QUICK INSTALLATION GUIDE

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The wiring diagram is at the middle of this guide.

MANUAL OR AUTOMATIC TRANSMISSION SETUP

This module may be installed on vehicles with manual or automatic transmissions. It is originally configured for manual transmissions. If the vehicle you are working on is automatic, it is mandatory to make a few quick and easy modifications before the unit is connected. In the event that the configuration requires changes afterwards, a complete reset (page 7) will be necessary before those changes become effective.

To install this unit in a vehicle with a MANUAL transmission:
1. Make sure the Yellow loop on the PC board is connected (default).
2. Connect the Orange handbrake wire located on the 12-pin harness to the vehicle handbrake circuit.
3. Connect the Blue/White (+) door input OR the Grey (-) door input wire located on the 12-pin harness to the vehicle door pin wire which monitors all the doors of the vehicle (only use 1 of the 2 door trigger inputs). Make sure the Purple TACH wire is wired to a tach source – the TACH wire MUST be hooked up when the module is set for a manual transmission.
4. Make all your regular connections.
5. Power up the unit by first inserting the 5-pin connector, then the 6-pin connector and finally the 12-pin connector. The parking lights will flash 4 times.
6. When programming the transmitter, the parking lights will flash 5 times quickly.
7. Upon the first successful remote start, the system will lock the transmission settings to manual mode.

To install this unit in a vehicle with an AUTOMATIC transmission:
1. Cut the loop on the pc board (Yellow wire).
2. Make sure the Orange handbrake wire is not connected to any of the vehicle circuits.
3. Make all the regular connections.
4. Power up the unit by first inserting the 5-pin connector, then the 6-pin connector and finally the 12-pin connector. The parking lights will flash 4 times.

Notice
The manufacturer will accept no responsibility for any electrical damage resulting from improper installation of the product, be it either damage to the vehicle itself or to the unit. This unit must be installed by a certified technician using all safety devices supplied. Please note that this guide has been written for properly trained Autostart technicians: a certain level of skills and knowledge is therefore assumed. Please review the installation guide carefully before beginning any work.

Warning
Before installing the unit, if installing on a vehicle with a manual transmission, test that the OEM Door Switch contacts of the vehicle work well, and that the Parking Brake system operates properly. If installing on a vehicle with an automatic transmission, test that the vehicle does not start when the gearshift lever is in the "Drive" position. If it starts in gear, reset the remote starter to manual transmission.

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5. When programming the first transmitter, the parking lights will flash 5 times quickly then give 2 slow flashes.
6. Upon the first successful remote start (once the yellow loop has been cut), the system will lock the transmission settings to automatic mode.

Note: If upon pressing the START button the parking lights give 3 slow flashes, make sure that the Orange handbrake wire is not connected, the hand brake is not engaged and that the yellow loop is cut and isolated/taped.

DIESEL VEHICLE WARNING: The G-Plug wire must not be connected when the brake is detected through D2D.

PUSH-TO-START

Disabled by default, PTS mode is a special feature that is intended to facilitate the remote starter installation on most Push-To-Start vehicles. With PTS mode enabled, the remote starter will offer the installer a negative start output (to pulse the vehicle’s PTS switch), as well as a (+) brake switch output (no external relay necessary). With PTS enabled, the White/Green wire on the 12-pin harness becomes your negative (-) PTS switch output. It will give a one second output intended to pulse the PTS switch. Also, the Purple crank output becomes your brake switch output (this will turn the brake circuit ON for crank).

PTS TAKEOVER

Without the PTS takeover, pressing the brake pedal after remote starting shuts down the engine (to prevent theft). Here are the new steps for this new Takeover mode:

Regular PTS takeover from Remote start:
1. Remote start the engine.
2. Press and enter the vehicle.
3. Within the pre-programmed time limit (1.5 min or 3 min, see Mode 4), press the brake pedal.

PTS takeover from Idle mode:
1. With the engine running, press or to engage Idle mode.
2. Exit the vehicle; engine runs without the key.
3. IMPORTANT: After exiting the vehicle, press .
4. Press and enter the vehicle.
5. Within the pre-programmed time limit (1.5 min or 3 min, see Mode 4), press the brake pedal.

HYBRID OPTION

Warning: For automatic transmissions only.

This option is disabled by default. It can be enabled in Mode 3 of the programming options.

HYBRID mode is a special feature that is intended to facilitate the remote starter installation on most Hybrid vehicles. With HYBRID mode enabled, the remote starter will give a 4-second crank output on its crank wire (It will not rely on VTS to stop the crank cycle). The only way to shorten the 4-second crank output is to program a tach signal to the remote starter. If a tach signal is programmed, the remote starter will act like normal (the HYBRID feature should be used when no tach reference is available from the vehicle or the bypass being used at the time of installation).

HYBRID mode is a special feature that is intended to facilitate the remote starter installation on most Hybrid vehicles. With HYBRID mode enabled, the remote starter will give a 4-second crank output on its crank wire (It will not rely on VTS to stop the crank cycle). The only way to shorten the 4-second crank output is to program a tach signal to the remote starter. If a tach signal is programmed, the remote starter will act like normal (the HYBRID feature should be used when no tach reference is available from the vehicle or the bypass being used at the time of installation).

Valet mode. Make sure the remote car starter is able to properly enter and exit valet mode. When setting the remote car starter into valet mode, pressing the lock button will lock the doors without activating the starter kill. (Refer to the user guide for further information on valet mode.)

Most comebacks are the result of misunderstandings about how a product works or performs. Take the time to properly explain all functions and features to the customers before they leave the premises. Doing this will save time and money.

TROUBLESHOOTING

Problem: D2D brake could not be detected.
Cause: The unit is locked in W2W brake.
Solution: Reset the remote starter power.

Problem: The remote does not respond to the remote starter.
Cause: The remote and antenna are not paired nor programmed to the module.
Solution: Do the transmitter programming procedure.

Problem: The remote confirmed the successful pairing but the commands are not executed by the remote starter.
Cause: The remote is paired successfully, but not properly programmed to the remote starter.
Solution: Reset the module and redo the transmitter programming procedure.

Problem: During transmitter programming, the parking lights are flashing to confirm the successful pairing but the remote failed to play the melody.
Cause: The remote is not properly paired to the antenna.
Solution: Reset the module and redo the transmitter programming procedure.

Problem: The remote start the engine.

Causes:

1. Ready mode is activated.
2. The system is set to valet mode.
3. The system is in Home valet.
4. The parking brake is active.
5. Yellow loop is connected.
6. Brake wire is active.
7. Tach signal is not programed.
8. A tach signal is detected before Ignition.
9. Hood wire is active.
10. A tach signal is detected before Ignition.

Note: The installer can also use the PRG-1000 to diagnose shutdown and remote start failures. Refer to the PRG-1000 manual guide.
TRANSMITTER PROGRAMMING PROCEDURE

1. Turn the key to IGN ON.

2. Press, release then press and hold the antenna programming button until the antenna LED starts flashing rapidly.

3. Pairing and programming the remote
   Press and hold the Side button until the remote generates a long beep.

4. Turn the key to OFF-ON-OFF.

5. Press Lock.

6. To exit programming, press and release the antenna programming button.

NOW THERE ARE THREE POSSIBLE OPTIONS

<table>
<thead>
<tr>
<th>OPTION 1: No lock</th>
<th>OPTION 2: Manual shut down</th>
<th>OPTION 3: Automatic shut down</th>
</tr>
</thead>
<tbody>
<tr>
<td>The engine stops.</td>
<td>The engine runs for 8 sec. then locks the doors before finally shutting down the engine, without user interaction.</td>
<td>The engine runs for 8 sec. then locks the doors before finally shutting down the engine, without user interaction.</td>
</tr>
</tbody>
</table>

WARNING: The vehicle is not armed or locked down. WARNING: Engine runs until the pre-programmed run time expires. WARNING: Do not leave your keys in the vehicle!

The system will exit ready mode if a door, the hood or the trunk is opened, if the brake pedal is pressed, if the parking brake is disengaged or if the ignition key is turned to the IGNITION ON (RUN) position.

Remote-start the engine and listen for starter drag. If the starter cranks for too long, carry out another tach programming procedure or VTS adjustment (page 6).

Hood switch shutdown. With the vehicle running under the remote car starter, open the hood; the vehicle should shut down. If it does not shut down, check the hood pin-switch and its connector.

Brake shutdown circuit. With the vehicle running under the remote car starter, press and release the brake pedal. The engine should shut down immediately. If it continues to run, check the brake switch connection.

Parking brake shutdown circuit (manual transmissions only). With the vehicle running under remote start, disengage the parking brake. The engine should shut down immediately. If the engine continues to run, check the parking brake switch connection.

OEM alarm control. Make sure the module is able to arm and disarm the OEM alarm (if applicable).

Door locks and trunk testing. Make sure each of these options respond to the transmitter (if installed).

Door pin shutdown circuit (manual transmissions only). Make sure the system exits ready mode when each door is opened. (Test each door.)

Starter kill option. Sit inside the vehicle with all doors closed. Arm the vehicle, then try to start the engine with the key. The engine should not start. If the engine starts, rewire the starter kill to reach proper operation.

Important:

MAKE SURE the new PRG-1000 T-harness (HAR-PRG664- sold separately). Note that all remotes must be paired to the antenna (steps 1, 2, 3) before using the PRG-1000 to program the remotes to the remote starter module.

Procedure

1. Press, release then press and hold the antenna programming button until the antenna LED starts flashing rapidly.

2. Pairing the remote
   Press and hold the Side button until the remote generates a long beep.


4. To exit pairing, press and release the antenna programming button.

5. Press Lock.

6. To exit programming, press and release the antenna programming button.

Note: To program the remote to a second vehicle that has the same system, in step 5, press the Trunk button instead of Lock.

TRANSMITTER PROGRAMMING PROCEDURE USING PRG-1000

Important:
Make sure to use the new PRG-1000 T-harness (HAR-PRG664- sold separately).
Note that all remotes must be paired to the antenna (steps 1, 2, 3) before using the PRG-1000 to program the remotes to the remote starter module.

Procedure

1. Press, release then press and hold the antenna programming button until the antenna LED starts flashing rapidly.

2. Pairing the remote
   Press and hold the Side button until the remote generates a long beep.


4. To exit pairing, press and release the antenna programming button.

Note: To program the remote to a second vehicle that has the same system, in step 3, press the Trunk button instead of the Lock button.

ENTERING PROGRAMMING MODE

These are the programming buttons:

The Hood Pin

The Antenna Programming Button (the A.P.B.)
Follow these steps to program crank time adjustment, if needed:

1. **In programming mode (page 3).** Before the lights go out, press and hold the brake pedal and press the **LOCK** and **UNLOCK** buttons simultaneously — the parking lights will flash 4 times. **Do not release the brake pedal.**

2. Press the **LOCK** button if you wish to increase the time delay or the **UNLOCK** button if you want to decrease it. The time delay will be increased or decreased by 50 ms and the parking lights will flash once every time the LOCK or UNLOCK button is pressed.

3. Press the **TRUNK** button to save the settings you have entered.

4. Release the brake pedal — the time delay programming is now complete.

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### Multi-Speed Tach Programming (If Installed)

1. **In programming mode (page 3).** Before the lights go out, press and hold the brake pedal and press the **LOCK** and **UNLOCK** buttons simultaneously — the parking lights will flash 4 times. At that point, release the brake pedal.

2. Start up the engine and allow the vehicle to reach regular engine idle speed.

3. Press the **TRUNK** button to save the settings you have entered.

**Caution!** – Tach jumper settings:

Some new vehicles have a higher TACH voltage threshold, which would fall out of the normal TACH trigger properly detect the TACH signal. **BUT**, if you are having trouble with the TACH, please call our tech support team. Problems requiring changing the TACH jumper settings are **very rare.**

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### Entering Programming Options

#### Multi-Speed Tach Programming (If Installed)

1. **In programming mode (page 3).** Before the lights go out, press and hold the brake pedal and press the LOCK and UNLOCK buttons simultaneously — the parking lights will flash 4 times. At that point, release the brake pedal.

2. Start up the engine and allow the vehicle to reach regular engine idle speed.

3. Press the TRUNK button to save the settings you have entered.

4. Once the engine is running at normal idle speed, press the brake pedal and keep it down until you hear the parking lights flash 5 times.

5. Release the brake pedal — the tach programming is now complete.

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**Multi-Speed Tach Programming (If Installed)**

1. **In programming mode (page 3).** Before the lights go out, press and hold the brake pedal and press the **LOCK** and **UNLOCK** buttons simultaneously — the parking lights will flash 4 times. At that point, release the brake pedal.

2. Start up the engine and allow the vehicle to reach regular engine idle speed.

3. Press the **TRUNK** button to save the settings you have entered.

4. Release the brake pedal — the time delay programming is now complete.

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### Resetting the Module

#### Warning!

By resetting the module, all programmed values are erased — i.e.: tach, transmitter as well as programming options. The programming options are returned to their default values.

1. Enter **programming mode (page 3).**

2. Once having reached the programming mode, quickly press and release the brake pedal until the parking lights flash 8 times.

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### Entering Programming Options

#### Multi-Speed Tach Programming (If Installed)

1. **In programming mode (page 3).** Before the lights go out, press and hold the brake pedal and press the **LOCK** and **UNLOCK** buttons simultaneously — the parking lights will flash 4 times. At that point, release the brake pedal.

2. Start up the engine and allow the vehicle to reach regular engine idle speed.

3. Press the **TRUNK** button to save the settings you have entered.

4. Release the brake pedal — the time delay programming is now complete.

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### Testing

Before putting the vehicle back together, it is recommended to check that the system operates properly. The following testing procedures should be used to verify proper installation and operation of the system. Before testing, make sure that all connections are soldered and that the unit is plugged in.

- **Make sure the system properly enters and exits ready mode:**

  Ready mode is a sequence of steps that must be followed in order to allow manual transmission vehicles to be remote started. To get into ready mode:

  1. Ensure that all the doors, hood and trunk are closed. Make sure that the gear selector is in the neutral position.

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**Quick Installation Guide**

http://www.autostart.ca
### Programming Options

<table>
<thead>
<tr>
<th>MODE 1</th>
<th>*INDICATES DEFAULT SETTING</th>
</tr>
</thead>
</table>
| FUNCTION 1 – Ignition-controlled door locks  
  OPTION 1* Ignition lock DISABLED  
  OPTION 2 Ignition lock ENABLED  
  OPTION 3 Ignition unlock only  
  OPTION 4 Ignition lock only |
| FUNCTION 2 – Secure Lock  
  OPTION 1* Secure lock DISABLED  
  OPTION 2 Standard secure lock ENABLED  
  OPTION 3 Smart secure lock ENABLED |
| FUNCTION 3 – Starter Kill  
  OPTION 1* Passive arming (60 sec.)  
  OPTION 2 Active arming  
  OPTION 3 Passive arming (3 min.) |
| FUNCTION 4 – Door lock / unlock pulse timing  
  OPTION 1* 7/10-sec. lock / unlock pulses  
  OPTION 2 4-sec. lock / unlock pulses  
  OPTION 3 7/10-sec. lock pulse and two 1/4-sec. unlock pulses  
  OPTION 4 1/10-sec. lock / unlock pulses |
| FUNCTION 5 – LED flashing  
  OPTION 1* ENABLED (LED turns OFF when ignition is turned ON)  
  OPTION 2 DISABLED  
  OPTION 3 ENABLED (recommended when starter kill is installed) (will only flash when starter kill engages [depends on Mode 1, Function 3 programming]) |

<table>
<thead>
<tr>
<th>MODE 2</th>
<th>*INDICATES DEFAULT SETTING</th>
</tr>
</thead>
</table>
| FUNCTION 1 – Safe Start  
  OPTION 1 Safe start ENABLED  
  OPTION 2* Safe start DISABLED  
  OPTION 3 Swap Start |
| FUNCTION 2 – Engine Run Time  
  OPTION 1* Run time = 3 minutes in gas mode / 8 minutes diesel mode  
  OPTION 2 Run time = 15 minutes in gas mode / 20 minutes diesel mode  
  OPTION 3 Run time = 25 minutes in gas mode / 30 minutes diesel mode |
| FUNCTION 3 – Idle Mode & Turbo Mode (auto) / Turbo Mode (manual)  
  OPTION 1 Idle mode & turbo mode DISABLED (AUTO) / turbo mode DISABLED (MANUAL)  
  OPTION 2* Idle mode & turbo mode ENABLED (AUTO) / turbo mode ENABLED (MANUAL)  
  OPTION 3 Idle mode & turbo mode ENABLED AUTO (AUTO) / turbo mode ENABLED (MANUAL) |
| FUNCTION 4 – Engine type and Cold Weather Mode  
  OPTION 1 Diesel mode with 20-minute run time in cold weather mode (30-sec. wait to start delay)  
  OPTION 2 Gas mode with 3-minute run time in cold weather mode  
  OPTION 3 Diesel mode with 8-minute run time in cold weather mode (18-sec. wait to start delay)  
  OPTION 4 Diesel mode with 8-minute run time in cold weather mode (7-sec. wait to start delay) |
| FUNCTION 5 – Disarm option  
  OPTION 1 Disarm with Ignition, Accessory and Ground out  
  OPTION 2* Disarm only |

### Setting Up the Tach

**Virtual Tach Adjustment**

Warning: For automatic transmissions only.

Virtual Tach System combines the latest microcontroller technology and a complex algorithm that took years to develop. VTS is able to effectively monitor the engine starting sequence and release the starter at the right time without physically connecting the tach wire to the remote starter. The VTS constantly monitors the data and readjusts itself automatically in order to maximize its capability to start the engine properly in any weather or deteriorating battery condition.

**Optional Time Delay Adjustment in Virtual Tach System**
For Automatic transmissions:
Cut the yellow loop before plugging the module.