TOSO

Motorized Roman Shade

Liberta Light

Made in Japan

- The compact design fits neatly into a small curtain box.
- Quiet operation as 36 dB.
- Synchronous operation enables perfect alignment even side by side units.

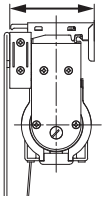
Liberta Light

Liberta Light's Unique Features

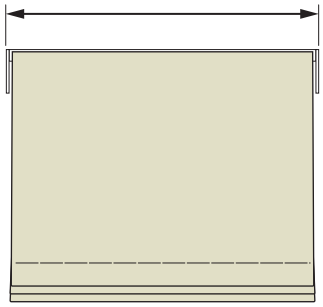
Compact design with a minimum width of 500 mm (19.7″).

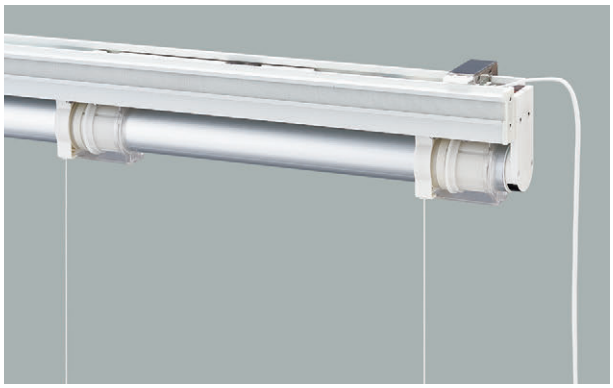
Due to the compact design of the Head Box, the minimum width is 500 mm (19.7″).
Possible to install on small windows.

Depth:
69 mm (2.7")



Minimum width:
500 mm (19.7")

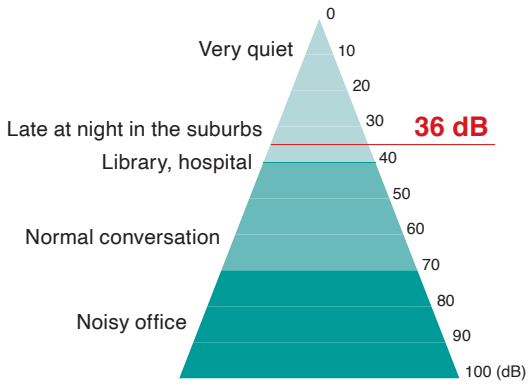




Very quiet operation sound: 36 dB

High quietness is suitable for bedrooms.

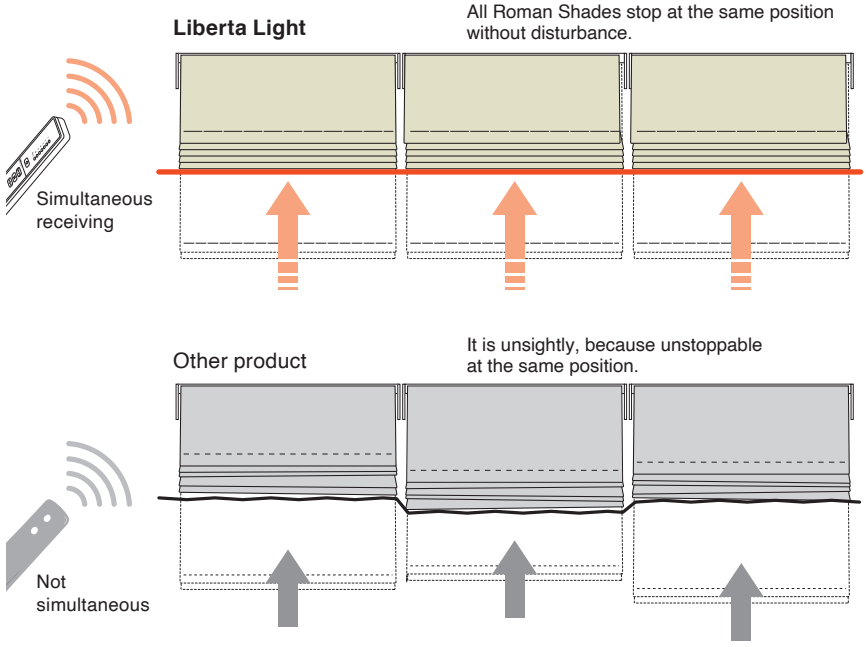
dB: A unit of loudness. To the human ear, a reduction of 10 dB is perceived as an approximately 50 percent reduction of loudness.



Neat Appearance

Synchronized operation

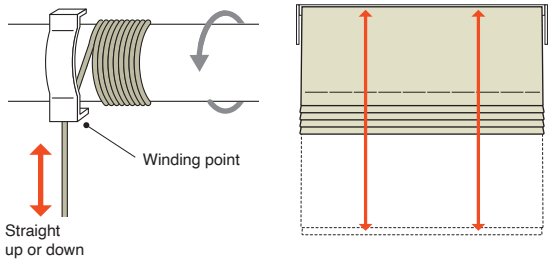
When operating shades of the same height side by side, each shade synchronize in the same height and speed.



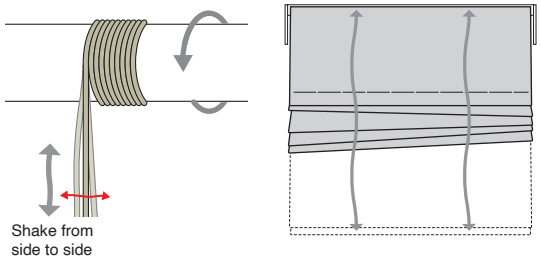
Single-point Coiling Drum

The Single-point Coiling Drum prevents entanglement when winding the Lift Cord.
As the shades move up and down, they do not move from side to side, so they move straight.

Liberta Light

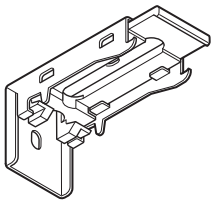


Other product

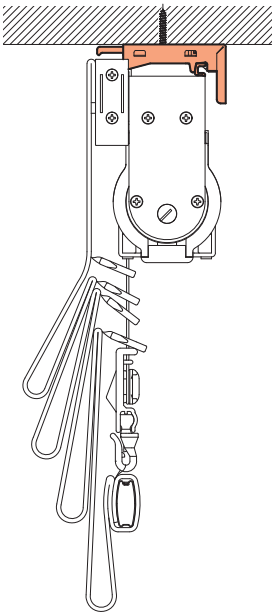


Universal Bracket

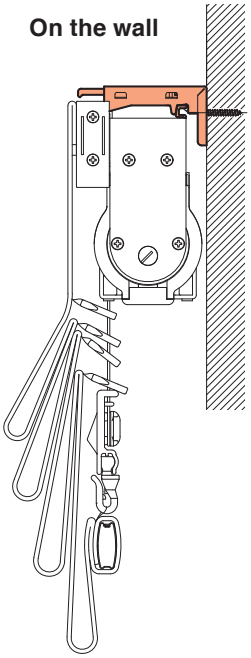
L-shaped bracket that can be used for both wall or ceiling attachment.



On the ceiling



On the wall



Motor Specifications

Power Source Voltage		V	AC100–240
Frequency		Hz	50 / 60
Rated Torque		Nm	0.94
Power Consumption	Operation	W	25
	Standby	W	0.5
Operating Voltage		V	DC 12
Operating Consumption		mA	1
Operating Temperature Range		°C	0 to 50 (without condensation)
Rated RPM		rpm	28 (default setting)
Operating Time		sec./m	13.7 (default setting)
Rated Running Time		sec.	120

Allowable Size

Style	Product Width	Product Height
Plain	500–3,000 mm (20–118")	500–3,000 mm (20–118")
Sharp (with Rod)	500–3,000 mm (20–118")	500–3,000 mm (20–118")
Balloon	500–3,000 mm (20–118")	500–3,000 mm (20–118")

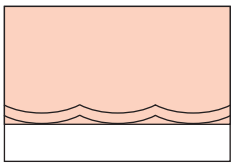
Maximum Screen Weight

3.8 kg (8 lb)

*Even if the desired dimensions are available, the excess weight may make it impossible to provide the desired shade.

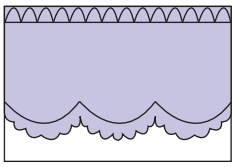
Style Lineup

Plain style

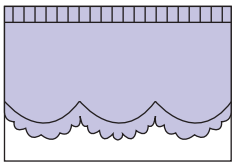


Sharp style (with rods)

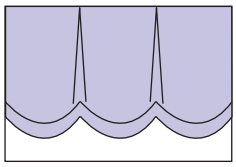
Balloon style (pleated)



Balloon style (gathered)



Balloon style (box)



Note: The Plain, Sharp (with Rods), and Balloon styles hang flat when lowered.

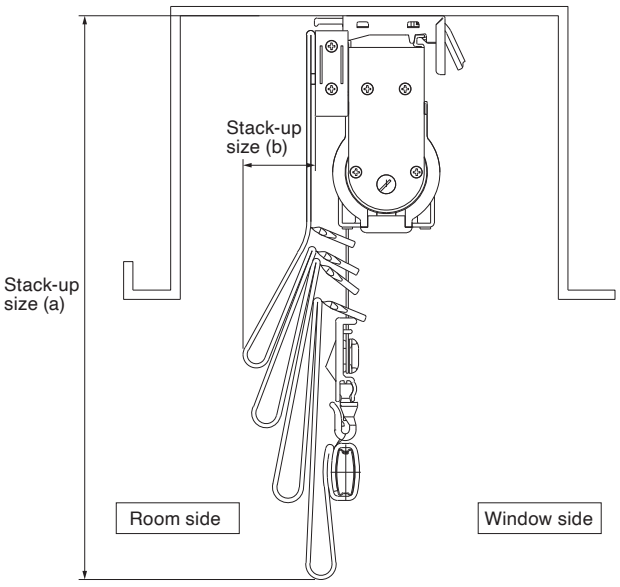
Calculation of Total Weight

Product Weight = (1) Unit Weight + (2) Screen Weight				
(1) Unit Weight	{ (1.7× W) / 1,000 mm } + 0.9 kg { (1.7× W) / 39" } + 0.9 kg			
(2) Screen Weight	a. Fabric Weight	Fabric Weight (kg / m^2) × { (W / 1,000 mm) × (H / 1,000 mm) } * Fabric Weight (kg / m^2) × { (W / 39") × (H / 39") } *		
	b. Components Weight	Plain	{ 0.28 × (W / 1000 mm) } + { 0.04 × (W / 1000 mm) × (H / 1000 mm) } { 0.28 × (W / 39") } + { 0.04 × (W / 39") × (H / 39") }	
		Sharp	{ 0.28 × (W / 1000 mm) } + { 0.23 × (W / 1000 mm) × (H / 1000 mm) } { 0.28 × (W / 39") } + { 0.23 × (W / 39") × (H / 39") }	
		Balloon	{ 0.09 × (W / 1000 mm) } + { 0.04 × (W / 1000 mm) × (H / 1000 mm) } + 0.16 kg { 0.09 × (W / 39") } + { 0.04 × (W / 39") × (H / 39") } + 0.16 kg	

*In case of Balloon style: Fabric Weight (kg / m^2) × 2 × { (W / 1,000 mm) × (H / 1,000 mm) } , Fabric Weight (kg / m^2) × 2 × { (W / 39") × (H / 39") }

Stack-up Guide

Style	Product Height	Recommended Ring Interval	Stack-up Height Dimension (a)	Stack-up Depth Dimension (a)
Plain	500–3,000 mm (20–118")	200 mm (7.9")	260 mm (10.2") + H / 80	80 mm (3.2")
Sharp	500–3,000 mm (20–118")	150 mm (5.9")	310 mm (12.2") + H / 30	100 mm (3.9")
Balloon	———	150 mm (5.9")	670 mm (26.4") + H / 60	200 mm (7.9")



Number of Swags and Number of Fabric Meter Required

Plain Style and Sharp Style

■ Number of Swags

Product Width	500 mm 19.7″	510–900 mm 20.1–35.4″	910–1,400 mm 35.8–55.1″	1,410–1,900 mm 55.5–74.8″	1,910–2,400 mm 55.9–94.5″	2,410–2,900 mm 94.9–114.1″	2,910–3,000 mm 114.5–118.1″
Number of Swag(s)	1	2	3	4	5	6	7

*For ordering, round down the nearest 10 mm (.39″) in width and height.

■ Calculation of Required Fabric

For Plain Fabric	Product height + 300 mm (11.8″)
For Required Vertical Pattern Matching *	Product height + 300 mm (11.8″) + 1 repeat vertical pattern

■ Others

For Required Horizontal Pattern Matching *	Fabric width – 1 repeat horizontal pattern (truncate the last two digits) = Effective fabric width ex.) fabric width: 1,300 mm (51″), 1 repeat horizontal pattern: 50 mm (1.9″) 1,300 mm (51″) – 50 mm (1.9″) = 1,250 mm (49″) → 1,200 mm (47″) = Effective fabric width
Horizontal Use Fabric	Effective fabric width = Product height + 300 mm (11.8″) or more Effective fabric width ≧ Product height + 300 mm (11.8″) Number of fabric meter required = Product width + 200 mm (7.9″)

*For patterned fabrics, specify the position of the pattern.

Calculation example

Product width 1,800 mm (71″) × Product height 1,600 mm (63″)—Fabric width: 1,000 mm (39.3″), for plain fabric (no pattern matching required)
Number of fabric meter required
Required fabric length [1,600 mm (63″) + 300 mm (11.8″)] ÷ 1,000 × Required number of fabrics (2 sheets) = 3.8 m (150″)

Balloon Style 

■ Number of Swags

Product Width	500–600 mm 19.7–23.6″	610–1,200 mm 24.0–47.2″	1,210–1,700 mm 47.6–66.9″	1,710–2,200 mm 67.3–86.6″	2,210–2,700 mm 87.0–106.2″	2,710–3,000 mm 106.6–118.1″
Number of Swag(s)	1	2	3	4	5	6

*For ordering, round down the nearest 10 mm (.39″) in width and height.

■ Calculation of Required Fabric

For Plain Fabric	With frills: Product height + 700 mm (27.5″) No frills: Product height + 300 mm (11.8″)
For Required Vertical Pattern Matching *	With frills: Product height + 700 mm (11.8″) + 1 repeat vertical pattern No frills: Product height + 300 mm (11.8″) + 1 repeat vertical pattern

■ Others

For Required Horizontal Pattern Matching *	Fabric width – 1 repeat horizontal pattern (truncate the last two digits) = Effective fabric width ex.) fabric width: 1,300 mm (51″), 1 repeat horizontal pattern: 50 mm (1.9″) 1,300 mm (51″) – 50 mm (2.0″) = 1,250 mm (49″) → 1,200 mm (47″) = Effective fabric width
Horizontal Use Fabric	With frills: Effective fabric width = Product height + 700 mm (27.5″) or more No frills: Effective fabric width = Product height + 300 mm (11.8″) or more With frills: Effective fabric width ≧ Product height + 700 mm (27.5″) No frills: Effective fabric width ≧ Product height + 300 mm (11.8″) Gathered or pleated: Number of fabric meter required = Product width × 2 + 400 mm (15.7″) Box: Number of fabric meter required = Product width × 2 + 200 mm (7.9″)

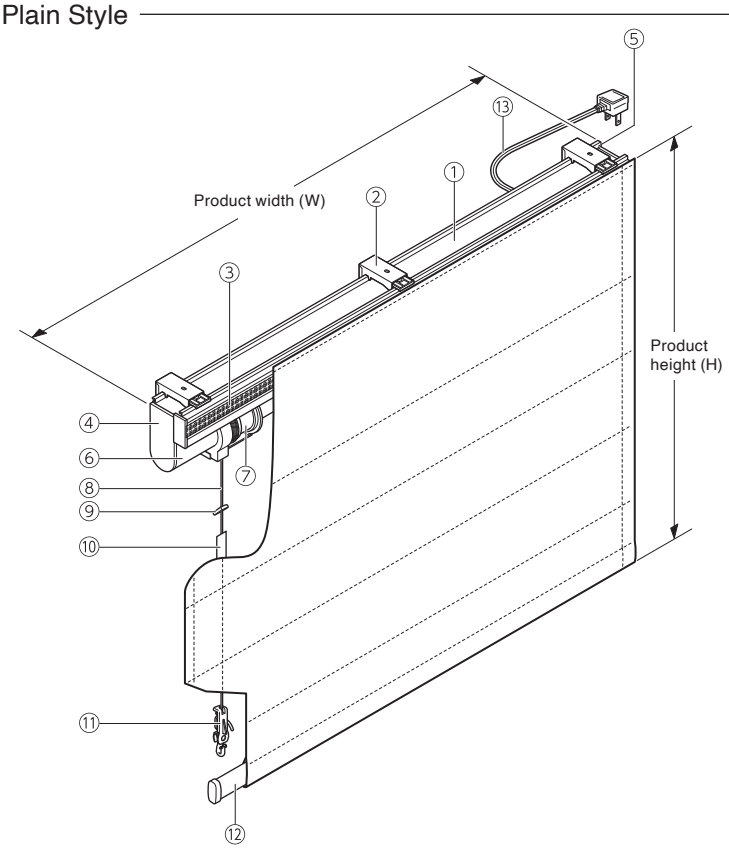
*For patterned fabrics, specify the position of the pattern.
*The folds of the box are no frills.

Calculation example

Product width 2,300 mm (90″) × Product height 2,000 mm (79″)—Fabric width: 1,000 mm (39″), for plain fabric (no pattern matching required)
Number of fabric meter required
With frills: Required fabric length [2,000 mm (79″) + 700 mm (27.5″)] ÷ 1,000 × Required number of fabrics (6 sheets) = 16.2 m (637″)
No frills: Required fabric length [2,000 mm (79″) + 300 mm (11.8″)] ÷ 1,000 × Required number of fabrics (6 sheets) = 13.8 m (543″)

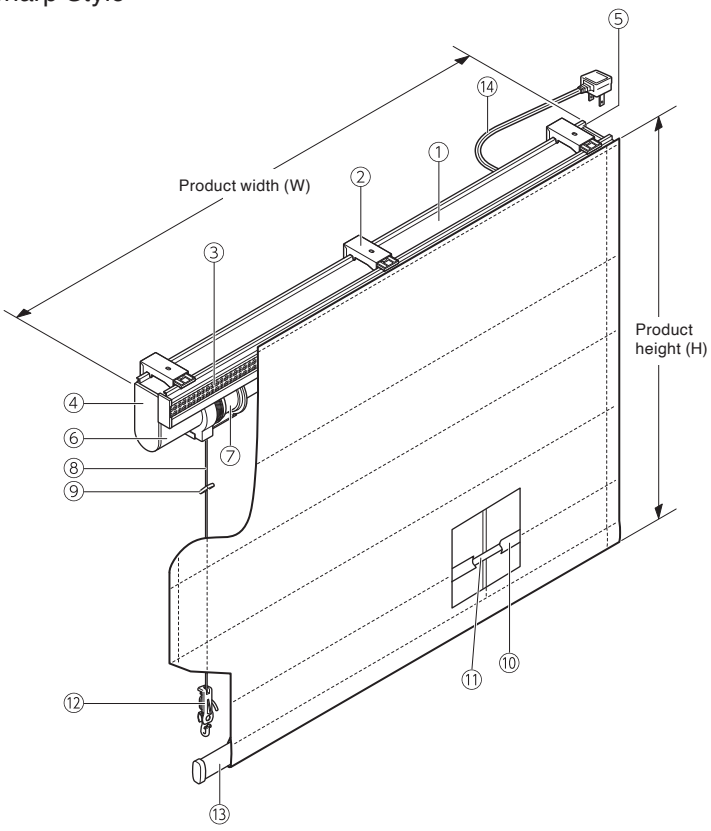
Structure Drawing in Each Style

Plain Style



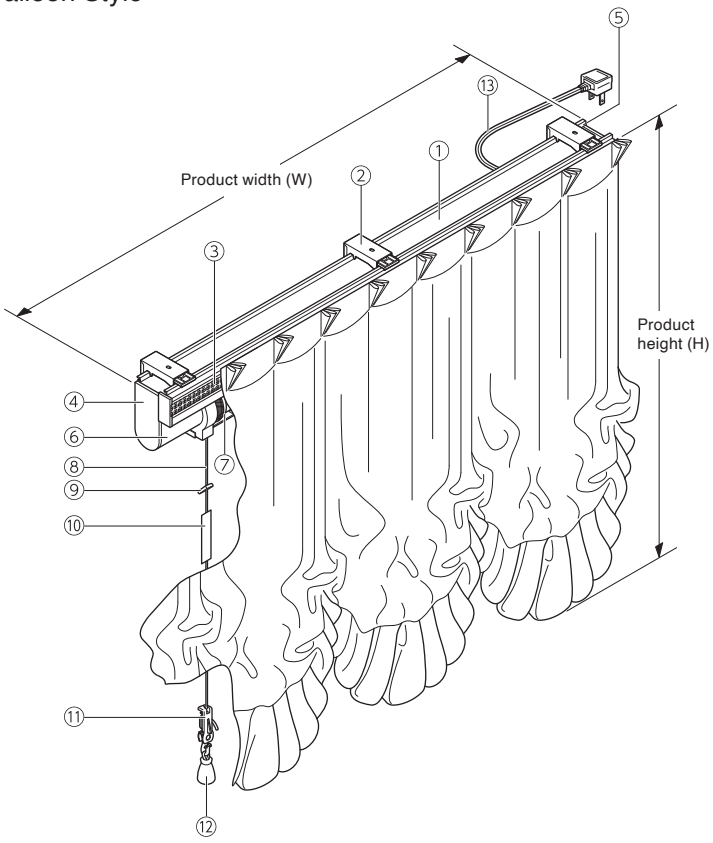
No.	Product Name	Materials/ Specifications	Color
①	Head Rail	Aluminum	White
②	Bracket	Stainless, molded resin	Silver
③	Slide-in Velcro	Chemical fiber	White
④	Side Holder	Steel, molded resin	White, silver
⑤	Side Holder with Motor	Steel, molded resin	White, silver
⑥	Roller Pipe	Aluminum	Silver
⑦	Coiling Drum	Molded resin	White
⑧	Lifting Cord	Chemical fiber	White
⑨	RS S-shaped Ring for Cord S	Molded resin	Clear
⑩	RS Tape with Loop	Chemical fiber	Clear
⑪	RS Cord Adjuster S	Molded resin	Clear
⑫	Weight Bar	Steel	White
⑬	Power Supply	HVFF0.75sq × 2 (2 m, 3 m)	White

Sharp Style



No.	Product Name	Materials/ Specifications	Color
①	Head Rail	Aluminum	White
②	Bracket	Stainless, molded resin	Silver
③	Slide-in Velcro	Chemical fiber	White
④	Side Holder	Steel, molded resin	White, silver
⑤	Side Holder with Motor	Steel, molded resin	White, silver
⑥	Roller Pipe	Aluminum	Silver
⑦	Coiling Drum	Molded resin	White
⑧	Lifting Cord	Chemical fiber	White
⑨	RS S-shaped Ring for Cord S	Molded resin	Clear
⑩	RS Shaper Tape S	Chemical fiber	White, beige, gray, brown
⑪	RS Shaper Rod	Molded resin	White
⑫	RS Cord Adjuster S	Molded resin	Clear
⑬	Weight Bar	Steel	White
⑭	Power Supply	HVFF0.75sq × 2 (2 m, 3 m)	White

Balloon Style

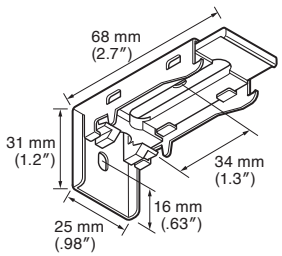


Product Length	Frill Length
500—2,200 mm (20–87”)	120 mm (5”)
2,210—3,000 mm (87–118”)	160 mm (6”)

No.	Product Name	Materials/ Specifications	Color
①	Head Rail	Aluminum	White
②	Bracket	Stainless, molded resin	Silver
③	Slide-in Velcro	Chemical fiber	White
④	Side Holder	Steel, molded resin	White, silver
⑤	Side Holder with Motor	Steel, molded resin	White, silver
⑥	Roller Pipe	Aluminum	Silver
⑦	Coiling Drum	Molded resin	White
⑧	Lifting Cord	Chemical fiber	White
⑨	RS S-shaped Ring for Cord S	Molded resin	Clear
⑩	RS Tape with Loop	Chemical fiber	Clear
⑪	RS Cord Adjuster S	Molded resin	Clear
⑫	Weight Bar	Lead	White
⑬	Power Supply	HVFF0.75sq × 2 (2 m, 3 m)	White

Component Drawing

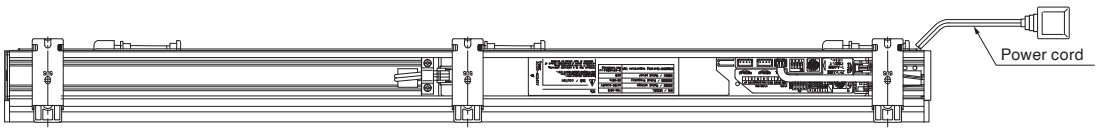
Bracket — Universal Design (for Wall or Ceiling)



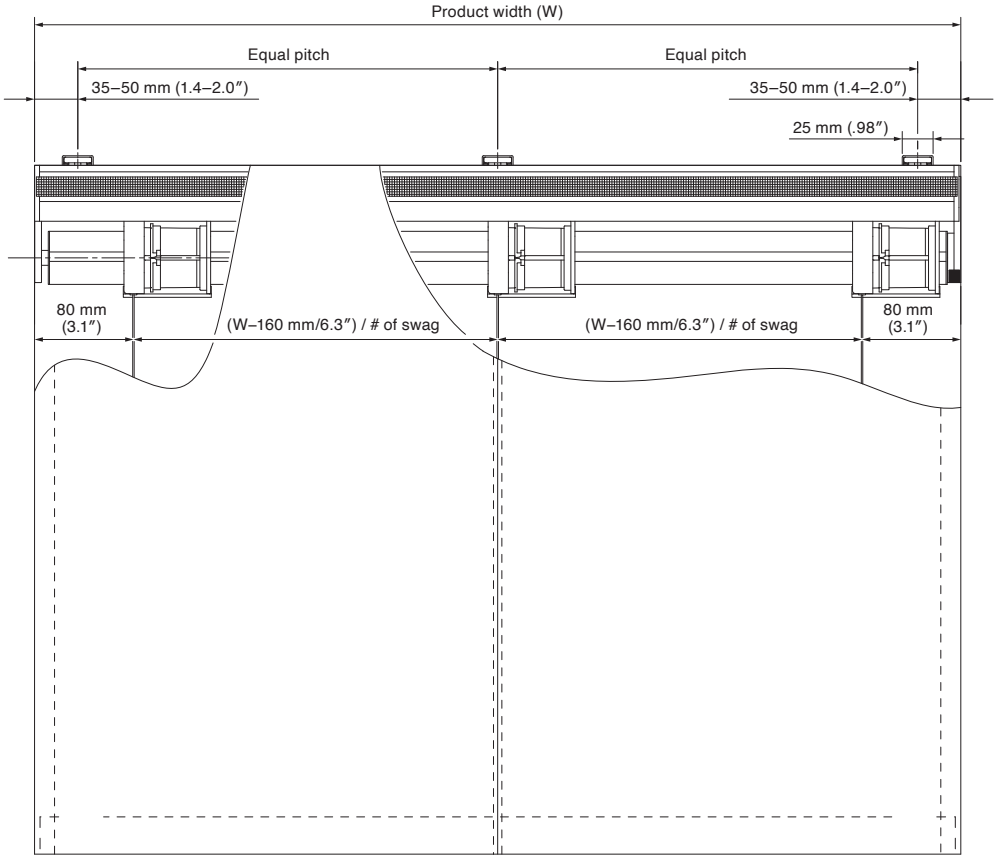
Product Width	Quantity
500— 900 mm (20–35″)	2
910— 1,800 mm (36–70″)	3
1,810— 2,700 mm (71–106″)	4
2,710—3,000 mm (107–118″)	5

Product Drawing

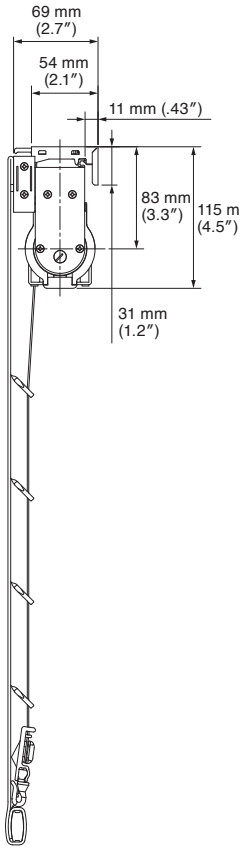
Plan



Elevation Plan

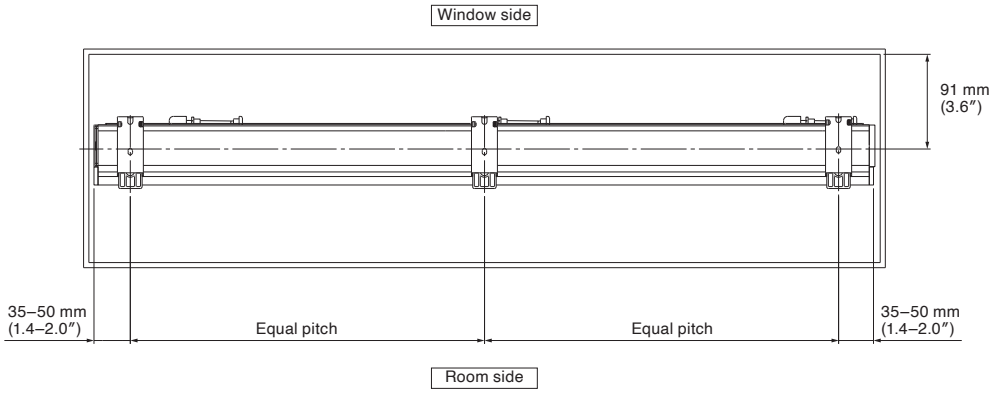


Section Plan

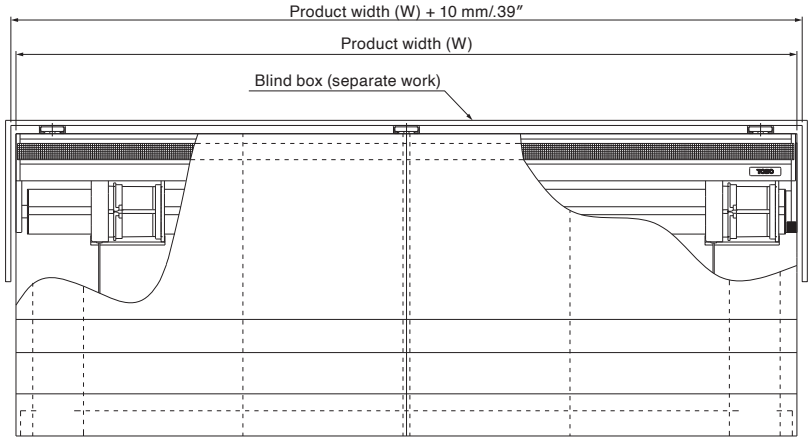


Overall Structure Drawing

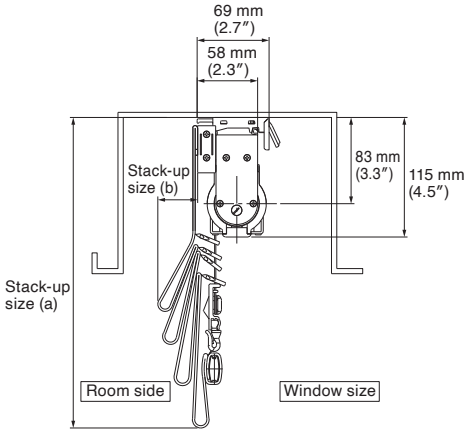
Plan



Elevation Plan

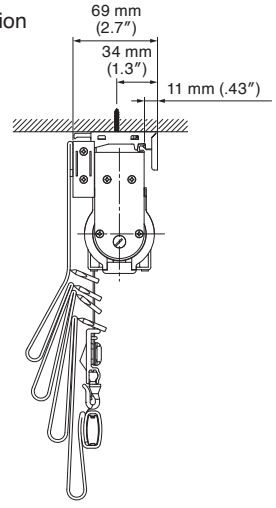


Section Plan

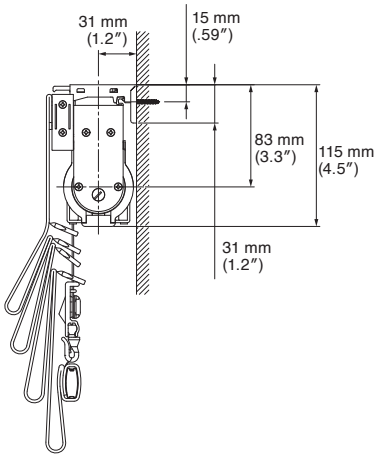


Section Plan 2

Ceiling Installation

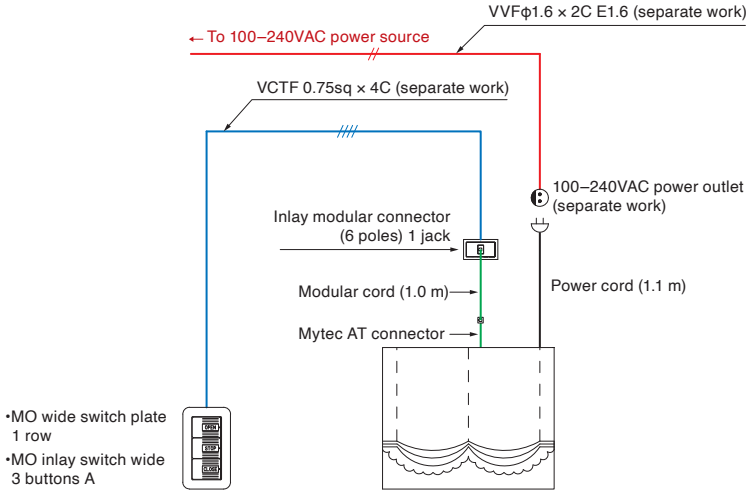


Wall Installation

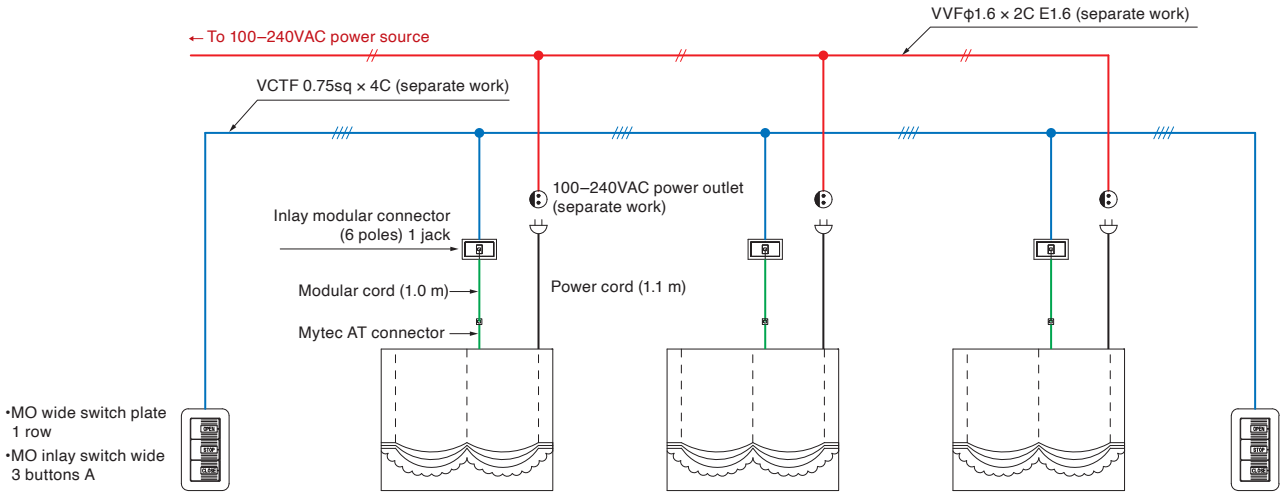


Basic Wiring Diagram

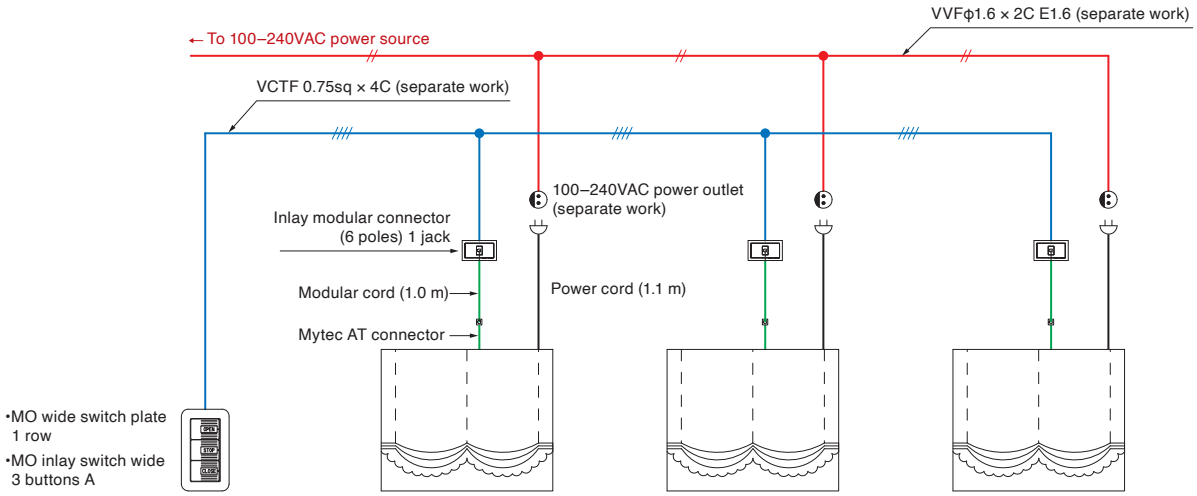
Single Operation



Operation from Two Locations

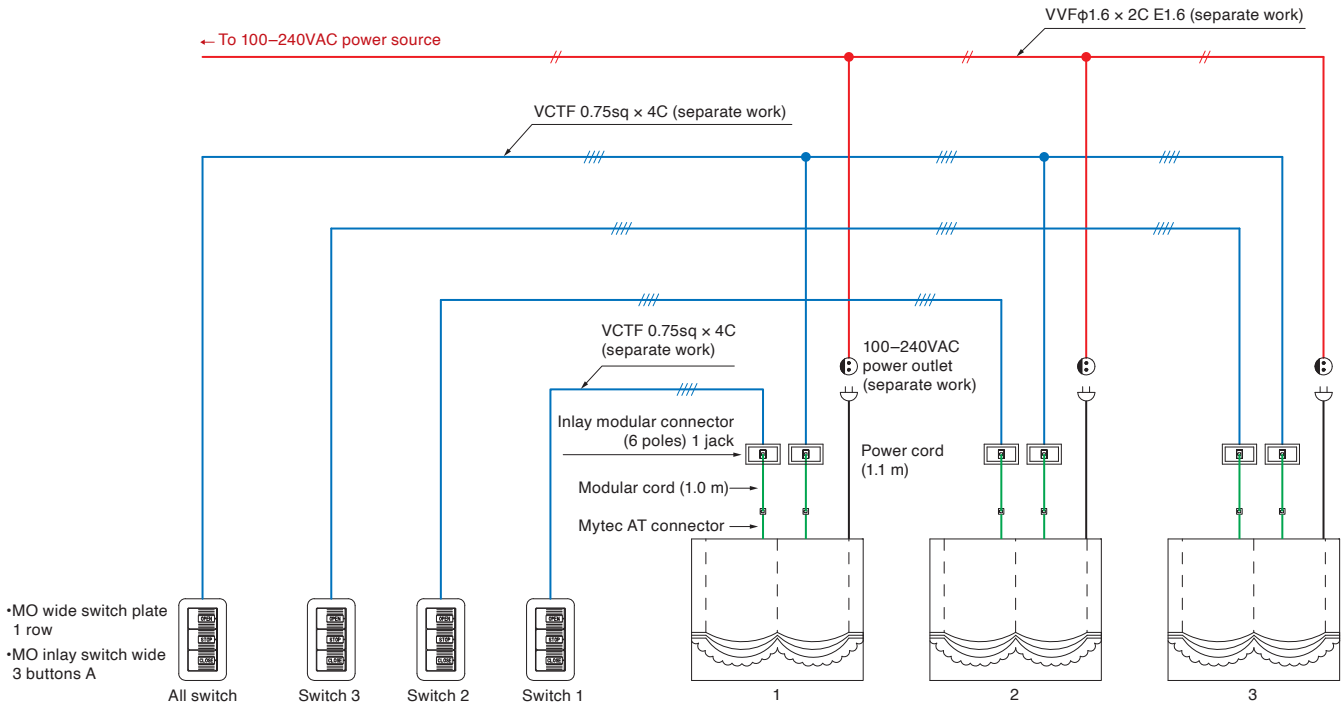


Simultaneous Operation

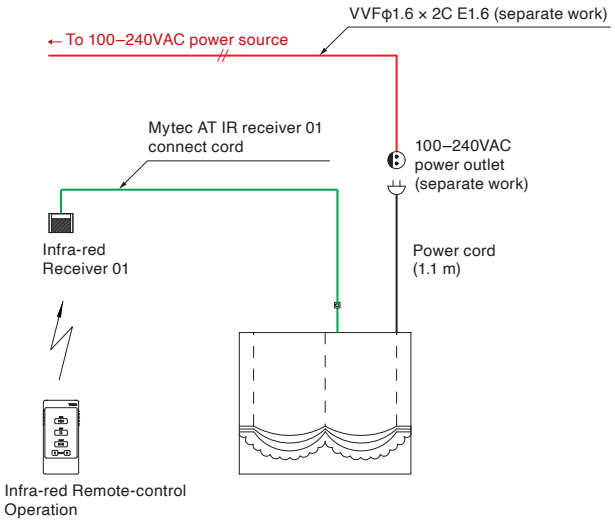


Explanatory notes: Power supply, Low voltage control line, TOSO standard (order separately), Main body attachment

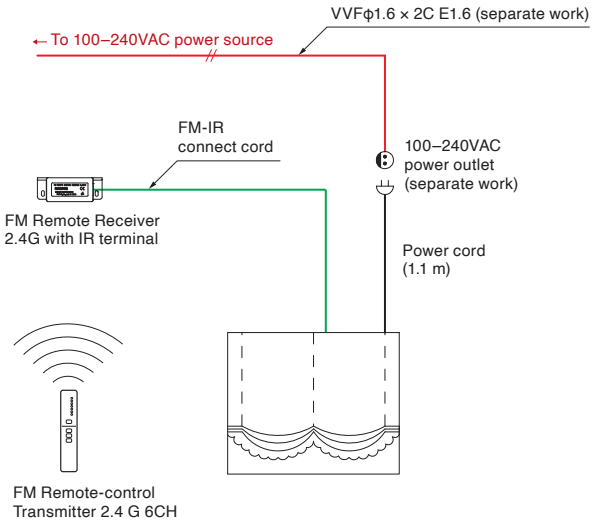
Simultaneous Operation for Select



Infra-red Remote-control Operation



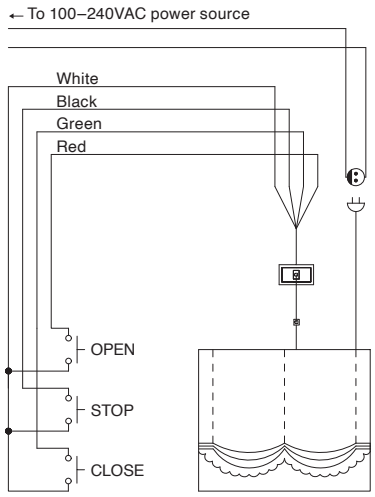
FM Remote-control Operation



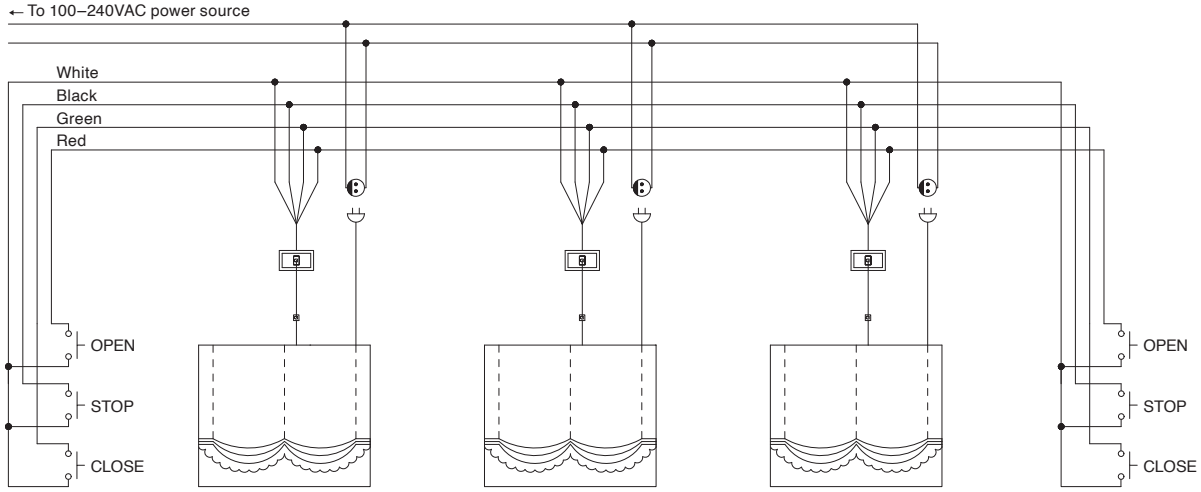
Explanatory notes: Power supply, Low voltage control line, TOSO standard (order separately), Main body attachment

Basic Connecting Diagram

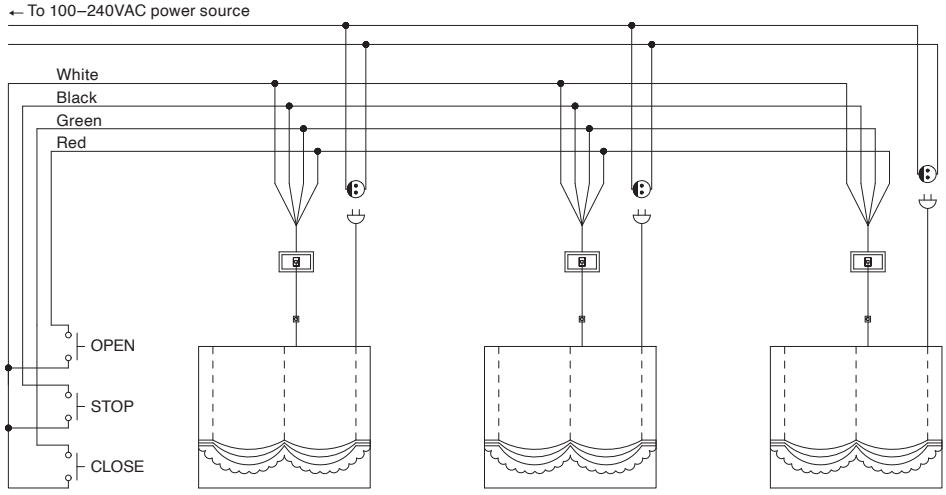
Single Operation



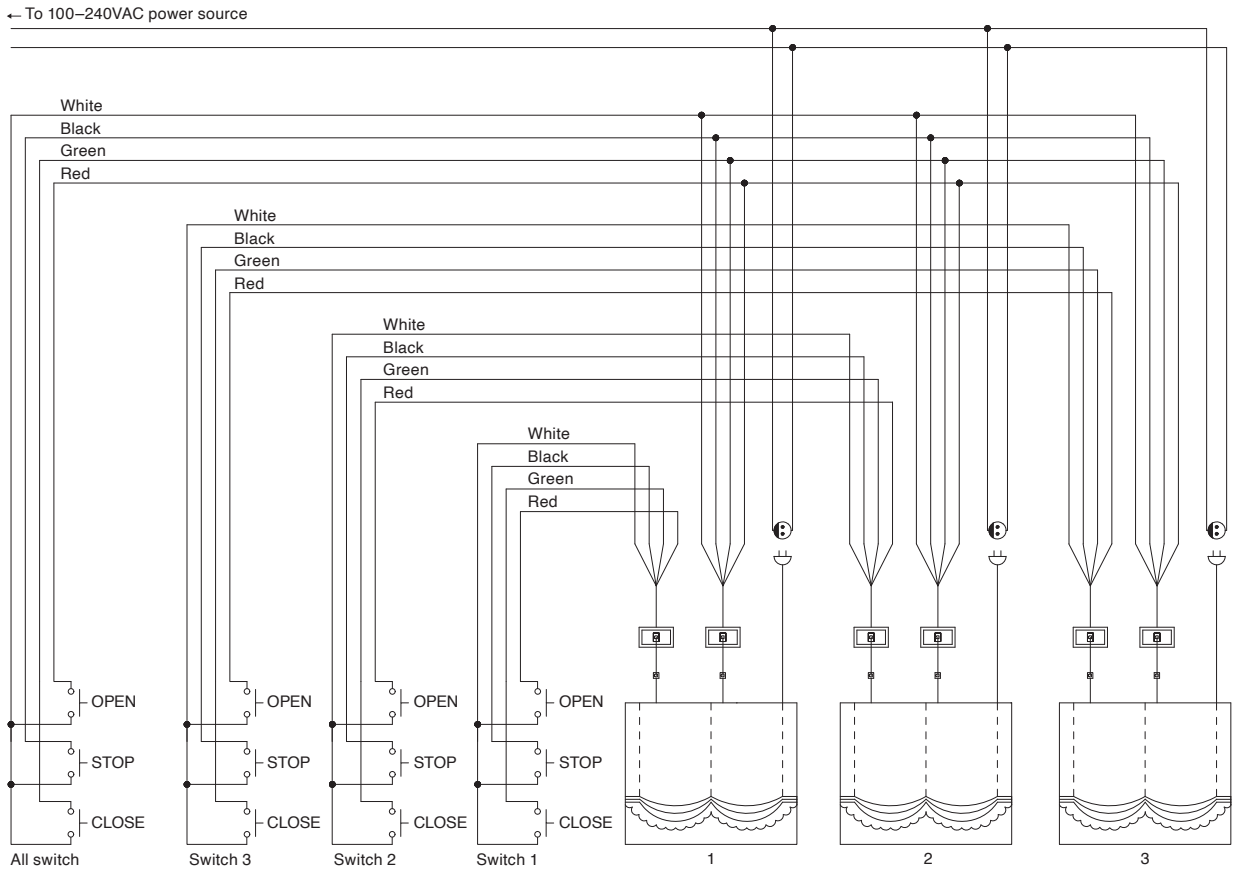
Operation from Two Locations



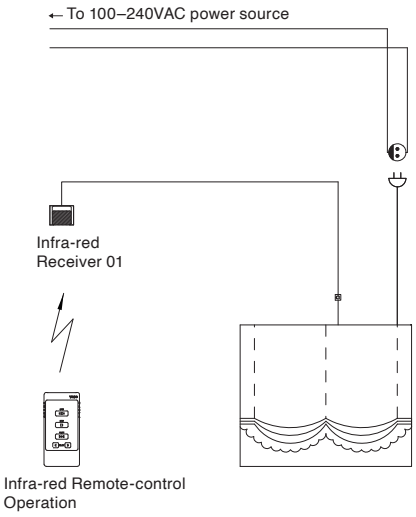
Simultaneous Operation



Simultaneous Operation for Select



Infra-red Remote-control Operation



FM Remote-control Operation