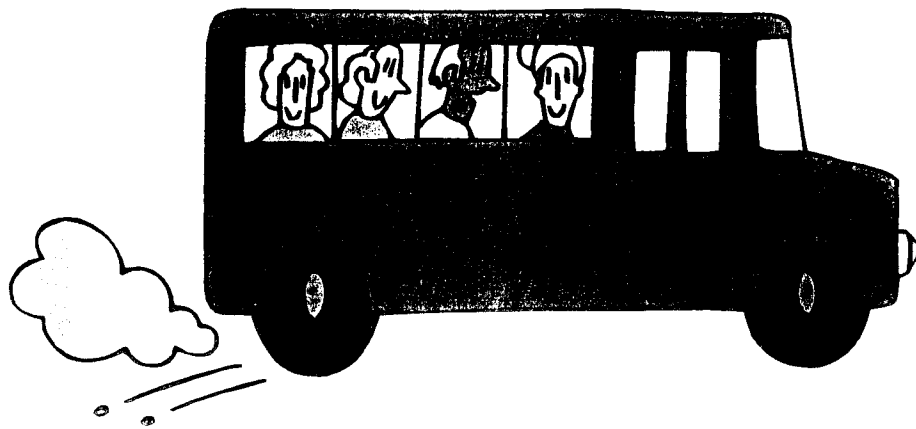


Aspermont Small Business Development Center, Inc.

DOUBLE MOUNTAIN COACH

Vehicle Preventive Maintenance Plan



**Aspermont Small Business Development Center, Inc.
Double Mountain Coach
Preventive Maintenance Plan**

Preface

Aspermont Small Business Development Center, Inc. operates Double Mountain Coach as a Public Transportation system. Double Mountain Coach (DMC) is committed to ensuring that it provides a safe, reliable, efficient and effective transportation system to the residents of Fisher, Haskell, Jones, Kent, Knox, Stonewall and Throckmorton Counties.

Our current vehicle fleet consist of six (6) Dodge mini-van with ramps, one (1) Chevy Venture mini-van with ramp and four (4) Ford buses all with equipped with wheelchair lifts. The central office is located in Aspermont. The DMC office consists of passenger waiting area, dispatch station, administrative offices, maintenance shop and an enclosed, covered transit system vehicle parking area. We also have vehicles stationed out of two (2) other counties: Jones and Haskell.

DMC has developed the following guidelines on preventive maintenance. The information contained herein is designed to improve the efficiency and effectiveness of the system's preventive maintenance program. DMC feels that proper communication from the drivers to the maintenance supervisor and their supervisors will eliminate down time and increase safety provisions for passengers.

The goal of our maintenance program is to decrease vehicle down time, lower operational and maintenance cost and increase service levels.

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Purpose:

The purpose of this manual is to provide a level of guidance on the conduct of the agency's Preventive Maintenance (PM) program. This guidance consists of policy statements, a discussion of the interaction among the program director and operators and areas for development of the PM program. A well-established, comprehensive preventive maintenance program is as important to a successful transportation system as the actual purchase of the vehicles.

Preventive maintenance: a term used to describe the performance of regularly scheduled maintenance procedures on a vehicle in order to prevent the possibility of malfunctions. Waiting until a malfunction occurs to begin to fix it is not an example of preventive maintenance.

Preventive maintenance (PM) is the accomplishment of the scheduled inspections, servicing, repairs recommended by the equipment manufacturer and those required by law. There are three (3) kinds of PM inspections.

The Preventive Maintenance Plan consists of:

1. Routine Daily Pre and Post Trip Inspections
2. Periodic or Oil Change Inspections
3. Major or Annual Inspections

These inspections assure the accomplishment of necessary servicing and offer the opportunity to discover mechanical defects so that they can be corrected, thereby assuring the mechanical integrity of equipment until the next scheduled inspection. Scheduling these inspections in conjunction with those inspections required by law is encouraged. A comprehensive maintenance record on file for each vehicle is maintained.

Routine Inspection is the daily operator's inspection of vehicles and ADA equipment. Drivers must complete a Pre and Post Trips Vehicle Inspection Report when they start and end their day. This process ensures that the unit is ready to be operated and has a high probability of completing the day without breakdown, compounding existing defects or violating the laws pertaining to vehicle conditions.

The Pre and Post Trips Vehicle Inspection Reports are turned in with their daily trip logs to the dispatcher at the end of the driver's day and then given to the maintenance supervisor that same day. They are to report any abnormal noise, smell and/or driving performance to a supervisor immediately. The supervisor will then decide what immediate action needs to be taken and advise the executive director for authorizing. Before any repairs by outside shops are done, the executive director must give authorization.

The pre and post vehicle trip inspection is the operator's responsibility. The operator will ensure the program director that the PM inspections are performed when due. Vehicle operators will be trained in the skills required for PM by the maintenance supervisor. When identified, the problem will be repaired as soon as possible. This is crucial as the discrepancy might jeopardize safety.

Safety is the first consideration when performing PM checks. Drivers performing the checks should be aware of sharp edges and loose or broken parts. Reaching into blind areas or hot areas can be hazardous. Head and eye injuries can occur if proper care is not taken. The maintenance supervisor personally trains new operators in how to properly perform their Pre and Post Vehicle Inspection.

Operator Responsibilities:

1. Perform the routine PM inspection
2. Ensure that the time or mileage scheduled between inspections is not exceeded.
3. Keep the "service due" stickers current
4. Report symptoms of malfunctions

Please see following page for review of the Pre/Post Trips Vehicle Inspection Report.

Pre/Post Trip Vehicle Inspection
Report

Date: _____

Van # _____

Beginning Mileage: _____

Ending Mileage: _____

"U" means Unsatisfactory. "S" means Satisfactory. Items marked "U" should be explained by driver in "Comments" column. Please be specific.

MECHANICAL	Pre		Post	
	S	U	S	U
Fuel Level				
Instrument/Gauges				
Wheelchair Lift/Ramp				
Glass & Mirrors				
Inspection Sticker & Tags				
Windshield Wipers & Fluids				
Turn Signals				
Brake Lights				
Lights, Horn & Reflectors				
Steering (free play, excessive)				
Brakes (damaged or worn)				
Brake Test				
Exhaust System				
Unusual Noise				
Entrance Doors				
Heater & Defoster				
Tires & Wheels/Lug Nuts				
Air Conditioner				
Leaks				
Signs on Van				
Belts & Hoses				
Fluid Levels (water, oil, ect...)				
Body Damage				

SAFETY	Pre		Post	
	S	U	S	U
Bio-Hazard Kit				
Fire Extinguisher				
First Aid Kit				
Seat Belts/extens.				
Wheelchair straps				
Emergency Exits				
Mobile Phone				
Accident Report				
Post Accident D/A Test Kit				
Spare Tire & Jack				
Safety Reflectors				

CLEANLINESS	Pre		Post	
	S	U	S	U
Seats/Upholstery				
Floors				
Interior Appearance				
Exterior Appearance				
Odor				

COMMENTS: _____

I certify that I have checked all items above to the best of my ability and any problems have been listed above.

 Signature Date

Periodic Inspection is referred to as the oil change inspection. It coincides with servicing as recommended by the manufacturer. All necessary repairs are accomplished at this time to ensure that there is no failure because of a known defect before the next periodic inspection.

During the periodic oil change inspection that the maintenance supervisor performs, he checks to insure that all necessary papers such insurance cards, accident procedures and accident report forms, current registration tags, are all current and in place. He also checks the Bio-Hazard kits to insure they are complete and that the Post Accident Drug/Alcohol Test kit, First Aid Kit and Fire extinguisher are in each vehicle.

Please see following page for review of the Periodic Vehicle Inspection Report

DOUBLE MOUNTAIN COACH
Periodic Vehicle Inspections

Date: _____ Vehicle # _____

Operator: _____ Odometer: _____

Oil Change _____ Filter _____ Date _____ Drain Plug _____

Air Filter check _____ Replacement: _____
Differential Level check _____ comments: _____

Transmission Level check _____ comments: _____

Belts Tension _____ Wear _____ Replacement _____

Tires Pressure checked _____
Treadwear: rf _____ lf _____ Replacement: rf _____ lf _____
rr _____ lr _____ rr _____ lr _____
Comments: _____

Battery Charge _____ Replacement _____

Cables Condition _____ Replacement _____

Brakes Adjustment _____ Fluid _____ Replacement _____
Comments: _____

Cooling System Coolant/Anti-Freeze level _____ Repairs _____
Comments: _____

Windshield Wiper System Wipers _____ Fluids _____ Replacement _____

Lights Check _____ Headlights _____ Brake lights _____ Signals _____ Tail _____
Repairs _____ Replacement _____

Wash Exterior _____ Clean Interior _____ Windows Washed _____

Check Inspection Sticker _____ Check License Tags _____

Bio-hazard Kit _____ Fire extinguisher _____ First Aid Kit _____

Proof of Insurance _____ Accident Report & Procedures _____ Post Accident D/A Test Kit _____

Completed by: _____

Double Mountain Coach
Preventive Maintenance Schedule

Daily Routine	Drivers must complete Pre/Post Trip Inspection Vehicle Report. Report any abnormal noise, smell and or driving performance to supervisor immediately.
Weekly	Wash vehicles interior and exterior - need determined by the amount of use and road conditions. (Salt used for clearing road and chloride compounds used to control dust on unpaved roads may require more frequent washing.)
Unscheduled or as Recommended	Engine Tune-up Replace: Spark Plugs Oxygen Sensor (if so equipped) Alternator Starter Motor Windshield Wiper motor and blades Exhaust components: Muffler, manifolds, pipes, and hanger clamps Headlights, turn signals bulbs, brake and marker lights Vehicle interior fittings, seat materials Wheelchair restraints and lift components Engine Drive Belt
Every Year	Flush radiator Replace coolant Service Air Conditioning System
Every 3 Years	Replace all hoses: more often if necessary
Every 4 Years	Replace battery: more often if necessary
Mileage Specific	In dusty area, we change air filters every 10,000 miles PCV valve and brake pads replacements and engine tune-up may need to be performed more often than suggested in this schedule
Every 3,000 Miles	Change oil, oil filter, lube chassis <i>Periodic Inspection</i>
Every 6,000 Miles	Rotate Tires
Every 10,000 Miles	Change air filters
Every 15,000 Miles	Inspect drive belts, adjust belt tension
Every 25,000 Miles	Replace Air filter Pack wheel bearings Check PCV valve, front and rear brake pads, and replace only if it is recommended by vendor
Every 80,000 Miles	Service Transmission, replace filter and fluids

Inspection Checklist

Checklist: The purpose is to give a generalized format to assist operator in developing the checklists necessary for the various type and classes of equipment.

Engine Oil Level – Pull oil dipstick and check engine oil. Note any unusual color or smell or oil on dipstick. A head gasket problem may be detected if the oil has a mustard color. Fuel contamination may be detected by smell. Early detection of these problems may prevent catastrophic loss of engine components. Add oil if needed. Do not overfill since this causes oil foaming, loss lubricant and damage to seals and gaskets. Report heavy oil usage.

Air Filter – Check air filter indicator and if restriction is indicated, clean or replace filter element.

Belts, Hoses and Wiring – Inspect belts and hoses for correct tension, cracks, and fraying or other deterioration. Replace if needed. Do not wait until breaks, risking extensive damage due to engine overheating. Check electrical wiring for cracked insulation or chafing.

Coolant Level – Remove reservoir cap, if quipped with coolant recovery system, or radiator cap and check condition and level of coolant. Replenish if low. If coolant is rusty or has oil in it, consult mechanic immediately. Sometimes this is an indication of head gasket problems and severe internal engine damage may be sustained if not corrected in time.

Battery – Check battery for cracks in case, cable integrity, terminal corrosion and electrolyte level. Fill battery with distilled water, not tap water, as the chemicals from the tap water may disrupt the operation of the battery. If terminal are corroded, clean and coat with grease. **Caution – Explosion Hazard:** Use extreme care when working around batteries. A spark could ignite fumes from the electrolyte.

Fluid Levels – Check brake fluid level if problems are suspected. Brake fluid absorbs moisture from the air, therefore, it is recommended that the master cylinder caps should not be removed unless necessary. On Ford vehicles equipped with Hydromax brake system, check belt tension and fluid level, refilling with recommended fluids only. Check the transmission fluid with the engine warm. If checked cold, it will not read proper level.

Check power steering fluid, topping off as needed.

In-Cab Inspection

Before power on:

Safety equipment – Check for serviceable fire extinguisher, fully stocked Bio-Hazard Kit, first aid kit and safety devices such as reflective triangles, flags and vehicle accident packet.

Power-On Check:

Instruments – Start engine. Listen for abnormal sounds and watch for smoke. Check gauges. If no indication of oil pressure is seen in 30 seconds, shut the engine off.

Wiper/Washer – Check wiper and windshield washer operation.

Back-Up Alarm – When the transmission is placed in reverse, a back-up alarm should sound until placed out of reserve.

Horn – The horn should sound when the button on steering wheel is depressed.

Mobile Phone - Be sure that phone is turned on before leaving vehicle yard.

Wheelchair Lift (if equipped) – Check instrument panel to insure power for the wheelchair lift.