



Warning

If you use remote start, please put your gear position on neutral or parking, and apply hand brake for safety

*This design and specifications of this model could be changed without prior notice for the improvements.

S Sinew Systems

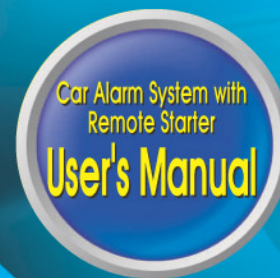
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Tel: +82 31 203 0530 Fax: +82 31 203 0532

Advanced Technology Leader

SPEAR *SPEAR-5000*

*The Spearhead
FUZZY TWO-WAY CAR ALARM &
ENGINE STARTING SYSTEM*



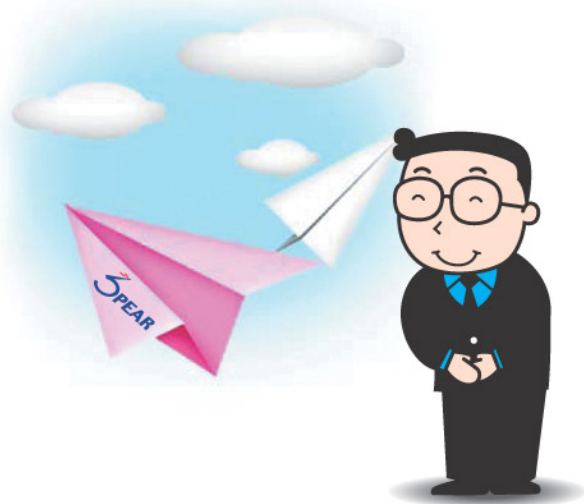
Caution : Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC statements
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.

S Sinew Systems

Acknowledgements for Customers

- ◆ Welcome and thank you for choosing **SPEAR 5000** of newly developed and cutting edge car alarm system with remote starter.
- ◆ Before customers' pointing out, we endeavor to make products which satisfy ourselves confidently and by doing so, we believe, we can make customers happier.
- ◆ For customer's safety and conveniences, we are promised to develop and advance our technologies continuously.



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Table of Contents

● Acknowledgements for Customers	2
● Table of Contents	3
● System Contents	4
● Notice to Customers	5
● Product & Function Descriptions	6
● Turning System On & Replacing Battery	6
● Installing Program Modes	8
● Valet Function	9
● Standard Functions	10
● Convenience & Optional Functions	17
● Wiring Diagram of the Main Unit	22



System Contents

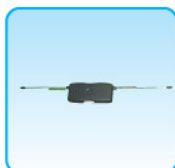
SPEAR 5000



Remote Controller



Main Control Box



Transceiver module
with two-way
antenna



Shock Sensor



Knock Sensor



Siren



Wiring Harness, Relays



User's Manual



SPEAR Logo Sticker

* System contents can be changed without prior notice for the improvements of specifications and functions.

Notice to Customers

Review the following safety precautions and user instructions to avoid injury and prevent damage to this product or any products connected to it.

To avoid potential hazards, use this product only as specified.

- 1) Users are responsible for car damages and various car accidents due to their faulty installations, incorrect uses and children's misuse etc.
Manufacturer and retailers are not responsible for these in civil and criminal aspects.
- 2) There can be a difference of remote sending and receiving distance due to user's surroundings.
- 3) Warrant period will be 1 year and our headquarters will be responsible for manufacturing defects and our service centers will repair installing defects free of charge during warrant period.
- 4) Although this product provides car robbery protection and user conveniences in car uses, we are not responsible for any car damages and car robberies.
- 5) Please check the product features regularly and prepare car damages can be occurred.
- 6) If car owner changed, our service centers can fix the product for new owner, but service charge can be happened.



Product & Function Descriptions



Remote Controller Buttons



	Arm & door lock
	Disarm & door unlock
	Remote engine starter
	Trunk release
	Car finder

Turning System On & Replacing Battery

- 1) Insert AAA 1.5 battery into the opening on the back of remote.
- 2) All functions displayed in the screen with music and vibration.
- 3) Set the time

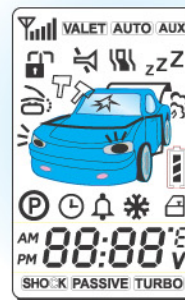


'melody' Sound



Screen

Viewing the Display Screen





	Receiving signal status
	Hood
	Emergency light
	Door opens
	Battery status for remote
	Car battery's voltage
	Engine starting display
	Engine start reservation of manual transmission vehicle
	24-hour engine start reservation
	Alarm display
	Cold start (engine protection in winter season)
	5door/4door
	Clock, ignition, parking, driving, temperature and voltage display
	Shock sensor on mode
	Passive (emergency) mode
	Turbocharged vehicle mode

	Valet function
	Automatic/manual transmission
	Optional functions (window roll up/down & sunroof open/close etc.)
	Arm & door lock
	Disarm & door unlock
	Mute alarm
	Vibration mode
	Trunk release
	Pager for owner
	Shock reception display

Installing Program Modes

General Remote Code Programming

※ After finish the car installation and power apply to the main unit, programs can be input within 3 seconds.

- ▶ Leave the door open.
 - ▶ Turn the key to ON position.
 - ▶ Press valet button 4 times. Beep sounds 1 time.
 - ▶ Press  button then program is installed with one beep sound and one parking light flash. If no input occurs within 7 seconds, programming will be done.
 - ▶ If you want to set up second remote, press  button then program is installed with two beep sounds.
- Third remote can be programmed with same method. And beep sounds 3 times.
- ▶ You can program total three remotes (two of 2-way remotes first and then one auxiliary remote).



Valet Function

1) Temporary valet: when parking, washing and maintaining the car

- ▶ Using valet button : Leave the door open. Turn the key to ON position. And press valet button for 5 seconds. Then temporary valet will work with one beep sound and one parking light flash. In this mode, you can use door lock/ unlock function. If you repeat same steps, this mode will be inactivated.
- ▶ Using remote controller : Leave the door open. Turn the key to ON position. And press  button for 2 seconds. Then temporary valet will work with one beep sound and one parking light flash. In this mode, you can use door lock/ unlock function. If you repeat same steps, this mode will be inactivated.

▼ Use valet button



▼ Use remote




2) Permanent valet : when you lost remote controller (until you input programs to new remote)


- ▶ Leave the door open. Turn the key to ON position. And press valet button for 10 seconds. Then permanent alarm disarming will work with one beep sound and one parking light flash. In this mode, you can not use any function until you will use new remote. If you repeat same steps, this mode will be inactivated.



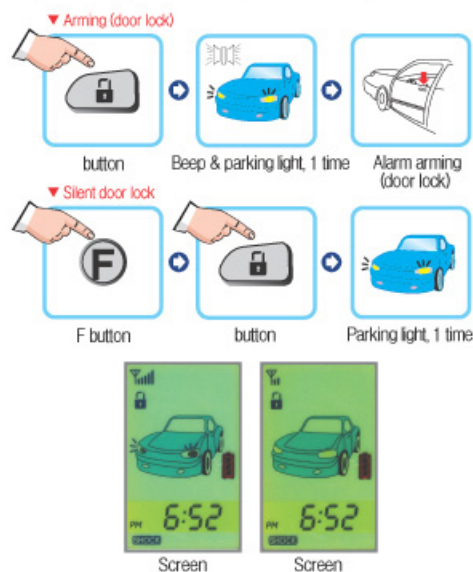
- ▶ If you use new remote, first inactivate permanent valet mode and input programs to new remote (please see General Remote Code Programming instruction).

Standard Functions

1) Arming (door lock) function: press  button for 1 second.


- ▶ Siren 1 time, parking light 1 time
- ▶ Door will be locked
- ▶ Silent door lock (press **F** button and then  button): parking light, 1 time
- ▶ Door lock remained during engine starting & driving
- ▶ At this mode, if you have door or trunk or hood opens or have a shock, siren will sound for 30 seconds and parking light flash will be on and off. This can be occurred total 3 times when same situation continues but it will not affect battery discharge.

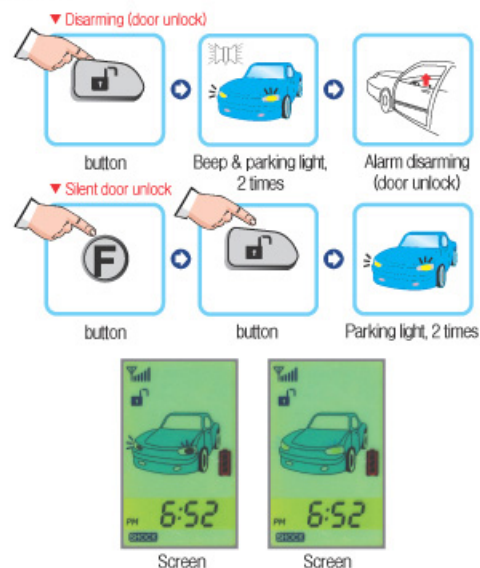
Press any button if you want to stop siren and flash.



- ▶ In the screen of remote, door lock icon displayed.
- ▶ Remote's beep sounds 1 time and back lights will be on. (If you are not connected, beep will sound 3 times and no change of the screen and no back lights.)

2) Disarming (door unlock) function: press  button for 1 second.

- ▶ Siren 2 times, parking light 2 times
- ▶ Door will be unlocked
- ▶ Silent door unlock (press **F** button and then  button): parking light, 2 times
- ▶ Door lock remained during engine starting & driving
- ▶ At this mode, any alarming modes will be inactivated.
- ▶ If you do not open the door within 10 seconds, function will be back to alarm arming mode.

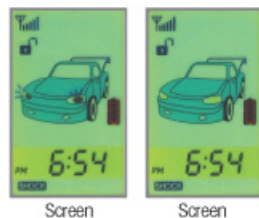
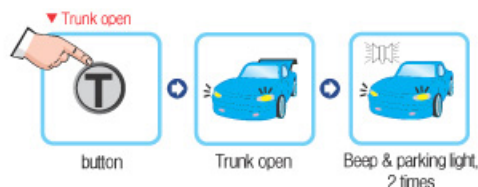


- ▶ In the screen of remote, door unlock icon displayed.
- ▶ Remote's beep sounds 2 times and back lights will be on. (If you are not connected, beep will sound 3 times and no change of the screen and no back lights.)
- ▶ If you do not open the door within 10 seconds, function will be back to alarm arming mode.

Standard Functions

3) Trunk release: press **T** button for 2 seconds.

- ▶ Trunk will be open
- ▶ Alarm will be disarmed
- ▶ Siren 2 times, parking light 2 times.
- ▶ In 10 seconds, back to alarm arming mode.
- ▶ 4 door mode: Before back to arming mode, if you open the door, rearming will not work.
- ▶ 5 door mode: If you open the trunk, rearming will not work.



- ▶ In the screen of remote, trunk open displayed.
- ▶ Back lights of remote will be on (if you are not connected, beep will sound 3 times and no change of the screen and no back lights.)



4) Engine start function: press **S** button for 2 seconds (apply to both auto and manual transmission vehicles).

- ▶ Siren 1 time, parking light 1 time.
- ▶ In 3 seconds (7 seconds for diesel vehicles), engine will crank (in case of failure, please try more 2 times).
- ▶ If engine starts, siren sounds 3 times and parking light flashes 3 times. If it failed, beep sounds 2 times.
- ▶ In manual transmission vehicles, if you did not reserve engine start function, siren will sound 3 times and parking light will flash long 1 time.



▼ Manual transmission vehicle



Do not reserve --> Parking light, 1 time long + Press button for 2 sec



- ▶ In the screen of remote, exhaust gas icon and engine start duration time displayed.
- ▶ If engine starts, remote will chirp 2 times and back lights will be on (if you are not connected, beep will sound 3 times and no change of the screen and no back lights.)

※ In manual transmission vehicles, if engine start function reserved, P icon is on and off in the screen.

Standard Functions

5) Engine start reserve function (manual transmission vehicles)

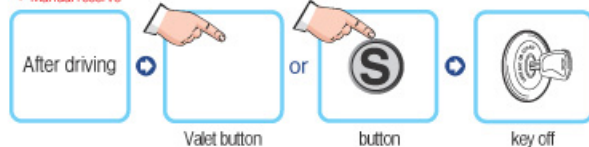
- ▶ Auto reservation: After driving, if you turn the key to OFF position, you can move to engine start reserve mode automatically.
- ▶ Manual reservation: After driving, press VALET button (or press **S** button for 2 seconds), and turn the key to OFF position then you can move to engine start reserve mode.
- ▶ And then, if you take off the key within 20 seconds, and go out from the car within 20 seconds, and close the doors and press  button within 20 seconds, engine will die and engine start reserve will be finished.

▼ Auto reserve



key off


▼ Manual reserve



Valet button

button

key off

In case of turbo installed and LPG vehicles, after closing doors, press **S** button for door lock then after 2 minutes engine will die automatically. If you do not need this function, just press  button for door lock then engine will stop immediately.

▼ Turbo & LPG vehicle



Door close

button for door lock

Engine will stop 2 min (turbo vehicle) or engine will stop after fuel consumption (LPG vehicle)

6) Alarm function: when alarming situation happened (not in valet mode)

- ▶ If doors open, siren sounds for 30 seconds and parking light is on and off for 30 seconds.
- ▶ If doors open continuously, above will happen 3 more times. If engine-starter-kill relay installed, it will make engine stop.
- ▶ If trunk opens, siren sounds for 30 seconds and parking light is on and off for 30 seconds.
- ▶ If trunk opens continuously, above will happen 3 more times.
- ▶ If this mode worked, there will be door/ trunk open icon in the screen you use door lock/ unlock function (door opens: 2 times, trunk opens: 3 times). And it displayed in both car siren and remote.

▼ Door open/ Trunk open



- ▶ Siren 30 sec, parking light will on & off for 30 sec



Door open Screen



Trunk open Screen

7) Kill engine start function: when alarming situation happened (not in valet mode)

- ▶ In case of engine-start-interrupt relay installed vehicles, you can stop engine working.

8) Car finder function: press **F** button twice

- ▶ Siren 7 times, parking light 7 times.



Press F button twice



Screen

Standard Functions

9) Page for car owner: knock sensor in front window is received a tap

- ▶ Parking light 1 time.
- ▶ Chirp sound 4 times.
- ▶ Cell phone icon in the screen.



10) Dual shock sensor

- ▶ Light impacts: beep sound 6 times, parking light flash 6 times.
- ▶ Heavy impacts: siren sounds for 30 seconds, parking light flash on and off for 30 seconds.
- ▶ Light impacts: in remote, beep sounds 6 times and shock-receive icon in the screen.
- ▶ Heavy impacts: in remote, chirp sounds 13 times and shock-receive and hammer icon in the screen.

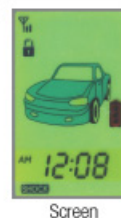


Convenience & Optional Functions

※ On time adjusting functions, press **S** button to confirm and press **T** button to cancel.

1) Time setting in remote

- ▶ **F** + **⏸** button at the same time for 2 seconds, then press **⏸** button for hour setting and press **⏸** button for minute setting. Press **S** button when finished.



2) Vibration and soundless of remote

- ▶ **F** + **⏸** button at the same time for 2 seconds, then remote mode will change to consecutively sound → vibration → soundless mode.



3) Cold start function

- ▶ To use this function, press **F** and **S** button at the same time. If you release this function, repeat one more time.



Convenience & Optional Functions

4) 24-hour engine start reservation

- Press **F** + **T** button at the same time for 2 seconds, then press **L** button for hour setting and press **M** button for minute setting. Press **S** button when finished.

※ For example) in case of your work in and out time is constant at every day



Screen

5) Alarm notice function

- Press **L** + **S** button at the same time for 2 seconds, then press **L** button for hour setting and press **M** button for minute setting. Press **S** button when finished. **T** button for cancellation.
- To inactive this function, press **L** + **S** button at the same time for 2 seconds and press **T** button.



Screen

6) Window roll up & down/ Sunroof open & close (optional)

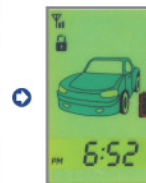
- Press **T** + **S** button at the same time, then windows will roll up for 2 seconds. Press **T** + **L** button at the same time to roll down windows for 2 seconds.

7) Remove shock sensor mode

- Press **T** + **S** button at the same time, then shock sensor mode will be inactivated. Repeat same step to back to shock sensor mode.



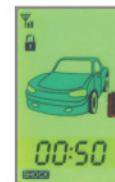
Screen



Screen

8) Parking time display

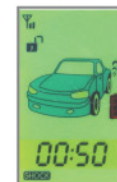
- After engine stops, press **T** button twice then parking duration time will appear.



Screen

9) Driving time display

- When engine works, press **T** button twice then last driving duration time will appear.



Screen

10) Car inside temperature display

- Press **T** and **L** button consecutively to check the voltage of car battery.



Screen

11) Car voltage display

- Press **T** and **L** button consecutively to check car voltage.



Screen

Convenience & Optional Functions

12) Check DIP SW and current status activated

► Press **F** and **S** button consecutively to check current status.

※ After replacing battery, please do this function to check current status (replacing battery makes remote initialize so adjust time related functions such as current time, alarm notice and 24-hour engine start reserve function etc).



Screen

13) Assistance One way Transmitter



	Arm & door lock
	Disarm & door unlock
S	Remote engine starter
T	Trunk release

13) Functions when it installed (H/W)

► Functions can be changed by DIP SW.

Choice	1	2	3	4
Off (↑)	Gasoline (5sec)	General	General	Auto reserve
On (↓)	Diesel (7sec)	MUSSO	Turbo/ LPG	Manual reserve

14) Customers can choose below when they install

After door open, turn the key to ON position and press valet button 6 times (within 7 sec)	1 sec	Soundless mode -inactivate
	1 sec	Passive mode - inactivate
	S 2 sec	Silent mode (car off, remote on) - inactivate
	T 2 sec	Unlock auto door lock vehicle - inactivate
	F 2 sec	IG lock - inactivate

15) Service centers can choose below for customers

After door open, turn the key to ON position and press valet button 8 times (within 7 sec)	1 sec	Extend cranking time, 1 sec (LPG cars) - inactivate
	1 sec	4 door/ 5 door - 5 door
	S 2 sec	Engine start recognize: noise (1 time)/ Slide SW: TACHO (2 times)
	T 2 sec	2 min (chirp, 1 time), 5 min (chirp, 2 times), 20 min (chirp, 3 times)
	F 2 sec	Factory installed

16) Simultaneous siren and horn sound function

17) If shock and car interrupt happened, remote and car displayed and indicated these

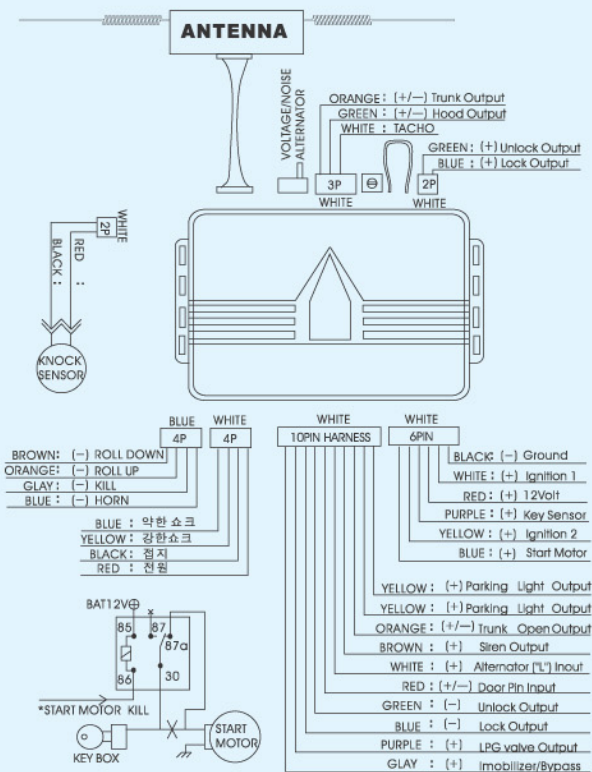
※ If battery is out of power, there will be no display in the screen and back light will be on and off and remote will vibrate weakly.

----- Need to replace battery.

Main Wiring Diagram



SPEAR INSTALL WIRE



Warrant Sheet

Item		Contents	
Name		SPEAR-5000	
Lot No.			
Production Date			
Purchase Date		YY /MM /DD (warrant until YY /MM /DD)	
Customer	Name	Tel	
	Address		
Agent/ Service center	Name	Tel	
	Address		

S Sinew Systems

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