

FAI-320

Keyless Entry Kit

Revision 1.0

Shield Tech Security
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FAI-320





Car Security - For the cars with central door lock

Version: BA38H

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A. Key Function Table

01. Icon definition

Lock	Unlock	Trunk	Asterisk
			

02. Key operation

Keys	Armed	Disarmed	Ignition On
Lock button once	Car Finder	Arm	Lock
Unlock button once	Disarm	Unlock	Unlock
* button once then Lock once		Silent Arm	
* button once then Unlock once	Silent Arm		
Trunk button 2 sec.	Trunk Release	Trunk Release	
(*+Trunk) button 1 sec.	Ch3	Ch3	Ch3
* button*1 sec.	Panic	Panic	Anti-hijacking
* button once then Trunk 1 sec.		Valet On/Off	Valet On/Off

03. System arm & disarm

- Arm
 - With system disarmed and ignition off
 - Press lock key once, door lock and start-kill on
 - Siren and flash lights activate once*
 - Then, status Led flashes slowly to confirm the system is armed
- * Door ajar:
 - The siren and flash lights would activate 4 times when pressing lock key once to arm the system but any door was not closed properly
 - In this case, the door won't be protected until closing properly
- Disarm
 - With system armed
 - Press unlock key once, doors unlock
 - Siren chirps 3 times and lights flash twice*
 - Then, status Led turns off to confirm the system is disarmed
- * System triggers
 - If the system was triggered and alarmed while away from the vehicle then:
 - Press unlock key once to disarm the system, the siren and flash lights would activate 4
 - Then, the status Led will flash to indicate the triggered zone until turning the ignition on or the system is armed again

04. Silent arm and disarm

- Silent arm

- Press * key once then press lock key once will arm the system without chirp confirmation but the flash lights will still flash once to confirm
- Once any door was not closed properly then the siren will still chirp 4 times to alert
- Silent disarm
 - Press * key once then press unlock key once will disarm the system without chirp confirmation but the flash lights will still flash twice to confirm
 - Once the system was triggered while away from the vehicle then the siren would still chip 4 times to alert

05. Car finder

The operation is as follows:

- With system armed
- Press lock key once
- Siren and lights activate 10 times and system remains armed
- During the 10 times period, press lock or unlock key once, the siren and lights will deactivated immediately and the system remains armed

06. Trunk release

The trunk can be remote opened and the details are as follows:

- With system disarmed or valet mode:
 - Press trunk key for 1 sec. will remote the trunk open
 - The trunk can't be remote opened when the ignition is on
- With system armed:
 - Press trunk key for 1 sec. will remote the trunk open but system remains armed
 - In this case, the shock sensor and doors are out of being protected until pressing lock key once to activate car finder function or press lock key twice to arm the system again
- When the system is alarming:
 - Press trunk key for 1 sec. still can remote the trunk open but the system remains armed and the siren, lights keep activating

07. Ch3(channel 3)

Channel 3 is used to be applied for remote window closing and the operation is as follows:

- With system armed, disarmed, ignition on or the system is alarmed
- Press both of (* &+ Trunk) keys together
- Then, in 1 sec. later, channel 3 will be activated until releasing the keys
- With system armed, the shock sensor will be bypassed when the channel 3 is activated until 3 sec. later of channel 3 is deactivated

08. Panic

The operation is as follows:

- With system disarmed:
 - Press * Key for 1 sec. will activate panic mode
 - In panic mode:
 - The siren and lights will activate 30 sec.
 - The start-kill will be on
 - Doors lock
 - 30 sec. later, the system remains disarmed
 - During the period of panic mode, press lock or unlock key once will deactivate panic mode immediately and the system remains disarmed
- With system armed:
 - Press * Key for 1 sec. will activate panic mode
 - In panic mode:
 - the siren and lights will activate 30 sec
 - Doors lock
 - 30 sec. later, the system remains armed
 - During the period of panic mode, press lock or unlock key once will deactivate panic mode immediately and the system remains armed

09. Valet mode

Valet mode is a convenient feature to use when handing the remote to third person for valet parking of vehicle service and the operation is as follows:

- Enable & disable valet mode by remote:
 - With system disarmed or the system is in auto-rearmed
 - Press * key once then press and hold trunk key for 1 sec.
 - Then, siren chirps 5 times and status Led solid on confirming the system is in valet mode
 - With system valet mode, press * key once then press and hold trunk key for 1 sec., then siren chirps twice, status Led turns off to confirm the system quits valet mode
- Enable & disable valet mode by valet switch:
 - With system disarmed or the system is in auto-rearmed
 - Turns ignition on
 - Press valet switch 5 times
 - Then, siren chirps 5 times and status Led solid on confirming the system is in valet mode
 - With system valet mode and ignition on, press valet switch 5 times, then siren chirps twice, status Led turns off to confirm the system quits valet mode
- In valet mode:
 - Press lock or unlock key still can remote doors lock and unlock and

lights flash once or twice confirming but without chirp confirmation

- Press * key for 1 sec. still can activate panic mode
- Press trunk key for 1 sec. still can remote trunk open
- The feature of ignition lock & unlock still function

B. Basic functions

01. System status memory

When power on, the system will enter the mode as same as the system was powered off before

02. Code learning

The provided remotes have been programmed to the system when leaving the factory. Follow the steps below to program a new remotes to the system if necessary:

- Turn on the ignition with system disarmed
- Press valet switch for 2 sec. then the siren will chirp 3 times confirming the system is in learning mode
- Within 5 sec., press any key of 1st remote, siren chirps once to confirm the 1st remote is programmed to the system and all the previous remotes were erased form the system entirely
- After programming the 1st remote, within 5 sec. press any key of 2nd remote, siren chirps twice to confirm the 2nd remote is programmed to the system
- Follow the same steps as above to program 3rd and 4th remotes and the siren chirps 3 and 4 times to confirm
- The system will automatic leave learning mode after the 4th remotes are programmed to the system and the siren will sounds 2 long chirps to confirm
- During the learning mode period, turn off ignition or don't press any key within 5 sec., then the system will automatic leave the learning mode and siren sounds 2 long chirps to confirm

03. Status Led indications

The status Led will flash to indicate the car status or triggered zone as follows:

Flash Modes	Triggered Zones	Flash Modes	System Status
Flashes Once	Ignition Trigger	Off	Disarmed
Flashes 3 times	Door Trigger	Solid On	Valet Mode
Flashes 4 times	Shock Sensor	Flash slowly	Armed
		Flash Fast	Auto-armed

04. Sensor temporary bypass

The sensor can be bypassed temporarily and the operations are as follows:

- Press lock key once to arm the system
- Within 3 sec. press unlock key
- The siren and lights activate once confirming the sensor and doors are bypassed(both are not protected); in this case, only the ignition left to be protected
- Disarm the system and then arm the system, the shock sensor will be functioned and doors will be protected again

05. Emergency override

If the remote becomes lost or inoperable, the system still can be disarmed by override as follows:

- With the system armed or alarmed
- Turn the ignition on
- Press the valet switch for 1 sec., then:
 - The siren chirps 4 times
 - Doors unlock
 - Status Led turns off to confirm the system is disarmed

06. System triggered and alarmed

- Shock sensor 1st stage triggered
 - Light impact will trigger the 1st stage of shock sensor
 - With the trigger, the siren chirps 5 times and lights flash twice
- Shock sensor 2nd stage triggered
 - Heavy impact will trigger the 2nd stage of shock sensor
 - With the trigger, the siren and lights activate for 30 sec.
- Doors triggered(opened then closed)
 - Force open the doors then closed with system armed will trigger the alarm
 - With the trigger, the siren and lights will activate for 1 cycle(30 sec.) and status Led flashes to indicate the door is triggered
- Doors triggered(opened then not closed)
 - If forcing open the door then not closed, the siren and lights will activate 3 cycles
 - In this case the door will be protected again after closing properly
- Ignition trigger(on then off)
 - With the trigger, the siren and lights will activate for 1 cycle(30 sec.) and status Led flashes to indicate the ignition is triggered
- Ignition trigger(on then not off)
 - If the ignition is on then not off then, the siren and lights will activate 3 cycles
 - In this case, turns off ignition then turns on again, the system will still

be triggered and alarmed

07. Alarm clear

With the system triggered and alarmed, the siren will sound and lights will flash to draw the attention to the car; the system triggered and alarmed can be cleared as follows:

- By lock or unlock key
- With system triggered and alarmed
- Press lock or unlock key once
- The siren and lights will be deactivated
- Then, the status Led flashes to indicate the triggered zone until turning the ignition on or arming the system again

C. Programmable features

01. Anti-hijacking(If the feature is enabled)

- Anti-hijacking can be activated as follows:
 - By ignition on:
 - With system disarmed, turn the ignition will activate anti-hijacking, the siren and lights will activate 2 times to confirm
 - By door open:
 - With system disarmed and ignition on, open the door will activate anti-hijacking, the siren and lights will activate 2 times to confirm
 - By remote:
 - With system disarmed and ignition on, press * key for 1 sec. will activate anti-hijacking, the siren and lights will activate 2 times to confirm
- After anti-hijacking is activated, the system will activate as follows:
 - During the period of 1 ~ 15 sec.:
 - Press lock key once will deactivate anti-hijacking, the siren and lights will activate once to confirm
 - During the period of 16 ~ 30 sec.:
 - Status Led starts to flash slowly and still can deactivate anti-hijacking by override
 - During the period of 31 ~ 45 sec.:
 - Siren starts to chirp slowly, status Led flashes fast and still can deactivate anti-hijacking by override
 - During the period of 46 ~ 70 sec.:
 - Siren chirps fast, status Led flashes fast and still can deactivate anti-hijacking by override
 - After above 70 sec.:
 - Start-kill on, siren and lights activate to draw the attention until override the system

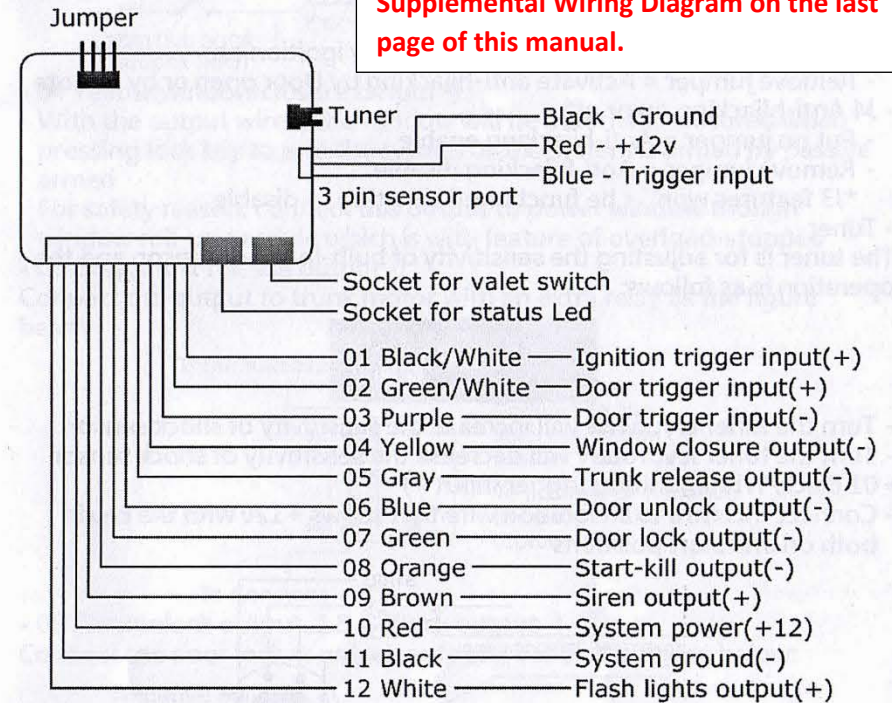
02. Auto-armed

If the feature is enabled, the system will work as follows:

- **Auto-rearmed**
 - The system will be armed again as follows:
 - Press unlock key once to disarm the system
 - The status Led flashes fast to confirm the system will be armed again in 30 sec. later
 - * If the system was triggered while away from the vehicle then the status Led would flash to indicate the triggered zone instead of flashing fast
 - The feature would be interrupted if the door was opened during the 30 sec. period and the Led turns off to confirm. In this case, close the door, will activate passive arm and the Led flashes fast to confirm the system will still be armed in 30 sec. later
 - Turn on the ignition during the 30 sec. period will deactivate auto-rearmed feature and status Led turns off to confirm
- **Passive armed**
 - The system will be armed automatically as follows:
 - Turn off the ignition
 - Close all the doors properly
 - Status Led start to flash fast to confirm the system will be armed automatically in 30 sec. later
 - The feature would be interrupted if the door was opened during the 30 sec. and the Led turns off to confirm
 - Then, close the door, will activate the feature again and the status Led flash fast to confirm
 - Turn on the ignition during the 30 sec. will deactivate passive arm feature and status Led turns off to confirm

D. Installation

01. Wiring diagram

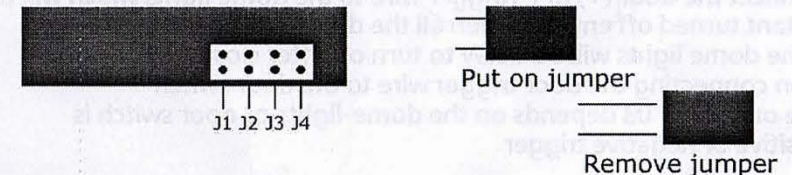


Please reference the Shield Tech Security Supplemental Wiring Diagram on the last page of this manual.

02. Wiring notes

• Jumper setting(optional features)

The jumpers are for setting the optional features; each jumper stands for one feature and there are total 4 options features as follows:



- J1 Door lock & unlock time setting:

- Put on jumper = 1 pulse
- Remove jumper = 2 pulses

- J2 Auto-rearmed setting:

- Put on jumper = Feature enable
- Remove jumper = Feature disable

- J3 Activate anti-hijacking:

- Put on jumper = Activate anti-hijacking by ignition on
- Remove jumper = Activate anti-hijacking by Door open or by remote

- J4 Anti-hijacking on or off:

- Put on jumper = Anti-hijacking enable
- Remove jumper = Anti-hijacking disable

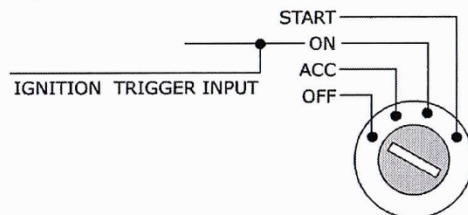
*J3 features won't be functioned if setting J4 disable

• Tuner

The tuner is for adjusting the sensitivity of built-in shock sensor, and the operation is as follows:

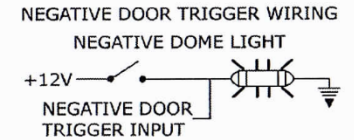
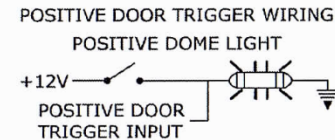


- Turn the tuner clockwise will increase the sensitivity of shock sensor
- Turn the tuner levorotary will decrease the sensitivity of shock sensor
- 01 Black/White(ignition trigger input +)
- Connect this wire to an ignition wire that shows +12v with the key in both on and start positions



• 02 Green/White & 03 Purple(door trigger input + & -)

- This input will protect the doors with system armed. Wiring this input to the dome-lights or door switch and make sure the input will be triggered when any door is opened
- Connect the door (+) or (-)trigger wire to the dome lights which will be instant turned off entirely when all the doors are closed
- If the dome lights will be delay to turn off after closing all the doors then connecting the door trigger wire to the door switch
- Use only 02 or 03 depends on the dome-lights or door switch is positive or negative trigger



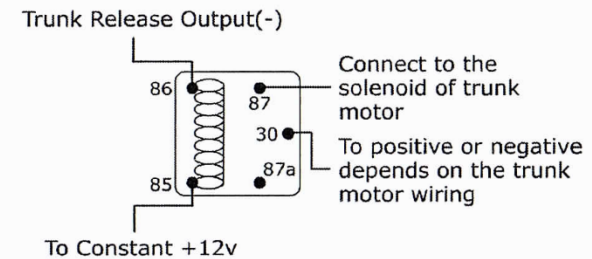
• 04 Yellow(window closure output -)

- With the output wired, the window will be automatic closed when pressing lock key to arm the system or the system is armed by passive armed

- For safety reason, connect this output to power window though window roll-up module which is with feature of overload-stopped

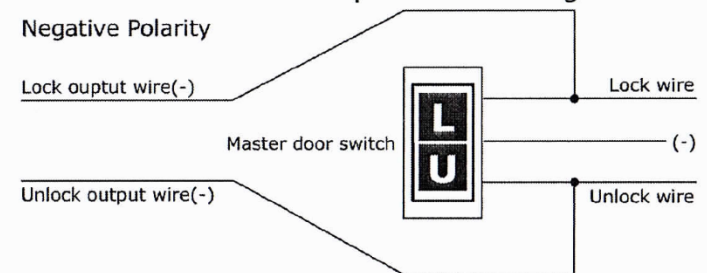
• 05 Gray(trunk release output -)

Connect the output to trunk motor with an extra relay as the figure below

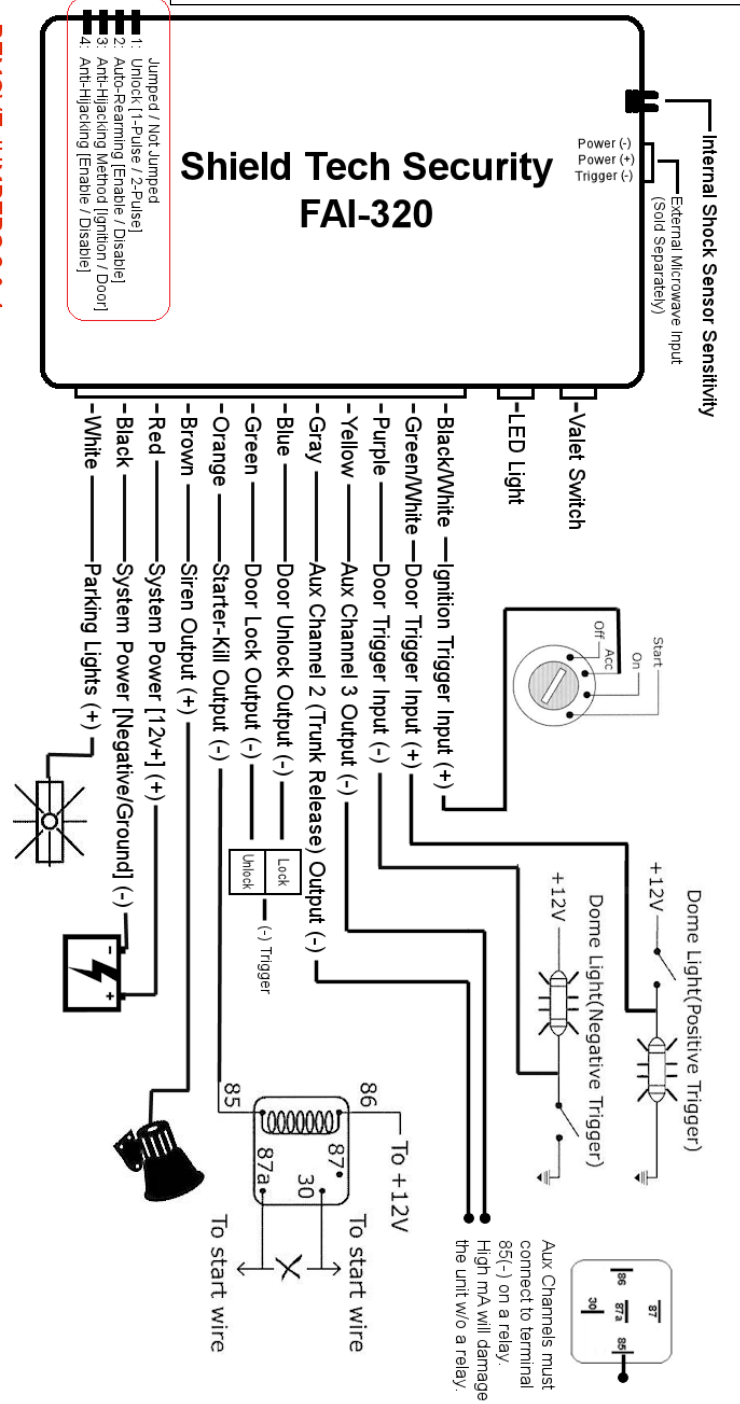


• 06 Blue(unlock output -) & 07(lock output -)

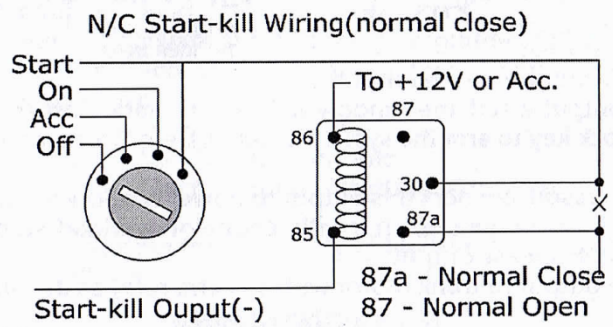
Connect the door lock & unlock output wires as the figure below:



Shield Tech Security Supplemental Wiring Diagram



08 Orange(N/C start-kill output -)
Connect n/c start-kill output as the figure below then, the starter will be disabled with system armed:



- 09. Brown(siren output +)
Connect the output to additional siren; must not to connect to the car horn
- 10. Red(system power +12v)
Connect to constant +12v source
- 11. Black(system ground)
This wire must be connected to chassis metal of the car. Scrape away any paint or dirt from the area to ensure a good connection
- 12. White(flashlights output +)
Connect the output to turning signals of car