

AUXILIARY OUTPUT EXPANSION MODULE

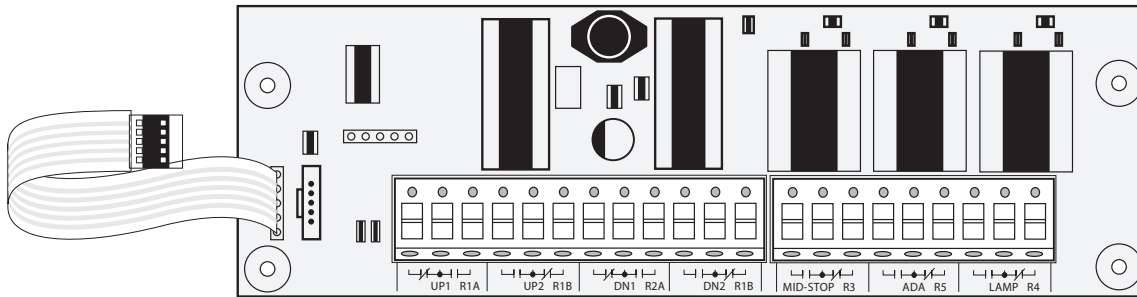


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NOT FOR RESIDENTIAL USE






This Installation Manual provides the information required to install, troubleshoot and maintain the AUXILIARY OUTPUT MODULE for commercial/industrial door operators.

Section 1: Safety Information & Instructions







OVERVIEW OF POTENTIAL HAZARDS

Overhead Doors are large, heavy objects that move with the help of springs under high tension and electric motors. Since moving objects, springs under tension, and electric motors can cause injuries, your safety and the safety of others depend on you reading the information in this manual. If you have any questions or do not understand the information presented, call your nearest Service Representative. For the phone number of your local Overhead Door Dealer, call 800-929-3667. For Overhead Door Factory Technical Advice, call 800-275-6187.

In this Section and those that follow, the words Danger, Warning, and Caution are used to stress important safety information. The word:

-  **DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
-  **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
-  **CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in injury or property damage.

The word **NOTE** is used to indicate important steps to be followed or important considerations.

 WARNING	 WARNING	 WARNING
 <p>Moving Door can cause serious injury or death. Be Alert! Door closes automatically. Do Not stop or stand in doorway. Keep people clear while door is moving. Do Not allow children to play with operator. Do Not operate a door that jams or one that has a broken spring.</p>	 <p>Electric Shock can cause serious injury or death. Turn off and lock out electrical power before removing operator cover. Make sure that wires are not pinched or near moving parts when replacing cover.</p>	 <p>High Spring Tension can cause serious injury or death. Do Not try to remove, repair or adjust springs or anything to which door spring parts are fastened, such as, wood blocks, steel brackets, cables or any other structure or like item. Repairs and adjustments must be made by a trained service person using proper tools and instructions.</p>
Safety Instructions		
<ol style="list-style-type: none"> 1. Read manual and warnings carefully. 2. Keep the door in good working condition. Periodically lubricate all moving parts of door. 3. Check photocell or sensing edge operation monthly. 	<ol style="list-style-type: none"> 4. At least twice a year disconnect door from operator. The door must open and close freely. If not, take out of service and call a trained service person. 5. If door operator overheats and stops working, take out of service and call a trained service person. 	<ol style="list-style-type: none"> 6. In case of power failure, door can be operated manually by pulling the release cable to disconnect operator. 7. Keep instructions in a prominent location near the pushbutton. 8. Install and maintain all warning labels.

Section 2:

General Information

Auxiliary Output Module

This module provides the operator with several sets of dry relay contacts that operate in response to the status of the operator.

The Auxiliary Output Module provides the following relay contacts for the associated operator status:

- Up Limit active = 2 sets of SPDT contacts.
- Down Limit active = 2 sets of SPDT contacts.
- Mid Stop Limit active = 1 set of SPDT contacts.
- Lamp Operation w/delayed turn off feature = 1 set of SPDT contacts. (The Lamp Operation delay is factory set at 5 minutes.)
- ADA (Americans with Disabilities Act) Output = 1 set of SPDT contacts. (User selectable: Relay activates when door opens, closes or both.)

NOTE: Relay states match operator status only when power is applied to the operator. When power is removed, relays return to their normal states.

The Auxiliary Output Module includes LED's that indicate when power is applied, the normal function of the module and when each relay is active.

Job Site Issues to Consider/Concerns

Before installing the Auxiliary Output Module at any given job site, be sure to consider accessory equipment, such as warning lights, Sirens, etc.

Section 3: Installation *Auxiliary Output Module*

⚠ WARNING

Door repairs and adjustments, including cables and spring assemblies **MUST** be made by a qualified service representative using proper tools and instructions.

⚠ WARNING

RISK OF ELECTRICAL SHOCK. Be sure that electrical power to the operator has been disconnected. There should be no live circuits inside the electrical box while installing this Auxiliary Output Module. An appropriate lock-out/tag-out procedure is recommended. **DO NOT APPLY POWER UNTIL INSTRUCTED TO DO SO.**

⚠ WARNING

All wiring to the operator must meet all local building codes. Overhead Door Corporation recommends that all work involving electrical circuits and line voltage wiring be performed by a qualified electrician.

⚠ CAUTION

Check working condition of door and operator before installing the Auxiliary Output Module.

1. Turn off supply power to the operator.
 - Locate supply power disconnect.
 - Disconnect supply power.
 - Use proper lock-out/tag-out procedure.
2. Open and/or Remove Operator Electric Box Cover.
 - Loosen screw on front of cover, door swings open. (Door is removed by sliding it out of the hinges.)
3. Install Auxiliary Output Module.
 - Secure with 1/4" hex head screws (2 ea.) provided in location indicated.
 - Connect ribbon cable to TCM (if Timer Close Module is installed) (**Fig. 3A**) or to operator Main Control Board (**Fig. 3B**) if TCM is not installed.

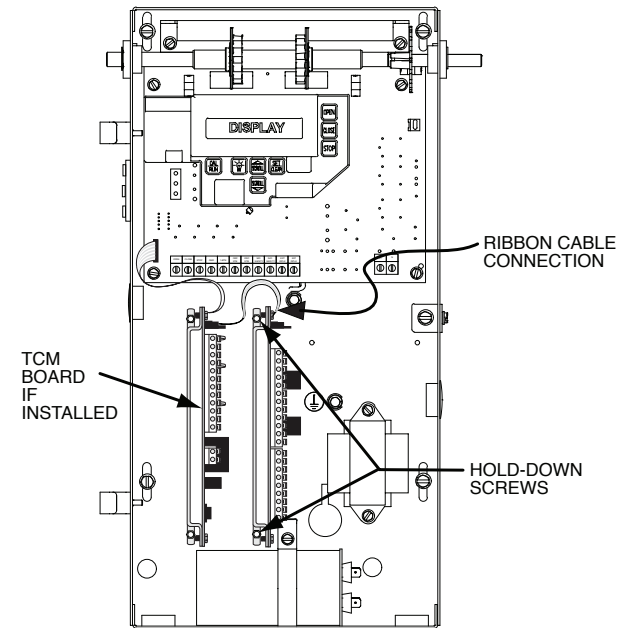


Fig.3A Install AOM w/TCM

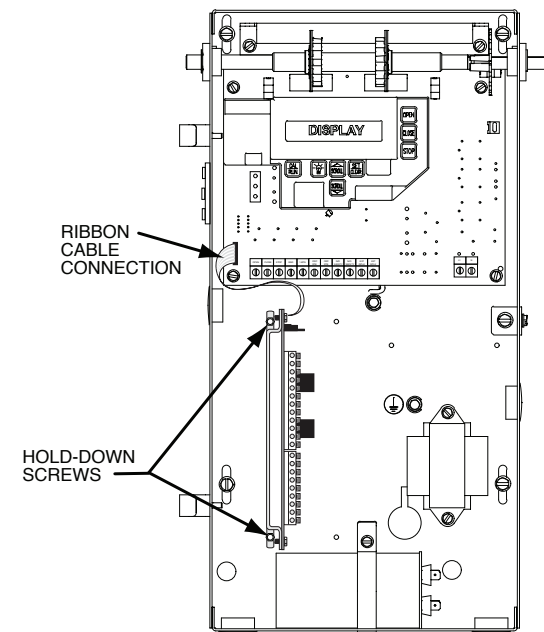


Fig.3B Install AOM

Section 4: Wiring General Procedures

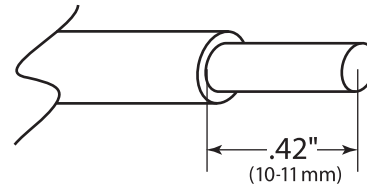


Fig.4A Strip wire

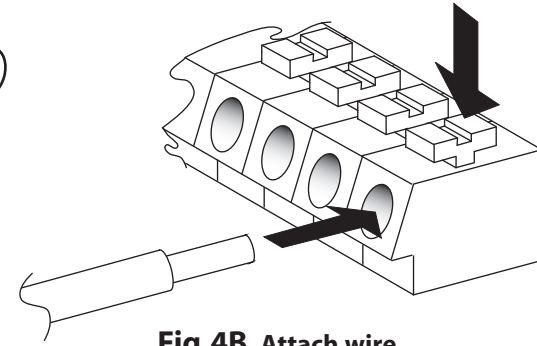


Fig.4B Attach wire

⚠ WARNING

RISK OF ELECTRICAL SHOCK. Be sure that electrical power to the operator has been disconnected. There should be no live circuits inside the electrical box while installing this Auxiliary Output Module. An appropriate lock-out/tag-out procedure is recommended.
DO NOT APPLY POWER UNTIL INSTRUCTED TO DO SO.

To Connect Wires to Accessory Modules

1. Strip wire insulation .42" as shown. (Fig. 4A).
2. Using a screwdriver or your finger, press the plunger down and hold it.
3. Insert 20AWG - 12 AWG solid or stranded wire into the connector. (Fig. 4B).

NOTE: Connect only one wire per terminal.

4. Release the plunger.
5. Tug on the wire to make sure it is secured.

Control Wires

1. Route control wiring as per Fig. 4C.
2. Access ports have been provided so that wires can be routed into and secured to the control board. Use appropriate conduit and/or fittings to provide proper strain relief and wiring protection.
3. Make device connections using the information on page 6.

NOTE: Wiring that applies low voltage class 2 voltages/currents to the relay outputs must be routed as shown in gray.

Wiring that applies line voltage to the relay outputs must be routed as shown in black.

⚠ WARNING

LOW VOLTAGE/CONTROL WIRING MUST BE KEPT SEPARATE FROM LINE VOLTAGE WIRING!

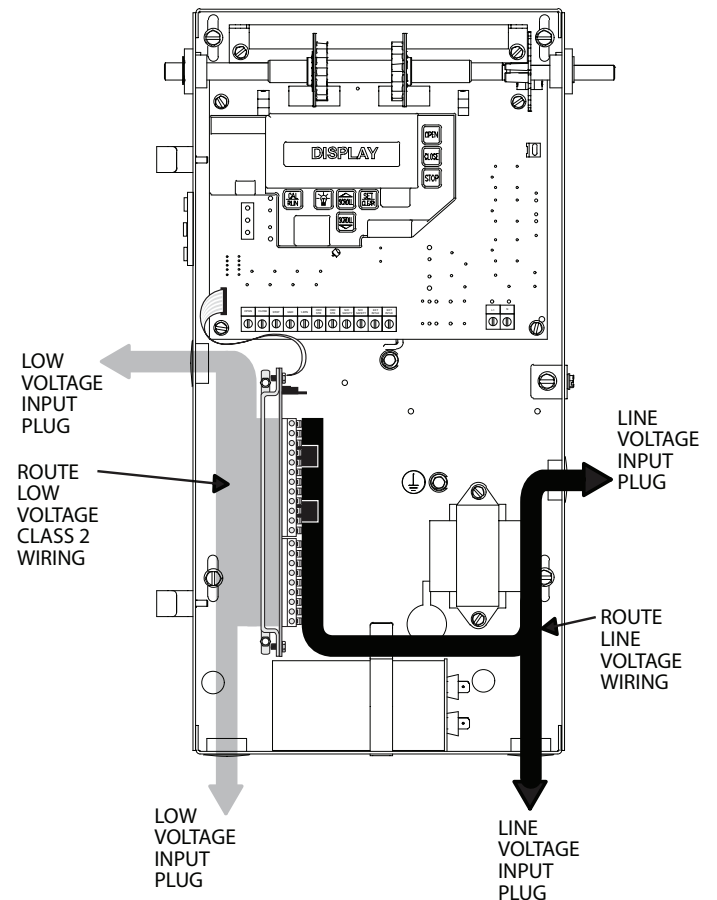


Fig.4C Wiring to AOM

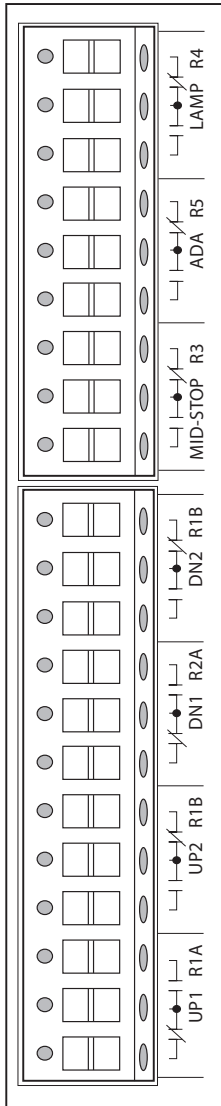
Wiring (cont')

Terminal Designations

NOTE: AOM outputs do not supply power to a load (dry contacts). They require a power source to be connected to the relay output and the load as shown in the examples on the right.

Each set of SPDT contacts are isolated from the other SPDT contacts.

All outputs are rated for 120VAC/3Amps maximum, 12AWG wire MAX., 20 AWG wire MIN.



Lamp Relay — Activates when the operator opens or closes and stays active for 5 minutes after the operator stops running. If operator runs again during the 5 minute delay, the countdown resets to 5 minutes and starts again when the operator stops.

ADA Relay — Installer can select 1 of 3 operating modes:

- Activates when operator opens.
- Activates when operator closes.
- Activates when operator opens or closes.

In each case, the relay activates only while the operator runs.

Mid-Stop Relay — Activates when the door is at the Mid-Stop Limit.

Down Limit Relay — Activates when the door is at the Down Limit.

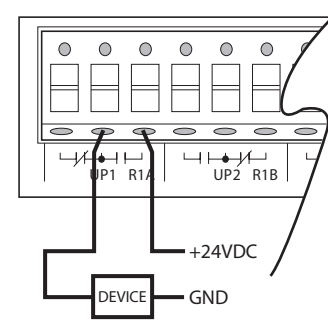
Down Limit Relay — Activates when the door is at the Down Limit.

Up Limit Relay — Activates when the door is at the Up Limit.

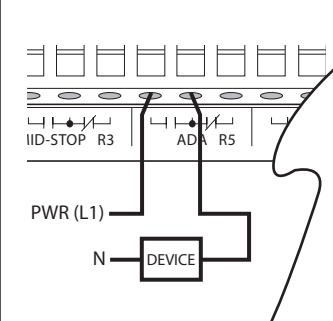
Up Limit Relay — Activates when the door is at the Up Limit.

Fig.4E Terminal Arrangement

(EXAMPLES)

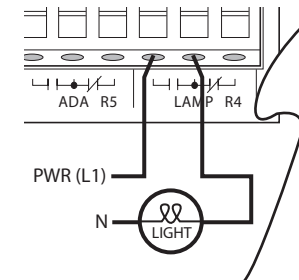


A. OPEN DOOR INDICATION



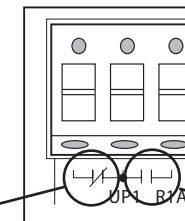
B. DOOR CLOSING WARNING

NOTE: Select ADA active with Close option in Cal Mode.



C. LAMP

Terminal Definitions



NOTE: CONTACTS NORMALLY CLOSED AND OPEN WHEN CONDITION IS TRUE.

NOTE: CONTACTS NORMALLY OPEN AND CLOSE WHEN CONDITION IS TRUE.

Section 5: Setup Procedure

Setting ADA Mode

⚠ WARNING

RISK OF ELECTRICAL SHOCK. After power is applied to the Operator, DO NOT make contact with components inside the Control Panel, except for the Keypad Display Buttons.

1. Turn on power to door operator.
 - IF Auxiliary Output Module is properly installed, the "+24V" and "AOM O.K." LED's will light. (**Fig. 5A**) (See also page 8—*Troubleshooting Section*.)
2. Using the operator keypad and display, press the CAL/RUN key to enter the CAL Mode.
3. Press the SCROLL ▼ key until the display reads "ADA w/RUN>."
4. Press the SET/CLEAR key to toggle between the following modes (**Fig. 5B**):
 - "ADA w/RUN>DOWN" — ADA relay activates when the operator closes.
 - "ADA w/RUN>UP" — ADA relay activates while the operator opens.
 - "ADA w/RUN>UP&DN" — ADA relay activates when the operator opens or closes.

NOTE: In each mode, the relay activates only while the operator runs in the indicated direction. The relay contacts return to their normal state when the operator stops running.

6. Press the CAL/RUN key to exit CAL mode, retaining the ADA settings.

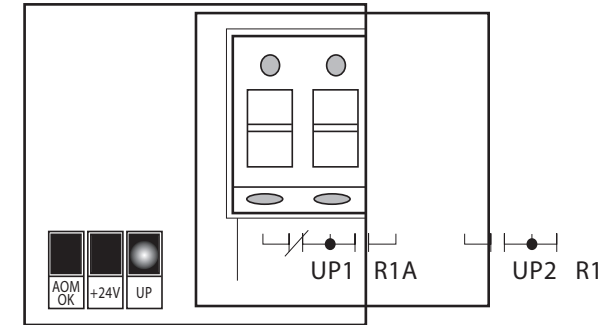


Fig. 5A AOM Board LED's

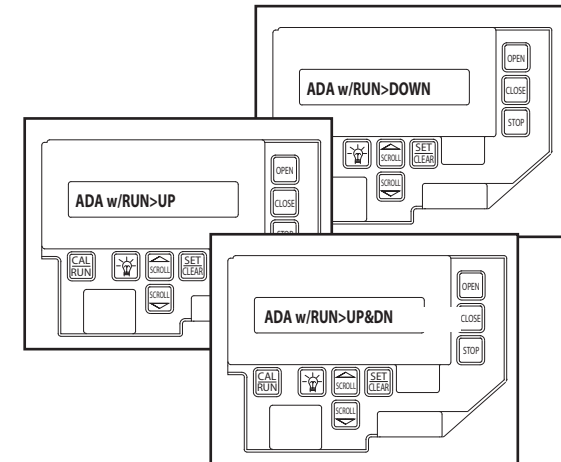


Fig. 5B Select Mode

Section 6: Troubleshooting

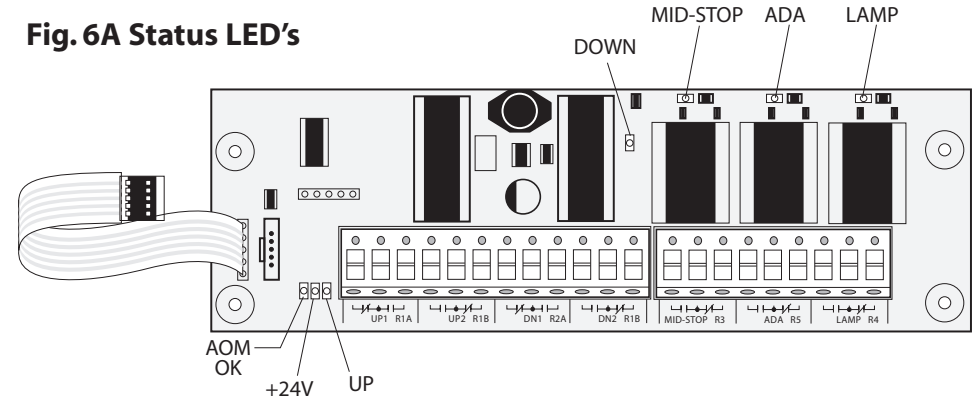
Status LED's

LED	STATUS	INDICATION
+24V	ON	Auxiliary Output Module has power.
	OFF	No power to the Auxiliary Output Module.
AOM OK	ON	Auxiliary Output Module is functioning normally.
	OFF	Auxiliary Output Module is NOT functioning normally.
UP	ON	Operator is at the UP LIMIT.
	OFF	Operator is NOT at the UP LIMIT.
DOWN	ON	Operator is at the DOWN LIMIT.
	OFF	Operator is NOT at the DOWN LIMIT.
MID-STOP	ON	Operator is at the MID-STOP LIMIT.
	OFF	Operator is NOT at the MID-STOP LIMIT.
ADA	ON	Operator is running in direction determined in CAL Mode.
	OFF	Operator is NOT running in direction determined in CAL Mode.
LAMP	ON	The Lamp relay is energized.
	OFF	The Lamp relay is not energized.

Troubleshooting Guide

PROBLEM	INDICATION	CHECK
1. AOM has no power.	+24V LED is OFF .	<ol style="list-style-type: none"> 1. Check power to the operator. 2. Check that AOM ribbon cable is connected to the operator control board or another accessory module that is connected to the operator control board. 3. Check fuse F2 on the operator control board. 4. Contact the factory.
2. AOM is not functioning properly.	+24 V LED is ON . AOM OK LED is OFF .	<ol style="list-style-type: none"> 1. Check that AOM ribbon cable is connected to the operator control board or another accessory module that is connected to the operator control board. 2. Check that operator display is working normally and not indicating a system problem. 3. Turn power to the operator off, then back on. 4. Contact the factory.
3. ADA output does not activate in correct direction of travel		<ol style="list-style-type: none"> 1. ADA output operating mode must be selected using operator keypad and display (see section 5). 2. Go to #2.

Fig. 6A Status LED's



PROBLEM	INDICATION	CHECK
4. Mid-Stop output will not activate.		<ol style="list-style-type: none"> 1. Check that the door is at the Mid-Stop Limit. 2. Check Mid-Stop Limit setting. See operator manual for Mid-Stop Limit set procedure. 3. Go to #2.
5. A device connected to an output will not function	LED for the function is ON .	<ol style="list-style-type: none"> 1. Check power supply for the device connected to AOM output. NOTE: AOM does not supply power to external devices. External power must be connected to the AOM output (see section 4). 2. Check wiring to the device. 3. Check device operation.. 4. Go to #2.
6. A device connected to an output will not function	LED for the function is OFF .	<ol style="list-style-type: none"> 1. Relay will only activate if LED is ON . Correct condition or select proper output. 2. Go to #2.
7. An output will not turn off	LED for the function is ON .	<ol style="list-style-type: none"> 1. The condition for operating the output is still valid (see section 4 for a description). 2. Go to #2.
8. An output will not turn off	LED for the function is OFF .	<ol style="list-style-type: none"> 1. Go to #2.

Section 7: Warranty

The authorized distributor of Overhead Door Products, whose name appears below ("Seller") warrants to the original purchaser of the Accessory Module specified on the right, subject to all the terms and conditions hereof, that the Accessory Module will be free from defects in material and workmanship under normal use and service for a period of two (2) years following the date of installation.

Seller's sole obligation under this warranty is specifically limited to repairing or replacing, at its option, any parts which shall be determined by Seller to be defective during the warranty period. Any labor charges are excluded and will be the responsibility of the owner.

This warranty applies only to an Accessory Module which is installed in commercial or industrial building applications. This warranty does not apply if the Accessory Module has been altered or repaired by any person not authorized by Overhead Door Corporation to do so, or if it has been damaged due to misuse or accident or failure to provide necessary maintenance. This warranty is made only to the original purchaser of the Accessory Module and is not transferrable or assignable.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL OVERHEAD DOOR CORPORATION BE RESPONSIBLE FOR, OR LIABLE TO ANYONE FOR, SPECIAL, INDIRECT, COLLATERAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES, even if Overhead Door Corporation has been advised of the possibility of such damages. Such excluded damages include but are not limited to loss of goodwill, loss of profits, loss of use, interruption of business or other similar indirect financial loss.

Claims under this warranty must be made in writing promptly to the Seller whose name and address appears to the right, and must be made within the warranty period. (Proof of purchase and identification as the original purchaser may be required.)

Accessory Module Model No. _____

Original Purchaser _____

Installation Address _____

Seller _____

Seller's Address _____

Date of installation _____

Signature of Seller _____

Accessory Module Return Material Authorization Procedure

The Manufacturer will only accept returned materials that are in warranty. Products being returned must be accompanied by a Return Authorization (RA) Tag. To obtain a Return Authorization Tag please use the following guidelines.

- To return an Operator Accessory Module during the warranty period, the Seller must contact the Technical Service Group at 1.800.275.6187. The following information is required; Accessory Module Model Number, Date Code, and a description of the malfunction. The Technical Service Group will issue, via mail, an RA Tag for the Accessory Module.
- Upon receipt of the Accessory Module, the Manufacturer will evaluate the part for a defect in material and/or workmanship. If it is determined there is a defect, the Seller will be credited the cost of the Accessory Module. If it is determined there is not a defect in material and/or workmanship, no credit will be issued.

The Genuine. The Original.



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