reinstallation charges.

13. This Warranty constitutes the only warranty from ASTROFLEX in regard to the original purchaser; any other warranty is specifically excluded, including legal warranties, with the exception of provisions pertaining to public order.

    Note: Operation, specifications and design of our products are subject to change without notice.

AstroStart

NOTICE

This device complies with the requirements of Industry Canada (IC) - Management of Radio-frequencies, as specified in document RSS-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.

IC APPROVAL No.: CAN 1854 K 1066

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

FCC APPROVAL No.   J5FRS-3T
                                J5FRS-3R

Astroflex Inc.

1164, Route 220

Ste-Élie d'Orford (Québec) Canada

J0B 2S0

Astroflex
ELECTRONIC CORP.

516A Elm Street

Manchester, NH 03101

USA