- **22)** Loud Or Soft Confirmation Honks: Default Soft, press UNLOCK for Loud. If the security system is configured to use the vehicle's horn, this Feature allows a degree of compensation for the variance which is found in the length of the pulse required to honk the horn in a satisfactory manner for confirmation honks.
- **23)** Current Sensing: Default OFF, press LOCK to activate.

When the security system is armed, current sensing can detect a current draw from the vehicle's battery. (Example: the dome light illuminates when a door is opened or the brake lights when the brake pedal is pressed). With this feature on, the security system will trigger if a current draw is detected.

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



"Convenience And Security For A Mobile Society"

INSTALLATION INSTRUCTIONS

For model: Executive 3000^{ATV}

WIRE CONNECTIONS

Wiring Diagram	
Black Wire (Negative Ground Input)	
Red Wire (12 Volt Positive Input)	
Yellow Wire (Ignition Power)	
Gray Wire (Optional Trunk Release Output)	
Orange Wire (Grounded Output For Starter Interrupt)	
Pink Wire (Optional #3 Channel Output)	6
Green Wire (Negative Door Trigger Wire)	6-7
Blue Wire (Negative Instant Trigger Wire)	8
Violet Wire (Positive Door Trigger Wire)	9
Brown Wire (Negative Horn or Optional Siren Output Wire)	
White Wire (Positive Flashing Parking Light Output)	
Pair Of White/Black Wires (Dome Light Supervision Input/Output)	

PREWIRED PLUG IN FEATURES

Valet Switch And Status LED	14
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PROGRAMMABLE FEATURES

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Dealer Programmable Features	

ignition is turned "off", if a door is opened before turning the ignition "off", the doors will <u>not</u> unlock.

- 19) Horn Honk Or Siren Chirp Confirmation: Default ON, press UNLOCK to deactivate. This Feature allows full-time removal of the audible confirmation horn honks (or optional siren chirps). Please note that this may be done on a onetime temporary basis by pressing the transmitter's OPTION button before pressing the LOCK or UNLOCK buttons. Even if this Feature is used to remove the confirmation honks or chirps, the audible Automatic Transmitter Verification[™] feature will still operate.
- **20)** Activated Alarm Period 60 Or 30 Seconds: Default 60 Seconds, press UNLOCK for 30 Seconds.

When an armed security system is activated, this Feature determines how long the horn (or optional siren) will sound, and how long the parking and dome lights will flash.

21) Pulsed Horn/Steady Siren Output: Default Pulsed Horn, press UNLOCK for Steady Siren.

This Feature allows the use of the existing vehicle horn(s), or an optional electronic siren for the audible output of the security system. When configured for use with a horn, this output pulses for 10 seconds, then pauses for 5 seconds, repeating this cycle for the duration of the activated alarm period. This prevents the horn from over heating, thereby ensuring a maximum useful life to the vehicle owner. The optional electronic siren requires a continuous, steady output. The siren features six different siren tones, which change every 5 seconds.

15) 90 Second Automatic Rearming: Default OFF, press LOCK to activate.

On occasion, people have accidentally disarmed their security system by playing with the transmitter or by unknowingly transmitting from a purse or pocket. To prevent accidental disarming, if this Feature is utilized, the system will automatically rearm itself 90 seconds after disarming, <u>unless</u> the ignition switch is turned "on". This Feature will also engage the starter interrupt circuit upon arming, but the locking of the doors upon arming is separately programmable.

16) 3 Or 45 Second Arming Delay: Default 3 Seconds, press UNLOCK for 45 Seconds.

Some installation situations require an extra amount of time for the security system to become fully armed. Where needed, this Feature may be changed to delay the full arming of the system to 45 seconds. Please note when the 45 second arming delay is used, it adds 45 seconds to all three forms of arming: active arming from the transmitter, Last Door Arming, and Automatic Rearming.

17) 5 Or 30 Seconds Lights On Upon Disarm: Default 30 Seconds, press UNLOCK for 5 Seconds.

This Feature sets the length of time that the parking and dome lights stay on upon disarming the security system. The longer time allows inspection of the area around and inside the vehicle when dark.

18) Open Door Bypass To Features #2, #3 And #4: Default ON, press UNLOCK to deactivate.

This Feature, when activated, will cancel any automatic doorlock operations associated with the ignition switch if a door is open at the time the ignition switch is turned "on" or "off". For example, if the security system is programmed to unlock the doors when the Page - 38

Wiring Connections - 5 Wire Connector

BLACK WIRE: (-) Chassis Ground

This wire supplies chassis ground for the unit's operation. Connect the Black wire to the metal frame of the vehicle, preferably using an existing machine-threaded fastener and the proper size ring terminal. Make sure that the Black wire's ring terminal 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. Note: The thin Black wire attached to the units with a built-in receiver is the antenna wire. Do not connect this wire to anything or your transmitter's range will be reduced or eliminated. Stretch this wire out and as high as possible for the best operating range.

RED WIRE: (+) 12 Volt Constant Power

This wire supplies constant (+) 12 volts for the unit's operation. This wire must have (+) 12 volts at all times. The recommended connection for the Red wire is to the constant (+) 12 volt wire at the ignition switch harness.

YELLOW WIRE: (+) Ignition Power

This wire supplies (+) 12 volts to the unit whenever the ignition switch is turned "on". This connection should be made at the ignition switch harness, to the primary ignition circuit. Primary ignition has 0 volts when the ignition key is in the "Lock", "Off" and "Accessory" positions; and 12 volts in the "Run" and "Start" positions.

GRAY WIRE: (-) Trunk Release Output

This wire will have a Negative (-) output whenever the transmitter's OPTION button is held

pressed for 3 seconds. Use a relay for trunk release and other options, or, in many cases this wire may be connected directly to the activation circuit of other devices, such as a Remote Starter unit.

Use this diagram to configure a standard relay:

ORANGE WIRE (-) Starter Interrupt Output

The Orange wire is an output for an optional starter disable socket and relay. The starter interrupt prevents the vehicle from starting <u>only</u> if the transmitter has been used to lock the doors, or if any automatic starter interrupt options have been programmed to operate.



The use os a Quick InterConnect Harness is

highly recommended, which allows the installation of security and remote keyless entry systems with no or minimum alterations to the vehicle's factory wiring. To utilize a Quick InterConnect Harness, an existing pair of connectors within the vehicle are unplugged, and the Quick InterConnect is inserted between and then plugged into them, restoring the vehicle's original circuits. Finally, a remaining connector is plugged into the Omega control module, completing the connections between it and the vehicle.

To interrupt the vehicle's starter circuit without using a Quick InterConnect Harness, the starter wire must be located and cut. It is recommended that this connection be done as close to the ignition switch as possible. Use a voltmeter, not a test light, to find the correct wire, which is the wire from the ignition switch to the starter solenoid. *CAUTION!* Avoid the airbag circuit! Improper use of a test light can cause deployment of the airbag, which may result in bodily injury! Test lights can also damage on Page - 4

11) The Starter Disable Will Automatically Engage 90 Seconds After The Ignition Switch Is Turned "Off": Default OFF, press LOCK to activate.

When this Feature is activated, the Starter Disable circuit will automatically engage 90 seconds after the ignition switch is turned "Off". Turning "on" the ignition switch during this 90 second period will reset timer period. Once the Starter Disable circuit engages, the transmitter's use to unlock the doors or putting the system into Valet Mode disengages it.

12) The Starter Disable Will Automatically Engage 90 Seconds After The Transmitter Is Used To Unlock The Doors: Default OFF, press LOCK to activate. When this Feature is activated, the Starter Disable circuit will automatically reengage 90 seconds after remotely unlocking the doors. Turning "on" the ignition switch during this 90 second period will override this Feature, preventing the automatic engagement.

13) Four Button Transmitter Operates 3rd Channel Output: Default OFF, press LOCK to activate.

Rather than pressing and holding both LOCK and UNLOCK buttons for 3 seconds to activate the 3rd Channel output, this Feature changes the PANIC button's operation to 3rd Channel output activation. The Remote Panic feature may still be used - pressing and holding the LOCK button for 3 seconds will also activate the Remote Panic Feature.

14) Last Door Arming: Default OFF, press LOCK to activate.

If this Feature is utilized, the security system will automatically arm itself 30 seconds after the last door closes. Please note that this Feature also engages the starter interrupt circuit upon arming, but locking of the doors upon arming is separately programmable.

Some vehicle's power doorlocking systems (example: Mercedes Benz pneumatic systems) require a longer output pulse to operate properly. This Feature allows the installer the flexibility to accommodate such systems.

7) Double Unlock Pulse: Default OFF, press LOCK to activate.

This is another Feature provided for the installer's benefit. Some newer vehicles require two pulses to remotely unlock the doors and/or to disarm an OEM security system.

- 8) 28 Second Lock Pulse: Default OFF, press LOCK to activate. If the vehicle is so equipped, this Feature allows the installer to take advantage of a preexisting Total Closure System. The vehicle must be properly equipped to take advantage of this Feature.
- 9) Doors Automatically Lock 90 Seconds After Ignition "Off": Default OFF, press LOCK to activate.

When this Feature is activated, every time the ignition switch is turned "Off", the doors will automatically lock 90 seconds later. A door may be opened and the vehicle exited without affecting this operation.

10) Doors Lock 90 Seconds After Remotely Unlocking: Default OFF, press LOCK to activate. When this Feature is activated, every time the transmitter is used to unlock the doors they will automatically relock 90 seconds later. Opening a door will not affect this operation, although turning the ignition switch "on" will cancel the automatic relocking. This Feature prevents the accidental unlocking of the doors from inadvertently pressing the transmitter button while placing the keys in a pocket or purse.

board computers and associated sensors. The starter wire will read Positive 12 Volts <u>only</u> 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 optional starter disable socket's Red wire to the ignition switch side, and its White wire to the starter solenoid side. Be sure that good, solid electrical connections are made as this generally is a high amperage circuit. Connect the module's Orange wire to the Orange wire of the starter disable socket.



Wiring Connections - 8 Wire Connector

PINK WIRE: (-) 3rd Channel Output

The function of the Pink wire is to provide an optional output similar to the Gray trunk release wire. Press both the LOCK and UNLOCK transmitter buttons for two seconds to activate this output. Once activated, this output will last for one second, or, for as long as the transmitter buttons are held down, until the transmitter battery-saver feature turns the transmitter off. Operating this output may be done regardless of the ignition being "on" or "off", and will To Control Unit not disarm the system. This output can Pink Wire be used to activate other optional modules (example: car starting equipment or power window roll up units). A relay, configured in the same fashion as when using the Gray Trunk Release wire, is recommended.

GREEN WIRE: (-) Negative Door Trigger

The Green wire's function is an open door input to the control module for vehicles having Negative switching door pin switches. Connect the Green wire to a wire in the vehicle which is common to all the door pin switches. The correct wire in this type of 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. The selected wire should show this change when any of the doors are

To vehicle's circuit. 87a To (+) 12 volt. To (+) 12 volt or (-) ground as needed to operate vehicle circuit.

The 23 Programmable Features, their factory-set default settings, and the transmitter button pressed during programming to change them from the default setting are now each briefly explained in order. Please note that Programmable Features #9, #10, #11, #12, #14 and #15 are also User Programmable Features, with #11 and #12 being merged in the User Programmable mode. User Programmable operations are explained after the Programmable Features are described.

- 1) Ignition Switch Transmitter Programming: Default ON, press UNLOCK to deactivate. Transmitters may also be programmed to operate the system by pressing the Programming Switch 5 times within 5 seconds of turning the ignition switch "on". This Feature, as explained in the operating instructions, is an alternative method which allows programming transmitters after installation, when the module is not easily accessible.
- **Doors Lock With Ignition "On":** Default ON, press UNLOCK to deactivate. 2)
- 3) Ignition "Off" Unlock #1: Default ON, press UNLOCK to deactivate.
- Ignition "Off" Unlock #2: Default OFF, press LOCK to activate. 4) The previous three Features control the Doorlock Port's output in relation to the ignition switch being turned "on" or "off".

5) **Trunk Release Disarms Alarm And Unlocks Doors:** Default ON, press UNLOCK to deactivate.

When the transmitter's OPTION button is pressed for 3 seconds to activate the Trunk Release output, this Feature will unlock the doors. Both unlock outputs will operate.

Doorlock Pulse Time .8/3 Seconds: Default .8 Second Default ON, press UNLOCK 6) for 3 second setting.

The 23 Programmable Features and their factory-set default settings are:

- 1) Ignition "On" 5 Times To Enter Transmitter Programming Mode: Default ON.
- 2) Doors Lock Upon Ignition "On": Default ON.
- 3) Unlock Output #1 Upon Ignition "Off": Default ON.
- 4) Unlock Output #2 Upon Ignition "Off": Default OFF.
- 5) Trunk Release Disarms Alarm And Unlocks Doors: Default ON.
- 6) .8 Or 3 Second Doorlock Output: Default .8 Second.
- 7) Double Unlock Pulse: Default OFF.
- 8) 28 Second Lock Pulse: Default OFF.
- 9) Doors Lock 90 Seconds After The Ignition Is Turned Off: Default OFF.
- 10) Doors Lock 90 Seconds After Remotely Unlocking: Default OFF.
- 11)Starter Disable Engages 90 Seconds After Ignition Is Turned Off: Default OFF.
- Starter Disable Engages 90 Seconds After Remotely Unlocking: Default OFF. 12)
- 13) Four Button Transmitter PANIC Button Operates #3 Channel: Default OFF.
- 14)Last Door Arming: Default OFF.
- 15) 90 Second Automatic Rearming: Default OFF.
- 16) 3 Or 45 Second Full Arming: Default 3 Seconds.
- 17) 5 Or 30 Second Lights On Upon Disarm: Default 30 Seconds.
- 18) Open Door Bypass To Features #2, #3 And #4: Default ON.
- 19) Horn Honk Or Siren Chirp Confirmation: Default ON.
- 20) Activated Alarm Period 30 Or 60 Seconds: Default 60 Seconds.
- 21)Pulsed (Horn) Or Steady (Siren) Audible Output: Default PULSED.
- 22) Horn Confirmation Honk 8 Or 12 Milliseconds: Default SOFT.
- 23) Current Sensing: Default OFF.

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opened. If the vehicle has delay dome 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 dome light goes out when the switch is removed, suspect a grounding-type dome light system. If the switch is mounted in plastic, a constant ground wire will also be present. While the traditional pin switch is mounted in the front door jamb area, also be aware that many vehicles utilize other types of switch devices to operate the interior lights. Some have a sliding type of switch and many have the pin or sliding switches in the rear door jamb area. In addition, other vehicles utilize switches in the doors, either connected to the exterior door handles or to the latching mechanism. A vehicle that has dome lights which illuminate when the exterior door handle is lifted is an example of this type of switching system. Also be aware of vehicles which



Pin

BLUE WIRE: (-) Negative Hood/Trunk Trigger

The Blue wire is a Negative instant trigger used primarily to detect entry into the hood or trunk area of the vehicle. A pin switch, mercury switch, or magnetic reed switch may be installed to provide this trigger circuit. Or, if there are existing switches (example: a light in the luggage compartment or a "Trunk Ajar" light in the dash), the Blue wire may be connected directly, provided this is a negative ground switching circuit. 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 circuit cannot be used with mercury switch types of hood lights or trunk lights. 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.

When wiring more than one of the vehicle's circuits and/or additional circuits to this wire, diodeisolation may be required to maintain each circuit's proper 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



Dealer Programmable Features

The E-3000^{ATV} Remote Keyless Entry and Security System has 23 features that can be accessed through the Features Programming Mode through using the Programming Switch on the control system and the transmitter. The Features Programming Mode is accessed by turning "off" the ignition switch and properly pressing the Programming Switch. Once in the Features Programming Mode, the Programming Switch is further used to specify which of the 23 Features is to be changed, then the transmitter is used to program the selected Feature.

To access the Features Programming Mode, follow this procedure:

- Step 1 Within 5 seconds of turning the ignition "off", momentarily press the Programming Switch 5 times. The system will respond by briefly sounding the horn.
- Step 2 You now have 10 seconds access the desired Feature. This done by pressing the Programming Switch the number of times that are equal to Feature number listed. For example, to change the doorlock output pulse from .8 to 3 seconds, press the Programming Switch 6 times. The system will acknowledge the entry by honking the horn a number of times equal to the number of Programming Switch presses (the Status LED also indicates the Feature number).
- Step 3 You now have 10 seconds to change the chosen Feature. Press the transmitter's LOCK button to turn the Feature "on", or press the UNLOCK button to turn the Feature "off". The system will acknowledge turning the Feature "on" by honking the horn once, or "off" by honking twice. If 10 seconds of no programming activity expires the system will exit the Features Programming Mode, which is indicated by sounding the horn for a short period.

Default OFF.

- 3) OPTION Button: Feature #11 / Starter Interrupt Engages 90 Seconds After Ignition Is Turned Off: Default OFF, <u>AND</u> Feature #12 / Starter Interrupt Engages 90 Seconds After Remotely Unlocking: Default OFF.
- 4) LOCK & OPTION Button: Feature #14 / Last Door Arming: Default OFF.
- 5) LOCK & UNLOCK Button: Feature #15 / 90 Second Automatic Rearming: Default OFF.

To utilize this programming option, once Transmitter Programming Mode has been accessed, at the point where the first transmitter is entered and acknowledged, do not proceed with programming the second transmitter. Instead, pressing the first transmitter's buttons will toggle the Programmable Feature assigned to it off and on. Every time the appropriate button or button combination is pressed, the system will respond alternately with one horn honk or siren chirp, then two horn honks or siren chirps. One honk or chirp indicates that the Feature is on, or activated; two honks or chirps indicates that the Feature is off, or deactivated.

When all of the desired Features have been programmed as desired, proceed with programming the remaining transmitters. Remember, 10 seconds of not receiving a transmitter broadcast will cause the system to leave either the Transmitter Programming Mode or the Features Programming period.

The ability to program these 5 popular features with the first transmitter allow the installer the opportunity to configure the system as desired without having to enter the Features Programming Mode.

VIOLET WIRE: (+) Positive Door Trigger

The Violet wire's functions are 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.

Connect the Violet wire to a wire in the vehicle which 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. The correct wire will show this



BROWN WIRE: (-) Horn or Siren Output

The Brown wire is a 1 Amp Negative output designed to operate the vehicle's existing horn relay, which in turn will sound the horn for audible confirmations, and also to sound the horn intermittently if the alarm is triggered. The alarm is already programmed to pulse this output to operate the vehicle's horn relay.

An alternative to sounding the horn is to utilize an optional electronic siren. This would require changing Programmable Feature #21 from the preset pulsed output to a steady output to properly sound the siren.

If used to sound the horn, the Brown wire may be connected directly to the vehicle's existing horn switch wire, which is typically found at the steering column. The correct wire will show Positive 12 Volts normally, and no voltage when the horn is honked. Direct connection of the Brown wire is to an existing horn switch-to-relay wire only. Once the vehicle's horn wire is identified, probe the wire with a standard test light connected to Negative chassis ground. If the horn honks when probed, a direct connection may be made. If not, use the following diagram to configure an optional relay. **CAUTION!** This is one of the few uses left for a standard test light in a modern vehicle! Use a digital multimeter (DMM) to identify the horn wire first. **Probing an Airbag circuit with a standard test light can cause the Airbag to deploy!** One alternative is to disconnect the horns, then operate the horn switch. A clicking sound from the vehicle will confirm the presence of a horn relay. Another alternative is to check a wiring schematic of the vehicle in question.



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b) Press the Valet Switch <u>10</u> times (this operation must be completed within 5 seconds of step a).
 The system will respond with a long horn honk or long siren chirp at the fifth Valet Switch press, then two horn honks or siren chirps at the tenth press.

- c) Press the transmitter's LOCK button, and the system responds with a single short horn honk or siren chirp. The system will not accept further transmitters. As all of the dealer's transmitters are encoded alike, programming only one transmitter will still allow all of the dealer's transmitters to operate the system.
- d) Turning "off" the ignition switch, an attempt to program an additional transmitter or the expiration 10 seconds will cause the system to exit Transmitter Programming Mode, which is indicated by a long horn honk or long siren chirp.

Programming Five Features With The Transmitter

The E-3000^{ATV} has five Programmable Features which may be easily configured to the preferred setting while in the Transmitter Programming Mode. When the system acknowledges the first transmitter, at that point that same transmitter's buttons may be used to change any or all of the five Programmable Features. These are the transmitter buttons, for both three button and four button transmitters, the Programmable Features they control, and their factory default settings:

- 1) LOCK Button: Feature #9 / Doors Lock 90 Seconds After The Ignition Is Turned Off: Default OFF.
- 2) UNLOCK Button: Feature #10 / Doors Lock 90 Seconds After Remotely Unlocking: Page - 31

Transmitter Programming Method #2 - User Valet Switch Programming

This method allows the use of long range dealer transmitters and E-PAK transmitters.

- Turn the ignition switch "on". Leave it "on" for the duration of this procedure. a)
- b) Press the Valet Switch 5 times (this operation must be completed within 5 seconds of step a). The system will respond with a long horn honk or long siren chirp.
- Press each transmitter's LOCK button. As each transmitter's LOCK button is c) pressed, the unit responds with a single short horn honk or siren chirp. If four transmitters are programmed, the fourth transmitter will be accompanied by an audible burst, which indicates exit from Transmitter Programming Mode.
- d) Turning "off" the ignition switch, or 10 seconds of no programming activity will cause the system to exit Transmitter Programming Mode, which is indicated by a long horn honk or long siren chirp.

Transmitter Programming Method #3 - Dealer Valet Switch Programming

This method allows the use of both short and long range dealer transmitters, and also offers a higher level of security by eliminating the ability to place the system into Valet Mode. Please note that this method allows only one of the four "transmitter code slots" in the module to operate: if this method is used with Execupak transmitters, only one can be programmed.

Turn the ignition switch "on". Leave it "on" for the duration of this procedure. a)

If used with an optional electronic siren, the Brown wire may be connected directly to the siren's Black wire, and the siren's Red wire is connected to Constant Positive Voltage. 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 collecting inside it and to enhance sound dispersal. The Brown Horn / Siren

output wire has a 1 Amp capacity, which, if exceeded, can damage the security system control module. Certain situations, among them multiple optional sirens or a vehicle which lacks a horn relay, an optional SPDT relay is required.



WHITE WIRE: (+) Positive Parking Light Output

This is a Positive 12 Volt output for exterior flashing light confirmation and to attract attention to the vehicle if the security system is activated. Also, upon disarming, this circuit will stay on for 30 seconds to confirm disarming and to illuminate the way to the vehicle. This feature gives added security when approaching the vehicle at night.

Connect this wire to the vehicle's Positive 12 Volt parking light circuit. This wire 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. **Note:** Some vehicles, notably Toyotas, have a parking light relay which is triggered by a Negative Ground circuit from the headlight switch. These cars can still be connected directly to the White wire by finding the parking light circuit after the relay, usually at the Fuse/Junction Block.

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, <u>be sure to also test that it is non-rheostated</u>: while metering the wire, operate the dash light dimmer control. The correct wire will show no change in voltage when the dimmer is operated. Do not attempt to flash the parking lights by connecting 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 alarm control unit.

Many European imports have separate left and right side parking lights. When left & right parking lights are on separate circuits, the Black/White Domelight Illumination circuit or a pair of 6 to 10 amp diodes must be used to connect the White wire to each parking light side. Flashing the



Programming Transmitters

The new $E-3000^{ATV}$ has three methods of programming transmitters: two user programming methods, and one for the Executive Dealer.

Another feature of the Executive ATV Series is the ability to change some of the Programmable Features when the first transmitter is programmed, which is detailed in a later section.

Transmitter Programming Method #1 - User Ignition Switch Programming

This is the traditional method, and is the only method available on former Executive models. Please note that this transmitter coding method is a Programmable Feature, and may be configured inoperable. This method allows the use of long range dealer transmitters and E-PAK transmitters.

- a) Turn the ignition switch "on" and "off" 5 times, the 5th time leaving it "on". This operation must be accomplished within 7 seconds.
 The system will respond with a long horn honk or long siren chirp.
- b) Press each transmitter's LOCK button. As each transmitter's LOCK button is pressed, the unit responds with a single short horn honk or siren chirp. If four transmitters are programmed, the fourth transmitter will be accompanied by a long horn honk or long siren chirp, which indicates exit from Transmitter Programming Mode.
 - 10 seconds of no programming activity will cause the system to exit Transmitter Programming Mode, which is indicated by a long horn honk or long siren chirp.

c)



headlights is not recommended. The halogen headlights found in modern vehicles are not designed to be rapidly turned on and off. If connected to the security system, a reduction of their useful life may be noticed. If flashing the headlights is still desired, a relay <u>must</u> be used, since the headlight's current draw exceeds the 7 amp rating of the built-in relay. If flashing headlights and parking lights are desired, use two relays - one relay will supply the parking lights and the other relay will supply the headlights.

WHITE/BLACK WIRES: (+) Or (-) Dome Light Supervision Input/Output

The two White/Black wires are intended for domelight supervision. This feature will turn on the domelight of the vehicle upon disarming to illuminate the interior. This output is very similar to the White wire output except the polarity is selectable to be Positive or Negative. Connect the non-fused White/Black wire to the vehicle's domelight trigger wire. The fused wire will be connected to 12 volts Positive or Negative, whichever polarity is required to activate the vehicle's domelight.



VALET SWITCH AND STATUS LED

Install the Valet Switch and Status LED into the included combination holder and mount the holder under the dash using the two screws provided. Or, if desired, the Valet Switch and Status LED may be mounted separately by using the adhesive on back of the Valet Switch and drilling a 9/32" inch hole for the Status LED. If the LED is to also be mounted separately, select an easily-seen location (usually on the dash-small, empty panels for optional equipment, if present, are preferred) and carefully drill

a 9/32" inch hole after checking for obstructions and the necessary clearance behind the panel (about 1/2"). Route the Valet Switch Blue and Status LED White connectors to the control module and plug into the appropriate ports.



The upper half of the combination holder may be mounted with the two screws provided, or, double-sided adhesive tape may be used.



Then, when the upper half holder is secured, insert the LED into its bracket and adhere the Valet Switch to the circular area (the three guide pins will center it).







OPTIONAL SENSOR PORT

The E-3000^{ATV} features a plug-in port for an optional electronic sensor devices, which enhances the effectiveness of the system. The port is dual-zoned: the first zone will respond by honking the horn (or chirping the optional siren) only; and the second zone will fully trigger, the system. The port supplies constant 12 volt power, grounded output when the system is armed, a negative instant trigger, and a negative prewarn trigger. Most Omega Research and Development, Inc. sensors will plug directly into the control module. Sensors are available that monitor shock to the vehicle and radar sensors that can detect moving objects inside and outside the vehicle. When adding a sensor, follow the installation instructions included with the sensor. After installing, route the harness and connector from the sensor to the security system control module. Plug the sensor's connector into the module's White port marked "Aux". It should be noted that when arming the system with the transmitter, the user has the ability to bypass the sensor, if desired. When bypassed, the Aux. port will not respond to either a prewarn nor an activation trigger. If multiple sensors are desired, an Omega AU-EXP Sensor Multiplexer allows plug-in connection of up to three sensors from a single Auxiliary port.

DOORLOCK CONNECTIONS

The E-3000^{ATV} features a port for an optional doorlock interface. The 4 pin port on the system's control module produces a negative pulse for locking the doors (inside pin), a constant 12 volt pin *for the optional relay coils only* (second pin from the inside), a first negative pulse for driver door unlock (second pin from the outside), and a second negative pulse for unlocking all other doors (outside pin).

The doorlock interface needed will depend upon the type of power doorlocks the vehicle has. The vehicle must have existing power doorlocks. A vehicle that does not have power doorlocks may be equipped for remote keyless entry operation by adding a model DS-2 Electric Door Lock Actuator to each of the doors. This, and an optional DLS or DLS-3 and relays will allow the E-3000^{ATV} only

to operate the doorlocks. Another option is the addition of an Omega Central Power Doorlock kit.

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 most 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. The following sections will discuss the types of doorlock systems found and the available optional interfaces.

3 Wire Negative Pulse Systems: This power doorlock system is 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). Of the remaining two wires, 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. The correct connection point is between the switches and the relays or control unit.

An optional harness is available (model DLP-N3) which allows direct connection between the security system and 3 Wire Negative Pulse doorlock systems. Some doorlock systems, however, require more than the 500ma ground output that the security system's control module can accommodate. In these cases the optional model DLS and two relays must be used. When driver's door unlock priority is desired, the correct interface is the DLS-3.



Model DLP-N3 -Three pin connector with two 24" wires. Allows direct connection of the security system's negative pulse outputs directly to a vehicle's negative pulse doorlocks or to facilitate custom hardwiring of optional relays.

The Optional DLS -3 And 2 Or 3 SPDT Relays - Driver Door Unlock Priority:

The DLS-3 is a triple relay socket (three relays are also needed) and is the most universal interface which allows the security system to lock the vehicle's doors, unlock only the driver's upon disarming (driver's door unlock priority) and, if desired, a second press of the transmitter's LOCK button will unlock all of the doors. The DLS-3 used with two relays can also be used in place of the DLS to lock and unlock all doors.



Adding The Optional DS-2 Actuator And The DLS And 2 Relays:

Some vehicles have a type of power doorlock system in which mechanically locking and unlocking the driver's door will operate an electrical switch in the door which supplies voltage to actuators in the other doors. There is <u>no</u> actuator in the driver's door, only a switch.

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An indication of this type of power doorlock system DLS Connector Plugs Into Alarm is when the driver door key will operate the passenger door, but the pass-Relav Relav enger side will not operate the driver door. DLS \pm DLS Brown And DLS Green Wire To DS-2 Blue Wire DLS Violet White Wires Connect To DLS Blue Wire To DS-2 Red Wire Wire To 12 VD]+ Chassis Ground

Adding DS-2 Actuators And DLS And 2 SPDT Relays



Use this diagram when adding actuators to a vehicle not equipped with factory power door locks. Route the wires from the other DS-2 actuators and connect all the actuators to the DLS in parallel.



3 Wire Positive Pulse Systems: This power doorlock system is 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 wires on the back of the switch. Of the three wires, one will be constant 12 volt positive, regardless of the switch's position. Of the two remaining wires, one will show 12 volt positive when the switch is pushed to "lock", and the other will show 12 volt positive when the switch. Since the security system's output polarity must be reversed from negative ground to 12 volts positive, an optional doorlock interface <u>must</u> be used. Three interfaces are available - the models DLP-P3, the DLS and the DLS-3 with optional SPDT relays. The DLS-3 is discussed in detail later.

Model DLP-P3 - Three pin connector with a transistor converter network which changes the security system's negative pulse doorlock outputs to positive pulses, allowing direct connection a vehicle with positive pulse doorlocks. Overall length 20". Easier and more efficient than using relays for vehicles that have positive pulse doorlock systems.

Doorlock

3 Wire Positive Doorlocks With The Optional DLP-P3



Model DLS- The DLS is a dual relay socket with a harness and connector to plug into the alarm control module and non-terminated wires to splice into the vehicle's wiring. The DLS and two relays is one of the most universal doorlock interface available, allowing connection to 3 Wire Negative, 3 Wire Positive and 5 Wire Reversal systems. The relays used with it are standard 30 amp single pole, double throw (SPDT) automotive relays.



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Examine the wires on the back of the switch. Normally 5 wires will be found. Of the wires, one will be constant 12 volt 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 volt positive when the switch is pushed to "lock", and the other will show 12 volt positive when the switch is pushed to "unlock". When the correct wires are found, they must be cut. Notice in the 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.

Please note that when configuring driver's door unlock priority, the driver's door motor unlock wire will be found as a 5 wire reversal system, regardless of the system type found at the doorlock switches. Driver's door priority unlocking is discussed in the DLS-3 section of this manual.



3 Wire Positive Doorlocks With The Optional DLS And 2 SPDT Relays



5 Wire Reversal Rest At Ground Systems: This power doorlock system differs from the negative and positive pulse systems in the fact that 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 correct doorlock interface for this type of system is the optional DLS and 2 SPDT relays. The important thing to remember is that the wires in this system *rest at ground*, which means that the wires must be "opened", or cut, to make the connections.

