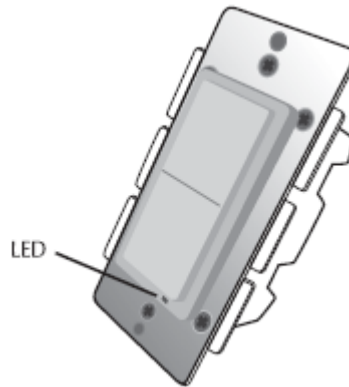This product speaks with other
Z-Wave certified devices
Wireless Appliance Control Module
HS-FC200+
In Wall AC Fan Control Switch

LED

INTRODUCTION
GMark HS-FC200+ is designed to replace existing in-wall fan controller and works with any standard 3-speed or 4-speed AC ceiling fan. The nicely styled unit has 4 LEDs to indicate speed level and fits a standard decora style wall plate. HS-FC200+ is Z-Wave Plus certified with S2 level security, SmartStart, and is compatible with major gateways in the market that support the Z-Wave standard.

FEATURES
- Modern decora style up and down switch with 4 LED speed status indicator
- LEDs indicate clearly the current fan speed
- Housing and white LED color matches GMark in-wall switch and dimmer
- Fits standard decora style single or multi-gang wall plates
- Single tap key up or down to manually change speeds or control remotely
- Provides Instant Status Change to controller if speed is changed manually
- Screw terminals for easy installation
- Over-The-Air firmware upgrade available with compatible gateways supporting OTA

! WARNING !
RISK OF FIRE, ELECTRICAL SHOCK & BURNS
DO NOT USE WITH MEDICAL AND LIFE SUPPORT INSTRUMENT
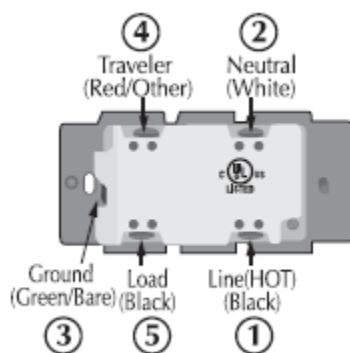No user serviceable parts are in this module
The appliance connected to HS-FC200+ must not exceed 2.5A loads

IMPORTANT: HS-FC200+ requires LINE, NEUTRAL and LOAD wires for every installation. Traveler wire required for 3 or 4 way circuits.
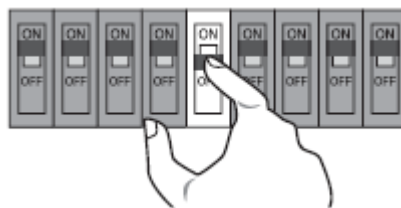
- LINE (Hot) - Black (connected to power)
- NEUTRAL - White (this wire is often tied to other neutral wires and may require a jumper to connect with the HS-FC200+)
- LOAD - Black (usually tied closely to Traveler wire)
- TRAVELER — Red/Other (only used in 3 or 4 -way circuits)
- GROUND — Green or Bare

SETUP
Step 1. Identifying the wiring terminals on the module

Step 2. ! WARNING ! RISK OF SHOCK ! Make sure power if OFF before wiring !
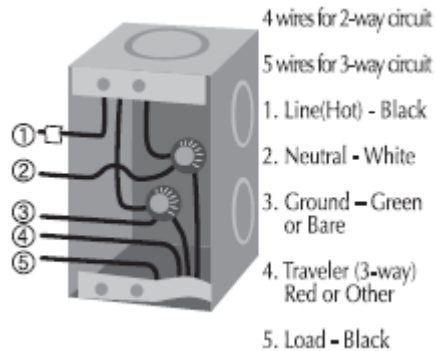

Step 3.
Remove the wall plate and the existing fan switch (if mounted) at your preferred installation location. You may label the wires connected to the screw terminals before disconnecting the switch. Please check that the wiring configuration below is present in the wall switch box, otherwise consult a qualified electrician.

4 wires for 2-way circuit

5 wires for 3-way circuit

1. Line (Hot) - Black

2. Neutral - White

3. Ground – Green or Bare

4. Traveler (3-way) - Red or Other

5. Load – Black

4 wires for 2-way circuit
5 wires for 3-way circuit

1. Line(Hot) - Black
2. Neutral - White
3. Ground – Green or Bare
4. Traveler (3-way) Red or Other
5. Load - Black

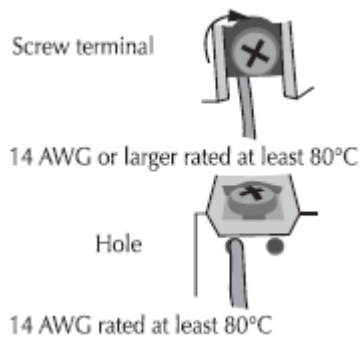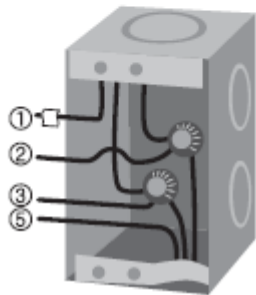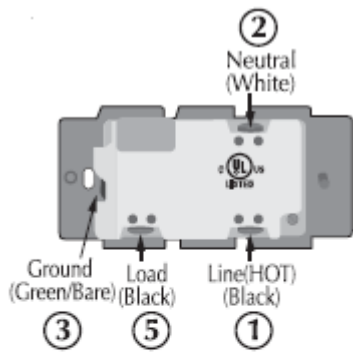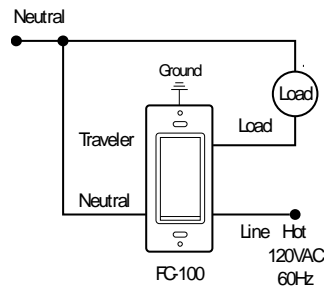Wiring Information
Use copper wires only
UL specification: the tightening torque for the screws is 14 Kgf-cm (12 lbf-in)
Strip insulation 5/8" (16mm)
Wire connection can be made either to Screw terminal or Hole that is 14 AWG or larger rated at least 80°C

Screw terminal

14 AWG or larger rated at least 80°C

Hole

14 AWG rated at least 80°C

2-way circuit

Neutral

Ground

Traveler

Load

Neutral

Load

Line Hot
120VAC
60Hz

FC-100

② Neutral (White)
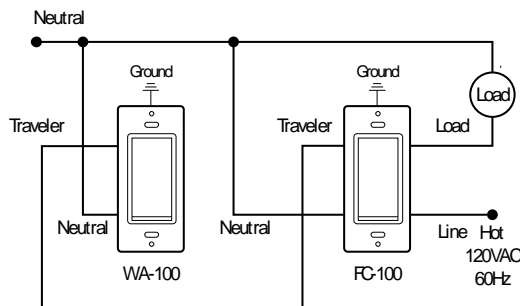
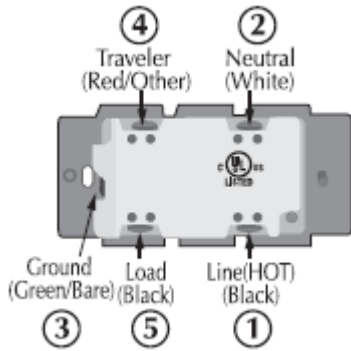Ground (Green/Bare) ③

Load (Black) ⑤

Line(HOT) (Black) ①

① ② ③ ⑤

Making connections

The Traveler terminal is not used in a 2-way circuit. Do not remove the insulation tape on the Traveler terminal in this application
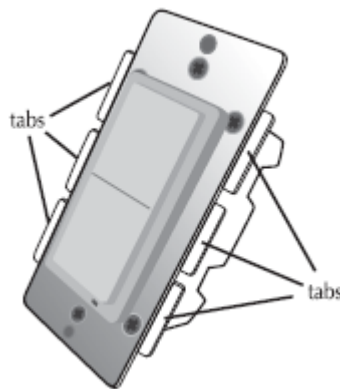
3-way circuit

Neutral

Ground

Traveler

Neutral

Ground

Traveler

Load

Load

Neutral

Neutral

Line Hot
120VAC
60Hz

WA-100

FC-100

Making connections

④ Traveler (Red/Other)   ② Neutral (White)

Ground (Green/Bare) ③   Load (Black) ⑤   Line(HOT) (Black) ①

Please refer to optional 3 way switch WA-100 user manual for wiring instructions of the auxiliary switch. The maximum length of Traveler wire may not exceed 200ft.

Gang Box
To install the HS-FC200+ in a multi-gang or J box, the tabs on the sides of the metal yoke may need to be removed. For single gang switch, no changes is required. For dual or higher gang configuration where switches are next to each other, the tabs need to be removed. Simply take a pair of pliers, grab the tabs and wiggle until the tabs break off.

tabs

tabs

Step 4.

When proper wiring is completed, secure the module to the wall box. Restore power to the circuit to test if the connected load can be turned ON/OFF manually by the rocker on the module before remounting the wall plate. Also observe the status change of the LED indicator to ensure the module is in normal operating mode. If WA-100 Auxiliary Switch is used for a 3-way connection, please also test if it can control the load
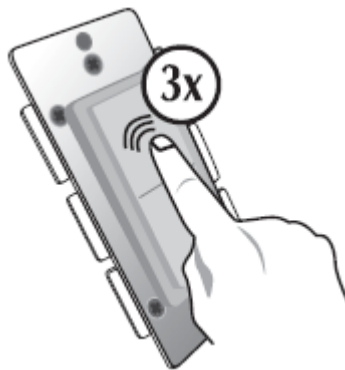
Step 5.

Add (Include) the module into your network by a Z-Wave certified controller. Please refer to the controller's instructions manual for details. Normally, this requires putting your controller software in Add New Device (inclusion) mode. When this process is initiated in the controller software, single tap the top or bottom rocker switch. The controller software should indicate that the action was successful. If the controller shows it was a fail, repeat the procedure.
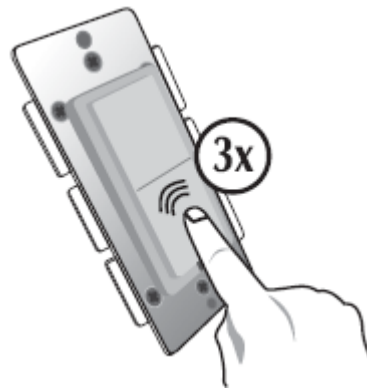
Manual Reset
Note: If Inclusion still fails after the 2nd attempt, you need to first reset the module before repeating the above steps. The manual reset method is as follows, Quickly tap the top side (ON) of the rocker 3 times (within one or two seconds).

Then, quickly tap the bottom side (OFF) of the rocker 3 times.

If you see the LED indicator blink, it means that the module has been reset successfully and you may retry Step. 5 above to add the module into your

network. Otherwise, please repeat the manual reset procedures by speeding up the clicking action.

Use the manual reset procedure only in the event that the network primary controller is lost or otherwise inoperable.

BASIC OPERATION
- Fan speed can be controlled by tapping the top (to increase speed) or bottom (to decrease speed)
- 4 LEDs will clearly indicate the speed of the fan control as follows:
    - No LED – Fan is off

- o One LED – Fan speed one
- o Two LED – Fan speed two
- o Three LED – Fan speed three (if you have a 4 speed ceiling fan)
- o Four LED – Top speed for 3 speed fan or 4 speed fan)

OR

Wirelessly with a remote control app or based on a scheduled program

Once the HS-FC200+ is added to your network, you may assign it to a Group. It will change its status when the All ON or OFF command is received. Furthermore, it can be set in Association with another Z-Wave device to perform a specific

Wirelessly with a remote controller

function. Please refer to the instructions manual of your gateway or remote controller for details and procedures on how these settings can be done.

In the event of a power failure, the GMark device will return to the last status after the power is restored.

Configurable Parameter Settings

If your controller supports Z-Wave configurable parameters, the following settings can be modified.

Parameter 3   Length: 1 byte
Valid values: 0 or 1 (default 0)
When value = 0, the LED indicator will be OFF when the fan is OFF. When the value is set to 1, first LED is ON when the fan is off (night light mode)

Parameter 4   Length: 1 byte
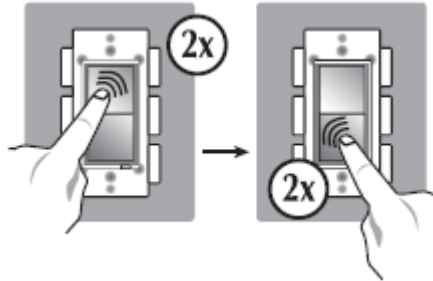Valid values: 0 or 1 (default 0)
If value = 0, the top side of the rocker switch will increase fan speed and bottom side will decrease speed.
If value= 1, the pressing the bottom side will increase the fan speed and the top key will decrease speed.

Parameter 5   Length: 1 byte
Valid values: 0 or 1 (default 0)
If value = 0, the fan controller is set for a 3 speed fan.

If value = 1, the fan controller is set for a 4 speed fan.

You can use a Z-Wave certified controller or app from your controller to communicate with HS-FC200+. Depending on the capability of your controller, the following simple to advanced operations can be performed. Please refer to the gateway or controller's manual for details.

1. Turn the fan On or Off and change speed of the fan.
2. Assign HS-FC200+ to a specific Group and control as part of a group of devices such as All On or Off command
3. Firmware update by Over-The-Air (requires Z-Wave Plus certified gateway with software support)

Association: Triggered action based on another device in the network
1. HS-FC200+ supports group one for lifeline communication.
2. You can associate up to five Z-Wave devices to group one.
3. Lifeline association only supports the "manual reset" event.
4. For instructions on how to "set lifeline associate", please refer to your controller/gateway instructions.

Central Scene
Z-Wave Plus introduced a new process for scene activation called "Central Scene Control". If your gateway or controller supports Central Scenes, additional functions can be performed on HS-FC200+ such as pressing and releasing the button to send a certain command to the central controller via the lifeline association group 1. This allows the controller to react to key pressed, key released and key held down.

- Press and release the top button, Scene 1 preset by the Gateway will be turned ON.
- Press and release the bottom button, Scene 2 preset by the Gateway will be turned ON.

Again, this new feature needs to be supported by your controller in order to enjoy the benefits of this new function. Please consult your controller manufacturer.

SPECIFICATIONS
Model: HS-FC200+
Supports AC fans with 3 or 4 speeds
Input power: 120 VAC, 60 Hz.
Max output loading: 2.5 amps
Radio frequency: 908.4/916 MHz.
Wireless range: up to 130 ft line of sight between the controller and the other available nodes.
Normal operating temperature: 77°F (25°C)
For indoor use only.

Interoperability with Z-Wave devices

A Z-Wave network can integrate devices of various classes, and these devices can be made by different manufacturers.
The GMark product introduced in this instructions manual has a Z-Wave certification which guarantees such an interoperability.

FCC ID: 2AMY9FC100
The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:
The 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 uses, generates and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. 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

Operation is subject to the following two conditions:
•This device may not cause interference
•This device must accept any interference, including interference that may cause undesired operation of the device.

Important Note: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

Caution: Exposure to Radio Frequency Radiation. To comply with FCC/IC 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 operating in conjunction with any other antenna or transmitter.

•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

IC: 22968-FC100
This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1) This device may not cause interference, and
2) This device must accept any interference, including interference that may cause undesired operation of the device.

Z-Wave is a registered trademark of Sigma Designs

WARRANTY
GMark warrants to the original purchaser of this product that for the warranty period, this product will be free from material defects in materials and workmanship. The foregoing warranty is subject to the proper installation, operation and maintenance of the product in accordance with installation instructions and the operating manual supplied to customer. Warranty claims must be made by customer in writing within 30 days of the manifestation of a problem. GMark's sole obligation under the foregoing warranty is to repair, replace or correct any such defect that was present at the time of delivery or during the warranty period. The warranty does not extend to consequential or incidental damage to other products that may be used with this product. For inquiry and customer service, email to support@dragontechind.com

All brand names shown are trademarks of their respective owners

Warranty period: limited 1 year from date of purchase

Golden Mark (HK), Ltd.
6/F, Kimberley Plaza, 45-47Kimberley Road
Tsim Sha Tsui, Kowloon, Hong Kong