Revision Log

Effective Date	Remark
2021-03-26	Add content: It is not available for sloped windows and skylight.

Table of Contents

1. New PerfectTilt(TM)

The new PerfectTilt(TM) G4 has many exciting features & benefits.

* iPhone and iPad control with hub (optional)

* Quick response to tilt commands

* 8 pre-programmed louver positions and one custom position with remote. Over 30 custom louver positions by utilizing the Dial

* Louvers can be tilted by hand, remote or app (via hub) without neither the need for flipping switches nor the risk of damage because of incorrect switch settings

* Two long-lasting rechargeable 18650 Lithium-ion batteries per module unit last up to 1 year on a single charge via USB port

* High efficiency solar panel included for extending battery charge

* Water repellent module units

* Built-in jam protection for child and pet safety

Parts and Names:

PerfectTilt G4 Module

Smart Dial(TM) Remote

Specifications:

	New RF
Shutter Program	All Except Waterproof Woodlore Plus
Shutter Type	All types except bi-fold double hung or panel with gap at bottom over 0.1" (no support on bottom). It is not available for sloped windows and skylight.
Specialty Shutter Shape	All shapes except shapes without a vertical stile in the middle (for example, eyebrow, elongated eyebrow, half-round sunburst without horizontal louvers)
Tilt System	Invisible Tilt only, the tilting system will not split unless specified
Stile Width	2.25" stile only
Louver	2.5", 3", 3.5", 4.5" Elliptical louver
Panel Size Limit	Max. Panel Height without divider rail: 74" for Woodlore; 78" for Woodlore Plus, Brightwood and Normandy; 84" for Ultra; Min. Panel Width Limit:8 11/16" Max Width Limit: same as regular non-motorized shutters

Panel Size Limit	Min. Panel Height With lined up Motors	18" (457.2mm) for 2.5"(63.5mm) / 3.5"(88.9mm) / 4.5"(114.3mm) louver; 21" (533.4mm) for 3"(76.2mm) louver;
Panel Size Limit	Min. Panel Height With Staggered motors (which is default for 180 degree bifold track shutters; and optional for other types of shutters)	Louver space not less than 26", so at least 13 louvers for 2.5"louver; 11 louvers for 3"louver; 9 louvers for 3.5"louver; 7 louvers for 4.5"louver.

Components:

Items	
Smart Dial(TM) (Remote) and Docking: Radio Frequency; Battery: 2x CR2032 Dimensions : 2.7"(68mm) diameter x 0.8"(21mm) Default color ring's color: black Optional color ring's colors: White, Gray, Bronze, Red	

|	
Module Model : PerfectTilt G4 Module color is White for shutter colors Pure White, Silk White & Pearl; Module color will be match shutter colors except Pure White, Silk White & Pearl. Dimensions : 13.09"(332.5mm) x1.52"(38.5mm) x1.45"(36.8 mm) One for each louver section, 2X long-lasting rechargeable 18650 lithium-ion batteries built-in, charge PerfectTilt G4 Module by Micro USB interface with 5V.1A power bank or adaptor.	Button Micro USB To charge the batteries, use micro USB cord and plug it into either a wall outlet or a portable power bank. It may take up to 8 to 10 hours to fully charge the rechargeable batteries. DO NOT remove the batteries from the motor module unit. Once they are removed, it will void the warranty. In addition, only use Norman® supplied batteries on PerfectTiltTM motors. The use of non-Norman® supplied batteries will also void the warranty.
Micro USB cable Color: Black, Length: 9.8'(3 meters) , For charging PerfectTilt G4 Module. One free Micro USB cable for every 3 motorized shutters by default. If you need extra Micro USB cable, please input USB cable quantity when placing orders.	
Slotted Point Driver One for each louver section. Connect the Invisible Tilt / Easy Tilt and the Module; when fit the slotted point driver into the stile, make sure the angle is the same as that of the louvers.	
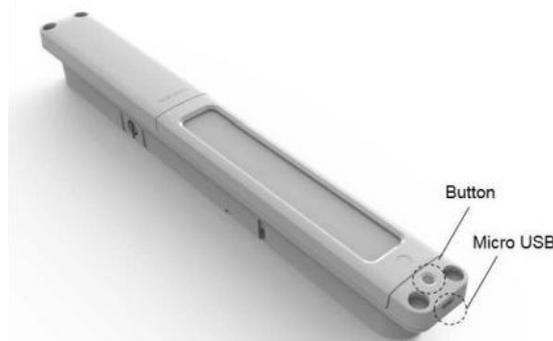
Norman Hub Color: Black Dimensions: 3.7"(94mm) diameter x 1.09"(27.8mm) **Micro USB cable** Color: Black Connect the Smart phone and the Norman hub, all shutters assigned to the remote can be controlled by APP via Norman hub. It is recommended one Hub be installed on each floor/level.	
Repeater Color: black Plug Repeater into the enclosed Power Adapter and then plug into home power supply. It is recommended to deploy each room with a repeater; If the distance is more than 32.8'(10 meters), add one more repeater.	

For your convenience, when ordered at the same time, the remote, hub and motor will be paired at the factory. A single remote can only be paired with 124pcs modules via a single hub.

** Group 1, 2 and 3:

- Factory default:

  * Windows on the right wall: Group 1

  * Windows on the center wall: Group 2

  * Windows on the left wall: Group 3

- Custom:If your desired pairing is different from the factory's default, specify at the time of ordering.

** Group 4 and Group 5 are reserved for default settings.

- If there's divider rail or split tilt:

  * Group 4 will be for all upper louver sections of all applicable shutters.

  * Group 5 will be for all lower louver sections of all applicable shutters.

- If there's no divider rail or split tilt, Group 4 will be for all shutters.

Note: Please select the shutters will be installed on right / center / left wall when placing orders, then the groups will be programmed well at factory.

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, the length for the cut-out would be 335mm (13.2").
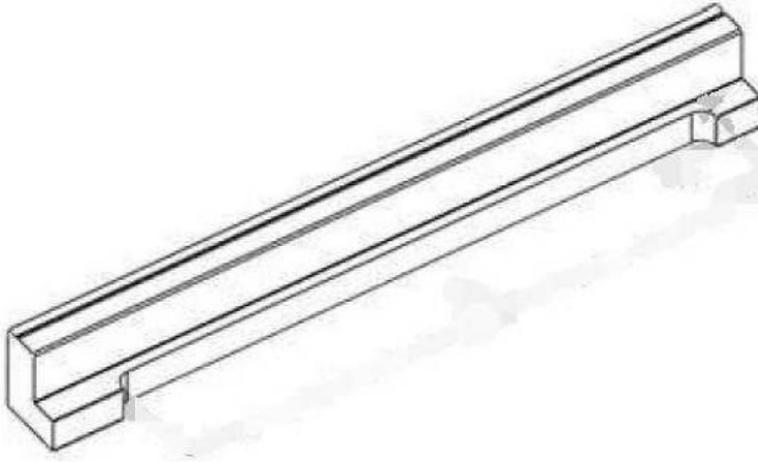

Clearance:

The module will protrude 5/8" from the back of the stile, please allow 11/16" clearance for the module.

Module Location: (Invisible Tilt will be on the same side as the module)

For regular shutters and bi-fold Applications (Except for 2014 bifold track):

1) Single Panel: Module will be on the un-hinge stile

2) 2 Panels: LL, LR, RR
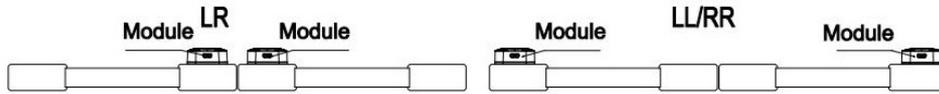
3) 3 Panels: LLL/RRR
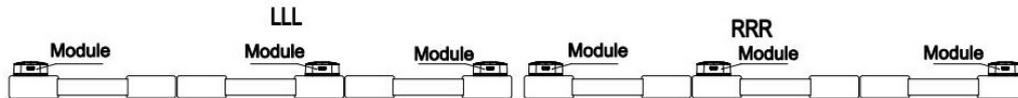
4) 4 Panels: LLRR/LLLL/RRRR
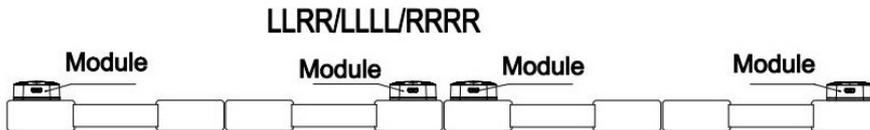
Given the need for module clearance, the following OM install frames will require either a build out or extension of at least 1/2" (12.7mm) when the modules must be located on the outermost stiles as outlined above:

1. Hang Strip (beside the panels)
2. L Frames with a light block thickness of less than 3/4" (19mm) installed flush with the window opening
3. All Deco Frames where the light block is installed flush with the window opening

Hang Strip
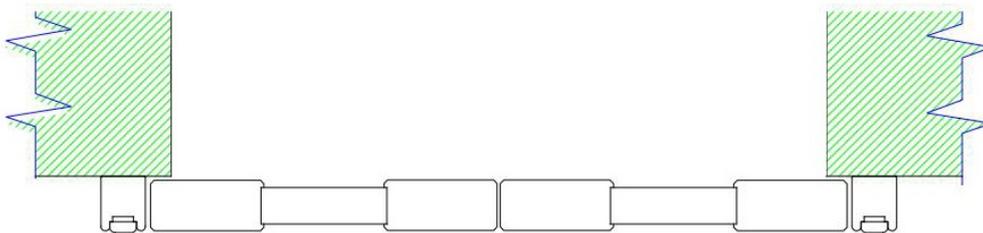
L Frames with a light block thickness less than 3/4" (19mm) flush with the window opening
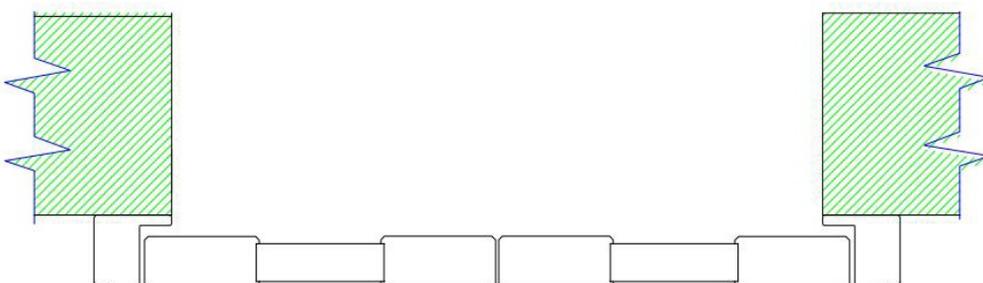
All Deco Frames with the light block flush with the window opening:

15.9mm [0.625"]   15.9mm [0.625"]

Side view for module in panel with different louver types

For non Ultra programs

63.5mm louver	76.2mm louver	88.9mm louver	114.3mm louver
2.5" louver	3" louver	3.5" louver	4.5" louver

19mm [0.75"]

25.4mm [1"]

31.7mm [1.25"]

44.4mm [1.75"]

For Ultra program

63.5mm louver	76.2mm louver	88.9mm louver	114.3mm louver
2.5" louver	3" louver	3.5" louver	4.5" louver

15.9mm [0.625"]

22.2mm [0.875"]

28.6mm [1.125"]

41.3mm [1.625"]
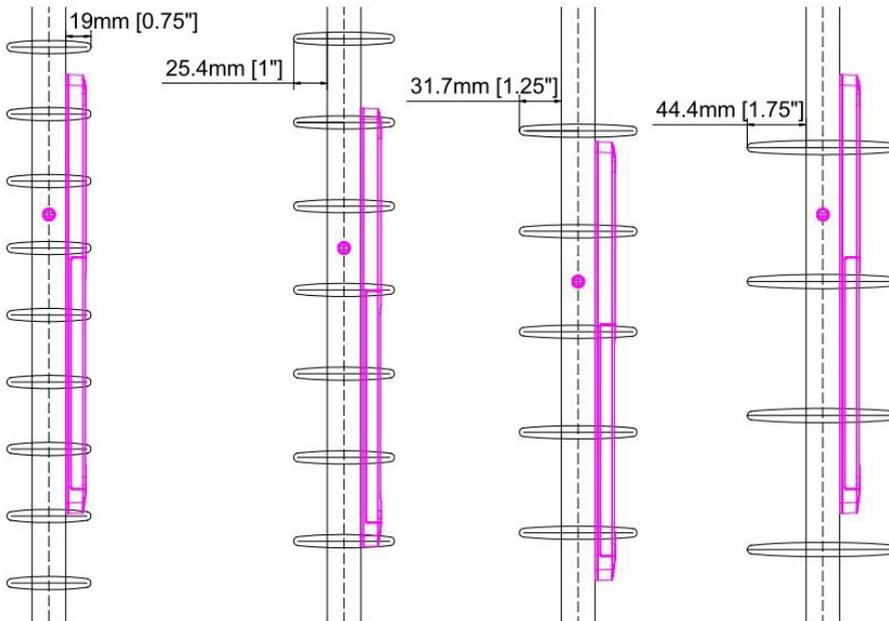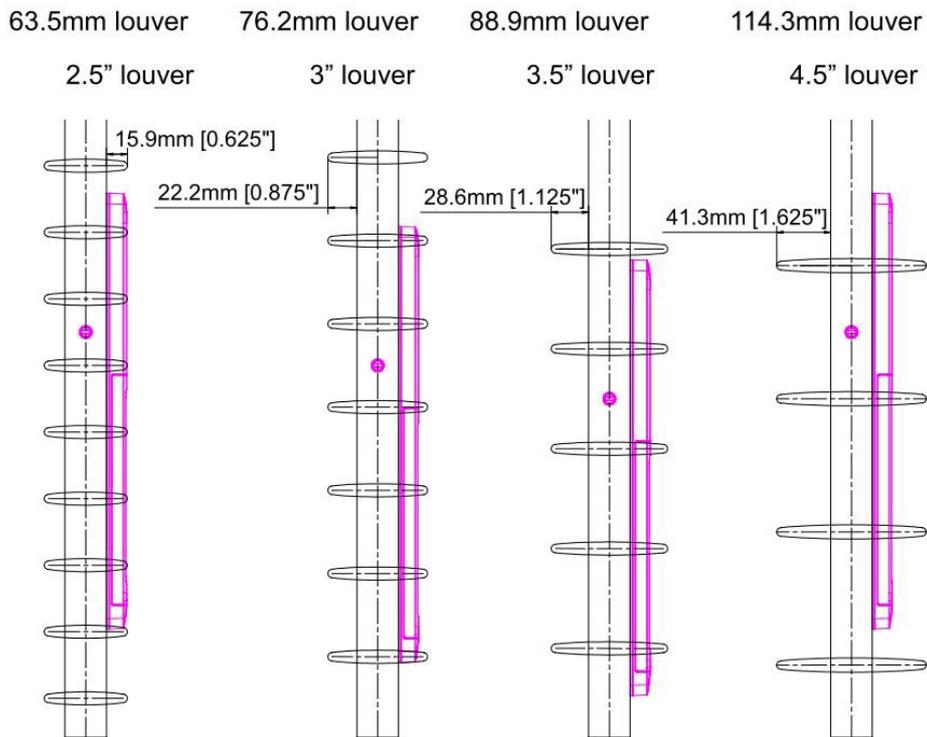
For Motorized 90° Bifold Track Shutter:

1)   Both 76.2mm (3") and 88.9mm (3.5") Header are available;

2)   The L Shape Light Block will be cut out 7.9mm (5/16") to avoid the confliction with the module;
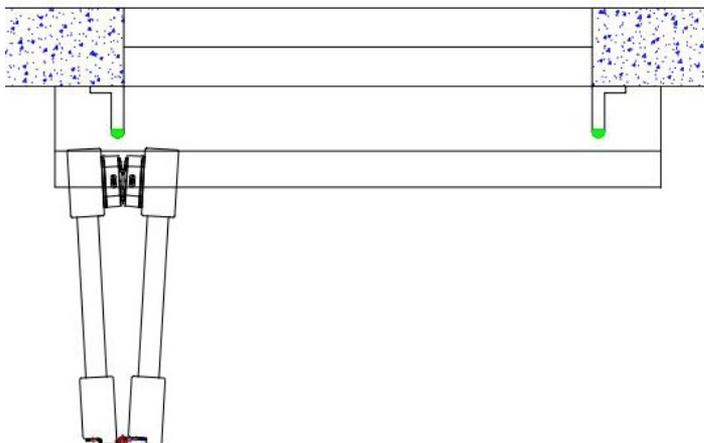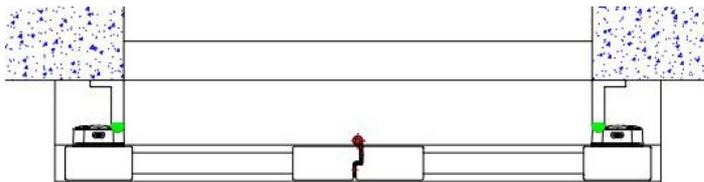
For Motorized 180° Bifold Track Shutter:

1)   The default header width is 88.9mm (3.5"); The min. Header width is 82.5mm (3.25"); so for 76.2mm (3") header, 6.35mm (0.25") extension is required for non-Ultra program.

2)   The header width is no less than 95.25mm (3.75"), the min. Header width is 95.25mm (3.75"); so for 89mm (3.5") header, 6.35mm (0.25") extension is required for Ultra program.

3)   The L Shape Light Block will be cut out 4mm (3/16") to avoid the confliction with the module; 5.1mm (0.2") extension is necessary for installation of the top and bottom pivots;

For 90° Bifold Track:

LL/RR

Module

LLRR

Module   Module

LLL

Module   Module

RRR
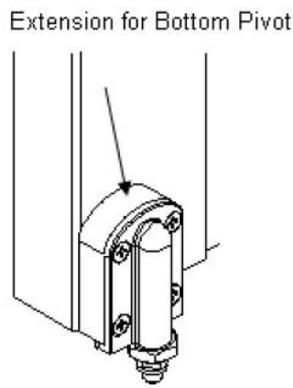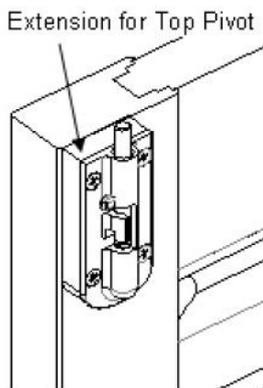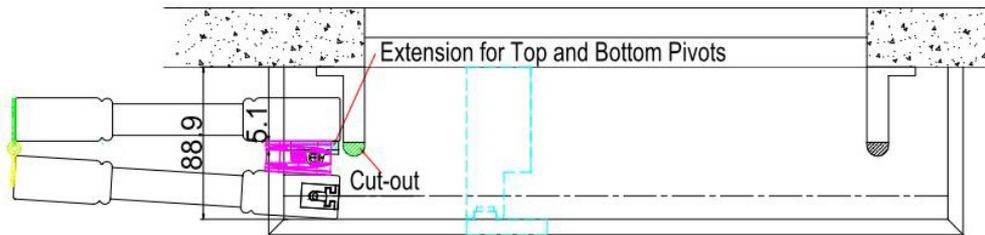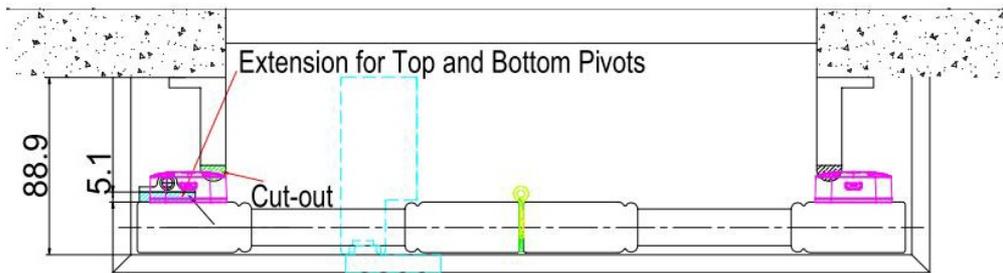
Module   Module
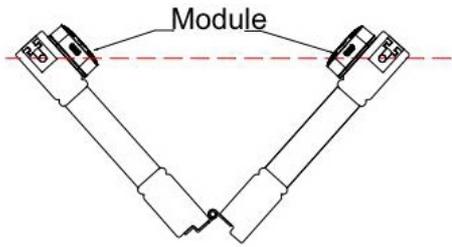
LLLL
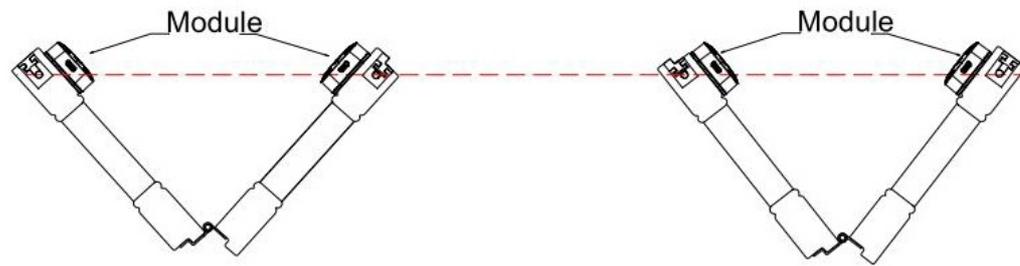
Module   Module
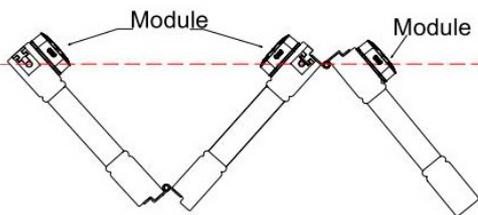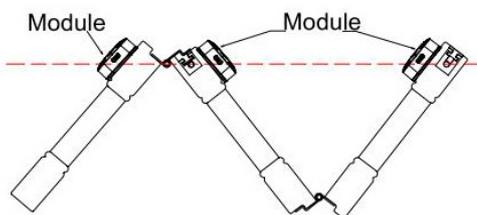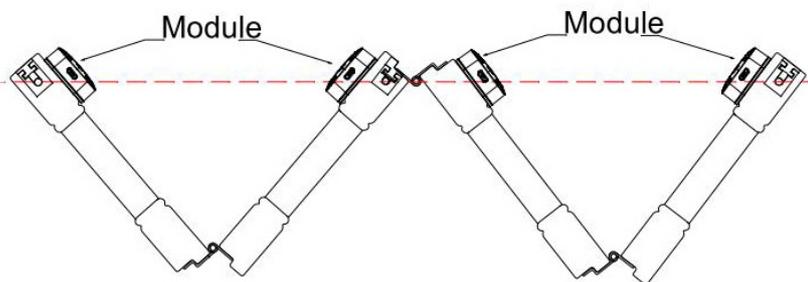
RRRR
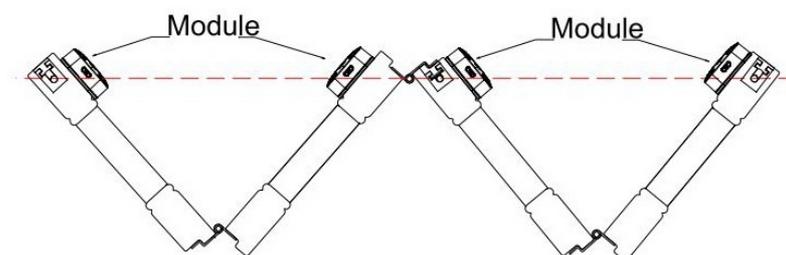
Module   Module

Special Note on Bi-fold or Multi-fold Configurations

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

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

For better fold, it is optional to have the modules staggered for bi-fold/multi-fold shutters.

However, for 180° bi-fold track shutter, the modules can only be staggered.
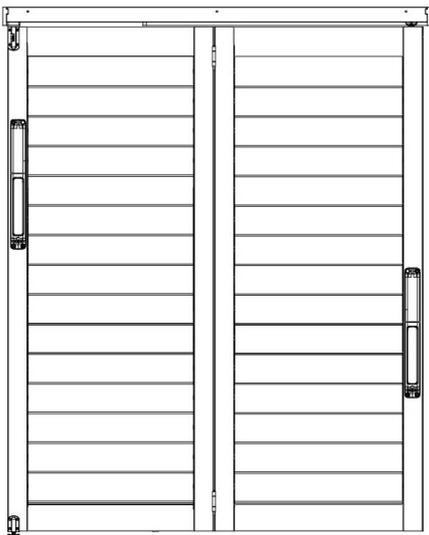
For By-Pass Application

2 panels side open

Module

Module
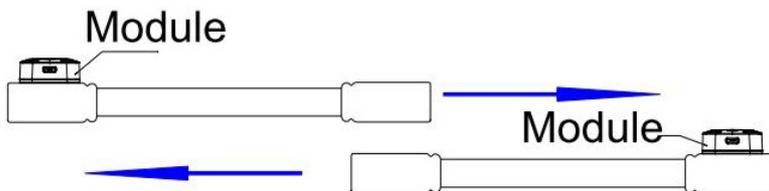
3 panels center open front (not available for Open Bypass)

Module   Module

Module
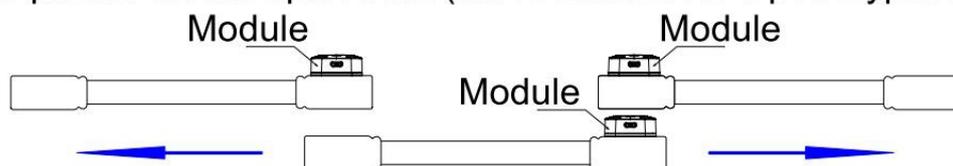
3 panels center open back (not available for Open Bypass)
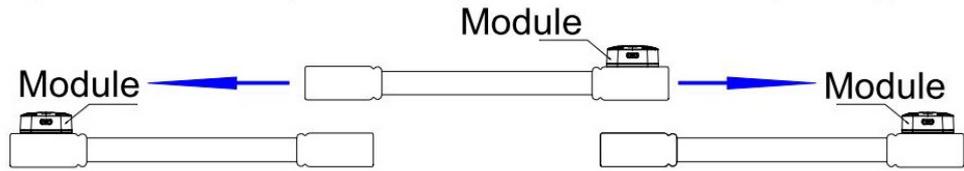
## 4 panels center open front
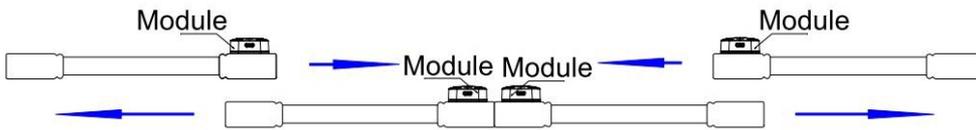

4 panels center open back
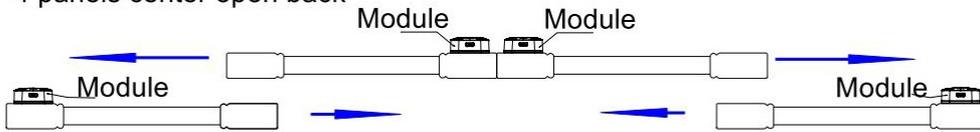

4 panels side open
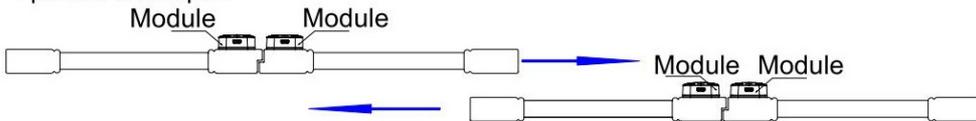
6 panels center open front
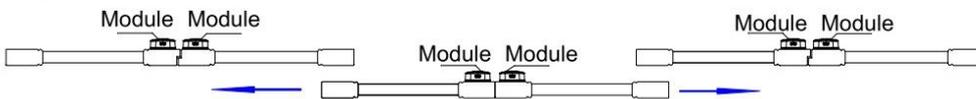
6 panels center open back
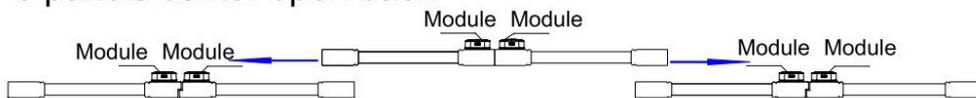
6 panels side open-right over left
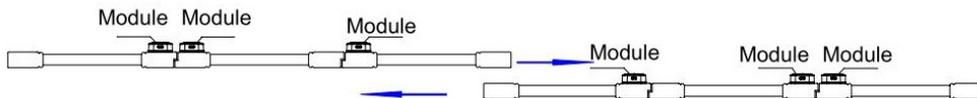
## 6 panels side open-left over right
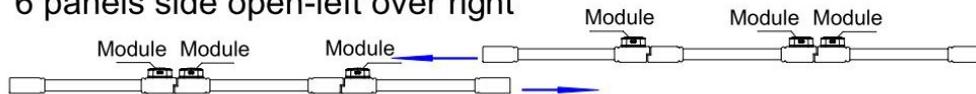
8 panels center open front

8 panels center open back

Module Module

Module Module

Module Module

Module Module

8 panels side open -right over left

Module Module
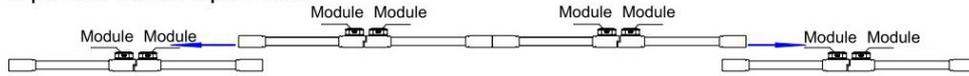
Module Module

Module Module
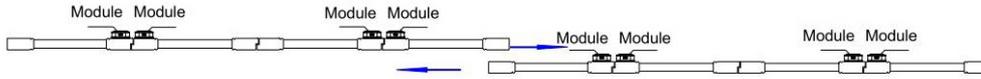
Module Module

8 panels side open- left over right

Module Module

Module Module

Module Module
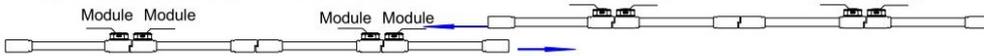
Module Module

For Special Shape Application:

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

SHUTTER LOOK FROM FRONT AND BACK

The front side of the shutter

The back side of the shutter
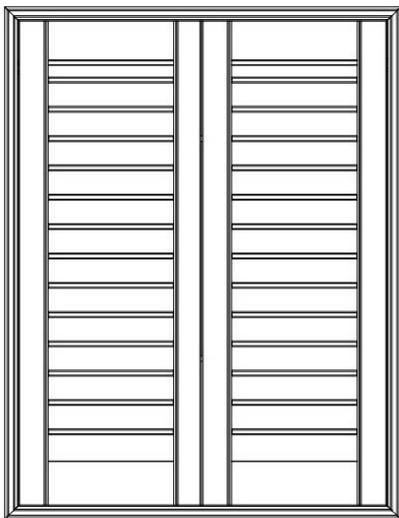
* No Receiver / Louver Cap
* Easy tilt only
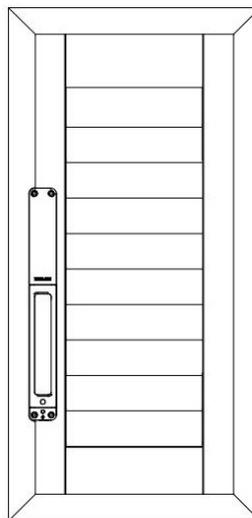
*The light block would be
cut out along the module.