Keyfree RF is a digital card key capable of locking and unlocking car doors conveniently.
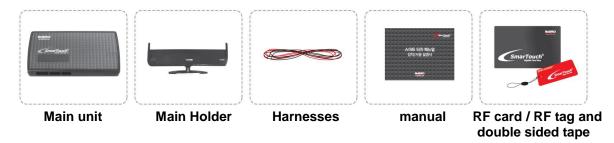

www.bisro.co.kr, *www.keyfree.co.kr*

We sincerely appreciate your purchasing our Digital card key system. Our systems have been designed and tested to be compatible with the earliest to latest vehicles available throughout the world. Our primary goal is to provide a reliable and stable product. Our secondary goal is to ensure that our systems are easy to install. Our final goal is to provide features that would benefit the user and installer. We are confident that our products will meet and exceed your expectations. We are constantly working to research, design, and build next generation products. We would not expect anything less since we ourselves use our products in our own vehicles.

Safety Information

Please take these safety precautions.

1. We are not responsible for any injuries or damages resulting from your wrong use of our system.
2. When you find any detective, do not open, repair and remodel the system, but ask the seller or installer to repair it.
3. We shall not be responsible for any theft and damages of your vehicle, since this is only a subsidiary car accessory.
4. This product scheme is minus signal control type. Plus signal control or vehicles without remote controller must be installed with additional relay and door motor.
6. To improve the performance, this product is subject to change without notice.

Components

| Main unit | Main Holder | Harnesses | manual | RF card / RF tag and double sided tape |

• Main unit: A device that controls the various functions and commands
• Main Holder: To support the Main unit, fixed to the floor with double sided tape.
• Harnesses: This wires supply the power and door signal.
• Registered RF card 1, RF tag type 1.
• Double sided tape for RF tag to adhere to the back of mobile phone.

Available RF card

• Offered cards and NFC chip embedded in mobile phone are available.
• Can register the RF card up to seven.

Buttons description

D: Display the menu or select the function menu.
E: Entry the setup menu or to confirm the selected features.

Display Menu

Available standby menu (Select this function with D button)

Display	Description
TEL1, TEL2, TEL3	Display in the absence of contacts by telephone number
SCAN	Scan type standby mode: Scanning the LED from left to right.
dot	Flashing type standby mode: LED point flashing
OFF	No display

Setup Menu

Function	Description

PIn: PIN code change
(PIN code change should be used when absolutely necessary only)
	1. Press E button for 2 seconds (setting menu entry)
	2. D button pressed, the menu changed. Select "Pin" and then press E button to confirm.
	3. Input the pin code
	  - Default PIN code: "0000"
	  - When P – "0" is flashing select the appropriate number of "0" with D button
	  - Then press the E button to confirm
	  - Repeat it with same manner.
	  - Final pin code number should be pressed 2 seconds with E button to end.
	4. Display the "PaSS" and input new PIN code as same method above.
	5. Display the changed PIN code number and complete.
	  * PIN code number should be 4 – 10 digits.

Cadd:
New card registration
	1. Press E button for 2 seconds (setting menu entry)
	2. D button pressed, the menu changed. Select the "Cadd" and then press E button to confirm.
	3. Input the pin code
	  - Default PIN code: "0000"
	  - When P – "0" is flashing select the appropriate number of "0" with D button
	  - Then press the E button to confirm
	  - Final pin code number should be pressed 2 seconds with E button to end.
	4. Display the "PaSS" and within 30seconds, should be touched with the new card to register.
	5. Display the Cd-1, Cd-2, Cd-3, Cd-4, Cd-5, Cd-6, Cd-7 mean the registration order.

Cdel: Delete the registration card	1. Press E button for 2 seconds (setting menu entry) 2. D button pressed, the menu changed. Select the "Cdel" and then press E button to confirm. 3. Input the pin code (Default PIN code: "0000") 4. Select Cd1, Cd2, Cd3, Cd4, Cd5, Cd6, Cd7 with D button and then confirm with E button to delete. 5. Display the "donE" and completed.

Tadd: Phone number registration	1. Press E button for 2 seconds (setting menu entry)
	2. D button pressed, the menu changed. Select the "Tadd" and then press E button to confirm.
	3. Select the TA1, TA2, TA3 with D button (Three contact numbers can be registered)
	4. Final phone number should be pressed 2 seconds with E button to end.
	  * When entering phone number, select the "-"symbol identify more clearly.
	  For example 010-1234-5678

Tdel: Phone number delete	1. Press E button for 2 seconds (setting menu entry) 2. D button pressed, the menu changed. Select the "Tdel" and then press E button to confirm. 3. Select the Td1, Td2, Td3 with D button and press 2 seconds with E button to end. 4. Display the "donE" and completed.
dCtL: Phone number display type	1. Press E button for 2 seconds (setting menu entry) 2. D button pressed, the menu changed. Select "dCTL" and then press E button to confirm. 3. Select the "Step", "Flou" with D button and press 2 seconds with E button to end. 4. Display the "donE" and complete.
rSt: Factor Reset	1. Press E button for 2 seconds (setting menu entry) 2. D button pressed, the menu changed. Select "rSt" and then press E button to confirm. 3. Input the pin code (Default PIN code: "0000") * Final pin code number should be pressed 2 seconds with E button to end. 4. Display the "donE" and complete. * Factory reset function allows your registered phone number, and registered card will be deleted.

*** Notices**
  1) The menu will exit in case of no input within 3 seconds.
  2) To confirm the menu press the E button 2 seconds.
  3) If you forget your old pin code, it can be recovered only at factory. Therefore, if you change your pin code is always required a separate record. Thus, it is strongly recommended not to change the factory default PIN code "0, 0, 0, 0".

FAQ

Q1: When there is no touch response
Answer:
1) Unplug connectors of poor behavior, reconnect it (At this time "Keyfree RF On" should be display)
2) Please verify that the card is registered. Unregistered cards will not work.
3) Please verify that the card can be registered. Available card occur 3 times the buzzer.
4) Main unit should be installed within 1cm from windshield. Please approach the main unit as close as possible.
5) Recognition distance depending on the card size, features and etc. please check in advance.
6) When stick the RF tag to a mobile phone and accessory, please stick the RF chip face forwarding to outside.

Q2: When Keyfree RF cannot unlock the door
Answer:
Depending on manufacturer, model and year, every vehicle signals systems are different.
Keyfree RF has been developed based on the following concepts
1) Keyfree RF can unlock the door when locked the door with Keyfree RF.
2) Remote controller can unlock the door when locked the door with Keyfree RF
3) **Keyfree RF cannot unlock the door** when remote controller locked the door depending on the vehicles.
4) Vehicles without remote controller should be mounted with door motor and relay additionally.

INSTALLATION MANUAL

Specifications

1) Contents
   • Main unit, Main Holder, Harness wire, manual, 1X registered RF card, 1X registered RF tag, Double sided tape
2) Specification
   • Supply Voltage DC 3.3 V (Negative car only)
   • 13.56MHz Multi-protocol RFID Reader chip
   • Supported Protocols:
     - ISO 1443 A/V type, ISO 15693
     - Tag-it (Texas Instrument)
     - Felica (Sony), I-CODE (NXP)
     - Jewel (Innovision)
   • Console unit dimensions: 95 (W) × 53 (H) ×11 (D) mm
   • Current Draw Standby:
     - Without LED scan →5mA (0.06W),
     - With LED scan → 10mA (0.24W)
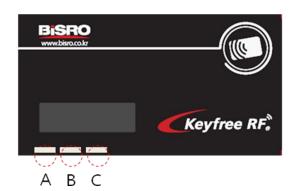   • Operating Environment
     - 30℃ to +80℃

Note for Installation

1. Take your time and read the manuals that come with the system you will be installing, please read all information included.
2. Main Power should be connected to 1A fuse. (Or connected at the back end of vehicle fuse)
3. This product is recommended to be installed by professional installation center.

Installation Procedure

Step 1: Find the plus, ground, door lock, door unlock, door pin wire to connect.
Step 2: Connectors to connect to the Main Unit, and check the status.
   - Ground input, 12V power input, Unlock output, Lock output, Door pin output
Step 3: Main unit should be tested before operation.
   - Connect a wire in Main unit "A"
   - Display "Smart Pass On" when power is supplied.
Step 4: Register the card and checking the operation
Step 5: Attach the Main unit close to window

Wire Installation

Black: (-) System Ground Input
This wire should be connected to a ground source.   Please ensure that no paint or rust exists on the surface where the wire will be attached.   Also, ensure that the wire is securely fastened to the ground source.

Red: (+12V) System Power Input
This wire should be connected to a constant +12V.
 Main Power should be connected to 1A fuse. (Or connected at the back end of vehicle fuse)

Brown: (-) Unlock Output
This wire provides a negative (-) pulse to unlock the vehicle's doors.   This wire can also be used to control the Arm Trigger of some aftermarket security products.   Please refer to the Installer Programmable Options for programming details.

Orange: (-) Lock Output
This wire provides a negative (-) pulse to lock the vehicle's doors.   This wire can also be used to control the Disarm Trigger of some aftermarket security products.   Please refer to the Installer Programmable Options for programming details.

Blue: (-) Aux
This wire provides a negative (-) pulse to supplementary function.

White: (-) Aux
This wire provides a negative (-) pulse to supplementary function.

How to programming the options

** Most vehicles do not need to change the Programming.

Function	Description
PulS: Programming of Pulse duration (Default: 0.8sec.)	1. Press E button for 2 seconds (setting menu entry) 2. D button pressed, the menu changed. Select the " PulS" and press the E button to confirm. 3. Select the Pd08:0.8sec, Pd35: 3.5sec, Pd03: 3sec with D button and press 2 seconds with E button to end. 4. Display the "donE" and complete.
Lock: Programming of Lock Pulses (Default: 1)	1. Press E button for 2 seconds (setting menu entry) 2. D button pressed, the menu changed. Select the "Lock" and press the E button to confirm. 3. Select the Ln 1, Ln 2, Ln 3, Ln 4, Ln 5 with D button and press 2 seconds with E button to end. 4. Display the "donE" and complete. * Ln (Lock Pulse Number) 1, 2, 3, 4, 5

Unlk: Programming of Unlock Pulses (Default: 1)	1. Press E button for 2 seconds (setting menu entry) 2. D button pressed, the menu changed. Select the "Unlk" and press the E button to confirm. 3. Select the Un 1, Un 2, Un 3, Un 4, Un 5 with D button and press 2 seconds with E button to end. 4. Display the "donE" and complete.
FbLk: Lock and Unlock signal feedback (Default: OFF)	1. Press E button for 2 seconds (setting menu entry) 2. D button pressed, the menu changed. Select the "Fblk" and press the E button to confirm. 3. Select the ON, OFF with D button and press 2 second with E button to end. 4. Display the "donE" and complete. * Display the "OPEN", "CLSE" automatically: Select "OFF" * Cannot receive the output signal due to the electrical noise: Select "OFF"

Warranty

1. The products are warranted for 1 year.
2. Following the service will receive a fee
   1) If the warranty period has been exceeded
   2) Failure due to carelessness of the consumer, random repair etc.
   3) Failures caused by natural disasters
   4) Failures caused by manual and notice negligence.

Keyfree RF

BiSRO

FCC Statement

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.

Caution

Any changes or modifications (including the antenna) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons. This device must not be co-located or operation in conjunction with any other antenna or transmitter.

This equipment complies with FCC