

**ATTENTION:** This wiring information is being provided free of charge and on an as is basis, without any representation or warranty. It is your responsibility to verify any circuit before interfacing with it by using a digital multimeter. Rightclick assumes no responsibility with regards to the accuracy or currency of this information. Proper installation in every case is and remains the responsibility of the installer. Rightclick assumes no responsibility resulting from an improper installation, even in reliance upon this information.

## Fitting/Installation Guide - UNIVERSAL

**Please test, with which type of central locking system your vehicle/car is equipped:**

1. Positive or negative triggered central locking system.
2. Electro-pneumatic central locking system.
3. One side operated central locking system.

In case your central locking system can **NOT** be opened and closed from the passenger door, you need to install an additional control device (motor/actuator) into the driver's door.

### Checking your locking system

Please use a diode test lamp (voltmeter) for checking electric currents. Conventional test lamps conduct too high voltage and can therefore cause damages to electronic control devices. Please take care NOT to connect the remote control with the "motor wire" of your central locking system (the one that goes to the motor?); short-circuit danger!

**Before installing the door panels again, check the following:**

1. Make sure your vehicle key is not inside the car.
2. Attach the battery again.
3. Close the vehicle doors.
4. Check the functionality of the central locking system by closing and re-opening the doors with your car key. Lock the vehicle again.

### Current supply

Red cable at constant (+12v)

connect to permanent +12v (Vehicle fused +12v constant)

Black cable at ground (-)

attach to battery minus (-) to the vehicle (chassis ground)

**CONSTANT POWER** (+12V, key in any position including off)

These wire(s) are in your vehicle's main ignition harness, usually located on the steering column coming from the ignition switch. Probe each wire with your test light. The correct wire will show +12V when the ignition switch is in these 4 positions (LOCK-ON-OFF-CRANK). Attach the **RED** power wire from the main unit harness to this wire.

### CHASSIS GROUND

Locate an easy to get to bolt or screw located under the driver's side of the dash and attach the **BLACK** ground wire from the main unit harness securely as pictured.



### Turning signal control - Indicators Lights

- 1- Find/Determine both wires that carry +12 volt when having the turning light switched on.
- 2- Connect one of the brown wire (from the main unit) with the right side turning light, the other brown wire with the left side turning light.

#### Note:

Most vehicles manufactured in Germany have cable colours as follows:

black/white - turning signal left side

black/green - turning signal right side

### **To positive/negative trigger (Trunk-Boot Release): Boot Release Wire: Trunk Release Output**

Some cars have an electric boot release or one can be added. This can be interfaced with our alarms systems or Remote Keyless that have separate channels to control a boot release. For cars with a built in boot release the wire is found at the keyless entry module under the dash or behind a kick panel.

### **To find the boot release trigger wire with your multi-meter:**

1. Set to DC voltage.
2. Attach the (-) probe to Chassis Ground.
3. Probe the wire you suspect of being the boot release trigger wire with the (+) lead.
4. The meter should indicate 12V with the boot release button depressed if you have found the correct wire.
5. The meter will then read 0V when the boot release button is at rest.

**NOTE!** Never connect an alarms boot release trigger output directly to the boot release wire. The boot release trigger outputs from almost all alarm systems are low-current outputs. Connecting directly to the boot release wire without a relay could cause the unit to fail.

### **Types of central locking systems**

Negative control	---	Diagram Type 2
Positive control	---	Diagram Type 3
Electro-pneumatic control	---	Diagram Type 1
Additional control device (motor)	---	Diagram Type 8

### **LOCATING AND DETERMINING YOUR DOOR LOCK TYPE**

In most cases, the factory door lock wires will be smaller gauge and located in the driver's kick panel or under the driver's dash.

**NOTE:** To help determine your door lock type, refer to the Door Lock Types by Manufacturer chart (See below) or In most cases we provide you with the Central lock wiring colour's diagram for your car (Normally a separate sheet is enclosed). If the year of your vehicle is listed as having two or more types of door lock systems, you must test for all of those types.

### **TESTING DOOR LOCK TYPE:- There are 3 basic system types:**

#### **"Type 2 Negative" Door Lock Test (Most Imports, some newer Fords)**

Probe both door lock wires going to the door lock switch these wires are usually located in the driver's kick panel. Attach one end of your test light to +12V using the vehicle's door lock controls activate the lock then the unlock testing both wires one at a time. If the test light illuminates when you probe the lock and the unlock wires your vehicle has a "Type 2" door locking system. Make sure to mark which wire is lock and unlock.

#### **"Type 3 Positive" Door Lock Test (Most GMs and most Chryslers)**

Probe both of your door lock wires going to the door lock switch these wires are usually located in the driver's kick panel, attach one end of your test light to a good chassis ground. Using the vehicle's door lock controls, activate the lock then the unlock testing both wires one at a time. If the test light illuminates when you probe the lock and the unlock wires your vehicle has a "Type 3" door locking system. Make sure to mark which wire is lock and unlock.

#### **"Type 4 Positive" Door Lock Test (Most Fords, some Chryslers, GM Trucks)**

Using your test light probe both the lock and the unlock wires usually located in the driver's kick panel. Attach one end of your test light to ground probing both wires one at a time while locking and unlocking the doors with the driver's side switch (usually the master switch). The test light should illuminate in both switch positions. Now attach one end of your test light to +12V constant, probe both wires one at a time again. The light should then illuminate again only in reverse order. This tells you that you have a "Type 4" reversing polarity system. Make sure to mark which wire is lock and unlock.

### **Other Types:**

**"Type 1 pneumatic"      "Type 8 Motors One side operated"      "Type 6 One wire"      "Type 7 Japanese Driven"**

## Door Lock Harness (Keyless OR Alarm) wire connection guide

The system has door lock relays on-board, and can directly interface with most electric power door lock systems drawing 30 amps or less. It can also drive aftermarket actuators directly. (Some vehicles require that an aftermarket actuator be added to the driver's door to allow system control, see Type D wiring section).

**IMPORTANT!** Depending on the type of door lock system, there may be additional wires in the Door Lock Harness that are not required used in wiring the door locks.

### Power door lock wires

The system has door lock relays on-board, and can directly interface with most electric power door lock systems drawing 20 amps or less.

### Identifying the door lock system

The easiest way to determine which type of door lock system you are working with is to remove the master locking switch itself, which is usually on the driver's door or on the center console. Once you have determined which type of factory door lock circuit you are working with, and the color codes of the switch wires to be used, you can usually simplify the installation by locating the same wires in the vehicle's kick panel. If no central locking switch is found, the installation may require a door lock actuator.

**NOTE:** Always retest the wires in the kick panel to be sure they function the same way as the wires on the switch.

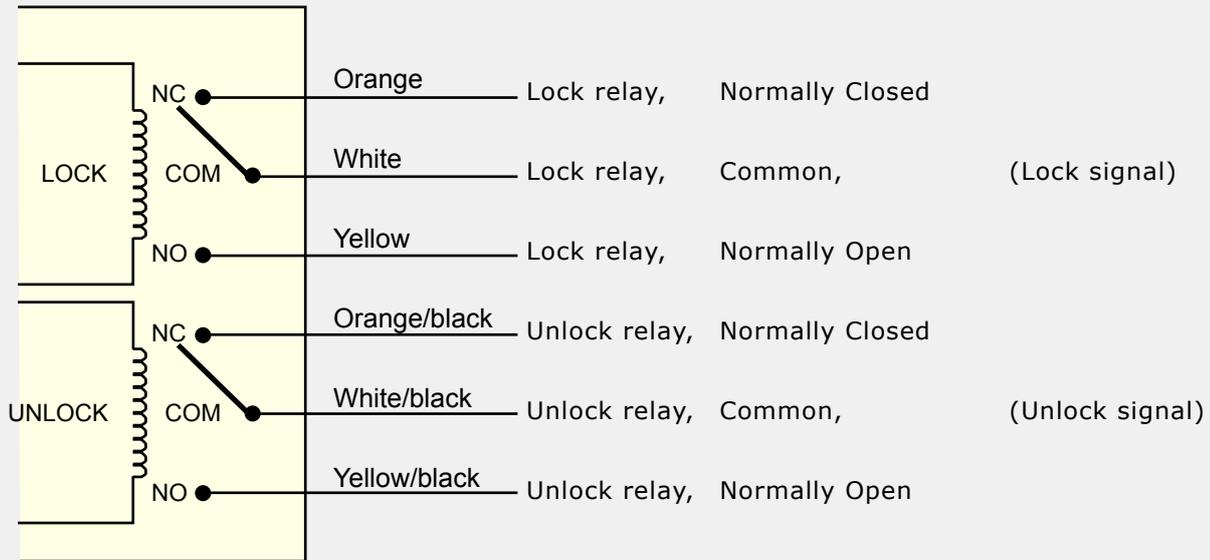
### There are eight common types of door lock circuits (some vehicles use more unusual systems):

- **Type A:** (TYPE 3) Three-wire (+) pulse controlling factory lock relays. Most GM, some Ford and Chrysler, 1995 Saturn, some new VW, newer BMW.
- **Type B:** (TYPE 2) Three-wire (-) pulse controlling factory lock relays. Most Asian vehicles, early Saturn, some BMW and Porsche.
- **Type C:** (TYPE 4) Direct-wired reversing-polarity switches. The switches are wired directly to the motors. This type of system has no factory relays. Most Fords, many GM two-doors cars and trucks, many Chryslers.
- **Type D:** (TYPE 8) Adding one or more aftermarket actuators. These include slave systems without an actuator in the driver's door, but with factory actuators in all the other doors. Type D also includes cars without power locks, which will have actuators added. All Saabs before 1994, all Volvo except 850i, all Subaru, most Isuzu, and many Mazdas. Some mid-eighties Nissans, pre-1985 Mercedes-Benz and Audi.
- **Type E:** (TYPE 1) Electrically-activated vacuum systems. The vehicle must have a vacuum actuator in each door. Make sure that locking the doors from the driver's or passenger side using the key activates all the actuators in the vehicle. This requires a slight modification to the door lock harness. Mercedes-Benz and Audi 1985 and newer.
- **Type F:** (TYPE 7) One-wire system - cut to lock, ground to unlock. This system is found in late-model Nissan Sentras, some Nissan 240SX, and Nissan 300ZX 1992 and later. It is also found in older Mitsubishi's, and some early Mazda MPV's.
- **Type G:** (TYPE 6P) Positive (+) multiplex. This system is most commonly found in Ford, Mazda, Chrysler and GM vehicles. The door lock switch or door key cylinder may contain either one or two resistors.
- **Type H:** (TYPE 6N) Negative (-) multiplex. The system is most commonly found in Ford, Mazda, Chrysler and GM vehicles. The door lock switch or door key cylinder may contain either one or two resistors.

### At the switch

- Three-wire switches will have either a constant ground input or a constant (+)12V input, along with the pulsed lock and unlock outputs to the factory relays.
- Many BMW's and VW's have no external switch. The switches are inside the actuator, and instead of pulsing, the proper wires will flip-flop from (+)12V to (-) ground as the door locks are operated.
- Direct-wired switches will have a (+)12V constant input and one or two (-) ground inputs, along with two output leads going directly to the lock motors.

## INSIDE ELEMENT - Door Lock Harness (Keyless OR Alarms)



### Inside elements

Right to



## Central Door Locking Wiring Diagram

Follow the diagrams below for wiring basic central locking systems.

### TYPE 2 (Type B): Negative Triggerred, Relay-Driven System

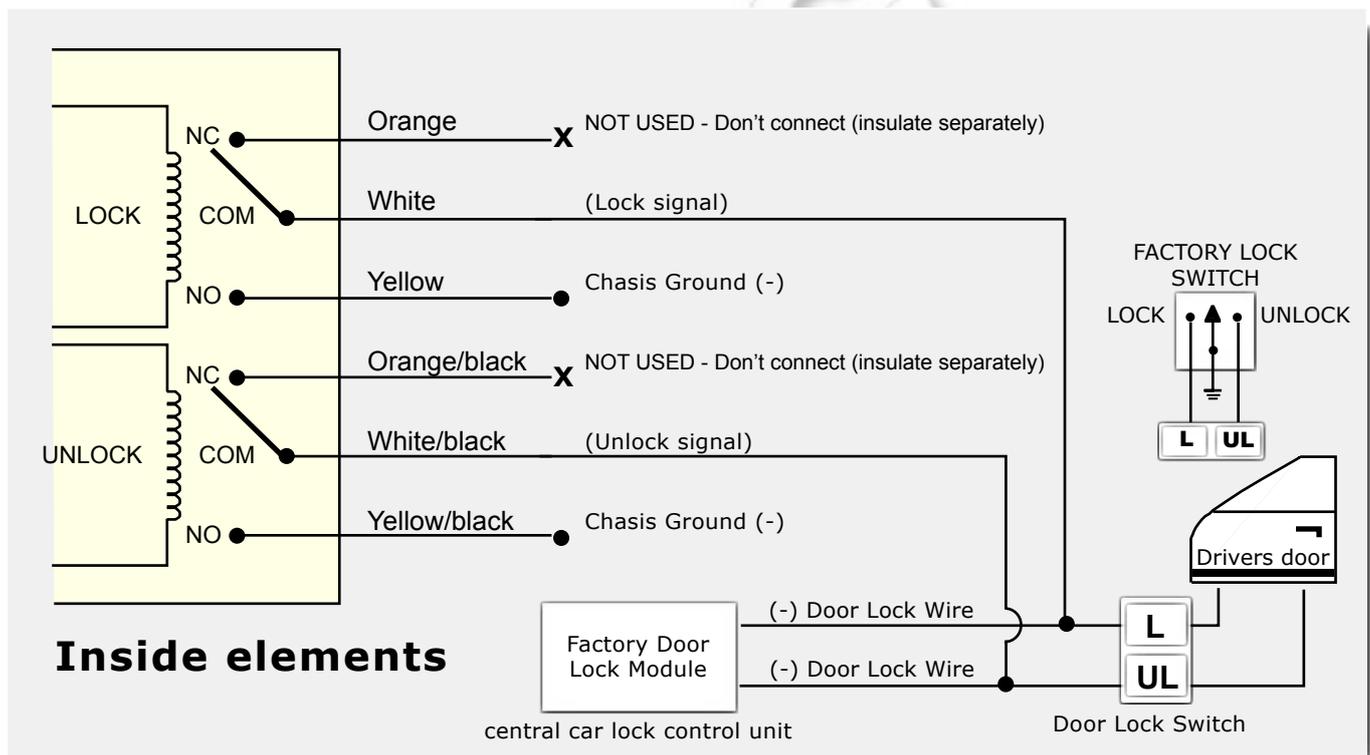
#### Negative Central Locking :-

- Two wires resting open circuit, one pulses ground for lock, one pulses ground for unlock

This system is common in many Toyota, Nissan, Honda, and Saturn models, as well as Fords with the keyless entry system (some other Fords also use Type B).

The switch will have three wires on it, and one wire will test ground all the time. One wire will pulse (-) when the switch locks the doors, and the other wire will pulse (-) when the switch unlocks the doors. This type of system is difficult to mistake for any other type.

Orange	---	not used
White	---	negative lock output to car
Yellow	---	connect to ground
Orange/black	---	not used
White/black	---	negative unlock output to car
Yellow/black	---	connect to ground



## Central Door Locking Wiring Diagram..... CONTINUE

Follow the diagrams below for wiring basic central locking systems.

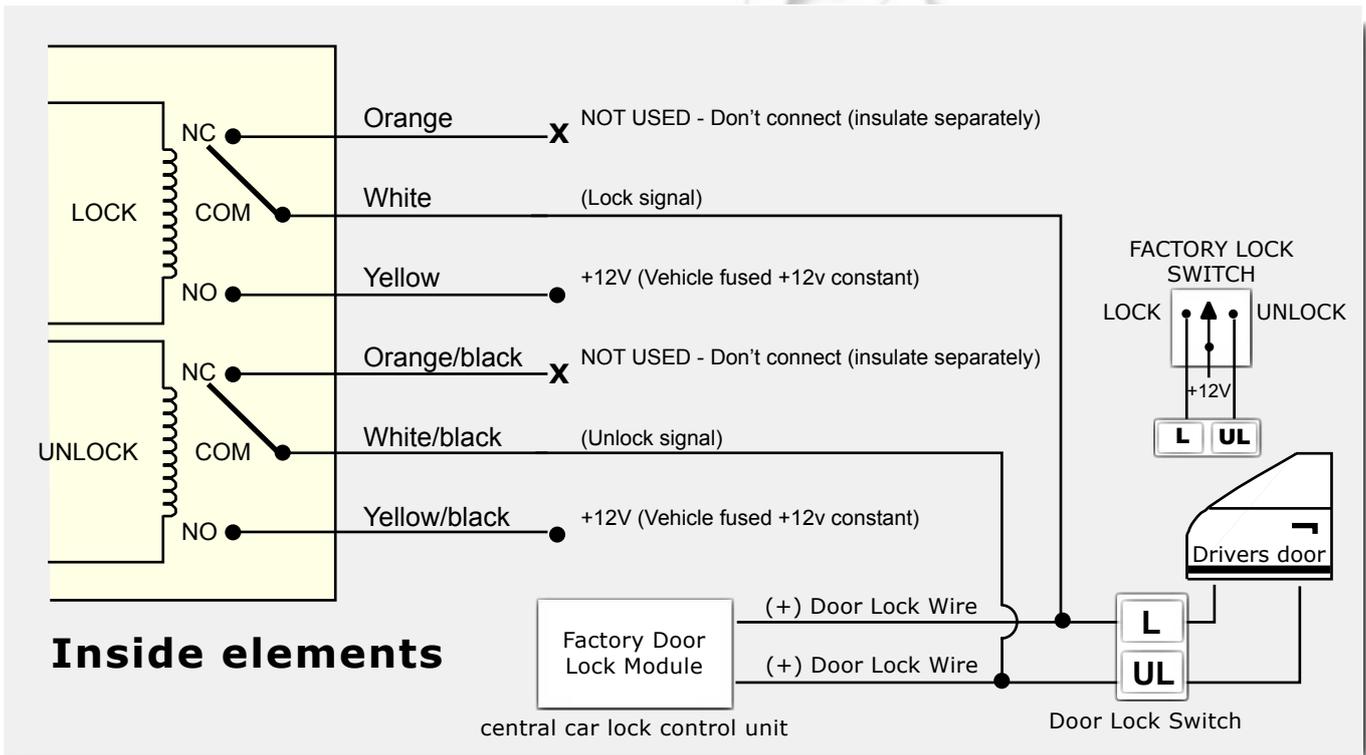
### TYPE 3 (Type A): Positive Triggerred, Relay-Driven System

#### Positive Central Locking :-

- Two wires resting open circuit, one pulses 12v for lock, one pulses 12v for unlock

Three-wire (+) pulse controlling factory lock relays. Most GM, some Ford and Chrysler, 1995 Saturn, some new VW, newer BMW.

Orange	---	not used
White	---	positive lock output to car
Yellow	---	connect to permanent +12v (Vehicle fused +12v constant)
Orange/black	---	not used
White/black	---	positive unlock output to car
Yellow/black	---	connect to permanent +12v (Vehicle fused +12v constant)



## Central Door Locking Wiring Diagram..... CONTINUE

Follow the diagrams below for wiring basic central locking systems.

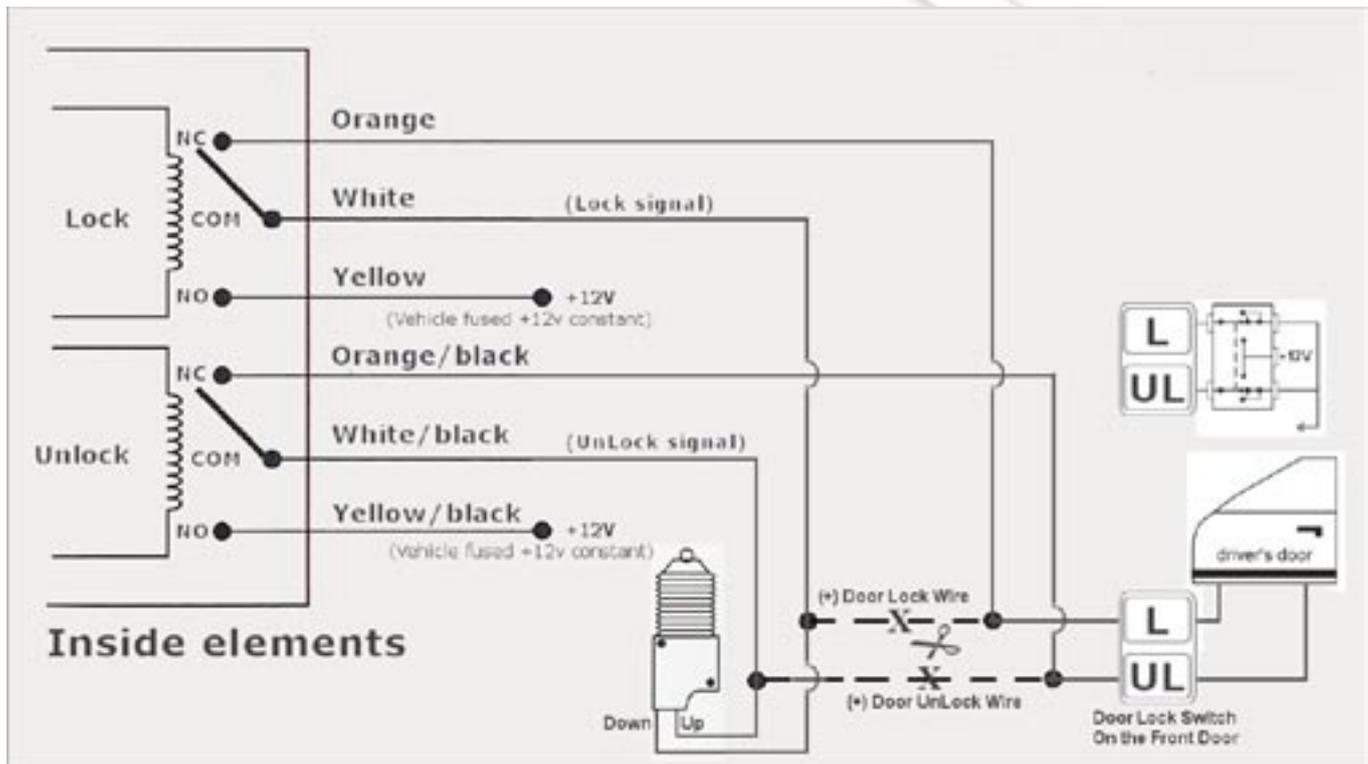
### TYPE 4 (Type C): Reverse Polarity, Positive Triggerred

#### Motor Interrupt Central Locking :-

- Two wires resting at ground, one pulses 12v for lock, one pulses 12v for unlock

Direct-wired reversing-polarity switches. The switches are wired directly to the motors. This type of system has no factory relays. Most Fords, many GM two-doors cars and trucks, many Chryslers.

Orange	---	to controller side of cut lock wire
White	---	to motor side of cut lock wire
Yellow	---	connect to permanent +12v (Vehicle fused +12v constant)
Orange/black	---	to controller side of cut unlock wire
White/black	---	to motor side of cut unlock wire
Yellow/black	---	connect to permanent +12v (Vehicle fused +12v constant)



## Central Door Locking Wiring Diagram..... CONTINUE

Follow the diagrams below for wiring basic central locking systems.

### TYPE 8 (Type D): Adding Actuator

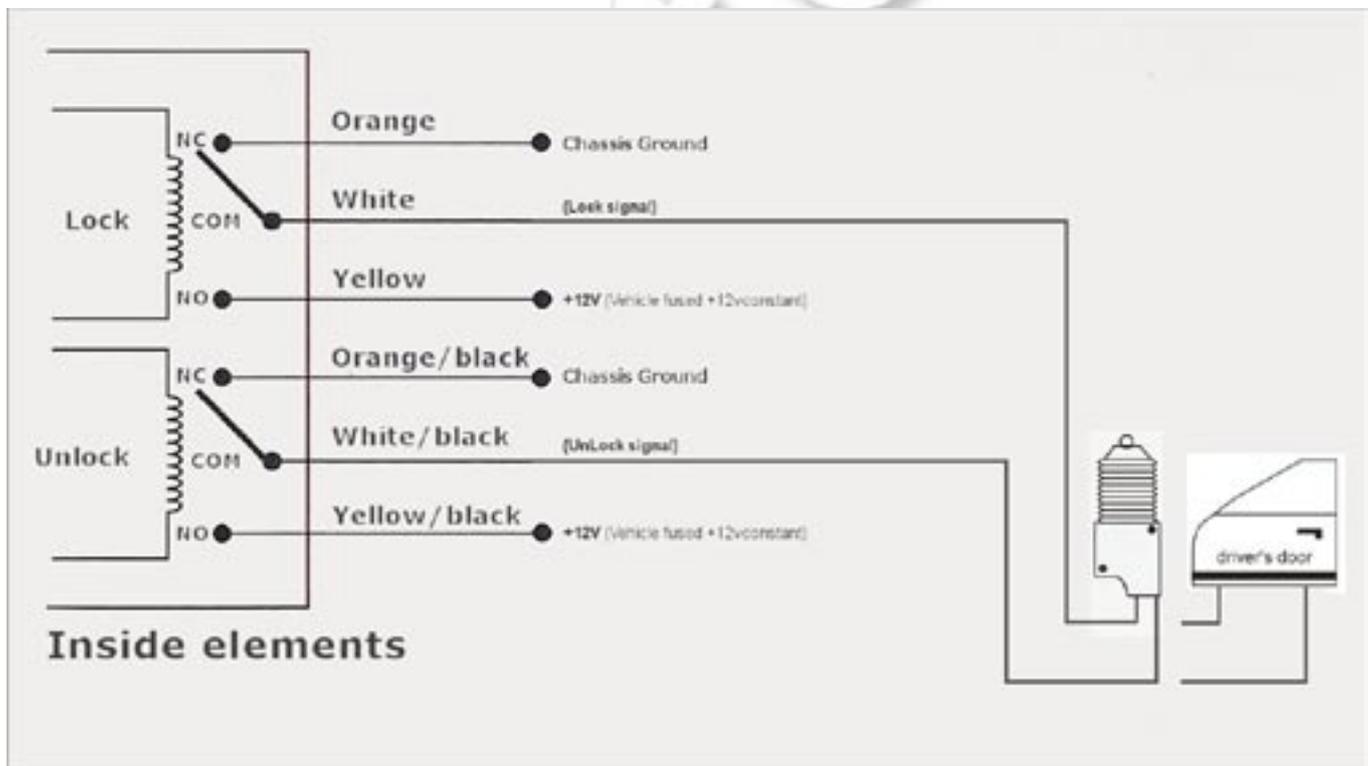
#### Single Point Central Locking :-

• Vehicles where there isn't a motor in the drivers door (central locking only operates from the drivers door). An additional door motor is required.

Adding one or more aftermarket actuators. These include slave systems without an actuator in the driver's door, but with factory actuators in all the other doors. Type D also includes cars without power locks, which will have actuators added. All Saabs before 1994, all Volvo except 850i, all Subaru, most Isuzu, and many Mazdas. Some mid-eighties Nissans, pre-1985 Mercedes- Benz and Audi.

Vehicles without factory power door locks require the installation of one actuator per door. This requires mounting the door lock actuator inside the door. Other vehicles may only require one actuator installed in the driver's door if all door locks are operated when the driver's lock is used.

Orange	---	connect to ground
White	---	connect to green on motor
Yellow	---	connect to permanent +12V (Vehicle fused +12v constant)
Orange/black	---	connect to ground
White/black	---	connect to blue on motor
Yellow/black	---	connect to permanent +12V (Vehicle fused +12v constant)



## Central Door Locking Wiring Diagram..... CONTINUE

Follow the diagrams below for wiring basic central locking systems.

### TYPE 1 (Type E): Electrically Activated Vacuum

#### Vacuum Central Locking:-

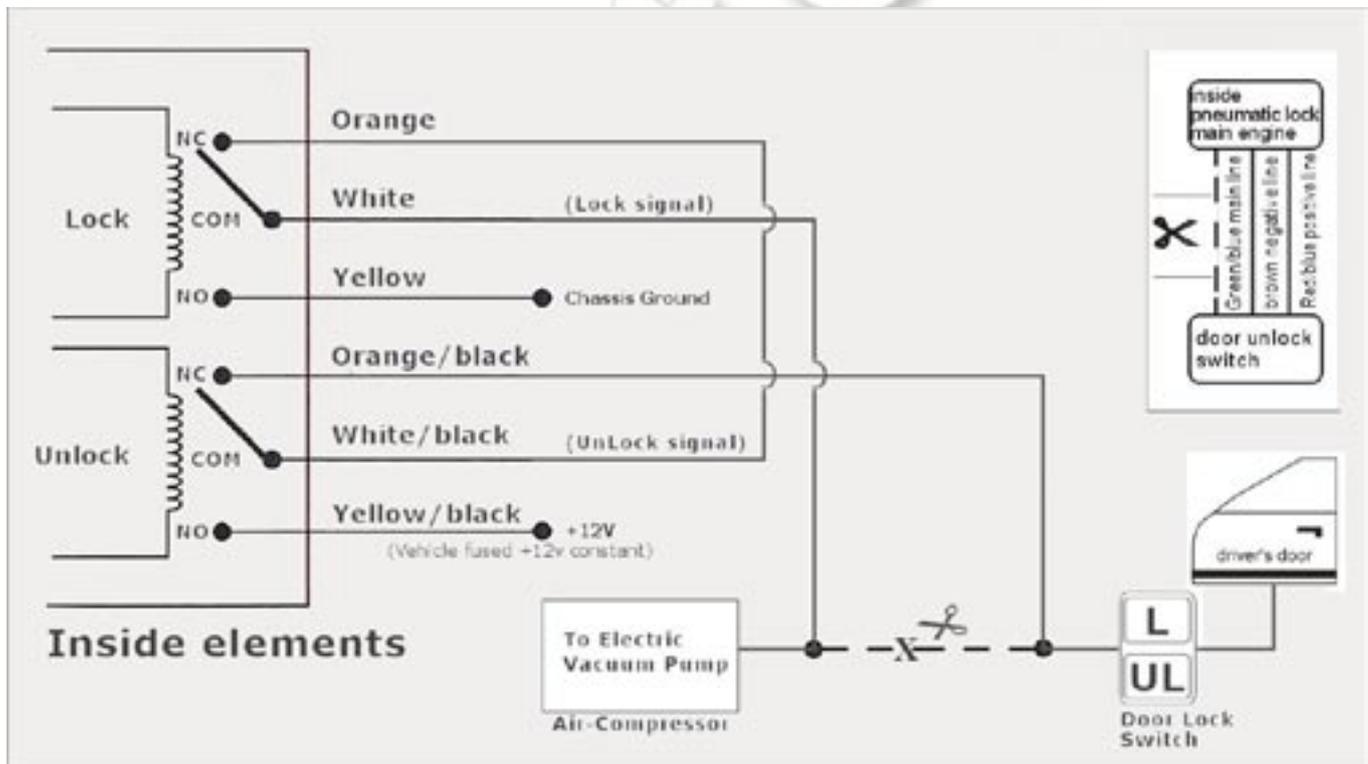
- Polarity reverses on a single wire to lock and unlock. (set door lock/unlock time to 3.5sec.)

The vehicle must have a vacuum actuator in each door. Make sure that locking the doors from the driver's or passenger side using the key activates all the actuators in the vehicle. This requires a slight modification to the door lock harness.

This system is found in Mercedes-Benz and Audi 1985 and newer. The door locks are controlled by an electrically activated vacuum pump. The control wire will show (+)12V when doors are unlocked and (-) ground when locked.

NOTE: The system must be programmed for 3.5-second door lock pulses, (please, set the jumper correctly) must be set to 3.5s (factory default= 0.5s).

Orange	---	join to white/black wire
White	---	connect to pump side of cut wire
Yellow	---	connect to ground
Orange/black	---	connect to door side of cut wire
White/black	---	join to orange wire
Yellow/black	---	connect to permanent +12V (Vehicle fused +12v constant)



## Central Door Locking Wiring Diagram..... CONTINUE

Follow the diagrams below for wiring basic central locking systems.

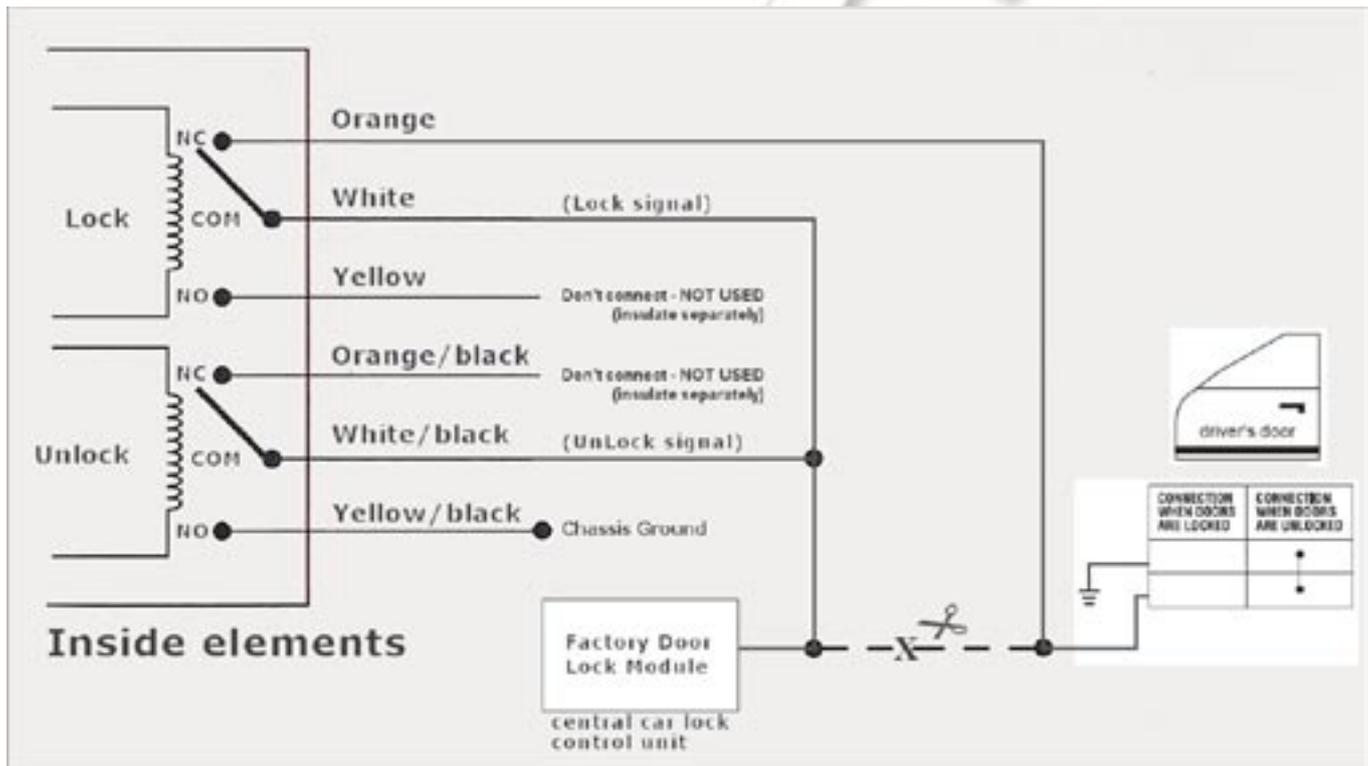
### TYPE 7 (Type F): one-wire system (cut to lock, ground to unlock)

#### Single Wire Central Locking: Japanese driven:-

- Single line in series negative trigger.
- Single wire that pulses negative to unlock, and open circuit to lock.

This type of door lock system usually requires a negative pulse to unlock, and cutting the wire to lock the door. (With some vehicles, these are reversed) It is found in the late-model Nissan Sentras, some Nissan 240SX, Nissan 300ZX 1992 and later. It is also found in older Mitsubishi's, and some early Mazda MPV's.

- Orange --- connect to door side of cut wire.
- White --- connect to controller side of cut wire
- Yellow --- not used.
- Orange/black --- not used.
- White/black --- connect to controller side of cut wire.
- Yellow/black --- connect to ground



## Central Door Locking Wiring Diagram..... CONTINUE

Follow the diagrams below for wiring basic central locking systems.

### TYPE 6P (Type G): Positive (+) Multiplex

#### Single Wire Positive Central Locking:-

- Single wire, positive lock, positive unlock.
- Two-potential (i.e. resisted\*) positive trigger.

\* resistor/s may not be required! please, see information below...

The system is most commonly found in Ford, Mazda, Chrysler and GM vehicles. The door lock switch or door key cylinder may contain either one or two resistors.

**SINGLE-RESISTOR TYPE:** If one resistor is used in the door lock switch/key cylinder, the wire will pulse (+)12V in one direction and less than (+)12V when operated in the opposite direction.

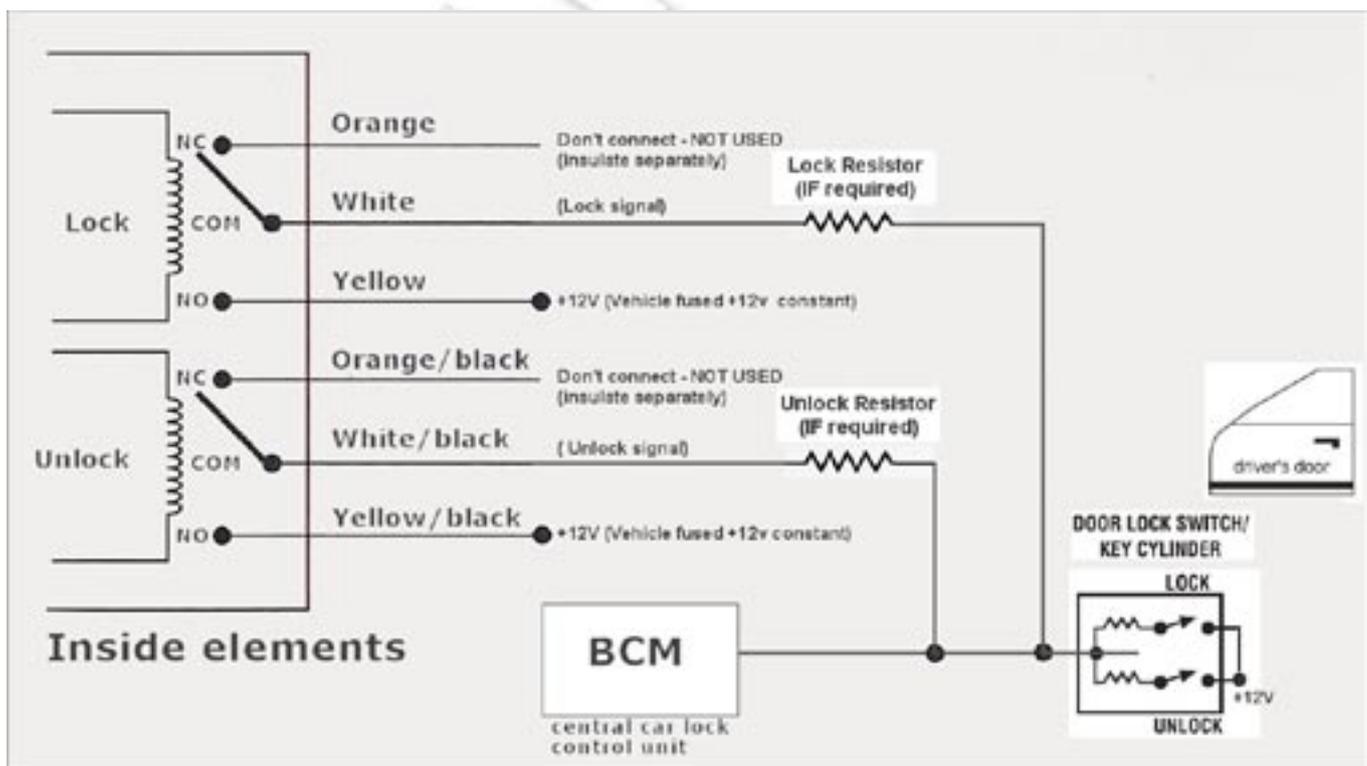
**TWO-RESISTOR TYPE:** If two resistors are used in the factory door lock switch/key cylinder, the switch/key cylinder will read less than (+)12V in both directions.

**DETERMINING THE PROPER RESISTOR VALUES:** To determine the resistor values, the door lock switch/key cylinder must be isolated from the factory door lock system. For testing, use a calibrated digital multimeter that is set to ohms.

**IMPORTANT:** To ensure an accurate resistance reading, do not touch the resistor or leads during testing.

1. Cut the output wire from the door lock switch/key cylinder in half.
2. Test with the meter from the switch side of the cut door lock switch/key cylinder wire to a reliable constant (+)12V source. Some good constant (+)12V references are the power input source to the door lock switch/key cylinder, the ignition switch power wire, or the (+) terminal of the battery.
3. Operate the door lock switch/key cylinder in both directions to determine the resistor values. If the multimeter displays zero resistance in one direction, no resistor is needed for that direction.
4. Once the resistor value(s) is determined, refer to the wiring diagram for proper wiring.

Orange	---	not used
White	---	positive lock output to car via 100-180Ohm resistor (IF required)
Yellow	---	connect to permanent +12V (Vehicle fused +12v constant)
Orange/black	---	not used
White/black	---	positive unlock output to car via 100-180Ohm resistor (IF required).
Yellow/black	---	connect to permanent +12V (Vehicle fused +12v constant)



## Central Door Locking Wiring Diagram..... CONTINUE

Follow the diagrams below for wiring basic central locking systems.

### TYPE 6N (Type H): Negative (-) Multiplex

#### Single Wire Negative Central Locking:-

- Single wire, negative lock, negative unlock.
- Two-potential (i.e. resisted\*) negative trigger.

\* resistor/s may not be required! please, see information below...

The system is most commonly found in Ford, Mazda, Chrysler and GM vehicles. The door lock switch or door key cylinder may contain either one or two resistors.

**SINGLE-RESISTOR TYPE:** If one resistor is used in the door lock switch/key cylinder, the wire will pulse ground in one direction and resistance to ground when operated in the opposite direction.

**TWO-RESISTOR TYPE:** If two resistors are used in the factory door lock switch/key cylinder, the door lock switch/key cylinder will read resistance to ground in both directions.

**DETERMINING THE PROPER RESISTOR VALUES:** To determine the resistor values, the door lock switch/key cylinder must be isolated from the factory door lock system. For testing, use a calibrated digital multimeter that is set to ohms.

**IMPORTANT:** To ensure an accurate resistance reading, do not touch the resistor or leads during testing.

1. Cut the output wire from the door lock switch/key cylinder in half.
2. Test with the meter from the switch side of the cut door lock switch/key cylinder wire to a reliable ground source. Some good ground references are the ground input source to the door lock switch/key cylinder or the battery ground.
3. Operate the door lock switch/key cylinder in both directions to determine the resistor values. If the multimeter displays zero resistance in one direction, no resistor is needed for that direction.
4. Once the resistor value(s) is determined, refer to the wiring diagram for proper wiring..

- |              |     |  |
|--------------|-----|--|
| Orange       | --- | not used   |
| White        | --- | negative lock output to car via 100-180Ohm resistor (IF required)    |
| Yellow       | --- | connect to ground  |
| Orange/black | --- | not used   |
| White/black  | --- | negative unlock output to car via 100-180Ohm resistor (IF required). |
| Yellow/black | --- | connect to ground  |

