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OWNER'S MANUAL
MOBILITY CHAIR-VAN MARK IX
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I. INTRODUCTORY INFORMATION

DSI'S COMMITMENT TO YOU

Driving Systems Incorporated (DSI) is the foremost developer of adapted vehicles. Since 1967, DSI has produced safe and reliable vehicle for their clients and has provided service and maintenance to allow continued satisfaction.

The Driving System (Scott System) van control equipment has been designed and installed in your van to provide a specific means of operating a van for a particular individual.

To contact Driving Systems Incorporated call or Write:

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This manual is supplemental to the vehicle owner guide. This manual and the vehicle owner guide should be read and understood before operating the vehicle.

If a situation arises that is not covered in this manual, please contact DSI for assistance.

ABOUT THE WARRANTIES

The DSI equipment is used in conjunction with the products of other companies, most notably the van and the wheelchair lift. The warranties for these and other items than DSI equipment should be refereed to in there respective owner's manuals.

Basic DSI Warranty

DSI Warranty on Maintenance and Repair

WHAT YOU MUST DO:

Return your DSI van to your selling agency. Please give him as much advance notice as possible. You must allow a reasonable time for repairs.

IF YOU ARE TRAVELING:

Call dSi for further instructions to honor this warranty.

WHAT IS NOT COVERED:

- Lubrication. Adjustments for rattles and squeaks due to normal use.
- Malfunction or damage caused by misuse, neglect, improper adjustments, modification, alteration, tampering, disconnection, improper or inadequate maintenance, accidents, the mechanical condition of your vehicle, road hazards, weather, overloading, or other events beyond our control (such as fire, lightning, flood, etc.).
- Paint and trim damage due to after delivery use. (Trim includes plastic covering.)
- Shipping or transportation charges, loss of time, inconvenience, loss of use of the vehicle, commercial loss, or other consequential damages.

PRODUCT CHANGES:

We reserve the right to make changes in dSi products at any time without incurring any obligation to make the same or similar changes on products previously built and sold by us.

STATE LAW RIGHTS:

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

TERMINOLOGY

Figure 1 illustrates terms used in this manual. The reference numbers (0-18) are listed in Table 1 and correspond to the drawing in Figure 1. See Parts List for more detail.

Table 1.

Reference Number	Description

Figure 1. View of System

SAFETY PRECAUTIONS

**** PLEASE BE CAREFUL ****

Caution

Read and understand all instructions before attempting to operate

Any product is only as safe as the individual using it. For that reason, the following basic safety precautions must be complied with at all times.

- Unusual noises or movements should be immediately inspected by a DSI dealer.
- Inspect the dSi van prior to each use. If an unsafe condition exists, do not use it. Return it to dSi for repair.
- Keep others clear of the dSi equipment when it is being operated.
- Do not place any part of your body or clothing in or near any part of the dSi equipment.
- Always use careful common sense when operating the dSi van. This product is designed and manufactured to give years of safe, reliable service but it is not capable of thinking for the user...that is your responsibility as the user.
- Van must be safely parked and motor turned off before leaving the van.
- Never allow children or others to play with dSi equipment.
- Be sure you have read and understand each of these safety precautions. If you have any questions contact dSi.
- Keep these instructions in the van and review them periodically. If you permit other users to operate this product be certain they also review these instructions.

II. USING AND UNDERSTANDING THE SYSTEM

About the system

The dSi van control equipment enhances the original van manufacturer's mechanisms, allowing for balanced, sensitive control of the steering, accelerator and Brake.

A customized control post with steering wheel (or Tri-post) is fitted to the individual client. An array of vehicle function switches is arranged within the client's reach. Auxiliary and/or optional switches are located in the center of the steering wheel or where convenient.

System design features

The dSi van control equipment has been designed in such a way that a small amount of force and motion can safely and conveniently manage the driving controls of a van.

The dSi System features a combination of mechanical, vacuum and electrical devices to achieve the level of sensitivity needed to operate the van. The accelerator and brake leverage device is mechanically balanced to provide the client a feel for the van and the road. This allows for a true driving sensation and safe operation over rough surfaces. The steering system is controlled by a wheel (or Tri-Post) which conveys the client's movements to the tires with the dSi system assisting the motion.

System controls

An array of push button switches are placed in a convenient location for the client. The switch box connects to the relay box. The Switches and relays control various van functions. Some relays are momentary (such as the Horn) and other relays are latching, on and off with one push of the button switch. The switch box(es) are arranged by dSi to safely fit the client's needs.

The driving controls are contained in the center post. Turning the steering wheel (or pivoting the tri-post) causes the front van wheels to turn. Moving the center post forward engages the accelerator and pulling back on the center post engages the brakes.

III. DRIVING THE VAN WITH THE SYSTEM

Accelerator and brake

Steering

IV. OPERATING THE VAN WITH THE SYSTEM

Entering the Van

Operate the doors and lift

- 1) Fully open door(s). Power doors open automatically when "**DOOR OPEN**" switch is activated. Lift will unfold and automatically stop at vehicle floor level.
- 2) Activate "**DOWN**" switch to lower platform to ground level.

Stow lift and close doors

ENTERING VEHICLE

- 1) Enter platform facing outward and **LOCK WHEELCHAIR BRAKES**.
- 2) Activate "**UP**" switch to raise the platform to vehicle floor level.
- 3) Release wheelchair brakes and enter vehicle.

The driving position

Move wheelchair into driving position, latch w/c tie down. Make sure the safety restraint system is properly in place.

System controls

Check all switches and confirm proper location of all components.

Starting the engine

To start the van's engine press the ignition switch ON. Move the center post forward and back one time to provide the engine with gas. Press the START switch to operate the engine starter motor, release when engine starts.

For more information on starting instructions, read the van owner guide.

Motion controls

Use the center post to control the accelerator and brake. Pull back on the center post apply the brakes. Press the SHIFT LEFT and SHIFT RIGHT switches to move the transmission gears to the desired location (IE. DRIVE or REVERSE). Release the parking brake. Moving the center post forward will release the brake and the van will move. Pushing the center post forward will engage the accelerator and the van speed will increase.

Shut down and exit

When the driving trip is complete, use the SHIFT LEFT switch to move the transmission to the park position. Engage the parking brake. Push the IGNITION switch to shut off the engine. Use the button switches to turn off any van function no longer needed. Use the SEAT UNLOCK button to release the wheelchair tie down. Use the DOOR OPEN and LIFT UNFOLD buttons to deploy the w/c lift.

Turn on the power to the wheelchair and exit the van onto the lift platform.

Use the wheelchair lift controls to lower the lift to the ground. Exit the wheelchair platform and operate the external wheelchair lift function switches to stow the lift and close the doors.

EXITING VEHICLE

- 1) Enter platform facing outward and **LOCK WHEELCHAIR BRAKES**.
- 2) Activate "**DOWN**" switch to lower platform to ground level.
- 3) Release wheelchair brakes and enter vehicle.

STOW LIFT

- 1) Activate "**STOW**" switch to fold lift and close power door(s). Lift and power doors will stop automatically when fully closed.

Refer to the wheelchair owner Manual for detailed information on care and operation of the wheelchair lift.

Important: Please read and fully understand all instructions before attempting to operate.

Caution

- Do not exceed rated load.
- Prior to use, inspect dSi System for proper function, required maintenance, and damage. If a problem exists, do not use. Return to an authorized dSi Agency for repair.
- Keep others clear of dSi System when operating.
- Be certain vehicle is safely parked before exiting.

Warning

Improper use of this dSi van can result in personal injury. User must read and follow operating instructions in Owner Manual. Additional copies of Owner Manual are available from DRIVING SYSTEMS INCORPORATION.

V. CARE AND MAINTENANCE OF THE SYSTEM

Meter readings

The meters of the system help the driver monitor the operational status of the system. The meters should stay within the following defined values:

Meter	HI	LOW	DEFECTS
Volts	7	13	Battery low, replace Re-charger defective, replace
Vacuum	6	10	Broken hose, repair/replace

Operational check list

Before driving the van check the following:

- A)
- B)
- C)
- D)
- E)
- F)

Maintenance Schedule and Log

Regular routine maintenance is required to insure optimum performance. Regular maintenance can also reduce the need for costly repairs later on since products are highly specialized, it is important that maintenance and repairs be performed only by an authorized dealer using only replacement parts. We recommend maintenance inspections at least every six months.

Item	Weekly	Monthly	Yearly

VI. REPAIRS AND TROUBLESHOOTING

TROUBLESHOOTING CHART

Before any troubleshooting - thoroughly clean and tighten the battery terminals and check battery capacity. Always disconnect the battery when testing the circuits. Check all connectors on lift and to outside devices.

1 - Deploy Motion Problem.			
	Symptom	Possible Cause	Remedy
1.1	Door(s) does not open	Limit Switch-door open interlock #6 defective	Repair/Replace
		Toggle Switch-Deploy/Stow	Repair/Replace
		Defective or tripped 25 Amp. circuit breaker	Short circuit in control wiring - correct wiring. Replace defective Circuit Breaker.
1.2	Lift does not unfold	Limit Switch-Door Open Interlock #6 defective	Repair/Replace
		Limit Switch-Deploy Stop #3 defective	Repair/Replace
		Limit Switch-Ground #1 defective	Repair/Replace
		Solenoid - Ground defective	Repair/Replace
		Diode defective	Replace
1.3	Lift does not stop at vehicle floor level	Limit Switch - Deploy Stop #3	Repair/Replace
		Cam not rotating properly	Repair/Replace
1.4	Platform unfolds too fast	Resistor defective	Replace
		Limit Switch-Ground #1 defective	Repair/Replace
		Solenoid - Ground defective	Repair/Replace

TROUBLESHOOTING CHART (cont.)

2 - Stow Motion Problem			
	Symptom	Possible Cause	Remedy
2.1	Platform will not fold	Toggle Switch - STOW defective	Repair/Replace
		Limit Switch - Stow Stop/Door Enable #4 defective	Repair/Replace
		Limit Switch - UP Stop/Stow Enable #3 defective	Repair/Replace
2.2	Door(s) will not close	Limit Switch - Stow Stop/Door Enable #4 defective	Repair/Replace
		Power Door Operator defective	Repair/Replace
2.3	Platform folds slowly	Limit Switch - Ground defective	Repair/Replace
		Diode defective	Replace
		Solenoid - ground defective	Repair/Replace

3 - Down Motion Problem			
	Symptom	Possible Cause	Remedy
3.1	No down operation	Toggle Switch-Down/Up (switch arm or harness)	Repair/Replace
		Limit Switch-Deploy Stop/Down Enable #2	Repair/Replace
		Limit Switch-Down Stop #5 or connectors	Repair/Replace
3.2	Motor does not stop after barrier is lowered	Limit Switch-Down Stop #5	Adjust/Repair/Replace