

VMAC[®]

VEHICLE MOUNTED AIR COMPRESSORS
COMPACT. POWERFUL.



RAPT AIR-MF

Battery boosting / Charging Instructions

www.vmacair.com

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Changes and Revisions

Revision	Revision Details	Revised by	Checked by				Implemented
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			Mech.	Elec.			
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Important Information

The information in this manual is intended for certified VMAC installers who have been trained in installation procedures and for people with mechanical trade certification who have the tools and equipment to properly and safely perform the installation. Do not attempt this installation if you do not have the appropriate mechanical training, knowledge and experience.

Follow all safety precautions for mechanical work. Any grinding, bending or restructuring operations for correct fit in modified trucks must follow standard shop practices.

Notice

Manuals are subject to change without notice.

Ordering Parts

To order parts, contact your VMAC dealer. Your dealer will ask for the VMAC serial number, part number, description and quantity. To locate your nearest dealer, call 1-800-738-8622 or online at www.vmacair.com

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General Information

Important Safety Notice

The information contained in this manual is based on sound engineering principles, research, extensive field experience and technical information. Information is constantly changing with the addition of new models, assemblies and service techniques. If a discrepancy is noted in this manual, contact VMAC prior to initiating or proceeding with installation, service or repair. Current information may clarify the issue. Any person with knowledge of such discrepancies who performs service and repair assumes all risks.

Only proven service procedures are recommended. Anyone who departs from the specific instructions provided in this manual must first assure that their safety and that of others is not being compromised and that there will be no adverse effects on performance or the operational safety of the equipment.

VMAC will not be held responsible for any liability, consequential damages, injuries, loss or damage to individuals or to equipment as a result of the failure of any person to properly adhere to the procedures set out in this manual or standard safety practices. Safety should be your first consideration in performing service operations. If you have any questions concerning the procedures in this manual or require any more information on details that are not included in this manual, please contact VMAC before beginning repairs.

Safety Messages

This manual contains various warnings, cautions and notices that must be observed to reduce the risk of personal injury during installation, service or repair and the possibility that improper installation, service or repair may damage the equipment or render it unsafe.



This symbol is used to call your attention to instructions concerning your personal safety. Watch for this symbol, it points out important safety precautions, it means, "Attention, be alert! Your personal safety is involved". Read the message that follows and be alert to the possibility of personal injury or death. While it is impossible to warn about every conceivable hazard, let good common sense be your guide.



This symbol is used to call your attention to instructions on a specific procedure that if not followed may damage or reduce the useful life of the compressor.



This symbol is used to call your attention to additional instructions or special emphasis on a specific procedure.

Jump-starting



The jump-starting feature requires a battery in the circuit being jumped. Do not attempt to jump-start the vehicle with the RAPTAIR-MF connected directly to starter.

1. Start the RAPTAIR-MF and enable the generator switch.
2. Set the “WELD” selector switch on the “Remote Weld Control” box to “0”.
3. Connect the positive clamp to the positive terminal on the battery.
4. Connect the negative clamp to a good vehicle ground, ideally on the engine.
5. Set the “Ah” (Ampere-hour) knob to “50%”.
6. Set the “WELD” selector switch to the appropriate battery voltage.
7. After 2 minutes set the “Ah” control to “100%” and wait a further 2 minutes.
8. Start the vehicle engine.

The amperage that the generator produces is dependent on the overall resistance of the system. This will typically range between 20 A and 100 A when set to “100%” and is affected by battery charge level, battery health and the battery configuration (i.e. multiple deep cell 24 V batteries in series versus a single 24 V battery). Once the starter is engaged the overall resistance of the system drops and the full rated current can be supplied to the starter.



Note that 300A is not enough to turn over most engines. The jump-start feature must store enough energy in the battery to allow it to assist in starting the engine. The length of time required is dependent on the battery’s condition and starter’s current draw. If the engine does not turn over, then the batteries must be charged for 5 minutes at “50%” and 5 minutes at “100%” before attempting to start. If the engine still does not turn over, try charging the batteries for 5 minutes at “50%” and 5 minutes at “100%” and attempting starting again. If no improvement is observed after multiple cycles, the battery may need to be replaced.



Do not leave the Multifunction connected and charging at over 30% for extended periods. Extended high voltage / current charging can damage batteries.

Battery Charging

1. Start the RAPTAIR-MF and enable the generator switch.
2. Set the "WELD" selector switch on the "Remote Weld Control" box to "0".
3. Connect the positive clamp to the positive terminal on the battery.
4. Connect the negative clamp to a good vehicle ground, ideally on the engine.
5. Set the "Ah" (Ampere-hour) control to between "10%" and "30%".
6. Set the "WELD" selector switch to the appropriate battery voltage.



Avoid exceeding more than 5 to 10 mins above 30%. A typical battery should be charged in less than 3 to 4 hours at the 10% to 30% charge level.



Use extreme caution performing the following action; do not tap directly to battery terminals and ensure there are no explosive gases present before tapping to initiate charge.

If a battery is completely dead, the negative cable may need to be "tapped" on the selected grounding point several times to initiate charging.

1. Start the RAPTAIR-MF and enable the generator switch.
2. Set the "WELD" selector switch on the "Remote Weld Control" box to "0".
3. Connect the positive clamp to the positive terminal on the battery.
4. Set the "WELD" selector switch to the appropriate battery voltage.
5. Tap the negative clamp to a good vehicle ground several times, ideally on the engine.
 - The spark generated from this should slowly get stronger. The battery is now ready to accept charge.
6. Connect the negative lead and resume charging or jump-starting procedure.

If the battery will not accept a charge or jump-start using the methods presented in these instructions, the battery is most likely damaged and will need to be tested at an appropriate facility or replaced.

If you have any questions or concerns, please contact VMAC Technical Support 1-888-241-2289.

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