Installation Manual

By Firstech LLC, Version: 1.0

Applicable to the following alarm system:

CS600-A

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.

Table of Contents

Introduction

Thank you for purchasing a Firstech remote start system for your vehicle. The following installation manual is intended for experienced and authorized mobile and alarm 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 Manufacturer's 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
- Alarm Only Control Module CM600-A
- 1 x Shock Sensor
- 1 x Siren
- Pack of Wring Harnesses

- Installation Basics

If you are new to installing CompuStar by Firstech alarm units, we highly recommend 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*** Page 5

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.

☐ ***New Remote Valet Procedure*** Page 6

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.

☐ ***New Option Menus*** Page 10

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)*** Page 14

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. Connect the OP500 by unplugging the antenna and plugging into the blue 4 pin port at the top of the programmer.

☐ ***Updatable Firmware*** Page

The firmware on the CM1300 can be updated however you will need the new CM1300 update cable as well as your USB Updater Cable. Sign up on www.firstechonline.com for instructions and exclusive dealer access

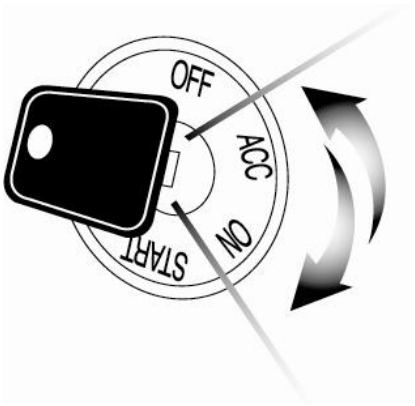
Remote Code Routine(s)

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 600R can store up to three remotes.

Exiting Programming: Programming is a timed sequence. If you can not 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

The antenna on the CM1300 is internal and wired directly to the control module. There is no need to run a cable up the A pillar unless you are using a different RF Kit.

Shock Sensor

For best results mount the shock sensor by zip tying it to the vehicles main ignition harness. There is a small dial on the sensor that ranges from Off to 10. The higher the number on the dial the greater sensitivity of impact. A small adjustment to the dial can make a significant difference in sensitivity for both 1st and 2nd stages. Recommended dial settings for most vehicles is somewhere between 2 & 4.

Siren

The volume output of the siren can be increased 3 dB by cutting black wire loop located near the base of the siren. To adjust duration time when the alarm has been triggered, change *Option 1-05* – the system default is 30 seconds.

Common Procedures

Valet Mode

When servicing or loaning your vehicle to others, your alarm system should be placed in Valet mode. Valet mode disables all alarm functions as well as parking lights.
IMPORTANT: While in Valet mode your remotes will still lock and unlock the doors.

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

1. Turn the vehicles key to the ignition “on” position and hold the Lock and Trunk buttons simultaneously for 2.5 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 (Door Trigger Polarity)

Determines the polarity of the door trigger input wire (red/white). In the default position the door trigger registers negative (-) triggers. To change to a positive (+) trigger, move the jumper.

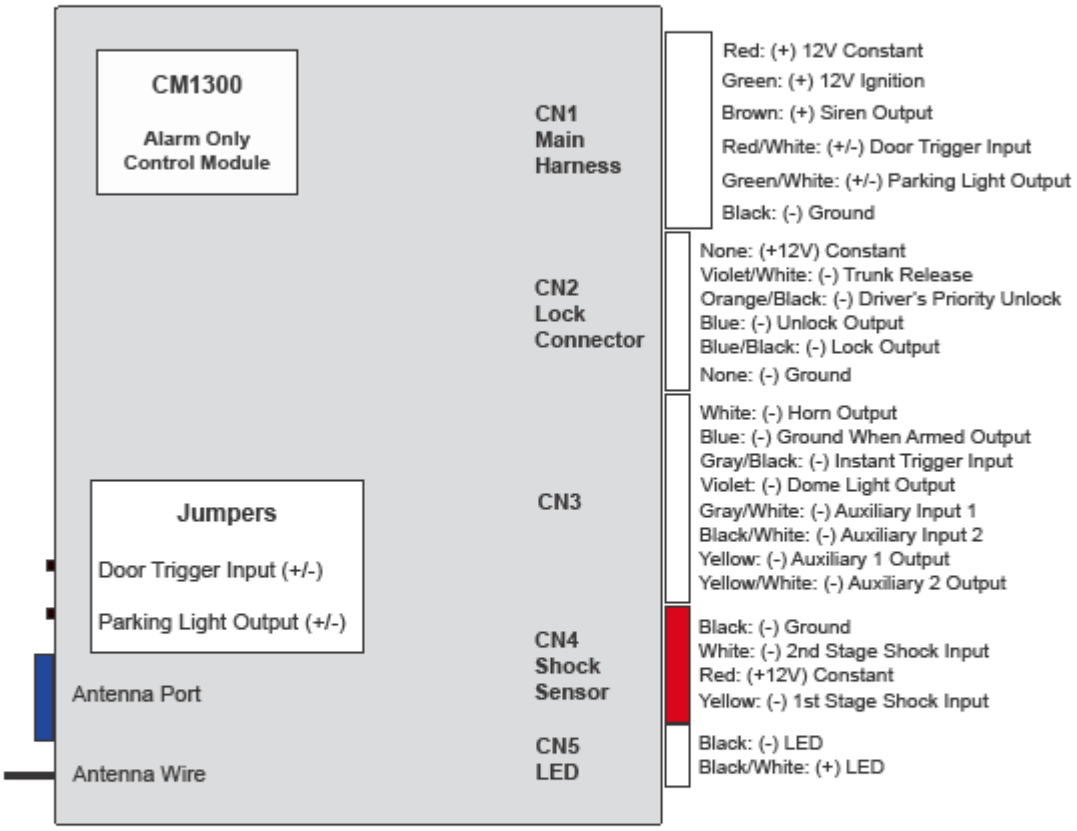
Jumper 2 (Parking Light Polarity Output)

Determines the output polarity of the green/white wire on connector one (CN1). In the default position it provides a positive (+) parking light output. To change to a negative (-) parking light output move the jumper.

CM1300 Firmware

The CM1300 control module is firmware updatable through the internet. In the event Firstech makes any changes or corrections you can update the module using the Antenna Port on the control module. This requires the new CM1300 update cable as well as the USB updater cable.

CM1300 Wiring Schematic



Antenna Port
Black: (-)
Red: (+12V)
White: (TX)
Yellow: (RX)

Note: The Antenna Port can also be used to update firmware on the CM1300

Starter Kill Relay
The starter kill relay for the CM1300 is prewired to the Ignition (Green CN1) and Ground When Armed (Blue CN3) wires.

The Yellow and Yellow/Black wires go to and interrupt the vehicle's starter wire.

Make sure to Connet the Green wire to the vehicle's ignition.

Connector 1 (CN1), 6-Pin Main Harness

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

Pin 3 **Brown** - Siren 12V positive (+) output. Connect this wire to the red (+) wire located on the siren. To change siren output settings, review *Option 1-05*.

Pin 4 **Red/White** - Door trigger input. This wire requires negative (-) or positive (+) trigger door-pins. The proper wire provides a (-) or a (+) trigger only when the doors are opened. You will need to test the wire for proper polarity and set the jumper on the side of the CM1300 for the corresponding polarity.

.

Pin 5 **Green/White** – This is the positive (+) and negative (-) parking light wire that triggers when you lock and unlock the doors and alarm goes off. The polarity of this output is selectable via a jumper on the side of the CM1300.

Pin 6 **Black** - Ground negative (-) input. This wire must be connected to the vehicle's ground.

Connector 2 (CN2), 6-Pin Lock Harness

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 3 (CN3), 8-Pin Harness

Pin 1 **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 2 **Blue** – Ground when armed output. This wire sends a (-) negative output when the alarm is armed. It triggers the starter kill relay for the CM1300. It can also be used for other options like window roll-up.

Pin 3 **Gray/Black** – Instant negative (-) trigger input. This input looks for a ground (-) input when the system is armed/locked. Once it detects a (-) negative signal it will trigger the full alarm.

Pin 4 **Violet** - Dome light 250mA negative (-) output. This is an optional output that provides a 45 second (-) negative output after system is unlocked for dome-light supervision. This can also be used to trigger factory rearm. To change dome light output settings, review *Option 2-04*.

Pin 5 **Gray/White** - Auxiliary Input 1 – This wire functions as a negative (-) pre-warn input. It is selectable based on option 2-12. It can be changed to a negative arm, negative ignition, negative instant trigger or negative closed loop trigger input. Please refer to the option tables for details.

Pin 6 **Black/White** - Auxiliary Input 2 – This wire functions as a negative (-) instant trigger input. It is selectable based on option 2-13. It can be changed to a negative disarm, negative key sense or negative parking light reminder input trigger. Please refer to the option tables for details.

Pin 7 **Yellow** - Auxiliary 1 Output – This wire provides a customized timed output for triggering extra sensors and/or features such as power sliding doors or power windows. The settings can be changed via option 2-08. To set a custom timed output you must use option setting 4 as well as an OP500 Option Programmer.

Pin 8 **Yellow/White** - Auxiliary 2 Output – This wire provides a customized timed output for triggering extra sensors and/or features such as power sliding doors or power windows. The settings can be changed via option 2-09. To set a custom timed output you must use option setting 4 as well as an OP500 Option Programmer.

Connector 4 (CN4), 4-Pin (Shock Sensor Port)

Pin 1 **Black** - Negative (-) ground.

Pin 2 **White** - 2nd stage negative (-) input. (Instant trigger)

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

Pin 4 **Yellow** - 1st stage negative (-) input. (Warn away)

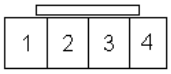
Connector 5 (CN5), 2-Pin (Pre-wired LED)

Note: Do not mistake for Thermister port.

Pin 1 **Black** - L.E.D negative (-) ground.

Pin 2 **Black/White**- L.E.D. 3V positive (+) output.

Connector 6 (CN5), 4-Pin (Antenna Cable)



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.

	Feature	Default Setting- I	Optional Setting - II	Optional Setting - III	Optional Setting - IV
1-01	Lock/Unlock Pulse Duration	0.8 sec	2.5 sec	0.125 sec	3.5 sec
1-02	Double Pulse Locks	Off	Unlock	Lock	Both
1-03	Driver's Priority Unlock	Off	On		
1-04	Ignition Locks	Off	On	Ignition Lock Only	Ignition Unlock Only
1-05	Siren Duration	30 Seconds	60 Seconds	120 Seconds	Chirp for 20 Seconds
1-06	Siren Output	Latched	Pulsed		
1-07	Auto Rearm	Off	30 Seconds	60 Seconds	5 Minutes
1-08	Passive Arming	Off	On	Passive Without Locks	
1-09	Dome Light Delay	Off	5 Seconds	45 Seconds	Auto
1-10	Valet Mode	Key 5 times, or Remote (I+III) while ignition is on	Key 5 times or Remote (I+III)		
1-11	Open Door Notification	On	Off		

	Feature	Default Setting- I	Optional Setting - II	Optional Setting - III	Optional Setting - IV
2-01	Horn Output	Alarm Only	On Double Lock	On Lock and Unlock	
2-02	Horn Honk	Pulsed	Latched		
2-03	(-) Ground When Armed	Latched when armed	0.5 sec	20 Seconds	Program → Aux 4

2-04	Dome Light Output	Off	Factory Rearm	45 Seconds	Factory Rearm + 45 sec
2-05	Unlock/Disarm with Trunk Release	Unlock, Factory Disarm, and Trunk Release	Factory Disarm, Trunk Release Only	Trunk Release Only	Aux 3
2-06	Trunk Output Timing	1 sec	0.5 sec	2 sec	Program → Aux 3
2-07	Secure Aux Output	On	Off		
2-08	Aux 1 Output	0.5 Second	Latched	20 Seconds	Program
2-09	Aux 2 Output	0.5 Second	Latched	60 Seconds	Program
2-10	Aux 1 Output Control	By Remote	Arm	Disarm	Ignition Off
2-11	Aux 2 Output Control	By Remote	Arm	Disarm	Panic
2-12	Auxiliary Input 1	(-) Pre-Warn	(-) Arm	(-) Closed Loop	(-) Ignition, Instant Trigger & Shock Sensor Bypass
2-13	Auxiliary Input 2	(-) Trigger	(-) Disarm	(-) Key Sense	(-) Parking Light Reminder

Special Option Group

	Feature	Setting Value
1	AUX 1 Output Time	1 - 100 seconds
2	AUX 2 Output Time	1 - 100 seconds
3	AUX 3 Output Time	1 - 100 seconds
4	AUX 4 Output Time	1 - 100 seconds

Option Menu Descriptions

1-01 **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.

1-02 **Double Pulse Locks** – 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.

1-03 **Driver's Priority Unlock** – This lets you use the CM1300 to unlock the driver's door before the rest of the doors as in some factory systems. The user has the hit the unlock on the remote a second time to unlock the rest of the doors. The driver's door must be isolated from the other doors. Use the Orange/Black CN3 as your 2nd Unlock output.

1-04 **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.

1-05 **Siren Duration** – The default setting for the siren output upon panic or alarm trigger is 30 seconds. You have the ability to extend that with this option. Please see the option tables for other available settings.

1-06 **Siren Output** – The brown wire on CN1 can be changed to output a pulsed (-) ground output.

1-07 **Auto Rearm** – The system will automatically rearm and relock if there is no activity on the (green) ignition wire or (red/white) door trigger wires. See the option table for available settings.

1-08 **Passive Arming** – This option must be set to 2 before you can turn Passive Arming on with the remote. Passive Arming will happen only after the door is opened and closed.

1-09 **Dome Light Delay** – This option is used when connecting the door trigger input to the vehicles dome light circuit. It delays the door trigger input to prevent the *door open notification.* Please see the option table for available settings.

1-10 **Valet Mode** – This option changes how to enter Valet Mode with the remote.

Default 1: Key on/off five times or remote valet (Lock + Trunk for 0.5 seconds) with key in the on position.
Option 2: Key on/off five times or remote valet (Lock + Trunk for 0.5 seconds) – key does not need to be in the on position.

1-11 **Open Door Notification** – With this option the CM1300 will notify the user if they try to arm their vehicle while a door or trunk is open. The user will receive 3 or 4 chirps and parking light flashes when they try to arm/lock their vehicle. You may turn this feature off with setting 2.

2-01 **Horn Output** – This option sets the behavior of the horn wire during alarm state, during double lock from the remote or during lock and unlock from the remote. During one of the options the event will send a negative pulse on the white wire on CN3.

2-02 **Horn Honk** – This option sets the duration of the output on the horn (white) wire. At default it will pulse depending on option 2-01. At the optional setting it will latch a ground trigger to use for triggering another siren.

2-03 **Ground When Armed** – Ground When Armed or GWA, at default setting, will send a constant latched negative output when armed on the blue wire on CN3. This is used to trigger your starter kill relay. The optional settings change how long the GWA will send a trigger. Optional setting 4 will make the blue wire an Auxiliary 4 which is programmable by your OP500 Option Programmer.

2-04 **Dome Light Output** - This option sets the timing output of the Dome Light (violet) wire on CN3.

Default 1: Off
Option 2: Factory Rearm – This system will pulse the dome light output during lock/arm.
Option 3: 45 second Dome Light Output – activates the dome light for 45 seconds upon unlock/disarm.
Option 4: This is a combination of 2 and 3.

2-05 **Unlock/Disarm With Trunk Release** – This option has 4 settings. The settings are self explanatory but option 4 turns the trunk release wire (violet/white) on CN2 into an Auxiliary 3 which is also programmable via the OP500.

2-06 **Trunk Output Timing** – This option sets the output duration of the violet/white wire on CN2. The available options are 1, 0.5, and 2 seconds. You must set the fourth option if you have option 2-05 on setting 4.

2-07 **Secure Aux Output** – On the default setting, trunk and star buttons must be held for 2.5 seconds before Aux 1 or Aux 2 can be triggered. This prevents accidental triggering of the outputs. Option setting 2 turns this feature off.

2-08 **Aux 1 Output** - This option determines the duration of the Aux 1 output. Setting 4 allows the output duration to be set for a specific length of time.

2-09 **Aux 2 Output** - This option determines the duration of the Aux 2 output. Setting 4 allows the output duration to be set for a specific length of time.

2-10 **Aux 1 Output Control** – This option sets the condition which controls Auxiliary 1 and how it is triggered. Please see the option table for details.

2-11 **Aux 2 Output Control** - This option sets the condition which controls Auxiliary 2 and how it is triggered. Please see the option table for details.

2-12 **Auxiliary Input 1** – This option changes the input condition on the gray/white wire on CN3.

Default 1: Will pre-warn with a negative (-) ground input.
Option 2: Will arm the system with a negative (-) ground input. Used when adding an alarm to a factory keyless entry system.
Option 3: Turns the wire into a closed loop trigger. Can be used to detect if the circuit is broken like for a trailer connected to the truck hitch.
Option 4: Turns the wire into a (-) ignition input that bypasses the instant trigger wire and shock sensor.

2-13 **Auxiliary Input 2** – This option changes the input condition on the black/white wire on CN3.

Default 1:. Will instant trigger with a negative (-) ground input.
Option 2: Will disarm the alarm with a negative (-) ground input. Used when adding an alarm to a factory keyless entry system.
Option 3: Turns the wire into a (-) Key Sense wire. If the wire sees a negative trigger it will not allow the system to arm.
Option 4: Turns the wire into a (-) Parking Light Reminder input. If the wire sees a negative trigger during arm it will chirp the siren and flash parking lights 5 times to notify the user that their parking lights are still on.

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.

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 option menu 1 or 2, hold buttons (Trunk + Star) on the remote for 2.5 seconds each time to move through the menu. Wait for a parking light flash and siren chirp after each 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 and siren chirps.

STEP 3: Once the system confirms the option number, set the option to the desired setting by tapping the Lock, Unlock, Trunk, or Star buttons. The Lock button is setting 1, Unlock button is setting 2, Trunk button is setting 3, and Star button 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

Alarm LED Diagnostics

When the alarm is triggered the LED (if installed) will flash a certain amount of times as shown in the table below.

Priority	Trigger	LED Flash Diagnostic
1	Door/Hood/Trunk/Ign Triggered	2 flashes, rest, then repeat
2	2nd Shock Triggered	3 flashes, rest, then repeat
3	2nd Auxiliary Input Triggered	4 flashes, rest, then repeat
4	Panic with remote	5 flashes, rest, then repeat

Frequently Asked Questions

Does the CS600-A have remote start?

A: No, the CS600-A is an alarm only system.

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: Yes you may use any other RF Kit in the Firstech lineup.

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.”

How do I set the auxiliaries?

A: The CM1300 has programmable auxiliary outputs. You have four preset timed options to program your auxiliaries for. You must have an Option Programmer (OP500) to set a specific time output for the auxiliaries. Please see the Option Tables in this manual for details.

The vehicle will lock and unlock, but will not flash the parking lights or chirp the siren.

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 all the trigger input wires for ground.

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.

.

Technical Support Contacts

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.compustar.com click on “dealer support”

COMPUTECH 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.