

Before using the system

Thank you for choosing AIRWOLF, a remote engine starter system manufactured by AIRWOLF You are about to experience convenience through the various carefully designed functions for customer satisfaction. To fully benefit from the capabilities of your AIRWOLF system, we encourage you to read this user manual thoroughly before using the system.

Caution

- AIRWOL warrants the operation of AIRWOLF system for a period of 2 years. Defects in parts or workmanship will be repaired by the manufacturer, but any installation problems will be resolved by your installation dealer.
- Even though this product provides a theft deterrent function, Air Wolf gives no warranty against the theft or damage of any vehicle.
- The manufacturer is not responsible for any accident caused by unauthorized installation or modification of the equipment.
- 4. The repair cost of this equipment due to the damage caused by natural calamity or customer fault will be charged. In addition to that, exchanging expendable supplies such as motor, remote control case, and battery will be charged regardless of the warranty period.
- The battery for the remote control lasts about 100 days if it is used 10 times a day (It might be different depending on the type of the battery).
 User is responsible for purchasing and exchanging the battery (AAA Size V)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may notcause harmful interference, and (2) this device must accept any interference received, including interference that maycause undesired operation. 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.



AIRWOLF features

- Provides easy-to-use menu-driven user interface that allows easier function operation for user's convenience.
- Immediately displays the answer from the vehicle to the user commands through the LCD and the beeper of the remote control so that user would not be anxious about the current status of the vehicle.
- Displays the signal sensitivity between the vehicle and the remote control by using 4-step signal sensitivity antenna.
- Allows detailed time configuration in all menus to meet customer's various needs.
- Displays the current vehicle status on the LCD, when an alarm occurs so those users can easily recognize the status of the vehicle.
 Also different beeping sound is provided for each individual status of the vehicle by the remote control for easier distinction of the status.
- Saves all user configurations even if power is not supplied. Therefore, reconfiguration is not needed after replacing batteries.
- Notifies by sound if the vehicle is unreachable area from the remote control.
- Provides easy-to-use time data configuration function (INITIAL SETUP)
 designed to meet various requirements of vehicles including specialpurpose, and imported vehicles in which other remote starter systems
 could not be installed.
- Adopted the most advanced code hopping technology.

^{**} Code hopping technology offers the most advanced protection available against "code-grabbing" devices that thieves may use to record the digital code transmitted by your remote control. When you leave the area, a thief can then play back the code to start or stop your system. The remote control of AIRWOLF randomly changes the code every time you use it by using the code hopping technology, and makes code-grabbing devices useless.



Contents

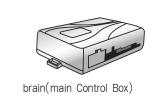




1. The contents of the package



Remote





shock sensor





LED





antenna

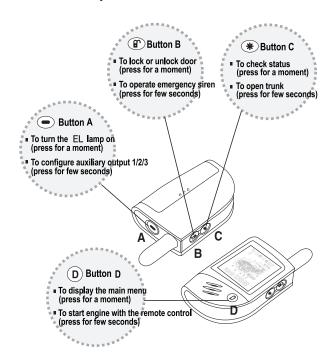
battery (AAA)



1 T	he co	ontents of the package 5
		descriptions 6
		ons of the buttons
0. 1	3-1.	Remote engine start
	3-2.	Door Lock/Unlock
	3-3. 3-4.	Emergency siren Status check including finding the vehicle, checking the communication status, and checking the vehicle status.
	3-5.	Opening the trunk
	3-6. 3-7.	Turning the LCD lamp on Configuring auxiliary output 1/2/3
<i>1</i> E		ons of the icons on the LCD
4. F		Signal sensitivity
	4-2.	Configuring valet mode
	4-3. 4-4.	Configuring siren Configuring cold start
		Configuring cold start Configuring engine start time
		Configuring run time
		Configuring turbo stop
		Configuring current remote control time Configuring remote control alarm
		Configuring automatic door lock
		Parking/driving time display
		Configuring auxiliary output 1, 2, and 3
		Command failure notification
		Low-battery warning Current time display
5 A		\$20
IJ. <i>F</i>		Weak shock detection
	5-2.	Serious shock detection
	5-3.	Door open detection
		Engine start detection
		Hood open detection
	5-6. 5-7.	Trunk open detection Error occurr detection
A le	2 000	e of manual transmission vehicles??
		
		mode button 23
8. F	uncti	on Summary 23
		llaneous functions 24
10.	FAQ	25



2. Button descriptions



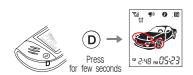
■ Functions of the buttons

Button	A •	B (fr)	C *	D (D)	
Press for a moment	To turn the LED lamp on	To lock or unlock door	Finding vehicle	To display menu	
Press for few seconds	To configure auxiliary output 1/2/3	To operate emergency siren	To open trunk	to start engine	

^{**} Press for a moment means press for about 0.5 second or more, and press for few seconds means press for more than 2 seconds.

3. Functions of the buttons

3-1. Remote engine start (Press button D for seconds)



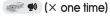
Blink & Sound $(4 \times \text{times})$

If the engine is started, headlight and tire will blink. Even if the doors are unlocked, they are locked automatically. The engine runs for the configured time in the run time configuration

- The remote started engine will stop when you press the brake without placing the key to 'ON' position.
- . In case of starting failure, the unit attempts to start engine 2 times continuously.(Total 3 times engin Start attempt.)

3-2. Door Lock/Unlock (Press button B for a moment)





If the door is closed, a shield appears and the vehicle enters precaution mode in 20 seconds turning the red LED of the driver's seat on. * To adjust the 20 seconds

waiting time, ask your installation dealer

If the shield disappears precaution mode is released and the LED is turned off



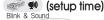


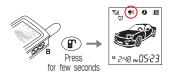
Blink & Sound





3-3. Emergency siren (Press button B for seconds, default setting is 30 seconds)





In case of emergency, you can people know the emergency status by flashing the parking lights and siren. To stop emergency siren, press button B or C

3-4. Status check (Press button C for a moment)

Blink & Sound





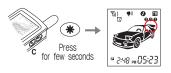
Since this function does not affect the status of the vehicle, you can utilize this function easily in the following

- To find your vehicle in a complex and large parking area
- To check the communication status and signal strength
- · To confirm the status of your vehicle

3-5. Opening the trunk (Press button C for seconds)

Blink & Sound





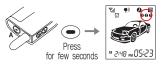
You can open the trunk of the vehicle by using this function

3-6. Turning the LCD lamp on (Press button A for a moment)



If LCD screen is dim, you can turn the lamp on using this button. Pressing button A for a moment turns the remote control LCD lamp on, and it is for a moment turned off in about 5 seconds. To turn off the lamp manually, press the button again while the lamp is turned on.

3-7. Configuring auxiliary output 1/2/3 (Press button A for seconds)



- 1. Press button A for seconds to display all (1)(2)(3) icons.
- 2. Press button A once again to enable auxiliary output 1 and make icon (1) blink,
- 3. Press button B to enable auxiliary output 2 and make icon (2) blink.
- 4. Press button C to enable auxiliary output 3 and make icon 3 blink.

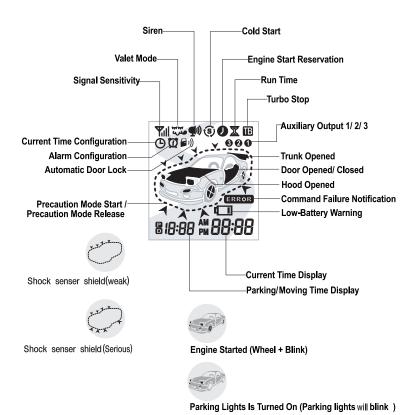
Tip

- Auxiliary output is used to control heater, air conditioner, sunroof, or power windows. The auxiliary output port should be connected to the corresponding equipment of the vehicle.
- Press button A for seconds to configure auxiliary output, and press button A, C, and B to enable auxiliary output 1, 2, and 3 respectively as described above.
- When the icon is on, if you select AUX again, the icon becomes disappeared.
- AUX output is released at the moment you apply the brake as the car is already started.



4. Functions of the icons on LCD





If a command or configuration that needs the communication between the remote control and the brain is installed in the vehicle completely successfully, a simple tone will sound and the corresponding information will be displayed on the LCD panel, but if it is failed, an error tone will sound without any display,



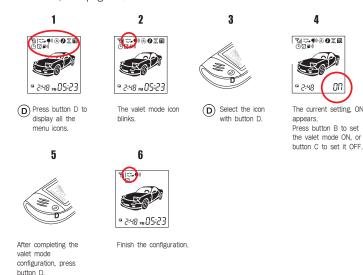


4-1. Signal sensitivity

Signal sensitivity represents the signal strength between the vehicle and the remote control in 4 steps.

4-2. Configuring valet mode (Default setting is OFF)

Place your system in valet mode to stop all functions whenever your vehicle is being serviced by mechanics, car wash personnel or driven by valet parking attendants. Only door lock/unlock function will work in this mode but door ststus will not be displayed on LCD. If there is no remote, see page 24.



* If the communication with the vehicle is failed, the function will not be set.



 Press the button D three times in a low to select or release. Disable.







4-3. Configuring siren (Default setting is ON for 5 seconds)

Set operation of siren built into a vehicle. Set whether the siren operates or not and how long the siren operates (1 \sim 25 sec.) in case of a reply for remote, alarm occurrence or emergency siren operation.



Press button D to display all the menu icons.



Use button B and C to move to the siren icon.



The siren icon blinks.



Select the icon with button D.





The current setting, ON appears.



Press button B to set the siren to ON, or button C to set it to OFF

10



Current configured operation duration is displayed in seconds.



Press button B to increase the duration by one second, or button C to decrease it by one second.



After completing the configuration, press button D.



Finish the configuration.

* If the communication with the vehicle is failed, the function will not be set.

* Set the siren OFF so that only remote can generate an alarm in emergency, enabling you to identify an unauthorized intruder while he or she doesn't know.



4-4. Configuring cold start (Default setting is OFF)

This function enables the vehicle to start the engine periodically when it is very cold. To enable this function, select the icon, and input desired operation interval. Then the engine periodically at the specified interval will start and being the warm-up procedure. Configurable period range is 1~12 hours. Engine run time is configured in run time Tconfiguration.



Press button D to display all the menu icons.



2

Use button B and C to move to the cold start setup icon.



The cold start setup icon blinks



Select the icon with button D.





The current setting. OFF appears.



Press button B to set the function to ON



Press D button, to select 'ON'



The current interval configured is displayed.



Press button B to increase the interval by 1 hour, and button C to decrease it by 1 hour.

10

After completing the configuration, press button D.

11



* If the communication with the vehicle is failed, the function will not be set.

Finish the configuration.







4-5. Configuring engine start time (Default setting is OFF)

This function allows you to start engine at a specified time everyday automatically. To enable this function, select the icon, and input desired time to start engine.









Press button D to display all the menu icons.

Use button B and C to move to the engine start reservation icon.

2

The engine start reservation icon blinks.

Select the engine start reservation icon with button D.

The current setting, OFF appears.

10



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Press button B to set the function to ON, or button C to set it to OFF.

Press button D. then the current time setting appears and '07' blinks.

12

Press button B to increase the run time by 1 minute or button C to decrease it by 1 minute.

13

the configuration. press button D. the same manner.)

After completing (Setup the minute to start engine in

completing 'minute setting AM or PM Icon' will be twinkled. you just press button 'B' or 'C' to choose AM or PM.

11



For example, you can reserve the engine start time to 08:30 AM.



After completing the configuration, press button D.



Finish the configuration.

- * If the communication with the vehicle is failed, the function will not be set.
- * Brain starts operation according to the remoter time. Therefore. set the remoter time accurately.
- * You can cancel this function just do same as above. (But, you should choose 'OFF' at the No.6 step)

4-6. Configuring run time (Default setting is 5 minutes)

The run time can be configured for cold start, engine start reservation, and remote engine start depending on the personal taste, weather, or the model of the vehicle. Configurable period range is $1 \sim 30$ minutes.



(D) ① Press button D to display all the menu icons.



Use button B and C to move to the run time icon.



The run time icon blinks.

7



Select the icon with button D.



The current configured run time appears.



Press button B to increase the run time by 1 minute, or button C to decrease it by 1 minute.



After completing the run time configuration. press button D.



Finish the configuration.

* If the communication with the vehicle is failed, the function will not' be set.







4-7. Configuring turbo stop (Default setting is OFF)

Turbo Stop Mode allows you to leave your vehicle running when the ignition key is removed to cool the engine especially after high-speed or long-distance driving. To stop the engine by force, press and hold button D \bigcirc for seconds, or press the brake pedal. Configurable period range is 1 \sim 20 minutes.



D Press button D to display all the menu icons.

2



Use button B and C to move to the turbo stop icon,

3



The turbo stop icon would blink.

4



Select the icon with button D.

.



The current setting, OFF appears.



Press button B to set the function to ON, or button C to set it to OFF



The current configured time period is displayed.



Press button B to increase the period by 1 minute, or button C to decrease it by 1 minute.

9



After completing the configuration, press button D.



10

* If the communication with the vehicle is failed, no icon will be displayed and only an error tone will sound.

* No icon appears during LPG gas switch operation.

Finish the configuration.



4-8. Configuring current remote control time

The alarm function of the remote control can be configured. The clock of the remote control can be configured if necessary in the same manner as that of Configuring engine start time.

** Brain operates based on the time set of the terminal. That's why accurately setting up the timing of the terminal is so important.



4-9. Configuring remote control alarm (Default setting is OFF)

The alarm function of the remote control can be configured if necessary in the same manner as that of Configuring engine start time.



4-10. Configuring automatic door lock (Default setting is OFF)

Automatic door lock feature provides the following functions:

- If door is not opened within 20 seconds after unlocking the doors with the remote control, the doors are automatically locked.
- 2) The door lock is automatically applied to secure safety during the driving.
- * If the starter is connected to the generator, the door lock is applied when you step on the brake twice, and if the starter is connected to TACH, it is applied when RPM goes over 1500.
- ③ When the ignition key is removed after driving, doors are unlocked automatically.



Press button D to display all the menu icons.



Use button B and C to move to the automatic door lock icon.



3

The automatic door lock icon blinks.



D Select the icon with button D.

5



The current setting, OFF appears.



Press button B to set the function to ON, or button C to set it to



After completing the configuration, press button D.



8

Finish the configuration.

* If the communication with the vehicle is failed, the function will not be set.





88:88 4-11. Parking/Driving time display

If the engine of the vehicle is started, **D** icon is displayed representing driving, and driving time is counted. **P** icon representing parking is displayed when the engine is stopped, and restarts the time count. The driving and parking time counter is designed to help estimating the parking fee.

Current parking time is displayed,

2 140 m U5:23

If you press the button D, the entire icons in menu are displayed.

3



4

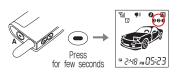


D If you press the menu button D, the current parking time is displayed again, and the function stops.

3 4-12. Configuring auxiliary output 1, 2, and 3

Auxiliary outputs 1, 2 and 3 are the extra output terminals for remote control of electric appliances such as power window, electronic sunroof and air conditioner.

You can decide on which device is to be connected to which port, and inform the installation engineer of the selected auxiliary output number.



- Press button A for few seconds to display all ①②③ icons.
- Press button A once again to enable auxiliary output 1 and make icon ① blink.
- 3. Press button B to enable auxiliary output 2 and make icon ② blink.
- Press button C to enable auxiliary output 3 and make icon (3) blink. (See page 9)

ERROR

4-13. Command failure notification

This icon is displayed when the brain cannot execute the user command. For more information, refer to page 21.



4-14. Low-battery warning

This icon is displayed when for remote controller's the battery of the remote controller almost exhousted. If this icon appears, please replace the battery as soon as possible.

#88:88

4-15. Current time display

It displays the current time. Since the engine start reservation is performed based on the current time, please setup the current time precisely. The configured current time is not reset for about 1 minute after removing the battery for battery replacement.

18 |



5. Alarms

Alarm sounds to warn an unexpected external shock to the vehicle regardless of the remote control operation.



5-1. Weak shock detection

It is the preliminary impact alarm such as strong wind, weak external impact, and light contact by the pedestrians.

When a weak impact is detected, the terminal LCD shows impact receipt sign (with four arrows), and alarm sounds in the car and the terminal



5-2. Serious shock detection

When strong impact is detected, impact receipt sign (with numbers of arrows surrounding the car) is displayed, and alarm sounds both in the car and the terminal.

(If you set the impact sensor to sensitive, the alarm may be activated too often against weak impact.)



5-3. Door open detection

If the door is opened accidentally or by force in Alarm mode, the door icon flickers on the terminal LCD, and alarm sounds both in the car and the terminal.



5-4. Engine start detection

This alarm shows that the car is started remotely or by the timer in Alarm mode. If the car is started, the taillights flicker and wheels turn on the terminal LCD. The alarm sound will occur remote and car at the same time



5-5. Hood open detection

If the hood of the car is opened accidentally or purposely in Alarm mode, the hood icon flickers on the terminal LCD, and alarm sounds both in the car and the terminal



5-6. Trunk open detection

If the trunk of the car is opened in Alarm mode, the trunk icon flickers on the terminal LCD, and alarm sounds both in the car and the terminal.



Tip

- The icon on the LCD corresponding to the received alarm blinks until user acknowledges it.
- If user does not press acknowledge key after alarm status occurs, the alarm status will last and the clock will be stopped indicating the time when the alarm occurs to notify the status of the vehicle even if the reason that caused the alarm has been removed.
 In addition to that, a warning tone will sound every minute.



5-7. Error occurr detection

When the brain in the vehicle cannot execute the command, **ERROR** icon with one of the following reasons may be displayed.

(1) do or :Door-open/close commands, or door opened on starting

② 5 HT :Starting failed(including terminal starting/reserved starting)

③ HOPP :In case of door-open command, the codes of the terminal and the brain are inconsistent.

(This is generated when it moves from non-coverage area to coverage area. With restarting, it can work again.)

 \P 5RFE :'Safe mode' not executed, for manual-gear type car (See page 22)

⑤ ਮਹੁੰਹੂਰ : Door-open/close commands, or bonnet opened on starting

⑥ [[F E[:Stop starting failed

① LT LITT: : Door-open/close commands, or trunk opened on starting

 $\&\ b \Gamma \ \mathcal{E} \mathcal{E}$:Error on memory in Brain (Check on mounting point)

(Check on mounting point)

1) LT AP; Brake signal required to check

① HEY : Key required to check

③ €∏ 9∏ :Engine required to check



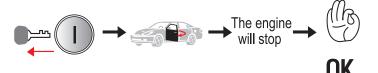
 The icon on the LCD corresponding to the received alarm blinks until user find it and press any button to confirm it.

20 |



6. In case of manual transmission vehicles

If the vehicle is not placed in neutral, accidents may happen when trying to start the engine with the remote control. Therefore, this product allows the remote engine start only if the vehicle is parked through 'manual parking mode' to prevent the accidents.



To enter 'manual parking mode', remove the ignition key without pressing the brake. At this time the engine would be running.

Shift the parking brake to "ON" position, open door, exit the vehicle, and close the door. Then the engine will stop automatically.

- To stop the engine without entering 'manual parking mode', turn the ignition key to ACC position or remove the key and press the brake pedal. Then 'manual parking mode' is canceled.
- · Even after 'manual parking mode' is released, reopening door disables remote engine start because the transmission may not be in neutral by mistake. Thus, after opening the door, to return to the 'manual parking mode', start the engine by turning the ignition key without pressing the brake pedal, remove the ignition key in 1 second, open door, exit the vehicle, and close the door. Then the engine stops and the vehicle is in the 'manual parking mode'.

7. Valet mode button

■ — (If there is no remote)

You should place your system in valet mode to stop all functions whenever your vehicle is being serviced by mechanics, car wash personnel or driven by valet parking attendants. Only door lock/unlock system will work in this mode. Short sounds occur if you rotate a key between ACC and ON three times when the door is open and then close the door.

- Simple tone once: valet mode is disabled. (× time)
- Simple tone twice: valet mode is enabled. (x2 times) (Also you can configure the valet mode using the remote control menu. For more information refer to page 11.)



8. Function Summary

■ The reaction of the remote control and the vehicle for each function.

Function Reaction	Door Locked	Door Opened, Trunk Opened	Check Status	Engine Started	Auxiliary Output 1/2/3	Emergency Siren
The number of the remote control beeper sound	1	2	3	4	1/2/3	Х
The number of the siren and light flash						Configured Times



- When you open the door of your car after lost your remote:
 - 1. Siren Alert will be happend Light after opening the door.
 - 2. Turn you car key to 'ON' position three times continuously, under the situation of opening the door of drive side.
 - 3. Siren will be stop and valet mode will start automatically



9. Miscellaneous functions



- If a door has been opened or closed with parking lights on, the remote control blinks parking lights on the LCD, and sounds a warning tone every minute to warn against the battery discharge of the vehicle. Press any key to stop the warning tone,
- After the engine start, the driving icon is displayed, representing that the engine is running, and the driving time is counted.

 Parking icon is displayed when the engine is stopped, and restarts time count. This driving and parking time counter is designed to help estimating parking fee.
- When alarm sounds, press any key to stop the siren and restore to the previous status. If no key is pressed due to the absence of user, siren sounds for the configured period, and then the remote control generates warning sound every minute displaying the icon and the time for the alarm until key is pressed.
- In the precaution mode after closing the door, engine start is blocked even if someone opens door and tries to start the engine with the ignition key (Optional).
- The precaution mode is started in 20 seconds (default) after user's closing door. To change the waiting time (20 seconds), contact your installation dealer.
- 20 seconds of waiting time is configured to prevent possible alarms that can be caused by user's behavior such as opening the trunk or shocking on the vehicle.

FCC NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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:

- -- Reorient or relocate the receiving antenna.
- -- Increase the separation between the equipment and receiver.



- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH

MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

Product Warranty



- If the product is out of order, request the repair of the product to your installation dealer or nearest agent with this letter of product warranty. If your installation dealer or agent is not available, please contact the service center.
- The cost of the repair for the defects in parts and workmanship within warranty period is free of charge.
- In case of remote installation, you have to check the identity of installation engineer through your installation dealer for possible A/S for the product.
- In principle, all A/S is provided by your installation dealer.