

f-3500

•owners manual

• f-3500

Vehicle Security System

introduction

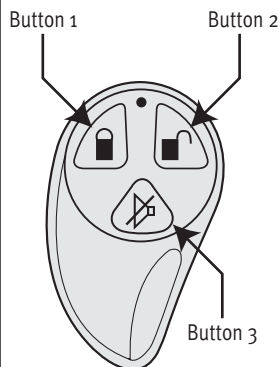
Thank you and congratulations for choosing FUSION Car Security for your alarm requirements. FUSION alarms have been significantly improved throughout the years to assure quality and reliability. The latest in technology has been incorporated into every security product providing you with incredible security and unparalleled performance. Our simple yet highly developed circuitry, contributes to the ultimate in circuit stability. This is why we are sure that your new FUSION security system will provide you with peace of mind for years to come.

Manufacturing quality vehicle security is not all FUSION has accomplished. Check out our full line up of head units, signal processors, component speakers, full range speakers, amplifiers and of course, our wide range of high performance subwoofers. Explore the potential of FUSION Car Audio and Security and most of all, enjoy the experience!

REMOTE CONTROL

Button #	Functions	Conditions
1	<ul style="list-style-type: none"> a. ARMS alarm and locks doors (if installed) b. Car finder with sound c. Temporarily stops alarm from sounding d. Locks doors (if central locking is installed) e. Pressing for 2 seconds will trigger the window Closure module (if installed) 	Alarm is DISARMED Alarm is ARMED Alarm is sounding While Driving While DISARMED
2	<ul style="list-style-type: none"> a. DISARMS alarm b. Unlocks doors (if central locking installed) c. Stops alarm from sounding d. Press and hold for 2 seconds to activate 2ND Unlock (if selected see page 4) 	Alarm is ARMED While Driving Alarm is sounding While Disarming
3	<ul style="list-style-type: none"> a. ARMS alarm silently b. Car finder without sound c. Anti-car-jack (see page 4) d. Temporary Last Door Arming and Automatic Immobiliser Bypass 	Alarm is DISARMED Alarm is ARMED While driving Before turning off vehicle
2 + 3	Activates Channel 2 Output to Open trunk, window roll up or even Auto Start Modules.	Ignition OFF Alarm is DISARMED
1 + 2	Activates PANIC MODE	Anytime

Note: Please refer the above table and operating instructions for all alarm functions.



The F-3500 vehicle security system is approved by FCC.

FCC ID:QRNF3500

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

CAR ALARM FEATURES

CODE LEARNING TRANSMITTER

- a. With the Ignition ON, press the valet switch 10 times within 8 seconds, the siren will chirp 3 times to enter code learning mode. (3 transmitters maximum).
- b. Press any button on the transmitter within 8 seconds. If over 8 seconds or the ignition is turned OFF, the system will exit code learning mode automatically.
- c. The siren will chirp for confirmation as soon as a new code is learned. For example, when the first transmitter is learnt, the siren will chirp once. When the second transmitter is learnt, the siren will chirp twice and so on.
- d. If one of the transmitters is to be programmed, all other transmitters must be reprogrammed at the same time.

ARMING

- a. Press button 1.
- b. Siren will chirp once for ARM indication or no chirp if the function is disabled (Programmable Function 6).
- c. Park lights will flash once.
- d. Doors will lock (if central locking installed).
- e. LED will flash slowly. If door is not closed, the siren will chirp 6 times for warning and LED flashes quickly.
- f. Disables the engine if the engine disable Interrupt Relays are connected.
- g. After 3 seconds, the system is ARMED. If the alarm is triggered within 3 sec, the siren will chirp twice and the circuit is by-passed until the triggering source is stable.

DISARMING

- a. Press button 2.
- b. Park lights will flash 2 times, siren will chirp 2 times or no chirp if function disabled (Programmable Function 6).
- c. If siren chirps 3 times, the alarm has been triggered in your absence (See LED Status reporting below).
- d. Doors will UNLOCK (if central locking installed). Some vehicles UNLOCK the drivers door first on the first press of the UNLOCK button. If this is the case then when DISARMING the alarm you will need to press and hold the UNLOCK button for 2 seconds. This should trigger the remaining doors to UNLOCK.

LED STATUS REPORTING

- a. On DISARMING if the siren chirps 3 times the alarm has been triggered in your absence.
- b. The parking lights will flash the number times according to the ZONE triggered your absence.
- c. With the ignition OFF the LED will be flashing a report code to tell you which ZONE triggered in your absence. The flashing sequence will remain to flash for 30 seconds and will be reset by turning on the ignition, codes are spaced by 1.5 seconds.

ZONE 4 - SHOCK SENSOR port trigger, 3 Siren chirps, 4 Light flashes and the LED flashes 4 times per cycle

ZONE 5 - AUX SENSOR port trigger, 3 Siren chirps, 5 Light flashes and the LED flashes 5 times per cycle





ZONE 6 - DOOR trigger, 3 Siren chirps, 6 Light flashes and the LED flashes 6 times per cycle

ZONE 7 - TRUNK trigger, 3 Siren chirps, 7 Light flashes and the LED flashes 7 times per cycle



ZONE 8 - IGNITION trigger, 3 Siren chirps, 8 Light flashes and the LED flashes 8 times per cycle.

- d. To reset the LED status reporting feature, turn the ignition ON.




PANIC MODE

- Press  +  The siren will sound, and park lights will flash for 30 seconds or until reset.
- Press  or  to reset the panic.

SILENT ARMING

- Press button 3. 
- Park lights will flash once.
- Doors will lock (if central locking installed).
- LED will flash slowly. If a door is not closed properly, the siren will chirp 6 times for warning and the LED flashes quickly.
- The onboard engine immobiliser relays if connected will be ARMED.
- Once silently ARMED if you DISARM the alarm using the  button the alarm will DISARM silently.

SENSOR BYPASS DURING SILENT ARMING MODE

- While DISARMED Press button 3  the first time, system enters SILENT ARMING mode.
- Park lights will flash once.
- Doors will lock (if central locking installed).
- Within 3 seconds press button 3  a second time, the park lights will flash 3 times to confirm that the sensor ports have been by-passed. The park lights will then flash an additional 10 times.
- While ARMED if you press button 1  to commence Car Finder with Sound mode. The siren will sound once and the park lights will flash 10 times and at this stage all sensor ports are REARMED.

EMERGENCY DISARMING

Every unit comes with 5 as the DEFAULT override code. For the emergency DISARM procedure follow the instructions below. While the system is ARMED

- Open the drivers door (the alarm will sound).
- Turn the ignition ON.
- Press the VALET button 5 times (if default) within 8 seconds. Wait 3 seconds for the verification process then if the correct code was entered, the system will chirp the siren 4 times and DISARM the system. If the value is incorrect or you did not enter the correct code within 8 seconds you will need to turn off the ignition and start again at step b.

To replace the override code with a new value please follow the steps below.

- DISARM the security system.
- Turn the ignition ON
- Press the VALET switch 5 times within 8 seconds. The siren will chirp 4 times to indicate the system is in the emergency code replace mode.
- Enter a number from (1-15) within 8 seconds, when finished the siren will replay the new code by chirping the amount of times equal to the new code.
- Now turn off the ignition key to exit. If the number is over 15 the system will reset this value to the DEFAULT of 5.



AUTOMATIC DOOR UNLOCK

When the ignition turns from ON to OFF, the doors will automatically unlock (if central locking has been installed).




AUTOMATIC DOOR LOCK (PROGRAMMABLE FUNCTION 4)

- With all doors closed, turn the ignition from OFF to ON, after 17 seconds the doors will lock (if locking installed).
- If a door is opened before you turn the ignition from OFF to ON will cancel the automatic lock procedure.




VALET MODE (PROGRAMMABLE FUNCTION 12)

- Turn ignition ON, within 8 seconds press and hold the valet switch for 3 seconds then release and turn off the ignition.
- The LED should light continuously, if it does not then start this procedure again and hold for longer.
- In Valet mode press  LOCK, the siren will chirp twice and LOCK the doors (if installed), and the park lights will flash twice.
- Press  UNLOCK, the siren will chirp three times to confirm UNLOCKING (if installed), and the park lights flash three times.
- To exit Valet Mode, turn the ignition ON, press and hold valet switch for 3 seconds once then release and turn the ignition OFF.
- In Valet mode the alarm operates as a keyless entry system (if central locking installed) also all optional functions operate as normal except automatic immobilisation and alarm functions. Trunk release and window closure outputs function if installed.



CAR FINDER MODE

- With the alarm ARMED.
- Press button 1  the siren will sound once and park lights will flash 10 times.
- Press button 3  the siren has no sound and the park lights will flash 10 times
- Press button 2  to stop the car finder mode and DISARM the alarm.




ANTI-CARJACKING MODE (PROGRAMMABLE FUNCTION 7)

- With the ignition ON and the doors closed, press  twice and then open the door within 8 seconds to activate anti-carjacking mode. (If the door is not opened within 8 sec, this mode will automatically exit).
- Close the door to start the 30 second count down, during this time the LED will flash quickly.
- When the 30 sec is up, the siren will chirp every 2 seconds. After 20 seconds, the siren sounds continuously and the park lights will flash continuously. As soon as the Ignition is turned OFF the engine will now be DISABLED and after 30 seconds the siren will stop. If the ignition key is turned back ON the siren will sound again and park lights will flash until the ignition is turned off or is reset with the remote.
- To DISARM the anti-carjacking, press  for two seconds while the ignition is ON. The park lights will flash once to confirm.
- Press and hold  for two seconds, this will exit the anti car jacking mode



CHANNEL 1 (-) 300mA TRUNK RELEASE/AUTOSTART FUNCTION

- Press buttons 2  + 3  for channel 1 output, this output can be used to open a trunk or engine starter module (optional).
- The trunk trigger and sensor ports are bypassed until the trunk is closed. After 3 seconds the system is in ARM mode again.


MANUAL OR AUTOMATIC PARKING LIGHTS ON DISARM (PROGRAMMABLE FUNCTION 16)

- If this function is set to DEFAULT pressing  once will DISARM the alarm, then pressing  again within 3 seconds will turn on the park lights for 30 seconds. Turn the ignition ON or ARM the alarm to reset.
- If this function is not the DEFAULT setting then pressing  once will DISARM the alarm and the park lights will turn ON automatically for 30 seconds. Turn the ignition ON or ARM the alarm to reset.

CHANNEL 2 (-) 300mA WINDOW CLOSURE OUTPUT (PROGRAMMABLE FUNCTION 14)

- If your car has a window closure module installed you can press and hold button 1  for more than 2 seconds to roll up the windows, the window closure output will work for as long as you keep button 1  held.
- This function can be selected to give a 30 second pulse for window closure from just one press.

CHANNEL 3 (-) 300mA PAGER OR 2ND UNLOCK OUTPUT (PROGRAMMABLE FUNCTION 3)

- In PAGER MODE if the alarm is ARMED and then triggered this output will be active. In PANIC MODE this output is also active.
- In 2ND UNLOCK MODE if you press and hold button 2  this output will be active for a 1 second duration.

DOOR LOCK CONTROL

- While driving, press button 1 to LOCK doors. The doors can be locked automatically.
- While driving, press button 2 to UNLOCK doors. The doors can be unlocked automatically.


LAST DOOR ARMING WITH LOCK (PROGRAMMABLE FUNCTION 8 & 9)

- Turn ignition OFF and close the last door. After 30 sec, the system will ARM with or without locking the doors (See function selections 8 and 9). If function 9 is required ensure that function 8 is turned on also.
- If one of the doors is opened during the above 30 sec, the system will reset the arming timer until the last door is closed.

AUTOMATIC REARMING WITH LOCK (PROGRAMMABLE FUNCTION 11)


- After DISARM, the system will REARM automatically in 30 seconds with the doors relocking (see function 11). If a door is opened within this 30 seconds, this will stop this REARM process.

AUTOMATIC 2 POINT ENGINE IMMOBILISATION (PROGRAMMABLE FUNCTION 10)

- After turning OFF the ignition or DISARMING the alarm, 30 sec later regardless of whether you ARM the alarm or not the system will automatically engage the 2 independent engine immobilisation relays and illuminate the dash LED solid.
- If while the LED is solid you turn the ignition ON the siren will sound a chirp to tell the owner to press  to reset.
- The LED will turn off and the engine immobilisation circuits will be restored and allow the vehicle to be started.

TEMPORARY 2 POINT ENGINE DISABLE AND LAST DOOR ARMING BYPASS

To temporarily BYPASS the Automatic 2 point engine immobiliser and last door arming features (if selected).

- With the ignition ON press button 3  once, the dash LED will flash once to acknowledge temporary bypass ready.
- Turn OFF the ignition, the alarm will sit with all automatic features BYPASSED. To reset this bypass turn the ignition ON or ARM the alarm system.

MEMORY FUNCTION

The alarm will memorize the last mode of operation in case of a power cut, all programmable settings are NON-VOLATILE and are stores in a EEPROM including the remote transmitter codes. No settings can be lost.

AUTOMATIC ZONE BYPASS IF INPUT CONTINUOUSLY TRIGGERED

- When ARMED if a door, hood or trunk input is continuously triggered e.g. a door is left open.
- The siren and park lights will activate for a duration of 30 seconds and then reset to an ARMED state.
- If the door remains open then step **b.** would repeat for a second time and then a third time making a total of 90 seconds then that ZONE will be bypassed until the circuit becomes stable.

DURATION OF AN ALARM ACTIVATION

In ARMED mode, the park lights will flash and siren or horn will sound for 30 seconds if the alarm is triggered.

2-STAGE SHOCK SENSOR

- If the vehicle is lightly impacted, the siren will sound 5 short chirps.
- If the vehicle receives a heavy impact, the siren will sound for 30 seconds and parking lights will flash for 30 seconds.

USER PROGRAMMABLE FUNCTIONS

To change a function selection please follow the steps below.

- DISARM the system.
- Turn the ignition from OFF to ON.
- Press the valet switch 7 times within 10 sec, then turn the ignition OFF.
- The LED should now flash once per second indicating that the alarm is in FUNCTION PROGRAMMING MODE.
- Press the valet switch the number of times for the function you would like to change within 20 second. Every press will have one siren chirp for pressing confirmation.
- Turn the ignition from OFF to ON. You'll hear the siren chirp to indicate the new mode of operation, 1 chirp for DEFAULT and 2 chirps for OPTION setting. You can now turn the ignition to OFF, now go back to step **e.** to change another setting or to exit programming mode turn the ignition key from OFF to ON. The LED will stop flashing and you have exited.

EXAMPLE: To turn the ARM/DISARM chirps OFF, carry out steps **a - d** above, press the valet switch 6 times. After every press of the valet switch the siren will chirp. After the 6th press then turn the ignition ON, you will hear two chirps which indicates that you have set this option to OFF. This procedure needs to be completed within 20 seconds.

FUNC #	FUNCTION DESCRIPTION	DEFAULT VALUE (1 CHIRP)	OPTION SET-UP (2 CHIRPS)
1	LOCK/UNLOCK TIMER	0.5 SEC	3.5 SEC
2	UNLOCK PULSE	1	2
3	SECOND UNLOCK OR PAGER OUTPUT SELECTION	PAGER	SECOND UNLOCK
4	IGNITION ON WITH DOOR LOCK	ON	OFF
5	SECOND UNLOCK	BOTH	2ND UNLOCK PULSE
6	ARM/DISARM WITH CHIRP	ON	OFF
7	ANTI-CARJACKING	ON	OFF
8	LAST DOOR ARMING	OFF	ON
9	LAST DOOR ARMING WITH LOCK	OFF	ON
10	AUTO IMMOBILISATION	ON	OFF
11	AUTO RE-ARM WITH LOCK	ON	OFF
12	VALET	ON	OFF
13	IMMOBILISER RELAY FUNCTION	NORMALLY OPEN	NORMALLY CLOSED
14	WINDOW CLOSURE OUTPUT	PRESS AND HOLD	30 SECOND PULSE
15	SOUND	SIREN	CAR HORN
16	PARK LIGHT ON DISARM	2ND UNLOCK PRESS	ALWAYS
25	DEFAULT	YES	

Specifications:

Power Supply..... 8V-15V
Siren Type..... 123dB 1 Tone

Power Consumption:

DISARMED..... 12mA
ARMED..... 20mA
Effective Range..... 30ft-100ft*

Transmission type:

TX and RX..... Code Hopping
TX frequency USA FCC..... 315MHz
EUROPE CE..... 433.92MHz
Park Light Flash Output..... 10A
Siren Output..... 3A
Main Fuse..... 15A

*Range is dependent on weather conditions and alarm installation

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USER PROGRAMMABLE FUNCTIONS


1. LOCK AND UNLOCK PULSE TIME

DEFAULT: Central locking pulse time is set to 0.5 seconds.
OPTION: Central locking pulse time is set to 3 seconds.

2. NUMBER OF UNLOCK PULSES

DEFAULT: The GREEN/WHITE unlock wire will pulse once whilst pressing button 2. 
OPTION: The GREEN/WHITE unlock wire will pulse twice whilst pressing button 2. 

3. SECOND UNLOCK OR PAGER OUTPUT (-) 300mA

DEFAULT: The WHITE/PURPLE in the 12 PIN connector will operate as a PAGER output. This output will only activate the PAGER during an alarm activation or in panic mode.
OPTION: The WHITE/PURPLE in the 12 PIN connector will operate as a SECOND UNLOCK output (negative 300mA). To activate the SECOND UNLOCK pulse, you will need to press and hold button 2  when DISARMING.

4. IGNITION ON WITH DOORS LOCKING

DEFAULT: 17 Seconds after the ignition is turned ON the doors will automatically LOCK. The instant the ignition is turned OFF the doors will UNLOCK. If a door is open before you turn the Ignition ON this feature
OPTION: The doors will NOT automatically LOCK after 17 seconds.

5. SECOND UNLOCK PULSE (-) 300mA

DEFAULT: BOTH the GREEN/WHITE unlock wire and the WHITE/PURPLE wire (if to SECOND UNLOCK PULSE see function 3) will operate at the same time with the same number of pulses as set in function 2 above.
OPTION: Only the WHITE/PURPLE wire will have 2 pulses on the wire.

6. ARM/DISARM WITH CHIRP

DEFAULT: ARM and DISARM chirps are ON.
OPTION: This function is OFF.

7. ANTI-CARJACKING

DEFAULT: Anti-carjacking ON refer to activation instructions on page 4
OPTION: This function is OFF.

8. LAST DOOR ARMING

DEFAULT: This function is OFF.
OPTION: Last door arming ON - After the ignition is turned off and the last door is closed, 30 seconds later the alarm will automatically ARM without locking the doors (if central locking installed).

9. LAST DOOR ARMING WITH LOCK

DEFAULT: This function is OFF.
OPTION: Last door arming with lock ON - After the ignition is turned off and the last door is closed 30 seconds later the alarm will automatically ARM and LOCK the doors (if central locking installed). For this function to work you must also have function 8 ON.

WARNING Do not leave the ignition keys in the vehicle or they could be locked inside when ARMING.

10. AUTOMATIC 2 POINT IMMOBILISATION

DEFAULT: Automatic 2 point immobilisation is ON - After turning the ignition OFF, 30 seconds later the 2 points of immobilisation will be active preventing the vehicle from being started. Refer to Page 5 for more details
OPTION: This function is OFF.

11. AUTOMATIC REARM WITH LOCK

DEFAULT: Automatic REARM with lock is ON - When DISARMING the alarm system, if no vehicle door is opened within 30 seconds then the alarm will REARM and lock the vehicle (if central locking installed). This function is designed to operate in case the vehicle owner accidentally DISARMS the system. The alarm will automatically re-protect the vehicle.
OPTION: delete this feature.



12. VALET MODE

DEFAULT: Valet Mode ON - This allows the owner to place the alarm system into valet mode. Refer to Page 4.
OPTION: This function is OFF.

13. ONBOARD IMMOBILISATION RELAYS 40A

DEFAULT: The onboard immobilisation relays are set to NORMALLY OPEN operation - This means the engine circuits are disconnected continuously and will only connect when the alarm system verifies the correct user remote has been used to DISARM the system and the ignition has been successfully turned ON.
OPTION: The onboard immobilisation relays are set to NORMALLY CLOSED - This means the engine circuits are connected continuously and will only disconnect when the alarm system has been triggered.




14. WINDOW CLOSURE OUTPUT (-) 300mA PINK/BLACK

DEFAULT: Press and hold button 1  for 2 seconds, the alarm system will ARM and the window closure output will be active for as long as you hold your finger on the button. (PINK/BLACK in the 5 pin connector)
OPTION: Press and hold button 1  for 2 seconds, the alarm system will ARM then trigger the window closure output with a 30 second pulse the button can then be released. Pressing button 1 again during this 30 seconds will stop the output.
NOTE: This window closure function will require installation of additional components to function. See your dealer.

15. SIREN OUTPUT (+) 3A WHITE/RED

DEFAULT: The siren output (WHITE/RED in the 12 pin connector) will be continuous during an alarm activation.
OPTION: The siren output (WHITE/RED in the 12 pin connector) will be pulsed during an alarm activation.

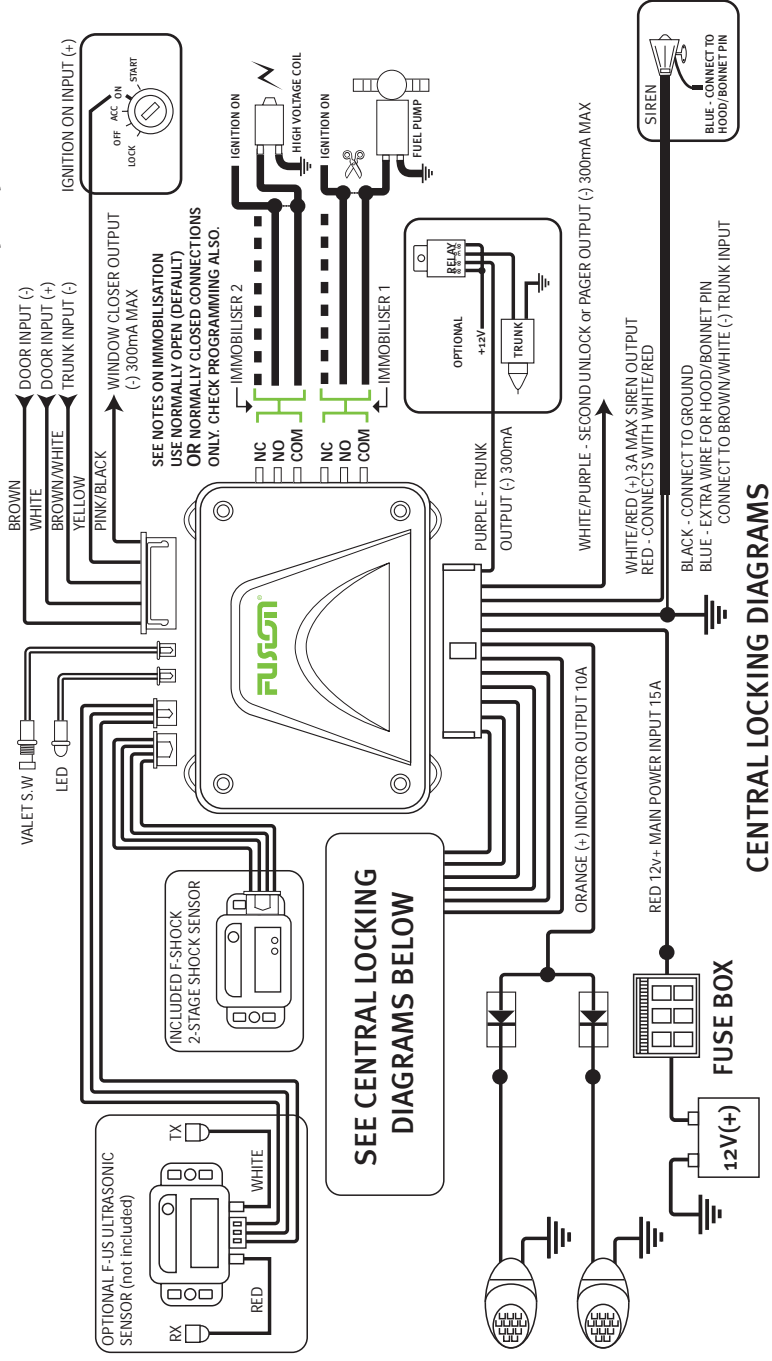
16. PARKING LIGHT WHEN DISARMING

DEFAULT: Pressing  DISARM once will DISARM the alarm, the park lights will flash to confirm. Pressing  twice time within 3 seconds will turn the park lights on for 30 seconds. Turn the ignition ON or ARM to reset.
OPTION: Pressing  DISARM 1 time will DISARM the alarm, the park lights will flash to confirm and then remain on for 30 seconds. Turn the ignition ON or ARM to reset.

25. FACTORY RESET

DEFAULT: All settings with return to DEFAULT

Vehicle Security System



CENTRAL LOCKING DIAGRAMS

