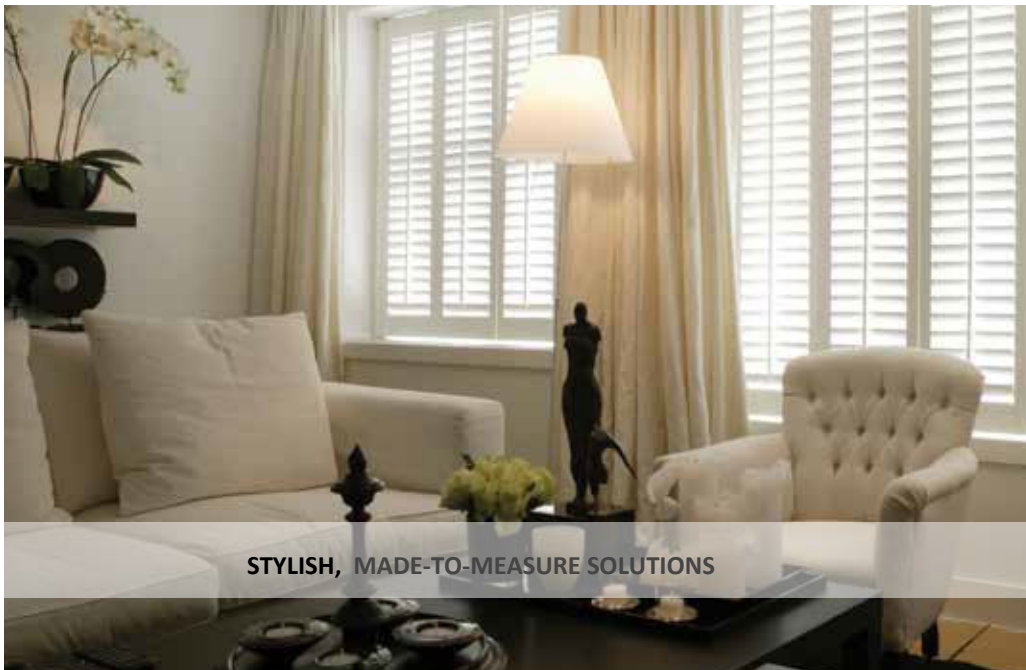


# RF MOTORISED SHUTTER SPECIFICATIONS



# RF MOTORISED SHUTTERS INTRODUCTION

The new remote control shutters system is now available. Now no longer infra-red but radio control based, up to 5 groups of shutters can be programmed with an unlimited number of shutters in each group. The pricing remains unchanged between old and new system apart from the remote control handset which has increased in price.

	Old Motorised Shutter	New Motorised shutter
Program	BassWood and CedarWood Only	All except ABS
Shutter Type	All except for Tier on Tier, Single panel with hang strip inside mount	All except for Tier Bi-fold and multi-fold.
Specialty Shutter Shape	Arch at top, angle top, and french door shutter. Eyebrow/Elongated Eyebrow or half-round sunburt with horizontal louvre can be made in motorised, but must have 2" stile in middle.	Arch at top, angle top, and french door shutter. Eyebrow/Elongated Eyebrow or half-round sunburt with horizontal louvre can be made in motorised, but must have 2.25" (57mm) stile in middle.
Tilt Rod	Center and Offset only	Silent Tilt only
Stile	2" (50.8mm) and 2.5" (63.5mm) stile	2.25" (57mm) stile only
Louvre	2.5" (63.5mm), 3.5" (89mm), 4.5" (114mm) Elliptical louvre	2.5" (63.5mm), 3.5" (89mm), 4.5" (114mm) Elliptical louvre
Panel Size Limit	Min. Panel Height: 24" Max. Panel Height without divider rail: 62" Panel Width Limit: same as the normal shutter	Min. Panel Height: 457mm Max. Panel Height without divider rail: 1981mm for wood, 1879mm for MDF Panel Width Limit: 220mm, 313mm if solar panel is fitted to rails. Max width limit: same as regular non motorised shutters.
Module	Normal Battery & Solar Power	Regular module with solar option 3 colors: white, coffee and caramel
Module	Yes	Yes
Louvre cap	Yes	No
Sensor Cover	Yes, have a magic eye in the stile	No hole in the stile
Remote Control	Infra red to magic eye	Radio Frequency
Multiple shutter set programming	No	Yes up to 5 groups unlimited number of motorised sections
Extra Battery Box	No	Yes; color: white, coffee and caramel
Solar panel base	No	Yes, solar panel can be attached directly to the solar panel base
Solar Panel	Attached to the module itself or attach to window glass to have better sunlight. If attach to window glass, connect the solar panel with the module with a curled line.	3 colors: white, dark stain and light stain Can be attached to the module itself or attach to top or bottom rail.
Wire to connect module and solar panel	The wire is curled and can be visible.	The wire is straight and will be imbedded in the stile
Timer Function	No timer function	Will have timer function in subsequent release.
Warranty	Module and the Remote control unit is 1 year under normal operation	Module and the Remote control unit is 2 years under normal operation

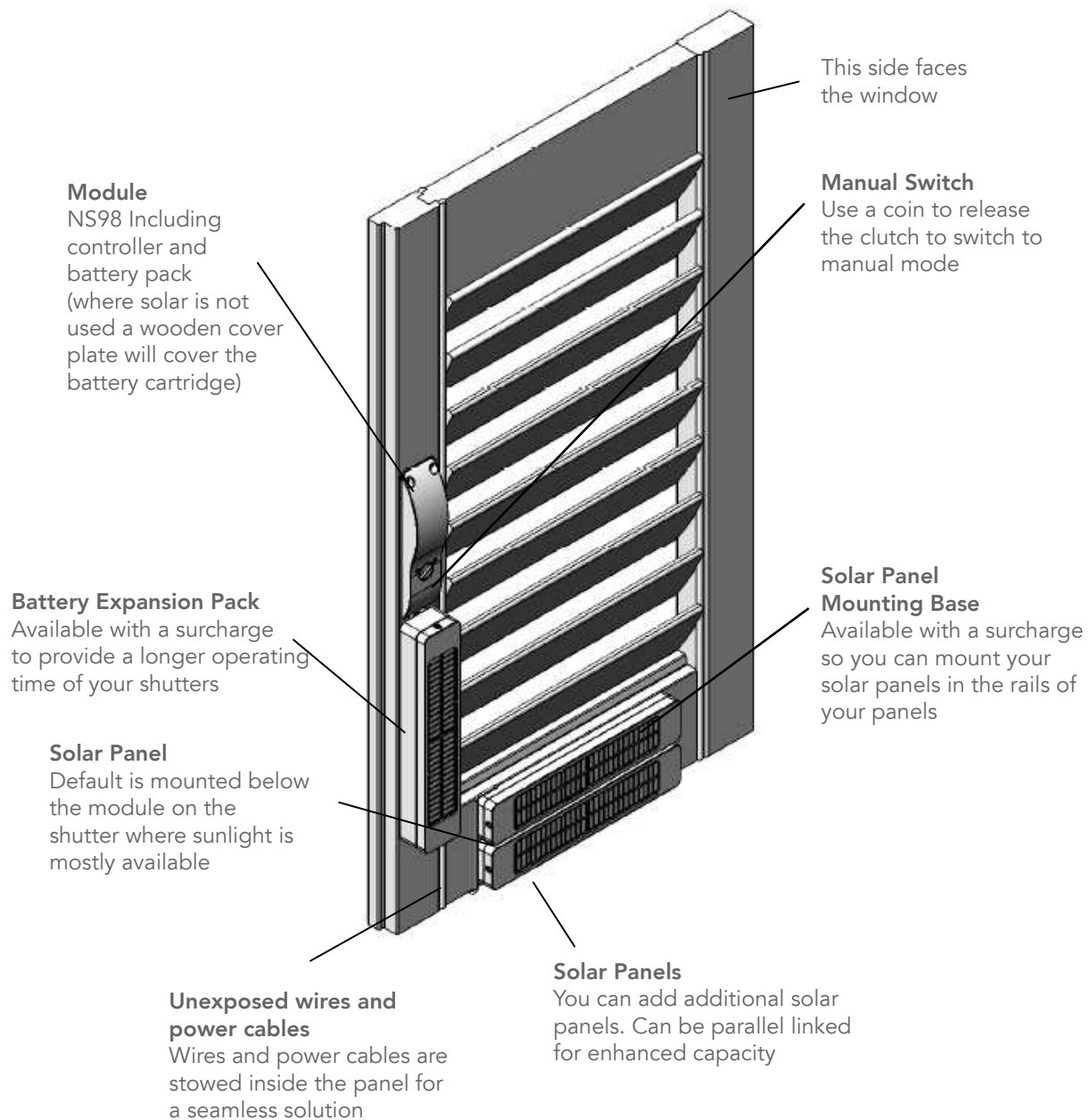
# RF MOTORISED SHUTTERS USER GUIDELINES

The RF motorization system features a remote control that utilizes the latest in radio frequency technology. This user manual is designed to allow the beginner to become quickly oriented with the basic day-to-day functioning of the RF system. The second part will explain advanced programming features that can help you get the most out of your investment.

The unique features of the RF remote include:

- Revolutionary radio frequency that transmits up to 20 metres indoors (with obstacles) or up to 40 metres outdoors (free space).
- Control panels individually, as well as in groups, or all at once.
- Control unlimited number of motors that are in range.
- Remote control powers on automatically with vibration sensing technology
- Smart Battery indicator tells you when your remote battery or receiver / driver battery needs to be recharged.
- Keep the remote in a safe place out of small children's reach. If opened, the remote control contains small parts, that if swallowed, may cause a choking hazard.
- Do not damage or drop the remote. Mistreatment of the remote could damage the circuit board.
- Do not use any spray solvents, alcohol or abrasives to clean the remote. To clean, use a slightly moistened with water soft cloth.
- Store the remote in a clean, dry area. Rain, water, or other moisture may damage the circuit board.
- Keep the remote away from direct sunlight, heaters and other heat sources. High temperatures could damage the circuit and batteries, and deform the remote housing.
- Keep away from extreme cold. This may create moisture and cause damage when the remote is moved to a warmer area.
- Dispose or recycle batteries according to local laws.
- 2 year limited warranty on materials and craftsmanship.
- Do not try to disassemble the remote. There are no serviceable parts inside.
- When the batteries on the remote or the motor are weak, the control range will get shorter or fail. Please replace batteries at this time. (see Battery Replacement)
- If batteries fail, louvres can be moved by hand to the desired position while in Manual setting.
- When you press a button to select an angle position, all louvres may not move at the same time due to their starting louver position. However, all louvres will end approximately the same position.
- Should the remote or the motor fail, please contact your retailer for assistance.


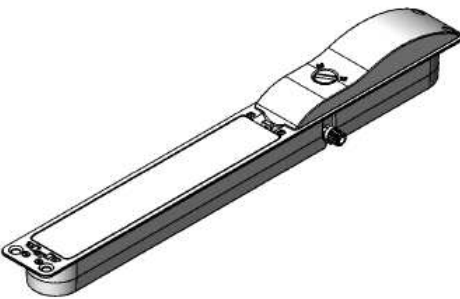

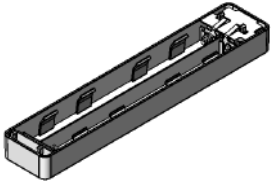
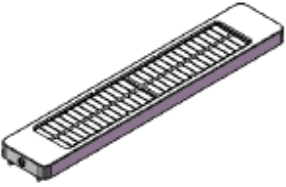
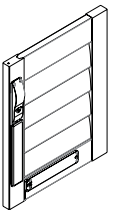

# RF MOTORISED SHUTTERS PARTS AND NAMES



**Remote Control**  
Model: NC85



# RF MOTORISED SHUTTERS PRODUCT COMPOSITION

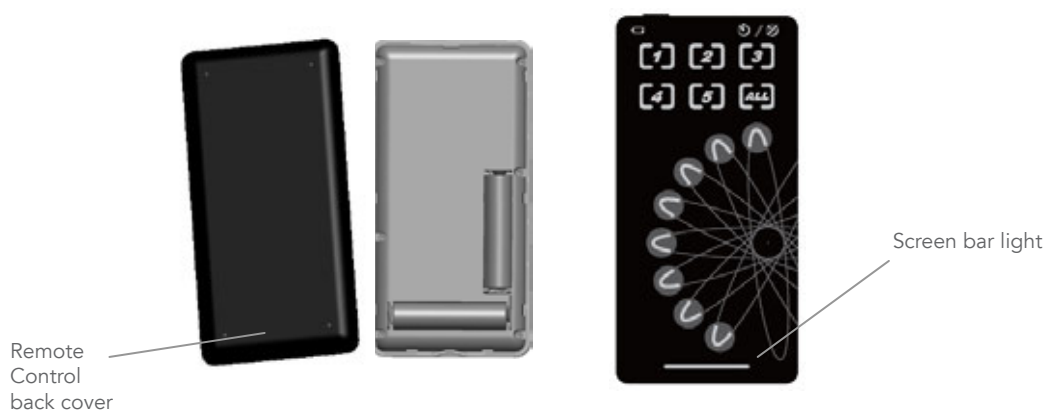
Items	
<p>Remote Control Model:</p> <p>NC85 Radio frequency; Battery: 2 xAAA Dimensions: 122 x 62 x 16mm Distance of transmission (control): 20 meters indoor , 40 meters outdoor</p>	
<p>Module</p> <p>Model: NS98</p> <p>Colours available: White, Coffee, Caramel</p> <p>Dimensions: 330.5 x 37.5 x 40 mm One for each louvre section, 6 x AA normal batteries or rechargeable batteries are required. Either alkaline or lithium batteries may be used.</p>	
<p>Battery Cartridge</p> <p>Make sure the batteries are fitted into the cartridge in correct direction, and when fitted into the cartridge make sure that they are also placed into the module in right direction (follow the arrow)</p>	
<p>Battery Expansion Pack</p> <p>Colours available: White, Coffee, Caramel</p> <p>Dimensions: 195 x 37 x 21.6mm</p>	
<p>Solar Panel</p> <p>Colours available: White, Coffee, Caramel</p> <p>Position: A. attached to the module itself (Default) B. attached to rail (optional with surcharge) - For panels with modules below the mid rail or panels without mid rail, the solar panel will be attached to the bottom rail; For panels with modules above mid rail, the solar panel will be attached to the top rail</p>	 
<p>Mounting base ( for solar panel)</p> <p>Colours available: White, Coffee, Caramel</p> <p>Dimensions: 195 x 37 x 8.5mm With power cable</p> <p>Colours: White, Coffee</p>	

# RF MOTORISED SHUTTERS GETTING STARTED

## BATTERY INSTALLATION

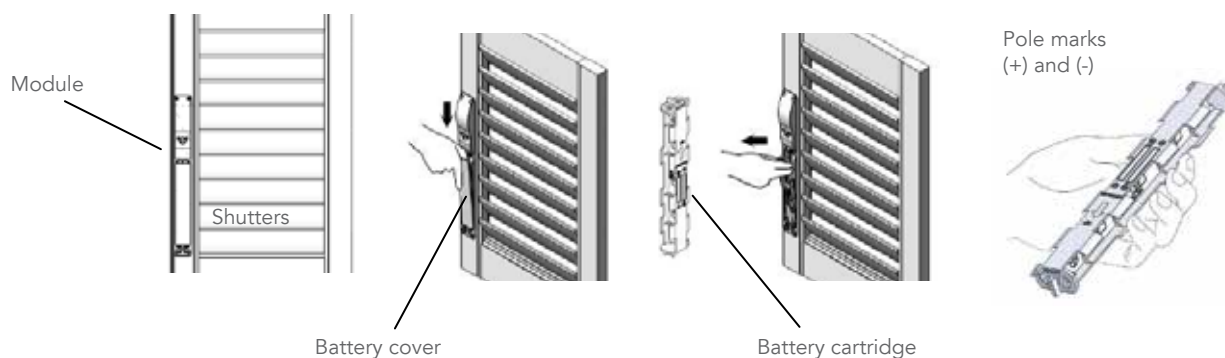
### Remote Control

The RF remote control requires 2 AAA batteries. To install the batteries, turn over the remote and open the cover. Insert batteries (AAA batteries \*2) matching the (+) and (-) marks and cover the bottom cover. If the battery has been properly installed, the screen bar will light up.



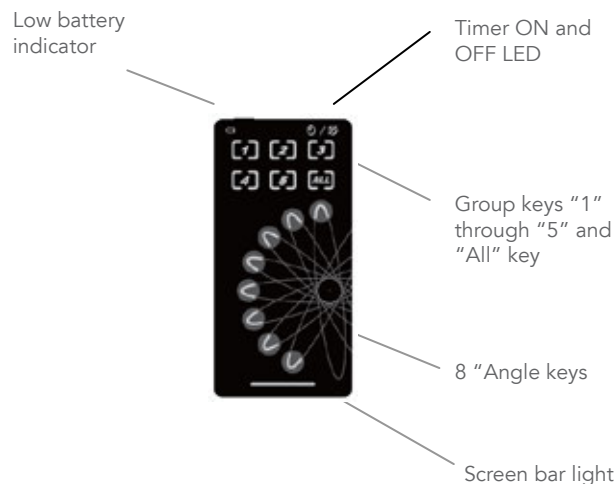
### Module

The order in which batteries are installed in the receiver/driver affects how your shutters are programmed. Please see "Programming Instructions" for details. To install batteries to open the battery cover. Remove the battery cartridge. Insert batteries (AA batteries \*6) matching the (+) and (-) marks inside the battery cartridge. Put back the cartridge and reinstall the battery cover.



# RF MOTORISED SHUTTERS GETTING STARTED

## REMOTE CONTROL BUTTONS AND INDICATORS



## REMOTE CONTROL SPECIFICATIONS

Power: 3V DC (AAA Alkaline batteries 1.5V x2)  
Dimensions: 122 x 62 x 16mm

## BASIC PROGRAMMING TUTORIAL

### Why program?

The programming function allows you to group shutter motors together in 1 of 5 groups. Each of the number keys towards the top of the remote control numbered "1" through "5" corresponds to a single group. Each group can consist of unlimited numbers of shutters that are in range. The "All" key controls all groups at once. Grouping motors together allows you to move all the motors in that group in sync, for instance all the shutters in your living room but not those in your kitchen, or all the shutters on the west wall of your room but not the south.

It should be noted that you can only programme one remote control unit with a set of remote shutters, so multiple remote controls cannot be used to control the same remote shutter set.



# RF MOTORISED SHUTTERS GETTING STARTED

## BASIC PROGRAMMING TUTORIAL continued

### Using Angle Keys

Beneath the 2 rows of number keys and "All" key as described above, are the 8 "Angle" keys that are arranged in a semi-circle arch. Each of the "Angle" keys corresponds to a desired tilting position, spanning the entire arc of the louvre's movement. For instance, the top button in the arch (the 5th one down from the top button of the arch) would tilt the shutter at the maximum horizontal position to provide maximum openness, and the bottom most button would close the shutter in a downward position.

### How to group shutters (step 1)

Your RF system has not been pre-programmed. To begin programming, only install the batteries into the motor modules you'd like to be in the first group. At this point, do not install the batteries for motor modules that are to be assigned in other groups, since any modules that has been powered on and can receive a signal from the remote control, and has not been already programmed, will be programmed in this step.

With batteries installed in all group 1 modules only, press any one of the eight "Angle" keys. It does not matter which one you push. Now, press the "Number" key you'd like to program. For instance, if you'd like to assign button "1" to all modules powered on right now, press "1" now.

### How to group shutters (step 2)

After you have pressed "1", this concludes the first step. In the second step, install all the batteries to modules in the second group. Do not take out the batteries from the modules that have been assigned to group 1. With batteries installed in all group 1 and group 2 modules only, press any one of the eight "Angle" keys. It does not matter which one you push. Now, press the "Number" key you'd like to program. For instance, if you'd like to assign button "2" to the second group of modules you have just installed batteries for, press "2". This concludes step two. You can repeat the process up to 5 groups.

### Reset groups at any time

If you want to reset any of the modules at any point, just take out the battery and then re-install it.

### Using your remote

With all groups programmed, you can easily tilt any group of shutters. To begin, first press the "Angle" key that corresponds to the angle you wish to tilt. Then press the number key that corresponds to the group number you'd wish to tilt: this will tilt all shutters in the group to the desired position. To tilt all shutters at once, press the desired "Angle" key and then press "All".



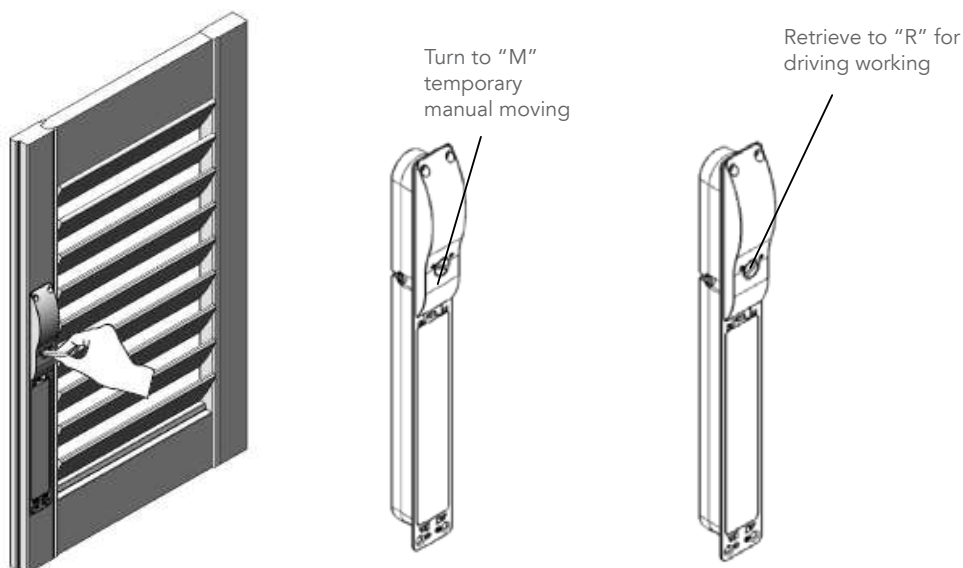
# RF MOTORISED SHUTTERS GETTING STARTED

## BASIC PROGRAMMING TUTORIAL continued

### Manual Tilting Mode

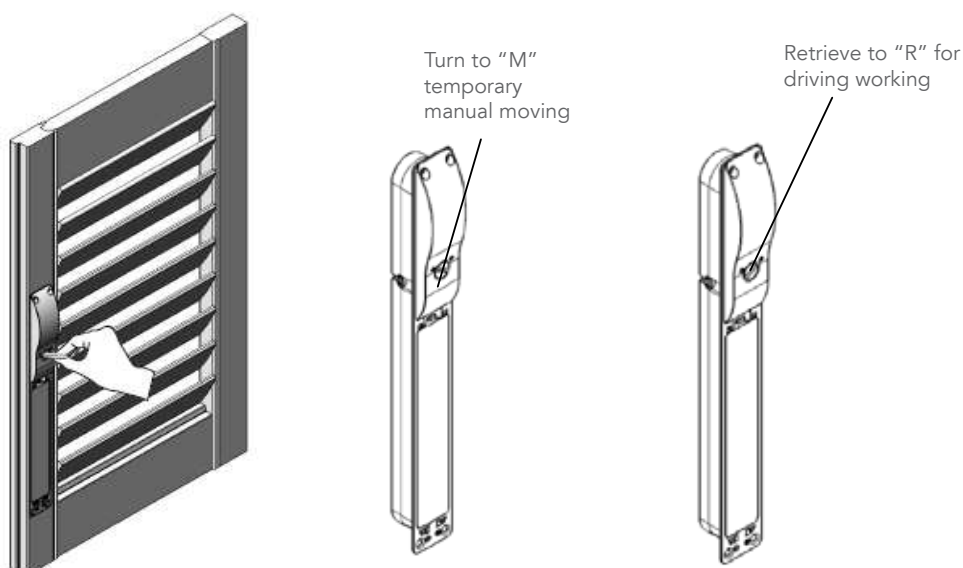
Your RF system includes a Manual option that allows you to adjust your shutters by hand without a remote control, giving you more control flexibility, as well as the ability to adjust by hand in the event of low or dead battery.

To begin, locate the "M" (Manual) and "R" (Remote control) switches on the Receiver / Driver as pictured.



To switch to Manual mode, use a coin to release the clutch and turn the dial to "M". DO NOT force the rotation of the louvres. If the dial has been turned to "M" properly, no excessive force is necessary. Forcing the louvres to rotate without releasing the clutch and turning the dial to "M" will cause serious damage to your RF system.

To revert back to "R" (Remote control) mode, install fresh batteries into the driver, turn the dial back "R" and then reprogram



# RF MOTORISED SHUTTERS GETTING STARTED

## BASIC PROGRAMMING TUTORIAL continued

### Low Battery Indicator

If the remote control battery is low on power the Low Battery Indicator will signal a longer 5-second flash after you push a button on the remote. If the Module is low on power the Low Battery Indicator will signal a series of short half-second flashes after you push a button on the remote control.

### Sleep Mode

The remote control will go into sleep mode after 15 seconds of non-use. To awaken the device, just pick up the device and the vibrations of your motion will wake up your RF remote control, and the screen bar will light on.

### Reset at any time

You may reset the programming on the modules at any time. Simply take out the battery of the modules you wish to reset and then re-install the battery. This would ready the module to be reprogrammed.

---

## USB PORT

The USB port is not ready

---

## SPECIFICATIONS

### Module

Power: 9V DC (AA Alkaline batteries 1.5V x6)  
Dimensions: 330.5 x 36.5 x 40mm

### Remote Control

Power: 3V DC (AAA Alkaline batteries 1.5V x2)  
Dimensions: 122 x 62 x 16mm  
Distance of transmission (control): 20 metres indoor, 40 metres outdoor

### Accessories

Battery Expansion Pack  
To hold: AA NiH rechargeable batteries 1.2V x6  
Dimensions: 195 x 37 x 21.6mm

### Solar Panel

Panel: 150 x 28 x 2mm, 9V  
Dimensions: 195 x 37 x 13.5mm

### Mounting (Solar Panel only)

Dimensions: 195 x 37 x 8.5mm

# RF MOTORISED SHUTTERS FCC STATEMENT

## FCC Caution:

1. The device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:
  - (1) This device will not cause harmful interference,
  - (2) This device will accept any interference received, including interference that may cause undesired operation.
2. This device and its antenna(s) must not be located or operating in conjunction with any other antenna or transmitter.
3. Changes or modifications to this unit, not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

---

## FCC Statement

This equipment has been tested and founded 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 and correct the interference by one of the following measure:

- 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 experience radio/TV technician to help

## CE Warning:

The 20cm safe distance from the antenna to the user shall be maintained.

# RF MOTORISED SHUTTERS SPECIFICATION OVERVIEW

## RF MOTORISED SHUTTER SPECIFICATIONS

- Regular shutters: All except for Tier-on-Tier Bi-fold & Multi-fold.
- Tilt Rod: Silent Tilt only
- Stile: 57.15mm (2.25") ONLY
- Louvre: 63.5mm (2.5") and 89mm (3.5")
- Panel size limit:

Min. panel height: 457mm (18")

Max. panel height without divider rail: 1981mm.

Panel width limit: 220mm min (313mm if Solar Panels are attached to rails) Max is same as regular non motorised shutters.

Note: If require a mid (divider) rail, the distance from the middle of the mid-rail to the end of top / bottom rail must be within the minimum and maximum height limit.

# RF MOTORISED SHUTTERS COMPONENTS

## COMPONENTS:

### Batteries Cartridge

Make sure the batteries are fitted into the cartridge in correct direction, and when fitted place the cartridge into the module, also in right directions (follow the arrow)

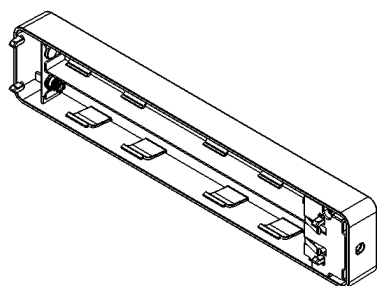


Remote Control Unit: Radio Frequency; Battery: 2xAAA



### Optional Components:

Battery Expansion Pack (Colour: White, Coffee, Caramel)

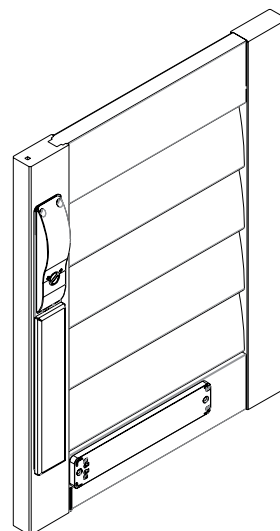
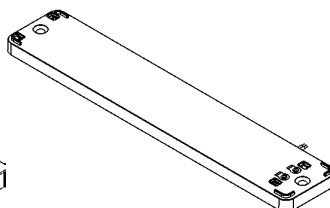
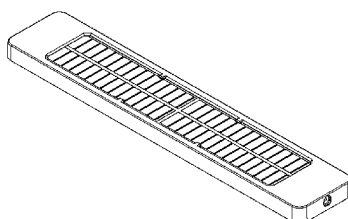


Solar panel (Colour: White, Coffee, Caramel)

Position:

A) attached to the module itself (default)

B) attached to bottom rail (optional with surcharge)



# RF MOTORISED SHUTTERS

## SHUTTER COLOURS

COLOUR COORDINATE CHART - PAINT			
Colour Code	Shutter Colour		Module / Battery / Expansion Pack / Solar Panel colour
001	Pure White		White
003	Silk White		White
004	Bright White		White
006	Pearl		White
009	Creamy		White
013	Bisque		White

Due to the nature of material manufacturing, colours may vary slightly between dye lots. Please order shutters for the same home at the same time. Slight variations may also occur between the finished products and the colour swatches you use.

# RF MOTORISED SHUTTERS FRAMING STYLES

## WOOD COVER

The battery cover of the module would come with a wood cover that covers at least half section of the module and the colour of the wood cover will match that of the shutter.

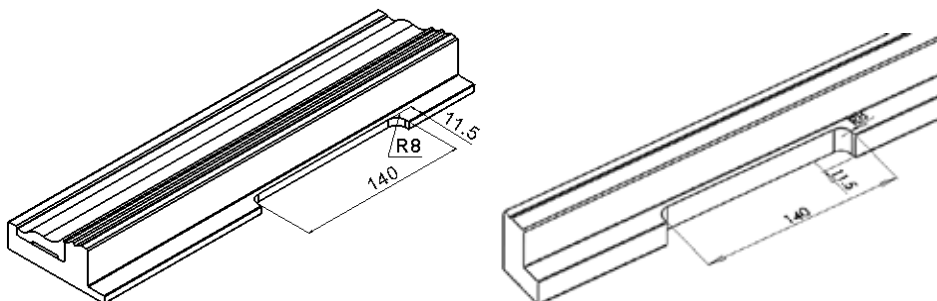


If Expansion Battery Pack or Solar Panel is to be fixed onto the module, please keep the wood cover and in the future if the Expansion Battery Pack or Solar Panel is not needed, the wood cover can be put back into use.

## FRAME CUT-OUT

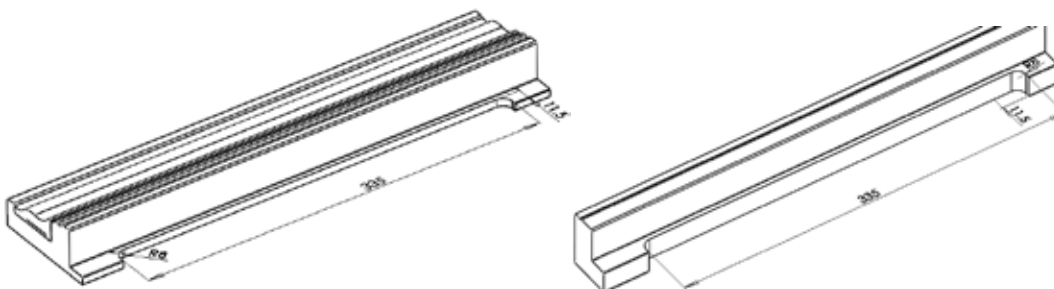
- For single panel or configuration similar to single panel with frame, the module location will conflict with the light block of the frame, so there will be cut-out on the light block of the frame to stop the conflict
- If there is no extra battery box or solar panel directly attached to the module, the size for the cut-out would be 11.5mm (width) x 140mm (length)

Take Deco Frame and L Frame as example



If there is extra battery box or solar panel directly attached to the module, the size for the cut-out would be 11.5mm (width) x 335mm (length)

Take Deco Frame and L Frame as example



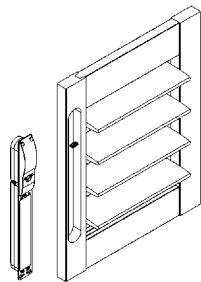


# RF MOTORISED SHUTTERS FRAMING STYLES

## CLEARANCE

Module	Battery Expansion Pack	Solar Panel	Solar Panel Mounting Base
17.5mm	17mm	9mm	8.5mm

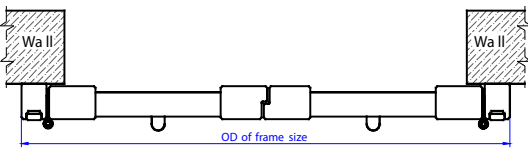
The module will protrude 17.5mm from the back of the stile, please allow 19mm clearance for the module.



E.g. Below is an example where you would not have enough space for the motors unless you add enough build-out to the frame.

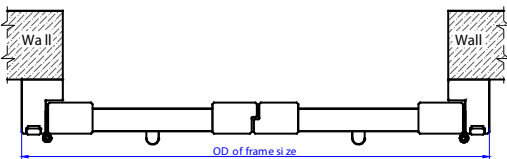
Hang Strip: beside the panels

When the module is on the left/right most stiles, the protrusion part will conflict with the wall.



L Frame with light block thickness less than 19mm:

When module is on the left/right most stiles, the protrusion part will conflict with the wall.



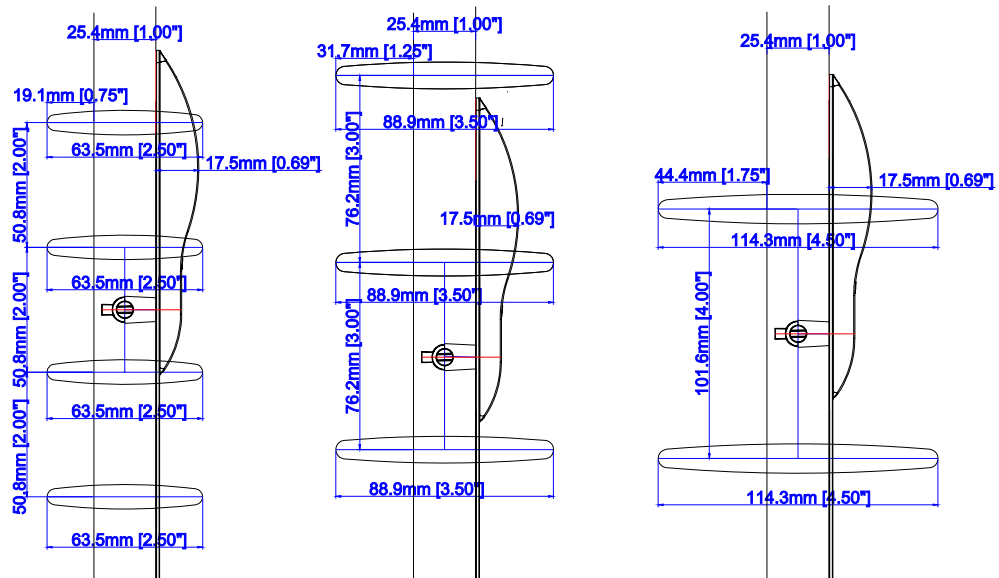
If both Solar Panel and one Battery Expansions Pack is attached to the module, the necessary clearance is 28.5mm;

When more Battery Expansion Packs are needed, please add built-out to allow enough clearance.

# RF MOTORISED SHUTTERS FRAMING STYLES

Side view for module in panel with different louvre types.

Side View



# RF MOTORISED SHUTTERS MODULE LOCATIONS

## MODULE LOCATIONS

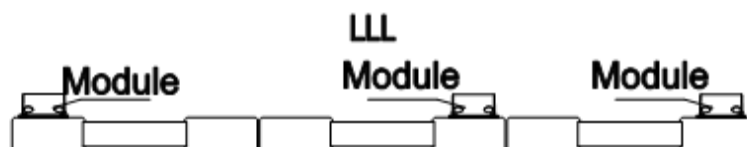
(Silent Tilt will be on the same side as the module)

For regular shutter and bi-fold Application:

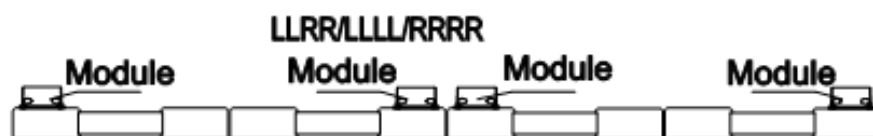
- 1) Single Panel: Module will be on the un-hinge stile
- 2) 2 Panels: LL, LR, RR



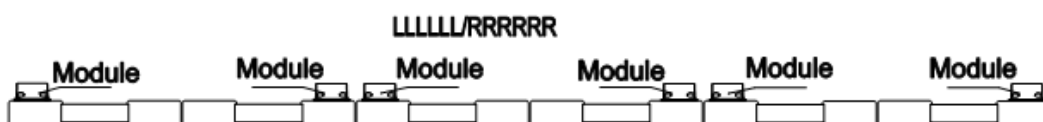
- 3) 3 Panels: LLL / RRR



- 3) 4 Panels: LLRR / LLLL / RRRR



- 4) 6 Panels: LLLLLL / RRRRRR



Special note on Bi-fold or Multi-fold configurations.

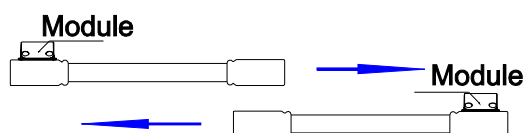
Please be aware that in bi-fold or multi-fold configurations of RF, the motorisation modules will touch each other when the panels are folded together, so the panels can't stack together tightly as that of the non-motorised shutters.

Additionally, before folding the bi-fold or multi-fold panels together, please ensure that the louvres are returned to a completely closed position (either up or down) to prevent louvre damage when folding panels.

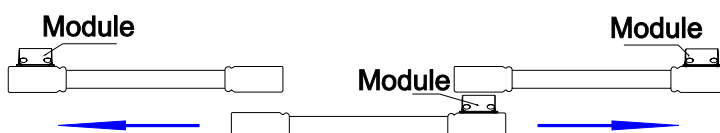
# RF MOTORISED SHUTTERS MODULE LOCATIONS

## FOR BY-PASS APPLICATION

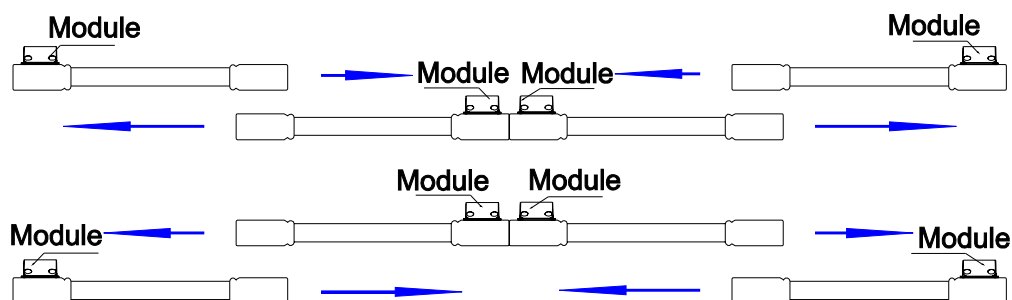
### 2 Panels Side Open



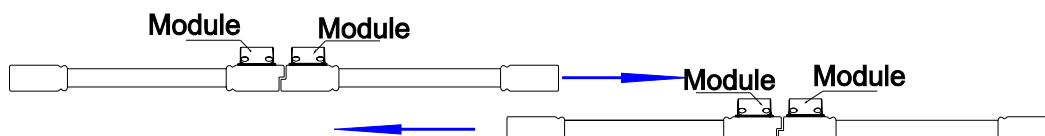
### 3 Panels Center Open (Not available for Open Bypass)



### 4 Panels Center Open



### 4 Panels Side Open



## FOR SPECIAL SHAPE APPLICATION

Module location will be the same as the Silent Tilt location.

# RF MOTORISED SHUTTERS SHUTTER LOCK

## FROM FRONT TO BACK

The front side of the shutter



- \*No receiver/  
louvre cap
- \*Silent tilt only

The back side of the shutter



- \*The light block  
would be cut out  
along the module
- \*The battery cover  
of the module  
will come with a  
woodcover. And the  
colour of the wood  
cover will match that  
of the shutter

## HOW TO USE THE EXPANSION BATTERY PACK

Expansion Battery Pack is to provide longer operation time of shutter.  
Remove the battery cover and wood cover, and fix the Expansion Battery Pack to the module.  
More can be added if the space allows.



# RF MOTORISED SHUTTERS SHUTTER LOCK

## HOW TO USE THE SOLAR PANEL



\*Make sure rechargeable batteries are used in the module or the Expansion Battery Pack when using with Solar Panel

\*Solar Panel Position:

- a. Attached to the back of the module or the Expansion Battery Pack
- b. Installed on the rail (Optional with surcharge) factory will prewire and install the mounting base.

For panels with modules below the mid rail or panels without mid rail, the solar panel will be attached to the bottom rail; For panels with modules above mid rail, the solar panel will be attached to the top rail.

If Expansion Battery Pack or Solar Panel is to fix on the module, please keep the wood cover and in the future if the expansion battery pack or the solar panel is not needed, the wood cover can be put back in use.

## HOW TO FIX LOUVRES THAT ARE OUT OF POSITION

Firstly find the louvre that is out of position;



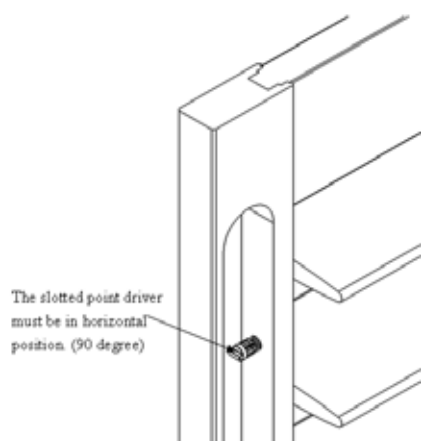
# RF MOTORISED SHUTTERS SHUTTER LOCK

## HOW TO FIX LOUVRES THAT ARE OUT OF POSITION *continued*

Next please grab three louvres above or below the louvre in different position. Then grab the louvre out of position and tilt it up/down to put the louvre back to the correct position.



## HOW TO REPLACE THE MODULE



\*The module can be taken out of the stile when the louvre as well as the slotted point driver is in horizontal position.

\*The customer could also fix the module into the stile when the louvre as well as the slotted point driver is in horizontal position.



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