CompuStar AS Controllers
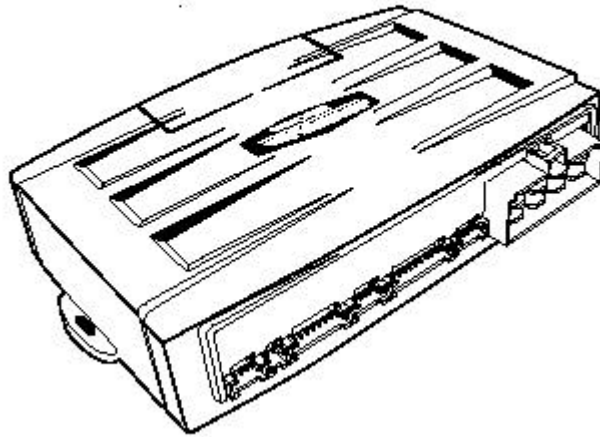
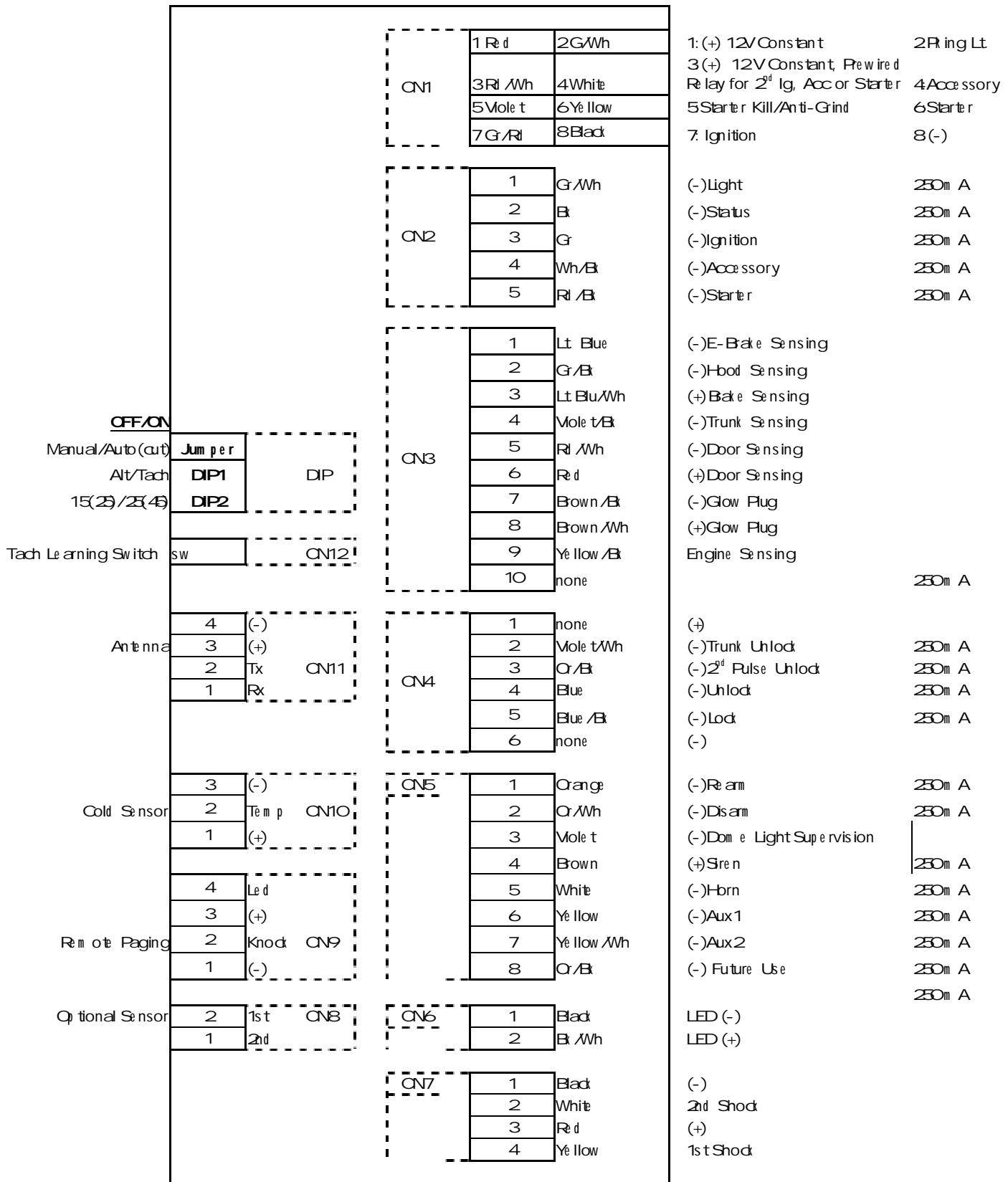# INSTALLATION GUIDE

By Firstech, Inc.

Website: www.compustar.org

Wiring Diagram

CN1

Pin	Wire	Pin	Wire
1	Red	2	Gr/Wh
3	Rd/Wh	4	White
5	Violet	6	Yellow
7	Gr/Rd	8	Black

- 1: (+) 12V Constant
- 2 Parking Lt.
- 3 (+) 12V Constant, Prewired Relay for 2nd Ig, Acc or Starter
- 4 Accessory
- 5 Starter Kill/Anti-Grind
- 6 Starter
- 7: Ignition
- 8 (-)

CN2

Pin	Wire	Function	
1	Gr/Wh	(-)Light	250mA
2	Bk	(-)Status	250mA
3	Gr	(-)Ignition	250mA
4	Wh/Bk	(-)Accessory	250mA
5	Rd/Bk	(-)Starter	250mA

CN3

Pin	Wire	Function	
1	Lt Blue	(-)E-Brake Sensing	
2	Gr/Bk	(-)Hood Sensing	
3	Lt Blu/Wh	(+)Brake Sensing	
4	Violet/Bk	(-)Trunk Sensing	
5	Rd/Wh	(-)Door Sensing	
6	Red	(+)Door Sensing	
7	Brown/Bk	(-)Glow Plug	
8	Brown/Wh	(+)Glow Plug	
9	Yellow/Bk	Engine Sensing	
10	none		250mA

CN4

Pin	Wire	Function	
1	none	(+)	
2	Violet/Wh	(-)Trunk Unlock	250mA
3	Or/Bk	(-)2nd Pulse Unlock	250mA
4	Blue	(-)Unlock	250mA
5	Blue/Bk	(-)Lock	250mA
6	none	(-)	

CN5

Pin	Wire	Function	
1	Orange	(-)Rearm	250mA
2	Or/Wh	(-)Disarm	250mA
3	Violet	(-)Dome Light Supervision	
4	Brown	(+)Siren	250mA
5	White	(-)Horn	250mA
6	Yellow	(-)Aux1	250mA
7	Yellow/Wh	(-)Aux2	250mA
8	Or/Bk	(-) Future Use	250mA
			250mA

CN6

Pin	Wire	Function
1	Black	LED (-)
2	Bk/Wh	LED (+)

CN7

Pin	Wire	Function
1	Black	(-)
2	White	2nd Shock
3	Red	(+)
4	Yellow	1st Shock

CN8 — Optional Sensor

Pin	Label
2	1st
1	2nd

CN9 — Remote Paging

Pin	Label
4	Led
3	(+)
2	Knock
1	(-)

CN10 — Cold Sensor

Pin	Label
3	(-)
2	Temp
1	(+)

CN11 — Antenna

Pin	Label
4	(-)
3	(+)
2	Tx
1	Rx

CN12 / DIP

OFF/ON

- Manual/Auto (cut) Jumper
- Alt/Tach DIP1
- 15(25)/25(45) DIP2
- Tach Learning Switch sw

Notes

1. There are two 12 V Constant Wires in the Main Harness. One is to supply power to the CPU and ignition and the other is to supply power to Starter and Accessory.
2. Starter Kill/Anti-Grind - Violet at CN1 supplies a negative 250mA output when the system is armed or engine is running.
3. There are two pre-wired relays. One for Starter-kill and the other for 2nd Ignition, 2nd Starter or 2nd Accessory.
4. (-) Output for Parking light: Some vehicles, such as Jeep, have negative Parking lights.
5. (-) Status Output: This comes in one second before ignition on and continues until one second after ignition off.
6. **Light Blue of CN3:** You need to tie this wire into the emergency brake for Manual Transmission Mode or Turbo mode. Most emergency brake wires will show 12V at rest when the ignition is on or ground when you set the brake. In either Manual Transmission or Turbo Mode, Engine stays running for two minutes after key off.
7. Glow Plug wires for diesel engines: If the negative glow plug wire sees ground, the remote starting is delayed until this ground disappears. Likewise, if the positive glow plug wire sees positive, the remote starting is delayed until this positive disappear. There is no programming for diesel mode. It is automatic once this wire is used.
8. The sequence for the rearm pulse: (1) pulse when armed (locked), (2) pulse after Starter, and (3) pulse one second after remote start shut down.
9. The sequence for the disarm pulse: (1) pulse when disarmed (unlocked), (2) pulse before remote starting.
10. Dome Light Supervision: Automatic Transmission Only. Dome light is turned on for one minute after unlock. If you program Dome Light Rearm option, The Violet wire of CN5 supplies a ground pulse before Lock and a pulse after remote start. The Dome Light Rearm Option is to simulate Opening the door and pressing the factory lock button for factory arming.
11. Learning Tach/Injector Wire: Start the vehicle with the manual key and let the engine idle down. The next step is to press the black tachometer button. The car siren will chirp once to confirm the tach was learned. If the siren chirps 3 times, you have the wrong tach wire.
12. Alternator Sensing: Locate the small gauge wire from the alternator. When tested with your meter, it should show you less than 5V when the key is on and the vehicle is not started. When the vehicle is started, the wire should read between 9V to 14V.
13. Diagnosing Tach Learning Error

If the car siren chirps 3 times, there is a problem with the tachometer learning by the CompuStar brain. Wait for 2 seconds and the cause for the error will be indicated by the number of times parking lights flash.

Error Number (# of times parking lights flash)	Tach Learning Error Diagnosis
1	Dip Switch #1 is on alternator sensing.
2	Manual Car Key is in the off position.
3	No signal or the signal is not fast enough. Find a different wire.

Switch and Jumper Settings

Dip Switch	Jumper Wire	#1	#2
Off	Cut: Automatic Transmission	Alternator Sensing	15 min run time (25 min diesel)
On	Uncut: Manual Transmission	Tach Sensing	25 min run time (45 min diesel)

Important! Once you cut the Jumper Wire, you are not allowed to reconnect the wire. The reconnection will completely void warranty.

Installation of FM or SS Antennas and RPS. The antennas have been calibrated for horizontal installation at the left-top corner of the windshield. Different installation may affect the transmitting distance quite seriously.
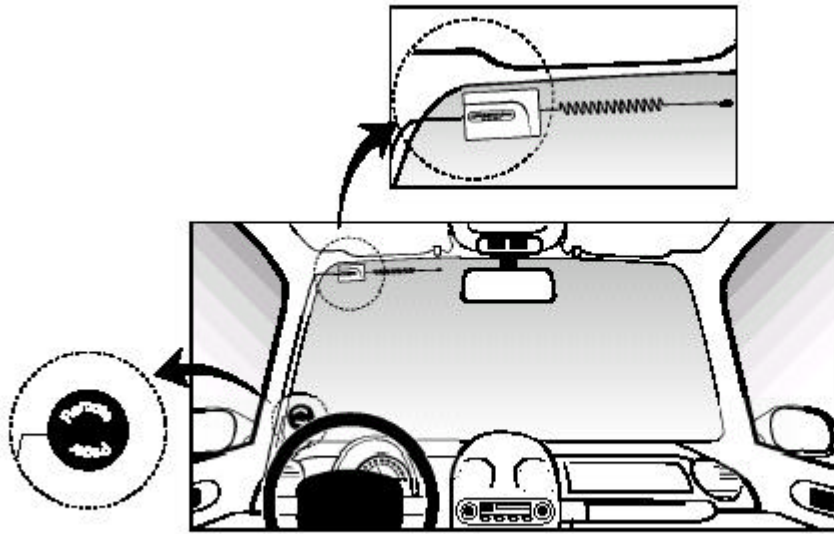
AM Antennas:

The above illustration is for FM or SS antennas only. The AM antennas should be attached horizontally back side of the rear-mirror for the best performance.

Option Programming for Four Button Remotes

Step 1: For Programming menu 1: Press Buttons **(I+II)** for 2 seconds.
For Programming menu 2: Press Buttons **(I+IV)** for 2 seconds. The car will chirp once indicating that you are in programming mode.

Step 2: **Within a 2 second** after pressing **(I+II)** or **(I+IV)**, press Button **IV** the number of times to go to the option number you want to change. You have to hear a chirp and see the parking light flash each time when you press Button **IV**.

Step 3: Wait a few seconds. You will hear a number of chirps and see a number of parking light flashes corresponding to the option number you want to change. If the number of chirps or flashes is not what you want, go back to Step 1.

Step 4: Press Button **I** for the default factory settings and your car will respond by one chirp and one flash. Press Button **II** for the optional setting and your car will respond by two chirps and two parking flashes.

> **If you hear a long chirp, you are going out of programming mode, please go back to Step 1.**
> **If you want to change more options, go back to Step 1.**

Resetting the Programming Options to the factory default settings.

Step 1: Press Buttons **(I+II)** simultaneously or Buttons **(I+III)** simultaneously for 2 seconds. Step 1 is confirmed by a car chirp and a one-time flashing of the parking light.

Step 2: Press Button **III** three times. This is confirmed by a car chirp and parking light flash each time you press Button **III**. A few second later, your car will chirp and parking light flash three times rapidly. Your car is now set to all of the original factory default settings.

Option Programming for Six Button (ONE WAY) Remotes

The procedures will be same as the 4 button remotes except the use of the different buttons.

Programming	6 Button Remote	4 Button Remote
Programming Menu 1	(Trunk+Start)-	(I+II)-
Programming Menu 2	(Trunk+Stop)-	(I+IV)-
Option Selection	(Stop)-	(IV)
Factory Setting	Lock	(I)
Option Selection	Unlock	(II)
Default Setting Selection	(Start)-	(III)

Remote-Pager Programming Menu Options
Programming Menu #1 (Auto-Start and Door Lock Options)

	Feature	**Factory Default** Setting – Button **I**	**Optional** Setting – Button **II**
1-1	Unlock Before, Lock After Starting, Lock after remote start	OFF	ON
1-2	Door Lock / Unlock Pulse Duration	0.8 sec	2.5 sec
1-3	Min. Crank Time for the Alternator Sensing	0.8 sec	1.0 sec
1-4	Driver's Priority Unlock	OFF	ON
1-5	Double Pulse Unlock	OFF	ON
1-6	Dome Light Factory Rearm	OFF	ON
1-7	Turbo	OFF	ON

Note
1-1 Some vehicles such as Mercedes-Benz and the Lexus ES300 require you to unlock the car to disarm the factory alarm before remote starting the vehicle. Activating this feature will unlock the vehicle for a brief second in order to disarm the factory alarm before auto-starting the vehicle remotely then lock after starting.

1-4 This feature unlocks the driver's side door lock with the first unlock pulse. A second unlock pulse is need to unlock the rest of the car doors.

Important! In order for this feature to operate, the installer must use the 2nd Unlock Wire (Or/Bk wire of Connector 4). Isolate the driver's door motor from the rest of the other doors. Call us for the technical support if you are not sure about this.

1-7 **Turbo** mode requires the connection of the emergency brake wire for either automatic or manual transmission vehicles. With this mode, engine will continue running for two minutes after key is turned off if the emergency brake was set before the key was turned off and the foot brake was not being pressed when the key was turned off.

Programming Menu #2 (Security Options)

	Feature	**Factory Default** Setting – Button **I**	**Optional** Setting – Button **II**
2-1	Cold Start with Temp Sensor	OFF	ON
2-2	Timer Start or Minimum Interval between Cold Starts	3 Hr	1.5 Hr
2-3	Passive Arming	Passive Locking, too	No Passive Locking
2-4	Anti-jacking	OFF	ON
2-5	Ignition Controlled Door Lock	OFF	ON
2-6	Aux 1 Output	.5 sec	Latch
2-7	Aux 2 Output	.5 sec	Latch
2-8	Siren Duration	30 sec	60 sec

Note:

2-1 Cold start mode requires installation of the temperature sensor. In the default factory setting, Cold Sensor input works as Remote Start Activation Input. A Ground pulse to this wire will start the vehicle

2-4   With this option, Panic mode becomes Anti-Jacking mode. The differences between Panic mode and Anti-Jacking mode are:

	Panic Mode	Anti-Jacking Mode
Button	IV for 2 seconds	IV for 2 seconds
Siren	1.5 minutes	1.5 minutes
Installation required	Starter-Kill	Ignition-Kill
Starter Kill	Activated immediately	N/A
Ignition Kill	N/A	Activated immediately if key is not on. If key is on, activated in 30 seconds after pressing the Button IV.

2-5   With this option, the doors will lock when the brake is pressed after the ignition is turned on and unlock when the ignition is turned off.

Adjusting the Car Siren Volume: In order to decrease the chirping volume of the siren, cut the loop located on the siren.

Adjusting the Shock Sensor Sensitivity: In order to the shock sensor sensitivity, turn the screw located on the sensor clockwise. In order to decrease the sensitivity, turn the screw located on the sensor counter-clockwise. Turning the screw just a small amount can make a big difference so make sure you recheck the sensitivity after each adjustment.

Diagnosing problems with Auto-Start

If there is a problem in auto-starting your car, you will hear three chirps when you attempt to auto-start the car. Wait for 2 seconds and the cause for the error will be indicated by the number of times parking lights flash.

Error Number (# of times parking lights flash)	Error Reason
1	Engine On
2	Key On
3	Door Open
4	Trunk Open
5	Brake On
6	Hood Open
7	Reservation Off (Manual Transmission Only)