Transit Bus

Electric Door Operating System

M305

Electric Door Operating System

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Electric Door Operating System

DUR PN M305
TTI PN M305

Operation

OPEN

Press Dash Switch to Open Position

Door will open and automatically stop when fully open. If driver releases the door open switch, the door will stop immediately.

CLOSE

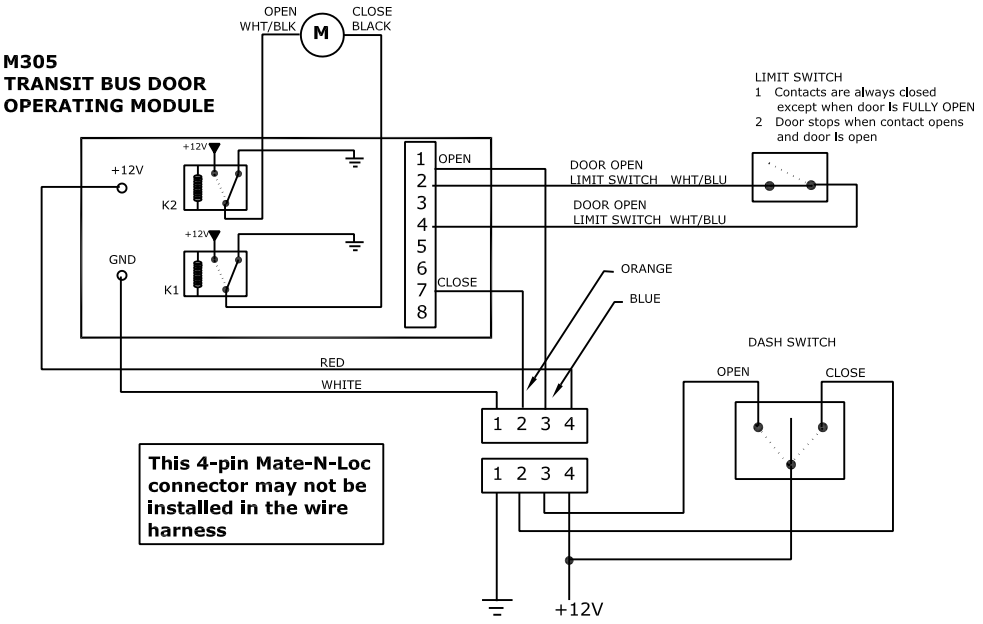
Press Dash Switch to Closed Position

Door will close and automatically stop when fully closed. If driver releases door close switch, the door will stop immediately. If door detects an obstacle, it will stop immediately.

Emergency Release

Pull RED handle to open door manually.

ECO #	Rev	Description	Drawn	Date	App'd	Date
---	A	INITIAL RELEASE	AEP	2008-03-03	RCM	2008-04-20



DRAWING NOT CONTROLLED

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DURAMOLD TRANSIT BUS
ELECTRICK DOOR OPERATING SYSTEM

Size	Drawing	Rev
B	M305 SYSTEM BLOCK DIAGRAM	A
Scale: NONE	Filename: M305 SYS BLOCK DIAG 2008-03-03.dwg	Sheet: 1 of 1

Note

If door is closed and door close switch is pressed, door motor will turn On for 1/4-second to check door position.

Symptom 1
Door won't open when dash switch is pressed

Possible Cause	Corrective Action
1.1 No power (+12v) to door operating module	**1.1.1** Check voltage on pin 4 on 4-position connector, and the red wire on module side. If there is no +12v to the module, check power fuse to door operating module. Replace fuse if needed. **1.1.2** Check all wire connections and repair if needed.
1.2 No ground input to door operating module	**1.2.1** Check ground input on pin 1 on 4-position connector, white wire on module side. If there is not a good ground at the terminal, check chassis ground connection at bus frame and repair if needed.
1.3 No input signal from door open/close switch located on dash 	**1.3.1** Check door switch for proper operation. There should be constant +12v on the center terminal. **1.3.2a** Activate the switch. One of the outside terminal should now have +12vdc present. **1.3.2b** Check door open input on pin 3 on 4-position connector, blue wire on module side. There should be +12v anytime door open switch is pressed. If there is no +12v on pin 3, check wire harness to identify problem Repair if necessary.
1.4 Door motor is defective or damaged	**1.4.1** Door motor not operating If door motor is receiving +12vdc and has a good ground when switch is pressed, the motor may be defective or damaged. Replace door motor.
1.5 No output signal to door open motor lead, but there is power and ground to the module	**1.5.1** Unplug the door motor wire harness. Check the door motor open signal, white/black wire on the motor harness. Press door open switch, there should be +12vdc output for about 3-seconds. If +12vdc is present and motor does not operate, check for: 1. Corrosion at motor terminals 2. Defective motor

Symptom 2
Door won't close when dash switch is pressed

Possible Cause	Corrective Action
2.1 No power (+12v) to door operating module	**2.1.1** Check voltage on pin 4 on 4-position connector, and the red wire on module side. If there is no +12v to the module, check power fuse to door operating module. Replace fuse if needed. **2.1.2** Check all wire connections and repair if needed.
2.2 No ground input to door operating module	**2.2.1** Check ground input on pin 1 on 4-position connector, white wire on module side. If there is not a good ground at the terminal, check chassis ground connection at bus frame and repair if needed.
2.3 No input signal from door open/close switch located on dash 	**2.3.1** Check door switch for proper operation. There should be constant +12v on the center terminal. **2.3.2a** Activate the switch. One of the outside terminal should now have +12vdc present. **2.3.2b** Check door close input on pin 2 on 4-position connector, orange wire on module side. There should be +12v anytime door close switch is pressed. If there is no +12v on pin 2, check wire harness to identify problem Repair if necessary. **2.3.3** Defective door limit switch. If door will not close , short the two terminals of limit switch together. If door closes, replace switch.
2.4 Door motor is defective or damaged	**2.4.1** Door motor not operating If door motor is receiving +12vdc and has a good ground when switch is pressed, the motor may be defective or damaged. Replace door motor.
2.5 No output signal to door open motor lead, but there is power and ground to the module	**2.5.1** Unplug the door motor wire harness. Check the door motor close signal, white/black wire on the motor harness. Press door close switch, there should be +12vdc output for about 3-seconds. If +12vdc is present and motor does not operate, check for: 1. Corrosion at motor terminals 2. Defective motor

Symptom 3
Door stops before fully closing

Possible Cause	Corrective Action
3.1 Low bus battery **Fully charged batteries are 13.6 volts**	**3.1.1** Check bus battery voltage on red wire at door operating module. If voltage is lower than 12v while door IS NOT operating, charge the battery or check battery terminals for corrosion. (Also, operate door with engine running, which will supply higher voltage to door motor.) **3.1.2** Check battery with door operating. If voltage drops below 12v while door IS operating, charge the battery or check battery terminals for corrosion.
3.2 Door not aligned correctly	**3.2.1** Check alignment of door. If doors don't open fully and close fully at same time, theconnecting arms may need adjustment.
3.3 Door weather strips not installed correctly	**3.3.1** Check installation of door weather strips. The weather stripping may be causing the door to stick, repair as required.
3.4 Gears in door operator mechanism may have broken teeth	**3.4.1** Check teeth in gears. If any teeth are broken or missing, replace large gears or drive motor.
3.5 Rust, dirt or ice are trapped around gears, arms or bottom of door system	**3.5.1** Check mechanical action of gears and arms. Check for dirt or ice at bottom of doors. If any debris is on or in the gears or arms, remove it and retest door action.

Customer Support - M305 Door Operating Module
If your doors won't open or close call Duramold, Inc. @ 1-574-251-1111 for technical support

Replacement Parts List

Part Number	Description
M305	Door Controller Module
V-15G4-1C25-K	Limit Switch
16628796	Door Motor
DM12001	Door Driver Gears, 5-Inch Diameter
TP2133	Door Driver Gear Bracket
DM10000	Hex Pivot Door Socket
50F1200RAT0Z	Adjustable Actuator Arms (*All Thread Only)
FM 50	Motor Drive Gear Release Arm (*Red Handle)
MM2133	Door Motor Mounting Bracket
2133H	Auto Door Controller Frame/Chassis

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