

# EXCALIBUR

## REMOTE START & SECURITY PERFECTED

### AL-XX70-B V1.3 INSTALLATION GUIDE

#### Quick Reference - Installation Overview

- 1** Choose a discreet mounting location for the module and locations for any accessories (siren, sensors, interface module, etc.). Do not mount the module yet (you might anger the install gods).
- 2** Identify vehicle connection points and plan harness routing from your mounting location. Avoid any moving vehicle parts or parts that generate heat. Also avoid any sharp metal edges. See wiring details on pages 3-10.
- 3** Cut system wires to length, prep your harnesses, and make all wire connections to the vehicle.  
**NOTE: DATA/MUX WIRES ARE SENSITIVE and MUST BE SPLICED DIRECTLY. QUICK TAPS ARE NOT RECOMMENDED.**
- 4** If you are using either of the system's data ports for accessories or modules using DBI protocol, connect these modules now and configure them for DATA MODE.  
  
Perform VEHICLE LEARN (see pages 9 and 12 for instructions).
- 5** This automatically matches the IGN/ACC/START outputs to the vehicle's ignition switch, auto-detects data protocols, chooses the best engine detection method, decides whether neutral safety circuit is required, and allows you to quickly set engine and transmission types. **FASTER THAN PROGRAMMING!**
- 6** Test the system for all functions.
- 7** Secure the module(s) and harnesses to the vehicle.
- 8** Reassemble the vehicle.
- 9** Test the system for all functions again (keep the install gods happy).

**WIRE DIAGRAM: CENTER OF THIS BOOKLET**  
**FEATURE CHART: INSIDE BACK COVER**

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### **BEFORE STARTING THE INSTALLATION, READ THIS ENTIRE MANUAL TO FAMILIARIZE YOURSELF WITH ANY INSTALL REQUIREMENTS**

- BE SURE TO VERIFY EACH CIRCUIT WITH A DIGITAL MULTIMETER
- IDENTIFY WHICH CIRCUITS ARE REQUIRED FOR THE VEHICLE IN QUESTION
- MOUNT ANY SYSTEM COMPONENTS & ROUTE WIRING AWAY FROM MOVING PARTS OR PARTS OF THE VEHICLE THAT GENERATE EXCESSIVE HEAT
- TAPE OFF OR REMOVE ANY UNUSED WIRING TO PREVENT POSSIBLE SHORT CIRCUITS
- ONLY ACTIVATE THE REMOTE START FUNCTION IN A WELL VENTILATED ENVIRONMENT
- AFFIX THE UNDERHOOD WARNING STICKER
- **AVOID ANY AIRBAG CIRCUITS, USUALLY INDICATED BY A YELLOW SLEEVE OR JACKET AROUND THE WIRING**

## 6 Pin Main Wire Harness

Most of the main wiring harness connections are high amperage circuits so it is recommended to direct splice, solder, & adequately insulate each connection. Many of these connections are made at the vehicle's ignition switch so be sure to properly route the harness away from anything that could compromise the wire insulation. The goal is to mimic the ignition switch. Keep this in mind when deciding which ignition & accessory circuits to power.

**NOTE: A low current harness for newer vehicles is available. It has 18 gauge, 100% copper wires and the RED & RED/WHITE wires are fused at 10A each. Order P/N: H-RS6BLC**

### **RED AND RED/WHITE WIRES - CONSTANT POWER (+) INPUT**

**REQUIRED.** These wires provide the constant positive 12v power supply for the system's operation. **CONNECTION:** Connect these to a constant +12 volt supply with sufficient amperage for remote starting. The +12v power supply to the ignition switch is ideal. Some vehicle's have low amperage ignition switches in which case you would need to find a power supply at a fuse block or at the vehicle's battery. Be sure these wires are fused within 6 inches of the connection to the vehicle. The two 30AMP fuses in the harness are to protect the system module, NOT THE VEHICLE. Their use is REQUIRED. It is ideal to have a separate supply for each wire but, if the chosen supply is sufficient enough, you can combine the RED and RED/WHITE wires at the same point.

### **PINK WIRE - IGNITION/ACC/START (+) INPUT/OUTPUT**

**REQUIRED.** This connection is required & is critical to the operation of the system. It is an "IGNITION ON" input when the ignition key is turned on. By default, it is the primary ignition output for remote start operation. It turns on when remote start is activated & stays on during engine cranking for the entire remote start sequence.

**CONNECTION:** Use any IGNITION, ACCESSORY, or secondary START circuit in the vehicle. This wire is defaulted for IGNITION output though it may change through the VEHICLE LEARN process (p.12) to match the connected vehicle circuit.

## 6 Pin Main Wire Harness (cont'd)

### ORANGE WIRE - ACCESSORY/IGN/START (+) INPUT/OUTPUT

This circuit is designed to power additional IGNITION, ACCESSORY, or START circuits. By default, it functions as an ACCESSORY output & turns on when remote start is activated (slightly earlier than the ignition output), turns off during engine cranking, & turns back on for the remainder of the remote start operation.

**CONNECTION:** Use any IGNITION, ACCESSORY, or secondary START circuit in the vehicle. This wire is defaulted for ACCESSORY output though it may change through the VEHICLE LEARN process (p.12) to match the connected vehicle circuit.

### VIOLET WIRE - START (+) INPUT/OUTPUT

This output supplies positive voltage to the vehicle's starter circuit. If using a starter interrupt circuit for anti-grind, be sure this is connected on the starter side of the interrupt.

**CONNECTION:** The starter circuit is typically found at the ignition switch. The proper circuit will show +12v only when the ignition key is in the START position.

### PINK/WHITE WIRE - IGNITION/ACC/START (+) INPUT/OUTPUT

This circuit is designed to power additional IGNITION, ACCESSORY, or START circuits. By default, it functions as an IGNITION output. It turns on when remote start is activated, stays on during engine cranking, & for the entire remote start operation.

**CONNECTION:** Use any IGNITION, ACCESSORY, or secondary START circuit in the vehicle. This wire is defaulted for IGNITION output though it may change through the VEHICLE LEARN process (p.12) to match the connected vehicle circuit.

## 18 Pin Secondary Wire Harness

### BLACK WIRE - SYSTEM GROUND (-) INPUT

**REQUIRED.** This input provides negative ground for all system operations.

**CONNECTION:** Using a properly sized ring terminal, connect this wire to the vehicle's chassis. Using an existing bolt is preferred but make sure that the connection point is clean & free of dirt, grease, or paint. Bright shiny metal at the connection point is desired.

### ORANGE WIRE - STARTER INTERRUPT (-) OUTPUT & RELAY

This provides 500mA negative ground while the alarm is armed for starter kill and/or during remote start for anti-grind operation. The operation is selectable with installer feature #16.

**CONNECTION:** This wire is connected to the orange input wire on the optional start interrupt relay socket. Then, locate the vehicle's (+) starter wire at the ignition switch & cut it. Connect the starter interrupt relay's RED wire to the ignition switch side of the cut starter wire. Connect the starter interrupt relay's WHITE wire to the starter side of the cut starter wire.

### BROWN/RED WIRE - BRAKE PEDAL (+) INPUT

**REQUIRED.** This input is a critical safety circuit which disables the remote start operation whenever the brake pedal is pressed.

**CONNECTION:** Connect this to the brake switch wire that shows +12 volts when the brake pedal is pressed. The vehicle's ignition may need to be turned on during testing.

### BLACK/WHITE WIRE - NEUTRAL SAFETY (-) INPUT

This is a safety circuit which allows remote start operation whenever the gear selector is in park or neutral (automatic transmission), or when the parking brake is applied (manual transmission).

**CONNECTION (Automatic Transmission):** Connect this to the neutral safety switch wire that shows (-) ground when the gear selector is in the park & neutral positions.

## 18 Pin Secondary Wire Harness (cont'd)

**CONNECTION (Manual Transmission):** When installer feature #11 is ON, connect this to the parking brake switch wire that shows (-) ground when the parking brake is engaged.

### **VIOLET/WHITE WIRE - TACH SIGNAL INPUT**

This input monitors the engine's RPM signal. To use the tach wire, perform VEHICLE LEARN (p.12) to auto-program. Otherwise, you must change installer feature #3 to the tach wire setting & perform tach learn (p.13).

**CONNECTION:** This can be connected to any signal wire for an ignition coil, fuel injector, or the signal to the tachometer in the dash. Use a digital multimeter set for AC volts to test. The appropriate wire will read between 0.5-6 volts AC & will increase as the engine RPM increases.

### **BROWN WIRE - SIREN (+) OUTPUT**

This output provides a 1 amp positive output to operate the included siren.

**CONNECTION:** Safely route this wire to the chosen mounting location of the siren & connect it to the siren's red wire. Connect the siren's black wire to chassis ground.

### **WHITE WIRE - FLASHING LIGHT (+) OUTPUT**

This output provides a 10 amp positive output to flash the vehicle's parking lights (typically).

If the vehicle has a low current negative light circuit, use the WHITE/BLACK wire instead. If the vehicle requires a relay, you can use the built-in FLASHING LIGHT relay instead of adding one.

**CONNECTION:** Connect this wire to the vehicle's circuit that shows +12 volts when the parking lights are on. **BE SURE NOT TO CONNECT TO THE DIMMER CIRCUIT WHICH WILL CHANGE VOLTAGE AS YOU TURN THE DIMMER KNOB.**

### **WHITE/BLACK WIRE - FLASHING LIGHT (-) OUTPUT**

This output provides a 250mA negative output to flash the vehicle's parking lights. If the vehicle has a positive parking light circuit, use the WHITE wire instead. If the vehicle requires a relay, you can use the built-in FLASHING LIGHT relay instead of adding one.

**CONNECTION:** Connect this wire to the vehicle's negative parking light circuit. It will show ground when the parking lights are on. **BE SURE NOT TO CONNECT TO THE DIMMER CIRCUIT WHICH WILL CHANGE RESISTANCE TO GROUND AS YOU TURN THE DIMMER KNOB.**

### **GRAY WIRE - HOOD TRIGGER (-) INPUT**

**REQUIRED.** This input is used to detect entry into the hood area of the vehicle. It is also a critical safety circuit that prevents remote start functions while the hood is opened.

**CONNECTION:** Connect this wire to the vehicle's existing hood switch or light. It will show ground when the hood is opened. You can also use the included pin switch & mount it to the radiator core support.

### **GREEN WIRE - DOOR TRIGGER (-) INPUT**

This input is used to detect entry into the vehicle via any door opening.

**CONNECTION:** Connect this wire to the vehicle's existing domelight circuit or door pin circuit. The circuit will show ground when any door is opened. If you are required to connect to each individual door pin, diode isolation is required. Use one 1-2 amp diode for each door, facing the diode's cathode (stripe) towards the vehicle wiring.

### **VIOLET WIRE - DOOR TRIGGER (+) INPUT**

This input is used to detect entry into the vehicle via any door opening.

**CONNECTION:** Connect this wire to the vehicle's existing domelight circuit or door pin circuit. The circuit will show +12 volts when any door is opened. If you are required to connect to each individual door pin, diode isolation is required. Use one 1-2 amp diode for each door, facing the diode's cathode (stripe) towards the alarm module.

## 18 Pin Secondary Wire Harness (cont'd)

### **RED/WHITE WIRE - TRUNK RELEASE / 2ND CHANNEL (-) OUTPUT**

This output provides a 250mA negative output when the trunk release/CH2 function is activated by the controller. The output will remain as long as the controller button(s) is held.

**CONNECTION:** Connect this wire to the vehicle's existing trunk release switch if it is a low current negative circuit. If the circuit is a high current ground or a positive circuit, the use of a relay is required. **NOTE: The built-in horn relay circuit can be programmed for trunk release if not being used otherwise.**

### **BLACK/RED WIRE - LIGHT RELAY PIN 87 (+/-) INPUT**

This circuit provides the constant feed input for the built-in 10 amp light relay. This relay can be programmed via installer feature #5 for other functions.

**CONNECTION:** Connect this wire to constant power or chassis ground as needed.

### **GREEN/VIOLET WIRE - LIGHT RELAY PIN 30 OUTPUT**

This circuit provides the output for the built-in 10 amp light relay. This relay can be programmed via installer feature #5 for other functions.

**CONNECTION:** Connect this wire to the vehicle circuit chosen to be driven. By default, connect to the vehicle's domelight circuit.

### **WHITE/RED WIRE - LIGHT RELAY PIN 87A (+/-) INPUT**

This circuit provides the input for the built-in 10 amp light relay. This input is typically only used for polarity reversing circuits or circuits that must be broken to operate. This relay can be programmed via installer feature #5 for other functions.

**CONNECTION:** Connect this wire to constant power or chassis ground as needed.

### **VIOLET/BLACK WIRE - HORN RELAY PIN 87 (+/-) INPUT**

This circuit provides the constant feed input for the built-in 20 amp horn relay. This relay can be programmed via installer feature #19 for other functions.

**CONNECTION:** Connect this wire to constant power or chassis ground as needed.

### **BLUE/BLACK WIRE - HORN RELAY PIN 30 OUTPUT**

This circuit provides the output for the built-in 20 amp horn relay. This relay can be programmed via installer feature #19 for other functions.

**CONNECTION:** Connect this wire to the vehicle circuit chosen to be driven. By default, connect to the vehicle's horn circuit.

### **BROWN/BLACK WIRE - HORN RELAY PIN 87A (+/-) INPUT**

This circuit provides the input for the built-in 20 amp horn relay. This input is typically only used for polarity reversing circuits or circuits that must be broken to operate. This relay can be programmed via installer feature #19 for other functions.

**CONNECTION:** Connect this wire to constant power or chassis ground as needed.

## 4 Pin Secondary Wire Harness

### **PINK WIRE - 3RD CHANNEL (-) OUTPUT**

This output provides a 250mA negative output when the CH3 function is activated by the controller. The output will remain as long as the controller button is held.

**CONNECTION:** Connect this wire to any desired add-on accessory that can utilize a negative activation input.

### **WHITE/BLUE WIRE - REMOTE START ACTIVATION (-) INPUT**

This input will activate the system's remote start function when it receives 3 negative pulses. Repeating this during remote start will turn off the remote start. You can change this to 1, 2, or 4 pulse activation with installer feature #1.

**CONNECTION:** Connect to any device you desire to activate remote start. It can be connected directly to doorlock motor wires for activation from OEM keyless entry if the wire rests at ground & pulses positive. The return to ground is counted as 1 pulse. NO RELAY IS NEEDED.

### **LT. GREEN/RED WIRE - OEM ALARM ARM / CH4 (-) OUTPUT**

This output provides a 250mA negative pulse when remote start is turned off & when the system's alarm is armed. It can be programmed for 4th channel output with installer feature #18

**CONNECTION:** Connect this wire to the vehicle's OEM alarm arm circuit. Typically, it will show ground when the door cylinder key is turned to the lock position.

### **LT. GREEN/BLACK WIRE - OEM ALARM DISARM / CH5 (-) OUTPUT**

This output provides a 250mA negative pulse before remote start & when the system's alarm is disarmed. It can be programmed for 5th channel output with installer feature #18.

**CONNECTION:** Connect this wire to the vehicle's OEM alarm disarm circuit. Typically, it will show ground when the door cylinder key is turned to the unlock position.

## 3 Pin Satellite Relay Port (RED)

### **GREEN WIRE - START (-) OUTPUT**

This output provides a 250mA negative pulse when the large VIOLET start wire is active.

**CONNECTION:** If a negative starter circuit is needed, connect this directly to the vehicle's negative starter circuit. Otherwise, use a relay (AU-7) to convert this to a high current circuit.

### **RED WIRE - CONSTANT (+) OUTPUT**

This output provides a 500mA positive output to drive the positive pin of added relay coils.

### **BLUE WIRE - IGNITION/ACC/START (-) OUTPUT**

This provides a 250mA negative output when the large PINK ignition wire is active.

**CONNECTION:** If a negative circuit is needed, connect this directly to the vehicle's negative starter circuit. Otherwise, use a relay (AU-7) to convert this to a high current circuit.

# Wiring Overview Diagram

## 4 PIN ANALOG SENSOR PORTS

Constant 12v (+) Out - RED  
 Ground (-) Out - BLACK  
 Trigger (-) In - BLUE  
 Pre-warn (-) In - GREEN

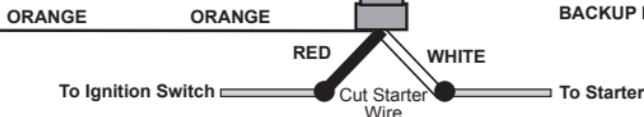
## 18 PIN HARNESS

Door Trigger (-) In - GREEN  
 Tach In - VIOLET/WHITE  
 Door Trigger (+) In - VIOLET  
 Light Relay Pin 87 (+/-) In - BLACK/RED  
 Trunk Release/CH2 (-) Out - RED/WHITE  
 Light Relay Pin 30 Out - GREEN/VIOLET<sup>3</sup>  
 Starter Interrupt (-) Out - ORANGE<sup>3</sup>  
 Flashing Light (-) Out - WHITE/BLACK  
 System Ground (-) In - BLACK  
 Brake (+) In - BROWN/RED  
 Neutral Safety (-) In - BLACK/WHITE  
 Light Relay Pin 87a (+/-) In - WHITE/RED  
 Hood Trigger (-) In - GRAY  
 Flashing Light (+) Out - WHITE  
 Siren (+) Out - BROWN  
 Horn Relay Pin 87a (+/-) In - BROWN/BLACK  
 Horn Relay Pin 30 Out - BLUE/BLACK<sup>3</sup>  
 Horn Relay Pin 87 (+/-) In - VIOLET/BLACK

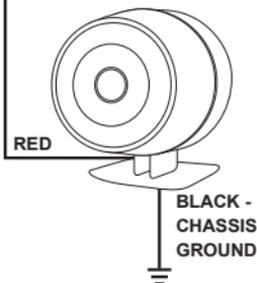
## 6 PIN POWER HARNESS<sup>1</sup>

Constant 12v (+) In - RED/WHITE  
 Ignition #2 (+) In/Out - PINK/WHITE<sup>2</sup>  
 Constant 12v (+) In - RED  
 Start (+) In/Out - VIOLET  
 Ignition #1 (+) In/Out - PINK<sup>2</sup>  
 Accessory (+) In/Out - ORANGE<sup>2</sup>

## OPTIONAL STARTER INTERRUPT SOCKET & RELAY



SIREN (OPTIONAL)



BLADE CARTRIDGE SLOT  
(REMOVE DOOR)

TEMPERATURE SENSOR

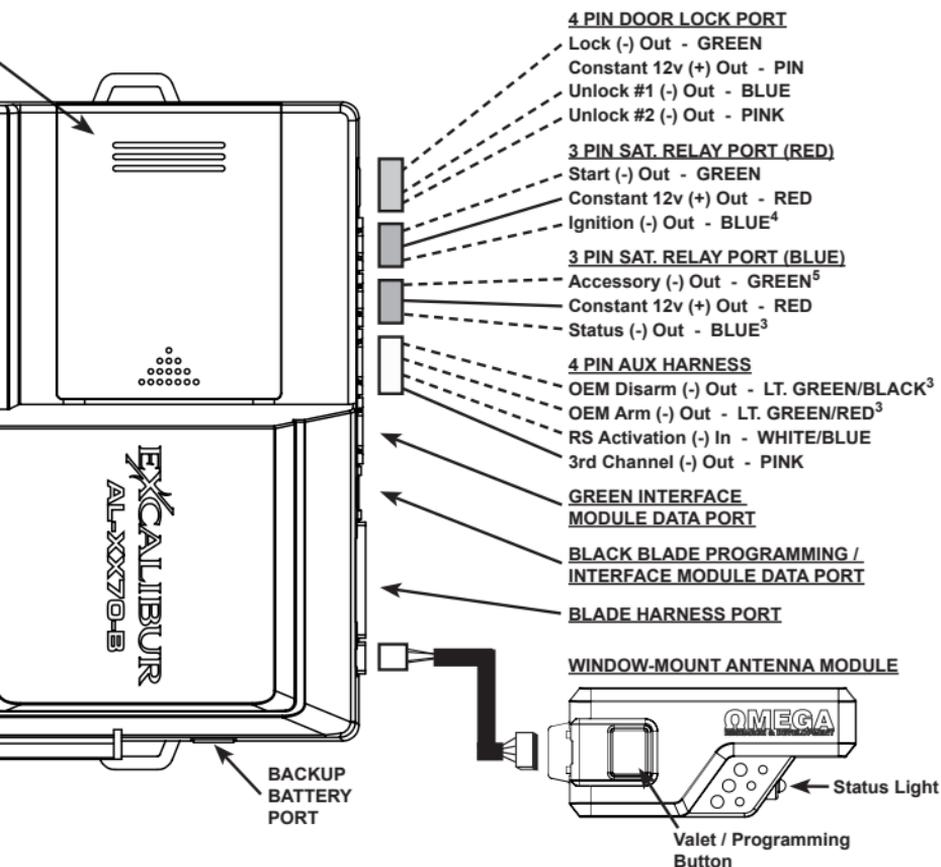
SLIDE BRACKET FOR  
BACKUP BATTERY & OTHER  
ACCESSORIES

## WIRE LEGEND

———— HARD WIRE CONNECTION REQUIRED  
 - - - - FUNCTION SUPPORTED VIA DATA PORTS

## NOTES

1. LOW CURRENT HARNESS P/N: H-RS6BLC Available for vehicles with less than 20A ignition switches.
2. Learning output - see Vehicle Learn Procedure
3. Programmable output - see feature chart
4. Function matches PINK (6 PIN POWER HARNESS)
5. Function matches ORANGE (6 PIN POWER HARNESS)



## VEHICLE LEARN PROCEDURE

1. Connect any interface module(s) to the data port(s) and set for data mode.
2. Turn the ignition key ON (do not start)
3. Activate remote start  
 System will chirp/flash lights to indicate engine type (Default: 1x = Gasoline)
4. Press valet to change engine type:  
 1 chirp=Gasoline, 2 chirps=Diesel 15,  
 3 chirps=Diesel 20, 4 chirps=Diesel 30
5. Start the engine with the ignition key
6. Turn the ignition key OFF  
 System will chirp/flash lights equaling the # of IGN/ACC/START circuits detected (Max: 4x)
7. Within 20 seconds of Step 6, Activate remote start. Wait until engine is running and LED is flashing slow.
8. OPTIONAL: To enable Manual Transmission Reservation mode, release and set parking brake again.  
 System should chirp/flash lights 1x.
9. TO SAVE SETTINGS: Shut down RS by pressing the BRAKE pedal.  
 TO CANCEL/START OVER: Shut down RS by remote or input wire.

~ See Page 12 For Full Details ~

### 3 Pin Satellite Relay Port (BLUE)

**NOTE:** There is no dedicated harness included. Use the RED 3-pin harness for this port.

#### **GREEN WIRE - ACCESSORY/IGN/START (-) OUTPUT**

This provides a 250mA negative output when the large ORANGE wire is active.

**CONNECTION:** Connect this directly to the vehicle's low current negative ACCESSORY/IGN/START circuit. Otherwise, use a relay (AU-7) to convert this to a high current circuit.

#### **RED WIRE - CONSTANT (+) OUTPUT**

This output provides a 500mA positive output to drive the positive pin of added relay coils.

#### **BLUE WIRE - STATUS (-) OUTPUT**

This provides a 250mA negative output slightly before & during the primary ignition output. This output is programmable. See installer feature #6 for other options.

**CONNECTION:** This is typically used to activate immobilizer bypass modules. Connect it directly to the module's activation input.

### 4 Pin Door Lock/Unlock Port (RED)

#### **GREEN WIRE - LOCK (-) OUTPUT**

This provides a 0.8 second 250mA negative pulse for any locking operations. The pulse timing is programmable by installer feature #8.

**CONNECTION:** Connect this directly to the vehicle's lock circuit if a negative pulse is required. Otherwise, a doorlock interface and/or relays are required to convert the output.

#### **EMPTY PIN - CONSTANT (+) OUTPUT**

This output provides a 500mA positive output to drive the positive pin of added relay coils.

#### **BLUE WIRE - UNLOCK #1 (-) OUTPUT**

This provides a 0.8 second 250mA negative pulse for any unlocking operations. The pulse timing is programmable by installer feature #8.

**CONNECTION:** Connect this directly to the vehicle's "all door" unlock circuit if a negative pulse is required. Otherwise, a doorlock interface and/or relays are required to convert the output. If you are connecting driver's priority unlocking, connect this only to the driver's door unlock circuit.

#### **PINK WIRE - UNLOCK #2 (-) OUTPUT**

This provides a 0.8 second 250mA negative pulse for any unlocking operations. The pulse timing is programmable by installer feature #8. This 2nd output is utilized only when you are configuring the system for driver's priority unlock.

**CONNECTION:** Connect this directly to the vehicle's "all door" unlock circuit if a negative pulse is required. Otherwise, a doorlock interface and/or relays are required to convert the output.

### 2 Pin Backup Battery Port (WHITE)

This system includes a bracket & harness for utilizing the backup battery option. Thanks to its innovative design, it only requires a standard 9 volt battery. Insert the battery into the supplied bracket & mount the battery pack on the slide bracket. Then, connect the harness to the battery & module. When running on backup battery power, the system will only maintain the start interrupt, siren, door trigger, & hood trigger functions to ensure maximum battery life.

## Green Data Port

This port provides a direct digital interface for any interface module, or other accessories, using either the DBI protocol or iDataLink protocol. It eliminates the need for several wire-to-wire connections. Refer to the wire diagram overview on page 8 to see which circuits are supported by this port & compare them to the data functions available from the interface module. This port is capable of using the D2D/DBI (Trilogix/Directed) protocol & iDataLink protocol. **THIS PORT WILL AUTO SELECT THE PROTOCOL DURING VEHICLE LEARN. MAKE SURE ANY CONNECTED DEVICE IS PROPERLY CONNECTED & PROGRAMMED BEFORE HAND.** The protocol is manually selectable with installer feature #12. This port operates independently from the black data port described below. **BOTH THE GREEN & BLACK PORT CAN BE USED SIMULTANEOUSLY FOR PLUG-IN ACCESSORIES.**

## Black Data/Programming Port

This port operates exactly like the Green port & adds programming capability. **THIS PORT WILL AUTO SELECT THE PROTOCOL DURING VEHICLE LEARN. MAKE SURE ANY CONNECTED DEVICE IS PROPERLY CONNECTED & PROGRAMMED BEFORE HAND.**

**BLADE OPERATIONS:** This port is also used to update the firmware for any BLADE cartridge used instead of a standard interface module. When connected to the OmegaLink OL-LOADER, this port can also be used to configure all programmable features as well as update the entire system's firmware. NOTE: Installing a BLADE forces this port to iDataLink protocol.

## BLADE Cartridge Port

### BLADE CARTRIDGE PORT

On the top of the main module, there is a slide door. This door is removed & replaced with any OmegaLink BLADE cartridge being used. The port is keyed so the cartridge will only insert one way. Do not use excessive force to install the BLADE, it should snap in with light to moderate pressure. Also, refer to the install guide for the BLADE firmware being used, for further information & details. When this system detects a BLADE module, the data port protocol will automatic switch to the iDataLink protocol. For more info on BLADE modules, visit [www.omegawebink.com](http://www.omegawebink.com). There are notches in the corners of the port to safely eject the cartridge when needed.

### BLADE HARNESS PORT

When utilizing an OmegaLink BLADE module, this 20 pin connector is used for the harness that is included with the BLADE module. This allows you to connect directly to the vehicle's data bus & other required circuits for the interface.

## Dual Zone Sensor Ports (WHITE)

This system is equipped with 2 white dual zone sensor ports. Any Omega single or dual zone sensor will plug directly into these ports. A dual zone shock sensor is included with this system. If more than 2 sensors are desired, you must diode isolate & splice into the GREEN & BLUE wires.

FOR "RS" MODELS: By default alarm functions are off w/ sensor detect enabled. If a pre-warn trigger or full trigger is detected, it will automatically enable security functions.

## Window Mount Antenna Module

This system is equipped with an outboard receiver or transceiver (2-way) module. It is designed to be window mounted high on the windshield for optimal performance & range. It is best to mount this module using the double sided stick pad included (be sure to clean glass before adhering). Mount it high in the windshield trying to avoid metal parts of the vehicle as they can create "blind spots" for the antenna. Also, metal based window tint can have an adverse affect on performance. Since the system's status light & valet are contained in this module, high visibility is also desired for theft deterrence. Route the harness to the antenna module being sure to avoid sharp metal objects that could compromise the harness jacket.

## 3D Motion Sensor

Some models are equipped with a motion sensor that provides added protection for remote start by shutting down the engine if motion is detected during the START output. This is ideal for manual transmission vehicles and eliminates the need for performing 'manual transmission reservation' by the user. If the sensor is present, a "3D" logo will be on the antenna case.

## Status Light

The status light is built into the window mount antenna module. It is desirable for it to be visible from as many angles around the vehicle as possible for maximum visual theft deterrence.

## Valet / Programming Button

The valet button is built into the window mount antenna module. It is used to put the system in valet mode, program remotes, & program features.

## Vehicle Learn

Vehicle Learn is a procedure that allows you to quickly configure all vehicle dependant features. It also serves as a diagnostic tool for your IGN/ACC/START output connections on the main power harness. It's much faster than programming, saving you valuable time, & helps you discover critical mistakes.

### VEHICLE LEARN WILL:

- Detect the function of the PINK, PINK/WHITE, and ORANGE wires to automatically change the outputs to match the vehicle.
- Diagnose the PINK, PINK/WHITE, ORANGE, & VIOLET wire connections.
- Let you quickly choose engine type
- Auto-select Data-tach, tach wire, or tachless modes.
- Auto-select data port protocols
- Save tons of time in the bay!

### BEFORE YOU BEGIN:

- **Make all wire connections**
- **Connect any accessories/modules to the data ports.**  
If you are using an interface module/bypass kit, make sure it is in "DATA MODE" and programmed to the vehicle.
- **Set the parking brake if it is connected to the BLACK/WHITE wire.**

## Vehicle Learn Procedure

**Step 1: Turn the ignition key ON** (do not start)

**Step 2: Activate remote start by the remote, input activation wire, or smartphone control.**

The system will chirp/flash lights to indicate engine type (Default: 1x = Gasoline).

**Step 3: Press valet to change engine type, if needed:**

The system will chirp/flash lights to confirm each selection.

1 chirp=Gasoline, 2 chirps=Diesel 15, 3 chirps=Diesel 20, 4 chirps=Diesel 30

**Step 4: Start the engine with the ignition key**

**Step 5: Turn the ignition key OFF**

The system will chirp/flash lights for the # of IGN/ACC/START circuits detected (Max: 4x).

**EXAMPLE:** If you connected the PINK, VIOLET, & ORANGE wires, the system should chirp 3x. If it only chirps 2x, one connection has a problem and should be checked. Then start over at Step 1 to retest.

**Step 6: Within 20 sec. of Step 4, Activate remote start. Wait until engine is running and LED is flashing slow.**

- The system will poll both data ports for modules using the DBI protocol. If they do not respond, it will automatically switch to iDataLink protocol.

- After the engine is running, the system will look for data tach & tach wire availability. If detected, the system will switch to that method. If not, it will remain in tachless-hi.

**Step 7: OPTIONAL: To enable Manual Transmission Reservation mode, release and set the parking brake.** (The BLACK/WHITE wire must be connected to the parking brake.)

System should chirp/flash lights 1x.

**Step 8: TO SAVE SETTINGS: Shut down RS by pressing the BRAKE pedal.**

This disables VEHICLE LEARN (installer feature #2).

**TO CANCEL/START OVER: Shut down RS by remote or input wire.**

## Tach Programming

When utilizing the tach wire circuit for engine detection, the vehicle's tach signal must be learned. After making the tach wire connection, perform the following steps:

**Step 1:** Turn the ignition key "ON".

**Step 2:** Within 5 seconds, press the brake pedal 5 times. (the siren/horn will chirp 5 times).

**Step 3:** Start the engine. The status light will turn on to indicate it has learned the current tach signal. If it does not light, check your tach connection & start this procedure again.

**Step 4:** If the engine has a high idle at startup, it may be necessary to allow the idle to "settle" to around 700 RPM. If needed, you can press the valet button 1 time to resample the tach signal. The status light will flash off then back on once the signal has been resampled.

**Step 5:** Turn the ignition key "OFF".

## Programming Transmitters

**Standard Programming:** Use this method to program additional or replacement transmitters.

**Step 1** Have all transmitters which are to operate the system at hand. Then, turn the ignition "on".

**Step 2** Within 5 seconds of turning on the ignition, press the Valet button 5 times. The horn will briefly sound, confirming that for the next 10 seconds the system is ready to learn a transmitter/controller code. To enter a code, simply press & release the "lock" button. When the first code is learned all existing stored codes will be erased.

**Step 3** Press the "lock" button (press "start" button for RS-260-EDPB) on each remaining transmitter one at a time. The system will chirp the horn once to confirm that each was learned.

The transmitter's other button functions will automatically be assigned when the "lock" button is learned. If a code is not received within a 10 second period, the learning process will automatically terminate, as indicated by another horn honk.

## Programmable Features

### **PROGRAMMING FEATURES**

A matrix of all programmable features & their options are on the next page. For detailed information on each feature, please refer to the operation manual. Use the procedure below to make any necessary changes.

**NOTE:** You can program features via your computer with Omega Weblink. Visit [www.omegaweblink.com](http://www.omegaweblink.com) for more information.

#### **TO MANUALLY CHANGE FEATURES:**

**Step 1** Turn the ignition key "ON", then "OFF".

**Step 2** Within 5 seconds of step 1, press the valet button 5 times to access user features (Press 10 times to access installer features).

~ The siren/horn will sound & the status light will flash.

**Step 3** Within 10 seconds of step 2, press the valet button the number of times corresponding with the desired feature's number.

~ The siren/horn will chirp equal to the selected feature.

#### **Step 4**

**4-button & 2-way MODELS:** Change the feature by pressing the transmitter button that corresponds with the desired setting.

**1-button MODELS:** Change the feature by pressing the transmitter button OR brake pedal the same number of times that corresponds with the desired setting (make all presses before hearing any chirps). **NOTE: some cars require the ignition to be on for the brake circuit to operate. In this case, turn on the ignition before pressing the brake.**

~ The siren/horn will chirp equal to the selected setting.

**Step 5** If you wish to change more features, repeat steps 3 & 4 at this time.

**Step 6** To exit programming, turn the ignition key "ON" then "OFF". Or, it will exit automatically after 10 seconds of no activity.

#### **RESTORING FEATURE SETTINGS TO FACTORY DEFAULT:**

**Step 1** Enter Installer Feature programming (DO NOT SELECT ANY FEATURES).

#### **Step 2**

**4-button & 2-way MODELS:** Press LOCK + UNLOCK (or BRAKE x 5)

**1-button MODELS:** Press the START button 5 times (or BRAKE x 5)

~ The siren/horn will sound to indicate reset & exit programming

This device complies with FCC Rules part 15. Operation is subject to the following two conditions, (1) This device may not cause harmful interference &, (2) This device must accept any interference that may be received, including interference that may cause undesired operation.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

**User Feature Programming: Ignition on, off, press valet 5 times**

# Feature	Lock Button (Brake 1x)	Unlock button (Brake 2x)	Trunk button (Brake 3x)	Start button (Brake 4x)	Lock + Unlock (Brake 5x)	Trunk + Start (Brake 6x)
1 Remote Start Run Time	3 min	10 min	15 min	20 min	30 min	
2 Flashing Light Confirmations	Unlock: ON RS: ON	Unlock: ON RS: Flash	Unlock: Flash RS: ON	Unlock: Flash RS: Flash		
3 Confirmation Chirp Volume	Low	Med-Low	Med-High	High		
4 BROWN Wire: Siren / Pulsed Horn	Pulse LOW	Pulse MED	Pulse HI	Steady Siren	Random	
5 Ignition Lock / Unlock	Off	Ign On = Lock	Ign. Off = Unlock	Lock + Unlock		
6 Door Open Bypass for Feat. #5	On	Off				
7 Unlock w/ Trunk Release	On	Off				
8 RS Activation (Remote)	Start x 1	Start x 2	Start x 3	Start x 4		
9 Last Door Arming	Off	On w/o Lock	On w/ Lock			
10 Automatic Rearming	Off	On w/o Lock	On w/ Lock	Enhanced		
11 Confirmation Chirps	Siren + Horn	Siren Only	Horn Only	On Demand	Off	
12 Anti-Carjacking	Ignition	Door	Ignition + Door	Off		
13 Override Code	See operation guide for programming instructions. DEFAULT: 1,0					
14 Ignition Override	On	Off				
15 Alarm Trigger Duration	30 sec	60 sec	90 sec	120 sec		
16 Arming Delay	3 sec	15 sec	30 sec	45 sec		
17 Open Door Warning Upon Arming	On	Off				

**CONVENIENCE**
**SECURITY**
**Installer Feature Programming: Ignition on, off, press valet 10 times**

1 RS Activation (WHITE/BLUE wire)	1 Pulse	2 pulses	3 pulses	4 pulses		
2 Vehicle Learn	Enabled	Disabled				
3 Engine Detection	Prog. Voltage	Voltage	Tach Wire	Data-tach	Crank Only	
4 Gasoline or Diesel Engine	Gasoline	15 sec Diesel	20 sec Diesel	30 sec Diesel		
5 Light Relay Function	Dome Light	Start	Ignition	Accessory	Status	Light Flash
6 Blue Sat Port BLUE Wire	Ignition	Status	0.8 sec Defrost Pulse	10 min Defrost Pulse	Pulse After Engine Off	Horn
7 Crank Time	0.75 sec	1 sec	1.5 sec	2.25 sec	3 sec	Average
8 Door Lock/Unlock Outputs	0.8 sec	3 sec	Double Unlock	Total Closure		
9 Remote Start Lock Control	Off	Lock after Start	Unlock before Start	Lock + Unlock	Lock After Engine Off	
10 Turbo Timer	Off	1 min	2 min	3 min		
11 Manual Transmission Reservation	On	Off				
12 Data Port Protocol	Green: DBI Black: DBI	Green: iData Black: iData	Green: DBI Black: iData	Green: iData Black: DBI		
13 Alarm Functions	On	Off	Off-Unlock Only	Sensor Detect		
14 Pulse Ign. on Disarm	On	Off				
15 Lock On Prewarn	On	Off				
16 Starter Interrupt	Alarm Only	Anti-grind Only	Alarm/Anti-Grind	Automatic		
17 Low Temp Crank Extender	0 ms	200 ms	300 ms	400 ms		
18 Arm/Disarm or CH. 4/5	Arm/Disarm	Arm/CH. 5	CH. 4/Disarm	CH. 4/CH.5	CH4 Latch/ Disarm	CH4 Latch/ CH5 Pulse
19 Horn Relay Function	Horn	Ignition	Trunk Release	Pulse After Start		
20 Low Current Mode	On	Off				

**INSTALLER ONLY**
**FEATURE SETTING KEY:**
**Default Setting**
**Default For "RS" Models When Different**

