

USER MANUAL

Manual & Motorized Dual Roller Shades (DRS)



AutoMotionShade[®]



USER MANUAL

Manual & Motorized Dual Roller Shades (DRS)

INDEX

	Page
DRS - Manual	
Spring Tension (Speed) and Limit Stop Adjustment	2, 3
DRS - Motorized	
Motor Features and Types	4
Motor Limit Adjustment	5, 6
Electrical Wiring	7
“WIZARD” Radio Remote Control System – Overview	8
Programming of 16-Channel “WIZARD” Radio Remote Control	9
Programming of 2-Channel Radio Remote Control	10
Fabric Care	11
Warranty Terms	12, 13

DRS - Manual

Spring Tension (Speed) and Limit Stop Adjustment

Manual (spring operated) Dual Roller Shades from AMS feature the latest spring technology with integrated decelerator mechanism and upper limit stop control that allow the shades to rise smoothly, quietly and at a regulated speed to a chosen stop. They have been designed for trouble- and maintenance-free use.

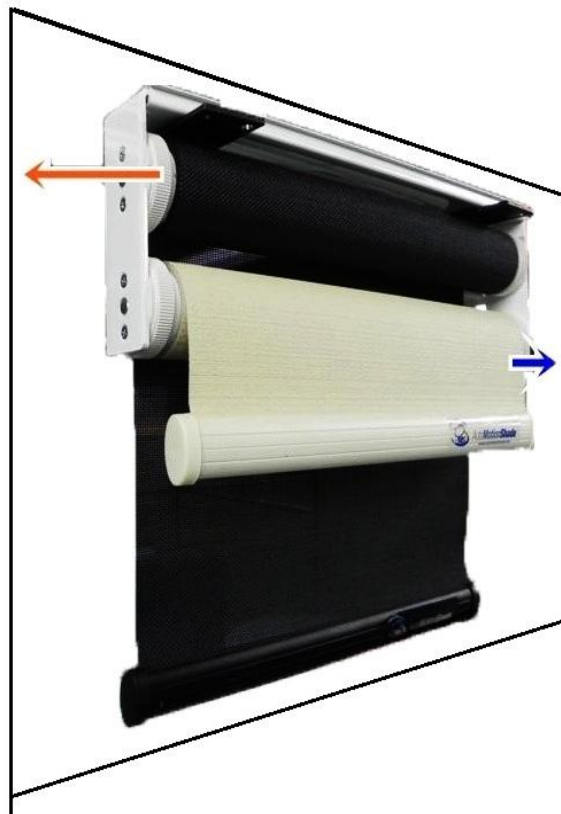
Both speed and upper limits are pre-set at the factory, but can be changed and/or adjusted by means of easily accessible adjusting wheels to suit the owners' individual preferences (see Speed and Tension Adjustment on Page 3).

The two shades are generally rolling up or down in opposite directions with the front shade in reverse (front) roll-up, unless technical circumstances require otherwise. Please ensure that this is the case in your vehicle before turning any adjusting wheel.

Shades with **REGULAR ROLL-UP** have the Spring Tension (Speed) Adjusting wheel on the left side and the Limit Stop Adjusting wheel on the right side.

For shades with **REVERSE ROLL-UP** it will be the opposite, i.e. the Spring Tension (Speed) Adjusting wheel is on the right side and the Limit Stop adjusting wheel is on the left side.

**REGULAR
(BACK)
ROLL-UP**

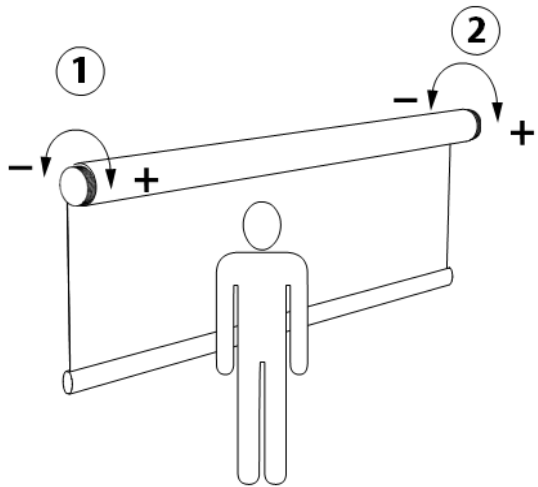


**REVERSE
(FRONT)
ROLL-UP**

DRS - Manual

Spring Tension (Speed) and Limit Stop Adjustment

REGULAR (BACK) ROLL UP



Spring Tension (Speed) Adjustment

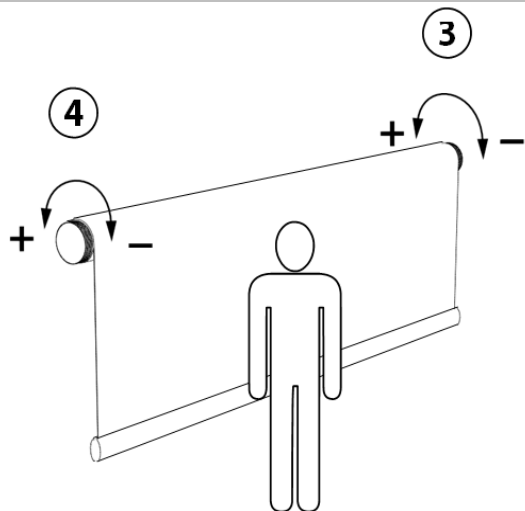
Your shades are factory tested and adjusted for the best performance by experienced and highly skilled technicians.

Should you want to change the speed, you can do that easily by adjusting the spring tension with the wheels ① or ③ (depending on roll-up) as per illustrations.

To INCREASE the speed, turn the wheel to (+)

To DECREASE the speed, turn the wheel to (-)

REVERSE (FRONT) ROLL UP



Limit Stop Adjustment

The pre-set limit stops of the shades can be adjusted if desired by using wheel ② or ④ (depending on roll-up) as per illustrations.

For better control, make sure the shade is in the factory-set upper limit stop position.

To RISE the stop point, turn the wheel to (+)

To LOWER the stop point, turn the wheel to (-)

DRS-Motorized

AMS Motor Features and Types

Overview

Each AMS motor is designed and engineered to meet the highest technical standards in the industry. It goes through stringent testing at AMS' ISO 9001-2008 certified facilities.

All motors are tested to function perfectly during 20,000 cycles.

Motor Features

- All AMS motors, whether standard or remote control equipped, feature internal mechanical limit switches rather than electronic ones to prevent accidental loss or change of limits due to power surges or power outages. They will also retain their pre-set limit stops should an electric shade be pulled down manually by mistake in its power-off state.
- A three-stage planetary gearing system with a combination of nylon and brass parts guarantees a quiet operation at the best possible speed and torque.
- Brushed DC motor combined with the integrated electronic circuit ensures accurate positioning under a wide range of loads. The motor has a built-in electronic thermal overload /stall protection.
- Limit switches can be adjusted individually and allow accurate positioning of a shade within +/- 5mm (less than 1/4").

Motor Types

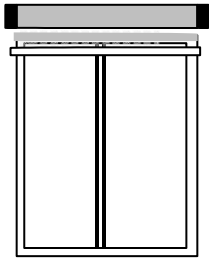
Motor Models	Voltage	Speed	Size	Limit Adjustment	Torque
EL-4265/80-1230-AMS Standard / Switch Motor	12 Volt	30 rpm	1" dia.	Bottom	700 mNm
EL-4267/85-1230-AMS Remote Control Motor	12 Volt	30 rpm	1" dia.	Bottom	700 mNm

DRS-Motorized Motor Limit Adjustment

All AMS motors have upper and lower limit switches that are easily accessible from below once the shade has been installed in the vehicle; this is particularly ideal if the shade is located behind a valance.

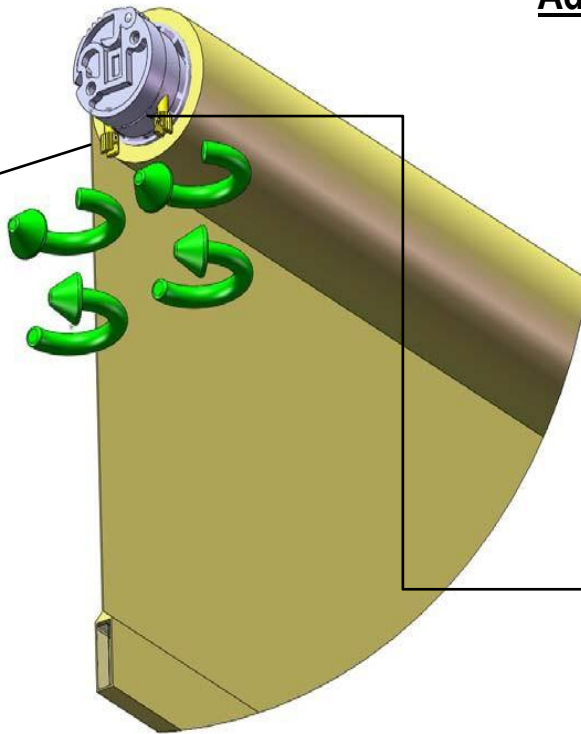
REGULAR (BACK) ROLL-UP

Adjust Upper Limit

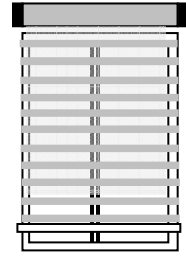


Lower
Turn CW

Rise
Turn CCW



Adjust Lower Limit



Rise
Turn CW

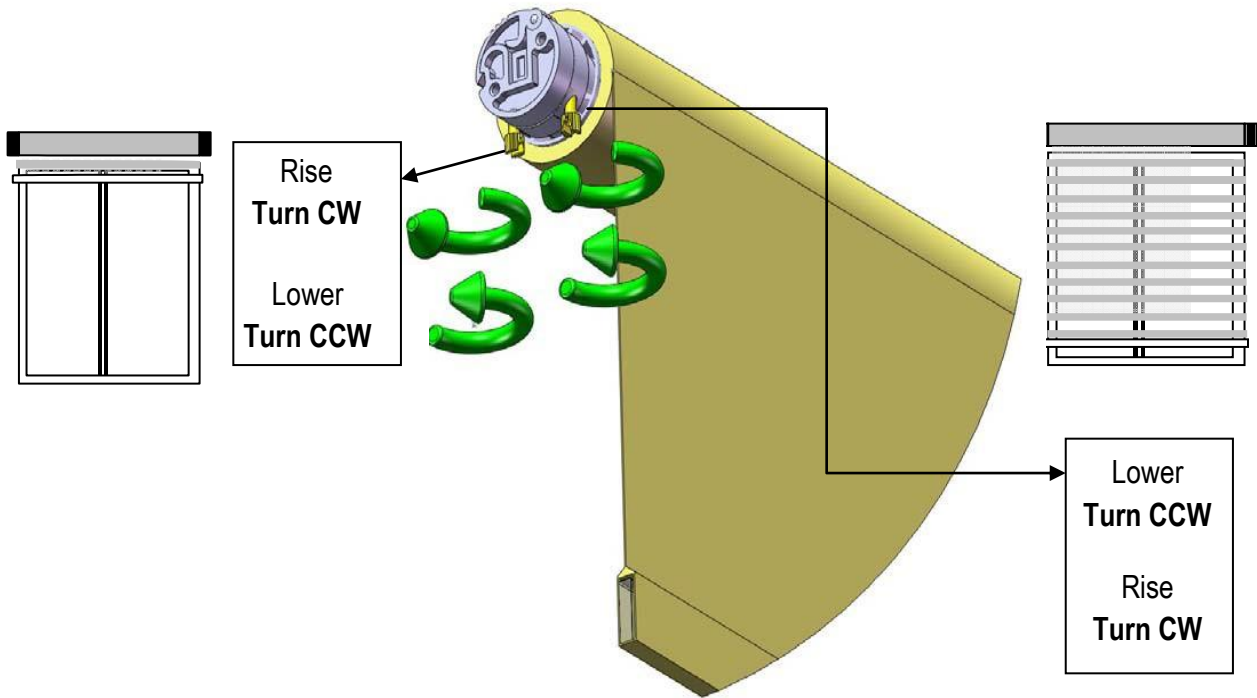
Lower
Turn CCW

DRS-Motorized Motor Limit Adjustment

REVERSE (FRONT) ROLL-UP

Adjust Upper Limit

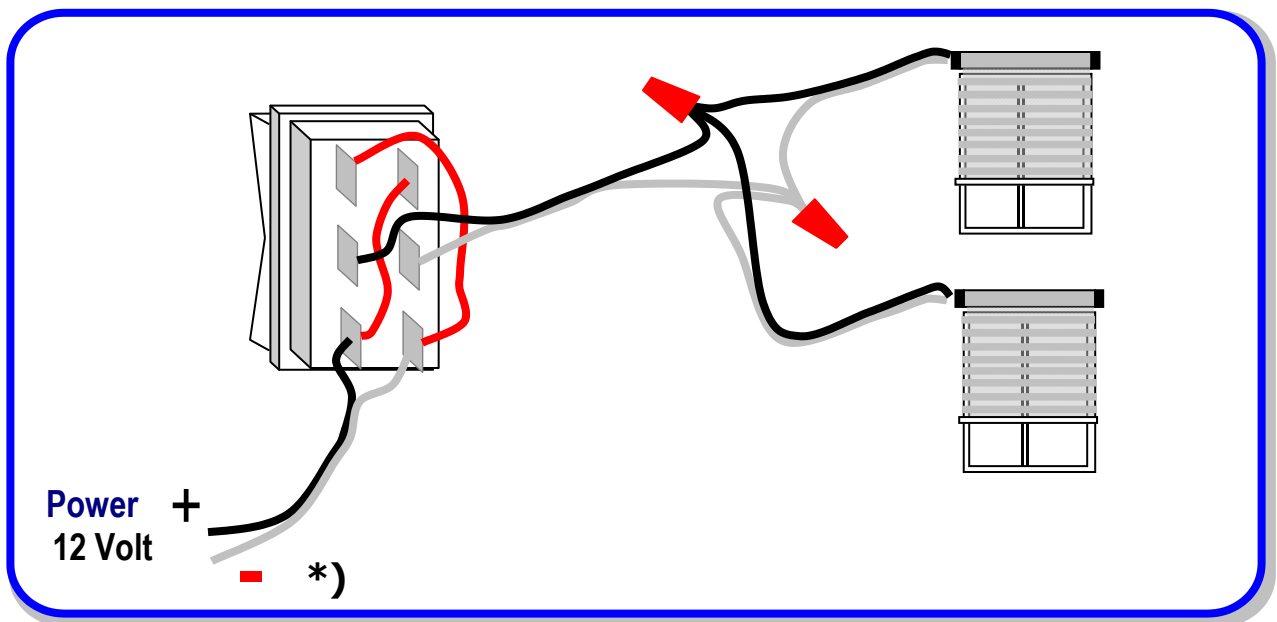
Adjust Lower Limit



DRS-Motorized Electrical Wiring of Motors

The motors have black and white 22 AWG wires.

Use Momentary DPDT (Double Pole Double Throw) switches with a contact rating of > 2 Amps and > 12 Volts.



- *) The Polarity can change for special order shades such as reverse roll-up types or for shades where the motor is located on the right hand side. Standard systems always have the motor on the left side and are always wired as shown.

DRS - Motorized

“WIZARD” Radio Remote Control Systems

MODELS

EL-213

16 – Channel Remote Control

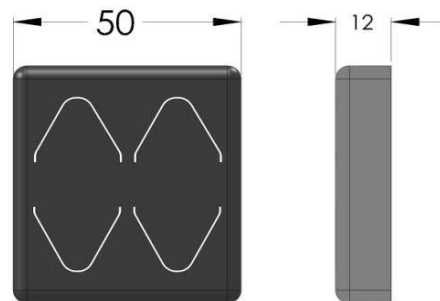


Connects to any PC, iPad or multiplex system through integrated communication ports.



EL-211

2 – Channel Remote Control



APPLICATIONS

- For all motorized Single and Dual Shades other than Windshield Shades.
- Wherever a requirement exists to fully automate shades in an RV for the ultimate in comfort & convenience.

SPECIFICATIONS

- 2- (EL 211) or 16 (EL 213) channel remote control.
- Can be wall mounted or used as hand-held control
- EL-211 is battery operated (2 x LIR 2032 or BR2032)
- EL-213 is battery operated (4 x 1.5V AAA) but can also be hardwired with 12V DC.
- Integrated connection to multiplex systems.
- Works with any motorized AMS shade.
- FCC code : YHN-CHT2(EL-213) and YHN-CHT1(EL-211)

DRS-Motorized

Programming of 16-Channel "WIZARD" Radio Remote Control



Each motor can receive signals from up to six different channels or remotes.

How to Program

1. Select any channel on the remote control.
2. Press programming button on the motor for about 3 seconds, until motor moves back and forth.
3. Press STOP button on the remote control; Motor confirms by moving back and forth twice, done.

Continue to add more channels and /or remote controls to the motor in the same fashion. Every motor can be assigned to several channels and several remote controls at the same time.

DRS-Motorized

Programming of 2-Channel Radio Remote Control



Each motor can receive signals from up to six different channels or remotes.

How to Program

1. Press programming button on the motor for about 3 seconds until motor moves back and forth.
2. Press up and down button on the remote at the same time ; Motor confirms by moving back and forth twice, Done.
Go on and add more channels and / or remote controls to the motor in the same fashion.

Remove all Programs (Reset)

Press and hold programming button on the motor.
Motor moves back and forth (keep holding the programming button).
Motor moves again back and forth twice.
Now all the channels and/or remote controls are lost.

Change Direction of Motor

Press up or down on your remote. Motor starts running.
Now press the programming button on the motor while the motor is running; the motor stops and moves back and forth twice to confirm the signal. You are done.

Next time when the motor moves, the direction will be reversed.

FABRIC CARE GUIDE

FOR AMS® ROLLER SHADE PRIVACY FABRICS

FABRIC CARE

Fabrics supplied with your roller shades have been carefully selected to be durable yet aesthetically pleasing. All fabrics are coated woven textiles and as such require appropriate care in handling and cleaning. In particular

- Make sure you wash hands prior to handling any fabric
- Touch fabric with care to prevent creasing or wrinkling
- Ensure that no sharp objects are being used when handling fabrics as this may leave scratch marks on the fabric's surface
- Never use any aggressive cleaning materials or detergents containing bleach to clean fabrics

Should the fabric(s) on your roller shade(s) show dirt marks, it can be spot-cleaned without being removed from its hardware, as per cleaning instructions below. Please follow these instructions very carefully, as failure to do so may cause irreversible damage to your shade fabric. In exceptional circumstances, where your shade fabric has become extremely dirty or damaged, your dealer or authorized service centre will have to remove the entire shade to have the fabric replaced by the manufacturer. Do not attempt to remove shade unit yourself as this may void any existing hardware warranty.

CLEANING INSTRUCTIONS

1. Prepare a bowl with clean, lukewarm water (approx. 30° C / 86° F) with a mild detergent (e.g. dishwashing detergent) and a soft, non-abrasive sponge (illustration 1) Do not use any materials that are rough, abrasive or fluffy that could leave marks, lints or other residue on the fabric, such as paper towel, cotton cloth, abrasive sponge, etc. (illustration 2)
2. Make sure your hands are clean before touching or handling the fabric.
3. Pull down (manual) shade to be cleaned as far as needed to expose the dirty areas . Use switch to lower shade if motorized. On double roller shade systems, ensure that second shade is in its full retracted position.
4. With your flat hand gently push the fabric against the window (or windshield). Fabric must be resting against a flat surface to prevent creasing during the cleaning process.
5. Gently rub the dirty areas with your sponge until the spots have disappeared.
6. Use a clean, wet cloth to remove any detergent residues; wipe dry with a soft cloth if necessary.
7. Leave shade in the down position to ensure fabric is completely dry before retracting shade into its upper (open) position.

Illustration 1



Use soft, non-abrasive sponge only

Illustration 2



Do not use sponge with abrasive surface, paper towel or cotton clothe

Warranty Terms

ALL **AUTO-MOTION SHADE®** HARDWARE, MOTORS, COMPONENTS AND FABRICS, (THE "PRODUCTS"), CARRY A LIMITED WARRANTY AGAINST ALL DEFECTS IN MATERIALS AND WORKMANSHIP UNDER NORMAL USE AND SERVICE WHICH INHIBIT OR IMPAIR PROPER FUNCTIONING OF THE SHADES SUBJECT TO THE TERMS AND CONDITIONS AS SET OUT HEREIN:

1. THIS WARRANTY IS LIMITED TO A ONE (1) YEAR PERIOD COMMENCING ON THE DATE OF THE FIRST PURCHASE OF THE VEHICLE.
2. **AUTO-MOTION SHADE®'S** AND ITS SUPPLIERS' ENTIRE LIABILITY AND YOUR EXCLUSIVE REMEDY SHALL BE, AT THE COMPANY'S OPTION, EITHER, REPAIR OF THE DEFECTIVE PRODUCT, OR REPLACEMENT OF THE DEFECTIVE PRODUCT, PROVIDED:
 - A) SUCH DEFECT HAS NOT OCCURRED AS A RESULT OF ABNORMAL USE, ABUSE, NEGLIGENCE, ACCIDENTAL DAMAGE, OR UNAUTHORIZED IMPROPER CLEANING CAUSING EXTERNAL DAMAGE TO THE PRODUCT;
 - B) ONLY ORIGINAL **AUTO-MOTION SHADE®** COMPONENTS HAVE BEEN USED WHEN INSTALLING;
 - C) NO REPAIRS OR MODIFICATIONS HAVE BEEN MADE BY UNAUTHORIZED REPAIR FACILITIES OR INDIVIDUALS;
 - D) A RETURN AUTHORIZATION NUMBER IS ISSUED BY **AUTO-MOTION SHADE®'S** CUSTOMER SERVICE DEPARTMENT PRIOR TO THE RETURN OF THE DEFECTIVE PRODUCT;
 - E) THE DEFECTIVE PRODUCT IS REMOVED AND RETURNED PRIOR TO THE EXPIRY OF THE TWO YEAR LIMITED WARRANTY TERM, TO OUR PLANT IN MARKHAM, ONTARIO AT CUSTOMERS EXPENSE – ROUNDTRIP FREIGHT AND INSURANCE PREPAID;
 - F) **AUTO-MOTION SHADE®'S** APPROPRIATE TECHNICAL MANUALS AND INSTRUCTIONS RELATING TO INSTALLATION, USE AND ELECTRICAL HOOK-UP PRIOR TO ANY INSTALLATION HAVE BEEN FOLLOWED.
3. THE GRANTING OF A RETURN AUTHORIZATION NUMBER SHALL NOT IMPLY THAT THE LIMITED WARRANTY CONDITIONS HAVE BEEN MET.
4. ANY REPLACEMENT PRODUCT WILL BE WARRANTED FOR THE REMAINDER OF THE ORIGINAL WARRANTY PERIOD OR THIRTY DAYS, WHICHEVER IS LONGER.

Warranty Terms

5. OUR LIMITED WARRANTY EXCLUDES THE FOLLOWING NORMAL STANDARDS AND OCCURRENCES:

- A) DUE TO THE NATURE OF ROLLER BLINDS, THE FABRIC MAY HAVE A TENDENCY TO CURL ALONG THE OUTSIDE VERTICAL EDGES.
- B) TOLERANCE ALLOWANCE OF 1/8" MORE OR LESS FOR WIDTH.
- C) TOLERANCE ALLOWANCE OF 1/8" MORE OR LESS FOR MAXIMUM HEIGHT.
- D) DUE TO ADDITIONAL FABRIC ALLOWANCE FOR WRAP AROUND THE ROLLER TUBE, THE FULLY EXTENDED HEIGHT OF THE ROLLER BLIND MAY BE GREATER THAN SPECIFIED ON THE ORDER.
- E) SOME FADING OF COLOR IN FABRIC.

6. NO LIABILITY FOR DAMAGES. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL *AUTO-MOTION SHADE*[®] OR ITS SUPPLIERS BE LIABLE FOR ANY DAMAGES WHATSOEVER (INCLUDING WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR INDIRECT DAMAGES FOR PERSONAL INJURY, LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF OR INABILITY TO USE THEIR PRODUCTS, EVEN IF *AUTO-MOTION SHADE*[®] HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN ANY CASE, *AUTO-MOTION SHADE*[®]'S AND ITS SUPPLIERS' ENTIRE LIABILITY UNDER ANY PROVISION OF THIS AGREEMENT SHALL BE LIMITED TO THE AMOUNT ACTUALLY PAID BY YOU FOR THE PRODUCT. BECAUSE SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

7. NO OTHER WARRANTIES. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, *AUTO-MOTION SHADE*[®] AND ITS SUPPLIERS DISCLAIM ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THEIR PRODUCTS. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION.



AutoMotionShade[®]
Specialty Shading for the Transportation, RV and Con/Ag Industry

Auto-Motion Shade Inc

Global Headquarters:

400 Bentley Street
Markham, Ontario L3R 8H6
Canada

Tel: (905)-470-6198

Fax: (905)-479-2136

Email: info@automotionshade.com

International Sales Office:

Tel: (403)-773-3668

Fax: (403)-773-3669

Email: mals@automotionshade.com

www.automotionshade.com