

INTRODUCTION

CTA is in the business of providing safe, dependable and efficient service to our customers. It is our livelihood and we have an important obligation to those people who need and are willing to pay to ride our buses and trains.

When equipment fails, delays occur which are costly to both the CTA and our customers in terms of time, money and inconvenience. Operators provide the greatest service by performing simple troubleshooting procedures that can reduce or eliminate delays and expensive and unnecessary road calls.

By using this guide, operators can develop a higher level of awareness and troubleshooting proficiency which will result in improved service.

COMMUNICATION

Whenever you have equipment trouble, notify the controller. Then refer to the troubleshooting menus on the MDT. Always notify the controller again to report the results of your troubleshooting. If the MDT is defective, refer to this guide and follow the instructions. If the problem is not covered in the MDT or this booklet, ask the controller for instructions. If you are unable to contact the controller via the MDT, use the radio or a public or CTA telephone (312-664-7200 ext. 2345).

When the guide states "notify the controller" do so immediately. If it says "contact controller at earliest opportunity," do so when there will be no delay to service or inconvenience to customers.

If the guide gives you no other instruction than to "continue in service," you must still report the problem. It is very important to document defects consistently so a record can be made available to maintenance personnel.

All equipment defects, no matter how minor, must be

- 1. <u>first reported to the controller at the time they</u> <u>are discovered.</u>
- 2. <u>logged with the repairman at the vault island</u>
- 3. entered on the Bus Operator's Daily Report.

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SAFETY IS PART OF THE JOB

Follow all CTA-established rules relating to safe operation, as well as those rules relating to use of tools, materials, equipment and personal safety in performance of these procedures.

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Accelerator Pedal Sticks To Floor	ALL	Notify the controller. Request supervisory assistance.
Will Not Move	ALL	Notify the controller. Recycle the lift/ramp. Make sure the front door is closed before pressing the accelerator pedal. Check for an interlock problem (see page 14). Request supervisory assistance.
Air Conditioning Not Cooling	ALL	 Notify the controller. Turn the bus off for 1 min. Restart the bus. Let it run for 2 minutes. If there is still no a/c, open windows and escape hatches. Notify the controller. Continue in service.
Too Cold	ALL	Notify the controller. Request supervisory assistance.
Air Pressure Too Low/ Losing Air Pressure	ALL	Notify the controller. Turn off auxiliary air systems that are not needed (doors, wipers, etc.). If minimum air pressure (105 PSI) cannot be maintained, request supervisory assistance.

Problem	Series	Procedure
Air Pressure - cont. Too High (Over 135 PSI)	ALL	Notify the controller. Request supervisory assistance.
Body Broken Window, Window Fallen Out of Bus, Loose or Broken Grab Bars or Seats, Floor Mounted Housings or Steps	ALL	Notify the controller. If the condition poses a safety hazard to customers, request supervisory assistance. If the condition does not pose a safety hazard to customers, remain in service. Notify the controller.
Roof Escape Hatch is Missing or Roof Leaks	ALL	Notify the controller. If weather conditions allow, remain in service. If not, request supervisory assistance
Defective Latches on Exterior or Interior Com- partment Doors	ALL	Notify the controller. If the door cannot be secured and staying in service would present a hazard to customers, pedestrians, traffic or the operator, request supervisory assistance.

Problem	Series	Procedure
Brakes All Problems (Except Will Not Release)	ALL	Notify the controller. Request supervisory assistance.
Will Not Release (All Doors are Closed)	ALL	Check for adequate air pressure (105 PSI). Make sure that the parking brake is released. Place the shift selector in DRIVE (D), accelerate slowly and cautiously. If the brakes fail to release, check the rear door interlock (see page 14). Hold the KNEEL switch up. If brakes do not release, request supervisory assistance.
Air-Operated Parking Brake Fails to Release	ALL	Notify the controller. Check for adequate air pressure (105 PSI). Attempt to release the parking brake. Depress the service brake pedal to the floor and release. If the problem still exists, request supervisory assistance.
Defrosters Motors Do Not Work	ALL	Notify the controller. Activate the defroster switch. If visibility is poor and the window cannot be cleared by wiping, as in frost conditions, request supervisory assistance.

Problem	Series	Procedure
Defrosters - cont. Motors Work, but No Hot Air	ALL	Notify the controller. Check that the defroster heater knob is set to heat. Turn the blower on. If still no heat, turn the bus off for 1 min. Restart the bus. If still no heat, and if visibility is poor and the window cannot be cleared by wiping, as in frost conditions, request supervisory assistance. If visibility is sufficient, or, if the window can be cleared by wiping it with a hand or opening the operator side window, remain in service and notify the controller.
Destination Sign Electronic Destination Sign Does Not Work	ALL	Notify the controller. Turn the bus off for 1 minute. Restart the bus. If the sign is still not working, remain in service, making appropriate announcements, and notify the controller.

Problem	Series	Procedure
Doors Front Doors Will Not Open Or Close	ALL	Notify the controller. Make sure that the door control air shut-off valve ("dump valve") is closed. Turn the valve to OFF and back to ON. Check that the door emergency handle is in the UP position. Check for debris near the door. Make sure that the door control handle is in the proper position. If the problem still exists, turn the bus off for 1 min. Restart the bus and cycle the doors.
Note: Do not operate service with the door switch off.		If the problem still exists, turn off the door master control switch (see page 39, Door Master Control Switch Location). and request supervisory assistance.
Rear Door Will Not Open	ALL	 Notify the controller. Make sure that the door master control switch is ON (see page 39, Door Master Control Switch Location). Make sure that the emergency knob is pushed completely up (see page 39, Rear Door Emergency Reset Feature). Remain in service using only the front doors and making appropriate announcements. Request supervisory assistance.
Rear Door Will Not Close Note: Do not operate service with the door switch off.		Notify the controller. Recycle the door. Rotate each rear door touch bar several times. If the door still won't close, turn the door master control switch OFF (see page 39, Door Master Control Switch Location). Request supervisory assistance.
		- cont.

Problem	Series	Procedure
Doors - cont. Rear Door Will Not Close - cont. Note: Do not operate service with the door switch off.		Notify the controller. Cycle the door. Push the red door emergency handle up. Cycle the door. If the door still won't close, turn the door master control switch OFF (see page 39, Door Master Control Switch Location). Request supervisory assistance.
Front Door Will Not Close Note: Do not operate service with the door switch off.		Notify the controller. Check the lift/ramp for proper stowage. Check that the lift/ramp power switch is OFF. Check that the ramp is flat, resting in the floor channels. If problem still exists, turn the bus off for 1 minute. Restart the bus and cycle the doors. If the problem still exists, turn the door master control switch OFF (see page 39, Door Master Control Switch Location). Request supervisory assistance.
Bus Will Not Move Note: Do not operate service with the door switch off.		Notify the controller. Check the lift/ramp for proper stowage. Check that the lift/ramp power switch is OFF. Check that the ramp is flat, resting in the floor channels. If the problem still exists, turn the bus off for 1 min. Restart the bus and cycle the doors. If the problem still exists, turn the door master control switch OFF (see page 39, Door Master Control Switch Location). Request supervisory assistance.

Problem	Series	Procedure
Doors - cont. Rear Door is Pumping Open and Closed Note: Do not operate service with the doorn switch off.		Notify the controller. Check for debris. Clean the sensors above the door. Rotate each touch bar separately (if applicable). If the door is still pumping, turn the bus off for 1 minute. Restart the bus and cycle the door. If no change, turn the door master control switch OFF (see page 39, Door Master Control Switch Location). Wait one minute and turn it back on. If the problem still exists but the rear door can be closed and remain closed, remain in service using only the front door and making appropriate announcements. If the door will not remain closed, turn off the door master control switch. Request supervisory assistance.
Rear Door Alarm Will Not Shut Off (Emergency Pulled or Door Open) Note: Do not operate t service with the door is switch off.		Notify the controller. Reset the rear door emergency switch (see page 39, Rear Door Emergency Reset Feature) and close the door. If the problem still exists, turn the bus off for 1 minute. Restart the bus and cycle the doors. If the problem still exists, turn the door master control switch OFF (see page 39, Door Master Control Switch Location). If the problem still exists, turn the door master control switch back on and remain in service. Request supervisory assistance.

Problem	Series	Procedure
Doors - cont. Rear/Front Door Hung Up on Curb Note: Do not operate service with the doorn switch off.		Notify the controller. With the shift selector in NEUTRAL (N) and the parking brake applied, turn the door master control switch OFF (see page 39, Door Master Control Switch Location). Attempt to pull the door free manually. If unsuccessful, request supervisory assistance. Remain standing while awaiting assistance.
Engine Fire Alarm - Fire Visible (Alarm will shut engine off) Warning: Use of when opening to compartment do sudden increas oxygen can resularger fire or ground fire.	he engine oor! A e in ılt in a	Notify the controller and request assistance. Follow Bus System Rule B5.4. Curb the bus in a safe area; apply the parking brake; place the gear selector in NEUTRAL and turn off the bus. Note: If a customer using a mobility device is aboard, use the lift/ramp to alight the customer, then turn off the bus. Evacuate customers at least 100 feet away. While standing to the side of the engine compartment, open the compartment door and attempt to extinguish the fire. Await supervisory
Fire Alarm - Fire Not Visible (Alarm will shut engine off) Warning: Use of when opening to compartment do sudden increas oxygen can resularger fire or gr of fire.	he engine oor! A e in ılt in a	assistance. Do not re-enter the bus. Notify the controller. Follow Bus System Rule B5.4. Curb the bus in a safe area; apply the parking brake; place the shift selector in NEUTRAL and turn off the bus. With the fire extinguisher, check the interior and exterior of the bus and the engine compartment. Extinguish the fire if discovered. Restart the bus. If the alarm still sounds, turn the bus off.

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Engine - cont. Rear Starting of Bus Note: A bus on rear run shut off from the front switch.		 Notify the controller and request assistance. Apply the parking brake; turn off all lights and accessories; place the shift selector in NEUTRAL (N). Await supervisory assistance.
Loss of Power or Acceleration (Engine light on)	ALL	Notify the controller. Turn the bus off for 1 min. Restart the bus. If the engine dash light comes on again and the engine remains running, continue in service. If the engine dash light comes on again but the engine dies, turn off the bus and request supervisory assistance. If the engine dash light remains off, continue in service.

Problem	Series	Procedure
Engine - cont. Loss of Power or Acceleration (Red transmission light on)	ALL	Notify the controller. Turn the bus off for 1 min. Restart. Allow it to run for 2 minutes. If the red transmission light turns on again, turn the bus off and request supervisory assistance. If the red transmission light remains off, continue in service.
Will Not Start	ALL	Notify the controller. Check that the master control switch is in the run position. Make sure that the gear selector switch is in NEUTRAL (N) and that the parking brake is applied. Attempt to start the bus. If unsuccessful, request supervisory assistance.
Will Not Shut Off	ALL	Notify the controller. Make sure that the gear selector switch is in NEUTRAL (N) and that the parking brake is applied. Check the rear engine compartment to be sure the bus is in the front run position. If not, place the switch in the front run position and attempt to shut off the engine again. If unsuccessful, remain standing and request supervisory assistance.

Problem	Series	Procedure
Engine- cont. Excessive Smoke Coming From Engine Compartment Warning: Use of when opening compartment disudden increase oxygen can resigned to the control of the control	the engine oor! A se in ult in a	Notify the controller. Shut the bus off. Obtain a fire extinguisher. While standing to one side, open the rear engine compartment door and check for fire. If fire exists, follow procedures outlined in SOP 7035 Fire Protection, Bus. If no fire exists, check for the source of smoke (oil on the manifold, etc.). Restart the bus. If the engine still smokes, turn the bus off and request supervisory assistance.
Loud Noise Coming From Engine Com- partment (Engine light not on)	ALL	Notify the controller. Make sure that the engine is shut off, the gear selector is in NEUTRAL (N) and the parking brake is applied. Make a visual inspection of the engine compartment and attempt to find the source of the noise (visible object). Restart the bus. If the cause of the noise is obvious and poses no threat to continued operation, continue in service. If in doubt as to the cause of the problem, place the gear selector in NEUTRAL (N), apply the parking brake and shut off the engine. Request supervisory assistance.
Fuel Leak	ALL	Notify the controller. Place the gear selector in NEUTRAL (N), apply the parking brake and turn off the engine. Check that the pop-up valve in the fuel fill pipe is intact, the fuel cap is tight and that the bus is on a level (not slanted) surface. Check for the leak again. If the leak is still apparent, notify the controller of a fuel spill for clean-up and request supervisory assistance. Do not allow smoking or open flame near the leak.

Problem	Series	Procedure
Fumes in Bus	ALL	Lift the rear seats to be sure the engine compartment access door is closed. If open, close it. If the engine compartment access door is closed and the fumes continue, turn off the engine. Direct customers to exit the bus. Request supervisory assistance. If medical assistance is needed, notify the controller. Wait for assistance outside of the bus.
Heat No Heat	ALL	Notify the controller. Check that windows, vents and hatches are closed. Make sure the cold air return ducts are free of debris. Turn on the momentary pre-heat switch (auxiliary heater). Continue in service for 10 minutes. If there is still no heat after 10 minutes, request supervisory assistance.
Too Hot	ALL	Notify the controller. Open all windows and escape hatches. Continue in service. Request supervisory assistance.
Horn Does Not Work	ALL	Notify the controller. Tilt the steering wheel up and down. Telescope the steering wheel in and out. Continue in service. Request supervisory assistance.
Sounds Continuously	ALL	Notify the controller. Request supervisory assistance.

Problem	Series	Procedure
	Series	Frocedure
Interlock Rear Door Interlock Not Working	ALL	 Notify the controller. Make sure that the rear doors are fully closed and that the emergency knob is not pulled. Make sure that the door master switch is ON. If the problem still exists, request supervisory assistance.
Bus Cannot Be Accelerated After Rear Door Closes	ALL	Notify the controller. Check for telltale lights on the operator's console. If problems are not apparent, check for activation of the parking brake and low air pressure. Make sure that the fast idle switch is OFF. Recycle the door master control switch. Make sure that front doors are fully closed and the door control handle is in the NEUTRAL (N) position. If the problem continues, request supervisory assistance.
Will Not Release	ALL	 Notify the controller. Check the rear doors for debris. Clean the sensors above the doors. If there is no change, turn the bus off for 1 minute. Restart the bus and cycle the doors.
Note: Do not operate to service with the door in switch off.		If there is still no change, turn off the door master control switch. Request supervisory assistance.

Problem	Series	Procedure
Lights Domelights, Headlights, Marker Lights, Taillights Do Not Work	ALL	Notify the controller. Make sure the master control switch is in Lights or Night position. Turn the bus off for 1 min. Restart the bus. During daylight only, if there are still no exterior lights, continue in service. At night, or if headlights are not working during rain, snow, fog or other conditions that require the use of windshield wipers, remain standing. Request supervisory assistance.
Brake Lights Do Not Work	ALL	Notify the controller. Turn the bus off for 1 min. Restart the bus. If there are still no brake lights, turn on the hazard lights. Continue in service. Request supervisory assistance.
Turn Signals Do Not Work	ALL	If hazard lights work, turn the bus off for 1 min. and then restart. If hazard lights are not working or if turn signals still don't work after the restart, continue in service. Request supervisory assistance.

Problem	Series	Procedure
Mirrors Left and/or Right Side	ALL	Notify the controller. Continue in service. Request supervisory assistance.
Mirror Broken Passenger Signal	ALL	Notify the controller. Check that the passenger
Does Not Work		pull cords are intact. Check that the switches at the rear ends of the pull cords move in and out as the cords are pulled. If the switches move, turn the bus off for 1 min. then restart. If the passenger signal still does not work after the restart, or if the switch(es) does not move with the cord(s), continue in service. Request supervisory assistance.
Will Not Shut Off	ALL	Continue in service. Request supervisory assistance.

Problem	Series	Procedure
PA System Does Not Work Stays On/ Emitting Noise	ALL	 Notify the controller. Visually inspect the microphone for defects (e.g., missing or damaged parts). Be sure the Lapel Boom microphone selector switch is in the Boom position. Be sure the 3-position PA toggle switch on the operator's control panel is in the Interior PA position. Check the PA volume control knob. Adjust as necessary. Operate the foot-activated PA switch (next to the turn signal switches on the floor) several times. If the PA still does not operate, turn the bus off for 1 min., then restart. If the foor switch doesn't click normally and/or the PA still doesn't operate after the restart, continue in service. Request supervisory assistance. Notify the controller. Visually inspect the microphone for defects (i.e., missing or damaged parts). Check the PA volume control knob. Adjust as necessary. Depress the foot-activated PA switch several times. Turn the 3-position PA toggle switch to the OFF position. If the problem still exists, request supervisory assistance.

Problem	Series	Procedure
Radio Interference or Silent Alarm Registering Continuously In Control Center	ALL	Notify the controller. Request supervisory assistance.
Steering Hard Steering	ALL	Notify the controller. Request supervisory assistance.
	6000-6329	Notify the controller. Recycle the lift. If no improvement, request supervisory assistance.
Play in Steering	ALL	Notify the controller. Request supervisory assistance.
Pulls to One Side	ALL	Notify the controller. If the bus was recently driven through standing water or deep snow, continue in sevice while tapping the service brakes lightly for several blocks to dry the brakes. If water or snow are not a factor, or if tapping the brakes does not correct the problem, request supervisory assistance.
Suspension Body Tilts and/or Rubs on Tires	ALL	Remain standing. Notify the controller. Request supervisory assistance.

Problem	Series	Procedure
Suspension - cont. Defective Shocks	ALL	Notify the controller. Request supervisory assistance.
Low Air	ALL	Notify the controller. Restart the bus; turn on the fast idle and wait for air pressure to build. If the pressure builds to 105 psi, continue in service. If the pressure does not build to 105 psi, request supervisory assistance.
	900 series hybrids	Notify the controller. Restart the bus; wait for air pressure to build (Do not use fast idle and do not "rev" engine.). If the pressure builds to 105 psi, continue in service. If the pressure does not build to 105 psi, request supervisory assistance.
Noisy	ALL	Notify the controller. Check the exterior and underneath of the bus for hanging/dragging items. If no hanging/dragging items found, request supervisory assistance.
Tires Low or Flat Tire(s)	ALL	Notify the controller. Request supervisory assistance.
Note: Do not operate a bus o	n any flat tire.	

Problem	Series	Procedure
Transmission Bus Pulls Slowly Note: Slow pulling may problem. See page 9.	ALL be an engine	Notify the controller. Make sure the door control lever is in the CLOSED position and the parking brake is released. With the gear selector in NEUTRAL (N), turn off the bus. Restart the bus. Check that air pressure builds. Check the door emergency knob. If air pressure builds properly, and no dash warning lights are lit, continue in service. If dash warning light(s) are lit, turn off the bus, remain standing and request assistance.
Jumps Out of Gear Note: Be sure the gear fully engaged (pushed leach gear.	ALL selector is n fully) in	Notify the controller and request assistance.
Noisy	ALL	Notify the controller. Request assistance.
- cont.		

Problem	Series	Procedure
Transmission -cont. Will Not Go Into Gear	900-909 (Hybrid)	 Notify the controller. Make sure the master control switch is in the ON position and the engine is running. Make sure air pressure is at least 105 psi. Make sure the fast idle switch is OFF. Place the shift selector in NEUTRAL and release the parking brake. Apply the service brake fully and place the shift selector in DRIVE. Wait 5 seconds then release the service brakes. Gently press the accelerator pedal. If the bus goes into gear, continue in service. If the bus will not go into gear, request assistance. Notify the controller. Make sure the master control switch is in the ON position and the engine is running. Make sure air pressure is at least 105 psi. Do not race the engine to build pressure. Make sure the fast idle switch is OFF. Place the shift selector in NEUTRAL and release the parking brake. Apply the service brake fully and place the shift selector in DRIVE. Wait 5 seconds then release the service brakes. Gently press the accelerator pedal. If the bus goes into gear, continue in service. If the bus will not go into gear, request assistance.

Problem	Series	Procedure
Trouble Lights/Alarms (For All Problems Not Listed)	ALL	If the engine continues to run, remain in service. Request supervisory assistance.
Check Engine Light (yellow) Comes On (Bus Running)	ALL	Notify the controller. Continue in service. Request supervisory assistance.
Check Engine Light (yellow) Comes On (Bus NOT Running)	ALL	 Notify the controller. Restart the bus after 1 minute. Move the bus to a safe location. Remain standing. Request supervisory assistance.
Exhaust Regen Light (red) Comes On	ALL	Notify the controller. Continue in service. Request supervisory assistance.
Low Air Pressure Light Comes On	ALL	See Air Pressure, Too Low, page 1.
Generator/Battery Light Comes On Note: Minimize thenu the gears are shifted. S battery power.		Notify the controller. Do not turn the bus off. Turn off all interior and exterior lights and accessories. Request supervisory assistance.
Stop Engine Light (red) Comes On (bus) in safe location)	ALL	Notify the controller. Turn the bus off for 1 min. Restart the bus. If the light stays off for 2 minutes, continue in
Note: If the Stop Engir comes on, the bus will a shut down in approxim seconds.	automatically	service. If the light comes on again, shut off the bus and remain standing. Trade the bus as soon as possible. Request supervisory assistance.

Problem	Series	Procedure
Trouble Lights/Alarms - cont. Stop Engine Light (red) Comes On (bus NOT in safe location) Note: The operator ms Stop Engine Overide S moving the bus.		Notify the controller. Turn the bus off for 1 min. Use the Stop Engine Overide switch to restart the bus and move it to a safe location. Turn the bus off for 1 min. Restart the bus. If the light stays off for 2 minutes, continue in service. If the light comes on again, shut off the bus and remain standing. Request supervisory assistance.
Trouble Alarm On Panel with No Indicating Light	ALL	Notify the controller. Request supervisory assistance.
Yellow Transmission Light Comes On	ALL	Notify the controller. Turn the bus off for 2 minutes. Restart the bus and let it run for 2 minutes. If the yellow transmission light stays off, continue in service. If the yellow transmission light comes back on, request supervisory assistance.
Windshield Wipers Do Not Work or Move Very Slowly	ALL	Notify the controller; place the gear selector in NEUTRAL (N); apply the parking brake. Check for sufficient air pressure Make sure that the wiper control switch and delay switch (if applicable) are both fully in the ON position. Attempt to clean/loosen the wipers: get off the bus and wipe them off/move them back and forth/ slap them against the windshield. If unsuccessful, cut out the right wiper and operate using just the left wiper. If the left wiper is insufficient, request supervisory assistance.

Mobility Limited Access Equipment

Troubleshooting Mobility Limited Access Equipment

On the following pages are techniques used to troubleshoot the mobility limited access equipment.

If the lift platform/ramp fails to operate due to electrical/hydraulic failure or the troubleshooting techniques do not correct the defect, call the controller immediately using the 10-43 code

Mobility	Limited A	ccess Equipment
Problem	Series	Procedure
Kneeling Bus Will Not Lower When Switch Is Placed in Down or Lower Position Note: The bus will not rampis already deploy		Notify the controller. Check that the air pressure release valve is closed. Place the gear selector in NEUTRAL (N). Make sure that the front door lever is fully in the front door open position. Make sure that the parking brake is applied and the front door is fully open. Make sure the wheelchair ramp is not already deployed. If it is, stow it and try to kneel the bus again. If the problem continues, request supervisory assistance.
	6000-6329	Notify the controller. Make sure that the parking brake is applied and the front door is open. Make sure the kneeling toggle switch is fully in the DOWN position. If the problem continues, request supervisory assistance.

Mobility	Limited A	ccess Equipment
Problem	Series	Procedure
Kneeling - cont. Bus Will Not Raise When Switch is Placed in Up or Raise Position	ALL	Notify the controller. Make sure the wheelchair ramp is fully stowed. Make sure the switch is fully in the UP position. Attempt to raise the bus again. If the problem still exists, remain standing and request supervisory assistance. DO NOT ATTEMPT TO OPERATE THE BUS.
	6000-6329	Notify the controller. Make sure the switch is fully in the UP position. Attempt to raise the bus again. If the problem still exists, remain standing and request supervisory assistance. DO NOT ATTEMPT TO OPERATE THE BUS.

Mobility Limited Access Equipment		
Problem	Series	Procedure
Wheelchair Lift No Power To Lift Platform	6000-6329	 Notify the controller. Make sure that the door master switch is in the ON position. Make sure the front doors are fully open and are not touching the lift platform. If so, shut off the air control valve and manually push the doors open. Turn the air valve back on. Reapply the parking brake. Make sure the parking brake dash light is on. Make sure the transmission shift selector is in NEUTRAL (N). Lift the POWER ON toggle switch. If power does not come on, cycle the front doors (close/open). If power is still not on, remain standing and request supervisory assistance.
Power to Lift Platform Will Not Turn Off	6000-6329	Notify the controller. Be sure the lift is fully stowed (otherwise power won't turn off). If the lift is fully stowed and power is still on, turn off the door master switch. Make repeated announcements that customers must use the front doors only. Request supervisory assistance.

Mobilit	ty Limited	Access Equipment
Problem	Series	Procedure
Wheelchair Lift - cont. Lift Platform Will Not Extend	6000-6329	Notify the controller. Make sure the front doors are fully open and that there is no debris blocking the doors or platform. Make sure that the mode selector dial is in the EXTEND position. Lift the FUNCTION SWITCH to the ON position. Push on the platform's handrails. If the lift moves, cycle the lift. If the platform cycles properly, board/alight the customer and continue in service. If the lift still will not deploy, and if no lift customer is aboard, continue in service. If the lift still will not deploy, and a lift customer is aboard, request supervisory assistance.
Lift Platform Will Not Lower	6000-6329	Notify the controller. Re-extend the lift platform. Move the mode selector dial to the LOWER position and hold the POWER toggle switch to the ON position. If the platform still will not lower, request supervisory assistance.

Mobility Limited Access Equipment		
Problem	Series	Procedure
Wheelchair Lift - cont. Curbside Barrier Will Not Lower	6000-6329	Notify the controller. Make sure that the lift platform is resting on the street or curb. Make sure that the mode selector dial is set to the LOWER position and activate the Function switch. Remove any obstruction (i.e., ice, debris, etc.). If the problem still exists, request supervisory assistance.
Streetside Barrier Will Not Lower	6000-6329	Notify the controller. Make sure that the mode selector dial is in the RAISE position and depress the Function switch. If the problem still exists, request supervisory assistance.
Curbside Barrier Will Not Raise	6000-6329	Notify the controller. Make sure that the mode selector is in the RAISE or STOW position. Make sure the PIVOT PIN is centered. Check for debris or obstructions preventing the barrier from raising. Reactivate the Function switch. If the problem still exists, request supervisory assistance.

Mobility Limited Access Equipment		
Problem	Series	Procedure
Wheelchair Lift - cont. Streetside Barrier Will Not Raise	6000-6329	Notify the controller. Make sure the mode selector dial is in either the LOWER, STOW, or RAISE position. Reactivate the Function switch. If the problem still exists, request supervisory assistance.
Lift Platform Will Not Raise	6000-6329	Notify the controller. Make sure the mode selector dial is set to the RAISE position and that nothing is touching the lift platform sensors. Activate the Function switch. If the problem still exists, request supervisory assistance.

Mobility Limited Access Equipment		
Problem	Series	Procedure
Wheelchair Lift - cont. Lift Platform Will Not Stow- platform at floor level	6000-6329	Notify the controller. Move the mode selector dial to the LOWER position to allow the lift to lower to the ground. Move the selector dial to STOW. If the lift stows, continue in service. If the lift does not stow, request supervisory assistance.
Lift Platform Will Not Stow- platform at ground level	6000-6329	Notify the controller. Be sure the lift is not binding on the curb. If so, move the bus away from the curb by releasing the door interlock by turning off the door control master switch. When free of the curb, turn the door control master switch back on. Raise the lift to floor level. Attempt to stow the lift. If the lift stows, continue in service. If the lift does not stow, request supervisory assistance.
Lift Platform Will Not Stow- platform at STOW level		Notify the controller. Push on the platform's handrails. Attempt to stow the lift. If the lift stows, continue in service. If the lift does not stow, request supervisory assistance.
Interlocks Will Not Release	6000-6329	 Notify the controller. Make sure that the POWER SWITCH is off. Make sure the FAST IDLE is off. Make sure that the PK&LK light is on or the Not Steps light is out. Re-extend, then stow the platform. Stand or jump on the lower step. If the problem is cleared, continue in service. If the interlocks do not release and the problem still exists, request supervisory assistance.

Mobility Limited Access Equipment		
Problem	Series	Procedure
Wheelchair Ramp Will Not Deploy/Lower/ Raise/Stow	ALL	Notify the controller. Make sure that the shift selector is in NEUTRAL. Check the parking brake and reapply. The parking brake indicator light on the instrument panel must be on. Make sure that the front doors have air and are fully open. Visually check for interior and exterior obstructions and debris. Turn the bus off for 1 min. Restart the bus. Kneel the bus if required. If the bus will not kneel, before deploying the ramp, ensure adequate clearance for deployment. Reactivate the DEPLOY toggle switch. If the ramp still does not deploy/lower/raise/stow, operate the ramp manually. (page 34, Manual Ramp Operation) Continue in service and operate the ramp manually.
Bounces In and Out During Operation	ALL	Notify the controller. Deploy the ramp manually. (page 34) Stow the ramp normally (or manually if it still bounces). Continue in service and operate the ramp manually.
No Power to Ramp	ALL	Notify the controller. Be sure the gear selector is in NEUTRAL, the parking brake is applied and the parking brake dash light is on. Make sure the front doors have sufficient air pressure. If the ramp now has power, continue in service. If the ramp still has no power, continue in service and operate the ramp manually.

Mobility	Limited A	ccess Equipment
Problem	Series	Procedure
Wheelchair Ramp Power Will Not Turn Off and the Kneeling System is Activated (bus is lowered)	ALL (except 6000 -6329)	Notify the controller. Request supervisory assistance.
Power Will Not Turn Off and the Kneeling System is Not Activated	ALL (except 6000 -6329)	Notify the controller. Turn off the door master switch (page 39) to disable the rear interlock. The warning buzzer will sound continuously, warning of the disabled rear doors. Continue in service, and operate the ramp manually. Make announcements advising customers to
Note: The kneeling sy operate and the brake not release if ramp po	interlock will	only use the front doors. Request supervisory assistance.

Mobility Limited Access Equipment

Manual Ramp Operation

(Series 500-544, 800-809, 900-909, 1000-2029, 4000-4149, and 6400-6883)

To Deploy/Lower the Ramp

- Locate the hand pull-up strap on the corner of the ramp.
- Pull up on the strap slowly, raising the ramp to a vertical 90 degree angle.
- Once the ramp is at a vertical 90 degree angle, push the ramp a little farther and release the strap. The wheelchair ramp will continue to deploy/lower using the hydraulic fluid in the wheelchair ramp system.

To Raise/Stow the Ramp

- Locate the hand pull-up strap on the corner of the ramp.
- Pull up on the strap, raising the ramp to a vertical 90 degree angle.
- Once the ramp is at a vertical 90 degree angle, push the ramp a little farther and release the strap. The wheelchair ramp will continue to stow (slowly lowering into the bus by itself) using the hydraulic fluid in the wheelchair ramp system.
- Be sure the ramp is fully stowed and level with the bus floor so the interlock will release.

<u>Warning:</u> Do not continue to pull on the hand pull-up strap or push the wheel-chair ramp with your hand or foot. This will cause the oil and pump of the wheelchair ramp to overheat.

Hybrid Equipment		
Problem	Series	Procedure
At Startup, When Master Switch is Placed in "RUN," Amber "Wait to Start" Dash Light Comes On	900-909 4000-4207	With Master Switch still in "RUN", wait until the light goes out to start the bus (approx. 45 sec.) (Outside temperature is below 66° F.)
"N" Gear Selector Button Flashes at Startup (air pressure & power steering also inoperative)	900-909 4000-4207	 Wait until the blinking light becomes steady (8 seconds to several minutes, depending on how long the bus has been turned off). Do not race the engine to build air pressure: the air compressor, power steering pump and A/C are electric.
System Over- Temperature Indicator Comes On (Red)	900-909 4000-4207	Before automatic system shut-down (approx. 45 sec.), move the bus to a safe location. Use the system override on the side console if needed. Notify the controller once
Note: If the bus must of traffic but does not using the system over switch, be sure to con safety when deciding of action.	respond ride toggle sider customer	the bus is safely relocated, and request supervisory assistance.
Stop System Indicator Comes On (Red)	900-909 4000-4207	Before automatic system shut-down (approx. 45 sec.), move the bus to a safe location. Use the system override on the side console if needed. Notify the controller once the bus is safely relocated, and request supervisory assistance.
Check System Indicator Comes On (Amber)	900-909 4000-4207	Continue in service. Notify the controller and request supervisory assistance. Monitor the bus.
Note: After a short time System fault (amber) control of System fault (will shut off the bus.	an develop	

Articulated Equipment				
Problem	Series	Procedure		
Jackknife (while moving forward, during a turn)	4000-4207	Stop forward motion of the bus. Turn the steering wheel opposite the direction of the turn. Straighten the artic hinge as much as possible by slowly proceeding forward to pull out of the jackknife. If unsuccessful, notify the controller. Request supervisory assistance.		
Jackknife (while backing up) (audible alarm sounds if artic hinge reaches 39°; if reaches 49° for > 2 secs, audible alarm sounds, dash indicator comes on; brake interlock applies)	4000-4207	 Apply the service brake. Turn the steering wheel to the straight position. Shift into Drive (D). Pull forward slowly to pull out of the jackknife. If unsuccessful, notify the controller. Request supervisory assistance. 		
Vertical Angle of Artic Joint Too Large	4000-4207	At RR crossings, con- struction zones and hill approaches reduce speed to lessen chance of damage to the vertical artic joint.		
Joint Fail Light Illuminates and Audible Alarm Sounds	4000-4207	Notify the controller. Request supervisory assistance. Bus will not exceed 30 mph.		

Appendix

Door Master Control Switch Location

Series 6000-6329:

The door master control switch is located on the entrance door header panel.

All Other Series (500-544, 800-809, 900-909, 1000-2029, 4000-4149 and 6400-6883:

The door master control switch is located on the destination sign compartment door on the lower right side.

<u>Warning:</u> Do not operate the bus in service with the door master control switch turned off.

Rear Door Emergency Reset Feature

For all buses except Series 500-544 (Optima), the rear door emergency pull knob is reset by cycling the operator's door control handle from neutral, to rear door unlock, then back to neutral.

For Series 500-544 (Optima), the rear door emergency pull knob is reset by manually pushing the handle up.

Current Bus Fleet (12/09)

500-544	Optima
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800-809	New Flyer Allison H	lybrid



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