LIMITED LIFETIME WARRANTY

Products manufactured and sold by OMEGA RESEARCH & DEVELOPMENT (the Company), are warranted to be free from defects in materials and workmanship under normal use. If a product sold by the Company proves to be defective, the Company will repair or replace it free of charge within the first year and thereafter all parts to be repaired are free with only a nominal charge for Omega's labor and return shipping, during the lifetime of the car in which it was originally installed.

All products for warranty repair must be sent postage pre-paid to OMEGA RESEARCH & DEVELOPMENT, P.O. Box 508, Douglasville, Georgia 30133, with bill of sale or other dated proof of purchase. This warranty is non-transferable and does not apply to any product damaged by accident, physical or electrical misuse or abuse, improper installation, alteration, any use contrary to its intended function, unauthorized service, fire, flood, lightning, or other acts of God.

This warranty limits the Company's liability to the repair or replacement of the product. The Company shall not be responsible for removal and/or reinstallation charges, damage to or theft of the vehicle or its contents, or any incidental or consequential damages caused by any failure or alleged failure of the product to function properly. Under No Circumstances Should This Warranty, Or The Product Covered By It, Be Construed As A Guarantee Or Insurance Policy Against Loss. The Company neither assumes nor authorizes any person or organization to make any Warranties or assume any liability in connection with the sale, installation, or use of this product.

WARNING: Keep Transmitter Out Of The Reach Of Children. Don't Keep Children Inside The Vehicle While This AU-REC Is Operating Your Vehicle.

LIER4LC2

REMOTE CAR STARTER WITH BUILT-IN RECEIVER

OWNER'S MANUAL & WIRING INSTRUCTIONS

Warning! Designed For Fuel Injected, Automatic Transmission Vehicles ONLY.

MODEL: AU-REC-4LC & AU-REC-4TLC

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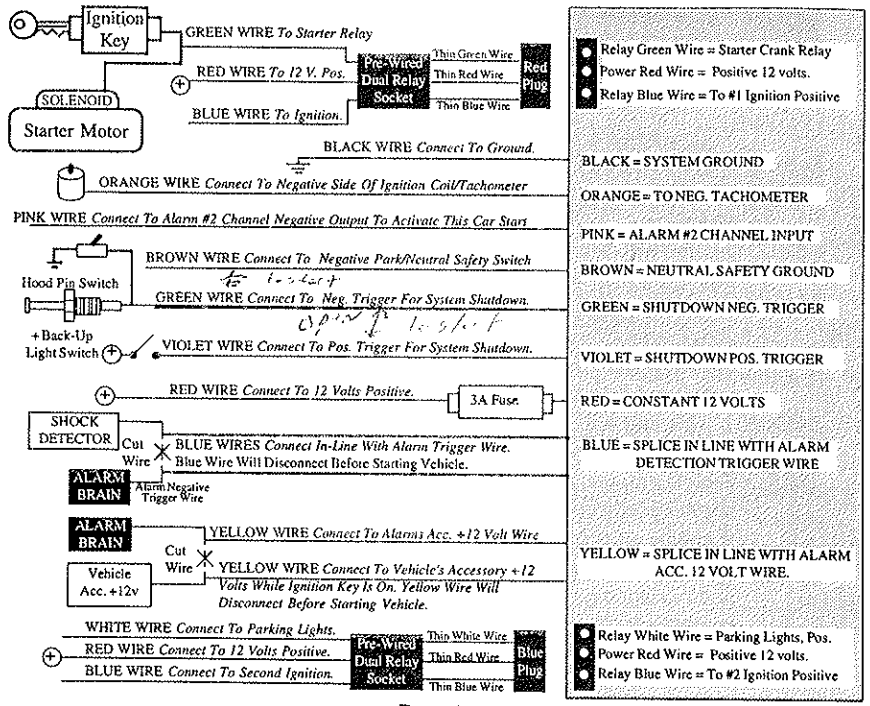
CODING RECEIVER TO TRANSMITTERS

If you use a remote transmitter to operate this unit directly then you must turn on the #3 dip switch located on the 6-position dip switch inside the REC to activate the built-in receiver. Follow the instructions below to code a transmitter to operate this REC unit directly. **NOTE:** A 3 second or longer transmitter signal must be received to activate this REC unit to start your vehicle. Once the REC is activated the vehicle's engine will start cranking in 3 more seconds to allow time for the REC to turn off any detection devices your alarm may have connected through the REC Blue wires.

1. Open the transmitter case you have selected to operate this AU-REC. Take out the battery and the printed circuit board. There are + & - tracer lines marked 1 through 10 on the back of transmitter printed circuit board. The cut & uncut + & - tracers 1 through 10 select the frequency coding the transmitter will transmit.
2. Open the AU-REC brain case. Inside you will see a 6-slide & a 10-slide switch on the printed circuit board. The positive, neutral & ground condition of the 10-slide switches will select the frequency coding it will operate from.
3. Turn OFF all REC receiver dip switch numbers that match the transmitter tracer line numbers that are CUT. Keep all the REC receiver dip switch numbers turned ON that match the same tracer numbers in the transmitter that are NOT CUT.
4. From the REC receiver 6-slide dip switch, the on and off condition of dip switches 5 & 6 will determine which transmitter button will operate the auxiliary receiver.
   - **To Operate From Transmitter Button #1:** REC receiver dip switch #5 and #6 both are turned ON.
   - **To Operate From Transmitter Button #2:** REC receiver dip switch #5 is to be turned OFF and #6 dip switch should be turned ON.
   - **To Operate From Transmitter Button #1 & 2 Pushed Together:** REC receiver dip switch #5 is to be turned On, and #6 dip switch should be turned OFF.



OPERATING THIS SYSTEM

ACTIVATING THIS UNIT ONE OF TWO WAYS:

First Way: You Can Press A Selected Transmitter Button For 3 Seconds. This Will Activate The Car Starter Directly In The Sequence Listed Below.

Second Way: You Can Press A Selected Transmitter Button Allowing Your Alarm System To Activate This Car Starter In The Sequence Listed Below.

FIRST: This unit will disconnect any alarm detection devices connected through this unit's blue wires. This is helpful because the vibration from the vehicle starting and running would be detected from your alarm system shock or motion detectors. So disconnecting your alarm circuit before cranking the vehicle will allow the alarm to keep protecting your vehicle while starting the vehicle.

SECOND: This unit will disconnect the accessory 12 volts that goes to your alarm through the yellow wires.

THIRD: Vehicle's starter will crank for up to 6 seconds, or will stop cranking automatically upon the vehicle running . (After the vehicle is running, if engine quits for any reason, this system will automatically make a second attempt to start vehicle engine). While the vehicle is cranking and/or running, the vehicle's lights will come on (if the White wire is connected), so you will have a visible way to tell this unit is operating your vehicle. The lights will turn off when the engine turns off or when you put the vehicle in gear or press the brake pedal.

OPERATING THIS SYSTEM

FOURTH: The vehicle engine will run for a maximum of 10 minutes and operate any electrical item that was turned on (example: air conditioner or heater). At about 10 minutes running time the unit will automatically shut off unless you have entered the vehicle and turned "on" your ignition key. If you accidently turn the ignition key to the crank position while the vehicle is still running, this unit can be wired to protect you from grinding the vehicle's starter.

FIFTH: Security And Safety Protection:

A) If the vehicle hood is opened (grounding the green wire) this unit will automatically shut off the vehicle's engine.

B) If the automatic transmission gear shifter is taken out of Park position (removing ground from the brown wire), this unit will automatically shut off the vehicle's engine.

C) If the engine RPM is too high this unit will automatically shut off the vehicle's engine.

SIXTH: Once you enter the vehicle and turn on the ignition key this allows the ignition key to start operating the vehicle along with this unit. Once you have taken the automatic transmission gear shifter out of the Park position, this car starting unit will shutdown allowing the ignition key to solely operate your vehicle.

SEVENTH: While this unit is operating the vehicle, if you press the transmitter button once again for three seconds, this unit will cease to operate your vehicle. This it confirmed by the lights turning off.

DIP SWITCH SELECTIONS

4-POSITION DIP SWITCH: (Inside The Unit)

FUNCTION OF #1 & #2 SWITCH: *(Select Quantity Of Cylinders)*

The first 2 dip switch positions tell this unit how many engine cylinders you have so it can calculate the engine R.P.M.. this allows the unit's orange wire to function properly to stop the vehicle starter from cranking, or when engine starts idling too fast while being controlled by this car starting equipment then the engine will be turned off.

SELECTION: Move the first 2 dip switches to these positions that match the quantity of engine cylinders your vehicle has.

4 Cylinder
Both Switches Off

6 Cylinder
#1 On #2 Off

8 Cylinder
#1 Off #2 On

12 Cylinder
Both Switches On

FUNCTION OF #3 SWITCH: *(Turn Built-In Receiver On/Off)*

The third dip switch on the 6p switch is used to turn on or off the built-in receiver. If you use a remote transmitter to operate this unit directly then you turn on this #3 dip switch to activate the built-in receiver. If you are using a second or third channel output from your alarm to operate this unit's pink wire to start the vehicle, then turn off this dip switch to turn off the built-in receiver.

FUNCTION OF #4 SWITCH: *(Selects 10 Or 20 Minute Engine Running Time.)*

FUNCTION OF #5 & #6 SWITCHES: *(Selects Transmitter Button Operation)*

#5 & #6 ON So Receiver will operate from transmitter button 1

#5 OFF & #6 ON So Receiver will operate from transmitter button 2

#5 On & #6 OFF So Receiver will operate from transmitter button 1& 2 Pushed Together

RED & BLACK WIRE CONNECTIONS *power*

RED WIRE: (12 volts positive input).

FUNCTION: To supply constant 12 volts positive for this unit to operate. The On/Off toggle switch allows this unit to stay turned off for valet purposes.

CONNECTION: Should be made directly to the car battery or fuse block with a constant +12 volts 3 amp capacity all the time.

BLACK WIRE: (Ground input).

FUNCTION: To supply constant ground for this unit to operate.

CONNECTION: Secure this wire to the metal ground frame of vehicle or directly to the battery ground cable 6" or more away from battery. Make sure to scrape away all paint, primer, dirt and grease to get a good ground connection.

THIN BLACK WIRE: (Antenna)

FUNCTION: This thin black wire is connected directly to this unit. It is the built-in receiver antenna. Just stretch this wire out, keeping it away from any metal that would block the signal from your transmitter or you can install our optional window antenna.

ORANGE WIRE CONNECTION *TACHOMETER*

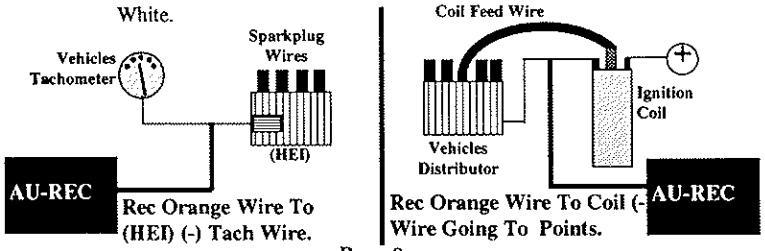
ORANGE WIRE: *(Engine R.P.M. Information.)*

FUNCTION: To provide ignition the information necessary to calculate the engine RPM so that the car starting equipment will know:

1) When your vehicle has started so it can stop cranking your vehicle.
2) While this car starting equipment is operating the vehicle if the engine RPM is too high then this system will stop the engine from running.

CONNECTION: Connect this orange wire to the (-) terminal of ignition coil or tachometer. Use a Voltmeter to test this circuit, it will indicate 1 to 6 volts while engine is running. **Do not use a test light to test this circuit.** On vehicles equipped with high energy ignition (HEI), locate the tach wire as follows. Please note that wire colors often change. Use a Voltmeter to test them.

1) On vehicles equipped with separate coil, tach wire is Black/White or just White.
2) On vehicles with coil and distributor as one unit, tach wire is Brown.
3) On vehicles with a three coil module, no distributor, the latch wire is Purple/ White.



PINK WIRE CONNECTION *Activation*

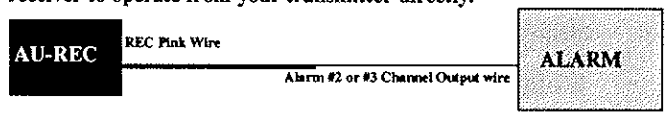
PINK WIRE (Activates *Unit To Start The Vehicle)*

FUNCTION: If you are going to use a Negative Pulse signal from any alarm unit to activate this REC car starter then you need to turn off dip switch # 3 located on the 6-position dip switch inside the REC unit this will turn off the built-in receiver that you are not using.

When this pink wire is grounded this tells the REC unit to start your vehicle. It won't start cranking the vehicle for 3 seconds allowing time for the REC to disconnect any detection devices you have connected to your alarm through the REC Blue wires. Then the REC white wire will flash your lights to confirm it is now cranking your vehicle. When the pink wire becomes grounded again while the engine is running from this REC unit then the vehicle will turn engine & lights off.

CONNECTION: Connect this pink wire to a second or third channel output of your alarm system that when activated will give a 500ma ground pulse. First time the REC pink wire is grounded it will turn on the REC to start the vehicle and flash the lights. The second time the REC pink wire is grounded it will turn off the vehicle engine and stop the lights from flashing.

NOTE: If you use a transmitter directly to operate this system then do not connect this pink wire. Dip switch #3 must be turned on for the built-in receiver to operate from your transmitter directly.



BROWN WIRE CONNECTION *Neutral Safety*

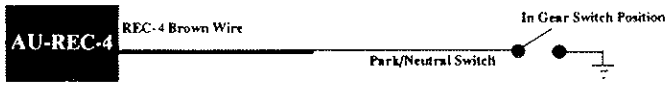
BROWN WIRE (Park/Neutral Safety Switch Ground Wire)

FUNCTION: This wire must be in the grounded condition to allow this REC unit to operate. If this wire is not grounded the REC will not operate. When this wire is connected to the Park/Safety switch wire in your vehicle then only while the vehicle's gear shifter is in the Park position will the REC operate. Once the vehicle gear shifter is taken out of Park position the REC will stop the vehicle's engine if running through the REC.

CONNECTION: On most vehicles, the Park/Safety switch wire is grounded when vehicle's gear shifter is in the Park position. When the gear shifter is taken out of the Park position the wire becomes ungrounded. Connect this Brown wire to the vehicle's Park/Safety switch.

NOTE: Some vehicles do not have a true Park/Safety Switch. To prevent starting attempt if vehicle is left in gear, locate a possible Orange/Black wire at the back-up light switch on top of the steering column. This wire should indicate being grounded while the transmission is in park.

NOTE: On 1980-1985 Cadillac vehicles, to prevent starting attempt if vehicle is left in gear, connect REC brown wire to a Blue wire at the back-up light switch and connect the REC violet wire to a Black/White wire at the forward gear (+) output from the vehicle's back-up light switch.

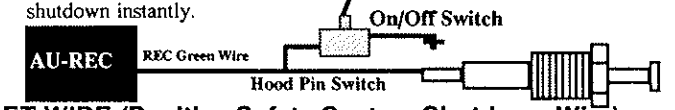


GREEN & VIOLET WIRE CONNECTIONS

GREEN WIRE (Negative Safety System Shutdown Wire)

FUNCTION: When this wire is grounded REC unit will not operate or, if engine is already operating from the REC, the REC will shutdown, turning off the engine when the green wire becomes grounded. If green wire is not grounded the REC **On/Off Switch** will turn On/Off the REC from working.

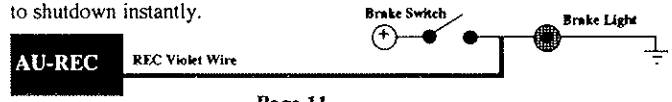
CONNECTION: Most connections are made to an engine hood pin switch so if someone opens your hood or turns on the On/Off switch the engine will shutdown instantly.



VIOLET WIRE (Positive Safety System Shutdown Wire)

FUNCTION: When this wire is connected to 12 volts (+) positive REC unit will not operate or if engine is already operating from the REC then the REC will shutdown turning off the engine when the violet wire connects to (+) 12 volts. If violet wire is not connected to (+) 12 volts the REC will operate.

CONNECTION: Most connections are made to the brake switch under the dash or back-up lights wire located in back of the light assembly or switch. When a vehicle's gear shifter is taken out of Park position it will go into the reverse position first and that will make your back-up lights come on to advise the REC the vehicle's gear shifter is taken out of Park position causing the engine to shutdown instantly.

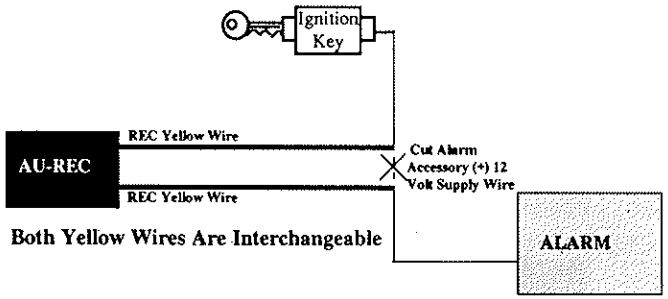


YELLOW WIRE CONNECTIONS

YELLOW WIRE (Accessory 12 volt By-Pass Wires)

FUNCTION: When the REC is activated it will engage a built-in 7 amp relay to disconnect the connection between the REC two yellow wires before cranking the vehicle. This will allow your alarm system to stay armed while the vehicle's engine is running. When the REC is not being operated the REC two yellow wires are connected to each other through the built in 7 Amp relay pin# 30 & 87a. Note: You can connect any electrical items up to 7 amps rating through the two yellow wires that you may want to turn on or off.

CONNECTION: Cut the wire that supplies the power to your electrical item (Example: accessory 12 volts being supplied to your alarm), and connect each end of the wire you cut to the two REC yellow wires.



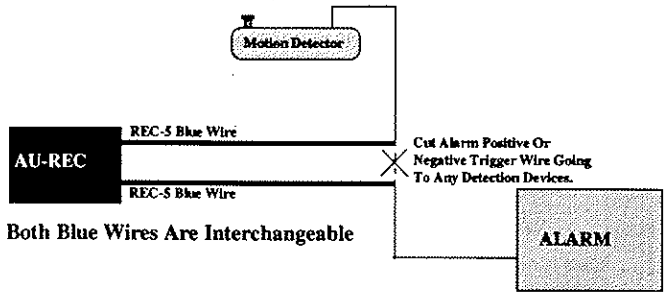
Both Yellow Wires Are Interchangeable

BLUE WIRE CONNECTIONS

BLUE WIRE (Alarm Detection By-Pass Wires)

FUNCTION: When the REC is activated it will engage a built-in 7 amp relay to disconnect the connection between the REC two blue wires before cranking the vehicle. This will allow your alarm system to stay armed while the vehicle's engine is running. When the REC is not being operated the REC two blue wires are connected to each other through the built in 7 Amp relay pin# 30 & 87a. Note: You can connect any electrical items up to 7 amps rating through the two blue wires that you may want to turn on or off.

CONNECTION: Cut the alarm trigger wire that is connected to all the detection devices that are added to the alarm system (Example: Shock Sensors, Motion Detectors), and connect each end of the wire you cut to the two REC blue wires.



Both Blue Wires Are Interchangeable

RED PLUG PRE-WIRED RELAYS SOCKET

THICK RED WIRE (Constant Positive 12 Volt Supply)

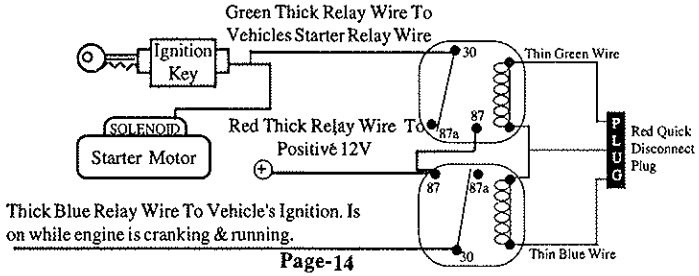
FUNCTION: Supplies (+) 12 volts 30 amps to the thick green & blue wires on this socket.
CONNECTION: Connect this Thick red wire to the battery constant (+) 12 volts.

THICK GREEN WIRE (Starter Solenoid Relay Wire)

FUNCTION: To supply (+) 12 volts 30 amps to your vehicle's starter solenoid relay.
CONNECTION: Connect this Thick Green wire to the ignition key wire going to the starter solenoid. This wire will read 12 volts only when ignition key is in start position (cranking the vehicle). **NOTE: General Motors pass key system (VATS) system, requires additional module model# AU-VATS.**

THICK BLUE WIRE (Connect To Vehicle's Primary Ignition)

FUNCTION: To supply (+) 12 volts 30 amps to vehicle primary ignition wire or to additional relays that would turn on more the two ignition circuits if need.
CONNECTION: Connect this Thick blue wire to the (+) 12 volts supply wire going to the primary ignition that is only on while the ignition key is on & while cranking the vehicle.**NOTE: G M (VATS) system, requires optional model# AU-VATS.**



BLUE PLUG PRE-WIRED RELAYS SOCKET

THICK RED WIRE (Constant Positive 12 Volt Supply)

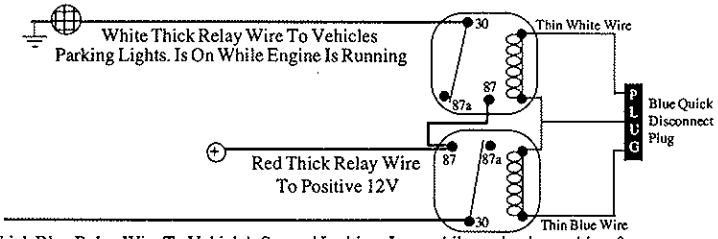
FUNCTION: Supplies (+) 12 volts 30 amps to the thick white & blue wires on this socket.
CONNECTION: Connect this Thick red wire to the battery constant (+) 12 volts.

THICK WHITE WIRE (Connect To Lights)

FUNCTION: To supply (+) 12 volts 30 amps to vehicle lights.
CONNECTION: Connect this Thick white wire to the (+) 12 volts supply wire going to the lights you want to have turned on when the REC is operating.

THICK BLUE WIRE (Connect To Second Ignition If Required)

FUNCTION: To supply (+) 12 volts 30 amps to vehicle second ignition wire or to additional relays that would turn on more the two ignition circuits if need. Adding additional relays can turn on vehicles heater or air conditionar after the REC has started.
CONNECTION: Connect this Thick blue wire to the (+) 12 volts supply wire going to the second ignition.**NOTE: G M (VATS) system, requires optional model# AU-VATS.**



Thick Blue Relay Wire To Vehicle's Second Ignition. Is on while engine is cranking & running. Relay is not included because most cars do not require this additional ignition connection.