J-Start-6
5 Button / 10 Channel / 2 Vehicle Capable
Remote Vehicle Starting System
Limited Lifetime Warranty

Note: Read this instruction manual thoroughly. Important: This unit is designed for a professional installation only. Any installation performed by an unqualified installer will void the warranty.

Operating Instructions
Transmitter Operation
"FM 2-way Transmitter operation is found elsewhere in this manual"

**Button 1 / Lock:** Press once momentarily. System siren (optional) will chirp once, park lights will blink once, doors will lock (if installed), optional starter disable will engage, and the LED indicator will turn on solid then begin flashing after a 20 second delay.

**Button 2 / Unlock:** Press once momentarily. System siren (optional) will chirp twice, park lights will blink twice, doors will unlock (if installed), optional starter disable will disengage, the LED indicator will turn off, and the interior dome light will be illuminated (if connected) for 30 seconds or until ignition key is turned on.

**Button 3 / Trunk:** Press and hold for 2 seconds. Auxiliary channel 3 will become active for as long as button is held to operate trunk release, etc.

**Button 4 / 1:** Press and hold for 2 seconds. Remote starting feature will activate, signaled by 3 flashes of the park lights. Once successfully started, another press of this button will bring the remote run cycle to an end.

**Button 5 / Shift (side button):** See advanced transmitter operation for use.

Advanced Transmitter Operation

**Panic alarm:** Press and hold Button 1 / Lock for 3 seconds. Panic mode will activate, siren (optional) will sound, doors will lock (if installed), and park lights will flash for 30 seconds (or until Button 1 / Lock or Button 3 / Unlock is pressed).

**Secondary Unlock Output:** Your installer can set up a driver door priority unlocking system in your vehicle. When installed, the first press of Button 2 / Unlock will only unlock the driver’s door.

Within 10 seconds, a second press of Button 2 / Unlock will unlock the remaining doors.

**Auxiliary Channel 3A Output:** Press Button 5 / Shift momentarily before pressing Button 3 / Trunk and the J-Start-6 will activate this output for as long as the button is held. This output can be used to control power windows, accessories, etc., if available.

**Valet Mode**
To prevent accidental starting during vehicle servicing, it is a good idea to activate the valet mode. In valet mode, the remote starting feature will not function, however, the doors will lock and unlock from the remote transmitter.

1. Enter the vehicle.
2. Using the vehicle key, turn the ignition switch to the 'On' or 'Run' position.
3. Push and hold the valet switch for 5 seconds until the LED indicator comes on solid.
4. The system is now in valet mode. The LED remains solid to indicate this mode is active.

To return to normal operating mode, simply repeat the steps detailed above. The LED will go 'Off' to indicate normal operating mode has been restored.

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J-(products) Limited Lifetime/1 Year Warranties & Disclaimer:

Main Receiver/Controller Brain - Limited Lifetime, 1st year repair or replace, remainder repair.

All peripherals (i.e. remote controls, sensors, & sirens) - 1 year repair or replace.

The manufacturer of J-(products) limits warranty of defective product(s) to the original purchaser, on the original vehicle installation.

Physical or electrical abuses are not warranted. During 1st year, freight charges are prepaid to and collect from the repair facility.

After the first year of warranty, a nominal shipping & handling charge, not to exceed $25.00, may apply.

Final warranty determinations are the sole discretion of the manufacturer.

Any and all subsequent damages or expenses incurred evolving from defective control units, peripheral parts, or installation related issues are not the responsibility of the manufacturer or any of the distribution or sales line thereof.

All wiring diagrams, installation instructions & user manuals are generic guidelines and do not pertain to any specific installation. Final installation, application, and use of this product and any related peripherals are the sole responsibility of the installer and/or end-user of the products.

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Wiring Instructions

‘FLAG’ Power Connectors

1. **Red Wire (2)**: Connect both of these wires to a constant 12v+ power source, capable of supplying 30amps of current, at or near the ignition switch or directly to the positive terminal of the vehicle’s battery.

2. **Brown Wire**: Connect this wire to the secondary ignition wire at or near the ignition switch. **Optionally**: connect this wire to the second accessory or second starter wire at or near the ignition switch (see feature programming to change the function of this wire).

3. **Orange Wire**: Connect this wire to the main accessory wire at or near the ignition switch. This vehicle wire should switch 12v+, however it will usually drop out during cranking.

4. **Yellow Wire**: Connect this wire to the main ignition wire at or near the ignition switch. This wire should switch 12v+ and should not drop out during cranking.

5. **Violet Wire**: Connect this wire to the starter wire at or near the ignition switch. This wire should show 12v+ only during cranking.

20 Pin Connector

1. **Green/White Wire**: Brake switch input. Connect this wire to the switched side of the brake light switch. This wire must be hooked up properly as it is one of the safety inputs to the J-Start-6 unit and also provides for some special operating features found elsewhere in this manual.

2. **Black/Grey Wire**: RPM / Noise Sense input. For RPM sensing this wire should be connected to a vehicle coil or fuel injector trigger wire with appropriate connectors. For Noise sensing this wire can be wrapped around a spark plug wire, etc. If using Smart Sense engine run sensing, this wire is not used and should be capped off properly to avoid accidental shorting.

3. **White/Red Wire**: Aux output. This wire provides a negative (-) output when triggered by the remote transmitter. The action of this output is programmable (see feature programming for details).

4. **Black/White Wire**: Dome light control output. This wire provides a negative (-) output when the remote transmitter is used to unlock the vehicle. The output remains active for 30 seconds or until the vehicle ignition is turned on. **Note**: This output typically requires the use of a relay.

5. **Yellow Wire**: Ignition input. Connect this wire to a good 12 volt positive (+) thru-crank power source.

6. **Blue/Yellow Wire**: Glow plug or Park brake input. This wire has several possible uses. Please see detailed instructions elsewhere in this manual.

7. **Blue/White Wire**: Passenger unlock output. This wire provides a pulsed negative (-) output when Button 2 / Unlock is pressed **again** after initial unlocking. This output provides the ability to have a driver door priority unlocking sequence similar to many OEM keyless entry systems.

8. **Blue/Orange Wire**: Ground when running output. This wire provides a negative (-) output when the starter function of the J-Start-6 is active. Use this to control extra relays or modules needed to start the vehicle.

9. **Black Wire**: Chassis ground input. Connect this wire to a good and solid chassis ground. A good ground is extremely important to the operation of the J-Start-6 unit. Although convenient, dashboard structure and braces have proven to be very poor sources of chassis ground. Always connect this wire to the actual metal chassis or body of the vehicle.

10. **Red Wire**: 12-volt input. Connect this wire to a good 12-volt positive (+) constant power source.

11. **Violet Wire**: Positive (+) door trigger input. In vehicles with positive door pin circuits, this wire will prevent the ignition activated door-locking feature of the J-Start-6 from operating while the door(s) are open.

12. **Green Wire**: Negative (-) door trigger input. In vehicles with negative door pin circuits, this wire will prevent the ignition activated door-locking feature of the J-Start-6 from operating while the door(s) are open.

13. **White / Black Wire**: Hood pin input. Connect this wire to a hood pin switch (provided) or any other switch that will provide a negative (-) output when the hood is open. This wire must be hooked up properly as it is one of the safety inputs to the J-Start-6 unit that prevents remote starting / running when the hood is open.

14. **Orange Wire**: Starter interrupt output. This wire provides a negative (-) output whenever the J-Start-6 is in the locked state. This wire can be used to operate starter interrupts, window roll-up controllers etc.

15. **Violet / White Wire**: Factory alarm disarm output. This wire provides a negative (-) output at the beginning of the remote starting sequence and also at unlock to disarm factory installed security systems.

16. **White / Violet Wire**: Factory alarm arm output. This wire provides a negative (-) output upon using the door-locking feature of the J-Start-6 and upon remote run shut down to arm OEM security systems.

17. **Brown Wire**: Siren output. This wire provides a positive (+) siren output to be used with an optional siren. Connect this wire to the red wire on the siren. The black siren wire connects to chassis ground.

18. **Gray Wire**: Trunk release output. This wire provides a negative (-) output once Button 3 / Trunk has been pressed for 2 seconds to operate trunk or hatch release circuits. **Note**: This output typically requires the use of a relay. The action of this output is programmable (see feature programming for details).

19. **White Wire**: Parking light output. This wire provides a positive (+, default) or negative (-) output to operate the parking light circuit of the vehicle. The polarity of this wire can be switched, via a jumper inside the J-Start-6 unit, from positive (+) to negative (-) to facilitate interfacing with most vehicles. **Warning**: This output will only support standard parking light circuits with no more than 6-amps of current draw. For vehicles with extra exterior lighting such as cab lights, etc use an external relay to support this extra current load. Damage to this circuit is not covered under warranty.

20. **Brown / White Wire**: Aux. 3 output. This wire supplies a negative (-) output. The action of this output is programmable (see feature programming for details).
Blue / Yellow Special Activation Wire

This wire allows several special functions depending on whether the J-Start-6 system is being installed on a gasoline or diesel fuel vehicle. The options available are categorized below.

Gasoline engine (position 11, mode 1)
- Turbo Timer Mode: Connect the Blue / Yellow wire to the switched side of the parking brake circuit. This connection should show a ground when the parking brake is applied and no ground when the parking brake is released. See details above for use of the Turbo Timer mode.
- Manual Transmission mode: Connect the Blue / Yellow wire to the switched side of the parking brake circuit. This connection should show a ground when the parking brake is applied and no ground when the parking brake is released. See details above for use of the Manual transmission mode.
- None of the above: No connection. Insulate the end of the wire to avoid accidental shorting.

Diesel engine (position 11, mode 2 or 3)
- Preset Wait-to-Start Timer mode: When starting a diesel vehicle, the J-Start-6 unit can be programmed for either a 10-second or 30-second wait-to-start period. If accessing a switched wait-to-start circuit is not feasible, simply attach the Blue / Yellow wire to chassis ground and the J-Start-6 unit will attempt starting the vehicle at 10 or 30 seconds based on the program setting chosen.
- Wait-to-Start vehicle emulation: If access to a switched circuit in the vehicle wait-to-start system is available, the Blue / Yellow wire will allow the starting action of the J-Start-6 unit to emulate the factory system. Connect the Blue / Yellow wire to a switched ground in the wait-to-start circuit. If only a switched positive source is available, you will need to reverse the polarity of this connection by using a relay. Set the J-Start-6 system to either the 10-second or 30-second wait time (longer for older vehicles). The J-Start-6 system will attempt starting the vehicle at the end of the wait-to-start period or the preset wait-to-start timer period, whichever comes first.

Using the Remote Starter as an Add-On Unit

The J-Start-6 has the ability to be activated by another unit such as a keyless entry system or a security system. Included in the J-Start-6 harness pack is a 4-wire harness (white/black/blue/red wires) that is normally not used when operating the unit with the included remote transmitters. The Blue wire requires one ground pulse to activate the Remote Start function of the J-Start-6. Most after-market keyless entry systems and security systems have extra output channels that could be used to trigger this input. The White wire requires 3 ground pulses within a 5 second period to activate the Remote Start function of the J-Start-6. Connecting this to the brake light circuit of the vehicle allows interfacing with factory installed keyless entry systems. 3 presses of the Lock button on the OEM remote transmitter will trigger the J-Start-6 unit. In order for this type of triggering to work effectively, the OEM remote transmitters must operate the vehicle door locks when the vehicle is running. Also some newer vehicle systems will not attempt locking commands once the doors are locked the first time; this could cause some difficulty interfacing with this type of system.
Accessing programmable features (Only 1 program change can be made per session)

1. Open the vehicle door. The J-Start-6 system must sense the door open to perform this operation.
2. Turn ignition key to the on/run position. Then, within 10 seconds, press the valet switch 5 times.
3. When step (2) is completed the LED will flash 5 times and optional siren will chirp 5 times.
4. Select the feature you want to change by pressing the valet switch the same number of times as the feature number (see table). The LED will flash and the siren (optional) will chirp each time the switch is pressed.
5. When you have reached the desired program location, press Button 1 / Lock on the transmitter to select ‘Mode 1’, Button 2 / Unlock for ‘Mode 2’, and Button 3 / Trunk for ‘Mode 3’. The LED will flash and the siren (optional) will chirp 1, 2, or 3 times to confirm selection.
6. Now turn the ignition key off. Program change is complete. Repeat steps 2 thru 6 for additional changes.

Resetting all functions to factory default (Mode 1)

Enter program mode as listed above. Press and hold Button 4 / * on the transmitter until the LED flashes 4 times and siren (optional) chirps 4 times. All program options are now reset to Mode 1 factory default settings.

Remote Transmitter Code Teaching

1. Please read through these instructions first before attempting.
2. Open the driver door. The J-Start-6 unit must sense the door open to perform the code teaching operation.
3. Within a 5 second period, turn ignition key on-off, on-off, and leave on. (*Hint: You will find that if you click the key on and off from the first key click position, rather than from the lock/off position, that this procedure will be much easier.)
4. If step 2 is completed successfully, the siren (optional) will chirp one time and LED indicator will flash one time.
5. Now press the valet switch 5 times. If completed successfully, the siren (optional) will chirp 5 times and the LED indicator will flash 5 times.
6. The system is now ready to learn new transmitter codes. You have 10 seconds to complete this process.
7. Press Button 1 / Lock of each transmitter that you wish to have the system learn, one at a time. Each time a new code is received the siren (optional) will chirp once and LED will flash once confirming that the transmitter code has been learned. The system will learn a total of 4 different codes.
8. Turn the ignition key off. Remote transmitters should now be ready for use with the system.

Remote Starter Features

Engine Start Detection

The J-Start-6 is designed to successfully start most vehicles (including diesel vehicles) found on the roads today with the exception of older vehicles equipped with a carburetor. The vehicle should start easily and idle smoothly on its own. Engine start detection can be accomplished by three different methods:

1. J-Start-6 is designed to detect the vehicle electrical system voltage before and after starting. If the voltage change is satisfactory a successful start operation will occur.
2. Noise Sense (position 15, mode 2): This method looks for a particular type of electrical noise generated by the ignition system of a running vehicle. Using this setting requires an actual installation of the vehicle's ignition system to the ignition coil trigger wire or to a fuel injector trigger wire with the Black/Grey wire of the J-Start-6 system.
3. Tach Sense (position 15, mode 3): This method looks for the electrical pulse produced in both the ignition system and the fuel injection system of the running vehicle. Using this setting requires an actual installation of the vehicle's ignition system to the ignition coil trigger wire or to a fuel injector trigger wire with the Black/Grey wire of the J-Start-6 system.

Engine Start Interruption

The Remote start feature will not function if the following conditions exist: 1.) The gear selector is not in the Park or Neutral position. 2.) The ignition key is turned ‘ON’. 3.) The hood is opened (white/black wire is connected to a hood pin switch). 4.) The brake is applied (green/white wire connected to the brake light switch circuit).

Remote Engine Shut-Off

At any time during the remote run time period, the engine can be shut off using the included remote transmitters. Simply press Button 4 / * during the remote run cycle and the engine will shut off. Otherwise the engine will shut off automatically at the end of the preset remote run time.

Gasoline and Diesel Engine Modes

- Gasoline Engine (position 11, mode1): The vehicle ignition will be powered up for 5 seconds before starting to allow the fuel injection pump to pressurize the fuel system.
- Diesel Engine – 10 second wake time (position 11, mode 2): The vehicle ignition will be powered up for 10 seconds before starting to allow the diesel wake-start system to function. If the Blue/White wait-to-start wire of the J-Start-6 system is connected, the engine will start as soon as the signal on this wire terminates.
- Diesel Engine – 30 second wait time (position 11, mode 3): The vehicle ignition will be powered up for 30 seconds before starting to allow the diesel wait-to-start system to function. This longer wait time should only be necessary for older diesel vehicles. If the Blue/White wait-to-start wire of the J-Start-6 system is connected, the engine will start as soon as the signal on this wire terminates.

Engine Cranking Time

The engine cranking time of the J-Start-6 system is adjustable (position 16). Most vehicles should successfully start using the default setting of 1 second. Some diesel vehicles may require this time to be increased for reliable starting. The J-Start-6 system is programmed for up to 3 start attempts, in the case that a successful start does not occur. Each attempt will increase the engine crank time by ¼ of second starting from the base setting selected in position 16 of the program table.

Cold Start Mode (Automatic Transmission Only)

The J-Start-6 system can be programmed to start the vehicle engine every 1 or 2 hours. Activate this mode as follows: 1.) Open vehicle door. 2.) Apply the parking brake and place the transmission in Neutral. 3.) Press Button 2 / Unlock simultaneously. 4.) Park lights will flash 3 times confirming activation. 4.) Close vehicle door. 5.) The vehicle engine will start and run for 10 seconds and then shut down. The Cold Start Mode will be canceled once the system is armed then disarmed or if the vehicle ignition is turned ‘ON’.

Stop and Go Mode (Automatic Transmission Only)

With the engine running via the ignition key, press Button 4 / * momentarily. Park lights will flash twice indicating that this mode is activated. Turn the ignition “OFF”, the engine will remain running for the preset run time or until use of the vehicle resumes. Lock and Unlock functions of the remote control will continue to work as normal. This mode is convenient for quick stopovers where it is desired to keep the vehicle running.

Turbo Timer Mode (Automatic Transmission Only)

With the engine running via the ignition key, apply the parking brake of the vehicle. Turn the ignition “OFF” and the engine will keep running for a period of 2 minutes to allow for proper cool down of a turbocharged equipped vehicle. Lock and Unlock functions of the remote control will continue to work as normal. In order to function, this feature must be enabled by choosing position 14, mode 2 in the programming table.

Manual Transmission Mode

The J-Start-6 system includes the added ability to safely remote start a manual transmission vehicle (position 14, mode 3). Activate the safe manual transmission remote starting feature as follows: 1.) Start the vehicle with the ignition key. 2.) Apply the parking brake and place the transmission in Neutral. 3.) Press Button 4 / * momentarily. 4.) Open the vehicle door, step out and close the door. 5.) Arm / Lock using the remote transmitter within 10 seconds of exiting the vehicle. 6.) Vehicle engine will shut down and is ready to be remote started. If the J-Start-6 system is disarmed or a door is opened before remote starting, the safe manual transmission remote starting feature will be canceled.

RPM System Deactivation

Many new vehicles utilize a Retained Accessory Power system that will keep certain accessories such as the radio powered after the ignition key has been turned ‘OFF’. This system will need to be shut off by the J-Start-6 system at the end of the preset remote run time or the radio, etc. will continue to play after engine shut down. This can be accomplished by pulsing the vehicle door trigger upon remote run shut down. The Brown/White wire can control a relay to perform this function by selecting position 13, mode 3.

Remote Starter Features Continued...