Viper remote start installation manual

For almost a decade I have enjoyed a viper remote start in my car. I love the ability to warm up the engine and have the air conditioning running by the time I sit in the driver's seat. I wanted the same convenience for the wife and after 5 years she has given permission after seeing all the other improvements I have done on her veteran Hyundai trajet. If you are good at car audio, electronics, modifications and maintenance then a remote start system is very easy. You must have the wiring diagrams for your vehicle and it helps if there is already an existing viper or DEI alarm installed. For cars that never had an aftermarket alarm and use factory immobilizer, you will need the immobilizer bypass module from DEI. I bought the avital l system for her vehicle which is also a DEI product. This installation requires heavy Guage wiring connection to the car's ignition key switch. Soldering is mandatory here. I have attached the complete installation guide for the Avital L. The installation I performed did not include wiring of the door lock or door switches circuits since these were already wired to the existing viper alarm. It is hyper important to wire up the system at home to a 12volt supply and test all the needed features. I bought the bitwriter to allow far easier programming of certain features. I simulated door status, remote starting, triggering the alarm, and the 2 way pager features of the remote. Also important are the brake shutdown and neutral safety features. For dry testing the neutral safety wire must be tied to 0Volt. To test the brake shutdown just touch it to 12Volt. All worked well and I decided the following features I wanted installed or omitted: 1. No parking light hook up. I find this feature annoying and I gives away the fact that the driver is coming to a remote started vehicle. Sort of dangerous in our island home. The remote start will not monitor the engine status. I have a fixed crank time of 1. Older cars like ours never give a proper tach or voltage signal. My car never once worked properly with the feedback signal. With 4 Phillips head screws, a 10mm bolt and the trunk release cable off the lower cover removed to reveal the old viper module and the ignition wiring. The car battery needs to be connected to do certain tests. The viper hv installed in this vehicle has a kill relay to prevent ignition if the module is unceremoniously yanked out. I bypassed this kill by connecting the violet wire to the black 0volt. These 6 wires will be connected to the remote start relay module. The key switch has a connector jack with 3 pairs of lugs. The constant 12volt will always have voltage on it. This is the first and easiest the find. The key must be inserted to find the other 4 wires. Verifying by turning off then back to accessories is necessary. This wire is at the top of the connector jack. Next the ignition1 and ignition 2 wires. Toggling between accessories and ignition position verifies my finding. Both of these wires are at the bottom of the connector jack. Lastly the starter wire at the top of the connector jack. This involves actually cranking the engine. Of course the starter solenoid wire can be temporarily disconnected but the starter on this vehicle is hard to reach. Once GRAY the wire is identified now onto some real installing! Having an existing viper alarm system makes installation so much easier. The wires are already there to be tapped into and nicely identified. Disconnecting the battery is important here to avoid blowing fuses. I used the same H1 12pin jst connector. I removed the pins I have no use for with the avital module. Luckily dei makes both avital and viper so the connections are pretty universal. The wiring highlighted in yellow are what I used for my installation. I cable tied the avital l module inside the dash. This is taken from the brake pedal switch that send 12volt to the lights. Testing is simple by depressing the pedal to get 12volt. The other side of the switch will have constant 12volt. The brown wire is tapped into the switched 12volt. The leds produce a backfeed that actually disables the remote starter! I learned this the hard way. This wire is located on pin 1 of connector c on the ecm module of the car. In park the wire at this pin goes to 12Volt. Due to the horrendously stupid wiring Hyundai uses in this vehicle, the neutral safety feature cannot be installed at this time. I will need to put a delay ON timer relay to temporarily 0volt the neutral safety wire to allow remote starting then a relay powered from the park gear position will keep it at 0V. Every sane car manufacturer uses 0volt to identify a gear at the ecm. Retard inbred Hyundai engineers uses 12volt only when the key is at the ON position. Luckily my wife has not yet gone the way of her mother by turning off her car in gear complete with keys and door wide open. Easy for car thieves stalking her. After cleaning the windscreen, I stuck the antenna behind the rear view mirror. I routed the wiring down the driver side pillar. Since I had already identified the necessary heavy Gauge wires, I solder connected the wires shown in the wiring diagram. My watt soldering iron came in handy for this step. I disconnected the battery here to avoid any faults. Mind you, this step is the hardest since it involves tight spaces under the dash. The battery has to be disconnected for this step. I had to cut the starter wire now. The avital purple ties to the other end of the GRAY wire running to the engine starter. This wire is at the top of the connector. The last pic shows a convenient wiring diagram I did to identify all the heavy gauge wires for the remote start module. Once I put electrical tape and plugged back in the connector and reconnected the car battery. It is very important to manually start the car and ensure all circuits to the oem wiring is working properly! I left a spare programming cable plugged into the avital l module. This will

make it easy to tweak at future dates without having to take down the dash. On a related note, the bitwriter refuses to write when the system is in valet mode. It must be in alarm mode to allow reading and writing. The horn was simple to install. The black wire went to chassis for 0volt. With the car remote started I did the following tests. Shutdown by pressing the brake pedal. Manually inserting the key and trying the start while the car is remote started. This is to test the anti grind feature. Now the wife has remote start capabilities with her veteran Hyundai trajet. We live in a hot climate so have the air conditioning on is a huge comfort by the time she actually gets into the car. Also she likes the new 2 way pager remote. She likes the pretty factor. Kudos to me! Not bad for an anniversary present eh. I used car central locking remote unit to start car remotely Instead of connecting it to motor i used some relays to latch and stay on when car is locked and when car is unlock the whole thing would shut off So i connected that latching relay to power on car and another relay that only works few seconds to start car This makes whole thing a lot easier Nice instructable. Reply 4 years ago. Introduction: Car Remote Starter Installation! By Mjtrinihobby Follow. More by the author:. Attachments avital installation. Did you make this project? Share it with us! I Made It! Tinfoil Embossed Artwork by cfb70 in Woodworking. Cekpi7 4 years ago. Reply Upvote. Mjtrinihobby Cekpi7 Reply 4 years ago. Viper makes a large variety of automotive electronics aftermarket products, including security systems and remote starter kits. To successfully install a remote starter kit, it is best if your car is already equipped with a factory key-less remote entry system. The remote start will turn the engine and some accessories on, but you will not be able to drive the car until you physically put the key into the ignition and turn it to the on position. The system allows you to warm your engine up before getting into the car. Start your car and check to make sure all lights and accessories are in proper working order before beginning the installation. All lights and accessories must be in proper working order to complete a successful installation. Read the instruction manual that came with your kit thoroughly before beginning the installation. Viper makes several different types of remote starter sets, each with slightly different features. You should be familiar with all the procedures unique to your kit before you get started. Disarm the factory anti-theft system on your car. Do this by pressing the unlock button on the keyless entry fob, then putting the key into the driver's side door and physically turning it to the unlocked position. Check your car owner's manual to see if your vehicle is equipped with a passive anti-theft system. These systems prevent anyone from hot-wiring your car or tampering with the ignition switch. If your car is so equipped, you will need a transponder bypass before proceeding with the installation of the Viper remote start system. See References for a complete guide to transponder bypasses. Remove the panel beneath the steering wheel. Inside of it are the wiring connections needed to connect the remote starter. These include the power, ignition, accessory, starter, parking light and brake wires. Put on the safety gloves and goggles, then identify each wire using the voltmeter or multi-meter, installation kit instructions and car owner's manual. There may be more than one wire in a particular bundle. Use a relay to connect multiple wires from the same bundle after you have disconnected the battery. Disconnect the battery, then make all connections with the kit. Solder the connections, then secure them with electrical tape after the solder has cooled. Recheck your instruction packet after each connection before proceeding to the next. Re-connect the battery and test the remote start and all accessories before putting the cover panels back in place. If any system does not work, re-check the connection and secure it properly. Once everything tests satisfactorily, you may replace the covers and drive the car. Joe McElroy has been writing on politics and culture since His articles have appeared in a diverse array of publications, including the "Chicago Daily Observer" and "Immaculata" magazine. McElroy works occasionally as a strategic consultant to federal candidates. He majored in American history at Northwestern University. Step 1 Start your car and check to make sure all lights and accessories are in proper working order before beginning the installation. Step 2 Read the instruction manual that came with your kit thoroughly before beginning the installation. Step 3 Disarm the factory anti-theft system on your car. Step 4 Remove the panel beneath the steering wheel. Step 5 Disconnect the battery, then make all connections with the kit. References Dr. Take pictures with a digital camera after you have removed the covers to help you remember how the wires and components should be properly connected. This will help you in reassembly and to troubleshoot any problems you might encounter during the testing process. Socket set Screwdriver set Wire cutters Soldering iron and solder Digital voltmeter or multi-meter Electrical tape Heat gun Car owners manual Safety gloves Safety goggles. When you do complex electrical or electronic installations yourself, you are responsible for any faulty work. A faulty installation can cause damage to the car's electronic and computer systems. A professional installation will protect any remaining warranty you have on the car and against any installation errors. Quick Links. See also: Owner's Manual. Responder LC Model This product is intended for installation by a professional.

sees a full trigger, the older of the two triggers in memory is replaced by the new trigger. It is also helpful in deciding which input to use when connecting optional sensors and switches. Zone no. Page Remote Start Safety Check Remote start safety check Before vehicle reassembly, the remote system must be checked to ensure safe and trouble-free operation. The following test procedure must be used to verify proper installation and operation of the system. The installation must be com- pleted before testing, including connection to the brake switch and hood switch. If so, you hear 5 chirps when disarming. Page Remote Start section of this guide. Is it plugged in? Is the LED plugged into the correct socket? Recheck wire connections to see if you have reversed these. Does the vehicle have an immobilizer? Is the remote start programmed for virtual tach or voltage sense? If so, the crank time may not be set high enough. Voltage sense does not work on some vehicles. This manual is also suitable for: Responder lc Print page 1 Print document 64 pages. Cancel Delete. Sign In OR. Don't have an account? Sign up! Restore password. Upload from disk. Upload from URL. Quick Links. See also: Owner's Manual. Responder LE Model This product is intended for installation by a professional. Attempts to install this product by a person other than a. Responder hd model security and remote start 36 pages. Viper series remote start keyless entry system owner's guide 28 pages. Safety first Page 4 Feature menus Page 5: Warning! Safety First Warning! Page 6 After the remote start module has been installed, test the remote start module in accordance with the Safety Check outlined in this installation guide. If the vehicle starts when performing the Neutral Safety Shutdown Circuit test, the remote start unit has not been properly installed. The remote start module must be removed or properly reinstalled so that the vehicle does not start in gear. The advantage to using a D2D interface is that there is less wiring involved in the installation. Check the XK module installation guide to determine which wires are not needed, and which options are available. Important: When the vehicle is delivered, please show the user where this switch is lo cat ed and how to disarm the sys- tem with it. Many new vehicles use low-voltage or multiplexed systems that can be damaged by low resistance testing devices, such as test lights and logic probes computer safe test lights. Page Component Locations And Finding Wires Component locations and finding wires For detailed information on where to locate components, and how to find the wires you need, please refer to the Direct Tech web site at Making your wiring connections Before making your connections, plan how your wires will be routed through the vehicle. Page Heavy Gauge Remote Start, H3 8-Pin Connector There are three harness connections relative to remote start function, including the heavy gauge and input and output harnesses. It outputs a single pulse when locking the doors with the remote, and two pulses when unlocking with the remote. This wire also outputs pulses for 30 seconds when Panic Mode is activated. Ground all your compo- nents to the same point in the vehicle, preferably the kick panel. Scrape away any paint and use a factory bolt or make your own ground with a self-tapping screw and a star washer. When this wire receives an input for a minimum of. This is useful on vehicles that have a factory security system, it notifies the owner that the system was triggered. This output is only intended to drive a relay. It cannot be connected directly to the dome light circuit, as the output cannot support the current draw of one or more light bulbs. See Set- ting the light flash polarity section of this guide for polarity settings. See descriptions for Aux 3 Warning! Never use this wire to drive anything but a relay or a low-current input, supplied output is only mA. This type of output additionally stops and resets whenever the ignition is turned On and then Off. Page 24 Note: A 1-amp diode must be installed in line on the factory wire between the wait-to-start indicator and the ECM. See the following diagram for details. All rights reserved. They are used to energize the ignition circuits in the vehicle. It is crucial to ensure that these connections are capable of handling the current demands. For this reason, Scotch-Locks, T-taps and other such connectors are strongly discouraged. This is common on Toyota and Nissans which required the use of Tech Tip document If this unit is being installed in a manual transmission vehicle then connect it to the emergency brake wire. This input will disable or shut down the remote start when the hood is opened. See Feature Descriptions, Menu 1 feature 11 for details about programming. See Feature programming Menu 3, feature 8. If so, no door lock interface wiring is required. There are eight different types of door lock systems Type A - H. Page Neutral Safety Switch Interface Neutral safety switch interface Some vehicles do not have an electrical neutral safety switch. Instead, the ve- hicle has a mechanical neutral safety switch that physically interrupts the starter wire and is used when the vehicle is in any drive gear. If the remote start is interfaced before this switch, it will provide protection from starting in gear. If the car does not start on the first attempt, let the remote start attempt again. Once the car starts, let it run until the parking lights come on. When the parking lights come on, shut off the remote start with the remote - that's it! Virtual Tach is programmed. Start the vehicle with the key. After 3 seconds the LED will light constant when the tach signal is learned. Some new vehicles use less than 12 volts in their

ignition systems. The unit may have trouble learning the tach signal in these vehicles. Changing the jumper to the On setting changes the trigger threshold of the digital tach circuit so that it will work with these type vehicles. In the - position, the on-board relay will supply a - output When wiring into a multiplex circuit, you can replace the fuse with a resistor paying attention to the polarity setting. Page Remote Control Learn Routine Remote control learn routine The system comes with a 1-way and a 2-way remote control that are already programmed to the system. The system can store up to 4 different remote control codes in memory. The remote uses a Supercode Protocol and requires setup before programming the system. There is a basic sequence to remember whenever programming this unit: Door, Key, Choose, Transmit and Release. Insert the key. Turn the ignition to the ON position. The heavy gauge pink wire must be con- nected. Page 39 Step Function Auto Learn Standard Configuration default The auto learn configuration will automatically setup the remote button configuration. Note: Due to the Supercode protocol, you cannot change the configuration. Delete remotes: This feature will erase all remotes from the memory of the system. Note: If Keypad Lock is On, press and then press to exit. The remote control buttons that operate the features of the remote start system are described below. Page 41 For more information about the remote control functions, see the Owners Guide. Any of the settings can be changed and then assigned to one of four remote controls. Page 43 Select a Feature. For example, to access the third feature, press and release 3 times. Then press the button once more and HOLD it. Menu Feature Opt. Page Feature Descriptions Feature descriptions The features of the system are described below. The numbers in parentheses indicate the number of times the control center LED flashes. Use it to change the output pulse duration for vehicles that require a longer pulse for the horn to honk. Page Menu 2 - Convenience Comfort Closure Off 1 : The system can be programmed to close the win- dows when the system is locked. If programmed ON, the lock output provides a 20 second pulse when the system is locked. The output will be cancelled if the unlock button is pressed. Page 51 Valet switch pulse count, 1 pulse. Optional starter kill emergency override. From valet, 2 - 5 pulses. The system can be programmed to count the number of presses of the valet switch before disabling the optional starter kill. The factory default setting is one pulse. When aux 3 is programmed to Smart Key control, this wire outputs a ms pulse when the Remote Start is shut Off. The system also monitors the door trigger input. Page 54 Crank Time 0. The default setting is 0. Page 55 Flex Relay Function: Ignition 2 1 In the factory setting, the flex relay will function the same as the pink ignition 1 wire, in accessory setting the flex relay will function the same as the Orange accessory 1 wire, in starter setting the flex relay will function the same as the purple starter 1 wire. The LED will flash twice 2. These features and the adjustments that may be programmed are described in the table that follows. Note: Feature programming for Responder LC remote controls with a display screen are available when using the Bitwriter, however these features do not apply to this LE system. At anytime during the next 10 seconds, press and release the Valet switch. Page Remote Starting The Vehicle Remote starting the vehicle Before using the remote start be sure the vehicle is parked in a safe area with proper ventilation. The vehicle parking A U X lights flash. Page Manual Transmission Remote Start Manual transmission remote start If the vehicle has a manual transmission the proper steps must be followed be- fore leaving the parked vehicle or the remote start feature is disabled. Make sure the engine is running and the doors on the vehicle are closed. Put the transmission in neutral. Page Timer Mode Timer mode This unit can be programmed to start and run the engine every three hours, for a maximum of six cycles. The engine will run for the programmed run time and then shut down. After three hours, the system will restart the engine. Important: Use Timer Mode in open areas only. Page 62 To exit timer mode without the transmitter: Make sure the remote start system is not operating the engine. Turn the ignition on. Timer Mode is exited and the parking lights flash slowly four times. Note: The Bitwriter can change the amount of times the remote start activates and, it can change the intervals between activations in timer mode. Page Shutdown Diagnostics Note: An optional push button can be hard wired to the - activation input of the system to activate turbo timer manually. When the vehicle is running follow the procedures listed above, but instead of pressing the remote, press the push button the appropriate number of times to activate the remote start factory setting is for 1 pulse. Page Remote Starting Diagnostics Remote starting diagnostics When the remote start function is activated and the 2-way remote emits an er- ror tone, you can determine the cause of the no-start situation by counting the number of parking light flashes from the vehicle. Parking Light Flashes Brake wire is active Hoodpin wire is active Page Remote Start Safety Check Remote start safety check Before vehicle reassembly, the remote start system must be checked to ensure safe and trouble-free operation. The following test procedure must be used to verify proper installation and operation of the system. The installation must be com- pleted before testing, including connection to the brake switch and hood switch. Check for voltage on the

purple starter wire two seconds after the remote start becomes active. If there is voltage present, skip to Step 4. If there is not voltage present, advance to Step 2. Check the 30A fuses. Is the remote start programmed for voltage sense? If this does not work, a tach wire should be used. Check shutdown diagnostics. Print page 1 Print document 72 pages. Cancel Delete. Sign In OR. Don't have an account? Sign up! Restore password. Upload from disk. Upload from URL. Quick Links. See also: Owner's Manual. Remote Start Keyless Entry. This product is intended for installation by a professional. Attempts to install this product by a person other than a. Responder le model remote start keyless entry 72 pages. Remote Starter Viper Series Owner's Manual Viper series remote start keyless entry system owner's guide 28 pages. Safety first Page 4 Menu 2 - Convenience Page 5: Warning! Safety First Warning! Page 6 After the remote start module has been installed, test the remote start module in accordance with the Safety Check outlined in this installation guide. If the vehicle starts when performing the Neutral Safety Shutdown Circuit test, the remote start unit has not been properly installed. The remote start module must be removed or properly reinstalled so that the vehicle does not start in gear. The advantage to using a D2D interface is that there is less wiring involved in the installation. Check the XK module installation guide to determine which wires are not needed, and which options are available. Many new vehicles use low-voltage or multiplexed systems that can be damaged by low resistance testing devices, such as test lights and logic probes computer safe test lights. Page Component Locations And Finding Wires Component locations and finding wires For detailed information on where to locate components, and how to find the wires you need, please refer to the Direct Tech web site at Making your wiring connections Before making your connections, plan how your wires will be routed through the vehicle. Page Heavy Gauge Remote Start, H3 8-Pin Connector There are three harness connections relative to remote start function, including the heavy gauge and input and output harnesses. It outputs a single pulse when locking the doors with the remote, and two pulses when unlocking with the remote. This wire also outputs pulses for 30 seconds when Panic Mode is activated. Ground all your components to the same point in the vehicle, preferably the kick panel. Scrape away any paint and use a factory bolt or make your own ground with a self-tapping screw and a star washer. When this wire receives an input for a minimum of. 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If the car does not start on the first attempt, let the remote start attempt again. Once the car starts, let it run until the parking lights come on. When the parking lights come on, shut off the remote start with the remote - that's it! Virtual Tach is programmed. Start the vehicle with the key. After 3 seconds the LED light comes on when the tach signal is learned. Some new vehicles use less than 12 volts in their ignition systems. The unit may have trouble learning the tach signal in these vehicles. Changing the jumper to the On setting changes the trigger threshold of the digital tach circuit so that it will work with these type vehicles. In the - position, the on-board relay will supply a - output When wiring into a multiplex circuit, you can replace the fuse with a resistor paying attention to the polarity setting. The system can store up to 4 different remote control codes in memory. The remote uses a Supercode Protocol and requires setup before programming the system. There is a basic sequence to remember whenever programming this unit: Key, Choose, Transmit and Release. Insert the key. Turn the ignition to the ON position. The heavy gauge pink wire must be con- nected. Page 38 Step Function Auto Learn Standard Configuration default

The auto learn configuration will automatically setup the remote button configuration. Note: Due to the Supercode protocol, you cannot change the configuration. Delete remotes: This feature will erase all remotes from the memory of the system. The remote control buttons that operate the features of the remote start system are described below. The buttons will operate in this configuration when the remote control is programmed using the Step 1 Auto-learn routine. Page Additional System Features Additional system features For information about Valet mode, Remote starting the vehicle, Manual transmis- sion vehicles and Timer mode, please consult the Owner's Guide see Using the system and Using the remote start on the web at Page 41 Select a Feature. For example, to access the third feature, press and release 3 times. Then press the button once more and HOLD it. Page Feature Menus Feature menus Default settings are indicated in bold type. Page Feature Descriptions Feature descriptions The features of the system are described below. The numbers in pa- rentheses indicate the number of times the LED on the control center flashes. Use it to change the output pulse duration for vehicles that require a longer pulse for the horn to honk. Page Menu 2 - Convenience Comfort Closure Off 1 : The system can be programmed to close the win- dows when the system is locked. If programmed ON, the lock output provides a 20 second pulse when the system is locked. The output will be cancelled if the unlock button is pressed. Page 49 Valet switch pulse count, 1 pulse. Optional starter kill emergency override. From valet, 2 - 5 pulses. The system can be programmed to count the number of presses of the valet switch before disabling the optional starter kill. The factory default setting is one pulse. When aux 3 is programmed to Smart Key control, this wire outputs a ms pulse when the Remote Start is shut Off. The system also monitors the door trigger input. Page 52 Crank Time 0. The default setting is 0. Use the two-honk setting for OFF. These features and the adjustments that may be programmed are described in the table that follows. Note: Feature programming for Responder LC remote controls with a display screen are available when using the Bitwriter, however these features do not apply to this system. The LED flashes a number of times on the control center to report the last shutdown for one minute or until the ignition is turned on, as shown in the following table: LED Flashes Page Remote Starting Diagnostics Remote starting diagnostics When the remote start function is activated, you can determine the cause of the no-start situation by counting the number of parking light flashes from the veh

automotive wiring diagram
2004 honda crv wiring diagram
pt cruiser transmission fluid capacity

icle. Parking Light Flashes Brake wire is active Hoodpin wire is active Manual transmission mode is enabled and not initialized. Page Remote Start Safety Check Remote start safety check Before vehicle reassembly, the remote start system must be checked to ensure safe and trouble-free operation. The following test procedure must be used to verify proper installation and operation of the system. The installation must be com- pleted before testing, including connection to the brake switch and hood switch. Check for voltage on the purple starter wire two seconds after the remote start becomes active. If there is voltage present, skip to Step 4. If there is not voltage present, advance to Step 2. Check the 30A fuses. Is the remote start programmed for voltage sense? If this does not work, a tach wire should be used. Check shutdown diagnostics. Print page 1 Print document 64 pages. Cancel Delete. Sign In OR. Don't have an account? Sign up! Restore password. Upload from disk. Upload from URL.