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Optional SnapLoc Fascia

MechoShade®, first developed in 1970, is the original manual chain-driven heavy-duty hardware system. MechoShade’s Mecho/5 system is the only hardware and shadecloth system with a Lifetime* Limited Warranty, with 100% replacement and no depreciation over the life of the warranty. MechoShade brackets are available in SlimLine, Standard, Pocket Extended and Extended sizes. *(Size is determined by the roll up diameter of the shade.)*

Mecho®/5:
MechoShade’s new patented overrunning clutch drive system provides 67% more lift capacity than the previous model. The Mecho/5 requires no adjustments resulting in faster, easier installation. Available in Standard, Pocket Extended and Extended bracket sizes.

Mecho® SlimLine™:
SlimLine is MechoShade’s compact heavy-duty bracket system designed for small shades in narrow spaces and uses the Mecho/3 operating system.

MechoShades feature:
- **Energy-conserving ShadeCloths.**
  MechoShades offer the most extensive line of sun screens and blackout shade cloths in the industry. ThermoVeil®, EuroVeil® and EuroTwill™ ShadeCloths 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.)**
- **Optional Lift-Assist Mechanism™ (LAM)** provides the ability to lift heavy, oversized or multibanded manual shades. An important consideration for the frail or infirmed.
- **Multiband operation** with one drive chain.
- **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 or butt joints or notching to accommodate the chain.
- **SnapLoc® Spline** for easy installation, removal and cleaning of the shadebands without tape or glue and without having to remove the tube or brackets.
- **Built-in offset chain** for recessing the chain away from the room or placing it in front of a blackout channel.
- **Full line of optional accessories.** Ceiling pockets, side and sill channels, and other optional accessories. *(See Section 6 – Pockets and Section 7 – Room Darkening for details.)*
- **Mecho/5 Lifetime Limited Warranty,** for the life of the interior project, not to exceed 25 years. Please contact MechoShade for complete details.
The MechoShade® Manual Drive System

Mecho®/5
Mecho®/5, MechoShade’s latest patented design featuring an overrunning clutch, self lubricating components and larger diameter sprocket, providing 67% more lift capacity. As a result, Mecho/5 increases the shade size range that a manual drive system can lift before motorization is required. Plus, the Mecho/5 carries a Lifetime* Limited Warranty on the hardware and shadecloth.

Mecho/5 requires no adjustments, resulting in faster, easier installation. Mecho/5 has been field tested and performance proven on hundreds of thousands of shades installed worldwide. Available in Standard, Pocket Extended, Extended and DoubleShade® bracket sizes.

The Mecho/5 can accommodate shades up to 126" (320cm) wide by 180" (457cm) high.

Mecho® SlimLine™:
SlimLine™ is MechoShade’s compact heavy-duty bracket system designed for small shades in narrow spaces, uses the Mecho®/3 operating system and carries a 10-Year Limited Warranty† on the hardware and shadecloth.

MechoShade® brackets are available in a variety of sizes:

<table>
<thead>
<tr>
<th>Bracket Type</th>
<th>Max. Roll Diameter With Fascia</th>
<th>Max. Roll Diameter Without Fascia</th>
<th>Bracket Dimensions Without Optional Fascia, Roll Up Diameter or Wall Mount Bracket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mecho® SlimLine™</td>
<td>2-1/4&quot; (57mm)</td>
<td>2-3/4&quot; (70mm)</td>
<td>2-3/8&quot; (60mm) W x 3-3/4&quot; (95mm) H</td>
</tr>
<tr>
<td>Mecho®/5 Standard</td>
<td>2-3/4&quot; (70mm)</td>
<td>2-3/4&quot; (70mm)</td>
<td>3&quot; (76mm) W x 3-3/4&quot; (95mm) H</td>
</tr>
<tr>
<td>Mecho®/5 Pocket Extended</td>
<td>N/A</td>
<td>4&quot; (102mm)</td>
<td>3&quot; (76mm) W x 4-3/8&quot; (111mm) H</td>
</tr>
<tr>
<td>Mecho®/5 Extended</td>
<td>3-7/16&quot; (87mm)</td>
<td>5&quot; (127mm)</td>
<td>3&quot; (76mm) W x 4-13/16&quot; (122mm) H</td>
</tr>
<tr>
<td>Mecho®/5 DoubleShades®</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#10 Rear shade Blackout</td>
<td>2-3/4&quot; (70mm)</td>
<td>2-3/4&quot; (70mm)</td>
<td>7-1/2&quot; (191mm) W x 3-3/4&quot; (95mm) H</td>
</tr>
<tr>
<td>#10 Front shade Sunscreen</td>
<td>2-3/4&quot; (70mm)</td>
<td>2-3/4&quot; (70mm)</td>
<td></td>
</tr>
<tr>
<td>#15 Top shade Blackout</td>
<td>2-3/4&quot; (70mm)</td>
<td>3-3/8&quot; (86mm)</td>
<td>4-5/16&quot; (110mm) W x 7-9/32&quot; (185mm) H</td>
</tr>
<tr>
<td>#15 Bottom shade SunScreen</td>
<td>2-3/4&quot; (70mm)</td>
<td>4-5/16&quot; (110mm)</td>
<td></td>
</tr>
</tbody>
</table>

* Mecho/5 Lifetime Limited Warranty: for the life of the interior project, not to exceed 25 years. See pages 2.26 – 2.28 for specific details.
† See pages 2.26 – 2.28 for details.
Multiband MechoShade® exploded view and edge clearances

1. Wall-Mount Angle
2. Fascia End Caps
3. Idle-End Bracket
4. Tube Plug (idle-end)
5. SnapLoc® Tube
6. SnapLoc® Spline Mounting Channel
7. SnapLoc® Spline
8. Hembar (standard cloth covered)
9. Center Support Bracket
10. Tube Connector ("dog bone")
11. Tube Plug (Center Support)
12. Room Darkening Center Channel (double) (with Polybond Light Seal)
13. Exposed Hembar with Light Seal (Shown with Optional Welt)
14. Mecho®/S Drive-End Bracket
15. Room Darkening Shadecloth Guides (pair)
16. Room Darkening Side Channel (single) (with Polybond Insert)
17. SnapLoc® Regular-Roll Fascia
18. SnapLoc® Reverse-Roll Fascia
19. Bead Chain Keeper
20. Upper and Lower Bead Chain Stops
21. Drive Chain (stainless-steel bead chain)
22. Heavy-Duty Bumper
23. Bead Chain Connector
24. Chain Retainer*
25. Optional Spring Loaded Chain Retainer*

Aluminum Accessory Finishes:
- Clear Anodized
- White
- Grey
- Black
- Quaker Bronze (Duranodic color)
- Colonial White (fascia only)

* Chain Retainers included for all residential and public facilities.

Optional Regular-Roll Fascia available for: Mecho®/S Standard and Extended brackets and Mecho SlimLine™ brackets.
Optional Reverse-Roll Fascia available for: Mecho®/S Standard brackets.
* No Fascia Available: Mecho®/S Pocket brackets.

For Edge Clearances of specific brackets see the last section of this binder.
**Mecho® SlimLine™ Bracket**

Maximum roll up diameter:
- 2-1/4" (57mm) with optional fascia,
- 2-3/4" (70mm) without fascia.

**Mecho®/5 Standard Bracket**

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

See the MechoShade® Bracket Selection Guide on pages 2.7 - 2.11.
**Mecho®/5 Extended Bracket**
Maximum roll up diameter:
3-7/16" (87mm) with optional fascia,
5" (127mm) without fascia.

**Mecho®/5 Pocket Bracket**
Maximum roll up diameter:
4" (102mm). Fascia not available.

---

For Edge Clearances of specific brackets see the last section of this binder.

### Chain Retainer
Required for all residential and public facilities.

Optional Blackout Channels available.

See the MechoShade® Bracket Selection Guide on pages 2.07 - 2.11.
Group A Shade Cloths (0900, 1000, 1300, 3000 and 5400 Series) .030" thick, average 1.05 lbs. per sq. yd.

---

**Bracket Selector Guide for MechoShades®**

For Electro Bracket Guides see pages 3.08 – 3.12. For Suburban Shade Information see page 2.22 – 2.23.
Bracket Selector Guide for MechoShades®

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

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<thead>
<tr>
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</tbody>
</table>

BRACKET SELECTION KEY

1. Accepts all Mecho/5 and SlimLine Brackets with/without Fascia
   A. B. C. D.

2. Accepts SlimLine without Fascia and all Mecho/5 Brackets
   A. B. C. D.

3. Accepts all Mecho/5 Pocket & Extended Brackets with/without Fascia
   A. B. C. D.

4. Accepts all Mecho/5 Pocket & Extended Brackets without Fascia
   A. B. C. D.

5. Use ElectroShades or Contact Factory

For Electro Bracket Guides see pages 3.08 – 3.12. For Suburban Shade Information see page 2.22 – 2.23.
# Bracket Selector Guide for MechoShades

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

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## Bracket Selection Key

1. Accepts all Mecho/5 and SlimLine Brackets with/without Fascia
   - A.
   - B.
   - C.
   - D.

2. Accepts SlimLine without Fascia and all Mecho/5 Brackets
   - A.
   - B.
   - C.
   - D.

3. Accepts all Mecho/5 Pocket & Extended Brackets with/without Fascia
   - C.
   - D.

4. Accepts all Mecho/5 Pocket & Extended Brackets without Fascia
   - C.
   - D.

5. Use ElectroShades or Contact Factory

---

For additional information regarding bracket selection, see Section 10: Engineering Standards.
# Bracket Selector Guide for MechoShades®

**Group D** ShadeCloths (5100, 5200, 5300, 6000 and 6300 Series) .025” thick, average .90 lbs. per sq. yd.

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</table>

**BRACKET SELECTION KEY**

1. Accepts all Mecho/5 and SlimLine Brackets with/without Fascia
   - A. Mecho/5 SlimLine Drive-End Bracket
   - B. Mecho/5 Standard Drive-End Bracket
   - C. Mecho/5 Pocket Drive-End Bracket
   - D. Mecho/5 Extended Drive-End Bracket

2. Accepts SlimLine without Fascia and all Mecho/5 Brackets

3. Accepts all Mecho/5 Pocket & Extended Brackets with/without Fascia

4. Accepts all Mecho/5 Pocket & Extended Brackets without Fascia

5. Use ElectroShades or Contact Factory

For Electro Bracket Guides see pages 3.08 – 3.12.
For Suburban Shade Information see page 2.22 – 2.23.

For additional information regarding bracket selection, see Section 10: Engineering Standards.
# Bracket Selector Guide for MechoShades®

**Group E ShadeCloths (0700 Series) .015” thick, average .8750 lbs. per sq. yd.**

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</tr>
</tbody>
</table>

## Bracket Selection Key

1. Accepts all Mecho/5 and SlimLine Brackets with/without Fascia
   - [A](#), [B](#), [C](#), [D](#)

2. Accepts SlimLine without Fascia and all Mecho/5 Brackets
   - [A](#), [B](#), [C](#), [D](#)

3. Accepts all Mecho/5 Pocket & Extended Brackets with/without Fascia
   - [A](#), [B](#), [C](#), [D](#)

4. Accepts all Mecho/5 Pocket & Extended Brackets without Fascia
   - [C](#), [D](#)

5. Use ElectroShades or Contact Factory

### Bracket Dimension Key

- **A. MECHO/5 SLIMLINE DRIVE-END BRACKET**
  - 3-3/4” (95mm)
  - Optional Fascia

- **B. MECHO/5 STANDARD DRIVE-END BRACKET**
  - 3-3/4” (95mm)
  - Optional Fascia

- **C. MECHO/5 POCKET DRIVE-END BRACKET**
  - 3” (76mm)

- **D. MECHO/5 EXTENDED DRIVE-END BRACKET**
  - 3” (76mm)
    - Optional Fascia

For Electro Bracket Guides see pages 3.08 – 3.12.
For Suburban Shade Information see page 2.22 – 2.23.

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

---

For ElectroShades or Contact Factory:

Unit 101-5219 192nd St. Surrey, BC, Canada, V3S 4P6 | Phone: 604-881-4881 | Fax: 604-881-4882
**Bracket Selector Guide for MechoShades®**

**Group F ShadeCloths (0100 Series) .0216" thick, average .793 lbs. per sq. yd.**

### BRACKET SELECTION KEY

| Width | 36"
|-------|---
| 48"   |   |
| 60"   |   |
| 72"   | 1 |
| 84"   |   |
| 96"   |   |
| 108"  |   |
| 120"  |   |
| 126"  |   |
| 132"  | 2 |
| 144"  |   |
| 156"  | 5 |
| 168"  |   |
| 180"  |   |
| 192"  | 3 |
| 204"  |   |
| 216"  |   |
| 228"  |   |
| 240"  |   |

#### BRACKET DIMENSION KEY

- **A.** Mecho/5 Slimline Drive-End Bracket
- **B.** Mecho/5 Standard Drive-End Bracket
- **C.** Mecho/5 Pocket Drive-End Bracket
- **D.** Mecho/5 Extended Drive-End Bracket

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

---

For Electro Bracket Guides see pages 3.08 – 3.12.
For Suburban Shade Information see page 2.22 – 2.23.
**ThermoVeil®** or **EuroVeil®** SunScreens with Blackout ShadeCloth on a Single Bracket with SnapLoc® Fascia (optional).

**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.

**DoubleShade® DoubleBrackets**
- Requires both the solar and blackout operating brackets on a DoubleShade assembly have the same right-hand drive or left-hand drive orientation.
# MechoShade®/5 DoubleShade® Bracket #15, with and without fascia.

**With fascia.**

<table>
<thead>
<tr>
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<th>One (1) Battens</th>
<th>Two (2) Battens</th>
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<tr>
<td><strong>DoubleShade #10</strong></td>
<td><strong>DoubleShade #15</strong></td>
<td><strong>DoubleShade #15</strong></td>
</tr>
<tr>
<td>Blackout (w/o fascia)</td>
<td>Blackout (w/o fascia)</td>
<td>Blackout (w/o fascia)</td>
</tr>
<tr>
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<td>200&quot; (508cm)</td>
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<tr>
<td><strong>ThermoVeil® (w/o fascia)</strong></td>
<td><strong>ThermoVeil® (with fascia)</strong></td>
<td><strong>ThermoVeil® (without fascia)</strong></td>
</tr>
<tr>
<td>131&quot; (333cm)</td>
<td>197&quot; (500cm)</td>
<td>200&quot; (508cm)</td>
</tr>
<tr>
<td>97&quot; (246cm)</td>
<td>200&quot; (508cm)</td>
<td>200&quot; (508cm)</td>
</tr>
<tr>
<td>111&quot; (282cm)</td>
<td>200&quot; (508cm)</td>
<td>200&quot; (508cm)</td>
</tr>
<tr>
<td>77&quot; (196cm)</td>
<td>200&quot; (508cm)</td>
<td>200&quot; (508cm)</td>
</tr>
<tr>
<td>92&quot; (234cm)</td>
<td>200&quot; (508cm)</td>
<td>200&quot; (508cm)</td>
</tr>
<tr>
<td>58&quot; (147cm)</td>
<td>200&quot; (508cm)</td>
<td>200&quot; (508cm)</td>
</tr>
</tbody>
</table>

* Actual maximum heights may be greater, but not recommended. ** DoubleShade #10: End caps not available. *** Shade #15: Channels are not available.
**MechoShade® <12° Radius Center Support**

With or without SnapLoc® Fascia (Optional).
(Up to 12° = 6° + 6°)

**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 Mecho/5 are at an 6 degree + 6 degree angle off the radius, with a 1-1/2" (38mm) tube and the shade in the full down position. 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 the angle.

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

The following <12° Radius Center Support applications use the standard MechoShade® brackets, tube connector and tube plugs.

<table>
<thead>
<tr>
<th>&lt;12° Center Support Bracket model</th>
<th>Center Support Edge Clearances</th>
<th>Maximum Roll Up Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mecho/5 Wide</td>
<td>3/4&quot; (19mm) 7/16&quot; (11mm) 5/8&quot; (16mm)</td>
<td>2-3/4&quot; (60mm) with or without fascia</td>
</tr>
<tr>
<td>Mecho/5 Pocket</td>
<td>3/4&quot; (19mm) 7/16&quot; (11mm) 5/8&quot; (16mm)</td>
<td>4&quot; (102mm) No fascia</td>
</tr>
<tr>
<td>Mecho/5 Extended</td>
<td>3/4&quot; (19mm) 7/16&quot; (11mm) 5/8&quot; (16mm)</td>
<td>3-7/16&quot; (87mm) with fascia</td>
</tr>
<tr>
<td>Mecho SlimLine™</td>
<td>3/4&quot; (19mm) 7/16&quot; (11mm) 5/8&quot; (16mm)</td>
<td>5&quot; (127mm) without fascia</td>
</tr>
<tr>
<td></td>
<td>3/4&quot; (19mm) 7/16&quot; (11mm) 5/8&quot; (16mm)</td>
<td>2-1/4&quot; (57mm) with fascia</td>
</tr>
<tr>
<td></td>
<td>3/4&quot; (19mm) 7/16&quot; (11mm) 5/8&quot; (16mm)</td>
<td>2-3/4&quot; (60mm) without fascia</td>
</tr>
</tbody>
</table>

Not available for DoubleShade brackets. Call for shop drawings.
Other MechoShade® Components & Optional Accessories

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
Optional Lift-Assist Mechanism™ for heavy, oversized or multibanded manual shades.

MechoShade’s optional Lift-Assist Mechanism™ (LAM™) enables users to lift heavy, oversized or multibanded manual shades weighing between 10 and 20 lbs. (4.5 kg and 9.0 kg) or more. In many cases a shade that formerly required motorization can now be lifted with the Lift-Assist Mechanism. The Lift-Assist Mechanism can also provide exceptional lifting capacity for shades less than 10 pounds. An important consideration for the frail or infirmed.

The LAM system is comprised of a spring assembly inside the shade tube and one of a wide range of LAM idle-end brackets designed to wind the spring in the proper direction for regular or reverse roll for both right-hand or left-hand drive. LAM’s are available for the Mecho®/5 in Wide, Pocket and Extended sizes and the Mecho® SlimLine™ Bracket.

---

**Clockwise Winding LAM Springs**
- Right-Hand Drive, Regular Roll
- Left-Hand Drive, Reverse Roll

**Counter-Clockwise Winding LAM Springs**
- Left-Hand Drive, Regular Roll
- Right-Hand Drive, Reverse Roll

Spring winding is indicated on the spring by color code of plastic sleeve.

---

**LAM ASSEMBLY FOR**
- 1-1/2” and 1-7/8” (38mm and 48mm) SNAPLOC TUBES

**Clockwise Winding LAM Spring for**
- RH Drive, Regular Roll or LH Drive, Reverse Roll
  - (210 coils)
  - MLAA 0210 DS SC

**Counter-Clockwise Winding LAM Spring for**
- LH Drive, Regular Roll or RH Drive, Reverse Roll
  - (210 coils)
  - MLAA 1210 DS SC

---

**LAM ASSEMBLY FOR**
- 1-3/4” (44mm) SNAPLOC TUBE

**Clockwise Winding LAM Spring for**
- RH Drive, Regular Roll or LH Drive, Reverse Roll
  - (248 coils)
  - MLAA R248 24 SC

**Counter-Clockwise Winding LAM Spring for**
- LH Drive, Regular Roll or RH Drive, Reverse Roll
  - (248 coils)
  - MLAA L248 24 SC

---

**LAM ASSEMBLY FOR**
- 2-1/8” (54mm) SNAPLOC TUBE

**Clockwise Winding LAM Spring for**
- RH Drive, Regular Roll or LH Drive, Reverse Roll
  - (248 coils)
  - MLAA R248 24 2S

**Counter-Clockwise Winding LAM Spring for**
- LH Drive, Regular Roll or RH Drive, Reverse Roll
  - (248 coils)
  - MLAA L248 24 2S
The MechoShade® Return Air “No Cost Pocket™”

“No Cost Pocket™”
A “No Cost Pocket” can be made by installing an optional closure and closure mount to blocking just above the ceiling grid. The shade bracket is wall, jamb or ceiling mounted above the opposite window wall.

This diagram is for example only and is not to be used as an installation guide. For proper installation instructions, detailed site specific shop drawings are necessary.

Contact MSS Estimating Department, CAD or Engineering departments to obtain proper shop drawings.

Optional Sound Stop
A 1” (25mm) fiberglass sound stop can be installed between shade brackets above partitions to help reduce noise between work areas.
1. Mounting Brackets
   The drive assembly, idle-end assembly, and center support systems are attached to an 1/8 in. (3mm) steel universal mounting bracket.

2. No Adjustment Necessary
   MechoShade®/5 drive-end bracket requires no adjustment, resulting in faster installations.

3. Braking
   An overrunning clutch design that disengages to 90% during the raising and lowering of the shade and can withstand a pull force of 40 lbs. (18 kg). Recommended maximum lift shade-band 20 lbs. (9 kg).

4. Braking Surface:
   The patented self-lubricating oil impregnated steel hub, on which the brake system is mounted, includes an articulated brake assembly which assures smooth, non-jerky operation in raising and lowering the shades.

5. Sprocket
   A one-piece molded Delrin® chain sprocket.

6. Hardware
   All hardware is available with a universal offset drive and left-hand or right-hand operations. The offset-drive chain assembly places both operating chains at the same location or to the rear of the shade cloth out of sight. The distance between the center line of the operating chain shall not exceed 1/2 in (13mm).

7. Tube Support
   A Delrin® cover plate provides protection from the tube being dislocated. In the event the tube should be pushed out of place, the Delrin end of the mounting plate contains the tube which may prevent the tube from falling out of the bracket.

8. Wide Spans
   Depending on the height, weight and shadecloth specified, MechoShades can be made up to 12 feet wide or more. Call your local representative or MechoShade Systems technical support.

9. Interchange or replacement
   Bracket components can be interchanged or replaced without having to remove the brackets from the walls or ceilings. This feature is included in both inside and outside mountings.

10. Component Quality
    Plastic components are made of strong, dimensionally stable DuPont Delrin™. Not ABS/polystyrene or nylon.

11. Bracket Metal
    Support brackets are plated 1/8 in. (3mm) steel. Custom colors are available on special order.

12. Narrow-Edge Clearances
    Drive-end: 13/16 in. (21mm), idle-end: 1/2 in. (13mm), and center support: 5/16 in. (8mm).

13. Multi-Band Shade
    A single drive bracket can handle two or more shade bands permitting a single operator to operate the shade, assuring simultaneous alignment of all the bands (within MSS recommended weight limits).

14. Faceted Window Installations
    The offset drive permits up to a 12-degree (6°+ 6°) angle between any two shades with a single operator. By special order only, up to six degrees each side maximum. Contact MechoShade Systems, Inc. for details.

15. Optional SnapLoc® Fascia
    SnapLoc® 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™ baked enamel in six standard colors plus clear aluminum.

16. Offset-Chain, No-Notch Fascia
    The operating chain drops behind the return edge of the fascia without the necessity of notching or otherwise defacing the return leg of the fascia. The MechoShade® Wide, and Extended brackets accommodate fascia returns no less than 1-1/2 in. (38mm) (50%) from the front of the hardware fully concealing the roll and tube.

17. Shade Mounting
    The SnapLoc™ spline permits positive SnapLoc mounting and unmounting of the shadecloth from the tube without having to remove the hardware, the tube or brackets and without the use of two-sided tape, staples or other fasteners.

18. Non-Binding Regressed End Plug
    The idle-end plug is fitted with a recess which prevents oversized tubes from
being forced between brackets. This arrangement assures proper sizing and clearance between the tube and the brackets and minimizes light leaks.

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

20. Center Support Brackets
For ceiling or wall mounted multibanded shades. Center support brackets shall accept continuous lengths of fascia, which will span two or more MechoShade bands. Minimum length 15 ft. (457 cm).

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

22. Optional Exposed Hembars
In painted and baked PPG finishes with key way for shades.

23. DualShade® System:
The patented DualShade system, by MechoShade Systems, Inc., for installing both a ThermoVeil® sun screen together with either a room darkening shade cloth or MirroFilm™ 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.

24. DoubleShades®
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 perfect alignment and minimum installation labor.

MECHO® SLIMLINE

SlimLine™ is available in the Mecho/3 design and shares all the features of the Mecho/5 except for the following:

1. Mounting Brackets
At 2-3/8 in. (60 mm) W X 3-3/4 in. (95 mm) H, the drive-end, idle-end and center supports become the smallest heavy-duty system available.

2. Variable Adjustment
Adjustments can be made in the dynamic mode (free-falling adjustment) or in the static mode (infinite-stop adjustment).

3. Braking
A linear disc brake, as opposed to a flat-steel backing plate, consists of a compression spring with two friction-absorbing nylon washers on a 1/4 in. (6 mm) steel shaft. This design provides continuous uniform compensating brake pressure on the one-piece sprocket-brake drive component.

DoubleShade® brackets have all the same features of the standard Mecho/5 bracket, plus allow both sun screen and blackout shades on a single bracket. DoubleShade’s compact size allow two shades to fit in a smaller room projection than two individually installed shades on the same window.

25. Warranty
Failure of any part or component shall be replaced at no charge, subject to warranty conditions. The drive chain is a fail safe component that is designed to break in two at 60-90 lbs. (27-41 kg) of shock and is not covered by the warranty. The chain may be quickly repaired or spliced on site by maintenance personnel in minutes. (Contact MechoShade Systems for warranty terms and conditions.)
The Suburban™/2 was developed in response to the need for a well designed, high quality, moderately priced roller shade for commercial or residential shades. The Suburban/2's clean lines, care-free maintenance and high quality components are backed by a Ten-Year Limited Warranty that makes it a great value for a limited budgets and/or a tight space requiring a small profile.

**The Suburban/2 features:**

- Energy-conserving Shade Cloths. Suburban/2 offers the most extensive line of sun screens and blackout shade cloths in the industry. ThermoVeil® and EuroVeil® 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. See Section 5 – Shade Cloth for details.

- The Suburban/2 is a manual shade comprised of an overrunning clutch braking system that requires no adjustment, and is operated by a nickel plated steel chain.

- Universal end caps allow for wall, ceiling or jamb mounting and are made of high impact ABS for a high quality finish.

- When fully exposed Suburban/2 has a clean finished look with the convenience and flexibility of individual components.

- The Suburban/2 drive and idle mechanisms utilize high quality molded operating components of Delrin® and Delrin® with Teflon®.

- SnapLoc™ Mini Spline allows for easy removal of the shade cloth without removing the roller tube from the brackets.

- SnapLoc extruded aluminum Roller Tubes are available in 1-1/4” (32mm) diameter or 1-3/8” (35mm) diameter sizes. SnapLoc roller tubes include a mounting channel for the SnapLoc Mini Spline.

- #10 nickel plated steel bead chain with qualified spacing assuring smooth and precise operation at 45 lb. (20kg) minimum breaking strength.

- Chain stop beads control the upper and lower limits of the shade.

- Child-Safe Chain Retainer with SnapLoc base (optional) required for residential applications.

- Drive-end plugs with steel shaft pins.

- Idle-end plugs with steel shaft pins.

- Square continuous SnapLoc fascia conceals the hardware for a clean built-in look (optional).

- Bracket design allows for a continuous fascia to be extended wall to wall and/or over several shades.

- Flat aluminum hembar is concealed within the shade band or available as an optional exposed light seal hembar.
### ThermoVeil® 0900, 1000, 1300, 1800, 2100, 3000, 6000 & Equinox

<table>
<thead>
<tr>
<th>HEIGHT</th>
<th>WIDTH</th>
<th>1.204&quot; Tube</th>
<th>1-3/8&quot; Tube</th>
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#### Non-Railroaded Roller Shades

#### Railroaded Roller Shades

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<th>WIDTH</th>
<th>1.204&quot; Tube</th>
<th>1-3/8&quot; Tube</th>
</tr>
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<tr>
<td>87&quot;</td>
<td>87&quot;</td>
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</table>

#### Optional Fascia

**EuroVeil® 5300 Series**

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<th>HEIGHT</th>
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<th>1.204&quot; Tube</th>
<th>1-3/8&quot; Tube</th>
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</thead>
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#### Non-Railroaded Roller Shades

#### Railroaded Roller Shades

<table>
<thead>
<tr>
<th>HEIGHT</th>
<th>WIDTH</th>
<th>1.204&quot; Tube</th>
<th>1-3/8&quot; Tube</th>
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<tr>
<td>87&quot;</td>
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</tr>
</tbody>
</table>

#### Optional Fascia

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**UNIVERSAL MOUNTING – For Continous Ends Only**

- Ceiling Mount
- Wall Mount
- Jamb Mount

---

*Suburban™/2*  
Unit 101-5219 192nd St. Surrey, BC, Canada, V3S 4P6 | Phone: 604-881-4881 | Fax: 604-881-4882
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 below 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 1-1/2” (38mm) 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.

<table>
<thead>
<tr>
<th>Standard Batten Placement for Railroaded (RR) MechoShades*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roll Widths</td>
</tr>
<tr>
<td>Requires</td>
</tr>
<tr>
<td>23” (58cm)</td>
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<tr>
<td>Requires</td>
</tr>
<tr>
<td>23” (58cm)</td>
</tr>
<tr>
<td>Requires</td>
</tr>
<tr>
<td>23” (58cm)</td>
</tr>
</tbody>
</table>

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.


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

<table>
<thead>
<tr>
<th>Item</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MechoShade®</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ElectroShade®</strong></td>
<td></td>
</tr>
</tbody>
</table>

![Image](image1.png) MechoShade®  ![Image](image2.png) ElectroShade®

**Single band**  **Multi-band**  **Regular and reverse roll**

- Single band
- Multi-band (Two or more shade bands on one operator MechoShades® or ElectroShades®)
- Regular roll (unwinds toward glass)
- Reverse roll (unwinds away from glass)

<table>
<thead>
<tr>
<th>Single shade</th>
<th>Dual Shade®</th>
<th>DoubleShade®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single shade (standard)</td>
<td>Dual Shade®</td>
<td>DoubleShade® (2 on 1 bracket)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-railroaded shadecloth (NRR) (standard)</th>
<th>Railroaded shadecloth (RR) (landscape)</th>
<th>DoubleShade®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-railroaded shadecloth (Shadecloth used normally)</td>
<td>Railroaded shadecloth (Shadecloth used width for height)</td>
<td>DoubleShade®</td>
</tr>
</tbody>
</table>

**Single width**  **Multi-width**

- Single width (No seams)
- Multi-width (A shade band with two or more widths joined with a joint batten)

<table>
<thead>
<tr>
<th>Seam joint (special)</th>
<th>Batten joint (standard)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

![Image](image3.png)  ![Image](image4.png)
<table>
<thead>
<tr>
<th>LightingWords defined</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>0–10 ballast</strong></td>
<td>Dims down to 10% of the light output.</td>
</tr>
<tr>
<td><strong>2–10 ballast</strong></td>
<td>Dims down to 20% of the light output but at half the cost of 0–10 ballasts.</td>
</tr>
<tr>
<td><strong>Ambient illumination</strong></td>
<td>Direct, indirect, and reflected illuminance from windows, walls, floors, and ceilings.</td>
</tr>
<tr>
<td><strong>Candela (cd)</strong></td>
<td>The base unit of luminous intensity, or a measure of the power emitted by a light source in a particular direction. A common candle emits light with a luminous intensity of roughly one candela.</td>
</tr>
<tr>
<td><strong>Foot-candle (fc, lm/sq. ft., or sometimes ft-c)</strong></td>
<td>A unit of illuminance or light intensity widely used in the lighting industry. Defined as the amount of illumination the inside surface of a 1-ft. radius sphere receives from a light source of one candela in the center of the sphere. Currently, 35–50 ft-c is considered the appropriate amount of illumination for most work surfaces.</td>
</tr>
<tr>
<td><strong>Illuminance</strong></td>
<td>Reflected light. A measure of the intensity of the incident light, wave-length weighted to correlate with human-brightness perception. The total amount of visible light illumination on a surface from all directions above the surface (foot-candles or lux).</td>
</tr>
<tr>
<td><strong>Illuminance glass</strong></td>
<td>The illuminance on a vertical plane inside the glazing unit, between the inner glass surface and the shade fabric (foot-candles or lux).</td>
</tr>
<tr>
<td><strong>Illuminance glass and shade</strong></td>
<td>The illuminance on a vertical plane inside the room just behind the shadecloth (foot-candles or lux).</td>
</tr>
<tr>
<td><strong>Illuminance outside</strong></td>
<td>The illuminance on the exterior surface of the glazing system (foot-candles or lux).</td>
</tr>
<tr>
<td><strong>Luminance</strong></td>
<td>Direct light, such as the sun or the light from a computer screen. The amount of visible light leaving a point on a surface in a given direction (foot-lamberts or cd/m²).</td>
</tr>
<tr>
<td><strong>Luminous Intensity</strong></td>
<td>The time rate of the flow of light. Or, the luminous flux emitted from a point per unit solid angle into a particular direction (foot-candles or lumens/m²).</td>
</tr>
<tr>
<td><strong>Luminance zone</strong></td>
<td>See Visual Brightness Factor.</td>
</tr>
<tr>
<td><strong>Lux (lx)</strong></td>
<td>The standard unit of illuminance. Used as a measure of the intensity, as perceived by the human eye, of light that hits a surface. Analogous to watts per sq. ft., but with the power at each wavelength weighted according to how it is perceived by the human eye. One foot-candle = 10.764 lux.</td>
</tr>
<tr>
<td><strong>Shade luminance</strong></td>
<td>The amount of light leaving a point on the surface of the shadecloth surface in a direct-normal direction (foot-lamberts or cd/m²).</td>
</tr>
</tbody>
</table>
### Lighting Words Defined

<table>
<thead>
<tr>
<th><strong>Surface brightness</strong></th>
<th>The measured illuminance or luminance of a light source, usually described in lux.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Visual Brightness Factor</strong></td>
<td>1:10 ratio / 60° view zone. The ratio of light at the work surface and a computer screen and the brightest light in a 60° view zone. Current computer screens have 200 C/m² luminance; thus, the brightest light in the viewing zone should be set for 2000 C/m².</td>
</tr>
<tr>
<td><strong>Watts of lighting per sq. ft.</strong></td>
<td>ASHRAE standard is 1 w/ft². The New York Times Building uses 0.50 w/ft².</td>
</tr>
<tr>
<td><strong>Working plane</strong></td>
<td>Desk height at 30 in. (76.2cm)</td>
</tr>
</tbody>
</table>
## SolarWords defined

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparent solar time</td>
<td>The time that is based upon the apparent motion of the sun across the sky.</td>
</tr>
<tr>
<td>Brightness Override Module</td>
<td>A SolarTrac® function that optimizes comfort by alleviating undesirable sky brightness or glare when these conditions exceed specified IES luminance levels. In the event of excessive glare, such as when it is overcast but bright, radiometers alert the SolarTrac® system, which then adjusts the shades to protect against glare while still permitting the entrance of daylight and views to the outside.</td>
</tr>
<tr>
<td>Btu</td>
<td>British thermal unit, a unit measuring the amount of energy needed to heat 1 lb. of water to 1 ° F.—the traditional unit to measure heating and cooling power.</td>
</tr>
<tr>
<td>Btu solar set points</td>
<td>A proprietary process developed by MechoSystems for automatically controlling shade adjustment in extreme environmental conditions. This process controls shade movement according to the Btu load on the window glass, as opposed to other methods which control movement according to sunny or cloudy sky conditions. Based on Btu loads, shade positions are automatically adjusted through the proprietary SolarTrac® computer-control system to be fully raised below a certain Btu load, half-down (or at some other point) when Btu load is within a certain range, and fully lowered when the Btu rises above another set point.</td>
</tr>
<tr>
<td>Diffuse radiation</td>
<td>Diffuse irradiation (Btu/hr./sq. ft. or W/m²).</td>
</tr>
<tr>
<td>Direct radiation</td>
<td>Direction irradiation at existing incident angle (Btu/hr./sq. ft. or W/m²).</td>
</tr>
<tr>
<td>G value</td>
<td>A measure of the solar energy transmitted through a window (used in Europe.) Ranges from 0 to 1, with a lower value representing less solar gain.</td>
</tr>
<tr>
<td>Incidence angle</td>
<td>In degrees, the angle between the solar normal to the surface under consideration and a solar ray.</td>
</tr>
<tr>
<td>Local standard time</td>
<td>The actual time observed at a location.</td>
</tr>
<tr>
<td>Profile angle</td>
<td>In degrees, the annular difference between a horizontal plane and a plane of fenestration until it includes the sun.</td>
</tr>
<tr>
<td>Real time</td>
<td>A system that relies upon constant monitoring of sky conditions and solar geometry and then sends the data to a program that analyses it and applies it accordingly.</td>
</tr>
<tr>
<td>Reflected radiation</td>
<td>Ground reflected irradiation (Btu/hr./sq. ft. or W/m²).</td>
</tr>
<tr>
<td>SolarWords defined</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Shadow Override Module</strong></td>
<td>A SolarTrac® function that raises shades in zones that are in shadow. This function uses a 3-D model of the surrounding cityscape to account for adjacent structures that cause shadows on the facade. When conditions cause a facade to be in shadow for a user-determined time frame, the system raises the shades.</td>
</tr>
<tr>
<td><strong>SHGF</strong></td>
<td>Solar Heat Gain Factor (Btu/hr./sq.ft. or W/M²).</td>
</tr>
<tr>
<td><strong>Solar altitude</strong></td>
<td>In degrees, the angle between a solar ray and the horizontal.</td>
</tr>
<tr>
<td><strong>Solar angles</strong></td>
<td>Incident angle—The difference, in degrees, between the surface normal and the solar ray. Surface normal—The vector at a right-angle to the window glass. Surface solar azimuth—The angle of the sun from the south of the horizontal projection of the earth-sun line. In degrees, the angle between the solar azimuth and the surface azimuth angle. Solar azimuth—in degrees, the angle between the North-South line and the horizontal projection of the solar ray.</td>
</tr>
<tr>
<td><strong>Solar heat gain factor (SHGF)</strong></td>
<td>A measure of the solar energy transmitted through a window (used in the U.S.) Ranges from 0 to 1, with a lower value representing less solar gain.</td>
</tr>
<tr>
<td><strong>Solar logic</strong></td>
<td>A means of describing the science incorporated into SolarTrac®s theory and operation, which uses, every hour of the day: • ASHRAE clear-sky modeling. • Microclimatic sky modeling. • Solar- and window-geometric computing programs. These data and various algorithms are used to position shades to meet a preprogrammed standard.</td>
</tr>
<tr>
<td><strong>Solar penetration</strong></td>
<td>The distance solar radiation extends into a building’s interior. In the Northern Hemisphere, solar penetration is greatest in the winter, due to the low angle of the sun.</td>
</tr>
<tr>
<td><strong>Solar scheduler</strong></td>
<td>A database that allows for the pre-programming of shade positions. Positions can be set according to clear-sky conditions, the time of day, and solar orientation. The Solar Scheduler can be programmed to provide shade movement on a weekly or monthly basis, from sunrise to sunset, according to timing which is preprogrammed and set according to latitude.</td>
</tr>
<tr>
<td><strong>Total radiation</strong></td>
<td>Total irradiation that includes direct, diffused, and reflected (Btu/hr./sq. ft. or W/m²).</td>
</tr>
</tbody>
</table>
One of the best reasons to specify MechoShade is its LIFETIME* of dependability.

Introducing the MechoShade® and ElectroShade® System Lifetime* Limited Warranty.

We are so confident about the quality and dependability of our Manual and Motorized Shading Systems that we gave them a LIFETIME* Limited Warranty. MechoShade Systems, Inc. warrants to original purchasers that the hardware and shade cloths of dependable service of its Mecho/5™ Manual Shade System and ElectroShade Motorized Shade System (interior use products) are free of manufacturing defects in factory materials or workmanship for a LIFETIME*.

LIFETIME* Limited Warranty is defined to be the life of the project for which it was originally purchased, not to exceed 25 years from the date of shipment. This warranty does not depreciate in value.

See full warranty details on page 2.31 – 2.32.
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).

Continued ☞
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.

ElectroShade 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 Warrantee 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 representation 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.