

# ElectroShade® Motorized Shade System – Table of Contents

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# The ElectroShade® Motorized Shade Systems



**ElectroShade®** was the first commercialized motorized shade system in which the motor resides within the roller tube (1976). ElectroShades are ideal for conference rooms and other VIP spaces, public spaces, high bay windows and atriums and where accessibility is a problem. Utilizing MechoShade Controls, ElectroShades can provide a uniform aesthetic appearance on the building facade, helping to protect the overall architectural design. They are also ideal for green building design, using AAC SolarTrac™ for controlled solar shading, maximizing daylighting and view, while reducing energy consumption caused by excessive solar heat-gain.

ElectroShades are available in 120VAC or 220/230VAC 50/60 Hz, meet all world-wide standards and can be controlled by a variety of standard and optional control systems.

ElectroShades have a Limited Lifetime Warranty on the hardware and shade cloth,



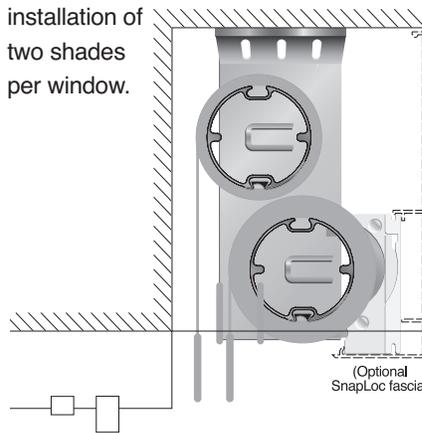
and a 5-Year Limited Warranty on all motors and electronics\*.

## ElectroShades feature:

### ❑ Energy-Conserving ShadeCloths.

ElectroShades offer the most extensive line of sun screens and blackout shade cloths in the industry. ThermoVeil®, EuroVeil® and EuroTwill™ Shade-Cloths provide visually transparent shading, with excellent glare control, energy savings and reduction in solar gain. Densities range from 0 to 15% openness factor, translucent to highly transparent. **Plus, we offer 96" (244cm) and 126" (320cm) SuperWide™ widths on select items.** (See Section 5 – ShadeCloths for details.)

❑ **DoubleShade® brackets** allow for both sun screens and blackout shades on a single bracket in a compact space for faster, easier, more economical installation of two shades per window.



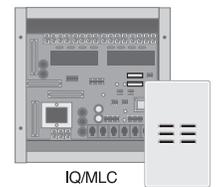
❑ **Multi-Band Operation** of up to 5 shade bands with a single motor for straight or faceted windows with up to 45° offset (22-1/2° each side) available.

❑ **SnapLoc® Fascia** (optional) — Conceals the entire shade assembly and may be used as a continuous one-piece architectural element to cover one or more shadebands without exposed hardware.

❑ **SnapLoc® Spline** for easy installation, removal and cleaning of the shadebands without tape or glue and without having to remove the tube or brackets.

❑ **Full Line of Optional Accessories.** Ceiling pockets, blackout sill and side channels and other optional accessories. (See Pockets and Room Darkening sections.)

❑ **Controls:** MechoShade Systems, Inc. offers controls designed to provide integrated solutions for Commercial, Lighting, A/V and Home Theatre. From sun activated, remote and wireless control, local and group control, mid-window alignment and specifiable intermediate stop positions to the ultimate in facade control and energy management.



(\*See Section 4: Control Systems.)

# Introducing QSS™ and QSX™ – The Quiet Shade Systems



Both, the QSS™ and the QSX™ ElectroShade Shading Systems are being used and tested in the New York Times headquarters mock-up in College Point Queens, NY.

New York Times Headquarters  
– New York City, NY

Renzo Piano, Architect  
Fox and Fowle, Local Architects  
Gensler, Interior Architects

MechoShade® Systems, Inc., the leading provider of window management systems for over 35 years, has introduced acoustical changes across its entire ElectroShade® line. All ElectroShades will reduce noise by 40% or more. For additional noise reduction, the optional Quiet Shade System (QSS™) enhancements allow motorized shading systems to be 50 to 85 percent quieter than comparable, untreated systems. For an even quieter environment, our QSX™ option is being offered. The QSX decreases the noise level by OVER 85%.

Both, the QSS and the QSX technology takes the same, high quality, high torque motors that have been successfully utilized for over 30 years, and applies acoustic dampening and other techniques to reduce the sound of our motorized shades.

QSS builds upon the flexibility and time-tested reliability of MechoShade's ElectroShade motorized shade systems, making them equally at home in commercial office, health-care or residential applications. Coupled with MechoShade System's line of low voltage electronic controls, QSS incorporates assured alignment and automation through

a variety of control solutions and integration into third-party lighting, HVAC, A/V and BMS systems, as well as a variety of third-party decorative switches and user interfaces. QSS also supports the company's full range of mounting hardware, accommodating a variety of configurations including single-banded, multi-banded, DoubleShade™ and accessories such as its 4113 pockets, fascias and room darkening side channels.

ElectroShade with QSS have a 5-year non-depreciating warranty on motors and controls, and a Lifetime Limited Warranty on non-motorized components including shade cloth, tubes and hardware.



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# Broad Range of ElectroShade® Capability

ElectroShades offer the most extensive range of solutions for your project requirements. ElectroShades can handle jobs large and small, angled windows, high bay windows and atriums where accessibility is a problem.

- ElectroShade's <16° and <45° Center Supports can accommodate angled or faceted bay window applications.
- ElectroShades can integrate with the IQ/MLC™ Mid-Window Alignment System, remote control, sun activated sensors and timers. They can also be integrated with the AAC SolarTrac™ computerized solar tracking system for the ultimate in controlled solar shading systems.
- Shade heights of up to 50 feet (1524cm) high are possible with custom brackets.

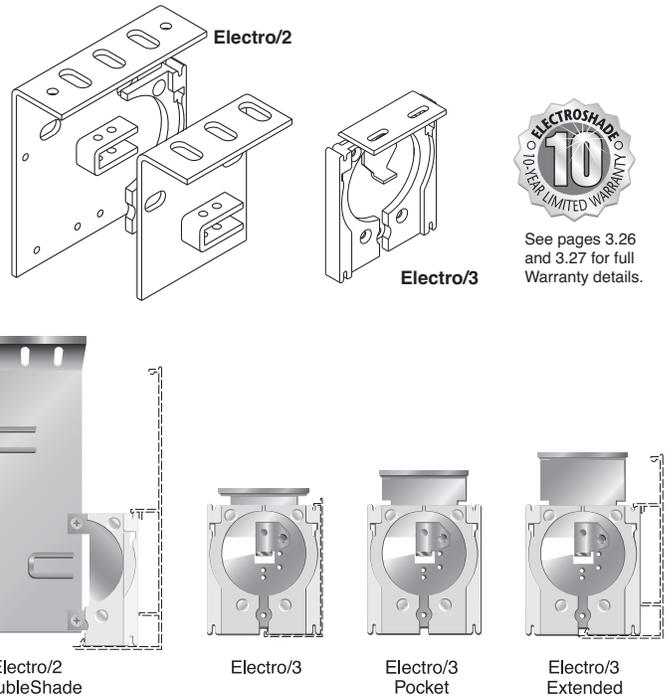
## Electro®/1 and Electro®/2

- Electro/1 and 2 are available in Standard, Extended DoubleShade® bracket models with a 50mm tubular motor and the new RTS motor for wireless switch control.
- Shades up to 180" wide by 220" high (457cm W x 559cm H) are possible with Electro/1 and 2 Extended brackets
- Electro/2 is designed to work with our optional SnapLoc® Fascia to entirely conceal the shade assembly in an exposed installation.
- Mecho® Extended manual shades and Electro/2 motorized shades can be mixed under one continuous compact fascia.

## Electro®/3

Electro/3 is ideal for smaller conditions which can show up anywhere including conference rooms, offices, cafes and boutiques, hospitals and residences.

- Electro/3 is available in Standard, Pocket, Extended and DoubleShade models with a 40mm tubular motor. (RTS not available)
- Shades up to 90" wide by 220" high (229cm W x 559cm H) are possible with Electro/3 Extended brackets.
- Electro/3's smaller size allows it to fit in tighter spaces, subject to maximum roll up diameters.
- Mecho® manual shades and Electro/3 motorized shades can be mixed under one continuous compact fascia.
- Electro/3 accepts blackout channels and most MechoShade accessories.

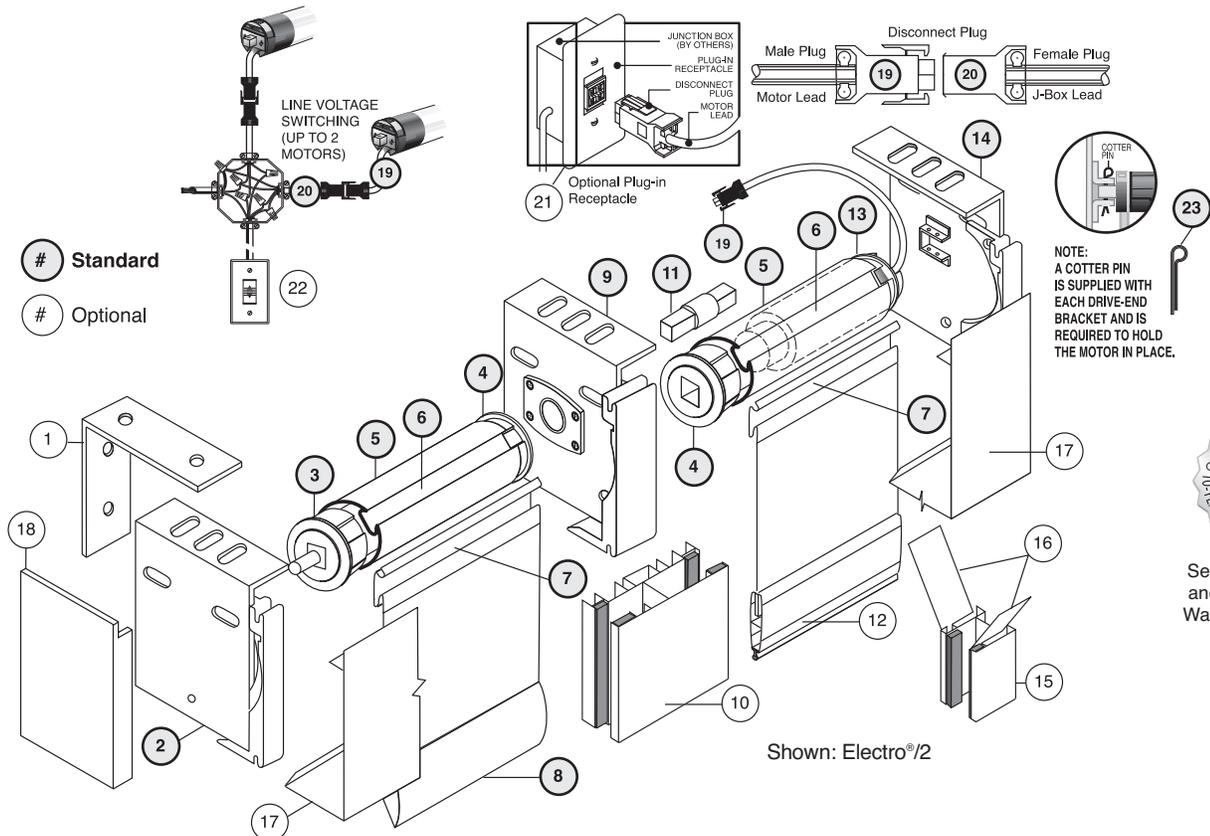


Bracket	Max. Roll Up Diameter With Fascia	Max. Roll Up Diameter No Fascia	Bracket Dimensions Without Optional Fascia, Roll Up Diameter or Wall Mount Bracket	
Electro®/1	N/A	4-1/4" (108mm)	2-7/8" W x 3-1/2" H	(73mm W x 89mm H)
Electro®/1 Extended	N/A	6-3/8" (162mm)	3" W x 7" H	(76mm W x 178mm H)
Electro®/2	4-1/4" (108mm)	N/A	4" W x 4-7/8" H	(114mm W x 124mm H)
Electro®/2 Extended	5-1/8" (130mm)	N/A	4-3/8" W x 7-5/16" H	(111mm W x 186mm H)
Electro®/2 Extended Plus	6-3/8" (162mm)	N/A	5-3/16" W x 7-5/16" H	(132mm W x 186mm H)
Electro®/3	2-3/4" (70mm)	2-3/4" (70mm)	3" W x 3-3/4" H	(76mm W x 95mm H)
Electro®/3 Pocket	N/A	4" (102mm)	3" W x 4-3/8" H	(76mm W x 111mm H)
Electro®/3 Extended	3-7/16" (87mm)	5" (127mm)	3" W x 4-7/8" H	(76mm W x 124mm H)

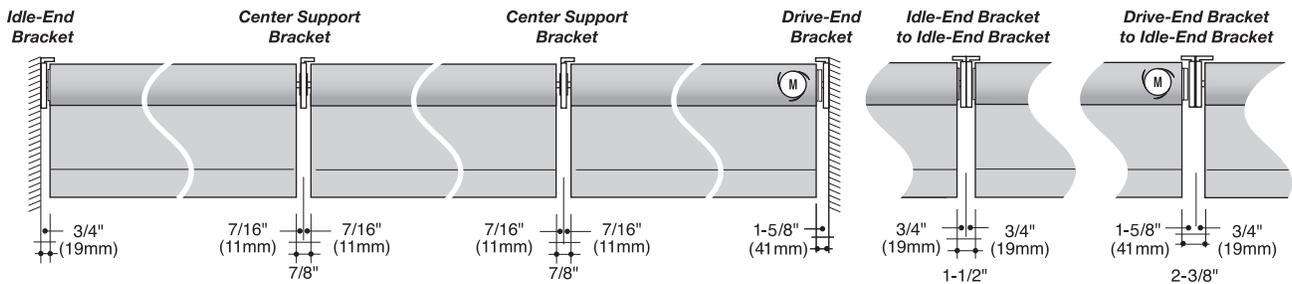
For DoubleShades® see the pages 3.15 – 3.18.

# ElectroShade® Parts, Components & Optional Accessories

## Multiband ElectroShades® exploded view and edge clearances



## Edge clearances



Shown: Electro®/3 Edge Clearances. For Electro®/1, /2 and all other Edge Clearances, see Section 10 pages 10.05 – 10.10 and 10.12 – 10.15.

ElectroShades are available in Electro/1, 2 and Extended sizes with a 50mm motor and Electro/3, Pocket and Extended sizes with a 40mm motor.

- |  |   |  |  |
|--|---|--|--|
| 1. Wall-Mount Angle                                  | 8. Hembar (standard cloth covered)                                  | 15. Room Darkening Side Channel (single with Polybond Light Seal)    | 19. Motor Lead with Disconnect Plug (power plug) |
| 2. Idle-End Bracket                                  | 9. Center Support Bracket   | 16. Room Darkening ShadeCloth Guides (pair)                          | 20. J-Box Lead with Disconnect Plug              |
| 3. Idle-End Tube Plug                                | 10. Room Darkening Center Channel (double with Polybond Light Seal) | 17. SnapLoc Regular-Roll Fascia                                      | 21. Optional Plug-in Receptacle                  |
| 4. Tube Plug   | 11. Tube Connector ("dog bone")                                     | 18. Fascia End Caps (Electro/2, Electro/3 & Electro/3 Extended only) | 22. Low Voltage Control Systems                  |
| 5. SnapLoc® Tube (1-3/4", 2-1/2", 3-1/2" & 4-1/2" ø) | 12. Exposed Hemtube with Light Seal                                 |  | 23. Cotter Pin to hold motor in place            |
| 6. SnapLoc Spline Mounting Channel                   | 13. Tubular Motor (A/C)   |  |  |
| 7. SnapLoc Spline                                    | 14. Drive-End Bracket   |  |  |

Optional Regular-Roll Fascia available for: Electro/2, Electro/2 Extended, Electro/3 and Electro/3 Extended brackets.

Optional Reverse-Roll Fascia available for: Electro/3 and Electro/3 Extended brackets. • No Fascia Available: Electro/1, Electro /1 Extended and Electro/3 Pocket brackets.

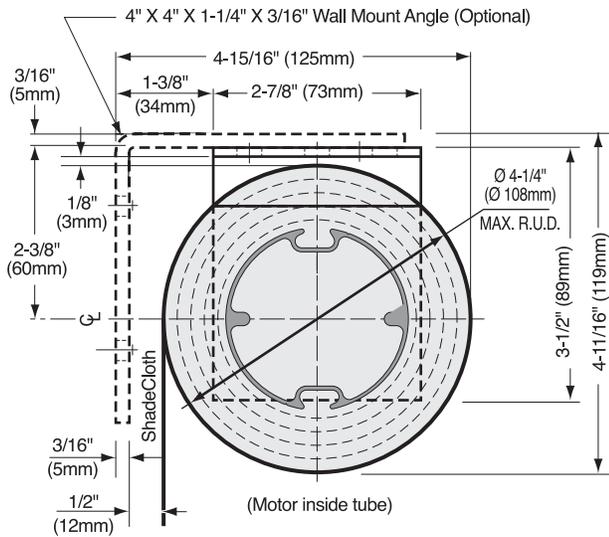
For Edge Clearances of specific brackets see Section 10 of this binder.



# ElectroShade® Details

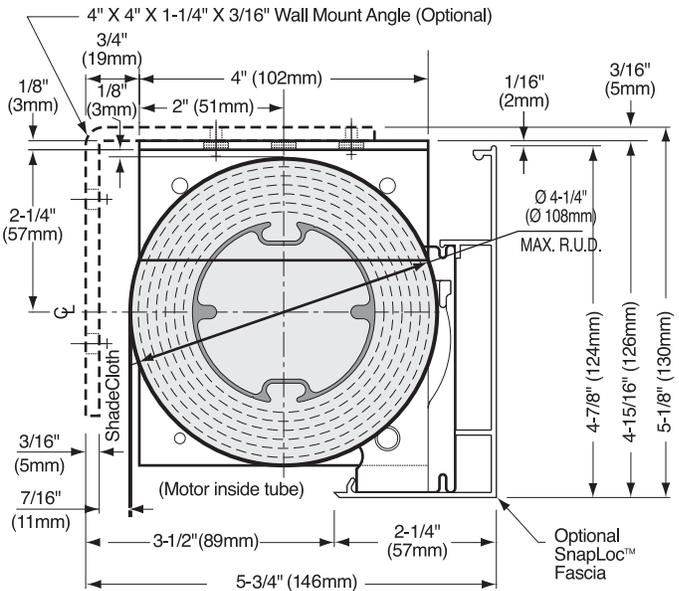
## Electro®/1 Bracket

Maximum roll up diameter:  
4-1/4" (108mm). **Fascia not available.**



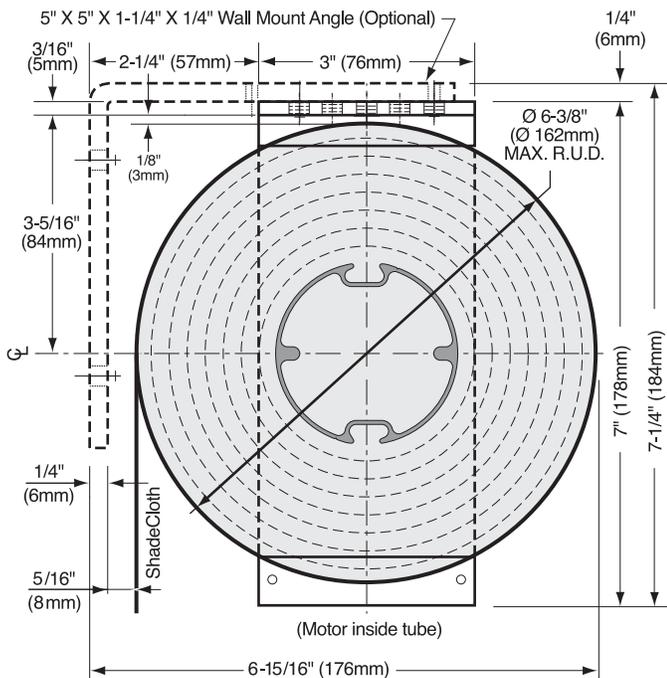
## Electro®/2 Bracket

Maximum roll up diameter:  
4-1/4" (108mm) **with optional fascia.**



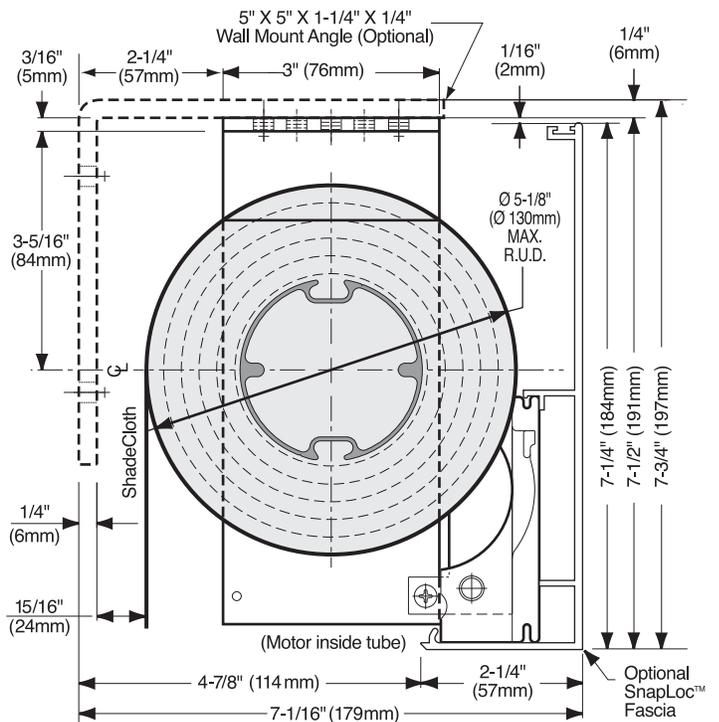
## Electro®/1 Extended Bracket

Maximum roll up diameter:  
6-3/8" (162mm). **Fascia not available.**



## Electro®/2 Extended Bracket

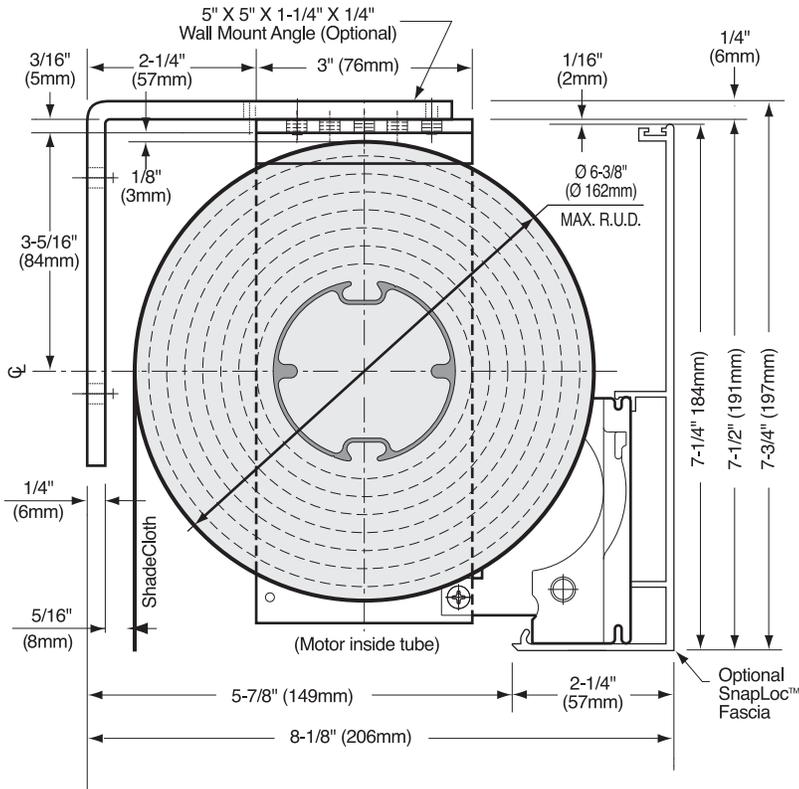
Maximum roll up diameter:  
5-1/8" (130mm) **with optional fascia.**



# ElectroShade® Details

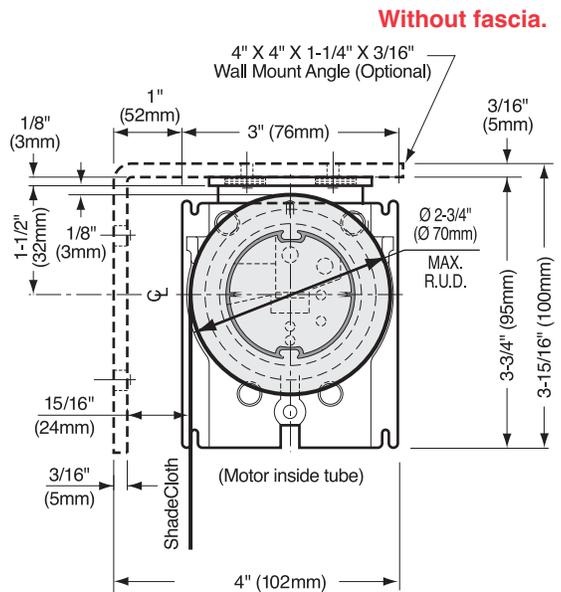
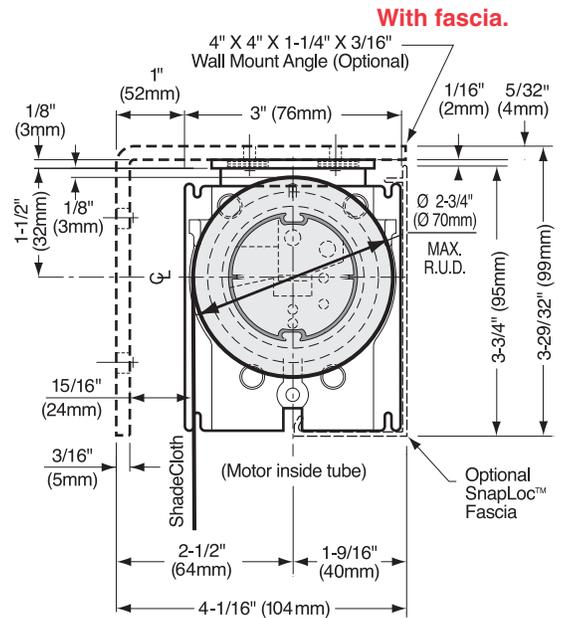
## Electro®/2 Extended Plus Bracket

Maximum roll up diameter:  
6-3/8" (162mm) with optional fascia.



## Electro®/3 Bracket

Maximum roll up diameter:  
2-3/4" (70mm) with or without optional fascia.



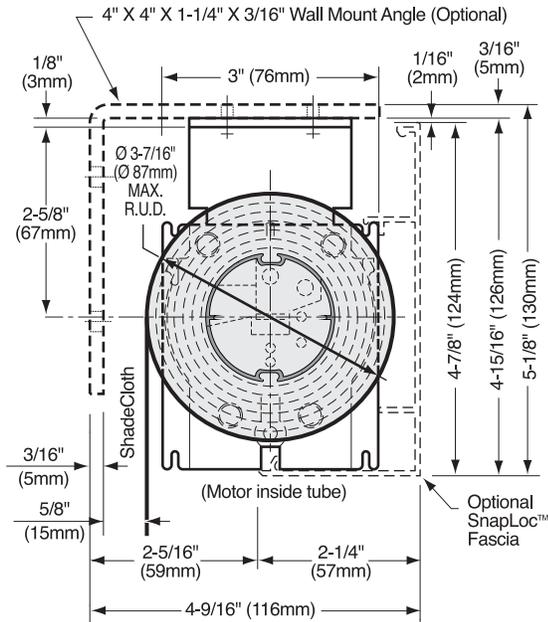
For wiring instructions please see Section 4:  
Control Systems. For Edge Clearances of  
specific brackets see Section 10:  
Engineering Specifications.

# ElectroShade® Details

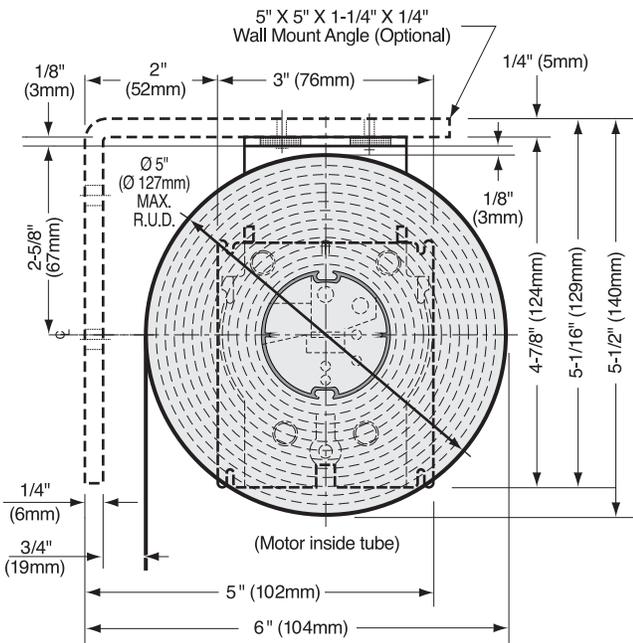
## Electro®/3 Extended Bracket

Maximum roll up diameter:  
 3-7/16" (87mm) with optional fascia  
 or 5" (127mm) without.

**With fascia.**

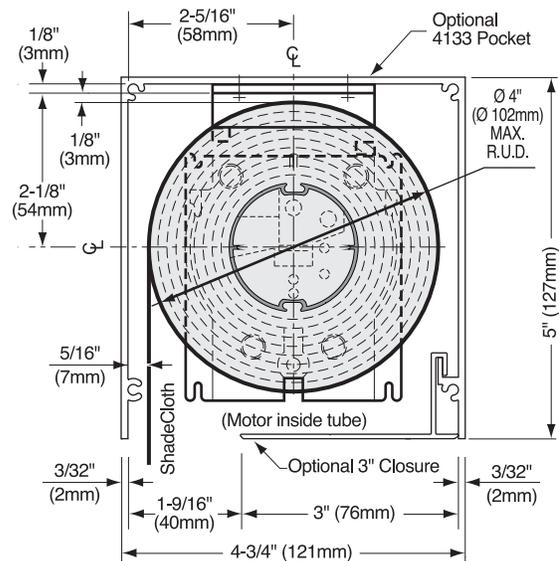


**Without fascia.**



## Electro®/3 Pocket Ext. Bracket

Maximum roll up diameter:  
 4" (102mm). **No fascia available.**



Electro®/3 and Electro®/3 Extended possess the same dimensions and roll up diameters as Mecho®/5 and Mecho/5 Extended manual system hardware. Because of these common properties, all can be mixed and matched under one continuous fascia.

For the same reasons Electro/3 Pocket Extended and Mecho/5 Pocket Extended brackets can share the same pocket.

**For wiring instructions please see Section 4: Control Systems. For Edge Clearances of specific brackets see Section 10: Engineering Specifications.**

# Bracket Selector Guide for ElectroShades®

Group A ShadeCloths (0900, 1000, 1300, 3000, and 5400 Series) .030" Thick, average 1.05 lbs. per sq. yd.

Width	84"	96"	108"	120"	126"	132"	144"	156"	168"	180"	192"	204"	216"	228"	240"
H	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
E	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
I	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
G	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
H	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

## BRACKET SELECTION KEY

<b>1</b>	Accepts all Electro/3 Brackets with/without Fascia. See Illustration: E, F, G
<b>2</b>	Accepts Electro/3 Extended Brackets with Fascia. See Illustration: G
<b>3</b>	Accepts Electro/3 Pocket Bracket See Illustration: F
<b>4</b>	Accepts Electro/3 Extended Bracket without Fascia. See Illustration: G
<b>5</b>	Accepts all Electro/1 & Electro/2 Brackets with/without Fascia. See Illustration: A, B, C, D
<b>6</b>	Accepts Electro/1 Extended & Electro/2 Extended Brackets. See Illustration: B, D
<b>7</b>	Contact Factory.

## BRACKET DIMENSION KEY

For additional information regarding bracket selection, see Section 10: Engineering Standards.

**A.** 2-7/8" (73mm) 3-1/2" (89mm) **ELECTRO/1 DRIVE-END BRACKET**

**B.** 7" (178mm) 3" (76mm) **ELECTRO/1 EXTENDED DRIVE-END BRACKET**

**C.** 4-1/2" (114mm) 4-7/8" (124mm) **ELECTRO/2 DRIVE-END BRACKET**

**D.** 7-3/4" (184mm) 4-3/8" (111mm) **ELECTRO/2 EXTENDED DRIVE-END BRACKET**

**E.** 3-3/4" (95mm) 3-1/16" (78mm) **ELECTRO/3 DRIVE-END BRACKET**

**F.** 4-3/8" (111mm) 3" (76mm) **ELECTRO/3 POCKET DRIVE-END BRACKET**

**G.** 4-7/8" (124mm) 3-1/2" (79mm) **ELECTRO/3 EXTENDED DRIVE-END BRACKET**



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# Bracket Selector Guide for ElectroShades®

Group B ShadeCloths (1600 and 2100 Series) .030" thick, average .95 lbs. per sq. yd.

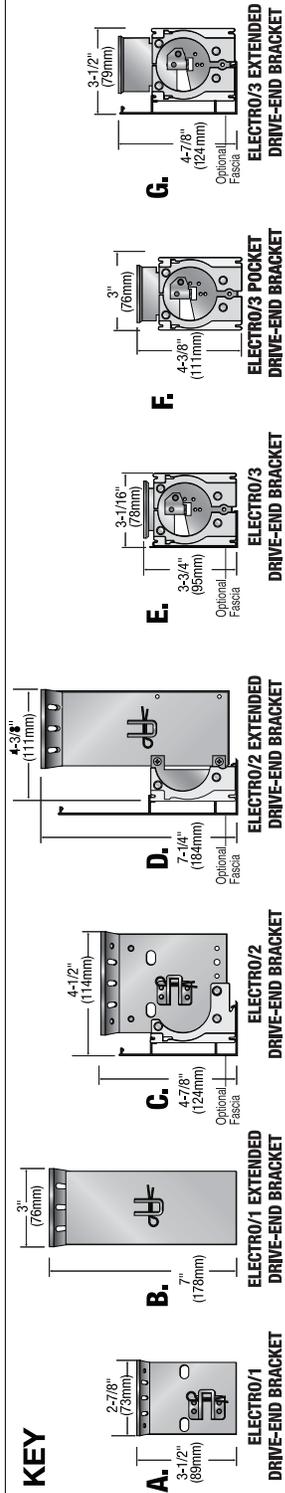
Width	84"	96"	108"	120"	126"	132"	144"	156"	168"	180"	192"	204"	216"	228"	240"
H	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
E	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
I	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
G	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
H	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
T	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

## BRACKET SELECTION KEY

<b>1</b>	Accepts all Electro/3 Brackets with/without Fascia. See Illustration: E, F, G
<b>2</b>	Accepts Electro/3 Extended Brackets with Fascia. See Illustration: G
<b>3</b>	Accepts Electro/3 Pocket Bracket See Illustration: F
<b>4</b>	Accepts Electro/3 Extended Bracket without Fascia. See Illustration: G
<b>5</b>	Accepts all Electro/1 & Electro/2 Brackets with/without Fascia. See Illustration: A, B, C, D
<b>6</b>	Accepts Electro/1 Extended & Electro/2 Extended Brackets. See Illustration: B, D
<b>7</b>	Contact Factory.

## BRACKET DIMENSION KEY

For additional information regarding bracket selection, see Section 10: Engineering Standards.



# Bracket Selector Guide for ElectroShades®

Group C ShadeCloths (1800 and 5500 Series) .030" thick, average .8465 lbs. per sq. yd

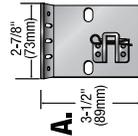
Width	84"	96"	108"	120"	126"	132"	144"	156"	168"	180"	192"	204"	216"	228"	240"
H	1														
E				2											
I															
G															
H							5								
T															7

## BRACKET SELECTION KEY

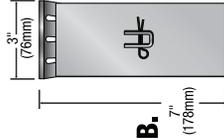
<b>1</b>	Accepts all Electro/3 Brackets with/without Fascia. See Illustration: E, F, G
<b>2</b>	Accepts Electro/3 Extended Brackets with Fascia. See Illustration: G
<b>3</b>	Accepts Electro/3 Pocket Bracket See Illustration: F
<b>4</b>	Accepts Electro/3 Extended Bracket without Fascia. See Illustration: G
<b>5</b>	Accepts all Electro/1 & Electro/2 Brackets with/without Fascia. See Illustration: A, B, C, D
<b>6</b>	Accepts Electro/1 Extended & Electro/2 Extended Brackets. See Illustration: B, D
<b>7</b>	Contact Factory.

## BRACKET DIMENSION KEY

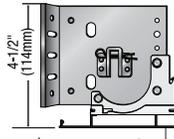
For additional information regarding bracket selection, see Section 10: Engineering Standards.



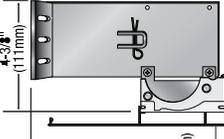
**A.** ELECTRO/1  
DRIVE-END BRACKET



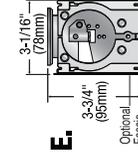
**B.** ELECTRO/1 EXTENDED  
DRIVE-END BRACKET



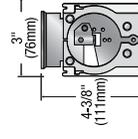
**C.** ELECTRO/2  
DRIVE-END BRACKET



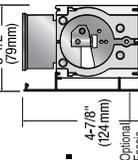
**D.** ELECTRO/2 EXTENDED  
DRIVE-END BRACKET



**E.** ELECTRO/3  
DRIVE-END BRACKET



**F.** ELECTRO/3 POCKET  
DRIVE-END BRACKET



**G.** ELECTRO/3 EXTENDED  
DRIVE-END BRACKET



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# Bracket Selector Guide for ElectroShades®

Group D ShadeCloths (5100, 5200, 5300, 6000 and 6300 Series) .024" thick, average .9 lbs. per sq. yd.

Width	84"	96"	108"	120"	126"	132"	144"	156"	168"	180"	192"	204"	216"	228"	240"
H	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
E	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
I	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
G	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
H	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
300"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

## BRACKET SELECTION KEY

<b>1</b>	Accepts all Electro/3 Brackets with/without Fascia. See Illustration: E, F, G
<b>2</b>	Accepts Electro/3 Extended Brackets with Fascia. See Illustration: G
<b>3</b>	Accepts Electro/3 Pocket Bracket See Illustration: F
<b>4</b>	Accepts Electro/3 Extended Bracket without Fascia. See Illustration: G
<b>5</b>	Accepts all Electro/1 & Electro/2 Brackets with/without Fascia. See Illustration: A, B, C, D
<b>6</b>	Accepts Electro/1 Extended & Electro/2 Extended Brackets. See Illustration: B, D
<b>7</b>	Contact Factory.

## BRACKET DIMENSION KEY

For additional information regarding bracket selection, see Section 10: Engineering Standards.

**A.** 2-7/8" (73mm)  
3-1/2" (89mm)  
ELECTRO/1 DRIVE-END BRACKET

**B.** 7" (178mm)  
3" (76mm)  
ELECTRO/1 EXTENDED DRIVE-END BRACKET

**C.** 4-1/2" (114mm)  
4-7/8" (124mm)  
ELECTRO/2 DRIVE-END BRACKET

**D.** 4-3/8" (111mm)  
7-1/4" (184mm)  
ELECTRO/2 EXTENDED DRIVE-END BRACKET

**E.** 3-3/4" (95mm)  
3-1/16" (78mm)  
ELECTRO/3 DRIVE-END BRACKET

**F.** 4-3/8" (111mm)  
3" (76mm)  
ELECTRO/3 POCKET DRIVE-END BRACKET

**G.** 4-7/8" (124mm)  
3-1/2" (89mm)  
ELECTRO/3 EXTENDED DRIVE-END BRACKET



Unit 101-5219 192nd St. Surrey, BC, Canada, V3S 4P6 | Phone: 604-881-4881 | Fax: 604-881-4882

# Bracket Selector Guide for ElectroShades®

Group E ShadeCloths (0900 Series) .016" thick, average .875 lbs. per sq. yd.

Width	84"	96"	108"	120"	126"	132"	144"	156"	168"	180"	192"	204"	216"	228"	240"
H															
E															
I															
G															
H															
T															

## BRACKET SELECTION KEY

<b>1</b>	Accepts all Electro/3 Brackets with/without Fascia. See Illustration: E, F, G
<b>2</b>	Accepts Electro/3 Extended Brackets with Fascia. See Illustration: G
<b>3</b>	Accepts Electro/3 Pocket Bracket See Illustration: F
<b>4</b>	Accepts Electro/3 Extended Bracket without Fascia. See Illustration: G
<b>5</b>	Accepts all Electro/1 & Electro/2 Brackets with/without Fascia. See Illustration: A, B, C, D
<b>6</b>	Accepts Electro/1 Extended & Electro/2 Extended Brackets. See Illustration: B, D
<b>7</b>	Contact Factory.

## BRACKET DIMENSION KEY

For additional information regarding bracket selection, see Section 10: Engineering Standards.

**A.** 2-7/8" (73mm) 3-1/2" (89mm) **ELECTRO/1 DRIVE-END BRACKET**

**B.** 3" (76mm) 7" (178mm) **ELECTRO/1 EXTENDED DRIVE-END BRACKET**

**C.** 4-1/2" (114mm) 4-7/8" (124mm) **ELECTRO/2 DRIVE-END BRACKET**

**D.** 4-3/8" (111mm) 7-1/8" (184mm) **ELECTRO/2 EXTENDED DRIVE-END BRACKET**

**E.** 3-3/4" (95mm) 3-1/16" (76mm) **ELECTRO/3 DRIVE-END BRACKET**

**F.** 4-3/8" (111mm) 3" (76mm) **ELECTRO/3 POCKET DRIVE-END BRACKET**

**G.** 4-7/8" (124mm) 3-1/2" (79mm) **ELECTRO/3 EXTENDED DRIVE-END BRACKET**

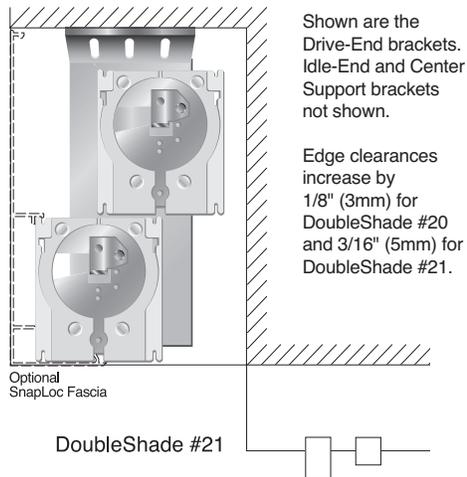
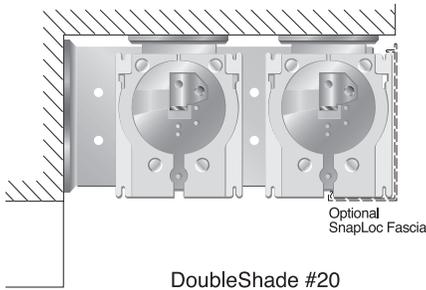


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# ElectroShade® DoubleShade® Brackets - #20

ThermoVeil® or EuroVeil® SunScreens with Blackout ShadeCloth on a Single Bracket with SnapLoc® Fascia (optional).



DoubleShades® have all the same features of the standard Mecho®/5 bracket, plus allow both sun screen and room darkening on a single bracket.

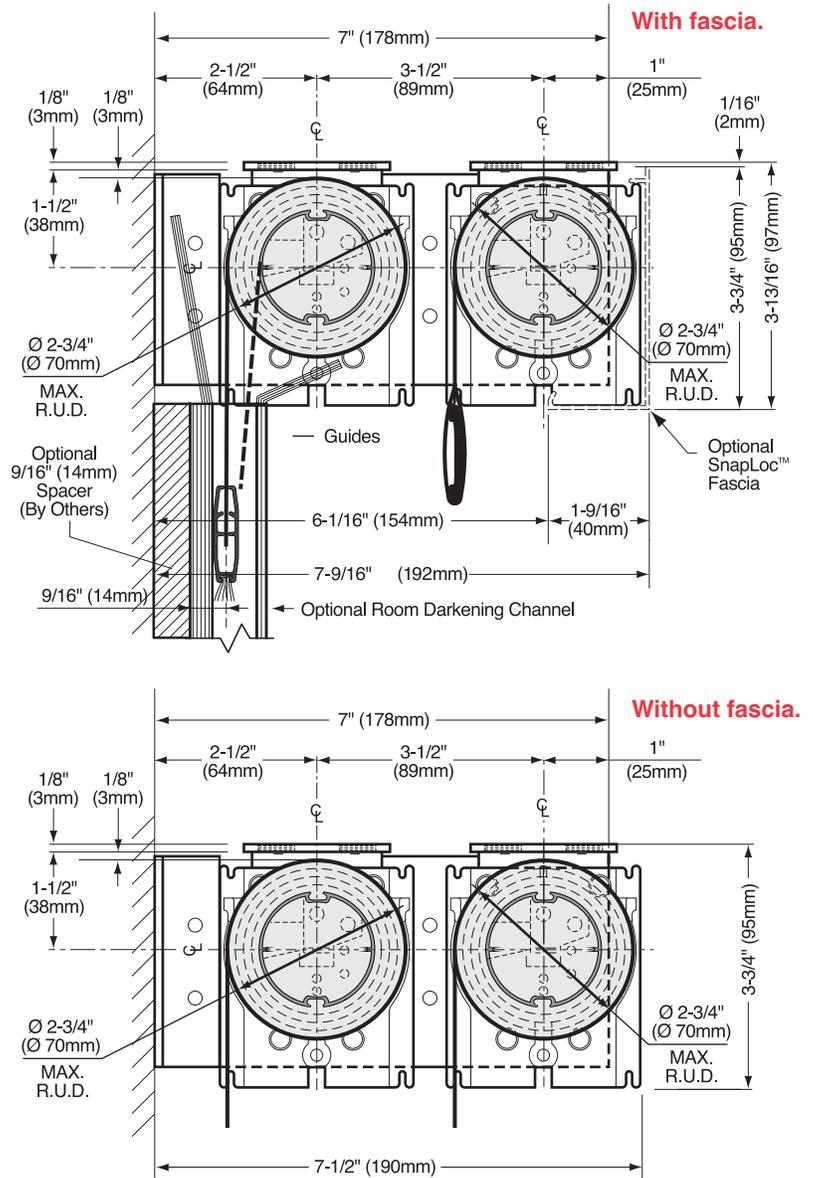
### Compact Size

DoubleShade's compact size allows two shades to fit in a smaller room projection than two individually installed shades on the same window.

### Ease of Installation

DoubleShades provide faster, easier, more economical installation of two shades per window. The mounting brackets require less measuring and are pre-spaced to insure proper alignment of both shades in relation to each other.

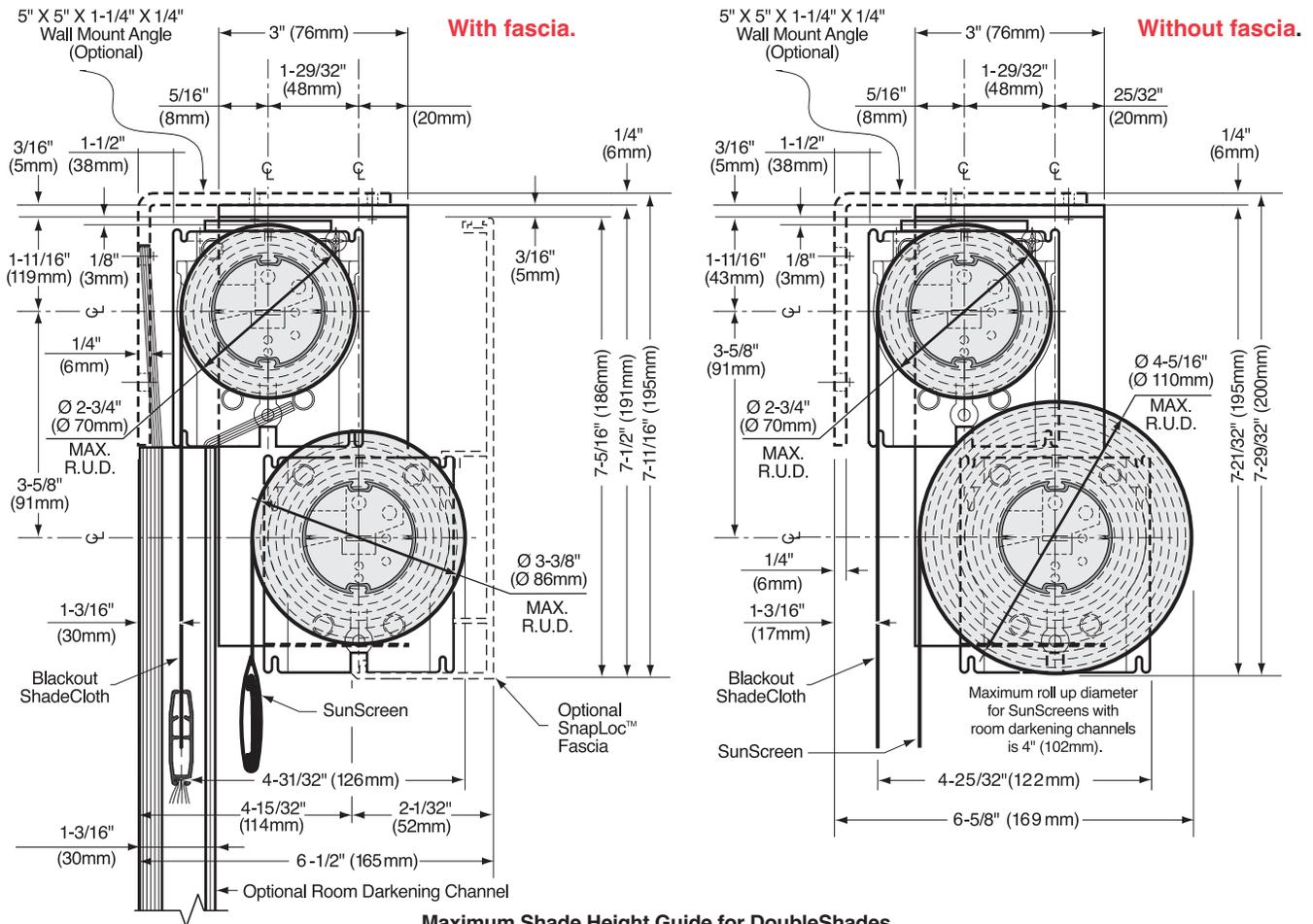
## Electro®/3 DoubleShade® Bracket #20, with and without fascia.



- DoubleShade Brackets require that both the solar and blackout operating brackets on a DoubleShade assembly have the same right-hand drive or left-hand drive orientation.
- For assistance on proper bracket and tube selection please contact your local representative or MechoShade technical support.

# ElectroShade® DoubleShade® Brackets - #21

## Electro®/3 DoubleShade® Bracket #21 with and without fascia.



### Maximum Shade Height Guide for DoubleShades

(Confirm with Weights and Measures Book)

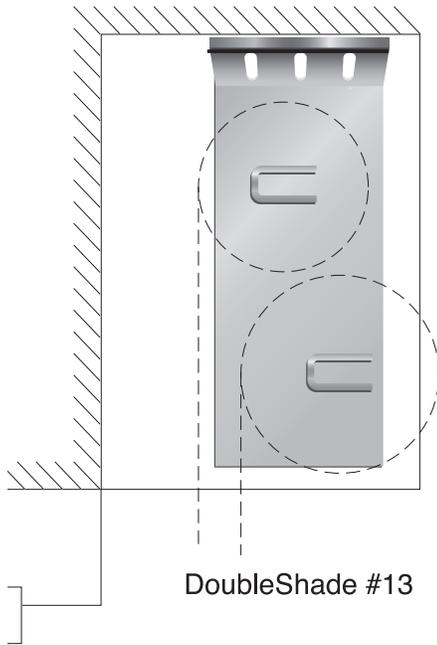
The same batten related issues about 1:4 ratio shades and railroaded shades over 84" apply to DoubleShades.			No Battens	One (1) Batten	Two (2) Battens
			1-3/4" (45mm) SnapLoc® Tube	1-3/4" (45mm) SnapLoc® Tube	1-3/4" (45mm) SnapLoc® Tube
<b>DoubleShade #20**</b>					
Blackout	Rear tube	Without fascia	227" (577cm)	187" (475cm)	148" (376cm)
ThermoVeil®	Front tube	With or without fascia	109" (276cm)	89" (226cm)	70" (178cm)
EuroVeil®	Front tube	With or without fascia	132" (335cm)	109" (277cm)	85" (216cm)
<b>DoubleShade #21***</b>					
Blackout	Top tube	Without fascia	227" (577cm)	187" (475cm)	148" (376cm)
ThermoVeil	Bottom tube	With fascia	209" (531cm)	185" (470cm)	162" (411cm)
		Without fascia	240" (610cm)*	240" (610cm)*	240" (610cm)*
EuroVeil	Bottom tube	With fascia	240" (610cm)*	224" (569cm)	196" (498cm)
		Without fascia	240" (610cm)*	240" (610cm)*	240" (610cm)*

\* Actual maximum heights may be greater, but not recommended, and may exceed the number of motor revolutions.

\*\* DoubleShade #20: No end caps available. \*\*\* DoubleShade #21: No channels available.

# ElectroShade® DoubleShade® Brackets - #13

ThermoVeil® or EuroVeil® SunScreens with Blackout ShadeCloth on a Single Bracket with SnapLoc® Fascia (optional).



DoubleShade #13

Shown are the Drive-End brackets. Idle-End and Center Support brackets not shown.

Edge clearances increase by 3/16" (5mm) for DoubleShades #13

DoubleShades® have all the same features of the standard Mecho®/5 bracket, plus allow both sun screen and room darkening on a single bracket.

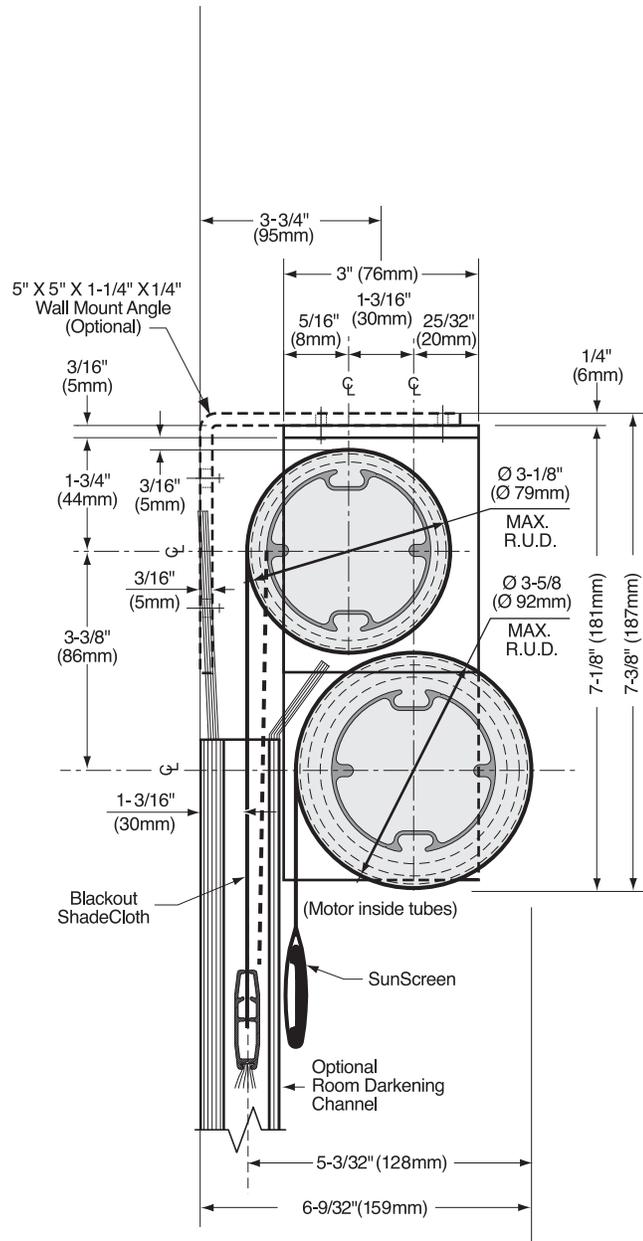
### Compact Size

DoubleShade's compact size allows two shades to fit in a smaller room projection than two individually installed shades on the same window.

### Ease of Installation

DoubleShades provide faster, easier, more economical installation of two shades per window. The mounting brackets require less measuring and are pre-spaced to insure proper alignment of both shades in relation to each other.

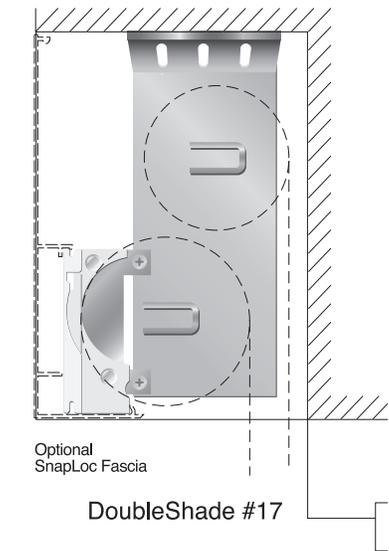
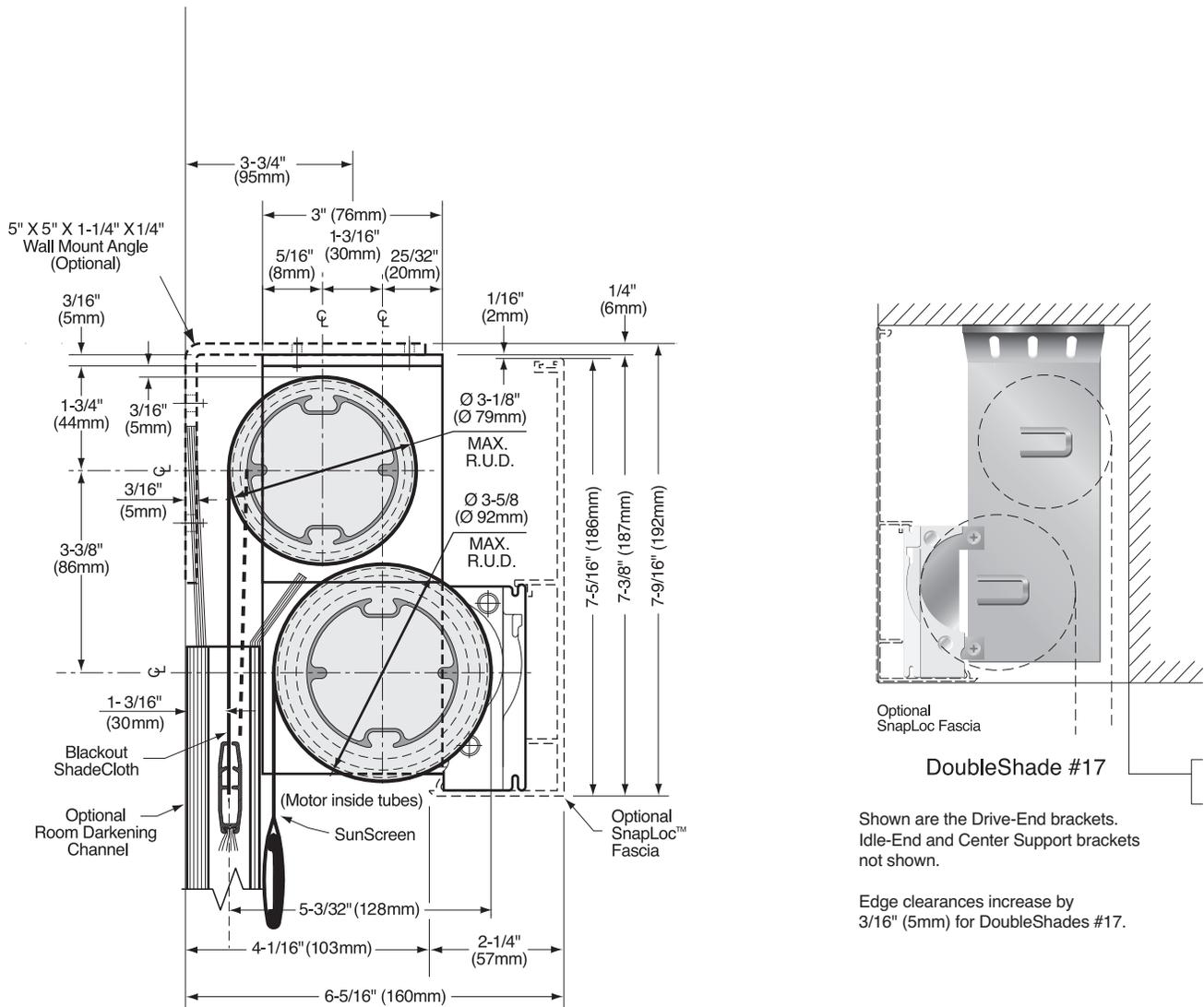
## Electro®/1 DoubleShade® Bracket #13. No fascia available.



- DoubleShade Brackets require that both the solar and blackout operating brackets on a DoubleShade assembly have the same right-hand drive or left-hand drive orientation.
- For assistance on proper bracket and tube selection please contact your local representative or MechoShade technical support.

# ElectroShade® DoubleShade® Brackets - #17

## Electro®/2 DoubleShade® Bracket #17, with fascia.



Shown are the Drive-End brackets. Idle-End and Center Support brackets not shown.

Edge clearances increase by 3/16" (5mm) for DoubleShades #17.

### Maximum Shade Height Guide for DoubleShades

(Confirm with Weights and Measures Book)

The same batten related issues about 1:4 ratio shades and railroaded shades over 84" apply to DoubleShades.			No Battens	One (1) Batten	Two (2) Battens
			2-1/2" (63mm) SnapLoc® Tube	2-1/2" (63mm) SnapLoc® Tube	2-1/2" (63mm) SnapLoc® Tube
<b>DoubleShade™ #13 and #17</b>					
Top Tube	Without fascia	Blackout	166" (422cm)	122" (310cm)	77" (196cm)
Bottom Tube, #17	With fascia	ThermoVeil®	166" (422cm)	140" (355cm)	115" (292cm)
		EuroVeil®	201" (510cm)	171" (434cm)	140" (355cm)
	#13	No fascia	ThermoVeil	166" (422cm)	140" (355cm)
		EuroVeil	201" (510cm)	171" (434cm)	140" (355cm)

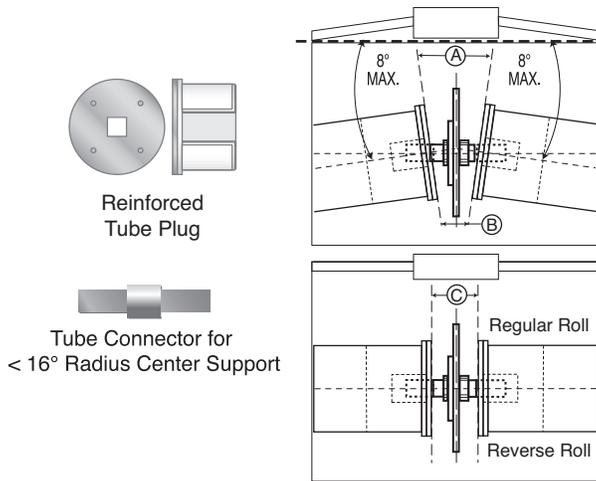
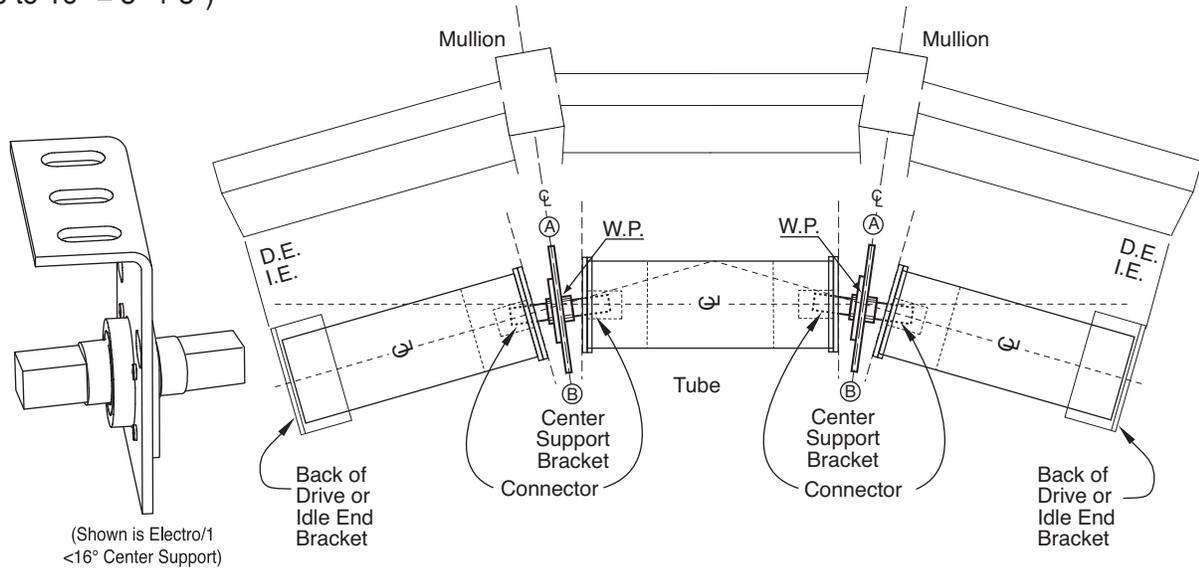
\* No channels available.



# ElectroShade® <16° Radius Center Support

With or without SnapLoc® Fascia (Optional).

(Up to 16° = 8° + 8°)



**\* NOTE:**  
Edge clearances A & B, for angled shades, are determined based on:  
1) Regular Roll or Reverse Roll ,  
2) Rolled up diameter,  
3) Up or down position of the shade, and  
4) Angle of the window wall.

The edge clearances shown below for Electro/1 & 2 are at a 8 degree + 8 degree angle off the radius, with a 2-1/2" (64mm) tube and the shade in the full down position. Edge clearance for Electro/3 is based on a 1-3/4" tube. As the shade rises edge clearances will increase on a Regular Roll shade and decrease on a Reverse Roll shade. The amount of variance will depend on height of the shade and angle.

Edge clearance C, for non-angled shades, is unaffected by the above factors.

The following < 16° Radius Center Support brackets use the < 16° Radius Tube Connector & a set of reinforced tube plugs.

< 16° Center Support Bracket model	Center Support Edge Clearances*			Maximum Roll Up Diameter
	(A)	(B)	(C)	
Electro®/1	1-9/16" (39mm)	1-7/8" (48mm)	1-1/4" (32mm)	4-1/4" (108mm) No fascia available.
Electro®/1 Extended	1-9/16" (39mm)	1-7/8" (48mm)	1-1/4" (32mm)	6-3/8" (162mm) No fascia available.
Electro®/2	1-9/16" (39mm)	1-7/8" (48mm)	1-1/4" (32mm)	4-1/4" (108mm) with Fascia.
Electro®/2 Extended	1-9/16" (39mm)	1-7/8" (48mm)	1-1/4" (32mm)	6-3/8" (162mm) with Fascia.
Electro®/3	1-1/2" (38mm)	1-7/8" (48mm)	1-1/4" (32mm)	2-3/4" (70mm) with or without Fascia.
Electro®/3 Extended	1-1/2" (38mm) 1-1/2" (38mm)	1-7/8" (48mm)	1-1/4" (32mm)	3-7/16" (87mm) with Fascia. 5" (127mm) without Fascia.

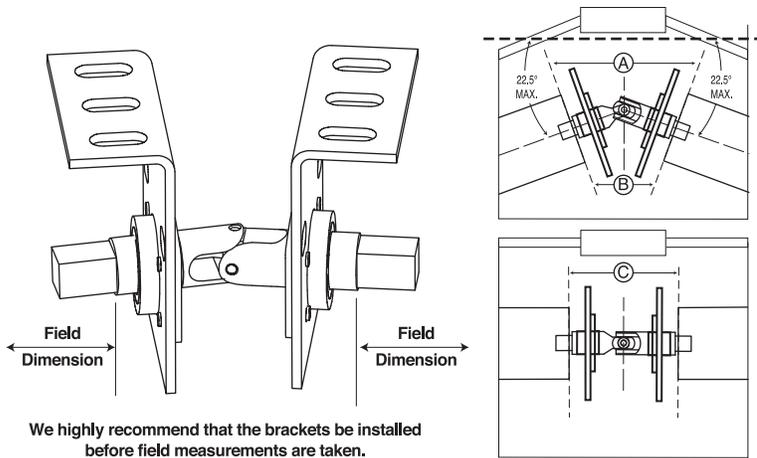
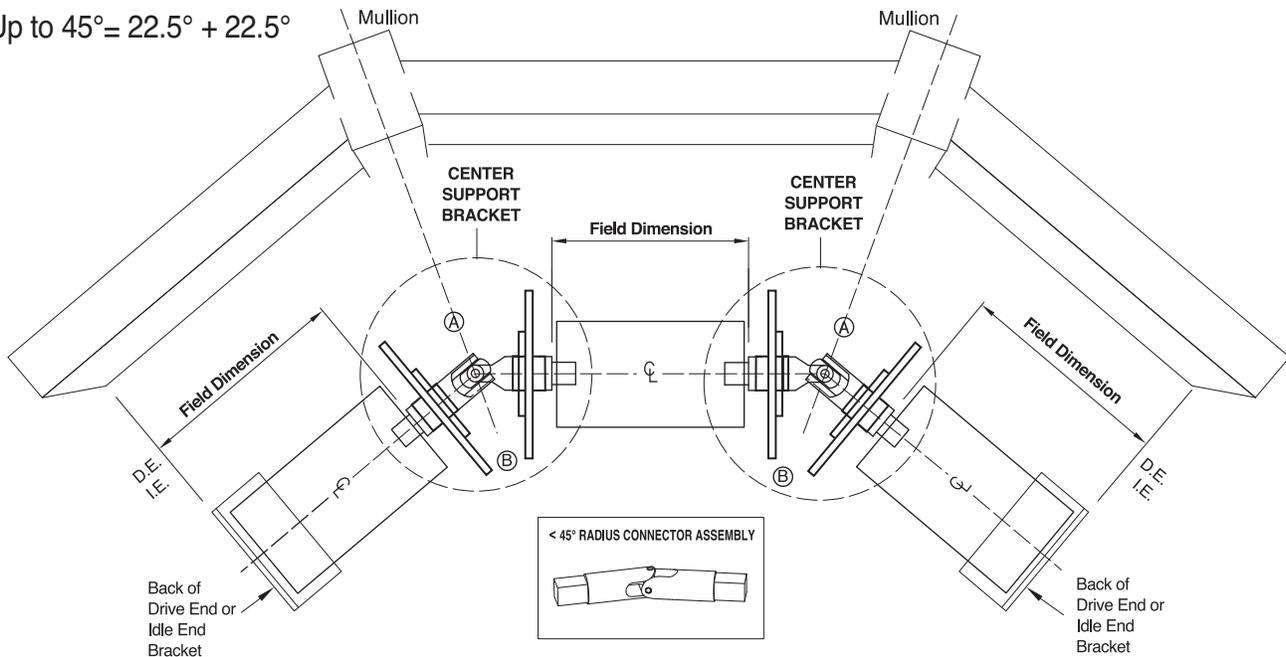
Not available for DoubleShade brackets.  
Call for shop drawings.



# ElectroShade® <45° Radius Center Support

With or without SnapLoc® Fascia.

(Up to 45° = 22.5° + 22.5°



**\* NOTE:**  
Edge clearances A & B, for angled shades, are determined based on:  
1) Regular Roll or Reverse Roll,  
2) Rolled up diameter,  
3) Up or down position of the shade, and  
4) Angle of the window wall.

The edge clearances shown below for Electro/1 & 2 are at an 22-1/2 degree + 22-1/2 degree angle off the radius, with a 2-1/2" (64mm) tube and the shade in the full down position. Edge clearance for Electro/3 is based on a 1-3/4" (44mm) tube. As the shade rises edge clearances will increase on a Regular Roll shade and decrease on a Reverse Roll shade. The amount of variance will depend on height of the shade and angle.

Edge clearance C, for non-angled shades, is unaffected by the above factors.

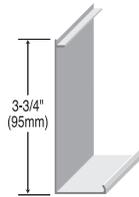
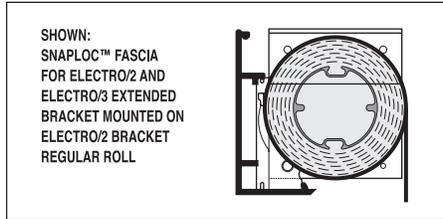
The following < 45° Radius Center Support brackets use the < 45° Radius Universal Joint & a pair of center support brackets.

< 45° Center Support Bracket model	Center Support Edge Clearances*			Maximum Roll Up Diameter
	(A)	(B)	(C)	
Electro®/1	3-13/16" (97mm)	1-15/16" (49mm)	3-1/8" (80mm)	4-1/4" (108mm) No fascia available.
Electro®/1 Extended	3-13/16" (97mm)	1-15/16" (49mm)	3-1/8" (80mm)	6-3/8" (162mm) No fascia available.
Electro®/2	3-13/16" (97mm)	1-15/16" (49mm)	3-1/8" (80mm)	4-1/4" (108mm) with Fascia.
Electro®/2 Extended	3-13/16" (97mm)	1-15/16" (49mm)	3-1/8" (80mm)	6-3/8" (162mm) with Fascia.
Electro®/3	3-9/16" (91mm)	2-5/16" (59mm)	3-1/8" (80mm)	2-3/4" (70mm) with or without Fascia.
Electro®/3 Extended	3-9/16" (91mm) 3-9/16" (91mm)	2-5/16" (59mm) 2-5/16" (59mm)	3-1/8" (80mm) 3-1/8" (80mm)	3-7/16" (87mm) with Fascia. 5" (127mm) without Fascia.

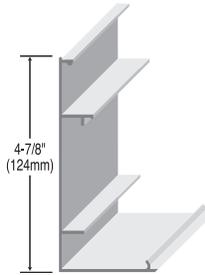
Not available for DoubleShade brackets.  
Call for shop drawings.



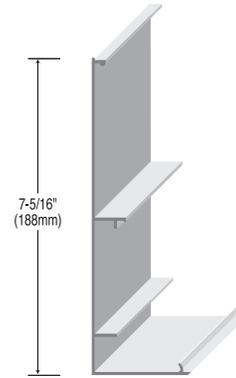
# Other ElectroShade® Components & Optional Accessories



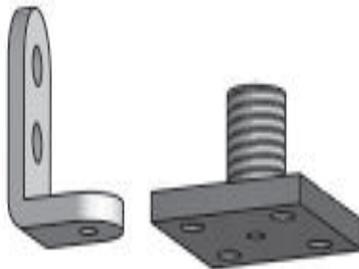
FASCIA FOR  
ELECTRO/3 &  
ELECTRO/3  
DOUBLESHADE #20  
BRACKETS  
REGULAR ROLL  
MFAA RG15 AL \_\_



FASCIA FOR  
ELECTRO/2 &  
ELECTRO/3 EXTENDED  
BRACKETS  
REGULAR ROLL  
UFAA 4715 AL \_\_

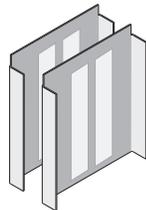


FASCIA FOR  
ELECTRO/2 EXTENDED,  
ELECTRO/2 DOUBLESHADE #17  
& ELECTRO/3 DOUBLESHADE #21  
BRACKETS  
REGULAR ROLL  
UFAA 7321 AL \_\_

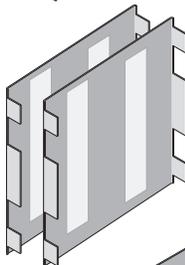


**Guide Cables**  
are used when shades are  
sloped or the width to  
height ratio (1:6) needs  
assistance in keeping the  
shade tracking correctly.

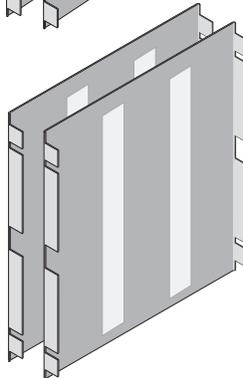
**Tension Idler Cable Kit  
w/ 20 ft. Cable**  
EGCA 4112 AS NP



ELECTRO/3  
FASCIA END CAPS (PAIRS)  
MFA 3036 AL \_\_



ELECTRO/2 &  
ELECTRO/3 EXTENDED  
FASCIA END CAPS (PAIRS)  
MFA 3346 AL \_\_



ELECTRO/2 EXTENDED,  
ELECTRO/2 DOUBLESHADE #17  
& ELECTRO/3 DOUBLESHADE #21  
FASCIA END CAPS (PAIRS)  
MFA 3070 AL



SINGLE WALL-MOUNT ANGLE  
FOR ELECTRO/1, ELECTRO/2  
& ELECTRO/3  
4" x 4" x 1-1/4"  
(102 x 102 x 32 mm)  
EWBX 4040 ST ZP  
Plated



DOUBLE WALL-MOUNT ANGLE  
FOR ELECTRO/1, ELECTRO/2  
& ELECTRO/3  
4" x 4" x 3"  
(102 x 102 x 76 mm)  
EWBX 4145 ST ZP  
Plated



SINGLE WALL-MOUNT ANGLE  
FOR ELECTRO/3,  
ELECTRO/3 POCKET  
& ELECTRO/3 EXTENDED  
4" x 4" x 1-1/4"  
(102 x 102 x 32 mm)  
EWBX 4040 ST ZP  
Plated



SINGLE WALL-MOUNT ANGLE  
FOR ELECTRO/1 EXTENDED,  
ELECTRO/2 EXTENDED,  
ELECTRO/1 DOUBLE SHADE #13 &  
ELECTRO/2 DOUBLE SHADE #17  
5" x 5" x 1-1/4"  
(127 x 127 x 32 mm)  
UWXB 5050 ST PL

# Batten and Seam Specifications

**Battens vs. Seams:** MechoShade Systems, Inc. is one of the only, if not the only, shade manufacturer to use a batten joint vs. a seam joint. This type of construction costs more, but is highly effective in ensuring that certain types of shade bands hang and track straight. See page 3.23 for an illustration of the Batten vs. Seam joint.

**Woven ScreenCloth:** All woven ScreenCloth, regardless if their core yarns are polyester or fiberglass, will stretch under their hanging weight due to "Woven Fabric Mechanical Extensibility" or "The Hour Glass Effect". In order to assure the proper tracking and rolling of the shadeband, and avoid the "Hour Glass Effect", battens are included by MechoShade as a standard detail when the width-to-height (W:H) ratio exceeds 1:4. Railroaded, multi-width shade bands will receive a 2" (51mm) batten joint. Battens may be specified for shade bands that otherwise do not need them to align with shade bands that do require battens, at additional cost. Battens will be positioned on the shade band, per the chart below, or at customer specified positions, subject to approval of MechoShade Systems, Inc., and may be at additional cost.

## Standard Batten Placement for Non-Railroaded (Standard) ElectroShades:

- Batten placement for non-railroaded shades shall be the minimum required to meet the 1:4 ratio of width to height.
- Battens shall be equally spaced within the shadeband opening height. For example one batten at the mid point, or two battens at 1/3 points, or three battens at 1/4 points.
- Batten placement for blackout shades with side channels shall not exceed 4'-0" (122cm) o.c. and must be specified.

Standard Batten Placement for Railroaded (RR) ElectroShades*					
Roll Widths	63" (160cm) RR*	72" (183cm) RR*	96" (244cm) RR*	126" (366cm) RR*	
<b>SHADE HEIGHTS</b>	Requires 1 width Railroaded* no seam				
	Requires 1-1/2 widths Railroaded*, +1 seam				
	Requires 2 widths Railroaded*, +1 seam				
	Requires 2-1/2 widths Railroaded*, +2 seam				
	Requires 3 widths Railroaded*, +2 seams				

\* All shades are measured from the bottom of the shade up to the center of the Batten joint. Railroad (RR) Shadecloth is turned width to height. All heights shown above are Opening Heights only and are based on a 2-1/2" diameter tube. Opening Heights do not include wrap. Cut panel sizes, including wrap, hem-pocket and additional fabric for sealing battens and seams, are added to the opening height dimension

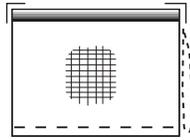
### Width-to-Height (W:H) Ratio Guidelines and Edge-Clearance Specifications (fabric used normally or railroaded)

- Shadebands up to 1:3 W:H ratio**, require the standard edge-clearance deduction except for 30" (76cm) wide shadebands.
- 1:3 to 1:4 W:H ratios**, increase the hardware edge-clearance 1/16" (1.6mm) each side to 1/8" (3.2mm) additional deduction.
- 1:4 to 1:5 W:H ratios**, increase the hardware edge-clearance 1/8" (3.2mm) each side to 1/4" (6.4mm) additional deduction. Battens or optional guide cables are required.
- 1:5 to 1:6 W:H ratios**, increase the hardware edge-clearance 1/4" (6.4mm) each side to 1/2" (12.8mm) additional deduction. Battens or optional guide cables are required.
- Over 1:6 W:H ratios**, increase the hardware edge-clearance 5/16" (8mm) each side to 5/8" (16mm) additional deduction. Battens & guide cables are required.
- Railroaded multi-width shades** with horizontal joints shall have seam joints.
- Environmental conditions may require** additional use of guide cables and/or battens and increased edge clearance.

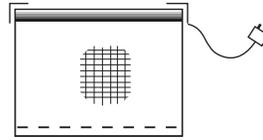


# ShadeWords

MechoShade®  
ElectroShade®

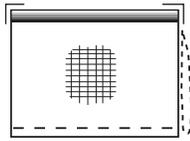


MechoShade®

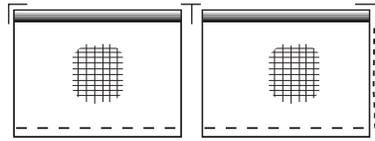


ElectroShade®

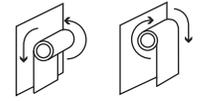
SingleBand™  
MultiBand™  
Regular- & Reverse-Roll



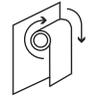
SingleBand



Multiband™  
(2 or more shadebands on one operator MechoShades or ElectroShades)

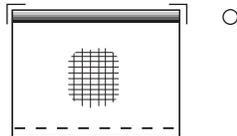


Regular Roll  
(unwinds towards glass)

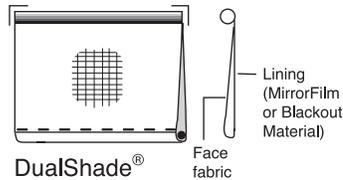


Reverse Roll  
(unwinds away from glass)

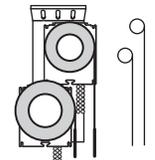
SingleShade™  
DualShade®  
DoubleShade™



SingleShade™  
(Standard)

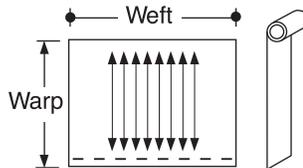


DualShade®

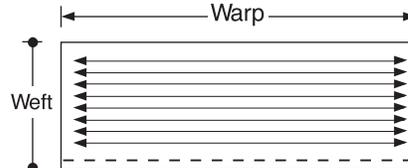


DoubleShade™  
(2 on 1 bracket)

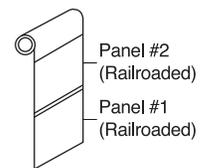
Non-Railroded ShadeCloth (NRR) (Standard)  
Railroded ShadeCloth (RR) (Landscape)



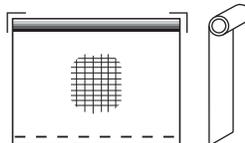
Non-Railroded ShadeCloth  
(ShadeCloth used normally)



Railroded ShadeCloth  
(ShadeCloth used width for height)



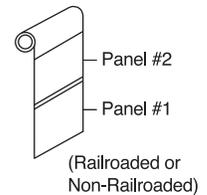
SingleWidth™  
MultiWidth™



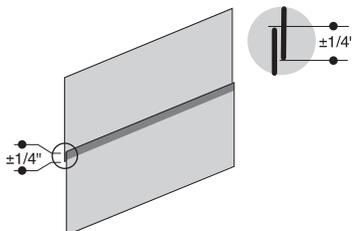
SingleWidth™  
(No seams)



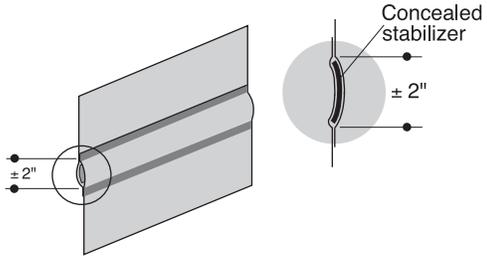
MultiWidth™  
(A shadeband with 2 or more widths joined with a joint batten)



Seam joint (Special)  
Batten joint (Standard)



Seam joint  
For Fabric Wrap or as Specified.

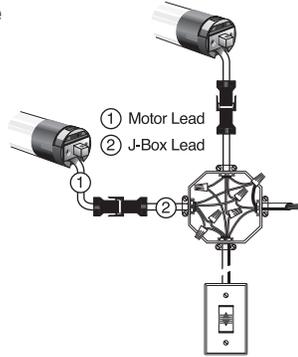


Batten joint  
Standard Joint

# Electro<sup>®</sup>/1, 2 & 3 Hardware Features and Specifications

The ElectroShade<sup>®</sup> system is designed, developed and fabricated to be a totally integrated unit and is furnished by the manufacturer, MechoShade Systems, Inc., with a warranty which provides that all components (motor, shade cloth, electrical controls and override circuits) have been designed and tested as a compatible integrated system.

The basic control configuration is one or two ElectroShades controlled from a single line voltage D.P.D.T. switch. For control of three or more motors from a single switch, or for mid window shade alignment at the touch of a button, a multi-motor controller such as the MLC<sup>™</sup>, I-CON, IQ/MLC<sup>™</sup> or IMCS<sup>™</sup>/2 is required. (See Controls Section.)



## 1.0 ElectroShade Hardware

**1.1 Mounting Brackets:** The drive assembly, idle-end assembly, and center support systems are attached to an 1/8 in. (3mm) steel mounting bracket.

**1.2 Shade Roller:** Extruded aluminum tube, 6063-T6 alloy, 1-3/4 in. (44 mm), 2-1/2 in. (63 mm), 3-1/2 in. (90 mm) or 4-1/2 in. (114 mm) OD (as required) with internal keyway to receive tubular motor. The tube is extruded with two fabric-mounting channels designed to support the shade bands via the SnapLoc<sup>®</sup> spline (see below).

**1.3 SnapLoc<sup>®</sup> Mounting Spline:** Extruded vinyl with asymmetrical locking channels and embossed fabric guide for use with 1-3/4 in. (44 mm), 2-1/2 in. (63 mm), 3-1/2 in. (90 mm) or 4-1/2 in. (114 mm) OD tube. Spline has sufficient capacity to support the shade and additional hem weights without disengaging from the tube or without extra wraps of fabric on the tube. SnapLoc Spline shade band assembly may be installed or removed from the shade tube, or tube/motor assembly, without disassembling or removal from the mounting brackets.

**1.4 End Brackets:** Consist of 1/8 in. (3 mm) thick sheet steel. Wall, jamb or ceiling mounted as required and permanently installed.

**1.5 Center Support Brackets:** Supplied to allow multibanding. Ceiling or wall mounted. Center support brackets shall accept continuous lengths of fascia, which will span two or more ElectroShade bands up to maximum length of 15 feet (457cm) per section.

**1.6 Hembar Weights:** Mill-finished aluminum bars in single lengths as appropriate for the size shade, concealed in a fabric hem pocket.

**1.7 Exposed hembars** in painted and baked PPG finishes with key way for shades.

**1.8 DualShade<sup>®</sup> System:** The patented DualShade system, by MechoShade Systems, Inc., for installing both a ThermoVeil<sup>®</sup> sun screen together with either a room darkening shade cloth or MirroFilm<sup>™</sup> attached to the same roller tube by means of the SnapLoc spline. The shade cloth and film shall be separated by 1/2 in. (13 mm) of insulating air space.

**1.9 Optional SnapLoc<sup>®</sup> Fascia:** SnapLoc<sup>®</sup> fascia shall be provided for standard and extended height brackets and center support brackets. Each bracket assembly permits the fascia to extend past the brackets, creating wall-to-wall fascia, with the brackets mounted inboard from the end of the fascia. SnapLoc fascia can be installed as a single unit over two or more shade band assemblies without exposed joints in lengths up to 15 ft. (457cm). SnapLoc fascia snaps on to the brackets without the use of glue, magnetic strips or any exposed fastening.

The fascia is made of extruded aluminum (hardness/alloy 6063T5) with an average thickness of .062 in. (1.6mm). The fascia is finished in PPG Duracon<sup>™</sup> baked enamel in six standard colors plus clear aluminum.

**1.10 DoubleShade<sup>®</sup> Mounting Brackets:** A master mounting bracket assembly for drive-end, idle-end and center supports to facilitate installation of two shades, front-to-back or top and bottom, with precise alignment and minimum installation labor. DoubleShade<sup>®</sup> brackets have all the same features of the standard ElectroShade bracket, plus allow both sun screen and blackout shades on a single bracket. DoubleShade's compact size allows two shades to fit in a smaller room projection than two individually installed shades on the same window.

# Electro<sup>®</sup>/1, 2 & 3 Hardware Features and Specifications

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## 2.0 ElectroShade<sup>®</sup> Motor System

**2.1 Limit Switches:** Internal limit switches are adjusted by two external push button, thumb screws or electronically set to allow exact setting of travel in both the raised and lowered positions. Micro switches provide circuit braking at the end of the run. The limit switch setting cannot be disturbed by the action of the roller tube.

**2.1.1 Intelligent Motors with Busline Control** may have either manual, push-button or electronic limit switch adjustment.

**2.2 Brake:** A solenoid activated disc brake mechanism stops and holds in any position. The brake automatically disengages when the motor is operating.

**2.3 Motor:** An asynchronous (non-synchronous) motor with built-in reversible capacitor start-and-run is made to be operated with 95 to 125 VAC at 60hz. (207-253), single phase, temperature Class-A (maximum temperature rating of 140 C.), thermally protected, totally enclosed, maintenance free with locking disconnect plug assembly furnished with each operator.

**2.4 Gear Box:** Three or more levels of satellite gears are provided for load distribution (planetary gears) and machined from close tolerance tempered steel or molded plastic. The speed varies according to model from 10 r.p.m. to 64 r.p.m.

**2.5 Installation:** A single pin locks the drive end of the motor to the tube. A notched section of the tube turns the ring, which counts the turns and activates the limit switch. To interchange motors, the pin is pressed out of the tube and the motor slides out.

**2.6 Sizes:** The motors are available in torques of 35-435 in. lbs. (lifting capacity), 10-64 r.p.m. speed to meet specified requirements and shall not exceed 60 mm in diameter as 115 VAC (230VAC) motors.

**2.7 Connectivity:** Motors are available with either a one foot motor lead with a male Disconnect Plug (power plug). The Disconnect Plug end can be plugged into a compatible Plug-In Receptacle or a Junction Box lead with a female Disconnect Plug.

**2.8 Warranty:** The manufacturer provides warranty that the motor is free of manufacturing defects for five (5) years from the date of installation. This warranty is void if the products have been improperly installed, wired or subjected to improper care. Warranty void if controlled by control systems not previously approved by MechoShade Systems, Inc.

## 3.0 Shade Cloth, Films and Laminates

(See Section 5 for specifications of ThermoVeil<sup>®</sup>, EuroVeil<sup>®</sup> and DualShades<sup>®</sup>.)



# MechoShade® Lifetime Limited Warranty (Non-Depreciating)



## LIMITED WARRANTY (interior product use)

MechoShade Systems, Inc. warrants to original purchasers that its Interior Use Products are free of manufacturing defects in factory materials or workmanship for the specified warranty period.\*

- ThermoVeil®, EuroVeil®, Faux Natural™, EuroTwill™, Equinox™ and Soleil® brand **shadecloths** on the associated MechoShade®, ElectroShade®, UrbanShade™, or Suburban™/2 brand shade systems are warranted to be free of manufacturing defects in factory materials or workmanship for the specified warranty period.
- MechoShade®, ElectroShade®, SlimLine™, UrbanShade™ and Suburban™/2 brand **hardware** are warranted to be free of manufacturing defects in factory materials or workmanship for the specified warranty period.
- ElectroShade® Motors and Controls are warranted to be free of manufacturing defects in factory materials or workmanship for 5 years from date of shipment.
- Hardware and shadecloths have a Lifetime Warranty not to exceed 25 years from the date of shipment.
- All Limited Warrantees are subject to the general terms and conditions of sale. Copies are available upon request.

## MechoShade®/5 System\*

### Lifetime Limited Warranty

to original purchasers on all hardware and shade cloths for the life of the interior project for which it was originally purchased, not to exceed twenty-five years.



## MechoShade® SlimLine™ System\*

### 10-Year Limited Warranty

to original purchasers on all hardware and shade cloths.



## ElectroShade® System\*

### Lifetime Limited Warranty

to original purchasers on all hardware and shade cloths for the life of the interior project for which it was originally purchased, not to exceed twenty-five years.



### 5-Year Limited Warranty

on Motors and Electronics to be free of manufacturing defects in factory materials or workmanship for 5 years from date of shipment.

## Suburban™/2 System\*

### 10-Year Limited Warranty

to original purchasers on all hardware and shade cloths.

### A 5-Year Limited Warranty

for motors and electronic controls.



## UrbanShade™

### 10-Year Limited Warranty

to original purchasers on all hardware and shade cloths.

### A 5-Year Limited Warranty

for motors and electronic controls.



All in accordance with MechoShade Systems, Inc. Warranty General Terms and Conditions. The MechoShade Limited Warranties are exclusive and in lieu of all other warranties, whether written, oral or implied (including any implied warranty of merchantability, fitness for a particular purpose, or otherwise).

# MechoShade® Warranty General Terms and Conditions

## From the Warranty portion of the MechoShade Systems, Inc. General Terms and Conditions of Sale

(INTERIOR USE PRODUCTS)

### VII. WARRANTY

MechoShade Systems, Inc. MSS warrants to the original purchaser that its products are free of manufacturing defects in factory materials or workmanship for the following specified warranty periods:

Hardware and ShadeCloth (interior use):

- Lifetime of the interior project for which it was originally purchased, from date of shipment for the Mecho®/5 and ElectroShade Systems, but not to exceed 25 years.
- 10 years from date of shipment for the Mecho SlimLine System.
- 10 years from date of shipment for the Suburban™/2 System.
- 10 years from date of shipment for the UrbanShade™ System.

Controls, Electrical, Electronic Accessories and Motors (interior use):

- 5 years from date of shipment for UrbanShade™ products.
- 5 years from date of shipment for ElectroShade products.
- 1 year from date of shipment for Suburban™/2 System.

Bead chain in all manual systems is a fail-safe element and is not warranted.

Monumental Shades:

MechoShade Warranty for Monumental Shades shall be limited to 10 years for hardware and shadecloth; 5 years for motors and electronics. Monumental Shades are defined to be any shade band over 300 Sq. ft. and shall be wider than 20 ft. and/or higher than 30 ft.

If any part of a MSS product (except for images or artwork on shadecloths) is found in the reasonable judgment of MSS to be defective in factory materials or workmanship during the above-prescribed warranty periods, MSS will repair or replace the defective part at its option. Repair or replacement under this warranty does not include labor or costs for installation, reinstallation, or removal of MechoShade products, parts or components. This warranty extends only to the original purchaser for MSS products installed by an authorized MechoShade dealer representative with a valid written dealer representative agreement with MechoShade® Systems, Inc. The MechoShade®/5 System and ElectroShade® System Lifetime Limited Warranty is void unless the warranty card is filled out and returned to MSS within 120 days of shipment.

This warranty does not apply if any of the following exclusions exist:

- The product has been subject to misuse, abuse, neglect, negligence, accident, or has been operated in any way contrary to MSS's operating instructions or specifications.
- Damages or conditions that have resulted from improper cleaning, maintenance, care or repair of the product.
- The product has been improperly installed or not installed according to MSS's guidelines or specifications.
- MSS's written instructions for installation and wiring of electrical connections were not followed.
- The product has been used to perform functions or operated in a manner contrary to its design or otherwise is used in a manner contrary to or in excess of MSS's specifications, drawings, or instructions.
- The product is used with electrical accessories or parts, including switches, relays, or other accessory components, that have not been previously approved in writing by the MSS Engineering Department.
- If any electrical accessories and other components have been used in disregard to the basic wiring diagram for which they were designed.
- Failure to comply with all MSS's written instructions and specifications.

- Repairs made necessary from normal wear of the product or by use of parts or accessories which are either incompatible with the product or otherwise adversely affect its operation, performance, or durability.
- Product used for non interior applications or otherwise exposed to outdoor environmental conditions.

MSS reserves the right to change or improve the design of any MechoShade product without assuming any obligation to modify or retrofit any product previously manufactured or supplied.

MSS does not warrant any images or artwork reproduced, printed, or placed on shade cloth by MSS or any imaging supplier, and MSS is not otherwise responsible or liable for fading, discoloration, color shifts, or any other failure or defect in such images or artwork.

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**MSS ASSUMES NO RESPONSIBILITY AND SHALL NOT BE LIABLE TO THE ORIGINAL PURCHASER OR ANY OTHER PARTY OR NON PARTY FOR ANY PERSONAL INJURY, LOSS, OR DAMAGE, WHETHER DIRECT, LIQUIDATED, INCIDENTAL, OR CONSEQUENTIAL, INCLUDING BUT NOT LIMITED TO THE LABOR OR COSTS RELATED TO THE REPLACEMENT OF A DEFECTIVE PRODUCT OR PARTS OR INSTALLATION, REINSTALLATION, OR REMOVAL OF SUCH PRODUCT OR PARTS, EXPENSE OF RETURNING A PRODUCT OR PART TO MSS OR ITS AUTHORIZED DEALER OR THE EXPENSE OF DELIVERING IT BACK TO THE ORIGINAL PURCHASER, LOSS OR DAMAGE TO PERSONAL OR REAL PROPERTY, LOSS OF REVENUE, LOSS OF THE USE OF THE PRODUCT, LOSS OF TIME, OR INCONVENIENCE.**

This warranty gives the original purchaser specific legal rights, and the original purchaser may also have other rights which vary from state to state.

**For a copy of our General Terms and Conditions of Sale, please see Section 10 of this binder or contact MechoShade Systems, Inc.**



