# REMOTE CONTROL ENGINE STARTER

# AstroStart USER'S MANUAL

# **TS-100**



Designed for automatic transmission, gasoline fuel-injected vehicles.



CONSULT SAFETY PRECAUTION SECTION BEFORE USING THIS PRODUCT.

NEVER INSTALL THIS PRODUCT ON A MANUAL TRANSMISSION VEHICLE.

PATENT NOS USA 4.345.554 - CDN 1.130.426 AND OTHER PATENTS PENDING



# TS-100

# **INTRODUCTION**

Thank you for choosing the Astro *Start* Remote Control Engine Starter. Your remote starter is the result of extensive research by a company specializing in the design of high quality electronic equipment for automotive vehicles. Your remote starter is designed to provide years of reliable, trouble-free service. Its negative trigger input makes it compatible with a wide variety of remote controlled devices. Your remote starter's safe and convenient features will assuredly 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 procedures.

- Immediately report any malfunction to the Astro Start dealer that performed installation.
- Under no circumstance can this product or its use be modified.
- Always turn main switch off when vehicle is parked in an enclosed, unventilated area or is in for servicing.
- Always turn main switch off if you know you will not be using your Remote Starter for an extended period of time.
- Keep remote controls away from children.
- Have your engine tuned-up on a regular basis to ensure optimum performance of your Remote Starter.
- Always turn your windshield wipers off before leaving vehicle.
- Check safety features regularly; they prevent your Remote Starter from starting the engine under certain conditions. (See "SAFETY CHECKS" on page 4.)
- 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.
- 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 TS-100 starts your engine, it will also turn on your climate control system.)

#### Make sure:

- windshield wipers are "OFF";
- transmission is in "PARK" position.

# **START/STOP COMMAND**

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

Your remote starter is controlled by an auxiliary device (remote control, timer or other). Refer to this device's Instruction Manual to determine the "Start/Stop" command, or ask your installer which command has been assigned to the "Start/Stop" function.

Use the device.	following	space	to	describe	the	start	or	stop	procedure	using	this	auxiliary

#### **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 (10 or 20 minutes according to programming).

#### IF ENGINE FAILS TO START

If your system cannot start your 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 which it will shut down automatically and wait for new command.

#### UPON STOPPING

The engine and parking lights will turn off.

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

#### **UPON ENTERING YOUR VEHICLE...**

- Do not apply the brakes upon entering your vehicle (which would stop the engine).
- Place the key in the ignition switch and turn it to the "RUN" position.



# DO NOT TURN THE KEY TO THE "START" POSITION

Drive as usual.

#### **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.

To access the "Continuous Mode", carry out the "Start/Stop" command while the engine is idling. See "Start/Stop command" section of this manual.

Parking lights, engine and preset accessories will remain on for the duration of the programmed runtime (10 or 20 minutes). Remove key, exit vehicle and lock doors. Steering column will be locked and all safety devices (see next paragraph) 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.

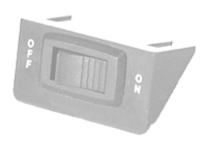
#### WHAT STOPS THE ENGINE

For your safety, the engine will stop and/or will not start under the following conditions.

- The transmitter sends the STOP command
- The hood is opened
- The brake pedal is depressed
- The transmission is shifted out of PARK/NEUTRAL
- The engine over-rev's
- The main switch is OFF
- The engine revs too slowly during cranking

#### **MAIN SWITCH**

Main switch is usually installed under the dashboard. It is a toggle **ON/OFF** switch that is used to disable remote start functions.



#### TS-100

# **SAFETY CHECKS**

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

#### HOOD SWITCH

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

The engine should stop as soon as the hood is opened.

If the engine fails to stop, immediately turn the main switch to the "OFF" position and leave it "OFF" until the situation is corrected; contact your local service center.

#### **DETECTING "P" or "N" GEARSHIFT POSITION**

Your starter is designed to monitor the gearshift position at all times.

If your vehicle is designed in such a way that the key needs to be in the ignition in order to release the gearshift from the "PARK" position, your vehicle is safe as long as the keys are kept away from children.

If the gearshift can be put into gear without the key in the ignition, proceed with the following minor routine checks.

- Place the gearshift lever into gear.
- Be ready to apply brakes.
- Start your vehicle with the Remote Starter.
- Repeat these steps in "Drive" and "Reverse".

If the starter engages within ten (10) seconds of sending the Start command, **immediately** turn the main switch to the "**OFF**" position and leave it "**OFF**" until the situation is corrected; contact your local service center.

# REPLACING OR BOOSTING THE VEHICLE BATTERY

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



Reversing polarity during this operation could permanently damage your Remote Starter.



# LIFETIME LIMITED WARRANTY

- ASTROFLEX warrants the manufactured product against any defect in workmanship or material for the period specified below.
- This Warranty excludes any other legal warranty, with the exception of the provisions pertaining to public order.
- 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.
- 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:
  - the installation was not done by the installer-distributor, and in accordance with the instructions from ASTROFLEX:
  - b) the product was damaged after installation;
  - the purchaser used the product in an abusive manner or for a purpose other than stipulated in the user's guide;
  - 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.



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