

PerfectTilt™ SmartDial™



reddot award 2019
winner



reddot award 2019
honourable mention

MS4 (Motorized Shutters)

User Manual

Product : MS4/ PerfectTilt™ G4 & SmartDial™ (Remote)

Version : 2024.05.22

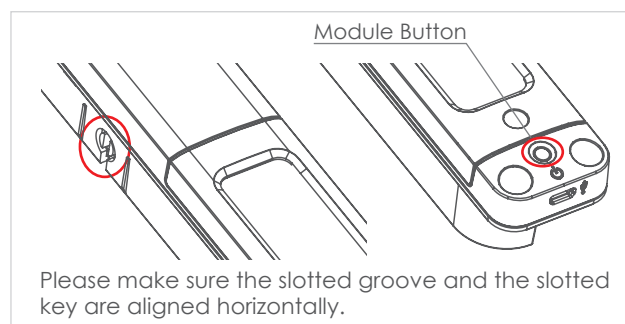
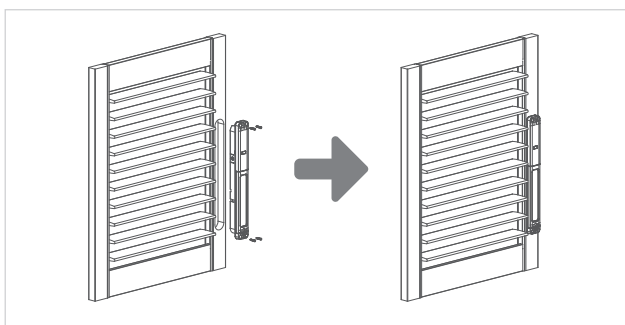
1. Notices

1. Please read the user manual before operating the product.
2. Please DO NOT dismantle the products, including PerfectTilt™ Motor Module, Remote.
3. The products, including PerfectTilt™ Motor Module, Remote are for shutters control only.
4. Please DO NOT force the louver to move if it gets stuck. When motors do not operate correctly, please review the troubleshooting procedures.
5. Please DO NOT obstruct the louver while it is moving to avoid damaging the product.
6. Product operation is intended for temperatures between 0°C/32°F ~55°C/131°F.
7. In order to improve the user experience and function improvement, the firmware and software of this product will be automatically updated from time to time. (When the Norman® Hub is installed)
8. When the PerfectTilt™ Motor Module detects temperatures above 60°C/140°F, the louvers will be automatically opened to position 1 for air convection to cool down, to avoid damage caused by high temperatures.
9. The PerfectTilt™ Motor Module and Remote contain Lithium batteries, the battery contains flammable materials such as organic solvents. Please read the **Safety Instructions** before use the product.
10. The PerfectTilt™ Motor Module can reach the preset angle position in general operation. However, under repeated operation, due to the gap of the mechanism (unavoidable due to the clutch mechanism), and the wireless signal delay or leakage, it may cause some angle errors or inconsistencies. At this time, the angle error can be automatically corrected by simply pressing the **Best privacy** or the **Best view**. (Requires that the horizontal correction is done and correct)

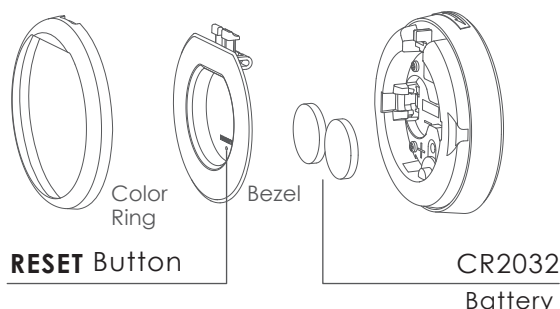
2. Installation and Settings

• PerfectTilt™ Motor Module Installation (Two batteries are included in each module.)

1. Please move the louvers to horizontal position.
2. Insert PerfectTilt™ Motor Module into panel. Please make sure the slotted key is contacted horizontally.
3. After installation, make sure the shutters move smoothly. If not, please adjust or re-install them.
4. Tighten the screw of 4 corners.
5. Power on the PerfectTilt™ Motor Module by holding down the module button for 3 seconds.
Then the green LED will start flashing and PerfectTilt™ Motor Module will start calibration for around 45 seconds.
[\[Note: Please DO NOT obstruct louvers movement during calibration.\]](#)
6. The louvers will move to a horizontal position after calibration.



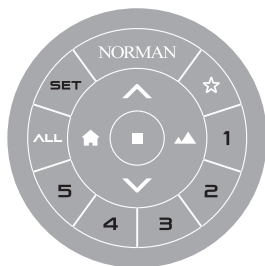
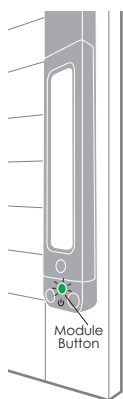
• Remote Battery Installation



1. Remove color ring from the remote.
2. Open battery cover.
3. Insert two CR2032 batteries.
4. Put battery cover and color ring back into place.
5. Remote LED will light up after successful installation of batteries.

This process lets you 1) Add a shutter to a Group 2) Remove a shutter from a Group.

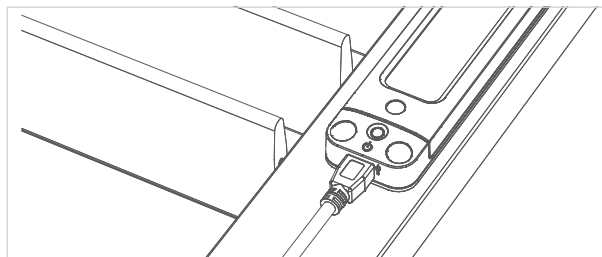
• Pair PerfectTilt™ Motor Module to Remote



1. With the PerfectTilt™ Motor Module(s) powered on, press the button on PerfectTilt™ Motor Module(s). The LED will blink, and louvers will move to a horizontal position.
2. Hold **SET** button on Remote for 3 seconds to put it into **SETUP Mode**. The middle buttons will start to blink.
3. Press the Group button number (1 to 5) you want to assign to the panel(s) currently in the pairing mode.
4. Motor Module(s) will signal accordingly.
 - a. Paired: Louvers move up and down once, and LED will blink in green for 1 second.
 - b. Un-Paired: Louvers move up and down twice, and LED will light in green for 1 second.
5. Hold **SET** button of Remote for 3 seconds to exit **SETUP Mode**.

If PerfectTilt™ Motor Module is running out of power, please charge it by 5V/3A power bank or power supply via Micro-USB cable.

• USB Charging for PerfectTilt™ Motor Module



1. Connect Micro-USB cable to Motor Module for charging. (Normally it takes around 10 hours to recharge.)
2. Green LED will blink while charging and will completely light green when fully charged.
3. Red LED on indicates the Motor Module charging abnormal, please stop charging immediately.

• Remote Operation

1. Press the Group number or multiple Group numbers (1 to 5) you would like to control.
2. Press **ALL** to select all the shutters assigned to the Remote. Once Group(s) is selected, press the up and down key to tilt shutters.
3. Please refer to Remote Button Definitions for full instructions on Remote operation.

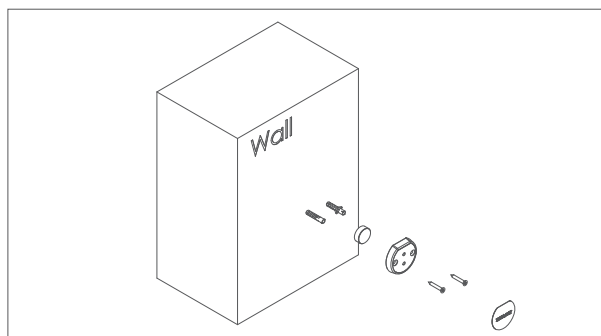
• Remote Docking Installation

The Remote Docking can be secured to the wall either by screw or by double-sided adhesive tape.

► Screw :

1. Drill two holes for the conical wall anchor.
2. Remove the backing of the adhesive paper from magnet and put the magnet into the Docking's dedicated hole sticky-side down.
3. Secure Docking to the wall with two screws. Remove the backing of the adhesive paper and stick it to the surface.

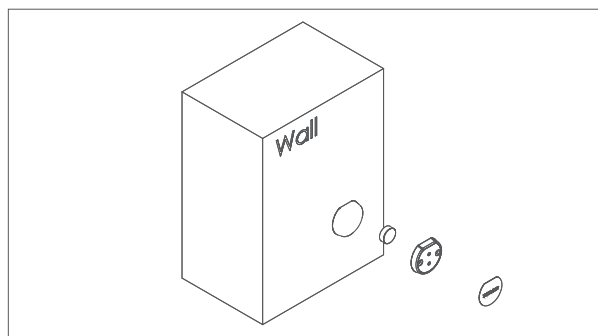
The remote can now be docked onto the wall.



► Adhesive tape :

1. Remove the backing of the adhesive paper from magnet and put the magnet into the Docking's dedicated hole sticky-side down.
2. Put adhesive tape to the bottom of Docking and fix on the wall.
3. Remove the backing of the adhesive paper and stick it to the surface of Docking.

The remote can now be docked onto the wall.



3. Product Functions

PerfectTilt™ Motor Module

• Module Button

NO.	Function	Description
1	Module Button	1. On/Off: Power On/Off PerfectTilt™ Motor Module. 2. Initiate module pairing mode. 3. Reboot PerfectTilt™ Motor Module.

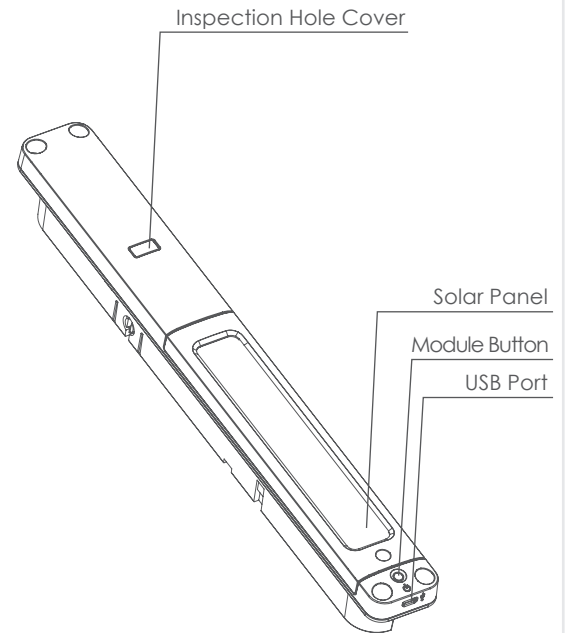
• PerfectTilt™ Motor Module Functions

NO.	Function	Description
1	Power on	1. Hold the module button for 3 seconds when module is powered off. 2. LED will blink in green for 1 second. 3. The panel will start calibrating automatically around 45 seconds.
2	Power off	1. Hold the module button for 3 seconds when module is powered on. 2. LED will blink in red for 1 second. 3. Module will power off.
3	Pair/Un-Pair	1. Press the module button to initiate pairing mode. LED will blink, and louvers will move to horizontal position. 2. If no pairing command received, motor module will resume normal operation after 60 seconds.
4	Hardware reboot (in the event of Firmware crash)	1. Press and hold the module button for 10 seconds. 2. Motor module will power off. 3. Press the button again for 3 seconds. 4. Motor module will power on and start calibration.
5	USB charging	1. User can charge motor module by Micro USB using a 5V/3A power bank or power supply. (Normally it takes around 10 hours to recharge.) 2. Green LED will blink while charging and will completely light green when fully charged. 3. Red LED on indicates the Motor Module charging abnormal, please stop charging immediately.

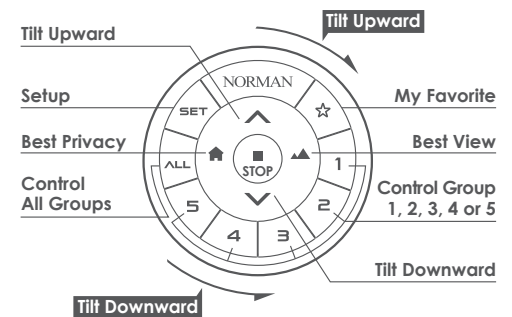
Remote (SmartDial™)

• Button Definitions

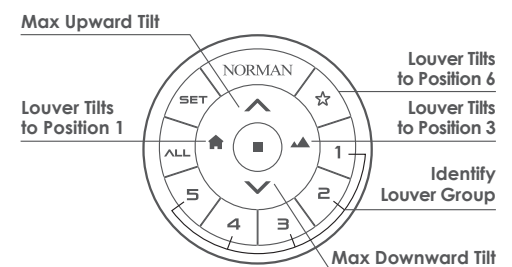
NO.	Function	Button	Description
1	Group 1	1	Select/Deselect Group 1, hold to identify Group 1 shutters.
2	Group 2	2	Select/Deselect Group 2, hold to identify Group 2 shutters.
3	Group 3	3	Select/Deselect Group 3, hold to identify Group 3 shutters.
4	Group 4	4	Select/Deselect Group 4, hold to identify Group 4 shutters.
5	Group 5	5	Select/Deselect Group 5, hold to identify Group 5 shutters.
6	Control All Groups	ALL	Select/Deselect Group ALL.
7	Favorite	☆	Operate to favorite angle. Press: Louver Position 2. Hold down for 1 second: Louver Position 6.
8	Setup	SET	Setup Mode.
9	Tilt Upward	▲	Tilt louvers up one step. Hold down for 1 second: Max Upward Tilt (Fully closed).
10	Tilt Downward	▼	Tilt louvers down one step. Hold down for 1 second: Max Downward Tilt (Louver Position 7).
11	Best View	▲▲	Press: Fully open. Hold down for 1 second: Louver Position 3.
12	Best Privacy	▲▲	Press: Fully closed. Hold down for 1 second: Louver Position 1.
13	Stop	■	Stop movement.
14	Reset	RESET	Reset Mode [Back side].
15	Spin Anti-clockwise	Ring	Spin to tilt louvers downward.
16	Spin Clockwise	Ring	Spin to tilt louvers upward.



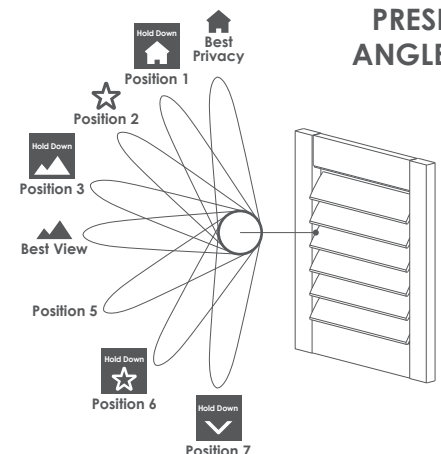
THE JOY OF DIAL CONTROL



HOLD-DOWN FEATURES



PRESET ANGLES



• Remote – Operating Functions

NO.	Function	Description
1	Wake Up Remote	1. Three ways to wake up Remote: • Vibration • Press button • Spin the remote ring 2. Remote will light up when awakened.
2	Select/ Deselect Group	1. Press one or more Group button (1 to 5) to select shutter groups. 2. Groups can be deselected by pressing the Group button (1 to 5) again.
3	Group Assignment Check	1. Hold Group button (1 to 5) for 1 second. 2. The shutters assigned to the group will toggle.
4	Operation Function	Refer to Button Definitions.

• Remote – Setting Functions


NO.	Function	Description
1	Initiate SETUP Mode	Press SET button for 3 seconds. The remote will start blinking once is initiated.
2	Exit SETUP Mode	Either press SET button for 3 seconds or leave remote idle for 20 seconds.
3	Initiate RESET Mode	Press RESET button for 1 second. The remote will start blinking once is initiated.
4	Exit RESET Mode	Either press RESET button for 1 second or leave remote idle for 20 seconds.
5	Factory Reset [Note: User data saved on the remote will be deleted.]	1. Initiate RESET Mode . 2. Press RESET button 6 times, the group lights will flash 4 times rapidly. 3. Hold RESET button for 1 second to leave RESET Mode .
6	Copy Remote [Note: This function is for the remote with same version only.]	1. Enter Copy Mode on the new Remote: Press RESET hole with a paper clip for 1 second; Press RESET button 3 times, the white light will start blinking rapidly. 2. Upload settings from Original Remote: Press SET button for 3 seconds to enter SETUP Mode ; Press SET button 3 times, the group lights will blink 4 times. 3. New Remote: When the copy is successful, the group lights will remain on for 1 second before exiting RESET Mode . Original Remote: Press SET button for 3 seconds to exit SETUP Mode .
7	Setup My Favorite	1. Select the desired group number for setup of favorite position, and hold down the Tilt Upward button (▲) 1 second. 2. Adjust louvers to the desired favorite position with UP/DOWN buttons. 3. Initiate Remote SETUP Mode . 4. Press My Favorite button (☆) for favorite setting. 5. The louvers will move up and down once and blink for 1 second after My Favorite has been set.
8	Setup Louver Horizontal Position	<p>• Method 1</p> <p>1. Select the desired group number for setup of horizontal position, and hold down the Tilt Upward button (▲) 1 second. 2. Move the louvers to horizontal position using remote ring & spinning "anti-clockwise". [NOTE: The direction of operation MUST be from up to down. If direction was reversed, please start over.] 3. Press Remote RESET button for 1 second to initiate Remote RESET Mode. 4. Select the desired group number for setup of horizontal position. 5. Press Best View button(▲▲), the selected group light(s) will flash 4 times to send the command, and exit the RESET Mode. 6. The louvers will move up and down once.</p> <p>• Method 2</p> <p>1. Select the desired group number for setup of horizontal position, and hold down the Tilt Downward button (▼) 1 second. 2. Move the louvers to horizontal position by hand. [NOTE: The direction of operation MUST be from down to up. If direction was reversed, please start over.] 3. Press Remote RESET button for 1 second to initiate Remote RESET Mode. 4. Select the desired group number for setup of horizontal position. 5. Press Best View button(▲▲), the selected group light(s) will flash 4 times to send the command, and exit the RESET Mode. 6. The louvers will move up and down once.</p>
9	Delete/Clear Louver Horizontal Position	1. Initiate Remote RESET Mode . 2. Select the group(s) you want to delete horizontal position. 3. Press Best View button(▲▲), the selected group light(s) will flash 4 times to send the command, and exit the RESET Mode . 4. The louvers will move up and down twice.

4 \ Troubleshooting

NO.	Issue	Troubleshooting
1	Louvers are stuck	DO NOT manually operate it. Please follow the steps : 1. Use a small slotted screwdriver to open the inspection hole cover on the module, gently push the gear away, confirm that the louvers can be tilted up and down by hand, close the inspection hole cover. 2. Fully charge the module by power bank or power supply via USB cable. (Normally it takes around 10 hours to fully charged.)
2	No reaction upon operation	1. Ensure Remote is not running out of power?(Lights up normally without sudden extinction) 2. Check PerfectTilt™ Motor Module to receive the message light: • Green light : Indicates that the operation is normal. • Red light : Indicates low battery, or abnormal status. • No light : Please try rebooting to confirm that the module is exhausted. 3. If the Motor Module is exhausted, please charge it with a USB power source. 4. Ensure the distance between Remote and PerfectTilt™ Motor Module has not been blocked? 5. Check Repeater LED blinking status for Remote signal transmission(while Repeater is properly installed). Ensure Repeater's LED light blinks while operating the remote control? 6. Ensure PerfectTilt™ Motor Module with Remote pairing is correct? 7. Power off PerfectTilt™ Motor Module (press Module button for 3 seconds) and then power it on (press Module button for 3 seconds).Check whether shutters calibrate normally and move to horizontal position? And check whether shutters can be controlled by remote/App? 8. To Delete/Clear louver bottom position as the following procedures and then check whether shutters can be controlled by remote/App? 1) Initiate Remote RESET Mode . 2) Select the group(s) you want to delete bottom position. 3) Press Tilt Upward button (▲), the selected group light(s) will flash 4 times to send the command, and exit the RESET Mode . 4) The louvers will move up and down twice.

5 \ Safety Instructions

The PerfectTilt™ Motor Module and Remote (SmartDial™) contain lithium batteries, the battery contains flammable materials such as organic solvents. Mishandling the battery may cause fire, smoke, or an explosion and the battery's functionality will be seriously damaged. Please read and check the following prohibited actions. **[NOTE: The Remote batteries (CR2032) are not rechargeable.]**

⚠ WARNING	
<ul style="list-style-type: none"> • INGESTION HAZARD: This product contains a button cell or coin battery. • DEATH or serious injury can occur if ingested. • A swallowed button cell or coin battery can cause Internal Chemical Burns in as little as 2 hours. • KEEP new and used batteries OUT OF REACH of CHILDREN. • Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body. 	

- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- The battery type for DIAL01 is CR2032.
- The battery voltage of CR2032 for DIAL01 is 3V.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above 50°C or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
- Ensure the batteries are installed correctly according to polarity (+ and -).
- Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
- Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
- Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

• Danger

(1) Immersion

Do not immerse the battery in liquid such as water, beverages, or other fluids.

Exposure to liquid may damage the battery or the battery pack (including protection circuit). As a result, the battery may generate heat, smoke, catch fire, or explode.

(2) High Temperature

Do not use or place the battery near an open flame, heater or high temperature (above 80°C).

Subjecting the battery to high temperature may damage the polyolefin separator and can cause an internal short circuit. This may cause the battery to generate heat, smoke, catch fire, or explode.

(3) Chargers and Charge Conditions

Do not use unauthorized chargers.

Only charge the battery within specified conditions (e.g., temperature range, voltage, and current). Use of an unauthorized charger could cause the battery to generate heat, smoke, catch fire, or explode.

(4) Reverse Polarity

Do not attach or insert battery with polarity reversed.

A battery has polarity. If the battery does not easily fit into the charger or device, check the battery's orientation. Do not force the battery into the battery compartment. If attached to the device with reversed polarity, the battery may generate heat, smoke, catch fire, or explode.

(5) Direct Connection

Do not connect the battery to an AC outlet or DC automotive plug.

The battery requires a specific charger. If the battery is connected directly to a power outlet, the battery may generate heat, smoke, catch fire, or explode.

(6) Use in Other Equipment

Do not use the battery in equipment for which it was not intended.

If the battery is used in unapproved applications or systems, the battery may become damaged and generate heat, smoke, catch fire, or explode.

(7) Incineration and Heat

Keep the battery away from heat and fire.

Heat will damage the battery and may cause it to generate heat, smoke, catch fire, or explode.

(8) Short-Circuit

Do not apply to a short-circuit.

Do not connect the positive (+) and negative (-) terminals with a conductive material. Do not carry or store the battery with any metal objects. If the battery is shorted, the shorting item may overheat and the battery may generate heat, smoke, catch fire, or explode.

(9) Impact

Avoid excessive impact to the battery.

Impact beyond specification may damage the battery. This may cause the battery to leak, generate heat, smoke, catch fire, or explode.

(10) Penetration

Do not penetrate the battery with a nail or strike with a hammer.

If subjected to a hard strike or penetrated by an object, the battery may be damaged or destroyed, thereby causing an internal short-circuit. This may cause the battery to generate heat, smoke, catch fire, or explode.

(11) Soldering

Do not directly solder to the battery.

Soldering directly to the battery could melt the separator or damage the gas release vent or other safety mechanisms. This may cause the battery to generate heat, smoke, catch fire, or explode.

(12) Disassembly

Do not disassemble the battery.

Disassembly or modification of the battery may damage the protection circuit. This may cause the battery to generate heat, smoke, catch fire, or explode.

(13) Charge near High Temperatures

Do not charge the battery near high temperature.

If the battery is charged while exposed to high temperature, the battery's protection circuit may activate and prevent charging, or fail and cause the battery to generate heat, smoke, catch fire, or explode.

• Warning

(1) Ingestion

Keep away from small children.

Keep the battery away from small children. If the battery or any of its component part is swallowed, seek medical attention immediately.

(2) Storage

Do not place the battery in or near a microwave or other cooking appliances.

If subjected to heat or electromagnetic radiation, the battery may leak, generate heat, smoke, catch fire, or explode.

(3) Mixed Use

Do not mix with other batteries.

The battery should not be used with other batteries having a different capacity, chemistry, or manufacturer. Doing so could cause the battery to generate heat, smoke, catch fire, or explode.

(4) Rust, Discoloration and Deformities

Do not use abnormal batteries.

Immediately stop using the battery if there are noticeable abnormalities, such as smell, heat, discoloration, or deformity. The battery may be defective and could generate heat, smoke, catch fire, or explode with continued use.

(5) Charging Time

Stop charging if the charging process cannot be finished.

If the battery cannot finish the charging process within the specified time, halt the charging process. The battery may generate heat, smoke, catch fire, or explode.

(6) Leakage -1

Do not use a leaking battery near open flame.

If the battery or liquid leaking from the battery has an irritating odor, the battery should be kept away from any open flame. If exposed to an open flame, the battery could ignite and explode.

(7) Leakage -2

Do not touch a leaking battery.

If liquid leaking from the battery gets into your eyes, immediately flush your eyes with clean water and seek medical attention. If left untreated, it will cause significant eye damage.

(8) Transport

Pack the battery securely for transport.

To prevent short-circuit or damage during transport, securely pack the battery in a case or carton.

• Caution

(1) Exposure to Direct Sunlight

Do not use or leave the battery in a location exposed to excessive heat, such as in direct sunlight or in a car. Doing so could cause the battery to generate heat, smoke, catch fire, or explode. It may also cause the battery's performance and life to deteriorate.

(2) Static Electricity

The battery pack has a protection circuit. Do not use the battery where static electricity in excess of 100V is generated as it may damage the protection circuit. If the protection circuit fails, the battery may generate heat, catch fire, smoke, or explode.

(3) Charging Temperature Range

Only charge the battery between 0°C and 45°C. Charging outside of this temperature range may cause the battery to leak, generate heat, or result in serious damage. It may also cause the battery's performance and life to deteriorate.

(4) Manual

Read the manual before use. Keep for future reference.

(5) Charging Method

Read the charger's manual before use for proper charging method.

(6) First Time Usage

Please contact the supplier if the battery gives off an unusual odor, generates heat, or shows signs of rust prior to its initial use.

(7) Use by Children

Parents must explain how to use the product and the battery. Please check back periodically to ensure children are using the product and the battery correctly.

(8) Flammable Materials

Do not charge or discharge near flammable materials. Doing so could result in fire.

(9) Leakage

If electrolyte leaks from the battery and comes into contact with skin or clothing, immediately flush with water. Otherwise, it may cause skin irritation.

(10) Handling of Exposed Contacts or Conductors

If the battery pack has a system interface consisting of stripped lead wires or exposed contact plates, handle with due care. Temporarily insulate exposed contacts and conductors with an insulator such as polypropylene tape or polyvinylchloride tape. Failure to do so could result in an electrical shock; a short circuit causing the battery to generate heat, smoke, catch fire, or explode; or the combustion of other materials.

(11) Recycling

When disposing of the battery, recycle it according to local rules and regulations.

6 \ Appendix

• Warning

1. Important safety instructions. It is important for the safety of persons to follow these instructions. Save these instructions.
2. The drive shall be disconnected from its power source during cleaning, maintenance and when replacing parts.
3. Important safety instructions. Follow all instructions, since incorrect installation can lead to severe injury.

• Caution

1. The appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction. Children being supervised shall not play with the appliance.
2. The battery must be removed from the appliance before it is scrapped. The appliance must be disconnected from the supply mains when removing the battery. The battery is to be disposed of safely.
3. Do not allow children to play with fixed controls. Keep remote controls away from children.
4. Frequently examine the installation for imbalance and signs of wear or damage to cables and springs. Do not use if repair or adjustment is necessary.
5. Do not operate when maintenance, such as window cleaning, is being carried out in the vicinity.
6. Before installing the drive, remove any unnecessary cords or components and disable any equipment not needed for powered operation. The characteristics of the driven part must be compatible with the rated load and rated operating time.

Federal Communication Commission Interference 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.

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada Equipment Standard For Digital Equipment (ICES) - Canada

This Class B digital apparatus complies with Canadian ICES-003. CAN ICES-3 (B)/NMB-3(B)
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Innovation, Science And Economic Development Canada(ISED) Compliance Statement

This device complies with ISED's licence-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.

Le présent appareil est conforme aux CNR d' ISED applicables aux appareils radio exempts de licence. L' exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

RED Compliance Statement

Hereby, Nien Made Enterprise Co., Ltd. declares that the radio equipment MS4 / PerfectTilt™ G4 and SmartDial™ is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address : <https://www.nienmade.com/Collections.aspx>

This equipment complies with EU radiation exposure limits set forth for an uncontrolled environment.

Recycling - European Directive 2012/19/EU

This marking indicates that this product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

MS4 Motor Module Specification :

NO.	Item		Specification
1	Power source		3.7V,3000mAh, 18650 Li-ion battery cell x2 parallel
2	Battery operating voltage range		4.2V~3.2V
3	Radio type		Proprietary 2.4GHz
4	Motor type		Brush DC motor
5	Interface		USB micro B receptor(water proof)
6	Charge type		USB, Solar
7	Charge capability	USB	15W(5V, 3A)
		Solar	0.06W@37000lux(5V,12mA)
8	Charge time @ 3000mAh battery cell x2	USB	10hrs
		Solar	300hrs@37000lux
9	Thermal protection	Charge	H:≥60°C L:≤0°C
		Discharge	H:≥60°C L:≤-10°C
10	Dust and Water proof		IP54
11	Operation temperature		0°C - 55°C / 32° F - 131° F

SmartDial™ Remote Specification :

NO.	Item	Specification
1	Model	DIAL01
2	Dimensions	OD 67.6mm x H 21.2mm
3	Weight (including battery)	74.5g ± 20g
4	Battery/Voltage	CR2032 3V x 2
5	Radio frequency	Proprietary 2.4GHz
6	Operation temperature	0°C - 50°C / 32° F - 122° F

