

CENTRAL LOCKING UNIT WITH BUILT-IN REMOTE CONTROL CL-302SL

Description

The CL-302SL combines the control unit of an electromechanical central locking system with a remote control. It can be connected directly to the electromechanical actuators. It also provides signals for the blinkers to indicate operation visually. The CL-302SL offers an economical and easy solution for central locking with a remote control.

The receiver unit is controlled by a remote RF control. Communication is protected by a special "FLOATING" digital code that is changed after each transmission. Additional protection is offered by an ANTI-SCAN feature. This type of system provides a much higher safety level than other systems using only a fix code. An optional re-lock function checks if the car was entered within 1 minute after unlocking. If not, it will lock automatically again. This prevents the car from being accidentally unlocked and left unprotected. Protection of accidental locking while driving is also an optional function of this device.

There are two remote controls in each CL-302SL set. The device can be operated by a maximum of three remote controls. A new remote control can be added to the CL-302SL when necessary. The central locking with CL-302SL can also be operated by key (if 5 wires actuators are installed in the front doors).

Specifications:

operating voltage	10 - 15VDC
stand by consumption	8mA
built-in fuse	15A
working distance	up to 20m
working frequency	433.92MHz
coding system	digital floating code
	max. 3 remote controls
built in transmitter type	TX-9
built in receiver type	REC-5
output signals	12V pulses, max. 14A
turn indicators outputs	2 x +12V/5A

Installation

First install the electromechanical actuators in the doors. Mechanical installation of actuators to some car models can be complicated. Therefore, we recommend professional installation.

The actuators must be installed so that the actuator's movement axis is the same as the movement axis of the moving door lock. The moving part of the actuator must be adjusted so that when you lock or unlock with the key, the moving part is centred in the middle of its possible movement trajectory. Actuators with five wires (CM-5) are for the front doors. Actuators with two wires (CM-2) are for the rear doors. After actuator installation, check by hand that the locks move easily and smoothly.

Before you install the control unit, disconnect the car battery. Then remove the fuse from the holder on the wire harness provided with the system. Keep in mind that if your car has some memory functions built in, then these may be erased if you disconnect the battery. Refer to the car owners' manual before disconnecting the battery. Install the control unit in the passenger compartment. The recommended location is under the dash board.

WIRING:

Route the wire harness cables to each door. Be sure that the cables will not be broken when opening or closing the door. The end of the cables are equipped with connectors: connect the wires so that the colours correspond.

Blue = input of +12V signal from the ignition key. This wire should be connected to the ignition key switch (terminal 15). This signal will prevent an accidental locking while driving and resets the re-lock function (if used). If you connect the blue wire to the GND, the accidental locking protection will be cancelled.

White = door switch input (negative triggered). This signal controls the re-lock function. We recommend door switches be installed to all doors of your car when you use the re-lock function. This function is optional. Connect the white wire to the GND to disable the re-lock function.

White/brown and **Brown** = unlock and lock inputs (negative triggered with position switch in front door actuators CM-5). These signals are provided from the actuator's wire harness.

Black = GND Supply. Connect this wire to the original GND point in the car.

Red = Positive Supply (the wire with a fuse 15A). It should be connected directly to the positive terminal of the battery cable.

Blue/brown and **green** = actuator power outputs. These two wires provide power for the actuator motors.

2x Violet = turn indicator (blinkers) outputs - these two wires provide power for the left and right blinkers as a visual indication of locking and unlocking.

Note: The wire coming directly from the CL-302SL receiver unit is the remote control antenna. The location of this wire will effect the remote control working distance. Ideally, the wire should be near a window.

The fifth door

It is also possible to control a fifth door lock by using an extra actuator. Use model CM-2 (two wires) and connect it in parallel to one of the front door actuators. This way the locking system can only be operated manually from the front doors.

Note: study the function of the fifth door lock carefully before you decide to install an actuator. Some systems do not allow it.

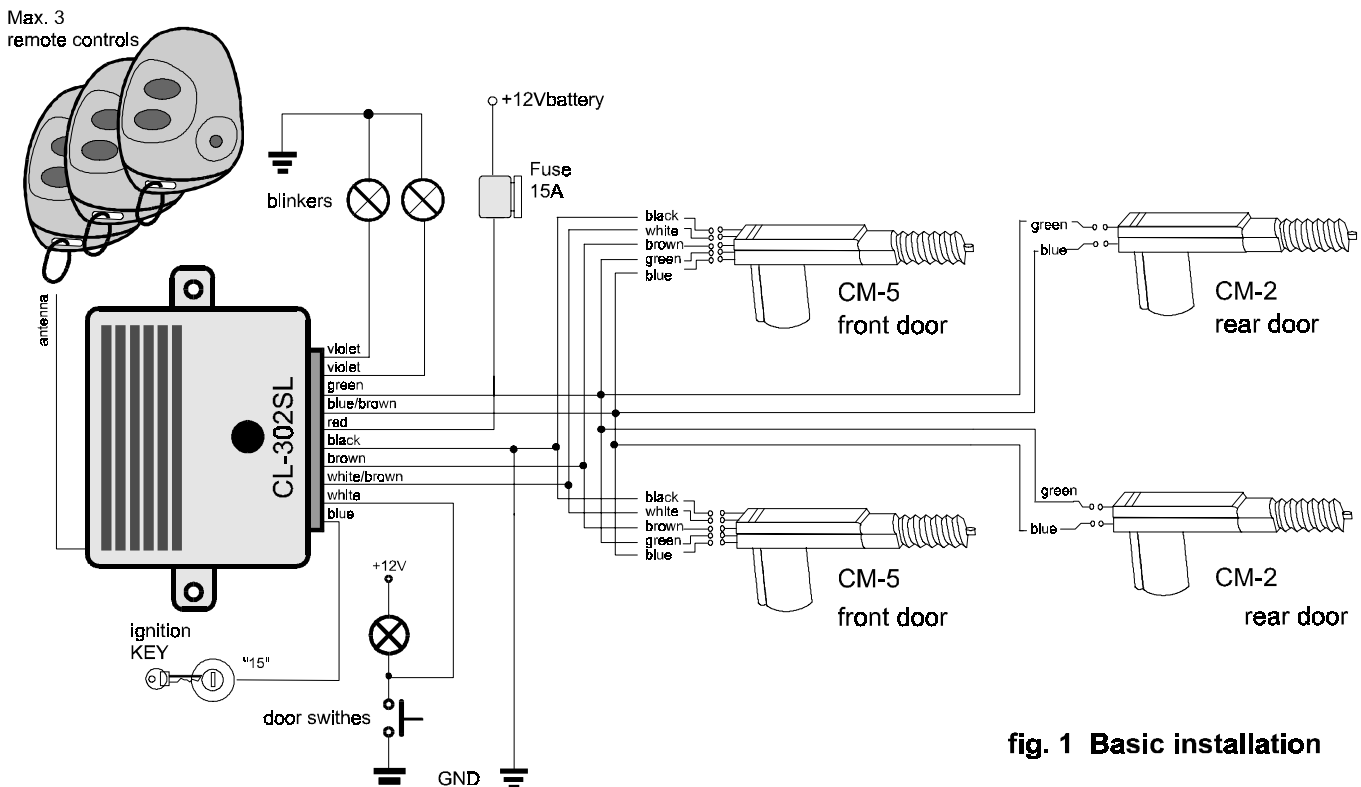


fig. 1 Basic installation

Testing

Check the wiring and then install the fuse on the red cable (15A) and connect the battery. Check the function of the locking system by using the key in the front door locks. Then test the function of the remote controls.

Adding of a new remote control

There are two remote controls in each CL-302SL set. The receiver unit can be operated by a maximum of three remote controls. To add an additional remote control or to replace an original one (in the case one is lost) perform the following procedure.

Entering of Learn Mode: First, switch off ignition key and disconnect the power to the CL-302SL by removing the fuse. Then open the control unit housing. Press and hold the button marked "Learn Code" inside the unit and reconnect the power while still holding down the button. The blinkers will flash four times and you can now release the button. Now the receiver unit is in learning mode, ready to learn new codes.

Remote control codes learning: You should activate all the remote controls (one by one) which you want to use to operate the system. The receiver unit will store each remote control code in its memory (confirmed by a blinker flash). Keep in mind that only three controls can be taught. If you try to teach a fourth

control, the first one will be forgotten and so on. If you activate only one control in learning mode, you will be able to control the car only with this one control.

To exit the learning mode, disconnect the CL-302SL power for two minutes.

Note: *All the codes are stored in non volatile memory, so the receiver unit will remember them even if the power is disconnected.*

Operation:

Each short pressing of the remote control button will lock or unlock the car (according to the initial position of the locks). Locking of the car is indicated by one flash of the blinkers. Unlocking is indicated by two flashes. Doors can not be locked with the remote control while the ignition key is ON.

Re-lock function: If the car is not entered (neither door switch nor ignition key input is triggered) within one minute after unlocking, the CL-302SL will automatically generate a lock instruction. (Connecting the white wire to the GND instead of to the door switches will disable this function)

Confirmation of Control Code Validity.

If the receiver unit receives an invalid signal from the remote control (for example: if there was an attempt to scan the code by a car thief, or, while rare, as may happen after the remote

control battery has been disconnected for a long time) then the receiver will not respond to the signal from the remote control. In this case, the system will ask for a confirmation of the control code. To provide confirmation, open the car with key and turn ignition key on. Press any button on the remote control. Now the remote control should work as usual.

Maintenance: The system does not need any special maintenance. Check if the locks can be operated easily by hand every three months. Lubricate the locks before and after each winter season. If a lock freezes in winter, or is mechanically blocked for any reason, remove the control unit fuse to avoid damage to the actuator.

If the distance from your car at which the locking system can be operated decreases, then replace the remote control battery. Normal life time of a good quality battery should be about one year. A suitable replacement battery is BAT-12.

