BACK COVER
PRINTER'S NOTE:
production back cover is to be printed with gray scale front cover; this is a place marker cover.

OMEGA®
RESEARCH AND DEVELOPMENT, INC.

MAX-EDP

INSTALLATION INSTRUCTIONS

FRONT COVER
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production front cover is gray scale; this is a place marker cover.

Contents

The Omega MAX-EDP may be easily upgraded into a 2-way system, with the Omega Echo-2. The Echo kit includes full installation and operating instructions for adding and using the 2-way controller.

The Omega MAX-EDP's transmitters are pre-programmed at the factory to operate the system. If adding or replacing transmitters, or adding the optional 2-way Echo controller, **please see the Operation Guide booklet for Transmitter and optional Controller programming**.

Omega Disclaims Any Responsibility or Liability In Connection With Installation.

Complete Programmable Features Matrix

	USER Features	Ignition on, off, then press Valet Switch **5** times (**RED** Status Light).			
#	**Feature**	**Default Setting**	**Option**	**2nd Option**	**3rd Option**
1	SecureCode	1 & 0	2 stages, of up to 9 presses each (total of 99 possible combinations)		
2	Last Door Arming	OFF (L)	ON w/o doorlock (U)	ON w/ doorlock (2)	
3	Automatic Rearming	OFF (L)	ON w/o doorlock (U)	ON w/ doorlock (2)	
4	Starter Interrupt Functions	Alarm only (L)	Off (U)	Automatic (2)	Alarm+AntiGrind (3)
5	Ignition Activated Override	OFF (U)	ON (L)		
6	Doors Lock With Ignition On	ON (L)	OFF (U)		
7	Doors Unlock With Ignition Off	ON (3)	OFF (L)	o/p 1 only (U)	o/p 2 only (2)
8	Open Door Bypass to above	ON (L)	OFF (U)		
9	Confirmation Chirps	ON (L)	OFF (U)	exc. Valet (2)	Valet only (3)
10	Confirmation Chirp Volume	Medium Loud (2)	Low (L)	Med Lo (U)	Loud (3)
11	Activated Alarm Cycle	30 Seconds (L)	60 Sec. (U)	90 Sec. (2)	120 Sec. (3)
12	Lights On Upon Disarm	ON (L)	OFF (U)		
13	Disarm Upon Trunk Release	ON (L)	OFF (U)		
14	Arming Delay	3 Seconds (L)	15 Seconds (U)	30 Seconds (2)	45 Seconds (3)
15	Steady Siren / Pulsed Horn	Steady Siren (L)	Pulsed Horn Lo (U)	Pulsed Med. (2)	Pulsed Hi (3)
16	Alarm Functions Bypass	OFF (U)	ON (L)		
17	Ignition Anti-Carjacking	OFF (U)	ON (L)		
18	Door Anti-Carjacking	OFF (U)	ON (L)		
19	Remote Anti-Carjacking	OFF (U)	ON (L)		
20	Open Door Warning at Arm	OFF (U)	ON (L)		
21	III Button Operation	Panic (L)	3rd Chan. (U)	4th Chan. (2)	5th Chan. (3)
22	Remote Start Run Time	10 Min. (U)	5 min. (L)	15 min. (2)	20 min. (3)
23	Steady/Flash Lights Rem. Start	Steady (L)	Flashing (U)		
	INSTALLER Features	Ignition on, off, then press Valet Switch **10** times (**GREEN** Status Light).			
1	Doorlock Functions	.8 second (L)	3 Seconds (U)	Double Unlock (2)	Total Closure (3)
2	Light Relay Functions	Dome Light (L)	Lock (U)	Ignition (2)	Accessory (3)
3	Horn Relay Functions	Horn, med. (L)	Unlock (U)	Ignition (2)	Accessory (3)
4	Turbo Timer	OFF (U)	ON (L)		
5	Manual Trans. Remote Start	OFF (U)	ON (L)		
6	"Tach Wire" or "Tachless "	Tachless (L)	Tach (U)		
7	Ext. Starter Cranking Time	.7 (minimum) (L)	1.25 (U)	1.75 (2)	2.5 (maximum) (3)
8	Remote Start Relay	Ignition (L)	Accessory (U)	Starter (2)	
9	Arm/Disarm or Add. Chan.	Arm/Disarm (L)	Arm/Ch. 5 (U)	Ch. 4 / Disarm (2)	Ch. 4 / Ch. 5 (3)
10	Gasoline or Diesel Engine	Gasoline (L)	Diesel (U)		

Programming Features

Step 1	Turn the vehicles's ignition on.
Step 2	Turn the ignition off.
Step 3	Within 5 seconds, Press & Release the Valet Switch **5** times for User Programming (**Red** Status Light) OR **10** times for Installer Programming (**Green** Status Light)

- The siren will chirp then sound briefly and the Status Light will flash to confirm that the system is entering Programing Mode.
- In the case of accessing the Installer Mode, the siren chirp then brief sounding will be heard at the fifth valet switch press, and then again at the tenth valet switch press.
- The Status Light shows red color for User Programming, and Green color for Installer programming.
- In either Programming Mode, if 10 seconds of no programming activity occurs, the system will exit Programming Mode.

Access a Feature:

Step 4	Within 10 seconds, Press & Release the Valet Switch the same number of times as the desired feature's number.

- The siren will chirp and the Status Indicator Light will flash as many times as the Valet Switch was pressed to indicate the feature number accessed.

Change the Feature:

Step 5	After accessing the desired feature, within 10 seconds Press & Release the appropriate controller or transmitter button.

- Pressing the "**arm/lock**" button typically turns the feature on; or sets the feature's first option. The siren will chirp once when this button is pressed.
- Pressing the "**disarm/unlock**" button also typically turns the feature off; or, sets the feature's second option. The siren will chirp twice.
- Many features have third, and even fourth setting options. Pressing the "**II**" and "**III**" buttons select these options. Confirmation chirps when these buttons are pressed are three and four chirps respectively.

To Access and Change further Features:

Step 6	If there are more features to be programmed, within 10 seconds of the previous action Press & Release the Valet Switch the same number of times as the next desired feature's number.

- Again the siren will chirp and the Status Indicator Light will flash as many times as the Valet Switch was pressed to indicate the new feature number which is now accessed. Then use the controller or transmitter as described in Step 5 to change the newly accessed feature as desired.

Step 7	Allow 10 seconds to pass without performing any programming actions, or turn the vehicle's ignition on.

- The siren will sound briefly and the Status Indicator Light will go out.

- IMPORTANT -

Please carefully read these instructions before starting the installation of the Omega MAX-EDP. The numerous wiring connections required, and the options offered by several of the programmable features makes pre-planning the installation critical.

The included hood pin switch MUST be installed.

If this unit is installed on a manual transmission vehicles, the installation instructions and operating procedure MUST be followed as described.

The remote engine starting feature should not be used when the vehicle is parked in an enclosed structure or garage!

More complete instructions for programming transmitters and features may be found in the Operation Manual.

Installation Considerations

Before Starting The Installation: This entire booklet should be read before starting the installation. An understanding of which control module wires are to be used and their functions is essential. Installations will vary from car to car , as some control module wire connections are required, while others are optional. Before starting the installation, it should be determined which control module wires will be used. Most installers will list these wires, then "map out" the installation by locating and noting the target wires in the vehicle. This will also determine the best location for the control module, which is mounted upon completion of the installation and testing of the system.

For remote starting operation, the Omega MAX-EDP duplicates, with on-board microprocessor control circuitry and relays, the same actions that occur within the ignition switch as when the key is used to start the engine. Because of this, most of the main wiring harness connections will be made at the ignition switch harness, which is typically located around the steering column area.

CAUTION! Avoid the Airbag circuit! Especially avoid any harness or wires encased in Yellow or Red tubing or sleeves. Do not use a standard test light, as it can deploy an airbag or damage on-board computers and sensors if the wrong circuits are probed. A Digital Multimeter (DMM) should be used.

Mounting The Control Module: The Control Module contains the necessary electronics required for the system's operation. Always mount this module in the vehicle's interior compartment, in a secure location that is not easily accessible. Ensure that moisture, vibration and temperature extremes are minimized. Acceptable locations include mounting behind the dash, behind the glovebox or other interior panels.

Mounting The Remote Receiver: The Omega MAX-EDP has remotely-mounted receiver for superior range. The receiver unit may be mounted directly to an interior glass by utilizing the attached adhesive pad (clean and prepare the glass before adhering). If a hidden location is desired, the receiver should be placed as high as possible in the vehicle, avoiding metal parts and wiring harnesses. An optional upgrade, the Omega Echo, can replace the receiver and add 2-way operation to the MAX-EDP.

Status Light and **Valet Switch Holder:** This assembly contains the Status Light, and Valet Switch. Mount the assembly in a location where it can easily be seen by the driver, and preferably where it can be seen from outside, as the Status Light provides a level of visual deterrence. Two mounting methods are provided: double-sided adhesive tape, and two screws. If using the adhesive tape, properly prepare the mounting surfaces to ensure good adhesion. If using the screws for a more permanent mounting, install the screws (avoid overtightening and check behind the mounting location for obstructions), then snap the assembly halves together. Carefully route the wiring harness to the control module to avoid any chances of it being chafed or pinched, then plug the connectors into the appropriate ports.

Optional Customized Status Light & Valet Switch Mounting: The Status Light and Valet Switch may also be independently custom-mounted. The Valet Switch is backed by an adhesive pad; be sure to clean and prepare the mounting location surface for the best adhesion. The Status Light may be mounted into an interior trim panel in the vehicle by drilling a 9/32" hole; carefully check behind the desired mounting location for adequate depth and no hidden obstructions.

Mounting The Electronic Siren: The electronic "2-n-1 Psycho Siren" must be mounted external to the vehicle, but not vulnerable. The engine compartment typically offers the best mounting location opportunities. See page 12 for

Time can be used for difficult-to-start engines. **This feature should only be programmed by the installer**.

Note: "Base timing" is the maximum time period that the MAX-EDP will engage the starter, but only if it does not detect the engine has started running.

Feature #8 Programmable Remote Start Relay

Factory Default Setting **Ignition Output**
(press "**arm/lock**" button to program)

Options:

Accessory Output (press "**disarm/unlock**" button to program)

Starter Output (press "**II**" button to program)

The Omega MAX-EDP features 4 dedicated remote start output relays, one of which is programmable (this is the unit's large blue output wire). Operation choices are ignition, accessory or starter power output. **This feature should only be programmed by the installer**.

Feature #9 Arm, Disarm or Additional Channels

Factory Default Setting **Arm / Disarm**
(press "**arm/lock**" button to program)

Options:

Arm / Channel 5 (press "**disarm/unlock**" button to program)

Channel 4 / Disarm (press "**II**" button to program)

Channel 4 / Channel 5 (press "**III**" button to program)

The MAX-EDP has outputs designed for arming and/or disarming a factory-equipped security system. These wires may be used instead to provide further system outputs, which are remotely operated by the controller or transmitter. These outputs are in addition to the 2nd channel and 3rd channel outputs, the operation of all of these outputs is explained on page 20, and in the Operation Guide.

As shown in the programming assignment, the arm, disarm, channel 4 and channel 5 are programmable as various combinations. For example, if the disarm output is needed, but not the arm output, then channel 4 may be made available for use.

Feature #10 Gasoline Or Diesel Engine

Factory Default Setting **Gasoline** (press "**arm/lock**" button to program)

Option: **Diesel** (press "**disarm/unlock**" button to program)

This feature changes the system's timing of the ignition and starter output sequence for remotely starting vehicles with a diesel engine. **This feature should only be programmed by the installer**.

Only after this is done will the system accept a remote start command, and the vehicle must remain undisturbed until that point. See the Operation Guide for complete instructions for remote starting, including Stick Shift Remote Starting. **This feature should only be programmed by the installer**, and the operation of this feature depends on the correct connection of the safety wire to the vehicle's parking brake. Please refer to the "Blue/White wire" on pages 10 and 11 for the proper connection of this important wire.

Note: Feature #4, Turbo Timer, and Feature #5, Stick Shift Remote Starting, may both be used together in the MAX-EDP.

Feature #6 "Tach Wire" or "Tachless" Starter Operation

Factory Default Setting **Tachless** (press "**arm/lock**" button to program)
Option: **Tach Wire** (press "**disarm/unlock**" button to program)

This feature selects the MAX-EDP processor's method of determining the status of the engine running during remote start operation. As explained in the previous feature's description, "Tachless" mode has an associated base starter output time duration. However, if the voltage fluctuation is detectable, the processor adjusts the starter output time accordingly. When this feature is set for "Tach Wire" operation, the base starter output increases to 3 seconds, but the processor adjusts the actual starter engagement time accordingly. Connecting and use of the "Tach Wire" is the most reliable form of engine running information input, and its use is recommended. **This feature should only be programmed by the installer**.

Important: Before this feature is programmed, please refer to the "Black/Yellow wire" on page 11 for proper wiring connection, and the Tach Learning Procedure on page 12.

Feature #7 Extended Starter Cranking Time

Factory Default Setting **Minimum (.7 Second)**
(press "**arm/lock**" button to program)

Options:
Medium Lo (1.25 Second) (press "**disarm/unlock**" button to program)
Medium Hi (1.75 Second) (press "**II**" button to program)
Maximum (2.5 Second) (press "**III**" button to program)

Extended Starter Cranking Time operates in conjunction with the previous feature's "Tachless" setting. The MAX-EDP processor is capable of detecting the running engine by two separate methods- the use of the vehicle's tachometer ("tach") wire for a direct engine RPM input, or by monitoring the vehicle's fluctuating voltage levels caused by the starting process. This feature sets the duration of the starter output's base timing for the voltage sensing type of starter output operation. There are four different base starter output settings. While the default-set minimum is sufficient for most vehicles; the Extended Starter Cranking

specific mounting and connection details.

Optional Vehicle Horn Connection: The Omega MAX-EDP has a programmable onboard relay which allows the vehicle's existing horn to used in conjunction with, or in place of, the electronic 2-n-1 psycho siren. The connections for this relay output is on pages 18 and 19.

Data Port for IntelliKit Modules & Bypasses: Omega IntelliKit data bus interface modules and bypass kits simply plug into this port. These data-to-data (D2D) accessory products save time, and in many cases offer the only acceptable interface means for many newer vehicle's doorlocking system and/or for the OEM-antitheft bypass when adding an alarm or remote starting. Omega offers the industries most comprehensive line of these products (go to www.caralarm.com for latest application guide), and each includes its own vehicle-specific instructions.

Dual Auxiliary Sensor Ports: The MAX-EDP has two ports, for easy plug-in addition of a further optional sensor beyond the included impact sensor. Each of the ports is dual-zoned: the first zone will respond by chirping the siren only; and the second zone will fully trigger the system, and both have identical layout and operation. The included dual-zone impact sensor is packaged with its own instruction sheet, as are all optional Omega sensors which can be added.

Remote Start Relay Capability & Satellite Ports: The MAX-EDP features 4 built-in high-amperage relays; one of these is even programmable. And there are two further forms of additional remote starting output capability- dual plug-in ports for optional outboard relays (start, accessory and 2 ignitions); and, the on-board medium-amperage programmable relays may be programmed and used for remote starting purposes if desired. See page 28 for specifics.

Power Doorlock Port, or Internal Relays: The unique flexibility of the MAX-EDP is also found in multiple options for interfacing with the vehicle power doorlocks. The standard means is via the Omega "DLS" port, which can accept all Omega analog doorlocking accessories (dual, triple relay sockets, or the modular clip-on add-on relay packs) and direct-wire basic 3-wire Negative pulse doorlocking systems. All Omega doorlocking data bus module accessories can be driven by either this port, as D2D via the Data Port. And finally, the MAX-EDP's internal programmable relays can reconfigured from the default settings, if desired, to instead be onboard power doorlock relays.

The DLS port offers two unlocking outputs, so that driver's door priority unlocking can be configured. The internal relay options are lock and unlock only.

Backup Battery: The MAX-EDP has a backup battery capability. Included are the needed wiring harness and slide-on clip mounting bracket for an optional 9 volt battery. If the system loses vehicle power it will revert to operating with basic security functions, if the backup battery is installed.

Wiring Connections

- NOTE -

The following sections detail connections for each wire, of each the system's wiring harnesses. Always insure that the Black ground wire is grounded, and that the secondary wiring harness is plugged in, before connecting power circuits to the control module. The best installation procedure is to make all connections, and only then plug the individual wiring harness into the system control module.

Main Wiring Harness (LARGE 6-Wire Connector)

Red & Red/White Wires - (Constant Power Input): The Red and Red/White wires supply constant Positive 12 Volts for the system's operation. These wires must be supplied sufficient amperage.

CONNECTION: Connect these wires to Positive battery voltage; both wires must be connected. One source is the battery's Positive terminal, and another potential source is the power supply wires at the ignition switch.

If the battery is selected as the power source, and the Red and Red/White wires must extended, the added wire must be at least the same gauge, or preferably heavier, than the Red and Red/White wires. Carefully route the wires through the firewall, using an added or existing grommet. Avoid any hot or moving parts.

Some vehicles have a single Constant 12 Volt circuit supplying the ignition switch, while others have multiple supply circuits. A schematic of the car's electrical system will show which of these is the case. The Red and Red/White wires may both be connected to a single supply wire, or distributed between multiple supply circuits.

In either case, the included fuse holders and 30 amp fuses must be used. The fuse holders should always be close to the power source connection, not the control module. Remove the 30 amp fuses before making the holders' connections, and only reinsert them after all of the other wiring connections have been made. **Caution! The use of the 30 amp fuses and the fuse holders are required! Failure to properly install the fuse holder and the 30 amp fuse will void all warranties.**

Feature #3 Horn Relay Functions

Factory Default Setting — **Horn Output** (press "**arm/lock**" button to program)

Options:

Door Unlock (press "**disarm/unlock**" button to program)
Ignition Output (press "**II**" button to program)
Accessory Output (press "**III**" button to program)

This is the second of two built-in relays which can be programmed to perform several different functions. The primary function of this second relay, is that it is available to operate the vehicle's existing horn; either in conjunction with the electronic siren, or in place of the siren. Using both the siren and the horn creates an extremely effective security system.

Optionally, if desired or needed, this relay can be programmed to be a door unlock relay, or as additional medium-capacity ignition or accessory outputs, if needed for remote starting use.

Feature #4 Turbo Timer

Factory Default Setting — **Off** (press "**arm/lock**" button to program)

Options:

Run 1 Minute (press "**disarm/unlock**" button to program)
Run 2 Minutes (press "**II**" button to program)
Run 3 Minutes (press "**III**" button to program)

This feature when turned on configures the MAX-EDP to automatically keep the engine running briefly after it is turned off. This operation is designed specifically for vehicles having turbocharged engines (the user may temporarily bypass the feature if desired).

This feature should only be programmed by the installer, and the operation of this feature depends on the correct connection of the safety wire to the vehicle's parking brake. Please refer to the "Blue/White wire" on pages 10 and 11 for the proper connection of this important wire.

Feature #5 Stick Shift Remote Starting

Factory Default Setting — **Off** (press "**disarm/unlock**" button to program)
Option: **On** (press "**arm/lock**" button to program)

This feature changes the parameters of the MAX-EDP's remote start operation to be suitable for manual transmission-equipped vehicles via a "setup" procedure which must be followed upon exiting the vehicle. When this feature is turned on, the operator must set the parking brake and then press the controller or transmitter's "**arm/lock" and** "**disarm/unlock**" buttons at the same time, which keeps the engine running after removing the ignition key. After exiting, the user must then arm the system, locking the vehicle doors, by pressing the "**arm/lock**" button.

- The first setting (programmed by the "**arm/lock**" button) has the system produce both the lock and unlock outputs as .8 second in duration. This is the most common form of output needed, which interfaces most vehicles.
- The second setting (programmed by the "**disarm/unlock**" button) changes the lock and unlock outputs to be a longer 3 second pulse output. This is for certain vehicles which require a longer output pulse from the system's control unit; typically cars having vacuum pump systems, although the longer setting is also more suitable in some newer vehicles.
- Some newer vehicles require a double pulse output to remotely unlock the doors and/or to disarm a factory-equipped security system, which is what the Double Pulse Unlock setting provides (it is programmed by the "**II**" button). The lock output pulse, in this setting, is .8 second.
- The Total Closure Lock Output (programmed by the "**III**" button) may be used with vehicles which are originally equipped with the total-closure feature. Typically, a total closure feature is when locking the vehicle's doors if the key in the door is held to "lock" for a period of time the vehicle will close all windows and the sunroof, in addition to locking the doors.
  Selecting this feature setting changes the system's door lock output pulse from a .8 second to as long as a 28 second duration output. The unlock output is 3 seconds in this setting.

  Note: When this feature is turned on, during the 28 second period after arming the system, the lock output can be stopped on demand by pressing the "**arm/lock**" or "**disarm/unlock**" button. Only the output will stop- pressing either button again will normally operate the system, and at any time after the 28 second lock output period ends.

If either of the programmable relays are set for lock or unlock operation (the next two Installer Programmable Features), the settings if this feature will operate the programmable relays accordingly, in addition to the primary system doorlocking outputs.

Feature #2 Light Relay Functions

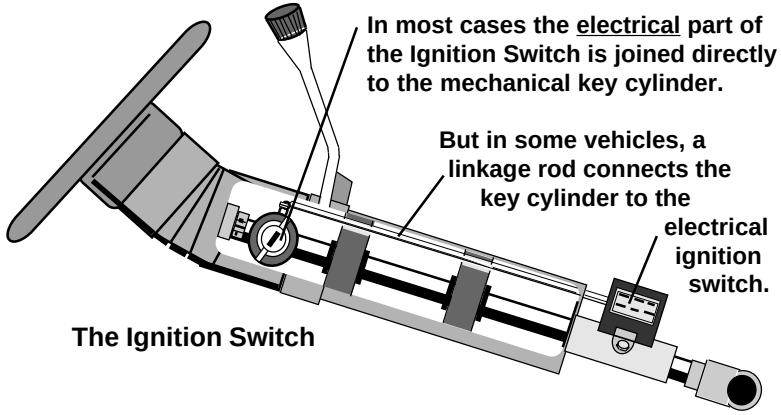
Factory Default Setting	**Dome Light Output** (press "**arm/lock**" button to program)
Options:	
Door Lock	(press "**disarm/unlock**" button to program)
Ignition Output	(press "**II**" button to program)
Accessory Output	(press "**III**" button to program)

The Omega MAX-EDP has two built-in relays, which can be programmed to perform several different functions. The primary function of this relay, is to operate the vehicle's dome, or interior lighting as part of the system's operations. Optionally, if desired or needed, this relay can be programmed to be a door lock relay, or as medium-capacity ignition or accessory outputs, if needed for remote starting use.

Yellow Wire - (Ignition #1 Input/Output): This connection is critical to the proper operation of many of the security system's features. The Yellow wire is an ignition "on" input to the security system and it is an output, as during remote starting operations it supplies 12 Volts Positive to the vehicle's ignition circuit.

When remote starting, this output stays active while the starter is engaged, and continues to supply power to the ignition circuit for the duration of the remote start engine run period. If the system detects a violated safety circuit, receives a transmitter command to stop running, or if the programmed run time expires, this output will stop supplying power, which stops the running engine.

CONNECTION: This wire must be connected to the vehicle's Ignition #1 (also known as Primary Ignition) wire. The proper vehicle wire will measure Positive 12 Volts when the ignition key is in the "Run" and "Start" positions and no voltage in the "Off" and "Accessory" positions. This wire is found in the ignition switch wiring harness. If two or more Primary Ignition wires are present, an optional dual relay socket and one or two relays may be used on the additional wire(s). If more than three Primary Ignition wires are present, use the system's Blue Ignition (programmable) output wire for the second vehicle ignition. If more than two vehicle primary ignition circuits are present, additional optional relays may be used, which are plugged into the Satellite Relay Port(s). The system's internal relays may be reprogrammed, to operate ignition or accessory circuits **not exceeding 10 amps**.



White Wire - (Accessory Output): The White Accessory wire's operation differs from the Yellow Ignition #1 wire's operation. When remote starting, this output supplies 12 Volts Positive to the vehicle's chosen circuit as soon as remote starting is activated, but stops while the starter is engaged. Once the engine starts and the starter disengages, this wire returns to having 12 Volts Positive output. From this point in the remote starting cycle the White wire continues to

supply power to the chosen vehicle circuit for the duration of the remote start engine run period.

CONNECTION: Connect this wire to the vehicle's Accessory wire. This circuit in the vehicle can vary in its function. Typically, its primary function is to supply power to the Heat, Ventilation and Air Conditioning (HVAC) system. The connection point for this wire is also found in the ignition switch wiring harness. In some cases the correct vehicle wire will show Positive 12 Volts in the "Run" and "Accessory" ignition key positions but in other vehicles it will show the voltage only in the "Run" ignition key position. This output should not be used if the vehicle's wire also shows voltage when the ignition key is in the "Start" position.

Green Wire - (Starter Output): When remote starting, this output supplies 12 Volts Positive to the vehicle's starter circuit. The Green wire is best connected when installing the starter interrupt circuit. Its connection point must be on the starter side of the interrupt, not the Ignition Switch side. This is easily accomplished when installing the starter interrupt by combining the Green Starter Output wire with the starter interrupt's White wire and then connecting both of these wires to the starter side of the cut vehicle wire. This is explained in further detail on the next page.

CONNECTION: The Green wire connects to the vehicle's Starter wire, after the starter interrupt. **See pages 9 & 10 for specific instructions.** The vehicle starter wire will show Positive 12 Volts when the ignition key is in the "Start" position only. This wire is found in the ignition switch wiring harness, and it is important to make this connection on the ignition switch side of, and not on the starter side of, the neutral safety switch.

Some vehicles have a second Starter wire known as a "Cold Start" wire. When this second wire is present, there are several options. If the two Starter wires are the same circuit, both of them may be connected to the MAX-EDP Green wire. If the two Starter wires are separate circuits, an additional relay may be configured, from the Satellite Relay Port; or the Blue ignition output may be reprogrammed as a start wire and used.

Blue Wire - Programmable Relay Output (default Ignition; options Starter or Accessory): This large Blue wire is the fourth of 4 onboard relays which are dedicated remote starting outputs. However, this output is different, in that it is programmable, by Installer Feature #8. This output is factory default-set for Ignition operation, or, it may be reprogrammed to operate as an Accessory output or as a Start output.

CONNECTION: As needed. If used as its default Ignition setting, connection is similar to that of the Yellow ignition output wire. If it is changed, if set as an Accessory output connection is similar to the White wire; and if set as a Start output connection is similar to the that of the Green wire.

The Installer Programmable Features

Installer Programmable Features should only be used by the original or other qualified installer, AND individual Installer Features should only be used, where applicable, with the correct wiring connections.

The second group of features, the Installer Programmable Features, are accessed as the second level of features' programming, which is pressing the Valet Switch 10 times instead of 5 times when entering Programming Mode (page 42). **Caution: These features have a critical affect upon the system's operations, and in many cases, also upon the system's wiring connections. These features should NEVER be changed, except by the installer or other qualified professional.** This booklet should be consulted for the proper wiring connections, as associated with these programmable features.

The Omega MAX-EDP's 10 **Installer Programmable Features**:

1 Doorlocking Functions
2 Light Relay Functions
3 Horn Relay Functions
4 Turbo Timer
5 Manual Transmission Remote Starting
6 "Tach Wire" or "Tachless" Starter Operations
7 Extended Starter Cranking Time
8 Programmable Remote Start Relay
9 Arm, Disarm or Additional Channels
10 Gasoline or Diesel Engine

Use the step-by-step instructions on page 42 to change any of the Installer Programmable Features, along with the feature's option choices and related programming controller/transmitter button assignment found in the following individual feature descriptions.

Feature #1 Doorlocking Functions

Factory Default Setting **.8 Second Lock & Unlock Output**
(press "**arm/lock**" button to program)

Options:

3 Second Lock & Unlock Output (press "**disarm/unlock**" button to program)
Double Pulse Unlock Output (press "**II**" button to program)
Total Closure Lock Output (press "**III**" button to program)

This single feature gives the installer several needed options, to match the MAX-EDP's doorlocking outputs to suite different vehicle requirements.

Option: **On** (press "**arm/lock**" button to program)
When this feature is turned on, if one of the vehicle's doors is open at the time that the system is armed via the controller or transmitter, the siren will chirp 3 times and the parking lights will flash 3 times instead of once.

Feature #21 "III" Button Operation

Factory Default Setting **Panic**
(press "**arm/lock**" button to program)
Options:
3rd Channel (press "**disarm/unlock**" button to program)
4th Channel (press "**II**" button to program)
5th Channel (press "**III**" button to program)
This feature changes how the controller's or transmitter's "**III**" button operates. Normal operation, or the default setting, has the "**III**" button operate the Panic feature. This feature allows changing it to instead operate the 3rd channel or either of the two other optional channel outputs. Panic can still be operated, by the alternative methods of pressing either the "**arm/lock**" and "**disarm/unlock**" button for 3 seconds.

Feature #22 Remote Start Run Time

Factory Default Setting **10 Minutes**
(press "**disarm/unlock**" button to program)
Options:
5 Minutes (press "**arm/lock**" button to program)
15 Minutes (press "**II**" button to program)
20 Minutes (press "**III**" button to program)
This feature sets the period of time that the engine will run after being remotely started. If the engine is not stopped by controller/transmitter command or a safety circuit violation, the engine will automatically stop upon the expiration of the selected time period. **Caution: The remote engine starting feature should NEVER be used when the vehicle is parked in an enclosed structure or garage.**

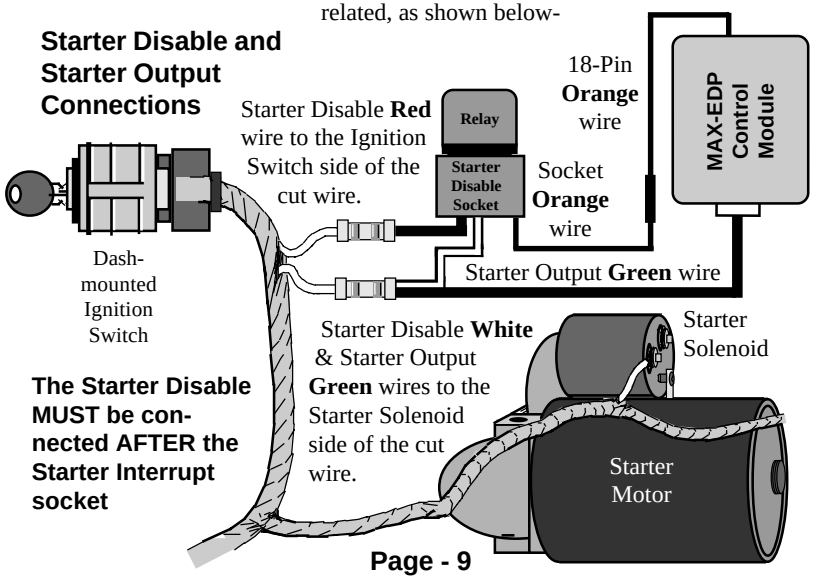
Feature #23 Steady/Flashing Lights During Remote Start

Factory Default Setting **Steady** (press "**arm/lock**" button to program)
Option: **Flashing** (press "**disarm/unlock**" button to program)
This Feature configures the system's operation of the vehicle's parking lights when the engine is running after it has been remotely started. The factory default setting has the parking lights illuminating steady during the engine run time; the other setting flashes the parking lights on and off during the engine run time.

Secondary Wiring Harness - (18-Wire Connector)

Black Wire - (Ground): The Black wire provides Negative ground for the system; proper connection of this wire is very important.
CONNECTION: Using the correctly sized crimp-on ring terminal, connect the Black wire to the metal frame of the vehicle, preferably using an existing machine-threaded fastener. Make sure that the ring terminal attached to the Black wire has contact with bright, clean metal. If necessary, scrape any paint, rust or grease away from the connection point until the metal is bright and clean. If the control module has an insufficient ground connection, the security system can find partial ground through the wires that are connected to other circuits, and function, but not correctly. As the system can partially operate, a bad ground wire connection would not likely be suspected, and in many cases a poor ground is difficult to diagnose.

Orange Wire - (Negative Output While Armed); Includes the thick Red & White Wires attached to the relay socket - (Starter Interrupt): The Orange wire is a starter interrupt output, which is active when the security system is in an armed state, and it is also active during remote start operation as an anti-starter grind feature (if programmed- see User Feature #3).
CONNECTION: Make the starter interrupt and starter output (thick Green wire) connections together- both connections points are related, as shown below-



Connect the 18-pin connector's Orange wire to the Orange wire of the starter interrupt relay socket. Then make the connections which interrupt the vehicle's starter circuit- the starter wire must be located and cut. Cutting the vehicle's starter wire will result in two sides- the "ignition switch" side and the "starter solenoid" side. It is recommended that this connection be done as close to the ignition switch as possible. Use a Digital Multimeter (DMM) to find the correct wire.

CAUTION! Avoid the Airbag circuit! Especially avoid any harness or wires encased in Yellow or Red tubing or sleeves. Do not use a standard test light, as it can deploy an airbag or damage on-board computers and sensors if the wrong circuits are probed. A Digital Multimeter (DMM) should be used.

The starter wire will read Positive 12 Volts only when ignition key is in "start" position (cranking the engine). Cut this wire at a suitable location. Confirm that this is the correct wire by turning the ignition switch to the "start" position; the starter should not engage.

Connect the starter disable socket's Red wire to the ignition switch side. As mentioned in the previous section, connect both the Starter Output Green wire **and** the starter disable socket's White wire to the starter solenoid side. Be sure that good, solid electrical connections are made.

Red/Black Wire - (Positive Brake Input): The Red/Black wire must be connected. It is a critical safety feature which disables remote starting operations whenever the brake pedal is pressed.

CONNECTION: Connect the Red/Black wire to the brake switch wire that shows Positive 12 Volts when the brake pedal is pressed. The brake switch is typically located above the brake pedal, and usually mounted to the brake pedal support bracket. Always make this connection in a fashion ensuring its long-term reliability; soldering is highly recommended.

Always perform this test before testing the safety input (next section). Upon completing the installation, always test the Red/Black wire's operation. Attempt to remotely start the vehicle while holding the brake pedal depressed; the system should respond with one long and four short chirps. Release the brake pedal and remotely start the engine. Once running, pressing the brake pedal should stop the engine.

Blue/White Wire - (Safety Input): This circuit performs a critical safety function for remote start operations. It's connection depends on whether the vehicle has an automatic or manual transmission, as well as the use of the Turbo Timer feature and Manual Transmission Remote Starting feature.

AUTO TRANSMISSION CONNECTION: The target wire will show Nega-

applications is being used to sound the vehicle's existing horn. This feature changes only the primary audible output, so that it can be utilized to sound the existing horn by itself. This is for cases when the programmable relay is desired for other features, such as unlocking the doors, or as an additional ignition or accessory output should it be needed for the remote starting operation.

The Steady Siren setting is exactly that- a steady output which the electronic siren requires. When programming this feature for using the output for the vehicle's horn, the optional setting produce pulsed output on the system's siren wire, in three different pulse timings, which allow a degree of customizing of the horn's sound during the alarm activation.

Feature #16 Alarm Functions Bypass

Factory Default Setting **Off** (press "**disarm/unlock**" button to program)
Option: **On** (press "**arm/lock**" button to program)

This feature converts the system into a strictly Remote Keyless Entry System by eliminating all antitheft alarm-oriented operations and features. When this feature is programmed on, the MAX-EDP has remote keyless entry and engine starting operation only.

Feature #17 Ignition Activated Anti-Carjacking Protection

Factory Default Setting **Off** ("**disarm/unlock**" button to program)
Option: **On** (press "**arm/lock**" button to program)

This form of Anti-Carjacking is initiated by the ignition key being turned on. All 3 forms of Anti-Carjacking protection are described in the Operation Guide.

Feature #18 Door Activated Anti-Carjacking Protection

Factory Default Setting **Off** (press "**disarm/unlock**" button to program)
Option: **On** (press "**arm/lock**" button to program)

This form of Anti-Carjacking is initiated by a door being opened. All 3 forms of Anti-Carjacking protection are described in the Operation Guide.

Feature #19 Remote Activated Anti-Carjacking Protection

Factory Default Setting **Off** (press "**disarm/unlock**" button to program)
Option: **On** (press "**arm/lock**" button to program)

This form of Anti-Carjacking is initiated by a signal from the controller or transmitter. All 3 forms of Anti-Carjacking protection are described in the Operation Guide.

Feature #20 Open Door Warning Upon Arming

Factory Default Setting **Off** (press "**disarm/unlock**" button to program)

Feature #12 Parking Light Illumination Upon Disarm

Factory Default Setting **On** (press "**arm/lock**" button to program)
Option: **Off** (press "**disarm/unlock**" button to program)

This feature affects the parking light operation when the system is disarmed. When this feature is turned on, the parking lights flash once, and then turn back on for external illumination for 30 seconds unless the ignition key is turned on during that time. If this feature is turned off, the parking lights flash once only, and do not illuminate. This feature only affects the MAX-EDP's parking light operation, and not the interior light operation.

Feature #13 2nd Channel Also Disarms System

Factory Default Setting **On** (press "**arm/lock**" button to program)
Option: **Off** (press "**disarm/unlock**" button to program)

"2nd channel" is most commonly used to remotely open the vehicle's trunk, in which case the alarm should also disarm. This feature, turned on, configures the system to disarm when the 2nd channel is used. If turned off, the 2nd channel output will still occur, with 2 chirps, but without the parking light flashes; and if armed, the system will not disarm.

Feature #14 3 or 45 Second Arming Delay

Factory Default Setting **3 Seconds**
(press "**arm/lock**" button to program)

Options:
15 Seconds (press "**disarm/unlock**" button to program)
30 Seconds (press "**II**" button to program)
45 Seconds (press "**III**" button to program)

When the system is armed, whether by the controller, transmitter or by an automatic feature, there is a brief period of time in which a system activation, or alarm, cannot occur. This Arming Delay allows the system to completely process its sensory parameters, which can include the vehicle to stabilize. In some cases more time is needed than the factory-set 3 seconds, and this feature offers three longer delay options.

Feature #15 Steady Siren or Pulsed Horn

Factory Default Setting **Steady Siren**
(press "**arm/lock**" button to program)

Options:
Pulsed Horn Low (press "**disarm/unlock**" button to program)
Pulsed Horn Medium (press "**II**" button to program)
Pulsed Horn High (press "**III**" button to program)

It is important to understand that the MAX-EDP has a primary audible output, for the electronic siren; and that it also has a programmable relay which among its

tive Ground whenever the gear selector is in the "Park" or "Neutral" positions, and have voltage or be neutral when it is not. The target wire is typically at an electrical switch at the shifter base or on its linkage, and once it is located and verified securely connect the Blue/White wire to it.

Some vehicles do not have a grounding-type neutral safety switch, but instead route the starter circuit through a switch that is closed only when the gear selector is in the "Park" or "Neutral" positions; in other gear positions the switch is open, preventing the starter from engaging. In this type of vehicle, the Blue/White wire may be connected to the parking brake warning circuit.

MANUAL TRANSMISSION AND/OR TURBO TIMER CONNECTION: The target wire must have Ground when the parking brake is applied, and either has voltage or is neutral when the parking brake is not applied. This wire is typically at a switch on the base of the parking brake lever, or on the bracket above or about the parking brake foot pedal. Securely splice the White/Blue wire to the vehicle wire having the described characteristics. **Be sure to program as soon possible the Installer Feature #5 "Manual Transmission Remote Starting" and/or Installer Feature #4 "Turbo Timer".** The MAX-EDP will allow these two features to be used together.

Regardless of the type of connection, the vehicle must be tested to ensure that it cannot be remotely started in forward or reverse gears. Before returning the vehicle to the owner, place the vehicle in a parking lot or other open area. Sit in the driver's seat and be ready to apply the brake. **Automatic-** Engage the remote starter in each gear position. If this safety feature is connected properly, remote starting will only be possible if the gear selector is the "Park" or "Neutral" positions; in all other positions the system will instead respond with one long and one short chirp and the starter will not engage. **Manual-** First program Installer Feature #5, and then ensure that remote starting will not occur unless the presetting, exiting, lock the doors with the transmitter operation is done (see Operation Guide for the special procedure).
Never fail to perform this test! If a fault is found in the safety circuit operation, it must be corrected before returning the vehicle to the owner.

Black/Yellow Wire - (Tach-Sensing Input): The Black/Yellow wire is an engine speed or tachometer sensing wire. The system can use one of two different methods of monitoring the engine's starting/running status during the remote starting process- the Black/Yellow tach wire, and "tachless", or voltage sensing. The tach wire is typically more accurate in monitoring the engine status, and thus its use is recommended. If tach wire sensing is desired, make the proper wire connection, upon powering the unit and programming features Installer Feature #6 must be set for "Tach Wire", and then the tach wire "learn" procedure

must be performed.

CONNECTION: Connect the Black/Yellow wire to the vehicle's tach wire, which is typically found in the engine compartment, although in some cases it may also be located inside the vehicle. **Caution! Route this wire carefully to prevent its possible shorting to ground.** To use a multimeter to verify the correct tach wire, set it for AC Volts scale. The correct wire will read 1 to 6 volts AC with the engine idling, and the reading will increase when engine speed (RPM) increases.

TACH LEARNING PROCEDURE: As mentioned, the tach wire method is typically more accurate in monitoring the engine status, and a special "learning procedure" programs the tach signal to the MAX-EDP's microprocessor. The tach learning procedure should be performed after the installation has been completed, but before activating the remote start feature. To perform the procedure:

Step 1 Turn the ignition switch "on", then "off".
Step 2 Within 5 seconds, press the brake pedal 5 times.
Step 3 Use the key to start the engine; the siren will chirp to indicate the unit is in tach learning mode.
Step 4 When the Status Light turns Green the tach signal is learned. Turning the ignition "off" or pressing the brake removes the unit from tach learning mode.

Brown Wire - (Positive Siren Output): The Brown wire is a 1 Amp Positive output designed to operate the electronic siren for audible confirmations, and to sound if the alarm is triggered.

SIREN CONNECTION: The Brown wire may be connected directly to the siren's Red wire, and the siren's Black wire is connected to (-) Ground.

SIREN MOUNTING: Find a location in the engine compartment away from the extreme heat of the engine and manifold. A suitable location will offer a firm mounting surface, will also allow sound dispersion out of the engine compartment, and not be accessible to a thief. The siren must be pointed downward to avoid moisture getting inside it and to enhance sound dispersal.

SIREN CHIRPS: The siren itself can be set for loud or less loud confirmation chirps- cut the short Black wire loop on the siren for louder confirmation chirps. The confirmation chirps volume may also be adjusted to four different volume levels by User Programmable Feature #10. User Programmable Feature #9 turns the chirps off completely, or it can also set the system to only chirps in valet mode, or to chirp except when the system is in valet mode.

HORN CONNECTION: The Omega MAX-EDP can sound the vehicle's existing horn in addition to, or in place of, the electronic siren. Sounding the horn is accomplished by one of the programmable relays; see pages 18 and 19.

Off (press "**disarm/unlock**" button to program)
Chirps Excepting Valet Mode (press "**II**" button to program)
Chirps in Valet Mode Only (press "**III**" button to program)

This feature removes the system's 1 arming and 2 disarming confirmation chirps. When this feature is used to remove these chirps, the system will still have 3 chirps upon arming if a protected zone is violated, and still have 4 chirps upon disarming if the system was previously activated. Using this feature to turn off the arm and disarming chirps will also not affect the Prewarning operation, Unauthorized Transmitter Alert (if used), nor will it affect the chirps used when programming.

The other two settings will have the confirmation chirps operate only when the system is in Valet Mode, and not otherwise; or, the chirps will operate except when the system is in Valet Mode.

Feature #10 Confirmation Chirp Volume

Factory Default Setting **Medium High**
(press "**II**" button to program)

Options:
Low (softest) (press "**arm/lock**" button to program)
Medium Low (press "**disarm/unlock**" button to program)
High (loudest) (press "**III**" button to program)

This feature allows the choice of four different volume levels of the system's confirmation chirps, and when programming it, the buttons can be repeatedly and sequentially pressed, thus making it easy to hear and choose the setting with the best chirp volume.

This feature operates regardless of how feature #15, "Steady Siren" or "Pulsed Horn" is set.

Feature #11 Alarm Duration

Factory Default Setting **30 Seconds**
(press "**arm/lock**" button to program)

Options:
60 Seconds (press "**disarm/unlock**" button to program)
90 Seconds (press "**II**" button to program)
120 Seconds (press "**III**" button to program)

This feature allows four choices of the Alarm Duration, which is the period of time for which the system sounding the siren (and/or horn, optionally) and flashes the parking lights when it is triggered. **Caution: Before lengthening the Alarm Duration you should always check and determine if there are any local anti-noise or nuisance ordinances to avoid the possibility of the system user receiving a violation citation.**

Feature #6 Doors Lock With Ignition On

Factory Default Setting **On** (press "**arm/lock**" button to program)
Option: **Off** (press "**disarm/unlock**" button to program)

This feature configures the system to automatically lock the vehicle's doors every time that the ignition switch is turned on. An exception to this would be if feature #8 is turned on, and a door being open when the ignition switch is turned on. The following feature #7 controls the automatic unlocking operations, and feature #8 provides for an override of this automatic locking if a door is open when the ignition is turned on.

Feature #7 Doors Unlock With Ignition Off

Factory Default Setting **On (all doors will unlock)***
(press "**lll**" button to program)

Options:
Off (press "**arm/lock**" button to program)
Driver's Door Only* (press "**disarm/unlock**" button to program)
All Doors Except Driver's Door* (press "**ll**" button to program)

Similar to the previous locking feature, except this feature controls the unlock operations when the ignition is turned off, and it has more options because of the MAX-EDP's multiple unlocking outputs.

***Multiple unlock outputs offer the capability of unlocking only the driver's door when the system is disarmed (Driver Door Priority Unlocking), and then the option of unlocking all doors with a second press of the "**disarm/unlock**" button. **The driver's door unlocking differently from the other doors must be configured when the system is installed!**

If the system is installed without the Driver's Door Priority Unlocking interface, this feature unlocks all of the doors when the ignition switch is turned off. If Driver's Door Priority Unlocking is installed, this feature can control only the driver's door unlocking when the ignition is turned, all doors unlocking, or all doors except the driver's. The following feature provides for an override of this automatic unlocking if a door is open when the ignition is turned off.

Feature #8 Open Door Bypass of Ignition Locking

Factory Default Setting **On** (press "**arm/lock**" button to program)
Option: **Off** (press "**disarm/unlock**" button to program)

This feature cancels the automatic locking or unlocking of the vehicle's doors should one of the doors is open when the ignition switch is turned on or off.

Feature #9 Confirmation Chirps

Factory Default Setting **On**
(press "**arm/lock**" button to program)

Options:

White Wire - (Positive Flashing Light Output): This is a Positive 12 Volt output to flash the vehicle's parking lights for visual arming confirmation, to illuminate them for disarming confirmation, to confirm remote starting, and to attract attention while the system is activated. **The MAX-EDP also has a Negative version of this wire- see the following White/Black wire description.**

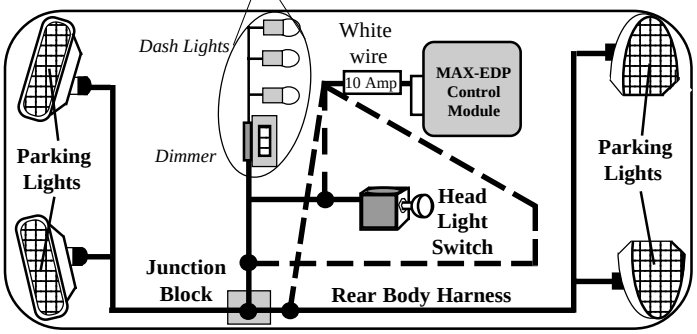
CONNECTION: Connect this wire to the vehicle's Positive 12 Volt parking light circuit, which can usually be found at the following locations: at the headlight switch, at the fuse/junction block, or in the rear body harness in the driver kick panel. Some vehicles have a parking light relay which is triggered by a Negative Ground circuit from the headlight switch; for these vehicles, use the White/Black Negative Flashing Parking Light output wire instead..

The correct wire will show Positive 12 Volts when the headlight switch is in the "Parking Light" and "Head Light" positions. When such a wire is located, also test to ensure that it is non-rheostated: meter the wire operate the dash light dimmer control; the correct wire will show no voltage change when the dimmer is operated.

Do not connect the White wire to a rheostated (dimmer) circuit! This will backfeed the parking lights through the rheostat or illumination control module, and possibly cause damage to the vehicle or security system control unit. Flashing the headlights is not recommended.

Another cautionary note is that the halogen headlights found in modern vehicles are not designed to be rapidly turned on and off, and if connected to the security system, a reduction of their useful life may be occur. If flashing the headlights is still desired, a relay must be used, since the headlight's current draw exceeds the 10 amp rating of the built-in relay. If flashing headlights and parking lights are desired, use two relays - configure one relay to supply the parking lights and the other relay to supply the headlights.

Caution: Do not connect to the dimmer circuit!
Damage can occur to the unit & the vehicle.

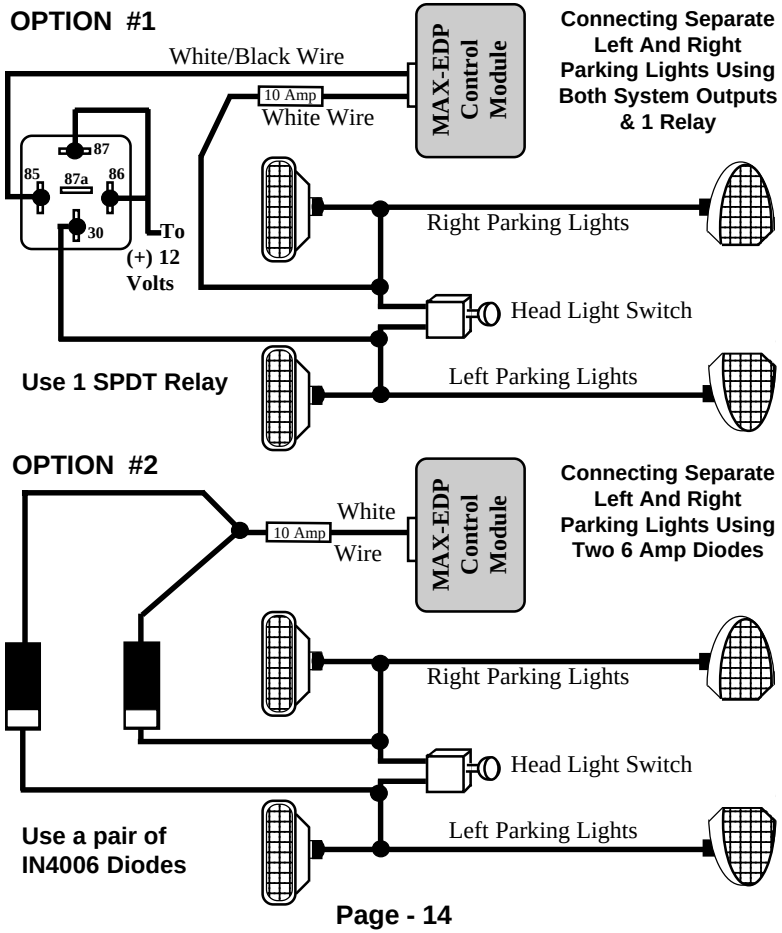


Recommended Connection Points For The White Wire

White/Black Wire - (Negative Flashing Light Output): This wire has the exact same operation as the White Positive Parking Light wire, except that it is Negative polarity output instead of Positive.

CONNECTION: If the vehicle has a parking/head light switch which switches Negative instead of Positive voltage to operate the parking lights, connect this wire to the vehicle's wire which shows the change to Negative when the parking lights are turned on.

MULTIPLE PARKING LIGHT CONNECTIONS: Many European imports have separate left and right side parking lights. On these cars or others having dual parking light circuits, there are two options available to the installer:



Feature #3 Automatic Rearming

Factory Default Setting **Off**
(press "**arm/lock**" button to program)

Options:

On without doors locking (press "**disarm/unlock**" button to program)

On with doors locking (press "**ll**" button to program)

"Automatic Rearming" prevents the system from becoming accidentally disarmed by having it arm itself after being disarmed, if a door is not then opened or the ignition turned on. Options are to have Automatic Rearming operate with or without also locking the doors when the system does rearm.

Feature #4 Starter Interrupt Functions

Factory Default Setting **Alarm Only**
(press "**arm/lock**" button to program)

Options:

Off (press "**disarm/unlock**" button to program)

Automatic (press "**ll**" button to program)

Alarm & Anti-Grind (press "**lll**" button to program)

This feature controls the Starter Interrupt circuit, in several ways. In its default setting, "Alarm Only", the Starter Interrupt is operable whenever the alarm is armed. The Starter Interrupt can also be used to prevent the accidental grinding of the starter, by trying to start the vehicle when it is already running by remote starting (as when the ignition key is turned to "run" to drive the vehicle).

The "Automatic" option will cause the Starter Interrupt output to automatically engage 90 seconds after the ignition switch is turned "off", and also 90 seconds after disarming the system. This automatic engagement will occur even if the security system is in a disarmed state, but not if it is in Valet Mode. Once the Starter Interrupt output is activated, the system must be armed, then disarmed with the controller or transmitter, or placed into the Valet Mode by pressing and holding the Valet Switch for 2 seconds to disengage it. There are no Status Light indications with this automatic form of Starter Interrupt.

Programming this feature off completely eliminates the Starter Interrupt output, while leaving all other system operations fully functional.

Feature #5 Ignition Activated Override

Factory Default Setting **Off** (press "**disarm/unlock**" button to program)

Option: **On** (press "**arm/lock**" button to program)

This feature allows an activated system to be overridden and disarmed by simply turning the ignition switch on within 10 seconds of the system's activation. After 10 seconds, the Emergency Override must be performed or the controller or transmitter "**disarm/unlock**" button can be used to disarm the system.

Feature #1 SecureCode

Factory Default Setting **1 Press**

Options:

1 to 9 presses, in each of two stages

SecureCode is a unique patented feature which allows you to custom select the number of Valet Switch presses in two stages, instead of a single "1 press", which would be required in order to perform an Emergency Override. If any of the three anti-carjacking features are utilized, a customized SecureCode would also be required to turn it off once it is fully activated. The SecureCode operation is described in the Operations Guide.

To custom program a new SecureCode:

Step 1 Follow Steps 1 to 4 in the previous "How to Program Features" instructions; at Step 4 the Valet Switch will be pressed and released once (the siren chirps once) to access "feature #1".

Step 2 Within 10 seconds slowly press and release the controller or transmitter's "**arm/lock**" button the number of times equal to the desired SecureCode for stage 1, allow the system to respond to each controller/transmitter button press with a siren chirp before pressing the button again.

Step 3 After entering the first stage by pressing the "**arm/lock**" button the desired number of times, and receiving a chirp for each press, wait for the system, after the final button press, to chirp the siren again the total number of times that the button was pressed.

Step 4 Continue to configure stage 2 of the SecureCode by now pressing and releasing the "**disarm/unlock**" button the number of times desired for the stage 2. This should be done in the exact same fashion as the stage 1 entry-press the "**disarm/unlock**" button, wait for a single chirp before pressing the button again, and then when final button press is done, wait after the single chirp for the siren to chirp the total number entered Valet Switch entry.

Feature #2 Last Door Arming

Factory Default Setting **Off**
(press "**arm/lock**" button to program)

Options:

On without doors locking (press "**disarm/unlock**" button to program)

On with doors locking (press "**ll**" button to program)

"Last Door Arming" has the system automatically arm itself every time the operator exits the vehicle and closes the door. This feature turns that operation on or off, and with options of having Last Door Arming operate with or without also locking the doors when the system does arm.

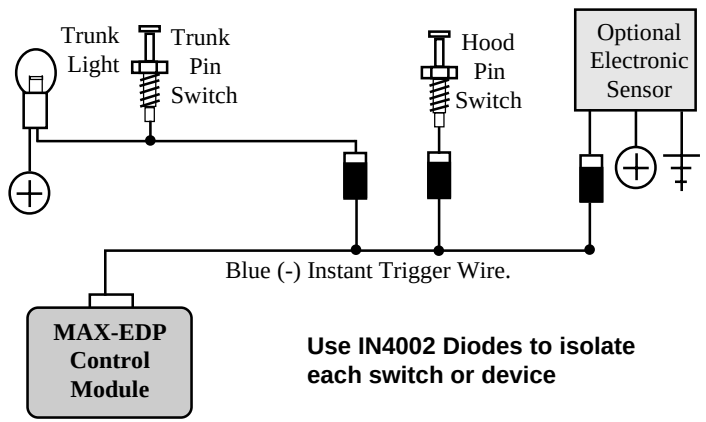
Blue Wire - Negative Instant Trigger: The Blue wire is a Negative instant trigger used primarily to detect entry into the hood or trunk area of a vehicle. **The Blue wire is also an important safety circuit for remote starting operations so installation of a hood pin switch is required.**

CONNECTION: The included pin switches may be installed to provide this trigger circuit; or, if there are existing switches the Blue wire may be connected directly, provided this is a negative ground switching circuit (examples: an OEM antitheft hood switch, or in the case of the trunk or hatch a light in the luggage compartment or a "Trunk Ajar" light in the dash).

An indication of such a circuit is the wire having no voltage present when the hood or trunk is open, and up to 12 volts when the hood or trunk is closed. This wire may be used with a mercury type of tilt switch, by itself, but it cannot be used with existing hood or trunk lights which have an internal mercury switch. If the vehicle is equipped with a usable trunk or hood circuit, locate the proper wire and splice the Blue wire directly to the vehicle's wire. If not, then you must install a pin or mercury switch, for open hood safety, and carefully adjust and test it.

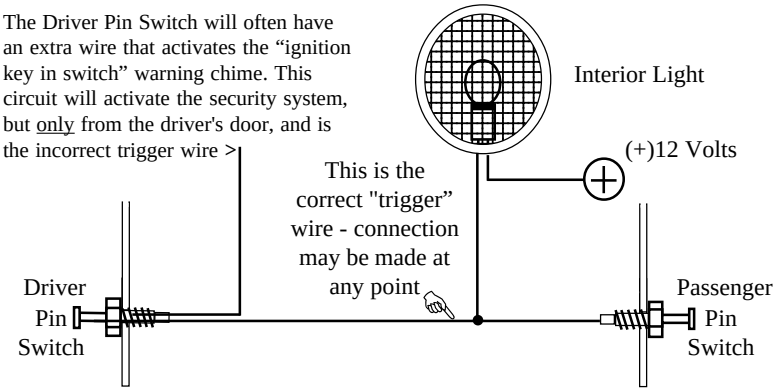
Multiple use of the Blue wire: When wiring more than one of the vehicle's circuits and/or additional circuits to this wire, diode-isolation is usually required to maintain each circuit's proper independent operation. An example would be wiring a hood pin switch and trunk light switch together. Without isolating, the trunk light will turn illuminate whenever the hood is raised. Also, diode-isolation is necessary when combining electronic sensors together, or when adding a sensor in the same circuit as the pin switches.

Diode-Isolating Multiple Negative Instant Triggers



Green Wire - (Negative Door Trigger): The Green wire is an "open door" input to the control module for vehicles having *Negative switching* door pin switches. This wire is most commonly connected to the vehicle interior light system.

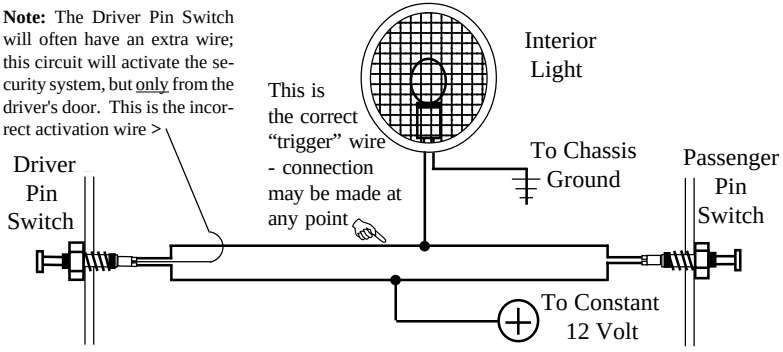
Typical Negative Switching Interior Light System



CONNECTION: Connect the Green wire to a wire in the vehicle that is common to all the door pin switches; the correct wire in this type of interior or dome light/door jamb pin switch system will have no voltage present and will also show chassis ground when the doors are opened, and up to 12 volts when the doors are closed.

Violet Wire - (Positive Door Trigger): The Violet wire is identical to the Green Door Trigger wire, with the sole exception that it is an open door input to the control module for vehicles having *Positive 12 volt* door pin switches.

Typical Positive Switching Interior Light System



- SEE PAGE 42 FOR PROGRAMMING INSTRUCTIONS -

Each of the Programmable Features is described in detail in the following pages. The User Programmable Features are described as a first group, and the Installer Programmable Features as a second group.

The User Programmable Features

This group of User Programmable Features are all accessed as a group in the first level of features' programming. These features have a direct affect upon the system's operations, so the programming and operation of each are described.

The Omega MAX-EDP's 23 **User Programmable Features**:

1 SecureCode
2 Last Door Arming
3 Automatic Rearming
4 Starter Interrupt Functions
5 Ignition Activated Override
6 Doors Lock With Ignition On
7 Doors Unlock With Ignition Off
8 Open Door Bypass To Previous Two Features
9 Confirmation Chirps
10 Confirmation Chirp Volume
11 Activated Alarm Cycle
12 Lights On Upon Disarm
13 Disarm Alarm Upon Trunk Release
14 Arming Delay
15 Steady Siren Output / Pulsed Horn
16 Alarm Functions Bypass
17 Ignition Activated Anti-Carjacking Protection
18 Door Activated Anti-Carjacking Protection
19 Remote Activated Anti-Carjacking Protection
20 Open Door Warning Upon Arming
21 III Button Operation
22 Remote Start Run Time
23 Steady / Flashing Lights During Remote Start

Use the step-by-step instructions on page 42, and the complete features matrix on page 43, to change any of the programmable features. Each feature, the option choices and related programming controller/transmitter button assignment are described in detail in the following pages.

Accessory Wiring Harness - Satellite Remote Start Port (Red 3-Pin Connector)

Dual Remote Start Satellite Relay Ports: These two ports provide for even more Ignition, Accessory, or Starter outputs, for remote starting use. These outputs are Negative 250mA, and a third pin in both ports is +12 Volts for the optional relay coils. A short non-terminated harness is included, to access either port, and available as an optional service part is a socket and two relays (part # RS-RP) that converts these outputs into high-amperage Positive voltage. Omega plug-in OEM antitheft bypasses can also utilize the Red port. The pin-outs of both Red and Blue ports are shown with the RS-RP wiring.

Backup Battery Port, Harness and Bracket (White 2-Pin Connector)

If the backup battery feature is desired, procure an optional 9-volt battery, insert and secure it into the included mounting bracket. Plug the included 2-pin wiring harness onto the battery; slide this assembly onto the MAX-EDP control module case (see the Wiring Overview on page 23) and then plug the 2-pin connector into the backup battery port.

Sensor Ports (Two White 4-Pin Ports)

Install the included impact sensor according to the instruction sheet included with it, and then plug its wiring harness into either of these ports (their operation is the same). The second port allows an easy plug-in addition of an optional second sensor.

Data Port (Green 4-Pin Port)

Omega data bus interface modules, and remote start bypass modules, are available as analog-operated, and as direct data-to-data (D2D) devices. The former may be operated by connection to the MAX-EDP's DLS port, or to its Satellite Relay Ports. The later are the Omega IntelliKit data bus interface modules and bypass kits, which simply plug into this Orange port. Either type of Omega accessory module includes its own vehicle-specific instructions. Please refer to the Omega website, www.caralarm.com for the latest vehicle-specific application guide. **Although other brands of data bus modules may physically plug into the MAX-EDP data port, only genuine Omega IntelliKit modules offer the highest consistent quality and dependable operation**. Always choose Omega databus product for use with this port.

The correct wire for a Positive switching type of dome light/door jamb pin switch system will have 12 volts present when the doors are opened, and chassis ground when the doors are closed.

CONNECTION: Connect the Violet wire to a wire in the vehicle that is common to all the door pin switches; the correct wire for this type of dome light/door jamb pin switch system will have 12 volts present when the doors are opened, and chassis ground when the doors are closed.

Notes and Tips, both types of Interior Light or Door Trigger circuits: The correct wire will show this change when any of the doors are opened. If the vehicle has delay-off or "fade away" interior lights, remember to take this into account when testing the wire. If the pin switch is mounted in the metal structure of the vehicle, and the interior lighting goes out when the switch is removed, suspect a grounding switch-type lighting system.

Switches controlling interior lighting may be found in several locations-the front or rear door jamb area, as the traditional "pin switch" or sliding switch; or as switches inside the doors, either connected to the exterior door handles or to the latching mechanism. A vehicle which has the interior lights illuminating when the outside door handle is lifted is an example of this type of switching system.

Also be aware of vehicles which diode-isolate each door. Typically, this is usually encountered with dash displays that indicate individual doors being ajar. The proper wire to connect to in this type of system is the common wire which is routed directly to an interior light that illuminates when any door is opened.

Gray Wire - (2nd Channel or Negative Trunk Release Output): The Gray wire is an optional output operated by the controller/transmitter "**II**" button; typically the primary use is for trunk release.

CONNECTION: If the vehicle's existing trunk release switch operates as switching Negative to activate trunk release, and draws 250mA or less, the Gray wire may connected directly to the vehicle's switch output wire. If the target wire is Positive switching, and/or draws more than 250mA, an optional relay must be used. To configure a relay to the Gray wire, connect it to relay pin (85), and connect Constant Positive 12 Volts to relay pin (86). Connect pin (30) to power, or ground, as needed. Pin (87) is then connected to the vehicle's trunk wire.

Secondary Wiring Harness - Programmable Internal Relays (18-Wire Connector)

A unique feature of the Omega MAX-EDP which offers great installation flexibility is two built-in ***single pole, double throw*** (SPDT) relays, which are programmable for several types of operation. Each relay is externally wired with a ***normally-closed*** load input wire (N/C or "87a"); a ***common*** load output wire (COM or "30"); and a ***normaly open*** (N/O or "87") wire which switches to the COM wire when the relay is activated. These programmable relay wires are the remaining six wires of the 18-wire connector, and each of the relays' 3 wires are a generous length of joined ribbon wire, for ease of installation.

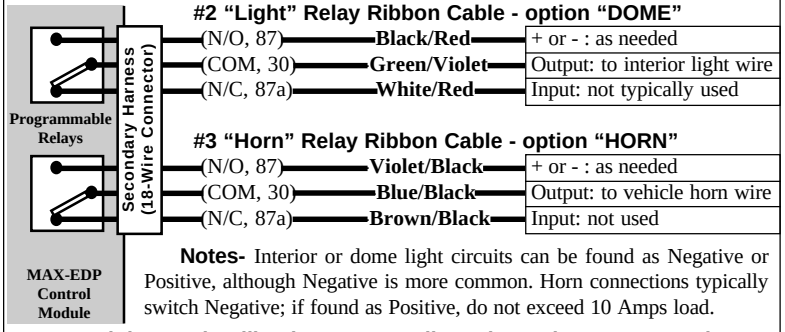
The default setting, and functions of the programmable relays are Dome Light Supervision and Horn. Other functions are available, via the Installer Programmable features #2 and #3, as shown here:

Installer Feature	Default	1st option	2nd option	3rd option
#2 Light Relay Functions	**Dome Light (L)**	**Lock (U)**	**Ignition (2)**	**Accessory (3)**
#3 Horn Relay Functions	**Horn, med. (L)**	**Unlock (U)**	**Ignition (2)**	**Accessory (3)**

The features may be programmed by turning the ignition on, off, then pressing the Valet Switch **10** times (producing a **Green** Status Light), and then pressing the Valet Switch two or three times more to select the features. Settings are then changed by pressing the controller/transmitter buttons as indicated after each choice.

CONNECTIONS: Using the Programmable Relays The defaulted and optional uses of these relays are described in the following diagrams.

Relays' Default Settings



#2 "Light" Relay Ribbon Cable - option "DOME"

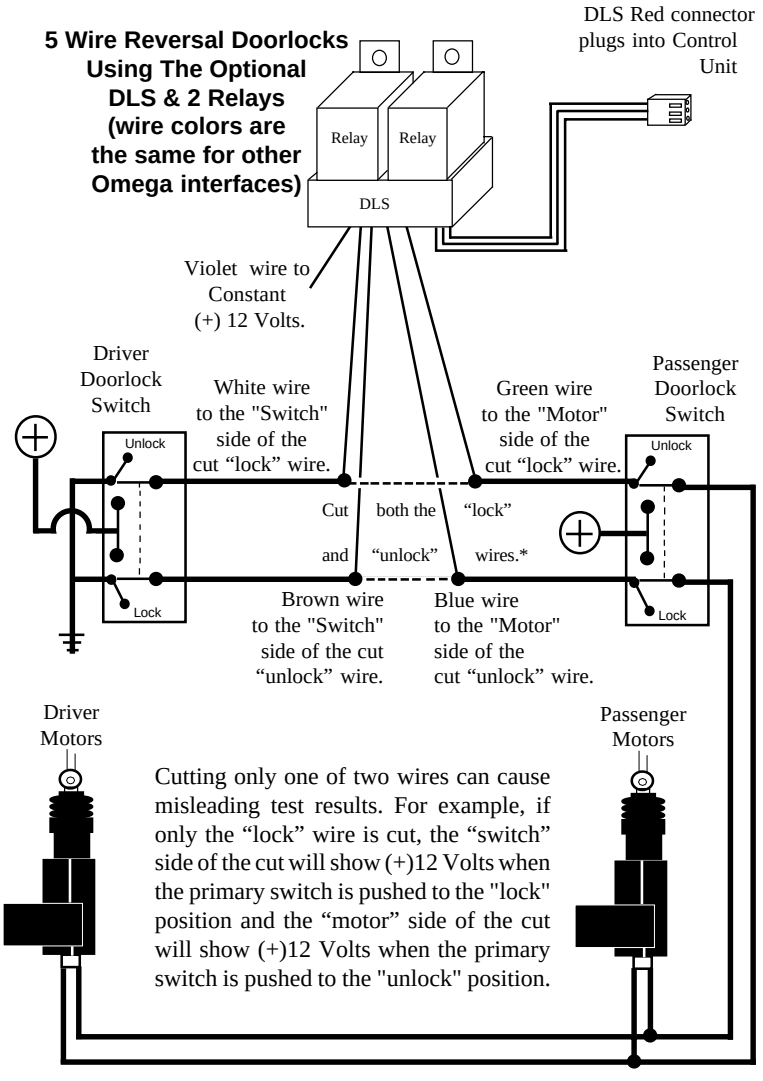
(N/O, 87)	**Black/Red**	+ or - : as needed
(COM, 30)	**Green/Violet**	Output: to interior light wire
(N/C, 87a)	**White/Red**	Input: not typically used

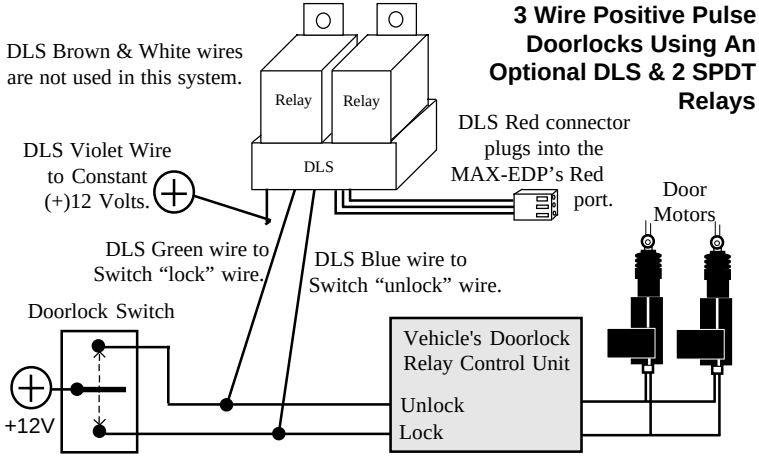
#3 "Horn" Relay Ribbon Cable - option "HORN"

(N/O, 87)	**Violet/Black**	+ or - : as needed
(COM, 30)	**Blue/Black**	Output: to vehicle horn wire
(N/C, 87a)	**Brown/Black**	Input: not used

Notes- Interior or dome light circuits can be found as Negative or Positive, although Negative is more common. Horn connections typically switch Negative; if found as Positive, do not exceed 10 Amps load.

"Dome Light" setting illuminates upon disarming only. "Horn" setting operates relay exactly the same as the electronic siren's operations.





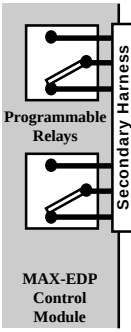
5 Wire Reversal Rest At Ground Systems differ from the Negative and Positive Pulse systems as there are no relays or doorlock control unit. In this type of system, the switches themselves supply the positive voltage directly to the doorlock actuators, and, more importantly, provide the return ground path. The important thing to remember is the wires in this system *rest at ground*, which means that the wires must be "opened", or cut, to make the connections.

Examine the wires on the back of the switch. Normally five wires will be found- one will be constant 12 volts positive, regardless of the switch's position; two wires will be grounded regardless of the switch's position. Of the two remaining wires, one will show 12 volts positive when the switch is pushed to "lock", and the other will show 12 volts positive when the switch is pushed to "unlock".

The two later wires are both routed to the doorlock actuators and are connected to either end of the actuator's motor winding. When the switch is pushed to one position, one of these two wires will have 12 volts. This voltage flows through the wire to the actuator's motor winding, and since the other wire is still *resting at ground* an electrical circuit is completed. When the switch is pushed to the opposite position the electrical flow is *reversed*.

Once determined, the correct wires must be cut. Notice in the following diagram that the driver's switch is the primary switch and referred to as the "switch" wires. The wires that go to the secondary switch are referred to as the "motor" wires. Even though the cut is made between the switches, the two sides are still correctly called the "switch" and the "motor" sides, with consideration of "Primary" and "Secondary" switch.

Relays' 1st Optional Settings



#2 "Light" Relay Ribbon Cable - option "LOCK"

(N/O, 87)	**Black/Red**	+ or - : likely +; see notes
(COM, 30)	**Green/Violet**	Output: to car "lock" wire*
(N/C, 87a)	**White/Red**	Input: needed if reversal*

*see notes

#3 "Horn" Relay Ribbon Cable - option "UNLOCK"

(N/O, 87)	**Violet/Black**	+ or - : likely +; see notes
(COM, 30)	**Blue/Black**	Output: to car "unlock" wire*
(N/C, 87a)	**Brown/Black**	Input: needed if reversal*

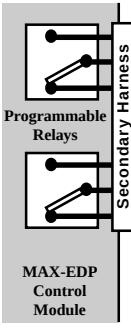
* see notes

Notes- Use the MAX-EDP's "DLS" doorlock output port for "3 Wire Negative Pulse" systems. These relays are perfect for "3 Wire Positive Pulse" and "5 Wire Reversal" systems. If 3 Wire Positive, connect both relay N/O wires to Positive; relay N/C wires are not used. If 5 Wire Reversal system, connect both N/O wires to Positive; connect relay N/C wires to the doorlock switch side, connect relay COM to the actuators side. See the section "Power Doorlock Interface Port", explaining the DLS port operation, for more doorlocking system information. **Do not exceed 10 Amps current draw**- systems drawing more will need external relays, driven by the DLS port.

"Lock" and "Unlock" settings imitates all of the MAX-EDP's doorlocking operations, exactly the same as the DLS port.

FEATURES #2 and #3 ARE INDEPENDENTLY PROGRAMMABLE - the installer may set each feature as desired or needed.

Relays' 2nd and 3rd Optional Settings



#2 "Light" Relay Ribbon Cable - option "IGNITION"

(N/O, 87)	**Black/Red**	+ or - : likely +; see notes
(COM, 30)	**Green/Violet**	Output: to vehicle wire
(N/C, 87a)	**White/Red**	Input: most likely unneeded

#3 "Horn" Relay Ribbon Cable - option "ACCESSORY"

(N/O, 87)	**Violet/Black**	+ or - : likely +; see notes
(COM, 30)	**Blue/Black**	Output: to vehicle wire
(N/C, 87a)	**Brown/Black**	Input: most likely unneeded

Notes- These are "medium current" outputs- do not exceed 10 Amps current draw! Use the four 30 Amp internal relays (large 6-wire connector) for traditional high-amperage ignition switch circuits. These outputs may be used on medium- and low- capacity ignition circuits (increasingly more common) if needed; and, for Negative-switching circuits, and for circuits at rest which must be interrupted for remote starting.

"Ignition" and "Accessory" settings imitates the same like functions, as found on the high-amperage 6-wire connector remote starting outputs.

Auxiliary Wiring Harness - (SMALL 6-Pin Connector)

Yellow/Green Wire - (Factory Disarm Output): The Yellow/Green wire produces a Negative pulse output whenever the MAX-EDP is disarmed or remotely starts the engine. This output may be used to disarm a factory-installed alarm, if the vehicle is so equipped.

CONNECTION: Connect the Yellow/Green wire to the vehicle's factory disarm wire. Most commonly, the desired wire will show Negative polarity when a key is held in the "unlock" position in the door key cylinder. This wire can usually be located in either kick panel, in the wiring harness from the door, as it is routed between the door key cylinder and the factory alarm.

OPTION **Yellow/Green Wire - (Remote 4th Channel Output):** Installer Programmable Feature #9 can change the Yellow/Green wire to operate as an additional remote channel output. The output obtained by this option is Negative, 250mA, and is operable by pressing and holding the controller/transmitter "**arm/lock**" and "**II**" buttons together. The MAX-EDP already has a 2nd channel (which can disarm the alarm) and a 3rd channel output; this and the 5th channel outputs' options offer expanded versatility for complex or esoteric applications.

CONNECTION: Connect the Yellow/Green wire as a 4th channel as desired.

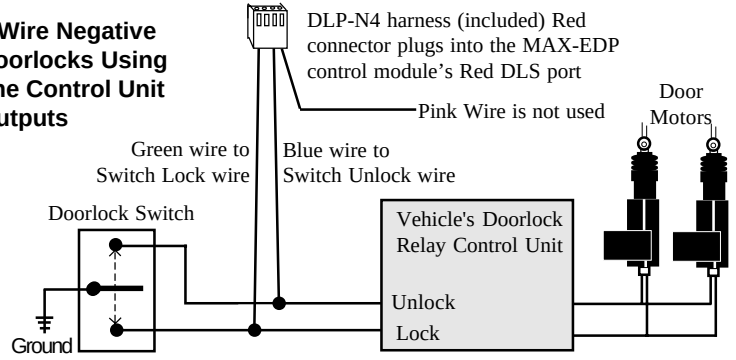
Yellow/Red Wire - (Factory Arm Output): The Yellow/Red wire produces a Negative pulse output whenever the system turns off the engine after it has been remotely started. This output may be used to arm a factory-installed alarm, or, if the vehicle is equipped with a Retained Accessory Power circuit, this output can be used to "spike" the door pin switch wire, which will turn off the Retained Accessory Power circuit.

CONNECTION: To arm a factory alarm after remote start engine run stops, connect the Yellow/Red wire to the vehicle's factory arm wire. This wire will show Negative polarity when a key is held in the "lock" position in the door key cylinder. This wire can usually be located in either kick
panel, in the wiring harness from the door, as it is routed between the door key cylinder and the factory alarm.

To use this wire to turn off Retained Accessory Power, locate a vehicle wire within the door or doorjamb which shows Negative when the door is open. Should such a wire be found which is positive, a relay is needed to reverse the Yellow/Red wire's Negative output to Positive.

OPTION **Yellow/Red Wire - (Remote 5th Channel Output):** Installer Programmable Feature #9 can also change the Yellow/Red wire to operate as an additional remote channel output. The output obtained by this option is again

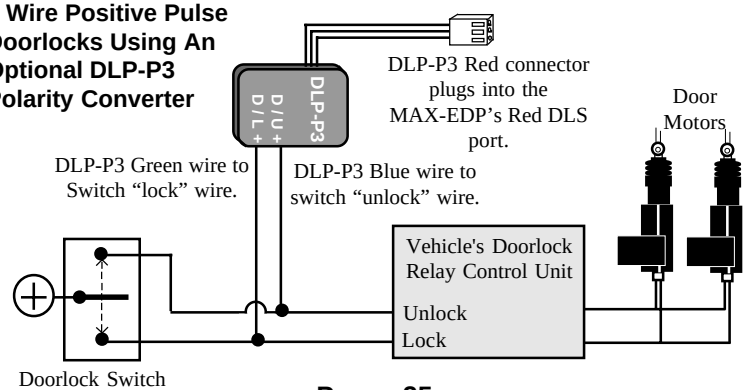
3 Wire Negative Doorlocks Using The Control Unit Outputs



3 Wire Positive Pulse Systems are very similar to the Three Wire Negative Pulse system except the vehicle's doorlock switches use 12 volt positive pulses to operate the vehicle's doorlock relays or control unit. Examine the three wires on the back of the switch; **if more than three, suspect a 5 Wire Reversal system**. One will be constant 12 volt positive, regardless of the switch's position. Of the two remaining wires, one will show Positive when the switch is pushed to "lock", and the other will show Positive when the switch is pushed to "unlock".

CONNECTION: Several options are available for connecting to 3 Wire Positive Pulse doorlocking systems- the DLP-P3 polarity reversal interface, the DLS and two relays or DLS-C, and the internal programmable relays (see pages 18 & 19). If driver's door unlock priority is desired, use the optional DLS-3. The following diagrams show how to connect either of the optional DLP-P3 or the DLS and 2 relay interfaces.

3 Wire Positive Pulse Doorlocks Using An Optional DLP-P3 Polarity Converter



Accessory Wiring Harness - DLS Port (Red 4-Pin Connector)

The Omega MAX-EDP has great installation flexibility when interfacing it to the vehicle's power doorlocking system.

This Red DLS port can be directly connected to 3 Wire Negative doorlocking systems, or optional interfaces such as the DLS and 2 relays, DLR-C , or others will be needed for other types of power doorlocking systems. Omega also offers other specialty doorlocking interfaces; all include their own detailed instructions.

Or the MAX-EDP's internal programmable relays may be repurposed as described on pages 18-19 to operate as doorlock relays.

This section describes the Red DLS port, and doorlock connections with the included harness and optional interfaces.

Plug-In DLS Power Doorlock Interface Port: The Red 4 pin port on the system's control module produces a negative pulse output for locking the doors, a constant 12 volt pin *for the optional relay coils only*, a first negative pulse output for driver door unlock, and a second negative pulse output for unlocking all other doors.

The vast majority of power doorlocks are found as three system types: 3 wire negative pulse, 3 wire positive pulse and 5 wire reversal, rest at ground. Other power doorlock systems which may be encountered are the vacuum pump types found in older Mercedes vehicles and the single wire, dual-voltage which has appeared in some late model vehicles. The best way to identify a doorlock system is to examine the doorlock switch's wiring.

3 Wire Negative Pulse Systems are typically indicated by the presence of three wires at the switch. Of these, one will show constant ground, regardless of whether the switch is being operated or not (at rest); one will show ground when the switch is pushed to the "lock" position, and the other wire will show ground when the switch is pushed to the "unlock" position. With the switch at rest, these two wires will read voltage, usually 12 volt positive but in some cases less. The wires from the switches operate doorlock relays or a doorlock control unit with built-in relays; make the MAX-EDP connections between the switches and the relays.

CONNECTION: The included harness (DLP-N4) can allow direct connection between the security system and a 3-Wire Negative Pulse system. If more than the 500mA Ground output that the security module can provide is required, use the optional model DLS and two relays. When driver's door unlock priority is desired, use the optional DLS-3.

Negative, 250mA, and is operable by pressing and holding the controller/transmitter "**disarm/unlock**" and "**III**" buttons together. The MAX-EDP as mentioned has an optional 4th channel output, in addition to the standard 2nd channel (for trunk or hatch release) and a 3rd channel remote output.

CONNECTION: Connect the Yellow/Red wire as a 5th channel as desired.

Pink Wire - Negative 3rd Channel or Option Output: The 3rd Channel Pink wire is an optional output similar to the 2nd Channel Gray trunk or hatch release wire; however, this output is not capable of disarming the system when it is used and therefore has no audible or visual confirmation.

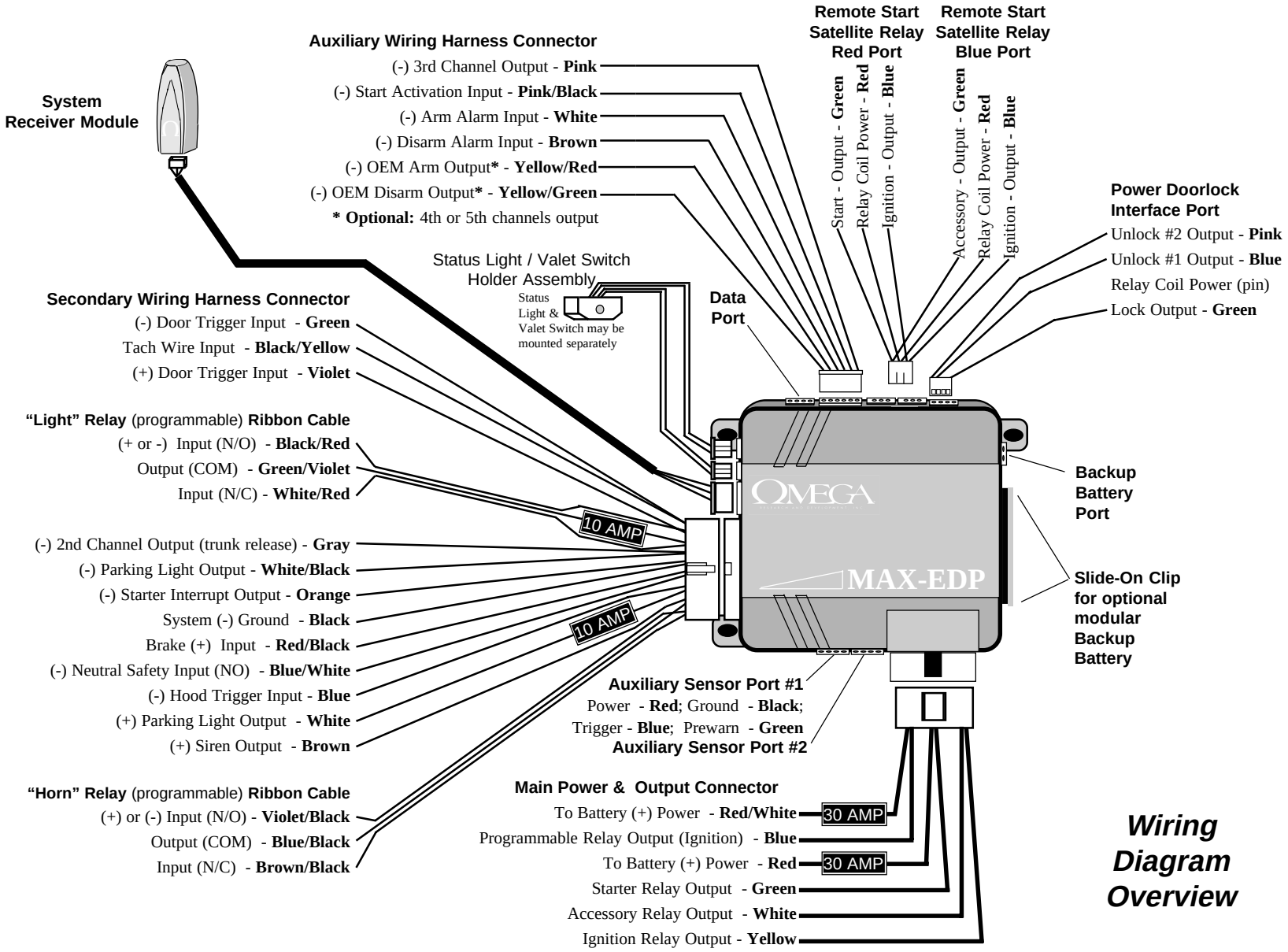
CONNECTION: For most applications an optional relay will be needed; typical connection is the Pink wire to relay pin #85, and connect Constant Positive 12 Volts to relay pin #86. Connect pin #30 to power, or ground, as needed. Pin #87 is the output, and connected to the target wire.

Pink/Black Wire - (Remote Start External Activation Input): If the Pink/Black wire receives a Negative pulse the remote start operation will be activated. Even if this wire is used to activate remote starting, the transmitter or transceiver's normal button assignment will also operate remote starting.

CONNECTION: Connect the Pink/Black wire directly any output which gives a Negative pulse. If using the MAX-EDP with another device such as an Omega telematics tracking system, connect the Pink/Black wire to the device's accessory output wire.

White Wire - (Negative Arm Input) &
Brown Wire (Negative Disarm Input): The White and Brown wires will respectively arm and disarm the MAX-EDP when they receive Negative pulses. These wires may be used to easily connect the MAX-EDP to another device, such as the Omega vehicle tracking system.

CONNECTION: To have another device arm and/or disarm the MAX-EDP, the companion device must have available momentary Negative outputs. As an example, connecting the MAX-EDP to the Omega tracking system's doorlock output wires would have the tracking unit arm and disarm the alarm system, which in turn would operate the vehicle doorlocks. Similarly, the Pink/Black wiring connection described above would have the companion device activate the MAX-EDP's remote starting operation.



Wiring Diagram Overview