

## **CM3000** Guide to Installation:

The following contains descriptions for each wire in detail. Please reference the installation manual/wiring diagram for wire location.

#### **Connector #1:**

<u>Pin #1:</u> Red- This wire is used as the (+) **constant power** input for the unit. This wire must be connected for the unit to function correctly.

<u>Pin #2:</u> Green/White- This wire is the (+) **positive parking light** output. Connect this wire directly to the (+) trigger wire generally off the parking light switch or found at or behind the fuse box.

**Pin #3**: Red/White- This wire has two functions: it powers the unit, and is connected to the pre-wired relay\* found on the main ignition harness. This wire has to be connected to a constant power for the unit to function correctly.

**Pin #4:** White This wire is used to power the **(+) accessory**, which activates the blower motor for the heater or A/C.

**Pin #5:** Violet This wire is the **(-) negative when armed out**. It will provide a **(-)** output anytime the unit is armed or remote started. This wire is pre-wired into the starter-kill. This wire could be used for adding a window roll-up.

**Pin #6:** Yellow- This wire is the **(+) Starter output**. This is pre-wired to the starter-kill relay for ease of installation. At the starter-kill relay you will see a yellow and yellow/black. These wires are used to interrupt the starter wire in the vehicle. You will need to cut the starter wire in half and connect the wire accordingly: Yellow/Black will connect to the key side and the yellow will connect to the motor side (starter side).

<u>Pin #7:</u> <u>Green</u>- This wire is used to power the **(+) ignition**. This wire is also an input for the CompuStar used to monitor the status of the vehicle and for programming.

<u>Pin #8:</u> Black- This wire needs to be connected to a chassis (-) ground. It is very important to make sure you have a good ground or the unit will not function correctly.

\*Pre-wired relay: There is a purple pigtail and also a blue wire that is the same length as the rest of the wires in CN#1. This relay is used for adding a  $2^{nd}$  ign or  $2^{nd}$  acc or a  $2^{nd}$  starter in conjunction with connector #2.

#### Connector #2:

<u>Pin #1:</u> Green/White- This is the low voltage (-) parking light output **200mA**. Some newer vehicles require a (-) parking light output instead of the standard (+) output (reference connector #1) such as the new Jeeps and even some Fords.

**Pin #2:** Black - This is the **(-) Status Out wire**. It provides you with a (-) 200mA output as soon as the remote start is activated. This is the sequence:

- 1. Remote Start unit receives signal to activate
- 2. At that time the Status becomes active providing the (-) 200mA trigger
- 3. The ignition will activate and the car will start. This is the wire you would connect to a Transponder Module or maybe a VATS module.

<u>Pin #3:</u> Green- This wire is the (-)  $2^{nd}$  ignition 200mA output. You may connect this wire to the purple pigtail of the additional relay on CN #1. This will result in a (+) trigger output for the  $2^{nd}$  ignition on the blue wire of the same relay.

<u>Pin #4:</u> White/Black- This wire is the (-) 2<sup>nd</sup> Accessory 200mA output. You may connect this wire to the purple pigtail of the additional relay on CN #1. This will result in a (+) trigger output for the 2<sup>nd</sup> accessory on the blue wire of the same relay.

<u>Pin #5:</u> Red/Black- This wire is a (-) 2<sup>nd</sup> Starter 200mA output. Normally the only vehicle this would be used on Nissan's and older Ford's. You may connect this wire to the purple pigtail of the additional relay on CN #1. This will result in a (+) trigger output for the 2<sup>nd</sup> starter on the blue wire of the same relay.

### **Connector #3:**

<u>Pin #1:</u> <u>Light Blue</u>- This needs to be connected to the **parking brake**. This wire requires a (-) input to activate. This wire serves two functions:

- 1. To engage <u>Reservation Mode</u> for manual transmissions, reference the users or install guide.
- 2. To activate the <u>Turbo Timer</u>, reference the users or install guide.

<u>Pin #2:</u> <u>Gray/Black</u>- This is the **(-) shutdown for the Hood Trigger**. This wire serves two functions:

- 1. It prevents the remote start from activating while the hood is open
- 2. It will trigger a full alarm if the hood is opened when the alarm has been armed.

<u>Pin #3</u>: <u>Light Blue/White</u>- This is the **(+) shutdown for the foot brake**. This wire will shut down the remote start if the foot brake is pressed.

<u>Pin #4:</u> Violet/Black- This wire is the (-) trigger input, which needs to be connected to a trunk pin or trunk trigger. This will trigger a full alarm if the trunk is opened while the alarm is armed.

<u>Pin #5:</u> Red/White- This wire is the (-) trigger input for the door trigger. You would connect this to the trigger that shows (-) when the door is opened.

<u>Pin #6:</u> Red- This wire is the **(+) input for the door trigger**. You would connect this to the trigger that shows (+) when the door is opened.

<u>Pin #7:</u> Brown/Black- This is the trigger input for a (-) glow plug wire.

<u>Pin #8:</u> Brown/White- This is the trigger input for a **(+) glow plug wire**.

**Pin #9:** Yellow/Black- this wire serves as the Tachometer input or the Alternator input. Either way you use it, it is for engine sensing. This wire tells the CompuStar when to quit cranking the starter of the vehicle. There are a couple of ways to find the correct voltage for either type of sensing. Please review the following tips on the next page.

## **Tachometer Sensing**

- 1. You will need an Auto Ranging Digital Meter to test for the correct tach.
- 2. Most tach wires are located at the (-) side of the ignition coil. In some cases you may have to go to the ECU or Coil pack.
- 3. The Voltage will read (AC), so you will need to set you meter accordingly.
- 4. With the vehicle off the voltage should read 0.00 AC.
- 5. Start the vehicle and at this time the voltage should fluctuate between 1 and 8 volts AC.
- 6. Connect the tachometer wire to the yellow/black.
- 7. Make sure that the Dipswitch #1 is set to the On position.
- 8. While the vehicle is running press the small black button on the side of the brain, the siren will chirp once if you have the correct Tach wire.
- 9. If the cars parking lights flash 3 times, there is a problem with the tachometer learning. Wait for 2 seconds and the cause for the error will be indicated by the number of times the parking lights flash.

## **Alternator Sensing**

- 1. Just like with Tachometer sensing you will need a Auto Ranging Digital Meter to test for the correct wire.
- 2. Set your meter to DC voltage for this type of sensing, compared to AC voltage for the Tach sensing.
- 3. To find this wire you will need to locate the alternator. Look for the Stator wire, which is always located somewhere on the alternator. It will usually be a smaller gauge wire and generally by itself.
- 4. With the vehicle in the OFF position the voltage should read 0.00
- 5. Turn the key to Ignition and the voltage should read anywhere from 1 to 6 volts DC
- 6. Next, start the vehicle. The voltage should now read between 9 to 14 volts DC.
- 7. If this is the case you have found the Alternator wire, connect this to the Yellow/Black on CN 3
- 8. Set dipswitch #1 to the OFF position. Please note, you will not need to press the small black button on the side of the brain, it is automatic.

## **Connector #4:**

Pin #1: No Connection

<u>Pin #2:</u> Violet/White- this wire is the (-) **200mA trunk release**. The following sequence takes place each time the trunk release output is triggered:

- 1. CompuStar disarms alarm and unlocks doors
- 2. Trunk output is triggered

<u>Pin #3:</u> Orange/Black—This wire provides you with the capability of adding **driver's door priority unlock** similar to factory keyless entry systems. Please note that this feature requires more advanced installation. Please call Technical Support for details.

<u>Pin #4:</u> <u>Blue</u>- This wire is the (+) lock output that doubles as a (-) unlock output.

<u>Pin #5:</u> Blue/Black- This wire is the (-) lock output that doubles as a (+) unlock output.

Pin #6: No Connection

## **Connector #5:**

**Pin #1:** Orange- This is the Rearm wire. It provides you with a (-) pulse when armed, after remote start and then again one second after remote start shuts down.

**Pin #2:** Orange/White- This is the Disarm wire. It provides you with a (-) pulse when disarmed and before remote start.

**Pin #3:** Violet This is the Dome light Supervision wire. It provides a (-) 200mA pulse to turn the dome light on for one minute after unlock. Please note: This feature is not available in manual transmission mode.

<u>Pin #4:</u> <u>Brown</u>- This is the **(+) siren output** wire. Connect this wire directly to the red wire on the siren.

Pin #5: White- This is the (-) 250mA horn honk output wire.

<u>Pin #6:</u> Yellow- This wire is the **(-) 200mA Auxiliary #1 output**. It can be programmed for a timed pulse or latch. Please note: Timed pulse durations can only be programmed with the CompuProgrammer.

<u>Pin #7:</u> Yellow/White- This wire is the (-) **200mA Auxiliary #2 output**. It can be programmed for a timed pulse or latch. Please note: Timed pulse durations can only be programmed with the CompuProgrammer.

Pin #8: No Connection

### Connector #6:

This is the plug for the Status LED.

#### Connector #7:

This is the plug for the Shock Sensor

#### Connector #8:

**Pin #1:** This wire is used as an optional sensor input. It is internally connected to stage #1, also known as the warn away input.

**Pin #2:** This wire is used as an optional sensor input. It is internally connected to stage #2, also known as the instant trigger input.

#### Connector #9:

This is the plug for the RPS (Remote Paging System).

#### Connector #10:

This is the plug in for the temperature sensor input, which will be released soon. This sensor will monitor the internal temperature of the vehicle and be programmable for timed engine starts.

#### Connector #11:

This is the plug for the antenna cable.

# **Tach Learning Switch:**

This is the small black button on the side of the brain used to program tach. Once you have found the correct wire simply press this button while the vehicle is running and the siren will chirp once to confirm that the tach is learned. If the Siren chirps three times the tach source is not valid. Refer to page #5.

## **Dip Switches:**

**Switch #1:** This is used to set either Tach or Alternator mode. If the switch is set to the ON position the unit is set to Tach. If the switch is set to the OFF position then the unit is set for Alternator sensing.

**Switch #2:** This is used for setting run time. If the switch is set to the OFF position then the run time is set for 15 min for gas engines or 25 min for diesel engines. If set to the ON position then the run time is set to 25 min for gas engines or 45 min for diesel engines.

## **Jumper Wire:**

This jumper is connected when you receive the brain. While the jumper is connected the module is set for manual transmission mode. When installing on automatic transmissions the jumper must be cut. Please note: if a unit with a cut jumper is installed on a manual transmission **the warranty will be void and Firstech will have no liability.** 

In conclusion, if you should have any additional questions do not hesitate to contact our technical support staff. We can be contacted toll free at 888-820-3690.

Best regards,

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