Operator's Manual

MM101332V1 R1A

JAGUAR 725P & JAGUAR 725Pi System/Scan

Portable Radio

tyco Electronics

M/A-COM

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SAFETY TRAINING INFORMATION

Your M/A-COM radio generates RF electromagnetic energy during transmit mode. This radio is designed for and classified as "Occupational Use Only" meaning it must be used only during the course of employment by individuals aware of the hazards and the ways to minimize such hazards. This radio is NOT intended for use by the "General Population" in an uncontrolled environment.

This radio has been tested and complies with the FCC RF exposure limits for "Occupational Use Only." In addition, your M/A-COM radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- American National Standards Institute (C95.1 – 1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
- American National Standards Institute (C95.3 – 1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave.

CAUTION

To ensure that your exposure to RF electromagnetic energy is within the FCC allowable limits for occupational use, always adhere to the following guidelines:

- DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with this radio by M/A-COM or an antenna specifically authorized by M/A-COM for use with this radio.

- DO NOT transmit for more than 50% of total radio use time (“50% duty cycle”). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the “TX” indicator appears in the display. You can cause the radio to transmit by pressing the “PTT” button.

- ALWAYS use M/A-COM authorized accessories (antennas, batteries, belt clips, speaker/mics, etc). Use of unauthorized accessories may cause the FCC Occupational/Controlled Exposure RF compliance requirements to be exceeded.

- ALWAYS keep the device and its antenna at least 2 cm (0.8 inches) from the body and at least 5 cm (2 inches) from the face when transmitting to ensure FCC RF exposure compliance requirements are not

exceeded. This radio has been tested for RF exposure compliance at a distance of 1.1 cm from the body and 2.5 cm from the face for a worst-case scenario. However, to provide the recipients of your transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from mouth, and slightly off to one side.

The information listed above provides the user with the information needed to make him or her aware of a RF exposure, and what to do to assure that this radio operates within the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, your M/A-COM radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

OPERATING RULES AND REGULATIONS

Two-way FM radio systems must be operated in accordance with the rules and regulations of the Federal Communications Commission (FCC). As an operator of two-way radio equipment, you must be thoroughly familiar with the rules that apply to your particular type of radio operation. Following these rules will help eliminate confusion and will assure the most efficient use of existing radio channels. This will provide a smooth operating radio network.

When using the radio, remember these rules:

1. It is a violation of FCC rules to interrupt any distress or emergency message. As the radio operates in much the same way as a telephone "party line" when in conventional mode, always listen and/or observe the absence of the “busy” display (refer to Table 1 – Three Line Display for display character) to make sure that the line is clear before sending any messages. If someone is sending an emergency message, such as reporting a fire or asking for help in an accident, KEEP OFF THE AIR! Emergency calls have priority over all other messages.

2. Use of profane or obscene language is prohibited by Federal Law.

3. It is against the law to send false call letters or a false distress or emergency message.

4. The FCC requires that conversations be brief and confined to business. To save time, use coded messages whenever possible.

5. Using the radio to send personal messages (except in an emergency) is a violation of FCC rules. Send only those messages essential for the business operation.

6. It is against Federal Law to repeat or otherwise make known anything overheard on the radio. Conversations between others sharing your channel must be regarded as confidential.

OPERATING TIPS

The following conditions tend to reduce the effective range of two-way radios and should be avoided whenever possible.

- Operating the radio in low terrain areas or while under power lines or bridges.
- Operating the radio inside of a vehicle or inside metal or steel framed building unless using an outside antenna.

BATTERY DISPOSAL

The JAGUAR 725P and Pi portable radios use rechargeable, recyclable Nickel Cadmium (NiCd) or Nickel Metal Hydride (NiMH) batteries.

Nickel Cadmium Battery Pack Disposal

At the end of its useful life, under various state and local laws, it may be illegal to dispose of the Nickel Cadmium batteries into the municipal waste stream. Check with local solid waste officials for details of recycling options or proper disposal. Call Toll Free 1-800-8BATTERY for information and/or procedures for returning rechargeable batteries in your state.

Nickel Metal Hydride Battery Pack Disposal

There are no special requirements concerning the disposal of NiMH batteries. Batteries can be recycled. Call Toll Free 1-800-8BATTERY for information.

USER INTERFACE

This manual describes the basic functions and operation of the 725P & 725Pi System/Scan portable radios. For more detailed information about the features and operation refer to the appropriate Maintenance Manual or contact your System Administrator.

Water Resistance

The Jaguar 725P and Pi portable radios operate reliably even under adverse conditions. These radios meet MIL-STD-810E specifications for driven rain, humidity, and salt fog. In addition, the Pi model radio is guaranteed for operation after immersion in 1 foot of water for up to 2 hours. It is important to note that in order to help preserve the water-resistant integrity of this radio, unauthorized tampering or disassembly of the Pi model radio may damage the radio and will void the immersion warranty.

NOTE

The "i" in JAGUAR 725Pi denotes the radio model is resistant to damage due to water immersion. For more precise specifications refer to the appropriate specifications sheet or contact your system administrator.

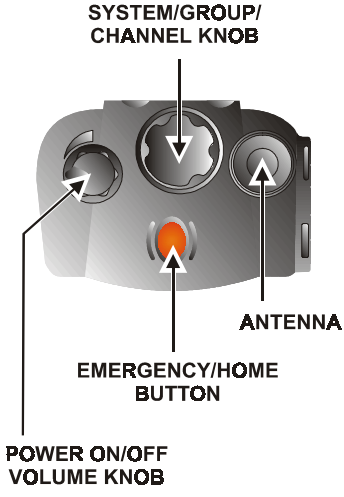

Figure 1 – Top View

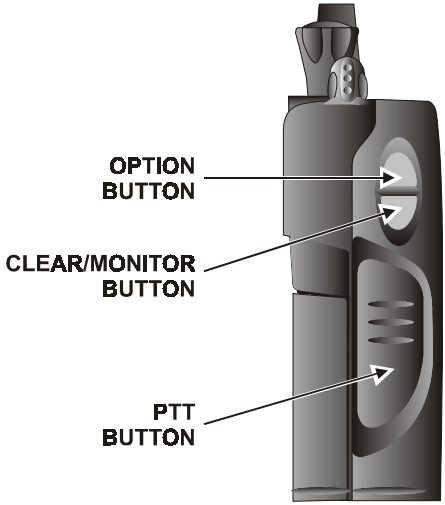

Figure 2 – Side View

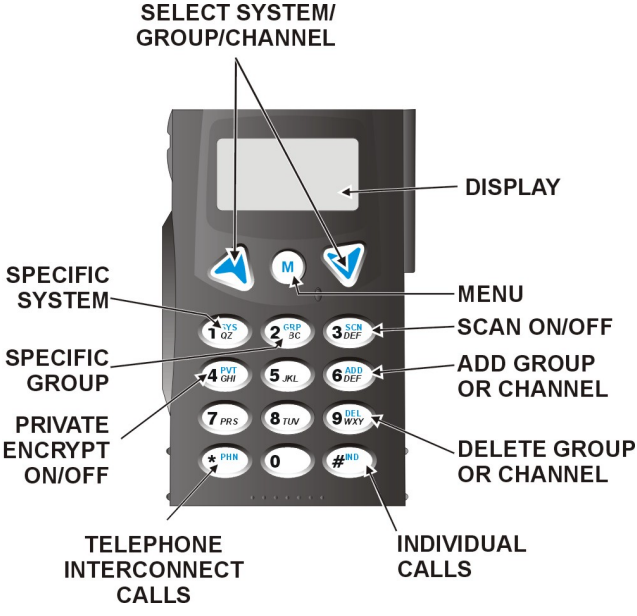

Figure 3 System Keypad

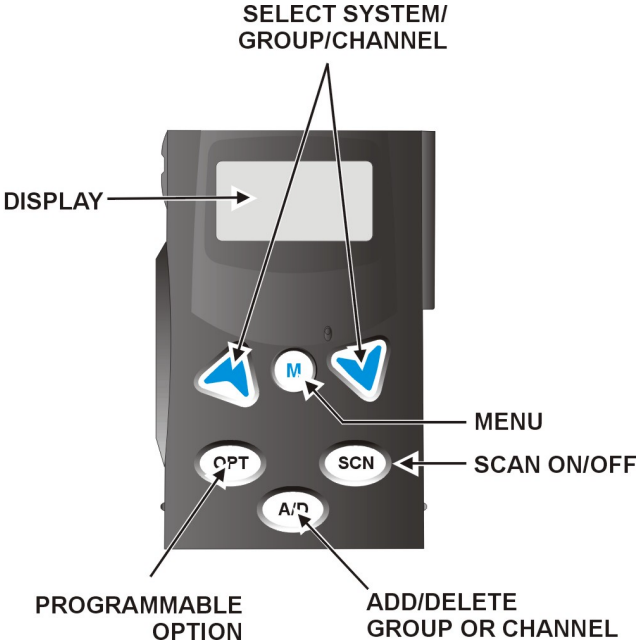

Figure 4 – Scan Keypad

Table 1 – Three Line Display

Icon Descriptions

	Steady – “Busy” transmitting or receiving **Flashing** – call queued		**On** – special call mode (individual or telephone)
	Steady – during all radio transmissions		**Steady** – transmit at low power **Off** – transmit at high power
	Steady – low battery		**On** – group or channel in scan list
	Steady – trunked system in **F**ailsoft mode		**On** – priority 2 group or channel
	Steady – transmit in encrypt mode **Flashing** – receiving an encrypted call		**On** – priority 1 group or channel
	On – scan mode (*rotates clockwise*) **Off** – scan disabled		**On** – Channel Guard enabled **Off** – Channel Guard disabled

BASIC OPERATION

System Select – Method 1 (System)

1. Press 1 SYS QZ to access system list.
2. Enter system ID number from keypad.
3. Press M to select desired system.

System Select – Method 2

1. Rotate System/Group/Channel knob.

If this knob is not programmed for systems:

2. Press the ◀ ▼ buttons to change systems.

Group Select – Method 1 (System)

1. Press 2 GRP ABC to access group list.
2. Press ◀ ▼ to scroll through the list of groups.
3. Press M to select desired group.

Group Select – Method 2

1. Rotate System/Group/Channel knob.

If this knob is not programmed for groups:

2. Press the ◀ ▼ buttons to change groups.

Channel Select

1. Rotate System/Group/Channel knob.

If this knob is not programmed for channels:

2. Press the ◀ ▼ buttons to change channels.

Modify Scan List (System)

1. Press 3 SCN DEF to toggle scan OFF and verify is **not** displayed.
2. Select group or channel.
3. Press 9 DEL WXY once to remove group or channel from list.
4. Press 6 ADD DEF once to add as a normal group or channel.

   Press 6 ADD DEF twice to add as a Priority 2 group.

   Press 6 ADD DEF three times to add as a Priority 1 group.
5. Press 3 SCN DEF to re-start scanning.

Nuisance Delete

A channel can temporarily be deleted from the scan list if it is not the currently selected channel.

1. Turn Scan ON.
2. When the radio receives a call on the channel, press the 9 DEL WXY. The channel is removed from the scan list until the radio is power cycled.

Modify Scan List (Scan)

1. Press SCN to toggle scan OFF and verify is **not** displayed.
2. Select group or channel.
3. Press A/D once to remove group or channel from the list.
4. Press A/D once to add as a normal group or channel.

   Press A/D twice to add as a Priority 2 group.

   Press A/D three times to add as a Priority 1 group.
5. Press SCN to re-start scanning.

Backlight On/Off

1. Press M to access the menu.
2. Press ◀ ▼ to scroll through menu until “BCKLGHT” appears.
3. Press M to select Backlight menu.
4. Press ◀ ▼ to toggle backlight ON and OFF.
5. Press M to select new backlight setting.

Contrast Adjust

1. Press M to access the menu.

2. Press ◀ ▼ to scroll through menu until “CONTRAST” appears.

3. Press M to select Contrast menu.

4. Press ◀ ▼ to adjust contrast setting from 1 - 4.

5. Press M to select new contrast setting.

Declaring an Emergency

1. Press and hold the red Emergency/Home button (the length of time is programmable; check with the system administrator).

2. ***TXEMER*** will flash in the display, plus and will be displayed. After 2-3 seconds the transmit icon will turn off.

3. ***TXEMER*** and will remain until the emergency is cleared.

4. Press the PTT and will reappear.
5. Release PTT when the transmission is complete.

Locking/Unlocking Keypad

1. Press (M) button.
2. Within 1 second, press the Option button on the side of the radio.

ALERT TONES

Name	Tone	Description
Call Originate (B)	one short mid-pitched	*OK to talk after pressing the push-to-talk button*
Call Queued (T)	one high-pitched	*call in a queue for processing*
Autokey (T)	one mid-pitched	*queued call received channel assignment*
System Busy (T)	three low-pitched	*system busy or unable to complete call*
Call Denied (T)	one low-pitched	*radio is not authorized on the system or group*
Carrier Control Timer (B)	five high-pitched / one long low-pitched	*PTT depressed for maximum length of time*
Low Battery (B)	one low-pitched / one short mid-pitched	*low battery*
TX Low Battery Alert (B)	one low-pitched	*after PTT - battery too low to transmit*

(T) = trunked mode only (B) = both trunked and conventional modes

TRANSMITTING A CALL IN TRUNKED MODE

Group Call

1. Select desired group.
2. Press Push-To-Talk button.
3. The and icons will appear.

Individual Call (System)

1. Press #IND to access the individual call list.
2. The icon will appear.
3. Press to scroll through individual call list or Enter LID from keypad.
4. When the desired ID appears in the display press the Push-To-Talk button.
5. The and icons will appear.

Phone Call (System)

1. Press * PHN to access the phone call list.
2. The icon will appear.
3. Press to scroll through phone call list or Enter number from keypad.
4. When the desired phone number appears in the display press the Push-To-Talk button.
5. The and icons will appear.

RECEIVING A CALL IN TRUNKED MODE

Group Calls

1. Select a group or turn scan ON and make sure group is in scan list.
2. The group name or “GR xxxxx” will appear to indicate a call.

Phone Calls

1. When the call is received, the receive audio sounds and the display reads: `*PHONE*`
2. Respond by pressing PTT. If you do not respond, radio will continue to ring to indicate an incoming call.

Individual Calls

1. When the call is received, the receive audio sounds and the display reads : `ID xxxxx` `*INDV*`
2. Respond by pressing PTT. If you do not respond, radio will continue to ring to indicate an incoming call.
3. If the call is cleared with no response, the radio will store **W**ho **H**as **C**alled and display: `*WHC*`
4. Press the #IND key to display the ID.
5. Press the Push-To-Talk button to return the call or press the Clear/Monitor button to clear the `*WHC*`.

CONVENTIONAL OPERATION

Receiving A Call

1. Select desired conventional system and channel or turn scan ON and make sure desired channel is in scan list.
2. When the radio receives a call, the radio will unmute and the channel name will appear in the display.

Sending A Call

1. Select desired system and channel.
2. Ensure the channel is not busy by pressing the **Monitor/Clear** button momentarily. If you hear audio or if the icon is on, the channel is busy.
3. When you are sure the channel is not busy, press the Push-To-Talk button and speak into the microphone.

OPERATION FOLLOWING WATER CONTACT

If the JAGUAR 725Pi model radio has been submerged in water or if the microphone air path or speaker grill become clogged with water, perform the following steps to assure the highest quality transmitted and received messages. These steps are recommended for the JAGUAR 725P as well, in the event it should become submerged in water and still be functional.

NOTE

The "i" in JAGUAR 725Pi denotes the radio model is resistant to damage due to water immersion. For more precise specifications refer to the appropriate specifications sheet or contact your system administrator.

Radio Microphone

In the event the JAGUAR 725P/Pi microphone air path becomes clogged with water, blow two quick successive breaths of air directly into the radio microphone air hole. Refer to Figure 5. This will help to clear any water trapped in the microphone air path and allow the microphone to function properly.

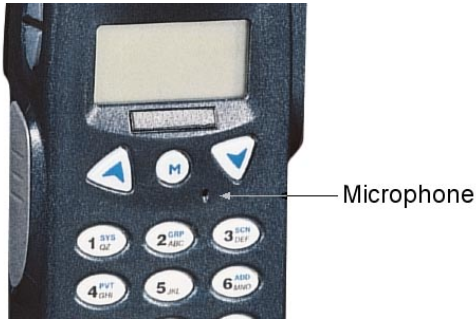

Figure 5 – Radio Microphone

Radio Speaker

To assure the user receives the highest quality receive audio possible after the radio has contacted water or been immersed, it may be necessary to clear excess water from the speaker cavity and grill. The speaker grill has been designed for easy drainage. To facilitate maximum drainage and the highest quality speaker output, hold the radio with speaker grill face down and lightly shake.

CHANGING THE BATTERY PACK

Removing the Battery Pack

Make sure the power to the radio is turned OFF.

1. Press the latch at the bottom of the battery pack.
2. Lift the battery pack from the bottom.
3. Remove the battery pack from the radio.

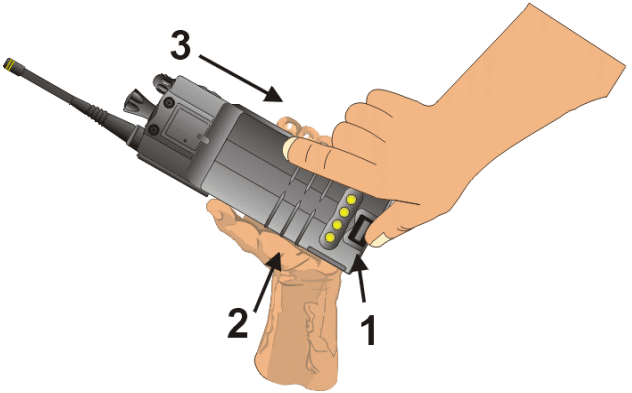

Figure 6 – Removing the Battery Pack

Attaching the Battery Pack

Make sure the power to the radio is turned OFF.

1. Align the tab on the top of the battery pack with the slot at the top of the battery cavity.
2. Push the battery pack down to attach the battery to the radio.
3. Verify that the battery pack is properly latched to the radio.

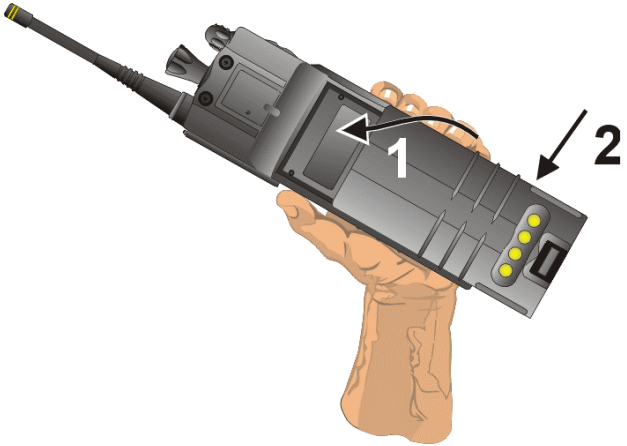

Figure 7 – Attaching the Battery Pack

BATTERY WARRANTY

A. M/A-COM Private Radio Systems, Inc. (hereinafter "Seller") warrants to the original purchaser for use (hereinafter "Buyer") that nickel-cadmium and nickel-metal hydride batteries supplied by Seller shall be free from defects in material and workmanship, and shall conform to its published specifications for a period of twelve (12) months from the date of purchase.

B. For purposes of this warranty, batteries shall be deemed defective if (1) the battery capacity is less than 80% rated capacity, or (2) the battery develops leakage.

C. If any battery fails to meet the foregoing warranty, Seller shall correct the failure by issuing a replacement battery upon receipt of the defective battery at an Authorized Service Center (ASC). To obtain the name and address of an ASC, ask your salesperson, consult the Yellow Pages, or call the number printed at the bottom of this page.

D. Replacement batteries shall be warranted only for the remaining unexpired warranty period of the original battery. This warranty becomes void if:

   1. The battery has been subjected to any kind of misuse, detrimental exposure, or has been involved in an accident.

   2. The battery is used in equipment or service other than the radio equipment for which it is specified.

E. The preceding paragraphs set forth the exclusive remedies for claims (except as to title) based upon defects in or non-conformity of any battery, whether the claim is in contract, warranty, tort (including negligence), strict liability or otherwise, and however instituted. Upon the expiration of the warranty period, all such liability shall terminate. The foregoing warranties are exclusive and in lieu of all other warranties, whether oral, written, expressed, implied or statutory. NO IMPLIED OR STATUTORY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE SHALL APPLY. IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT OR EXEMPLARY DAMAGES.

This warranty applies only within the United States.

M/A-COM Private Radio Systems
3315 Old Forest Road
Lynchburg, Virginia 24501
1-800-528-7711

AE/LZT 123 3248/2 R4A

WARRANTY

A. M/A-COM Private Radio Systems, Inc. (hereinafter "Seller") warrants to the original purchaser for use (hereinafter "Buyer") that Equipment manufactured by or for the Seller shall be free from defects in material, workmanship and title, and shall conform to its published specifications. With respect to any Equipment not manufactured by or for the Seller (except for integral parts of Seller's Equipment to which the warranties set forth above shall apply), Seller gives no warranty, and only the warranty, if any, given by the manufacturer shall apply. Batteries are excluded from this warranty but are warranted under a separate Battery Warranty.

B. Seller's obligations set forth in Paragraph C below shall apply only to failures to meet the above warranties (except as to title) occurring within the following periods of time from date of sale to the Buyer and are conditioned on Buyer's giving written notice to Seller within thirty (30) days of such occurrence:

1. for fuses and non-rechargeable batteries, operable on arrival only.
2. for parts and accessories (except as noted in B.1) sold by Seller's Service Parts Operation, ninety (90) days.
3. for PANTHER™ Series handportable and mobile radios, two (2) years.
4. for Cougar™ Series handportable and mobile radios, two (2) years.
5. for all other Equipment of Seller's manufacture, one (1) year.

C. If any Equipment fails to meet the foregoing warranties, Seller shall correct the failure at its option (i) by repairing any defective or damaged part or parts thereof, (ii) by making available at Seller's factory any necessary repaired or replacement parts, or (iii) by replacing the failed Equipment with equivalent new or refurbished Equipment. Any repaired or replacement part furnished hereunder shall be warranted for the remainder of the warranty period of the Equipment in which it is installed. Where such failure cannot be corrected by Seller's reasonable efforts, the parties will negotiate an equitable adjustment in price. Labor to perform warranty service will be provided at no charge during the warranty period only for the Equipment covered under Paragraph B.3. To be eligible for no-charge labor, service must be performed by an Authorized Service Center (ASC) or

other Servicer approved for these purposes either at its place of business during normal business hours, for mobile or personal equipment, or at the Buyer's location, for fixed location equipment. Service on fixed location equipment more than thirty (30) miles from the Service Center or other approved Servicer's place of business will include a charge for transportation.

D. Seller's obligations under Paragraph C shall not apply to any Equipment, or part thereof, which (i) has been modified or otherwise altered other than pursuant to Seller's written instructions or written approval or, (ii) is normally consumed in operation or, (iii) has a normal life inherently shorter than the warranty periods specified in Paragraph B, or (iv) is not properly stored, installed, used, maintained or repaired, or, (v) has been subjected to any other kind of misuse or detrimental exposure, or has been involved in an accident.

E. The preceding paragraphs set forth the exclusive remedies for claims (except as to title) based upon defects in or nonconformity of the Equipment, whether the claim is in contract, warranty, tort (including negligence), strict liability or otherwise, and however instituted. Upon the expiration of the warranty period, all such liability shall terminate. The foregoing warranties are exclusive and in lieu of all other warranties, whether oral, written, expressed, implied or statutory. NO IMPLIED OR STATUTORY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE SHALL APPLY. IN NO EVENT SHALL THE SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT OR EXEMPLARY DAMAGES.

This warranty applies only within the United States.

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