Operational Functions

**VALET MODE**
Entering valet mode - Unlock the door, turn the Ignition ON, and hold the push button valet switch for 5 seconds until LED turns ON and parking light flash once (siren chirp once). Door lock/unlock, and all aux outputs respond to transmitter activation, however, remote start function is canceled.

Exiting valet mode - Turn the Ignition ON, and hold the push button valet switch for 5 seconds until LED turns OFF and parking lights will flash twice (siren chirp twice).

**COLD START**
Cold Start is programmable for 1 or 2 hour start intervals.

Enable Cold Start - With Ignition Off, simultaneously press the valet switch and 'Unlock (2)' on your remote. Parking lights will flash 4 times confirming that the feature has been enabled. This feature will be canceled if the J-945/1045 has been armed/locked and disarmed/unlocked or the ignition has been turned on.

**STOP & GO MODE**
With engine running, press 'Shift' (remote start button on your transmitter. Parking lights flash twice indicating STOP & GO mode enabled. Turn off the Ignition switch, the engine will continue running. Exit car and use remotes as normal to lock and unlock. To cancel, press brake pedal.

Special Control Notes

**ENGINE RUN DETECTION:** There are two modes of engine run detection

Smart Sense (default) – Engine run is determined by measuring the battery voltage and engine noise. Engine stalled condition is defined if both the battery voltage and engine noise have fallen below a predetermined threshold.

RPM – Engine run sensing is accomplished by supplying an RPM signal to the unit and teaching the "vehicle engine idle RPM". Engine stalled condition is defined as zero engine RPM.

**ENGINE CRANK TIMING and START DETECTION:** In Smart Sense engine run detection mode, the J-Start-5 unit utilizes a preset crank timing sequence. The starter is engaged for .75 seconds on the first start attempt, .75 seconds on the second attempt, and 1.25 seconds on the third attempt.

In RPM Sense engine run detection mode, the J-Start-5 unit compares RPM timing to the programmed idle RPM. Engine starting is defined as 50% of idle RPM. If idle RPM is not reached within 10 seconds, engine cranking will be terminated. This mode of start detection may be necessary in hard to start vehicles and require connection of the Black/Grey wire to an appropriate tach source in the vehicle. Once properly connected, follow the Engine RPM Programming instructions below.

**ENGINE RPM PROGRAMMING:** Select Engine Start RPM detection - step 14 in the programming table. With engine running select step 15 in the programming table, note that the LED is blinking, indicating that the RPM signal is detected properly, press button 1 on your remote control to record the idle RPM.

**DIESEL/GASOLINE MODE:** Gasoline mode - Ignition is turned On 5 seconds before start. Diesel Mode - Ignition is turned On 10 seconds before start or until the Glow plug is turned Off, whichever comes first.

**J-(products) Limited Lifetime/1Year 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.

**J-Start-5**
5 Button / 10 Channel / 2 Vehicle Capable Remote Vehicle Start System
Made in USA / Limited Lifetime Warranty

**TRANSMITTER OPERATION**

**Transmitter functions (with default settings)**
Button #1 upper left button (locks - HOLD 3 seconds for PANIC)
Button #2 upper right button (unlocks, 2nd press ALL unlock)
Button #3 lower left button (press for 2 seconds for trunk release, aux 1)
Button #4 lower right button (press for remote start)
Button #5 Side right button (function button)

**Transmitter functions with button 5 pressed once (with default settings)**
Button #1 upper left button (locks)
Button #2 upper right button (unlocks, 2nd press ALL unlock)
Button #3 lower left button (press for aux 2)
Button #4 lower right button (not used)

**Transmitter functions with button 5 pressed two times (with default settings)**
Button #1 upper left button (locks, second car operation)
Button #2 upper right button (unlocks, 2nd press ALL unlock)
Button #3 lower left button (trunk release, second car operation)
Button #4 lower right button (remote start, second car operation)

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.

rev 03.01.2
Wiring Instructions

**FLAG Power Connectors**

1. Red Wire (there are 2): Connect both of these wires to a constant 12V+ source that is able to supply 30 amps of current. It is recommended that these connections be made to the steering column 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 secondary accessory or second stage ignition wire at or near the ignition switch (see feature programming to change the function of this wire). Many vehicles require this extra ignition / accessory / starter wire to operate computers, air conditioners, heaters, fans, etc.

3. Orange Wire: Connect this wire to the main accessory wire at or near the ignition switch. This 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-5 unit and also provides for some special operating features found elsewhere in this manual.

2. Black/Grey Wire: RPM Sense input. For RPM sensing, this wire should be connected to a vehicle coil or fuel injector trigger wire with appropriate connectors. 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 2 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: Ignition input. This wire must be connected to a thru-crank ignition source for proper operation of the unit.

5. Blue/Yellow Wire: Glow plug input. When in diesel operating mode, this wire delays the starting action until the glow plug light turns off. Connect this wire to the positive (+) switched wire of the glow plug or wait-to-start lamp in the dash (if the switched wire is negative (-) you will need to use a relay to reverse the polarity of this wire). This is an optional connection. If not used, the starting action will be delayed a pre-set 10 seconds in diesel mode.

6. Blue/White Wire: Passenger unlock output. This wire provides a pulsed negative (-) output when the 'Unlock (2)' button is pressed again after initial unlocking. This output provides the installer the opportunity to install a driver door priority unlocking sequence to mimic the operation of many OEM keyless entry systems.

7. Blue/Orange Wire: Ground when running output. This wire provides a negative (-) output when the remote start function of the J-Start-5 is active. Use this wire to control any extra relays or modules needed to properly start the vehicle.

8. 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-5 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 of the vehicle.

9. Red Wire: 12V volt input. Connect this wire to a good 12volt (+) constant source.

10. Violet Wire: Positive (+) door trigger input. This is an optional connection. In vehicles with positive door pin circuits, this wire will prevent the ignition activated door-locking feature of the J-Start-5 from operating while the door(s) are open.

11. Green Wire: Negative (-) door trigger input. This is an optional connection. In vehicles with negative door pin circuits, this wire will prevent the ignition activated door-locking feature of the J-Start-5 from operating while the door(s) are open.

12. 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-5 unit that prevents remote starting / running when the hood is open.

13. Orange Wire: Starter interrupt output. This wire provides a negative (-) output whenever the J-Start-5 is in the passive learning mode. This can be used to operate starter interlock or window roll-up control switches, etc.

14. 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.

15. White/Violet Wire: Factory alarm arm output. This wire provides a negative (-) output upon using the door-locking feature of the J-Start-5 to arm factory installed security systems.

16. Brown Wire: Siren output. This wire provides a positive (+) siren output to be used with an optional siren (not included) to provide audible locking and unlocking confirmation. If connected, a siren will chime once upon locking and twice upon unlocking.

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

18. White Wire: Parking light output. This wire provides a positive (+, default) or negative (-) output to operate the parking light circuit of the vehicle. The lights will flash once upon locking, twice upon unlocking, and give visual confirmation of the operation of the remote start function of the J-Start-5. The polarity of this wire can be switched, via a jumper inside the J-Start-5 unit, from positive (+) to negative (-) to facilitate interfacing with most vehicles. Warning: The positive (+) output will only support standard parking light circuits with no more than 7-amps of current draw. For vehicles with extra exterior lighting such as cab lights, etc. it is recommended that you use an external relay to support this extra current load. The negative (-) output setting is designed to operate (1) factory lighting relay only.

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

### Accessing Programmable Features

**Only 1 program change can be made per session**

1. Turn ignition key to the on/run position. Then, within 10 seconds press the valet switch 5 times.

2. When step 1 is completed the parking lights will flash 3 times (optional siren will chirp 3 times).

3. Select the feature you want to change by pressing the valet switch the same number of times as the feature number (see table). The parking lights will flash (siren will chirp) each time the switch is pressed.

4. When you have reached the desired program location, press ‘Lock (1)’ on the transmitter to select ‘Mode 1’, ‘Unlock (2)’ for ‘Mode 2’, and ‘Trunk (3)’ for ‘Mode 3’. The parking lights will flash 1.2, or 3 times (siren will chirp 1.2, or 3 times) confirming the feature mode selection.

5. Now turn the ignition key off. Programming is complete.

<table>
<thead>
<tr>
<th>Programming Table</th>
<th>#</th>
<th>Button 1 (mode 1) Default</th>
<th>Button 2 (mode 2)</th>
<th>Button 3 (mode 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>#1</td>
<td>Ignition Lock - Enable</td>
<td>Ignition Lock - Disable</td>
<td></td>
</tr>
<tr>
<td>#2</td>
<td>#2</td>
<td>Ignition Unlock - All doors</td>
<td>Ignition Unlock – Driver door</td>
<td>Ignition Unlock - Off</td>
</tr>
<tr>
<td>#3</td>
<td>#3</td>
<td>Unlock - Single Pulse</td>
<td>Unlock - Double Pulse</td>
<td></td>
</tr>
<tr>
<td>#4</td>
<td>#4</td>
<td>Unlock/Pulse - 1sec</td>
<td>Lock/Pulse - 3sec</td>
<td></td>
</tr>
<tr>
<td>#5</td>
<td>#5</td>
<td>Aux.2 pulse upon arm - Disable</td>
<td>Aux.2 pulse upon arm - Enable</td>
<td></td>
</tr>
<tr>
<td>#6</td>
<td>#6</td>
<td>Aux.1 - Pulsed</td>
<td>Aux.1 - Timed 10 sec</td>
<td>Aux.1 - Latched</td>
</tr>
<tr>
<td>#7</td>
<td>#7</td>
<td>Aux.2 - Pulsed</td>
<td>Aux.2 - Timed 10 sec</td>
<td>Aux.2 - Latched</td>
</tr>
<tr>
<td>#8</td>
<td>#8</td>
<td>Disarm with Aux.1 - Disable</td>
<td>Disarm with Aux.1 - Enable</td>
<td></td>
</tr>
<tr>
<td>#9</td>
<td>#9</td>
<td>Start in Valet - Disable</td>
<td>Start in Valet - Enable</td>
<td></td>
</tr>
<tr>
<td>#10</td>
<td>#10</td>
<td>Lock Upon Start</td>
<td>No Door lock Upon Start</td>
<td></td>
</tr>
<tr>
<td>#11</td>
<td>#11</td>
<td>Lock Upon Shutdown</td>
<td>No Door lock upon Shutdown</td>
<td></td>
</tr>
<tr>
<td>#12</td>
<td>#12</td>
<td>Run Time 12 Min</td>
<td>Run Time 24 Min</td>
<td></td>
</tr>
<tr>
<td>#13</td>
<td>#13</td>
<td>Cold Start Every 2 hours</td>
<td>Cold Start Every 1 hour</td>
<td></td>
</tr>
<tr>
<td>#14</td>
<td>#14</td>
<td>Smart Sense - Enable</td>
<td>RPM Sense - Enable</td>
<td></td>
</tr>
<tr>
<td>#15</td>
<td>#15</td>
<td>Learn RPM starting threshold</td>
<td>Set starter for Gasoline Vehicle</td>
<td>Set Starter for Diesel</td>
</tr>
<tr>
<td>#16</td>
<td>#16</td>
<td>Enable 2-way FM Pager</td>
<td>Program 2-way FM remote</td>
<td></td>
</tr>
<tr>
<td>#18</td>
<td>#18</td>
<td>Aux.3 - Horn Out ( )</td>
<td>Aux.3-Ignition Out ( ) relay control</td>
<td></td>
</tr>
</tbody>
</table>

### Programming Remote Transmitters

The J-Start-5 uses a code hopping system. Please read and follow these instructions carefully.

1. Turn the ignition key 3 times (on/off/on/off/on). Leave the ignition key in the ON position.

2. Within a few seconds (approx. 5) the parking lights will flash 3 times (optional siren will chirp 3 times) [wait for this before proceeding].

3. Press the valet switch for approximately 5 seconds; the lights will flash 5 times (siren will chirp 5 times) and LED comes on solid.

4. Press ‘Lock (1)’ of the transmitter one time; the lights will flash once (siren will chirp once).

5. Press ‘Lock (1)’ again; the lights will flash twice (siren will chirp twice) confirming that the J-Start-5 unit has learned that transmitter. Note: Because of the code hopping system, it may take several attempts before the unit confirms with two light flashes (two siren chirps).

6. Repeat steps 4 and 5 for up to 4 different remote transmitters. All transmitters must be learned during the same programming session.

### Programming transmitters for secondary car operation

Follow all of the steps above, except BEFORE each press of ‘Lock (1)’ on the transmitter, press ‘Shift (5)’ two times.