Installation Manual
By Firstech LLC, Version: 1.1

Applicable to the following remote start system:
CS600-S

This device complies with Part 15 of the FCC rules. Operation is subject to the following conditions:
(1) This device may not cause harmful interference.
(2) This device may accept any interference received, including interference that may cause undesired operation.
CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device.
Introduction

Thank you for purchasing a Firstech remote start system for your vehicle. The following installation manual is intended for experienced and authorized remote start technicians. This is not a tutorial on how to install. We highly recommend that you contact your local Firstech dealer and seek professional installation.

Call 888-820-3690 or visit our website at www.compustar.com to locate your nearest dealer.

Caution: The Manufactures warranty will be void if this product is installed by anyone other than an authorized dealer. Firstech reserves installation support services to authorized dealers only.

Kit(s) Contents

The CS600-S includes all your basic components for basic install.

- 2 x 600R Remotes
- Starter Only Control Module CM-600
- 1 x ANT-AM Antenna
- 1 x Hood Pin
- Pack of Wring Harnesses
Installation Basics

If you are new to installing Firstech remote start units, we highly recommended that you review this manual in its entirety prior to installing your first unit.

Key Points to Consider Before Installation:

☐ The two 600R remotes are preprogrammed to the unit  
This system is designed for ease of installation and the two included remotes are preprogrammed. In the event you may need to program new remotes cycle the ignition ON / OFF five times within seven seconds and tap the Lock button (0.5 seconds) on the first remote, and then tap the Lock button (0.5 seconds) on the second remote.

☐ This system is only compatible with Automatic transmission vehicles  
Unlike other Firstech remote start systems the CM-600 is only compatible with Automatic transmission vehicles. Manual transmissions are not supported by this unit.

☐ New Remote Valet Procedure  
Previous Firstech designed systems allow you to put the vehicle in Valet Mode by tapping the Lock and Trunk buttons at the same time. This feature has been amended to where you need to turn the ignition on and then tap the Lock and Trunk buttons.

☐ System comes in No Tach Sensing Mode  
The CM-600 comes preprogrammed in No Tach Sensing Mode. You do not need to connect the Yellow/Black Tach/Alternator sensing wire to remote start the vehicle.

☐ New Tach learning procedure  
To Learn Tach:  
STEP 1. Start the vehicle with the key and allow it to idle down  
STEP 2. Press and hold the foot brake  
STEP 3. While holding the foot brake, hold the remote start button on the remote for 2.5 seconds  
One parking light flash indicates that the vehicle tachometer signal has been successfully learned. Three parking light flashes indicate that the control module failed to learn the tachometer signal.

☐ New Option Menus  
The new option menu differs completely from other Firstech systems. It is important to familiarize yourself with these as it will save time in most applications.

☐ Option Programmer (OP500)  
Most options on this unit can be programmed with the remote(s) as well as the Option Programmer (OP500). Please note the system must be disarmed before connecting the OP500. Otherwise, an “ERROR” message will show on the display of your OP500.
**Remote Code Routine(s)**

**IMPORTANT:** The 600R remotes are preprogrammed to the control module. In the event that you need to program the remotes follow the instructions below.

**Programming the 600R Remote**

**STEP 1:** Activate Programming mode by turning the ignition key on and off (between the Acc & On positions) five times within 7 seconds. The vehicles parking lights will flash once with the successful completion of this step.

**STEP 2:** Within a second after cycling the ignition the 5th time, tap the Lock button on the remote for a half second. The parking lights will flash once to confirm the transmitter has been coded.

**Programming Multiple Remotes:** After the confirmation flash given in STEP 2, you can code additional remotes by tapping the Lock button on the remote(s). The parking lights will flash once confirming each additional remote. The CM-600 can store up to three remotes.

**Exiting Programming:** Programming is a timed sequence. If you cannot get the remote(s) to program then the system enters Valet Mode. The parking lights will flash twice signaling the end of programming mode.

---

**Placement and Use of Components**

**IMPORTANT:** The placement and use of components are critical to the performance of this system.

**Antenna and Cable**
Firstech antennas are calibrated for horizontal installation at the top of the windshield. It does not have to be mounted in the top left corner as shown to the left. The cable that connects the antenna to the brain must be free from any pinches or kinks. Installing the antenna in areas other than the windshield may adversely affect the effective transmitting distance of the remotes.

**Hood Pin**
The hood pin is an important safety feature that prevents the remote start from engaging while the hood is open. This is also to prevent accidental injury in the event that the vehicle is in service.
### Common Procedures

#### Valet Mode
When servicing or loaning your vehicle to others, your remote start system should be placed in Valet mode. Valet mode prevents the system from remote starting and disables all alarm functions. **IMPORTANT:** While in Valet mode the remote start will still lock and unlock power lock systems.

The system can be put into valet one of two ways:

1. **Turn the vehicles key to the ignition “on” position and tap the Lock and Trunk buttons simultaneously for 0.5 seconds. The parking lights will flash once to confirm the system is in valet mode. Repeat this process to take the system out of valet mode. Upon holding the same buttons again the parking lights will flash twice to confirm the system is out of valet mode.**

2. **You can put the system into valet by turning the ignition key “on” and then “off” five times within 7 seconds. The parking lights will flash once to confirm the system is in valet mode. Shortly after the first flash, the parking lights will flash twice.**

#### Jumper Settings
**Caution:** Jumper settings affect the polarity and use of certain outputs. If these jumpers are used incorrectly, damage to the vehicle and control module may occur.

**Jumper 1 (2\textsuperscript{nd} Ignition / 2\textsuperscript{nd} Starter / 2\textsuperscript{nd} Accessory Relay)**
This jumper determines the behavior of the large blue wire on Connector 1. This wire is powered by an internal relay in the control module. In the default position the jumper is set to 2\textsuperscript{nd} Ignition. 2\textsuperscript{nd} Ignition is common on GM and Toyota vehicles and will need powering. You can change the behavior of the wire to act as a 2\textsuperscript{nd} Starter or 2\textsuperscript{nd} Accessory to power up those wires common on newer Toyotas and Nissans.

**No Tach Sensing – Default Setting on Option 2-04**
No tach sensing is an alternative engine sensing mode. No tach sensing does not require a connection to the vehicle other than the main ignition harness. **IMPORTANT:** All wiring connections must be made before attempting remote starting.

**STEP 1:** Connect all necessary wires.

**STEP 2:** Process complete – there is no further programming required other than adjusting crank time when necessary (see below).

**Adjusting Crank Time:** To adjust the crank times, refer to Options 1-03 and 2-05. To help ensure successful starting, the system will automatically add additional crank time to the 2\textsuperscript{nd} and 3\textsuperscript{rd} start attempts. In addition, there is a built in “Smart Resting Mode”. Traditional tach sensing is highly recommended for colder climates.

**Tach Sensing – Option 2-04 Setting 2**
Tach sensing mode requires a connection made with the yellow/black wire on Connector 2. Firstech recommends using an injector, coil or other tach source for tachometer sense. **IMPORTANT:** The tach must be programmed before remote starting.

**STEP 1:** Start the vehicle with the key. Allow time for the engine to idle down.
STEP 2: Test wire and make connection. With the vehicle off the wire should test 0 Volts AC. At idle the tach wire should test between 1 to 5 Volts AC. As the vehicle RPM’s increase the voltage on the meter will also increase. Always solder tach connections.

STEP 3: Learn tach. While the vehicle is at idle, hold the foot brake and press and hold the remote start button on the remote control for 2.5 seconds.

The parking lights will flash once to confirm a good tach signal. The parking lights will flash three times to indicate the tach did not learn. Two seconds following the three flashes, the number of parking light flashes will indicate the cause of the error;

<table>
<thead>
<tr>
<th>Number of Parking Light Flashes</th>
<th>Tach Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Option 2-04 is not on setting 2</td>
</tr>
<tr>
<td>2</td>
<td>Key is in the off position</td>
</tr>
<tr>
<td>3</td>
<td>Bad tach signal. Find a different wire.</td>
</tr>
</tbody>
</table>

Alternator Sensing – Option 2-04 Setting 3
Alternator sensing is an alternative method the Firstech remote start system can utilize to determine if the engine is running. This is different than no tach sensing so the yellow/black wire connection must be made. IMPORTANT: No programming other than option changing is required for alternator sensing.

STEP 1: Change Option 2-04 to setting 3 - Alternator Sensing.

STEP 2: Test wire and make connection. The stator wire is found at the vehicles’ alternator. Change your meter to DC before testing for this wire.
A. At rest, with the ignition off, the stator wire should test 0V DC.
B. Turn the ignition to the run position. The stator wire should now test between 1 – 6V DC.
C. Start the vehicle with the key. The stator wire should now test between 12 – 14V DC at idle.

STEP 3: Process complete – no further programming is required.

Assumed Timed Crank – Option 2-04 Setting 4
Assumed Time Crank is the last feature of Option 2-04 for remote starting. This is intended for vehicles with built-in anti-grind feature or vehicles that do not have a 12V Positive starter wire at the ignition harness. This option will send a 1.5 second crank signal to the vehicle. This option can be used on vehicles with built in anti-grind systems.

Automatic Transmission Remote Start Function
Hold the button for 2.5 seconds to remote start an automatic transmission vehicle. If you are in range and if the vehicle is ready to remote start, the vehicle parking lights will flash once.

If you are in range, the parking lights on the vehicle will flash three times followed by a certain number after that, there is a remote start error. Refer to the “remote start error diagnostic” table under the Troubleshooting section of this manual for details.

Upon receiving confirmation that your vehicle is running, the parking lights will light solid. The remote start run time can be set for 3, 15, 25, or 45 minutes. The option is 1-08 to adjust the remote start run
time. This should be set at the time of installation.

**IMPORTANT:** The vehicle’s key must be inserted into the ignition and turned to the “on” position prior to driving your vehicle. If the foot brake is depressed prior to the key inserted and in the “on” position, the vehicle will shut off.

**Diesel Timer**
The CM-600 module has a built in Diesel Timer to allow the vehicle’s glow plug wire to heat up. There are two time settings on this unit, 7 or 18 seconds. This will allow the ignition to power up and then crank once the time has expired and glow plugs have properly heated up.

**CM-600 Firmware**
The CM-600 control module is firmware updatable through the internet. In the event Firstech makes any changes or corrections you can update the module using the RS232 port on the control module. This feature is a detailed process so please follow instructions on [www.compustar.com](http://www.compustar.com).
CM-600 Wiring Schematic (Remote Start)

CM600-S

Automatic Transmission Only

CN1 Ignition Harness
1: Red - 12 Volts Constant
2: Green/White - (12 V+) Parking Light
3: Red/White - 12 Volts Constant
4: White - (12 V+) Accessory
5: Blue - (12 V+) Selectable by Jumper
6: Yellow - (12 V+) Starter
7: Green - (12 V+) Ignition
8: Black - Constant Ground (-)

Jumper for CN1

CN2
1: Green/White - (-) Parking Light Output
2: Red/Black - (-) Starter Output
3: White/Black - (-) Accessory Output
4: Black - (-) Status/GWR
5: Orange - (-) Rearm Output
6: Orange/White - (-) Disarm Output
7: White - (-) Horn Output
8: Gray/Black - (-) Hood Pin Input
9: Lt. Blue/White - (+) Foot Brake Input
10: Red/White - (-) Trigger Start Input
11: Red - (+) Trigger Start Input
12: Yellow/Black - Tach/Alternator Input

CN3 Lock Connector
1: N/A
2: Violet/White - (-) Trunk Release
3: Orange/Black - (-) 2nd Pulse Unlock
4: Blue - (-) Unlock Output
5: Blue/Black - (-) Lock Output
6: N/A

CN4 RS232 Port
1: Red - (12 V+)
2: Black - (-)
3: Blue - (RX)
4: White - (TX)

CN5 Antenna Port
1: Yellow - (RX)
2: White - (TX)
3: Red - (12 V+)
4: Black - (-)
Connector 1 (CN1), 8-Pin Ignition Harness

<table>
<thead>
<tr>
<th></th>
<th>7</th>
<th>5</th>
<th>3</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

Pin 1  **Red** - Constant 12V positive (+) power input. This wire must be connected. The proper vehicle wire will test (+) 12V at all times - while the key is in the off position, the on position and during crank.

Pin 2  **Green/White** – This is the positive (+) parking light wire that triggers when you lock and unlock the doors and remote start the vehicle.

Pin 3  **Red/White** - Constant 12V positive (+) power input. This wire must be connected. The proper vehicle wire will test (+) 12V at all times - while the key is in the off position, the on position and during crank.

Pin 4  **White** - Accessory 12V positive (+) output. This wire must be connected to the vehicle accessory / HVAC blower motor wire. The proper wire will test 0V with the key in the off position, (+) 12V while key is in the on position, 0V while cranking and back to (+) 12V when the key is returned to the on position.

Pin 5  **Blue** - Positive 12V (+) output that powers up during remote start. The behavior of this wire is selectable by a jumper inside the control module. By default this wire powers up as a 2nd Ignition trigger. It is changeable to a 2nd Starter or 2nd Accessory.

Pin 6  **Yellow** - Starter 12V positive (+) output. This wire must be connected for remote start. The proper wire will test 0V with the key in the off position, 0V while the key is in the on position and (+) 12V during crank.

Pin 7  **Green** – Ignition 12V positive (+) output and input. This wire must be connected to the vehicles’ ignition for remote start and valet / remote programming. The proper wire will test 0V with the key in the off position, 12V (+) while the key is in the on position and 12V (+) during crank.

Pin 8  **Black** - Ground negative (-) input. This wire must be connected to the vehicles ground.

Connector 2 (CN2), 12-Pin Harness

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>9</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

Pin 1  **Green/White** - Parking light 250mA negative (-) output. The proper wire will test (-) when the parking light switch is in the on position.

Pin 2  **Red/Black** – 2nd Starter 250mA negative (-) output. This output can be used to trigger a relay to power a 2nd Starter wire on the vehicle – common on newer Toyotas and Nissans.
Pin 3  **White/Black** - 2nd Accessory 250mA negative (-) output. This output can be used to trigger the pre-wired relay located on the main ignition harness.

Pin 4  **Black** – Status/Ground while running 250mA negative (-) output. This is an optional output that will provide a negative (-) output before the ignition cranks and stay on throughout the remote start duration. This wire is most commonly used to trigger bypass / transponder modules.

Pin 5  **Orange** - Factory Arm 250mA negative (-) output. This is an optional output that will provide a (-) pulse during lock, after crank and again after the ignition shuts down.

Pin 6  **Orange/White** - Factory Disarm  250mA negative (-) output. This is an optional output that will provide a (-) pulse during unlock and prior to the ignition turning on.

Pin 7  **White** - Horn honk 250mA negative (-) output. This is an optional output that will pulse the factory horn. The proper wire will show ground (-) while the horn is sounding.

Pin 8  **Gray/Black** – Hood Pin negative (-) input. This input is a safety shut down and alarm trigger. It prevents the vehicle from remote starting while the hood is open and triggers the alarm if the hood is opened while the alarm is armed. You can connect this wire to the hood pin supplied with this kit, or to a wire in the vehicle that shows (-) only while the hood is open.

Pin 9  **Light Blue/White** - Brake 12V positive (+) input. This input must be connected as it provides a shut down for the remote start. The proper wire will test (+) 12V while the foot brake is pressed.

Pin 10  **Red/White** – This wire is a (-) pulse input for triggering the remote start sequence. This wire allows you to use the CM-600 as a slave remote starter that can be controlled by a factory OEM remote.

Pin 11  **Red** - This wire is a (+) pulse input for triggering the remote start sequence. This wire allows you to use the CM-600 as a slave remote starter that can be controlled by a factory OEM remote.

Pin 12  **Yellow/Black** - Engine sensing input. This wire is connected to the vehicle’s Tach or Alternator wire and is required if you are not using the no tach sense setting. **IMPORTANT: To change engine-sensing modes, you must change Option 2-04:**

---

**Connector 3 (CN3), 6-Pin**

| 6 | 5 | 4 | 3 | 2 | 1 |

Pin 1  **Not used**

Pin 2  **Violet/White** - Trunk release 250mA negative (-) output. This is an optional output that will release the trunk. System will unlock doors and disarm alarm prior to trunk release.

Pin 3  **Orange/Black** – 2nd Pulse Unlock wire. This wire is used to provide the customer with a driver’s priority unlock feature with option 1-04. With the option on the unlock (blue) wire will pulse first and then orange/black will pulse if the unlock button is pressed again within 3 seconds.

Pin 4  **Blue** - Unlock 250mA negative (-) output. This is an optional output that will provide a (-) pulse for unlocking doors. System will unlock doors and disarm alarm. **IMPORTANT: You must use relays to reverse polarity for (+) trigger door lock systems.**
Pin 5  **Blue/Black** - Lock 250mA (-) negative output. This is an optional output that will provide a (-) pulse for locking doors. System will lock doors and arm alarm. **IMPORTANT:** You must use relays to reverse polarity for (+) trigger door lock systems.

Pin 6  **Not used**

**Connector 4 (CN4), 4-Pin (RS232 Port)**

![Diagram of Connector 4](image)

This port provides simple connectivity to Fortin and iDataLink bypass modules.

**Connector 5 (CN5), 4-Pin (Pre-wired Antenna Cable)**

![Diagram of Connector 5](image)

Pin 1  **Yellow** - RX input. This wire receives the signal from remote.

Pin 2  **White** - TX output. This wire transmits the signal to remote.

Pin 3  **Red** – Constant 12V positive (+) output.

Pin 4  **Black** – Negative (-) ground.
### Option Programming Tables

**IMPORTANT:** System must be unlocked before you can set options with the OP500 or remotes.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Default Setting - I</th>
<th>Optional Setting - II</th>
<th>Optional Setting - III</th>
<th>Optional Setting - IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-01 Unlock Before, Lock After Starting</td>
<td>OFF</td>
<td>ON</td>
<td>Lock After Start Only</td>
<td>Lock After Shutdown Only</td>
</tr>
<tr>
<td>1-02 Lock / Unlock Pulse Duration</td>
<td>0.8 sec</td>
<td>2.5 sec</td>
<td>0.125 sec</td>
<td>3.5 sec</td>
</tr>
<tr>
<td>1-03 Minimum crank time with alternator sensing</td>
<td>0.8 sec</td>
<td>1.0 sec</td>
<td>0.6 sec</td>
<td></td>
</tr>
<tr>
<td>1-04 Driver's Priority Unlock</td>
<td>OFF</td>
<td>ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-05 Double Pulse Unlock</td>
<td>OFF</td>
<td>ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-06 Pulse Trigger</td>
<td>Double Pulse Trigger</td>
<td>Triple Pulse Trigger</td>
<td>Single Pulse Trigger</td>
<td></td>
</tr>
<tr>
<td>1-07 Diesel Timer</td>
<td>OFF</td>
<td>7 sec</td>
<td>18 sec</td>
<td></td>
</tr>
<tr>
<td>1-08 Remote Start Runtime</td>
<td>15 Min</td>
<td>25 Min</td>
<td>45 Min</td>
<td>3 Min</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feature</th>
<th>Default Setting - I</th>
<th>Optional Setting - II</th>
<th>Optional Setting - III</th>
<th>Optional Setting - IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-01 Timer Start or Minimum Interval Between Cold Start</td>
<td>3 Hour</td>
<td>1.5 Hour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-02 IGN+ACC Pulse with Disarm</td>
<td>OFF</td>
<td>ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-03 Ignition Controlled Door Locks</td>
<td>OFF</td>
<td>ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-04 Engine Sensing</td>
<td>Tachless</td>
<td>Tach</td>
<td>Alternator</td>
<td>1.5 sec Start Assume Running</td>
</tr>
<tr>
<td>2-05 Minimum Crank Time With Tachless Mode</td>
<td>0.8 or 1.0 sec by Option1-3</td>
<td>1.4 sec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-06 Double Pulse Disarm</td>
<td>Standard</td>
<td>Double Pulse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-07 Rearm Output</td>
<td>1st Lock, After Start, After Shutdown</td>
<td>1st Lock, Shutdown</td>
<td>After Start Only</td>
<td>After Shutdown Only</td>
</tr>
</tbody>
</table>
Option Menu Descriptions

1-01 Unlock Before, Lock After Starting - If enabled, this option will unlock the doors before remote starting, start the vehicle, then lock the doors after the vehicle starts. It will then lock the doors again if the remote start run time expires and the vehicle shuts down. The third option locks the doors upon remote start shut down only. The fourth option turns on lock after remote start shutdown only. This feature is for vehicles that have factory alarms that need to be disarmed before remote starting such as Toyota and Lexus.

1-02 Lock / Unlock Pulse Duration – This option changes the length of the lock and unlock ground pulses on the blue and blue/black wires on CN3. The default setting is for 0.8 seconds. Optional setting 2 changes the duration to a 2.5 second pulse. The third setting changes the duration to a short 0.125 second pulse setting. The fourth setting changes the duration to a 3.5 second pulse.

1-03 Minimum Crank Time With Alternator Sensing – When using Alternator Sensing on this system you can adjust the starter crank time to either 1 or 0.6 seconds from its default setting of 0.8 seconds.

1-04 Driver's Priority Unlock - The driver’s door must be isolated from the other doors. Use the Orange/Black CN3 as your 2nd Unlock output.

1-05 Double Pulse Unlock – This option pulses the unlock (blue) wire twice to unlock all doors or disarm the factory alarm on some vehicles. This feature cannot be used with Option 1-04.

1-06 Pulse Trigger – This option changes the amount of pulse trigger(s) needed to active the control module as a slave unit. The default setting requires two ground or 12V+ pulses to activate. Setting 2 changes the trigger to a triple ground or 12V+ pulse. Setting 3 changes the trigger to a single ground or 12V+ pulse to activate the remote start sequence.

1-07 Diesel Timer – Use this option if you can’t find the glow plug wire. You can use setting 2 for a default wait-to-crank; otherwise, you can adjust the time with your OP-500 Programmer.

1-08 Remote Start Runtime – This option changes the remote start run time from its default 15 minutes to 25, 45, or 3 minutes.

2-01 Timer Start or Interval Between Cold Start - This option dictates the time interval when the control module will remote start.

Default 1: Will start every 3 hours until the vehicle is remote started or started by key and run for the set run time in option 1-08.
Option 2: Will start every 1.5 hours until the vehicle is remote started or started by key and run time in option 1-08.

2-02 IGN + ACC Pulse with Disarm – This option will pulse the ignition and accessory wires on CN1 at the same time the disarm wire pulses. Most new Chrysler vehicles need the ignition and accessory pulsed to disarm the factory alarm.

2-03 Ignition Controlled Locks – When you turn this option on and have the power door locks connected the doors will lock when you remote start or start the vehicle with the key and then press the foot brake. When you turn the key off the doors will unlock if this feature is turned on.
2-04 **Engine Sensing** – This module comes default in the No Tach Sensing mode where it does not require a tach connection. Setting 2 changes to the tach sensing where you will need to connect to a wire that tests as a tach. Setting 3 changes the mode to alternator sensing and you must still connect a wire that monitors the change in voltage at the alternator. Setting 4 does an assumed start feature where the control module will automatically crank the yellow starter wire for 1.5 seconds. Please see the “Common Procedures” section on page 6-7 of this manual for complete explanations on the four engine sensing modes.

2-05 **Minimum Crank Time With No Tach Sensing** – This option will increase the standard crank time from 0.8 seconds to 1.4 seconds when remote starting. Please keep in mind that the crank time will increase with each try.

2-06 **Double Pulse Disarm Wire** – This feature turn the disarm wire into a double pulse output for shutting down factory alarm outputs.

2-07 **Rearm Output** – This option changes the events when the orange rearm output will pulse from the control module. In the default mode the wire will pulse every time you lock, after remote start confirmation, and remote start shutdown. Setting 2 only pulses the wire upon lock and remote start shutdown. Setting 3 pulses the wire upon after remote start only. Setting 4 pulses the wire upon remote start shutdown only. Optional event to prevent factory alarm from triggering.

---

**Option Programming**

Once you determine what options you need after install you will need to program them with either your remote or the OP500 Option Programmer. Below are instructions on how to set the options shown in the section above.

**Option Programming Using the OP500 (programmer)**

The OP500 can be used to program any available option.

**STEP 1:** Using the blue connector on the top of the OP500, connect it to the control module via the antenna wire. (Use the included extension cable if necessary.) Once connected, the OP500 will power up as long as the main ignition harness to the controller has been connected properly.

**STEP 2:** To change the option number you wish to program, use the left and right arrow keys on the OP500. It will scroll through the options available in menu 1 and then move to menu 2. Use the up and down arrow buttons on the OP500 to adjust the option settings; “1” is the default setting, and “2”, “3”, and “4” are the optional settings.

**STEP 3:** When finished with the adjustment of the various option settings, press and hold the “W” (write) button for 3 seconds. This will write the settings to the control module. Wait until the module displays “Success Good” before disconnecting it from the antenna cable.

To reset the options, hold the “R” (reset) button and the “W” (write) button for 3 seconds. Release then write the reset, hold the “W” button for 3 seconds.
Option Programming Using a Remote

Using a remote is a timed process so please thoroughly review this section before programming.

STEP 1: Select the option menu that contains the desired programming option.

To select a menu, use the following button combinations:

- Lock and Unlock for 2.5 seconds Menu 1
- Lock and Star for 2.5 seconds Menu 2

STEP 2: After entering the option menu that contains the desired option, hold buttons (Trunk + Key/Start) on the remote for 2.5 seconds the number of times equal to the option number. Wait for a parking light flash button hold. After selecting the desired option number, wait a few seconds and the system will confirm which option you have selected by the number of parking light flashes.

STEP 3: Once the system confirms the option number, set the option to the desired setting by tapping the Lock and Unlock buttons. To select option 3 and 4 you must hold the Trunk, or Star buttons for 2.5 seconds. The Lock button is setting 1, Unlock button is setting 2, Trunk button for 2.5 is setting 3, and Star button for 2.5 is setting 4.

Resetting to Factory Defaults: To reset the options in a particular menu group, enter the menu by following STEP 1, then tap the Star button three times. The parking lights will flash after each tap. After the third tap, the option menu will reset and parking lights flash three times. This must also be done for Menu 2.

Troubleshooting

Remote Start Error Codes

If the remote start fails to start the vehicle, the parking lights will flash three times immediately. Following those three flashes the parking lights will flash again corresponding to the error table;

<table>
<thead>
<tr>
<th>Number of Parking Light Flashes</th>
<th>Remote Start Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Motor running</td>
</tr>
<tr>
<td>2</td>
<td>Ignition on</td>
</tr>
<tr>
<td>6</td>
<td>Hood open</td>
</tr>
</tbody>
</table>
Frequently Asked Questions

I have everything hooked up and the system will not respond.

A: Check all your wires to the control module. Next check your fuses and ground. If the system does not respond after that then try programming the remotes. Please see the “Common Procedure” section of this manual for remote programming instructions.

Can I use any other CompuStar remotes on this system?

A: No, the CM-600 control module is designed to only work with the 600R remotes.

I am trying to program options with the OP500 Option Programmer and it flashes “ER 01” when I plug it in to the antenna cable. What should I do?

A: First, make sure all connections are made to the control module. Second, make sure that the system is not locked. The last thing to check is the antenna cable or antenna extension cable – make sure this is not damaged. If you need to, try another cable. When the OP500 is working properly, it will read “Success Good.”

Is the CM-600-S compatible with Manual Transmission vehicles?

A: No, the CM-600-S remote start system is compatible with Automatic Transmission vehicles only.

What is the thick blue wire on CN1 and the jumper in the control module?

A: This wire is ran to an internal relay on the control module. This wire can be used to power up a 2nd Ignition, 2nd Starter, or 2nd Accessory wire on the vehicle. The behavior of the wire is changed by the internal jumper in the control module.

How do I set the auxiliaries?

A: The CM-600 does not have programmable auxiliary outputs. The auxiliary outputs on this unit can only trigger those specifically on the data bypass modules.

All my connections are made, how do I program the tach?

A: Start the vehicle with the key. Hold the foot brake down. While holding the foot brake down hold the Key/Start button down for 2.5 seconds. If the system flashes the parking lights once then the tach is programmed. If it flashes three times, pause and then a certain amount please review the “Common Procedures” section of this manual.

The vehicle starts and shuts down 3 times in a row.

A: This usually means that the engine sensing mode is not working correctly. If you are using a coil, change to an injector or try alternator mode. If you are using the no tach sensing mode and it does not start check the two power wire on the control module. If it does not remote start you may try setting 4 assume start otherwise the only alternative is finding a tach or alternator sense wire.
The vehicle will lock and unlock, but will not remote start or flash the parking lights.

A: The system is in valet mode. Tap the Lock and Trunk Buttons and the same time for 0.5 seconds to exit Valet Mode. If that does not work try reprogramming the remotes again.

Whenever I try to arm the vehicle, it chirps the siren 3 times and will not arm.

A: Check the hood (grey/black wire) trigger input.

Do the door locks flip-flop in polarity?

A: No. You can use the CompuPack (relay pack) for high current positive (+) locks, or the DM600 harness used for low current 600mA positive (+) locks. If those are not available you must use two SPDT relays to invert the polarity.
Firstech technical support is reserved for authorized dealers only.

**Monday - Friday** 888-820-3690
(8:00 am – 5:00 pm Pacific Coast Time)

**Email** support@compustar.com

**Web** [http://www.firstechonline.com](http://www.firstechonline.com) and click on “Authorized Tech”

Wire Diagrams

Click on the “Installogy Access Client” link found on your desktop. If you are a qualified dealer and unable to access this site, call your sales representative or the number above.