



RAM ProMaster 2500

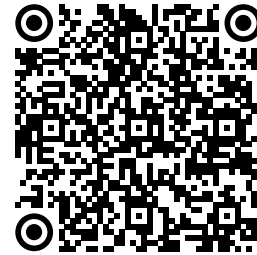
with Rear Ramp and Kneeling System



VMi OWNER'S MANUAL

RAM ProMaster - 2020 & Newer
with Rear Ramp and Kneeling System

Scan the QR code below with your mobile device
for our digital manual.



Introduction **2**

 Trademarks 3

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 Disclaimer 3

Safety Precautions **4**

Equipment Guide **5**

Ramp Operation with Kneeling Sysyem **6**

 Guages fo Kneeling System 8

 Interlock System 9

Seating and Securement **10**

 L-track flooring system for flexible securement
 of wheelchairs and seating positions 10 - 11

HD HVAC Unit **12**

 Heat and A/C control system 12

 Air flow vent system 12

 Override cargo toggle light switch 12

ADA compliant interior and exterior lighting **13**

Flex seating positions within L-track flooring system **14**

Emergency Procedures **15**

Emergency pull handle ring.....15

Air compressor system.....16

Maintenance and Warranty **17**

VMI Conversion Scheduled Maintenance Plan.....17

Maintenance Log.....18 - 25

VMI Limited Warranty.....26

VMI/RAM ProMaster Service Information Form30

INTRODUCTION

Congratulations on the purchase of your new RAM ProMaster 2500 equipped with the VMI Rear Ramp and Kneeling System .

VMI has designed and built your conversion with quality and safety in mind. We expect this new vehicle and conversion to provide you years of enjoyable transportation.

This manual is a supplement to the RAM ProMaster Owner's Manual. Please read both manuals as they contain important operational and safety information. We recommend you keep both manuals in your vehicle's glove box.

The VMI conversion carries a limited warranty that covers the conversion modifications and alterations only. The RAM ProMaster vehicle carries a separate warranty. If a defect or a failure is a direct result of a VMI modification, it will be covered under the VMI Limited Warranty. A defect or failure on any original equipment NOT altered by VMI is covered under the RAM ProMaster warranty. Please refer to the VMI conversion maintenance requirements and the limited warranty information in this manual to familiarize yourself with the coverage and exclusions.

SHOULD YOUR VEHICLE REQUIRE SERVICE OF ANY KIND, PLEASE CONTACT YOUR VMI AUTHORIZED MOBILITY EQUIPMENT DEALER. TO LOCATE A DEALER IN YOUR AREA, PLEASE GO TO VMIVANS.COM.

TRADEMARKS

Product names mentioned in this manual may be trademarks or registered trademarks of their respective companies and are hereby acknowledged.

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This manual is proprietary to VMI Holdings, LLC (VMI) and is intended for the exclusive use of VMI customers. No part of this document may in whole or in part, be copied, reproduced, distributed, translated or reduced to any electronic or magnetic storage medium without the express written consent of a duly authorized officer of VMI.

DISCLAIMER

This manual was reviewed thoroughly for accuracy. All statements, technical information, and recommendations contained herein and in any guides or related documents are believed reliable, but the accuracy and completeness thereof are not guaranteed or warranted. They are not intended to be, nor should they be understood to be, representations or warranties concerning the products described.

VMI is constantly improving its products and reserves the right to make changes in the specifications of products or in this manual at any time without notice and without obligation to notify any person of such changes.

RECORD OF REVISIONS

Document Number	Revision Level	Date	Reason for Change
DOC 4298	N/A	February 2022	New Release

SAFETY PRECAUTIONS

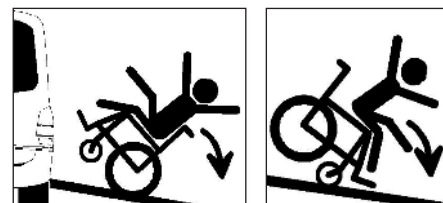
- Read your VMI and RAM ProMaster Owner's Manuals before operating the vehicle or any of its conversion equipment. There is important safety and operational information you must know to operate this vehicle and its equipment properly. Failure to do so may result in property damage or bodily injury.
- In addition to reading the manuals, you must ensure your VMI dealer instructs you on the use of your conversion and its safety features before operating the vehicle or the conversion.
- There must be approximately 8 feet of clearance in the rear entry side to allow safe ramp deployment plus an additional 4 feet for the wheelchair occupant to maneuver. Allow additional clearance if assistance is required.
- Do not operate the ramp, load, or unload the vehicle if traffic or road conditions do not allow you to do so safely.
- All wheelchairs and scooters, occupied or not, must be properly restrained prior to vehicle operation. Failure to do so may result in property damage or bodily injury.
- Before activating any of the conversion control switches to close the door and stow the ramp, the ramp and door area must be clear of operator and bystanders. DO NOT operate if any person or object is on the ramp. Doing so may result in property damage or bodily injury.
- All occupied wheelchairs MUST be facing forward to be properly secured.
- Stowable seats must be properly secured, latched, and locked before occupying seats or operating vehicle.

WARNING

Please familiarize yourself with the safety information provided in this manual. If you have any question or concerns regarding the proper operation of your vehicle or any of its safety features, please contact your VMI dealer or call VMI directly at 855-VMI-VANS (864-8267).

WARNING

Beware of ramp slope!



- DO NOT sit in a scooter while the vehicle is in motion. If you plan to occupy a wheelchair while the vehicle is in motion, VMI cannot guarantee the restraint system will adequately restrain the occupant and/or wheelchair if an accident occurs at any speed. VMI relies solely on the warranties and representations made by the restraint belt set and wheelchair manufacturers.
- Before exiting the vehicle, the wheelchair occupant MUST check to make sure the door is open and the ramp is fully deployed to the ground.
- The wheelchair occupant may require assistance entering and exiting the vehicle, depending on the abilities of the person and the type of wheelchair system (motorized, presence of rear wheels, etc.) or scooter.
- Restraints should not be held away from the body by any obstacles such as wheelchair armrests. Ensure nothing is between the restraints and the occupant.
- Please adhere to all securement related instructions in this manual and the instructions in the restraint kit box before operating the vehicle. Improper use may result in, and may not be limited to, the occupant sliding under the restraints causing severe injury.

EQUIPMENT GUIDE

To help you navigate this owner’s manual, have your mobility dealer indicate the items or options installed on your minivan conversion.

VMI INSTALLED EQUIPMENT

- Manual rear entry ramp with 4 air bag kneeling system
- Optional 36 or 42” aluminum powder coated ramp
- Interlock system
- Air gauges to show pressure within lines and tank
- Composite floor with L-track flooring system for flexible securement of wheelchairs and seating positions.
- HD HVAC unit
- ADA compliant interior and exterior lighting
- Optional Flex seats
- Extra equipment included: Flex seat removal tool and portable 12V air compressor

VMI MOBILITY DEALER INSTALLED EQUIPMENT

RAMP OPERATION WITH KNEELING SYSTEM

KNEEL AND DEPLOY RAMP

1. Park vehicle on level ground with adequate clearance for the rear ramp.
2. Place shifter lever into the "Park" position. The ignition must be in the "on" position with the engine running.
3. Set the Parking Brake using the hand lever located on the left side of the driver's seat.
4. Actuate the Kneeling switch located on the left side of the steering wheel. The switch will illuminate a steady red glow and the warning light will flash. Photo shows the emergency brake engaged and the switch is on. (Note: If the switch is illuminated, and the warning light is not flashing, the parking brake is not engaged)
5. Air will be released to escape under vehicle, and the suspension will lower in 10 seconds.
6. Open the rear double doors fully, then release the ramp latches on each side of the ramp.
7. Manually lower the ramp until it touches the ground.



RETURN TO ORIGINAL RIDE HEIGHT AND STOW RAMP

1. Place shifter lever into the "Park" position. The ignition must be in the "on" position with the engine running.
2. Set the parking brake using the hand lever located on the left side of the driver's seat
3. Lift and fold the ramp and return to the stow position
4. Engage ramp latches on each side of ramp
5. Close rear double doors (driver side door first)
6. Return the kneel switch to the off position (Switch illumination and warning light will go on)
(Note: If parking brake is released, warning light will not flash)

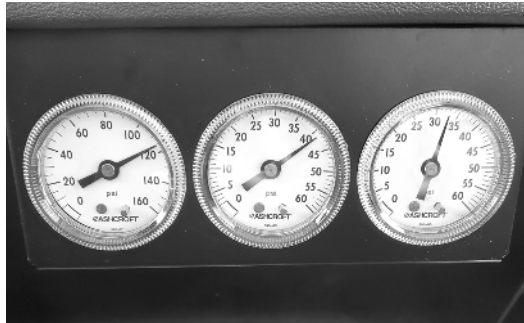


RAMP OPERATION

7. Suspension will return to normal height in 15 seconds (If the air tank is full)
(Note: Compressor will be heard replenishing air supply tank)
8. Release parking brake

IMPORTANT NOTE: The vehicle's kneeling feature is operated with an air bag system. Should the airbag malfunction for any reason, the air in the lines may dissipate and lower the van to the ground. This could result in potential impact to anything placed under the vehicle, including physical harm to individuals and/or damage to property.

GAUGES FOR KNEELING SYSTEM



NOTE: It is normal for the passenger air bag gauges to slightly fluctuate when the vehicle is in motion.

WARNING

Safety Precaution**

Always firmly secure the vehicle with a jack stand (intended for full size vans) first before performing service under the vehicle. Consult your vehicle owner's manual or the manual for the jack stand to ensure proper use with your vehicle.

LEFT GAUGE - (AIR TANK)

When the tank is full the gauge will read approximately 120 PSI.

MIDDLE GAUGE - (DRIVER SIDE AIR BAGS)

When the vehicle is in drive mode, and the air bags are full, the gauge will read between 30-45 PSI.

RIGHT GAUGE - (AIR TANK)

When the vehicle is in drive mode, and the air bags are full, the gauge will read between 30-45 PSI.

INTERLOCK SYSTEM

The interlock system on the right side of the steering wheel (as shown in below photo), will prevent the vehicle from shifting to drive when the ramp is deployed. This is programmed with the rear cargo doors. If the rear cargo doors are open, you will not be able to shift the van into gear.



WARNING

Before operating the rear ramp and kneeling system, make sure the rear entry area of the vehicle is clear and unobstructed.

Allow approximately 8 feet for the ramp to deploy beyond the rear of the vehicle plus an additional 4 feet for the wheelchair occupant to maneuver. You may wish to increase this distance if the wheelchair occupant requires assistance from another person.

SEATING AND SECUREMENT

L-TRACK FLOORING SYSTEM FOR FLEXIBLE SECUREMENT OF WHEELCHAIRS AND SEATING POSITIONS

Front Row Flex Seats: Attach the front flex seats at the 4th hole down from the front of the L-track (as shown in photo 1 and 2 on pg. 11).

Once the seat is installed, use the locking tool provided and lock the seats in place (as shown in photo 3 on pg. 11).

Second and Third Row Flex Seats: Install behind front seats with preferred legroom. Use the flex seat removal tool provided and lock the seats in place (as shown in photo 3 on pg. 11).



FLEX SEAT REMOVAL TOOL



A flex seat removal tool is included in every vehicle to help unlock the safety lever. When removing the seat from the track, you must raise the bolt with the red cap (as shown in photo 3 on pg. 11) all the way up to clear the lock lever. This will allow you to pull the handle back safely and remove the seat from the track.

Photo 1



Photo 2



Photo 3



The L-tracks allow the seats to move forward and backward. They also allow for multiple wheelchair securement system locations.

PROMASTER HD HVAC SYSTEM

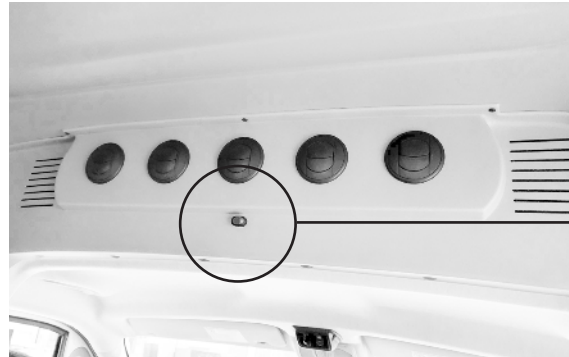
HVAC MAIN CONTROL CENTER

The heat and air conditioning control system is located on the ceiling mounted panel in the center between the driver and passenger seats



AIR FLOW VENT SYSTEM

To redirect airflow, open or close the vents (as shown in photo below). These vents are located above the driver and passenger seats.



THE OVERRIDE CARGO TOGGLE LIGHT SWITCH

This toggle operates the cargo lights separate from the dome lighting and turns the cargo lights on or off when the door is closed.

ADA INTERIOR/EXTERIOR LIGHTING

INTERIOR REAR CARGO DOOR LED LIGHT



EXTERIOR REAR CARGO DOOR LED LIGHT



INTERIOR SLIDER DOOR LED LIGHT



INTERIOR FOOTWELL LED LIGHTS



EXTERIOR SIDE ENTRY LIGHTING SHOWN



EXTERIOR REAR ENTRY LIGHTING SHOWN



FLEX SEATING POSITIONS WITHIN L-TRACK FLOORING SYSTEM

L-TRACK FLOORING SYSTEM FOR FLEXIBLE SECUREMENT OF WHEELCHAIRS AND SEATING POSITIONS

1. Connect the tie down latch to the first floor track by pushing the fitting into the track with even pressure and sliding the fitting in one direction until the spring-loaded latch drops into place. As shown in photo 1, the first track should be latched 22.5" down from the flat part of the L-tracks.
2. For the first chair placement, the back side of the seat should be approximately 74" measured from the front of the L-track.
3. Measurements will change depending on the size of the wheelchair. If attaching a child's wheelchair, the back side of the seat measured from the front L-track should be at approximately 63.5".

Please note these measurements are VMI recommendations for the best angles required by the securement manufacturer.

Photo 1



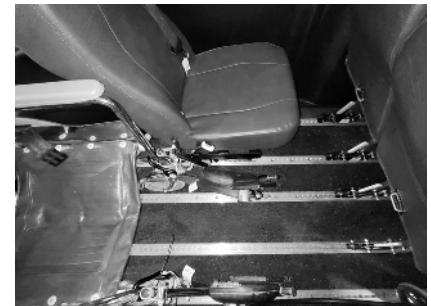
Photo 2



Photo 3



Photo 4



EMERGENCY PROCEDURES

EMERGENCY PULL HANDLE RING

These photos below show the emergency pull handle located behind the ramp on the rear passenger cargo door.

Only to be utilized in cases of emergency and NOT for daily use.

Photo 1



Photo 2



To use the emergency pull handle, reach around the side of the ramp (as shown in photo 3) to grab and pull the emergency ring.

Photo 3



As shown in photo 4, pull the ring towards the wall to easily open the door. **The emergency handle WILL NOT WORK if pulled towards driver side.**

As shown in photo 5, more wire will be released and the door will open.

The door will open upon unlatching (see photo 6)

Photo 4

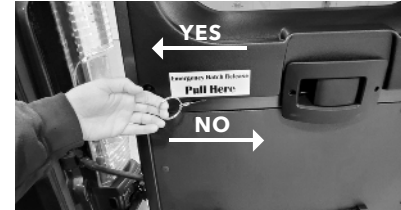


Photo 5



Photo 6



AIR COMPRESSOR SYSTEM

If the air system fails, use the following steps until the system can be repaired

1. Turn the toggle switch and LED light to the off position (see photo 1).
2. Ensure the emergency break is not engaged and is in the down position (see photo 2)
3. Locate the emergency air compressor underneath the driver seat (see photo 3).
4. Plug in the air compressor to the cigarette lighter (see photo 4).
5. Open the hood and connect the air line for the compressor to the Schrader valve (see photo 5).
6. Use the air compressor to fill the system and raise the van. Fill the air tank to 115 to 120 PSI to achieve the correct ride height.

Photo 1



Photo 2



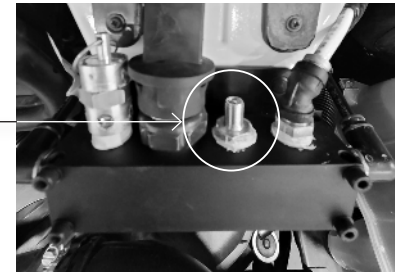
Photo 3



Photo 4



Photo 5



Schrader valve

MAINTENANCE AND WARRANTY

It is important to perform scheduled inspection and maintenance on VMI conversion products and restraint components to provide safe and trouble-free operation and to comply with the VMI Limited Warranty. The following is the required minimum maintenance schedule to be followed.

NOTE: Vehicles operated in environments subject to snow, road sand and salt, dust rain, and temperature extremes may require maintenance that is more frequent.

VMI SCHEDULED MONTHLY MAINTENANCE PLAN

- ✓ Inspect the manual ramp for loose/missing hardware; lube all pivot points with aerosol lube.
- ✓ Inspect seat belts and shoulder belts for damage and to verify proper operation.
- ✓ Inspect seating for loose/missing hardware.
- ✓ Draining the air system is not required during oil change intervals. The air system is self-draining.

Expenses associated with the above scheduled maintenance are not covered under the VMI limited warranty program.

MAINTENANCE LOG

Record maintenance information in the table below.

DATE	DATE	DATE
DESCRIPTION	DESCRIPTION	DESCRIPTION
DEALERSHIP	DEALERSHIP	DEALERSHIP

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DATE	DATE	DATE
DESCRIPTION	DESCRIPTION	DESCRIPTION
DEALERSHIP	DEALERSHIP	DEALERSHIP

VMi LIMITED WARRANTY

The VMi LIMITED WARRANTY modifies the standard RAM ProMaster LIMITED WARRANTY on this vehicle. Modifications to the vehicle made by VMi, components installed by VMi, and RAM Promaster components and systems affected by VMi modifications and components are NOT covered by the RAM Promaster LIMITED WARRANTY.

The VMi Limited Warranty will commence on the date the converted vehicle is delivered to the end-user. The VMi warranty will be 36 months or 36,000 miles from the odometer reading at the time of conversion. The 36 month, 36,000 mile RAM Promaster Limited Warranty commences from when the vehicle was originally sold to the first retail purchaser. Subject to the terms of the VMi Limited Warranty, VMi will repair or replace any VMi factory installed part that is found to be defective within the above stated warranty period. VMi will reimburse VMi factory authorized repair facilities for labor costs associated in the repair or replacement of defective parts or workmanship. The reimbursement may be based on a VMi "Flat Rate Schedule."

Warranty work that is performed at a facility that is NOT an authorized VMi Service Facility will only be reimbursed to the amount determined by the flat rate schedule or a labor rate as determined by VMi. VMi reserves the right to designate where warranty work is to be performed and reserves the right to inspect any claim of defective workmanship or parts prior to authorization of repairs. VMi makes no guarantee or representation as to the location of the nearest VMi dealer or as to the convenience of having work done at such location. The VMi Limited Warranty does not apply to parts or workmanship that becomes defective due to misuse, neglect, abuse, normal wear and tear, or accident by the operator of the vehicle or by unauthorized repair work.

For your approved VMi factory authorized repair facility, please visit our website at vmivans.com or contact us by mail or telephone:

**Customer Advocate Center
Vantage Mobility International
5202 S. 28th Place
Phoenix, AZ 85040
phone: 855-VMi-VANS (862-8267)**

Transfer of Warranty

If the vehicle is sold, the remainder of the VMi Limited Warranty may be transferred to the second owner within 90 days of the purchase. To transfer the warranty, the new owner must send a written request to VMi, including full name, address, phone number, and the VMi ID number located on the inside driver door jamb.

Design Changes

VMi reserves the right to make design or process changes to improve its current product without any obligation to update or retrofit previously converted vehicles.

Shipments of parts under the VMi Limited Warranty will be sent by ground UPS only. If you request overnight or second-day shipment, that shipment will be sent freight collect.

What Is Not Covered by This Limited Warranty

The above stated warranty is the entire warranty made by VMI to the purchaser. Specifically, VMI does not warrant any other part or portion of the vehicle other than that manufactured by VMI. Without limitation, this warranty is not intended to cover the vehicle's frame, engine, transmission, transaxle, front and rear wheel drive components, restraint systems (including airbags and seat belts), brakes, battery, heating system, air conditioning system, tires, ignition system, emission system, electronic and computer systems, or any other part of the vehicle, except for those fabricated, modified or altered by VMI and then only to the extent of such fabrication, modification or alteration. This warranty is not intended to replace or substitute any other warranties issued by the original manufacturer of the vehicle or other supplier of parts or components thereto. Warranty claims regarding problems with any part of your vehicle not fabricated by VMI will be referred to the original manufacturer of your vehicle. Consult the original manufacturer owner's manual for information regarding those warranties.

This warranty shall not cover any defect or problem existing in the vehicle at the time it arrives from the original vehicle manufacturer for subsequent modification by VMI. Warranty claims regarding such pre-existing problems must be brought against the original manufacturer of the vehicle. Consult the original manufacturer owner manual for information regarding those warranties.

The VMI Limited Warranty will not apply if the VMI parts or VMI modifications become defective due to use other than what is stated in the VMI Owner's Manual.

The VMI Limited Warranty does not cover towing, rental or loaner vehicles, lodging, travel expenses, lost wages, or any other incidental expenses associated with warranty repair.

The VMI Limited Warranty is void if the vehicle is declared to be a total loss by an insurance company, the vehicle is rebuilt after being declared to be a total loss by an insurance company or the vehicle is issued a certificate of title indicating that it is designated as "salvage," "junk," "rebuilt," or "scrap" or some similar word.

VMI will deny warranty coverage without notice if it learns that a vehicle is ineligible for coverage for any of these reasons.

This Warranty does not cover maintenance of the VMI conversion. Maintenance shall be performed at owner's expense.

VMI neither assumes, nor authorizes, any person to assume for it, any obligation or warranty other than herein stated.

Exclusion of Other Warranties

This warranty is exclusive and in lieu of any warranty of merchantability, fitness for a particular purpose, or other warranty of quality, whether express or implied, and of all other liabilities and obligations on the part of VMI.

Warranty Registration Requirement

The warranty registration card must be completed by the VMI dealer and returned to VMI within 10 days of vehicle delivery to customer along with the VMI Pre Delivery Inspection checklist to validate any of the above stated warranties.

Your Rights Under State Law

This warranty gives you specific legal rights, and you may have other rights that vary from state to state.

Summary of Warranty Coverage

Structural (Rust / Corrosion)*:

3 Years / 36,000 Miles**
Parts and Labor

Electrical*:

3 Years / 36,000 Miles**
Parts and Labor

Kneeling System*:

3 Years / 36,000 Miles**
Parts and Labor

Modified Seat Bases*:

3 Years / 36,000 Miles**
Parts and Labor

Ramp System*:

3 Years / 36,000 Miles**
Parts and Labor

VMI Fabricated & Installed Equipment:

3 Years / 36,000 Miles**
Parts and Labor

VMI Mechanical & Structural Conversion:

3 Years / 36,000 Miles**
Parts and Labor

** Must follow the required maintenance schedule as outlined on page 17.*

*** Whichever occurs first.*

How to Obtain Warranty Service

If you encounter any difficulties with your vehicle, you should first contact the VMI Mobility Equipment Dealer ("MED") from whom you purchased the vehicle or, if you are outside that MED's local area, the nearest VMI MED. A list of VMI MEDs can be obtained by dialing 855-VMI-VANS (864-8267).

If the VMI MED believes that the issue with the vehicle can be better serviced by an authorized RAM dealership (for example, if the problem pertains to automotive parts covered by the RAM LIMITED WARRANTY), you will be referred to a local RAM dealership for warranty service. If the vehicle cannot be operated safely, transportation of your

vehicle to and from the RAM dealership will be arranged by the MED. The mobility dealer will advise where and when to pick up your vehicle. If the vehicle can be safely operated, it may be more efficient for you to drive the vehicle to the designated RAM dealership for warranty service. Before taking your vehicle in to the designated RAM dealership, be sure to obtain the completed Service Information Form from the mobility dealer to present it to the RAM dealer.

If you are unable to bring the vehicle to a MED and need to take it directly to a RAM dealer (for example, if you experience a problem where there is no MED nearby), please present the Service Information

Card (pg 46) to the Service Manager of the RAM Dealer. If you require help with this warranty or have any questions or comments, please contact VMI at:

Warranty Department

Vantage Mobility International

phone: 800-488-9082

email: AllTechSupport@vantagemobility.com

VMI/RAM SERVICE INFORMATION FORM

Dear RAM Dealer Service Manager:

The RAM customer presenting this form to you is the owner of a RAM vehicle converted by VMI Holdings, LLC (VMI) for wheelchair access and/or other mobility features. The vehicle has been brought by the customer to the VMI Mobility Equipment Dealer ("MED") listed below where it has been determined that the repair sought by the customer is most likely covered by the RAM LIMITED WARRANTY and should be performed by an authorized RAM Dealer.

Description of Customer Problem(s):

MED Diagnosis:

If you have any question about this diagnosis please contact the MED at:

MED Name: _____

MED Phone Number: _____

Contact Person: _____

If you believe that the service sought by the customer involves modifications to the vehicle made by VMI, components installed by VMI, or RAM components and systems affected by VMI modifications or components, you should contact VMI Technical Support at 1-800-488-9082 prior to performing any service to determine whether VMI or RAM is responsible for the repair and whether you should make the repair or have the vehicle shipped to a VMI repair facility. If you have any questions relating to this repair, you may also contact RAM Technical Support at 1-800-331-4331.

Please photocopy this form for your records and return the original to the owner.



844-VMI-4ADA • vmi4ADA.com • 5202 S 28th Place **Phoenix**, AZ 85040
(864-4232)