

FEDERAL COMMUNICATIONS COMMISSION (F.C.C.) STATEMENT

This equipment generates, uses and can radiate radio frequency energy and , if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation, if this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient / Relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/ TV technician for help.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

MODEL ALK10 KEYLESS ENTRY SYSTEM INSTALLATION & OPERATION INSTRUCTIONS

GENERAL SPECIFICATION

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Power Requirements	+ 12 Volts & Negative Ground.
Fuse Ratings - Red/White Power wire -	5 Amps
- Red Parking Flash wire-	10 Amps
Current Consumption	10mA for stand by
Passive arming timer	30 seconds from last doors closing.
Grounded output capacity (Orange wire)	500mA maximum
Channel 2 output (Negative)	200mA.
Channel 3 output (Negative)	200mA.
Domelight output (Negative)	200mA.
Horn output (Negative)	200mA
Learning limitations	4 transmitters.

INSTALLATION

A. MOUNTING CONTROL MODULE:

Mount the control module in the underdash area where easy reaches yet secure. The module should mount in as high a position as possible. Fixed the module with tie-wraps or screws. Ensure the module completely secure and will not rattle or come loose.

NOTE: Antenna placement is very important! Ensure that it is unwrapped and stretched out at least 6" straight. Best possible location is along the headliner above a door opening, keep away from metal. Since metal will interference receiver's capability.

B. INSTALLING THE LED STATUS INDICATOR:

The led indicator status should be mounted in a highly visible area such as top of the dashboard, on top of the shifter console or on dashboard face.

C. INSTALLING THE OVERRIDE/VALET SWITCH:

Mount the override/valet switch in a hidden but accessible location.

WIRING

Keep wiring away from moving engine parts, exhaust pipes and high-tension cable. Tape wires where pass through holes on the firewall to prevent fraying. Watch out sharp edges that may damage wires and cause a short circuit.

CAUTION: Do not connect the wire harness to control module until all wiring to vehicle is completed.

A. MAIN 12-WIRE HARNESS:

1. BLACK WIRE -- SYSTEM GROUND --

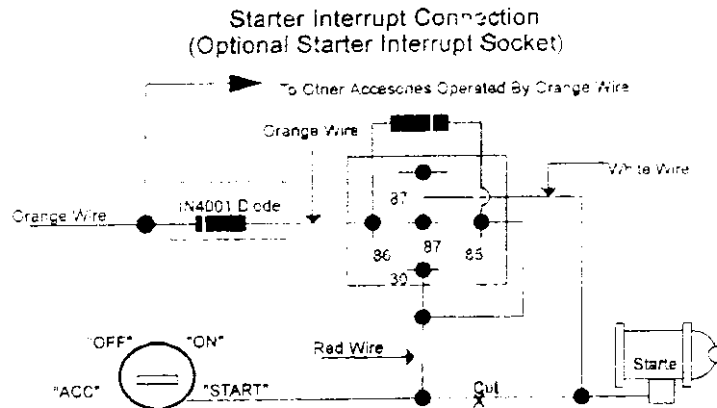
Connect this wire to a solid, metal part of the vehicle's chassis. Do not connect this wire to any existing ground wires supplied by the factory wire loom, make the connection to the vehicle's frame directly.

2. ORANGE WIRE -- STARTER INTERRUPT INTERFACE --

This wire will become grounded when the alarm is armed. The current capacity of this wire is 500mA. This output can control starter interrupt, when an intrusion is detected and the system is triggered. The vehicle prevent from any unauthorized starting. (Optional starter interrupt relay needed)

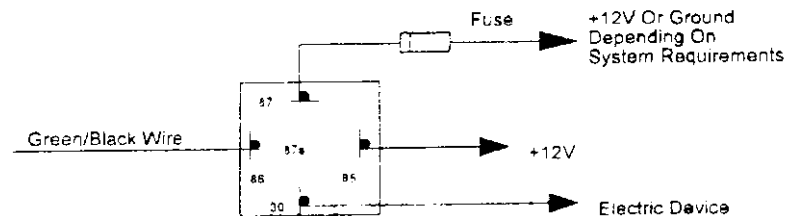
- Check the wire from the starter solenoid, (usually located on the starter) and going to the ignition switch.
- When the wire is found, use the voltmeter, connect one probe of the voltmeter to ground and the other end to the starter wire, the voltmeter should receive "12 volts" only when the ignition key in the "start" position.
- After locating the correct wire, cut it in half, try to start the vehicle.
The engine should not "crank over", then the correct wire has been located.
- Extend the wires if needed with the exact same gauge wire and attach the cut wire from the key switch to pin #30 (Red wire) of the relay, and attach the starter wire to pin #87a (White wire)
- Connect the Orange Wire from the control module to pin #86 (Orange wire) of the relay.

NOTE: If more than one electronic device will be connected to the Orange Wire, it will be necessary to isolate each device control wires (Orange wires) with a 1N4001 diode.



3. GREEN/BLACK WIRE -- CHANNEL 3 CONTROL OUTPUT --

This wire will become momentary grounded when you press both buttons on the transmitter. The current capacity of this wire is 200mA. This feature can let you to remote control the optional electrical device.
Note: The device will keep 'on' when the button pressed continuously, and will 'off' when the button released.

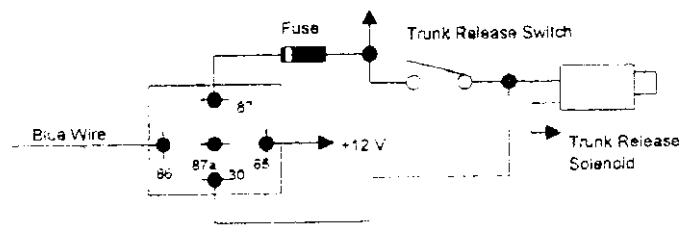


Special note of interfacing engine start device installation:

- 1 Only need to connect this green (-) activate wire to the start's trigger wire from engine start device and that complete all the interfacing.
- 2 It designs for start's trigger wire with (-) activation. If the start's trigger wire is (+), it'll need to convert the (-) signal to a (+) by using a relay.

4. BLUE WIRE -- CHANNEL 2 OUTPUT

This will become a 1 second pulse ground by press and button 2 on transmitter for two seconds, the current capacity of this wire is 200 mA. This feature use to remote control trunk release or other electric device.



5. GREEN/WHITE WIRE -- DOME LIGHT CONTROL

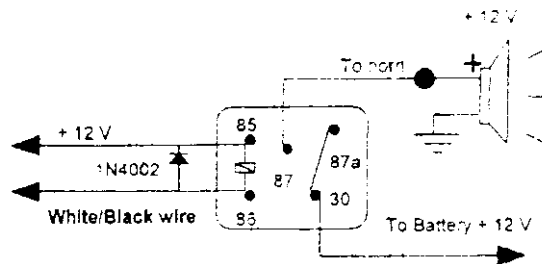
This wire will become grounded when the dome light control circuit is active. The current capacity of this wire is 200mA. This wire can controls the operation of the interior lights in the vehicle. An optional relay (10amps) can be used on this system for interior lights operation.

Upon disarming, the interior lights will remain on for 30 seconds.

6. WHITE/BLACK WIRE -- HORN / SIREN OUTPUT 200mA NEGATIVE --

This white/black wire is provided to use the existing vehicle's horn as the system's warning audible device. It's a transistorized low current output, and should only be connected to the low current ground output from the vehicle's horn switch. When the system is triggered, the horn will sound.

Note: If the vehicle uses a +12VDC horn switch, an additional relay is needed. Below is the wiring diagram.



7. YELLOW WIRE -- IGNITION SWITCH POWER (12V "ACCY" ON) --

This wire is connected to a switched 12 volts source. This wire should receive "12 volts" when the ignition key is in the "on" and "start" position. When the ignition is turned "off", this wire should receive "0" voltage.

8. PURPLE WIRE -- POSITIVE DOOR SWITCH SENSING INPUT--

This wire is the positive trigger input wire for positive door pin switch. This wire is connection for "positive" type factory door pins (typical FORD MOTOR) Locate the "common wire" for all door pins and make the connection of the Violet Wire here.

9. BROWN WIRE -- NEGATIVE DOOR SWITCH SENSING INPUT --

This wire is the ground trigger input wire for negative door pin switch. This wire is connection for "grounding" type factory door pins (typical GM, CHRYSLER) Locate the "common wire" that connects the door pin switches. Make the connection of the Green Wire here.

IMPORTANT: When the optional dome light relay is connected, the purple or brown wire must be connected to the pin 87a of the optional dome light relay.

This wire is the ground trigger input wire for hood/trunk pin switches.

10. RED/WHITE WIRE -- SYSTEM POWER (+12V CONSTANT) --

Red wire supplies power to the system. Connect this wire to a constant +12 volts source from the fuse block.

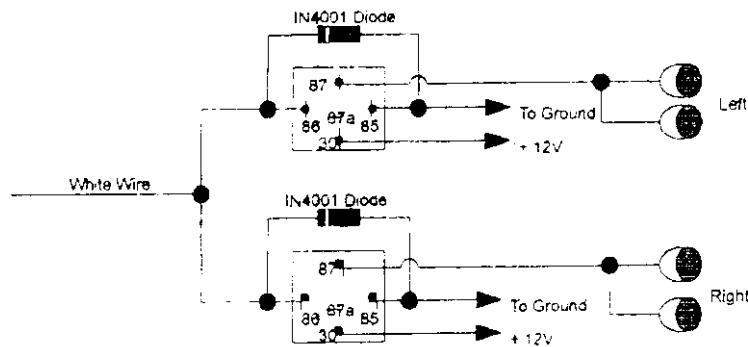
11. RED WIRE -- PARKING LIGHT POWER --

This wire is the "COM" point of parking light.

12. WHITE WIRE -- FLASH PARKING LIGHT (+12V 10A OUTPUT) --

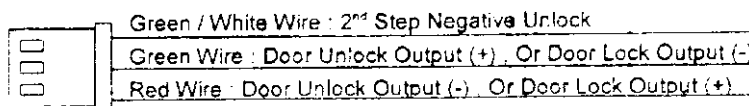
When the alarm is triggered, this wire provides pulse +12 volts, 10 amps output. This wire must be connected to the positive wire of the parking light.

NOTE: When the left & right parking light are on separate circuits then two 10A relays must be used to connect each parking light side.



B. 3-PIN WHITE PLUG FOR DOOR LOCK CONNECTOR:

These wires will provide either a pulsed ground output to the factory door lock control relay, or a pulsed + 12 volts output to the factory door lock control relay. The current capacity of these wires are 500mA.

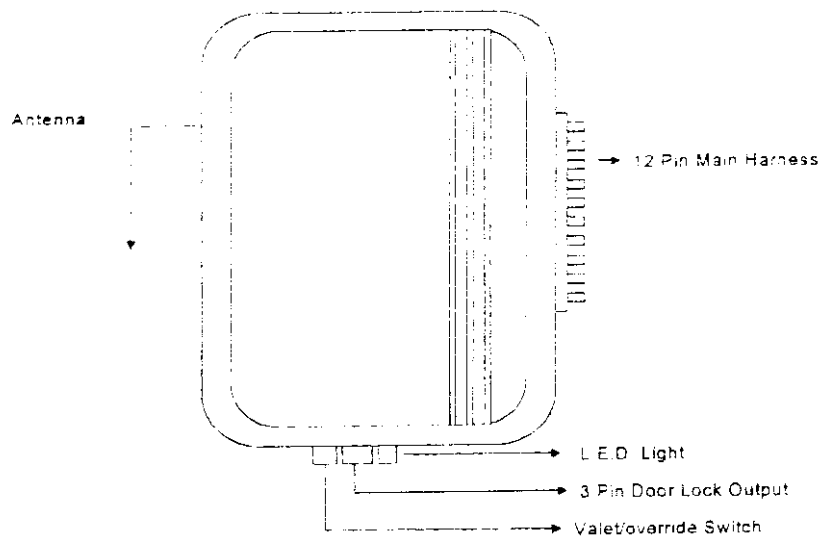


C. RF ANTENNA -- BLACK THIN WIRE

The black thin wire on control module is the receiver antenna wire. Antenna placement is very important!

Ensure that it is unwrapped and stretched out with the last 6" straight and keep it away from large metal objects or chassis for best reception.

INSTALLATION DIAGRAM



WIRING DIAGRAM

	Black Wire : Ground
	Orange Wire : Negative output
	Green / Black Wire : Channel 3 output
	Blue Wire : Channel 2 output
	Green / White Wire : Negative output for dome light relay
	White / Black Wire : Horn / siren output
	Yellow Wire : Ignition input
	Purple Wire : Positive door trigger
	Brown Wire : Negative door trigger
	Red / White Wire : +12V power
	Red Wire : +12V parking light relay input
	White Wire : +12V parking light relay output

5A Fuse

10A Fuse

PROGRAMMING

A. PROGRAMMING THE TRANSMITTERS:

It is important to remember that during programming, each individual step of the procedure must be executed within 15 seconds of the previous step. When 15 seconds time due, the system will automatically exit program mode. A short chirp and a long chirp from the horn indicate this. The maximum programming capacity is 4 transmitters.

1. Enter:

- Turn ignition key to 'on' position.
- Turn valet switch 'on-off' 3 times
- There will be 1 short chirp.
- Led will flash one time.
- Ready for program channel 1 (arm/disarm and panic function).

2. You can assign any of the transmitter button functions listed below to channel 1.

- Press button #1 on the key chain transmitter.
- Press button #2 on the key chain transmitter.
- Press both buttons simultaneously on the key chain transmitter

3. Press and hold the selected choice a, b, or c above, until the horn emits a long 'chirp' to confirm that programming of channel 1 was successful.
4. Move the valet/bypass switch on, then off again.
5. The dash mounted L.E.D. will flash 2 times, and the siren will chirp 2 time, indicating that the system is ready to accept programming for channel 2, or the trunk release..
6. You can assign any one of the two remaining button functions listed in 2a, 2b or 2c above to operate channel 2. You can not use the button(s) that operate channel 1, selected in step 3, to operate channel 2
7. Press and hold the selected choice. The horn will emit a long 'chirp' to confirm that programming of channel 2 was successful.
8. Move the valet/bypass switch on, then off again
9. The dash mounted L.E.D. will flash 3 times, and the siren will chirp 3 time, indicating that the system is ready to accept programming for channel 3.
10. Press and hold the remaining transmitter button function. The horn will emit a long 'chirp' to confirm that programming of channel 3 was successful.

Exit:

- a. Turn ignition key to 'off' position. Or
- b. Move the valet switch on then off one additional time. Or
- c. Leave it for 15 seconds.
- d. There will be a short chirp and a long chirp confirmation.

Note: If more than 4 transmitters programmed, the system only keeps the very last 4 transmitters. The previous transmitters will void automatically. (eg. You already programmed 4 transmitters into the system. You may program additional transmitters No. 5 and 6 into the system, the transmitters No. 1 and 2 will be void while No 3 ~ 6 stays.

B. PROGRAMMING SYSTEM FEATURES:

This system has 4 selectable programming features.

1. Enter:

- a. Turn ignition key to 'on' position.
- b. Turn valet switch 'on-off' 3 times.
- c. There will be 1 short chirp, and led flash one time.
- d. Again turn ignition key to off (1 short chirp and 1 long chirp), then on.
- e. Chirp(s) will emit from horn. (Note: If 1 chirp from horn it means the system is in passive arming. If 2 chirps from horn it means the system is in active arming.)
- f. System in the first programming feature, ready for select Passive /Active arming.

2. Programming first feature (Passive/Active arming):

- a. LED with one flash... pause sequence.
- b. Press channel 1 button to hear chirp(s): (note: press button repeatedly the horn will emit either 1, 2 or 3 chirps.)
 1. One chirp for passive arming.
 2. Two chirps for active arming.

3. Programming second feature (Turn ignition switch to on position door lock on/off):

- a. Turn valet switch on then off.
- b. LED with two flashes... pause sequence.
- c. Press channel 1 button to hear chirp(s):
 1. One chirp system with turn ignition switch to on position door lock.
 2. Two chirps without above function.

4. Programming third feature (Turn ignition switch to off position door unlock on/off):

- a. Turn valet switch on then off again. If 2 chirps means third feature off.
- b. LED with three flashes... pause sequence.
- c. Press channel 1 button to hear chirp(s):
 1. One chirp system with turn ignition switch to off position door unlock.
 2. Two chirps without above function.

5. Programming fourth feature (Arm/Disarm chirp(s) on/off):

- a. Turn valet switch on then off again.
- b. LED with fourth flashes... pause sequence.
- c. Press channel 1 button to hear chirp(s):
 1. One chirp system with Arm/Disarm chirp(s) on
 2. Two chirps without above function.

6. Programming fifth feature (Passive door lock on/off)
 - a. Turn valet switch on then off again.
 - b. LED with 5 flashes ... pause sequence
 - c. Press channel 1 button to hear chirp(s):
 1. One chirp presents the system with passive door lock function.
 2. Two chirps present system without passive door lock function.
7. Programming sixth feature (Horn/Siren selection)
 - a. Turn valet switch on then off again.
 - b. LED with 6 flashes ... pause sequence.
 - c. Press channel 1 button to hear chirp(s):
 1. One chirp presents the system set at Horn output.
 2. Two chirps present then system set at Siren output.
8. Programming seventh feature (Unlock timer selection, 0.8 second, 3.5 seconds or 0.8/0.75/0.8 second)
 - a. Turn valet switch on then off again.
 - b. LED with 7 flashes ... pause sequence.
 - c. Press channel 1 button to hear chirp(s):
 1. One chirp presents the system set at 0.8 second.
 2. Two chirps present the system set at 3.5 seconds.
 3. Three chirps present the system set at 0.8/0.75/0.8 seconds.
9. Exit:
 - a. Turn valet switch on then off again. Or
 - b. Turn ignition switch off position. Or
 - c. Leave it for 15 seconds. The horn will emit a long chirp confirmation.

Below is a chart for you to know the programming features.

Turn valet switch time	LED flash times	Press channel I (default set)	Press channel I	Press channel I
Confirmation		1 short chirp	2 short chirps	3 short chirps
	1	Passive	Active	---
1	2	Turn ignition switch ON, door lock	No	---
2	3	Turn ignition switch OFF, door unlock	No	---
3	4	Arm/Disarm chirp(s)	No	---
4	5	Passive door lock	No	---
5	6	Siren output	Horn output	---
6	7	Door unlock time, 0.8secs.	Door unlock time, 3.5secs.	Door unlock time, 0.8sec./0.75secs./0.8sec.

C. SILENT PROGRAMMING BY VALET SWITCH:

This feature is typically for the user to setup system's Arm/Disarm chirps on/off feature only that does not need to enter features programming stage. (Your system should be in Arm/Disarm chirps on, to make the following selection.)

- a. If your system select as Arm/Disarm chirps on, and you desire to select off (silent arm/disarm), you may:
 1. System in disarm condition, turn ignition switch on then off.
 2. Within 10 seconds, turn valet switch 'on-off' three times.
 3. Horn will emit 2 short chirps.
 4. Your system is silent arm/disarm.
- b. If your system select as silent arm/disarm (the above function), and you desire to select it back to Arm/Disarm chirp(s) on, you may:
 1. System in disarm condition, turn ignition switch on then off.
 2. Within 10 seconds, turn valet switch 'on-off' three times.
 3. Horn will emit 1 short chirps.
 4. Your system is Arm/Disarm chirp(s) on.

Note: If the system is already select as Arm/Disarm chirp(s) off in the feature programming. There will be no need to silent programming by valet switch

OPERATION MANUAL

A. TRANSMITTER OPERATION:

Transmitter Button	System Function	Remark
Channel 1	Arm & lock doors / disarm & unlock doors	
Channel 1	Silent arm & lock doors / disarm & unlock doors	Hold channel 1 button over 1 second.
Channel 1	Panic function	Hold channel 1 button for 3 seconds
Channel 1	Cancel panic function	Hold channel 1 button for 3 seconds
Channel 1	Lock or Unlock the door	In VALET mode
Channel 2	Channel 2 output	Hold channel 2 button for 2 seconds
Channel 1 & 2 together	Channel 3 output	

B. LED INDICATORS:

LED	Function
Off	Disarmed
Slow flashing	Armed
Fast flashing	Passive arming
On - (solid)	Valet mode

C. CHIRP INDICATORS:

Chirp	Function
1 chirp	Arm
2 chirps	Disarm

D. PARKING LIGHT:

Parking light	Function
1 flash	Arm
2 flashes	Disarm
Continuous flash 30 seconds	System panic

E. OVERRIDE(by-pass)/VALET SWITCH:

1. OVERRIDE (by-pass) FUNCTION:

The override/valet switch is used in case of an emergency, such as a lost or malfunctions of the transmitter, you can still disarm the system. First turn the ignition switch on, within 15 seconds turn the override/valet switch on then off, the system will be disarmed.

2. VALET MODE:

If the vehicle is in for service or park in an area with parking attendants, the system will not 'ARM' with the switch in "valet mode"

- To do so, make sure the system is in disarm condition, then turn the ignition switch 'on' and within 15 seconds turn override/valet switch to on position, the red led will turns on indicates the system is in 'valet mode'.
- If the system stay in 'valet mode', the transmitter still can remote operating lock or unlock the doors, control channel 2, channel 3 output, and panic function. But no starter disable function.
- To return normal operation, while turn ignition switch 'on', then within 10 seconds, turn override/valet switch to off position, it will exit the valet, with LED off for confirmation.

F. PASSIVE ARMING

This system is equipped with passive arming circuit. If you have chosen the system with passive arming. (See installation programming features part.) It will operate as below:

- Turn 'off' the ignition switch.
- The LED status indicator will begin to fast flashing and the automatic arming timer will begin to count down.
- The system will count down for 30 seconds, then the system will arm again.

G. SYSTEM OPERATING CONDITION:

		ARM	DISARM	PANIC
1	Horn	1 Chirp	2 Chirps	Sounding 30 seconds
2	Parking Light	1 Flash	2 Flashes	Flashing 30 seconds
3	LED Indicator	Slow Flashing	Fast Flashing	Slow Flashing
4	Vehicle Doors	Locking	Unlocking	Locking
5	Domelight	1 Flash	2 Flashes	Flashing 30 seconds
6	Starter Disable	Yes	No	Yes

H. ACTIVE ARMING:

1. Press arm button on transmitter.
2. The horn will chirp once after 3 seconds the system will be fully ARMED.

I. ACTIVE DISARMING:

1. Press disarm button on the transmitter.
2. The horn will chirp twice to indicate that the system is disarmed.

J. PANIC FUNCTION:

The transmitter can be used as a remote panic switch to manually trigger the alarm in case of an emergency. To do so, hold down the arm/disarm button or panic button on transmitter for over 3 seconds, and the system will become tripped and the horn will begin to sound. To stop panic alarming, press arm/disarm button for 3 seconds.

K. IGNITION CONTROL POWER DOOR LOCK SAFETY SYSTEM.

The vehicle's doors will automatically lock after the ignition key turn 'on'. And when the ignition key turn 'Off', the doors will automatically unlock.

In order to carry this function you must set the system with ignition on doors lock and ignition off doors unlock. (See installation features programming No. 2 & 3.)

L. SAFETY LOCKOUT SYSTEM.

This system is equipped with a safety lockout system, which designs to keep the system from arming itself while you are driving.

M. CHANNEL 2 OUTPUT

Press and hold channel 2 button for 2 seconds on transmitter to remote control the channel 2 or other electric devices

N. CHANNEL 3 OUTPUT

Press channel 1 and channel 2 buttons on transmitter together to remote control the channel 3 or optional electric device.

O. POWER ON SPECIAL FEATURE

Most of alarms will be disarmed when the car battery disconnected and re-connected immediately. However, this system will rearm itself, in this condition. This prevents the thief steal your vehicle once he disconnects car battery and re-connect. While ignition switch turn 'on', within 10 seconds, push valet/override switch, will disarm the system

Note: If the system is in valet condition before the power shut down, when the power reconnected, the system will still remain in valet condition.