



Madison Police Department

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July 20, 2015

Daniel Welch
MuckRock News
DEPT MR 19681
PO Box 55819
Boston, MA 02205-5819

Dear Mr. Welch:

I am writing in response to your July 14, 2015, request to the Madison Police Department for the "Training plan submitted to the Department of Defense's Connecticut state coordinator for Madison PD's Mine Resistant Vehicle".

I am releasing to you the requested records which are responsive to your request. This information is being furnished to you in its entirety without redaction.

With the release of these records, I will consider this request closed.

Sincerely,

Anthony Bitterman, Lieutenant of Police

Armored Rescue Vehicle (ARV) Overview





ARV Basics

- 2007 International 7400 chasis
- Powertrain
- Physical specifications
- Fun facts



ARV Basics

- Top heavy = potential to roll!
- Egress options
 - Driver, passenger doors
 - Turret
 - Top escape hatch
 - Ramp



ARV

Standard Operating Procedures

- Refer to as ARV
- Deployment situations
 - Active critical incident within city of Madison
 - Active or pre-planned SWAT incident
 - Mutual aid request for active critical incident
 - Mutual aid request for pre-planned event
 - Planned community event
 - Routine maintenance and operation



ARV

Standard Operating Procedures

- Unique vehicle
- Drivers
 - Qualifications
 - Responsibilities
- Spotters



ARV

Standard Operating Procedures

- Rear Hatch Operation
 - Two person process: Driver + rear passenger
- Opening
 - Driver: “Hatch open!”
 - Designated pass: “Clear to open!”
- Closing
 - Driver: “Hatch closing!”
 - Designated pass: “Clear to close!”
 - Designated pass: “Close the hatch!” (emergency)



ARV

Standard Operating Procedures

- Routine Maintenance
- Repairs
- Towing
- Storage

Maintenance

WALK AROUND

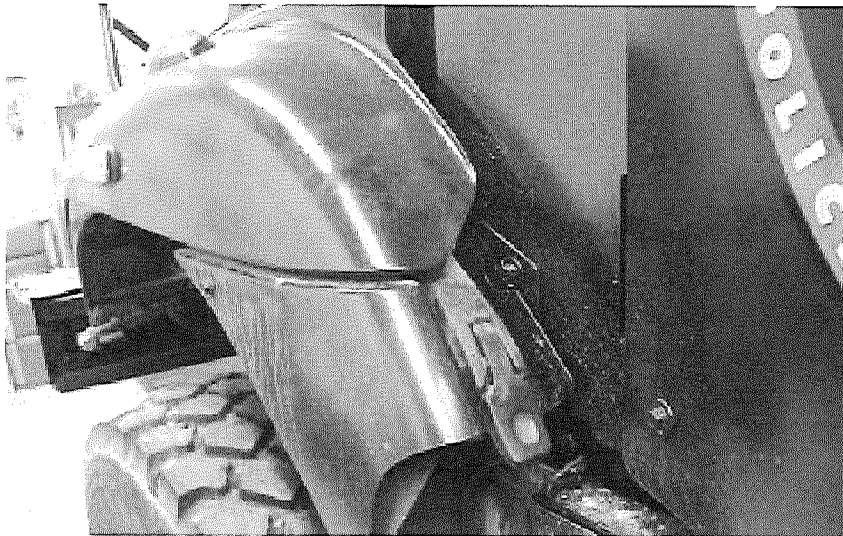
- Check floor for fluid leaks around engine compartment and front/rear axles
- Check for any body & chasis damage



Maintenance

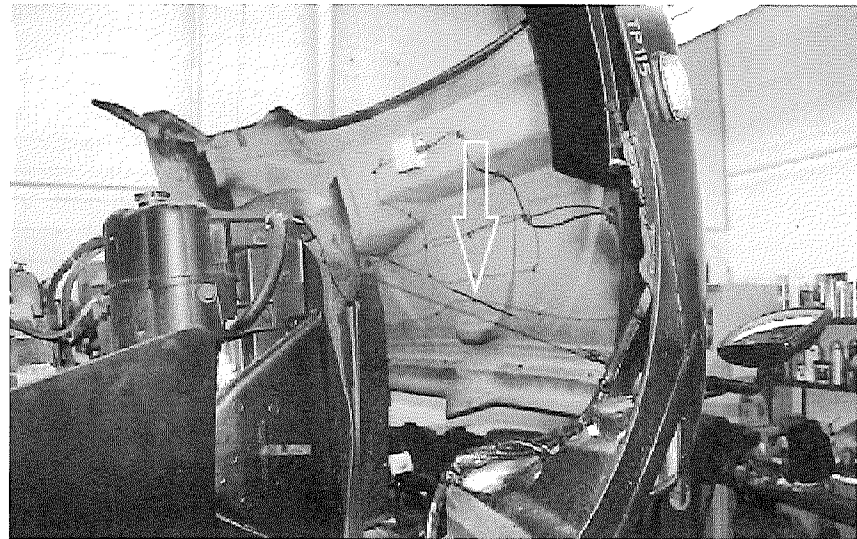
Two hood latches located behind the front wheel wells

- In front of driver door
- In front of the passenger door



Maintenance

- Raise hood carefully using hand hold above grill area on top of hood
- Hood will be supported by spring-tension cables



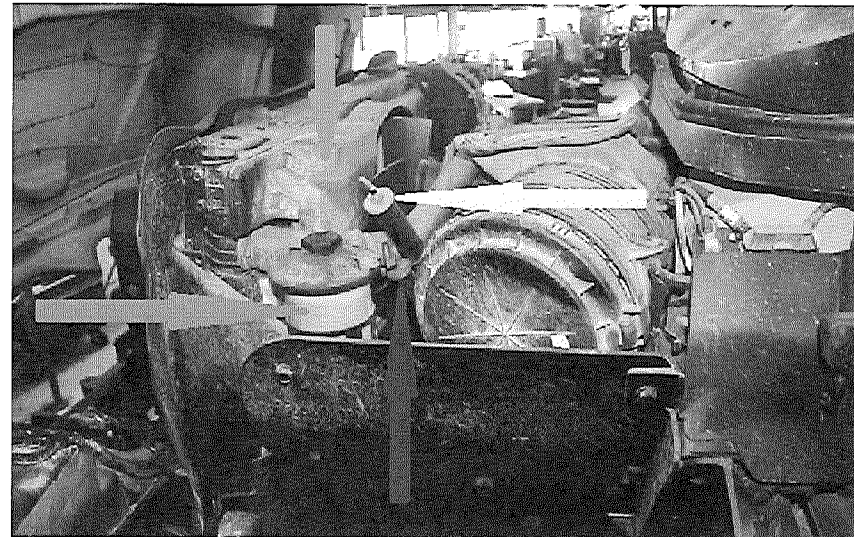
Maintenance

Red = Transmission dip stick

Blue = Power steering

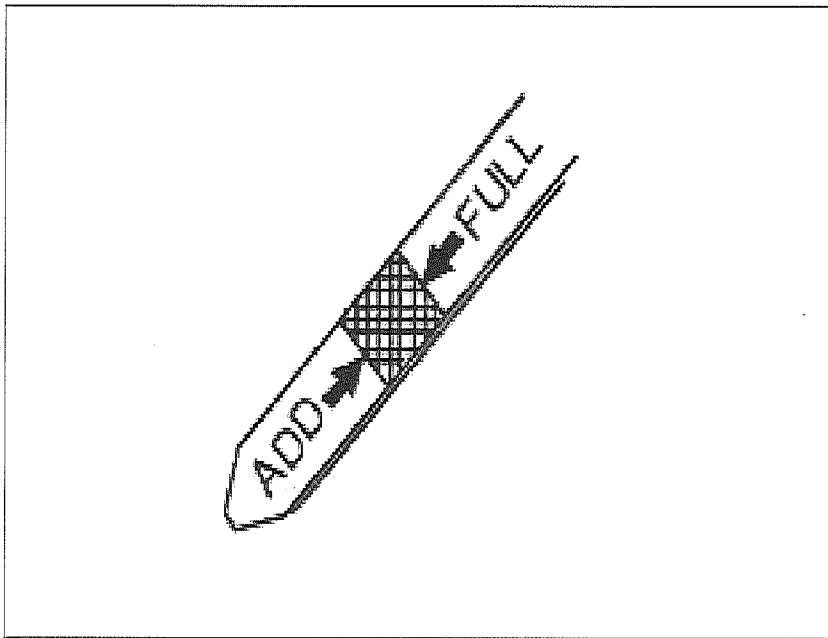
Green = Coolant level

Yellow = Oil dip stick

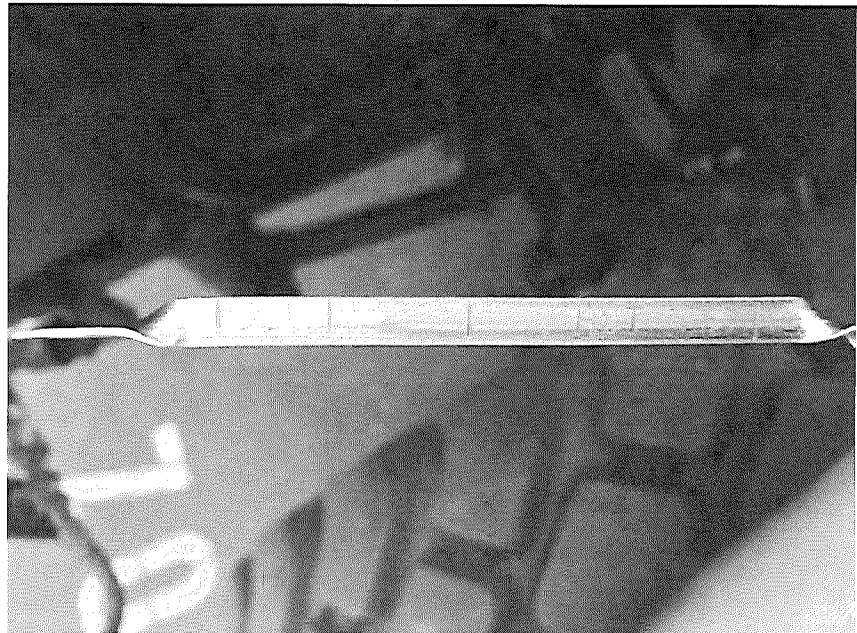


Maintenance

Oil level – check while cold



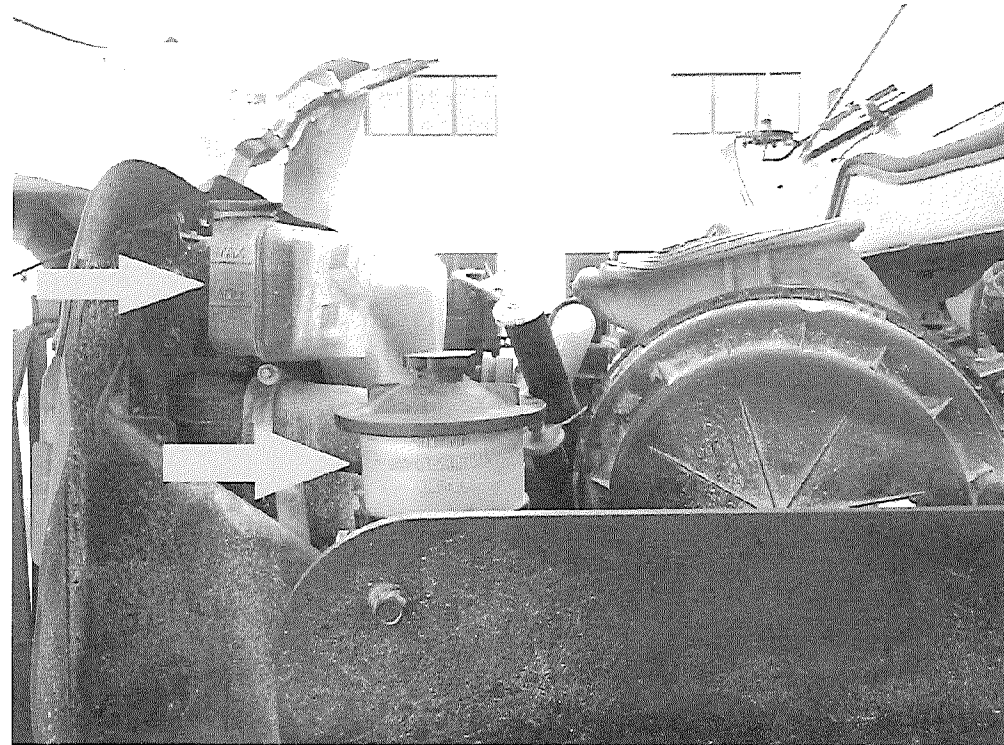
Transmission level – check while HOT



Maintenance

Coolant level

Power Steering Fluid



Maintenance

SERPENTINE BELT

- With engine OFF, press belt to confirm that it is snug
- Check for frays, cracks, loose fibers or other signs of wear



Maintenance

TIRE PRESSURE

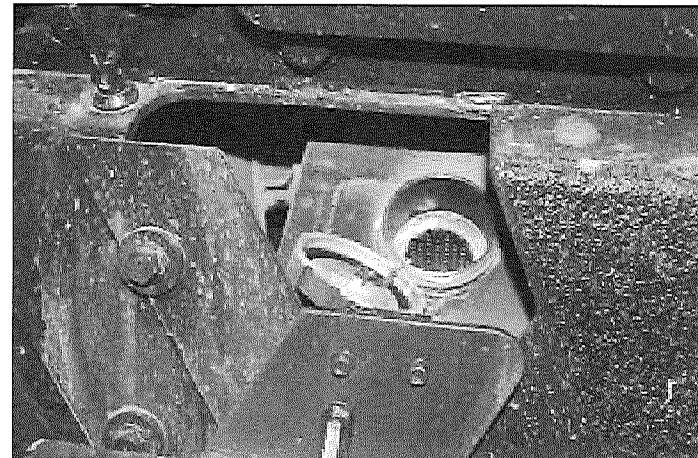
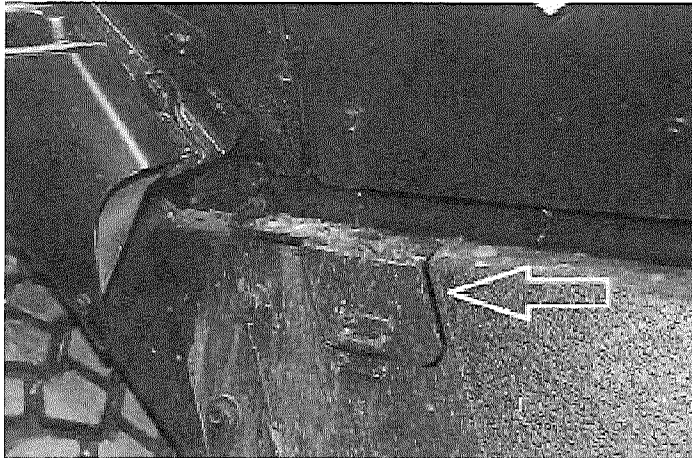
- Pressure should be between **100 – 115 psi**
- Check for cracks or foreign objects in the tire



Maintenance

FUELING

- Located under driver's door
- **DIESEL FUEL ONLY**



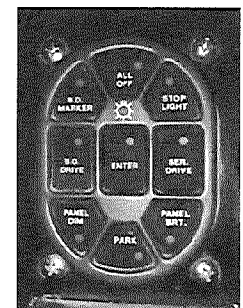
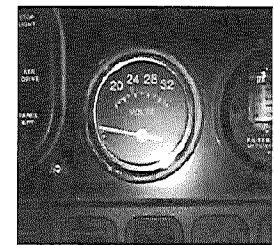
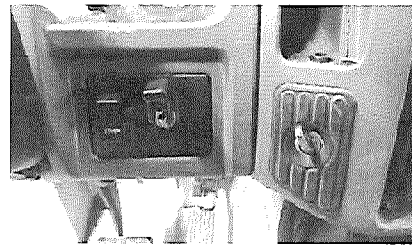
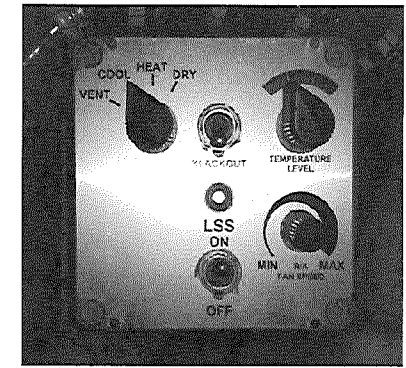
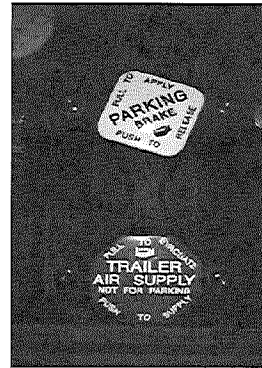
ARV Operation



ARV Operation

Startup

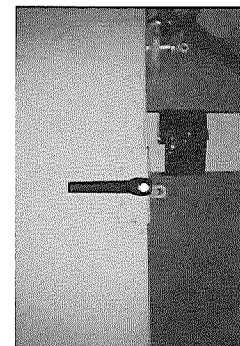
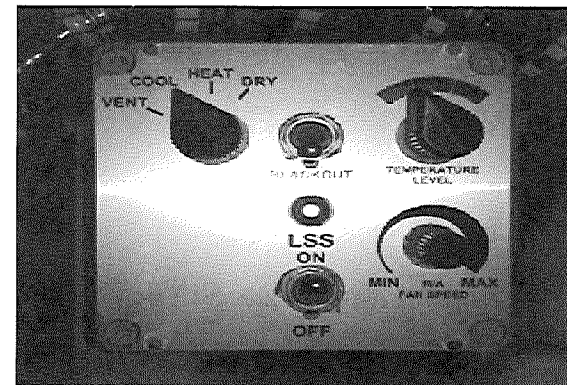
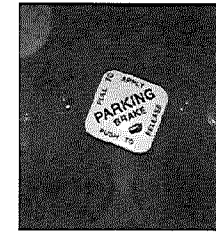
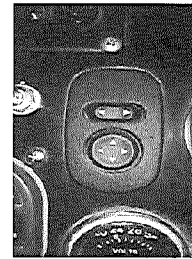
- Confirm parking brake is engaged
- Press down on the foot brake
- Confirm the Life Support System (LSS) is turned off
- Turn master battery switch ON
- Turn ignition to START position
- Upon engine start release ignition switch
 - 24 Volts
 - 90 psi both systems
 - Oil pressure
 - PARK icon (P) illuminated
- Activate vehicle lighting
 - Press SER DRIVE
 - Press ENTER



ARV Operation

Drive

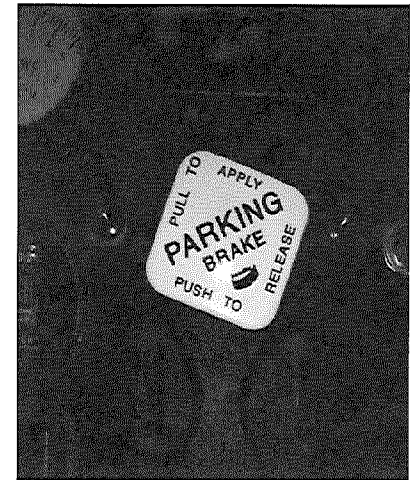
- Adjust mirrors
- Turn ON LSS if needed
 - COOL
 - HEAT
 - VENT
 - DRY
 - BLACKOUT
- Foot on brake, place trans into gear
 - D- Drive
 - R-Reverse
- Release parking brake
 - PARK icon (P) disappears
- Check air brakes
- Release foot brake and begin travel



ARV Operation

Park

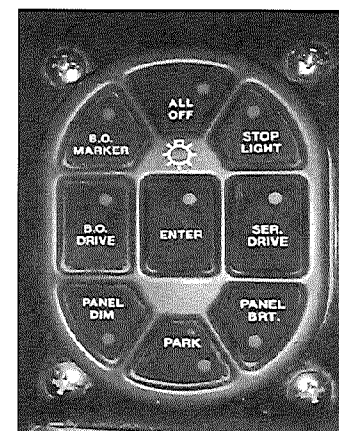
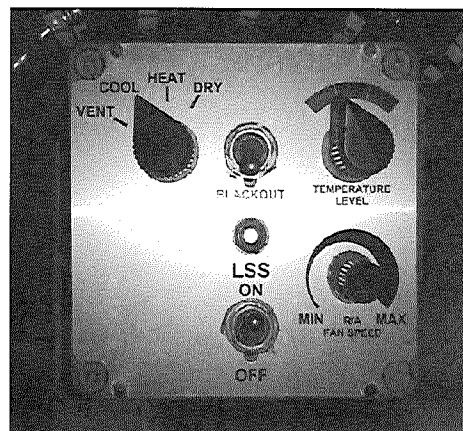
- Stop in appropriate area
- Keep pressure on foot brake
- Place ARV into neutral
- Apply parking brake
 - Ensure PARK icon (P) illuminates



ARV Checklist

Shutdown

- Let engine idle for 3-5 mins
- Turn off LSS
- Deactivate vehicle lighting
 - Press ALL OFF button
 - Press ENTER button
- Confirm ramp is closed
- Turn ignition switch OFF
- Master Battery Switch OFF
- Combat lock doors
- Chock tires

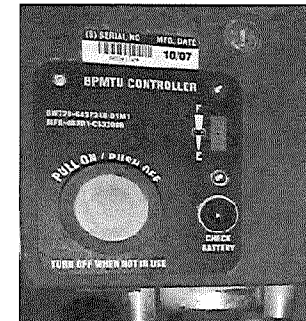
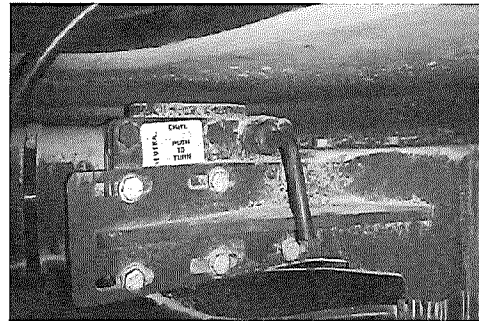


ARV

Components

Turret -Electronic operation

- Disconnect the turret charging cord
- Ensure turret gear is in DRIVE mode
- Ensure both ends of turret joystick control wire attached
- Power on turret
- Use joystick to position turret
- When finished:
 - Power off turret
 - Detach exterior joystick wire
 - Connect turret charging cord

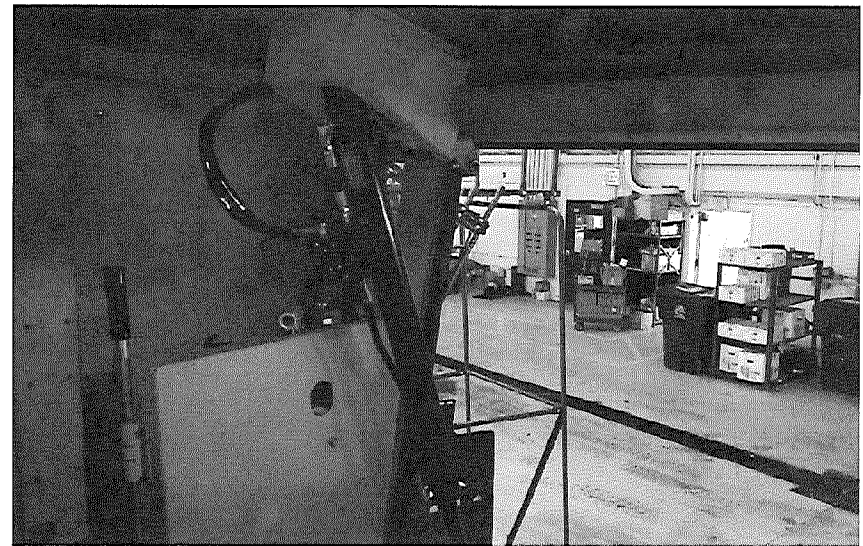
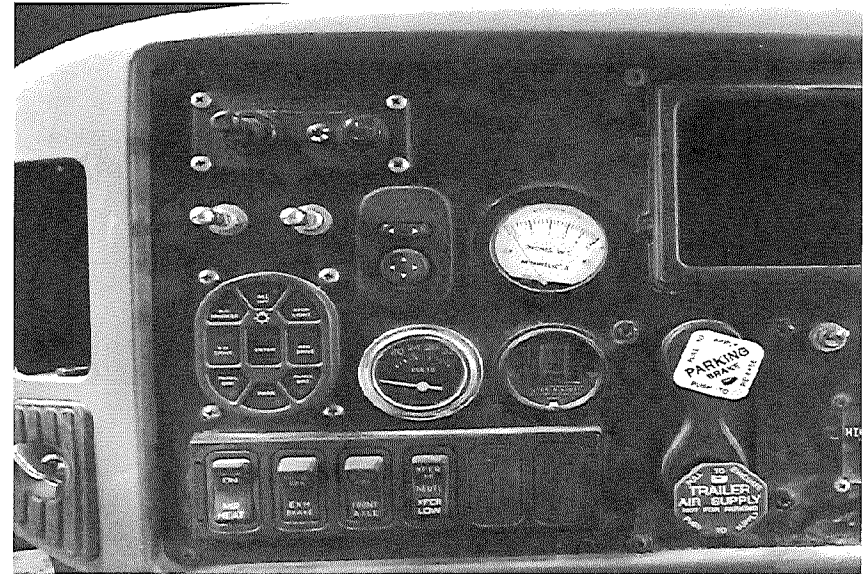


ARV

Components

Ramp- Electronic Operation

- Ensure ramp area is clear
- Operate ramp with toggle switches located in both front and rear cabins

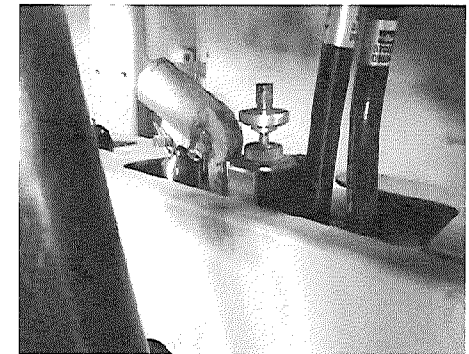
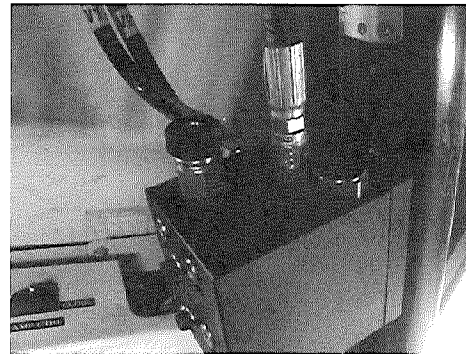


ARV

Components

Ramp - Hydraulic Operation

- Open
 - Remove ramp bar, insert into hole in ramp locking axle, pull down to unlock ramp
 - Turn hydraulic valve knob counterclockwise and push ramp. Ramp will open
- Close
 - Turn hydraulic valve knob clockwise until it stops
 - Raise ring valve knob and hold, place ramp bar into pump and pump up and down to raise ramp



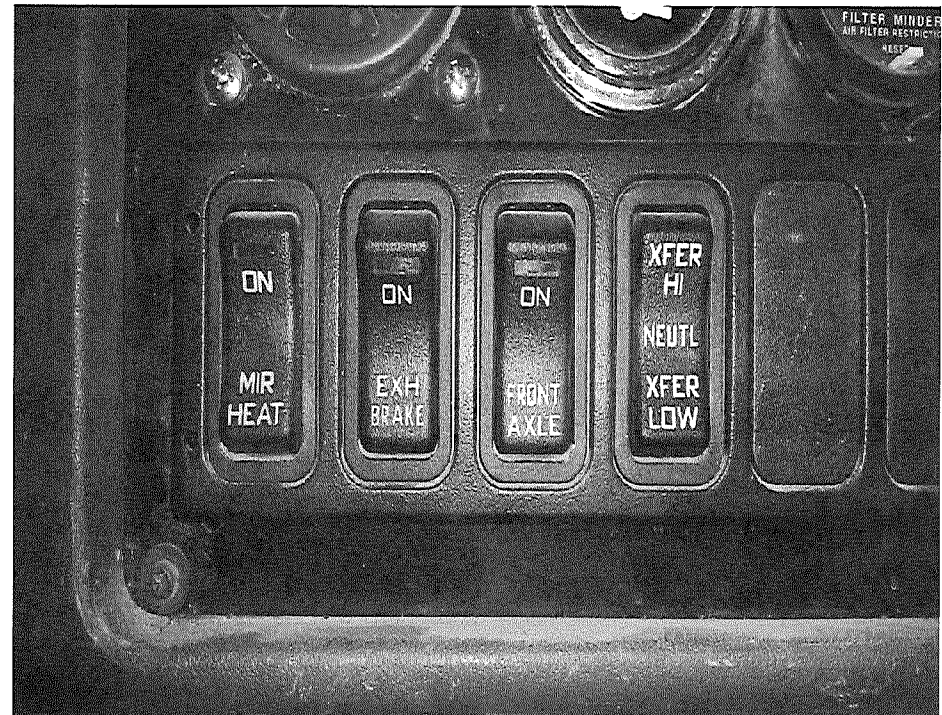
ARV

Components

4WD

- Bring ARV to complete stop
- Keep foot on brake
- Press ON on the FRONT AXLE switch
- XFER HI = transfer case in high gear
- XFER LOW = transfer case in low gear
- NEUTRAL = used in towing situations

*Switch should almost always stay in XFER HI



ARV Components

Spotlight

- Place toggle switch in UP position to turn on
- Use control knob to position
- Place toggle switch in DOWN position to turn off



Mirror

- Select left or right mirror with top switch
- Position mirror using bottom switch





QUESTIONS?

SOP on ARV use

Armored Vehicle Operation

The MPD Armored Rescue Vehicle (ARV) will only be used in accordance with these procedures. Operation of the Vehicle must be in accordance with MPD policy at all times.

Deployment

The ARV is intended for use during critical incidents, planned and unplanned events within the community, and trainings. SWAT Commanders will approve the use of the ARV unless a critical incident or event is rapidly developing and waiting for such approval is impractical.

The ARV will only be driven by approved personnel who have received training in the vehicle's operation. A second person (spotter) should also staff the vehicle when driven (unless an emergency situation makes it impractical to do so).

Approved Deployment situations

- An active critical incident within the City of Madison involving the use or potential use of firearms, where the use of the ARV will aid in stabilizing the situation. These requests should be directed to the OIC. On-duty approved drivers of the ARV that are closest to the current location of the vehicle shall respond and prepare the vehicle for deployment.
- An active or pre-planned incident involving MPD SWAT. These deployments shall be coordinated by MPD SWAT Command.
- A mutual aid request from another jurisdiction for an active critical incident. The decision to use the ARV shall be made by the OIC and communicated to SWAT Command as soon as practical. On-duty approved MPD drivers should be used to deploy the vehicle to the incident.
- A mutual aid request from another jurisdiction for a pre-planned event. These requests should be directed to MPD SWAT Command.
- Planned community events. Requests for use of the ARV at pre-planned, community events should be directed to MPD SWAT Command.
- Routine preventative maintenance and operation. A maintenance and operation schedule will be maintained on an annual basis by MPD SWAT Commanders to ensure this weekly maintenance and operation occurs.

Any use of the ARV (other than for maintenance/repair) should be approved by a SWAT commander (unless obtaining approval is impractical). The Chief and Assistant Chief of Operations will be notified promptly of any ARV use (other than for maintenance/repair).

Operation

The ARV will only be driven by approved personnel who have received training in the vehicle's operation. The training will involve both classroom and practical driving. All approved drivers are expected to regularly participate in scheduled ARV training and in the routine operation and maintenance schedule.

A roster of all approved drivers will be maintained by MPD SWAT Command.

It is the responsibility of the operator to conduct a thorough pre-trip inspection of the ARV. The vehicle will be driven only after the pre-trip checklist has been completed and the vehicle is deemed fully functional. Drivers shall follow the proper start-up procedures. A manual detailing the proper start-up procedure will be located within the vehicle.

The ARV's acceleration, braking, and cornering capabilities are limited and must be considered when operating the vehicle in emergency mode. The operator is responsible for ensuring that the vehicle is operated within its limitations, constraints and with due regard. The ARV is not pursuit rated and shall not be involved in any vehicle pursuit.

Officers will not ride on the exterior of the vehicle or in the turret while the vehicle is in motion unless doing so is necessary for a tactical response/approach.

While backing the ARV, the driver must be in audio (voice or radio) and visual (via mirrors) contact with their spotter. When the vehicle is deployed with officers on the ground for mobile cover, there must be communication between the vehicle driver, spotter and lead ground officer. The vehicle driver should not move the vehicle with officers nearby on foot until they have confirmed the desired movement(s) with the lead officer on the ground.

Upon completion of a deployment the driver is responsible for ensuring the ARV is prepared for the next operator.

It is preferred, but not necessary, that the spotter also be an approved driver. The role of the spotter is to assist the driver with the general operation of the vehicle, with emphasis on 360 degrees of safety, lane changes while driving and safe backing practices. Assisting the driver with parking, positioning, and other low speed maneuvers by providing direction via visual (hand signals) or audio (radio) commands are also duties of the spotter. The designated spotter should handle radio and phone communications for driver while the vehicle is mobile.

Special Considerations

Rear Hatch Door

Coordination between the vehicle driver and a designated rear passenger is needed to safely open and close the rear hatch door. The officer operating the rear hatch door should be seated as close to it as safely possible to ensure that it is clear of personnel and obstructions prior to opening and closing. Noise generated by additional passengers during the opening and closing process should be minimized. Operating the vehicle with the rear hatch door open should only occur when tactically necessary.

When the rear hatch door needs to be opened, the driver of the vehicle will verbalize "Hatch open!" The designated officer will confirm that the area inside the vehicle and surrounding the hatch door is clear. When the designated officer deems it safe to open the rear hatch door, they should verbalize "Clear to open!" The driver may then open the hatch. Officers should not deploy out through the rear door until it has fully opened.

When closing the rear hatch door, a similar process should be followed. When the driver needs to close the rear hatch door they should loudly verbalize "Hatch closing!" The designated officer should confirm that the area inside the vehicle and surrounding the hatch door is clear and that it is safe to close. At that point the selected passenger shall verbalize "Clear to close!" The driver may then close the hatch. If the selected rear passenger needs to close the hatch prior to the driver identifying the need to do so, they should ensure that the area around the hatch door is clear of obstructions and personnel and verbalize "Close the hatch!" The driver should then close the hatch.

Maintenance and Storage

The ARV will generally be stored within the MPD Vehicle Impound Facility (VIF) on Marsh Court. The vehicle must be parked within the designated area of the VIF when stored. Special care must be taken to properly maintain the vehicle and to ensure that it is prepared for deployment when needed. Routine operation of the vehicle, approximately 2-3 times per week for 20-30 minutes each time is crucial in maintaining the overall operability of this vehicle. A maintenance and operation schedule will be maintained by MPD SWAT Commanders to ensure this weekly maintenance and operation occurs.

Drivers are responsible for conducting a thorough pre-trip inspection before operating the ARV. The majority of maintenance needs will be noticed by and corrected by drivers during the pre-trip inspections. Issues such as adding fluids (oil, trans. fluid, brake fluid, etc.) shall be done by the driver identifying the need. The ARV uses diesel fuel only, regular unleaded gasoline should never be used.

Repairs needs should be communicated to SWAT Commanders and coordinated with the First Street maintenance garage. Routine repairs/preventative maintenance issues may be conducted by trained SWAT members only. These issues should be communicated to SWAT Commanders. Examples of routine repairs/preventative maintenance include adjusting doors or draining air tanks.

If the vehicle becomes inoperable for any reason during a deployment and a tow is needed, Schmidt's towing shall be requested. A heavy-duty tow vehicle capable of towing a semi is required for the vehicle. An estimated loaded weight for this vehicle is 39,000 lbs. GVWR is 42,000 lbs.

If the vehicle is deemed in need of repair significant enough to render it unsafe to drive, the SWAT Commanders must be made aware as soon as practically possible.

Storage

When not in use, the ARV should be combat locked and secured with padlocks and wheel chocks should be placed around the rear driver's side tires. Before storing the vehicle, operators must ensure that the fuel level is above one half tank.