



TECHNICAL SERVICE INFORMATION BULLETIN

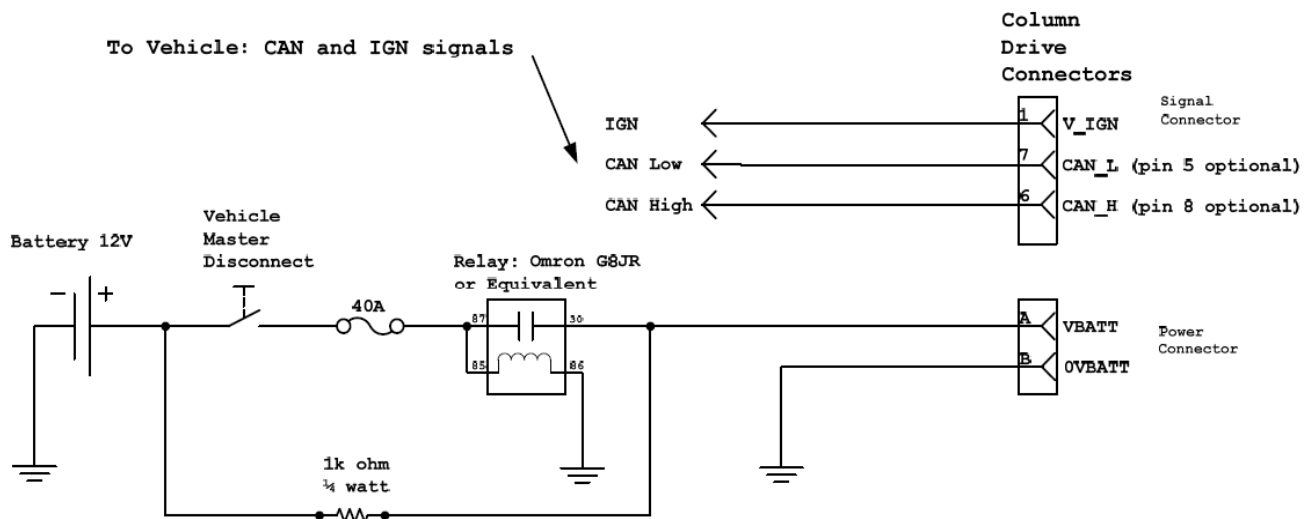
TSIB 21-09		November 26, 2021
TO:	All Operators	
TITLE:	TRW ColumnDrive Electric Power Steering System Wake-up Procedure.	
APPLICABILITY:	All New Flyer Buses equipped with TRW ColumnDrive Electric Power Steering System.	

It has come to the attention of New Flyer Customer Service that some of our customers may not be aware that if the "Keep-alive circuit" is lost in the event the low voltage batteries are disconnected and reconnected such as during replacement of batteries, the column will lose reference to center. If issue is detected the driver may experience the steering wheel correct itself slightly to the left or right during operation.

Supply Voltage Considerations

The ColumnDrive must receive a continuous nominal 12-volt supply voltage for it to maintain an accurate position. If the supply voltage is interrupted, the unit must be reset to straight ahead by the driver before normal operation can resume. The bus is equipped with a "Keep-alive circuit" ensuring that when the battery disconnect is pulled to the off position, the minimum supply voltage of 6.5V will remain at the ColumnDrive.

Keep-alive circuit



NOTE: This circuit will not preserve the straight-ahead position if the battery is removed or the voltage at the ColumnDrive falls below minimum required voltage.



Wake-Up Procedures

Normal Wake-up Procedure

NOTE: This procedure must be performed every time the battery is disconnected and reconnected.

Step 1: Rotate the master run switch to the DAY-RUN position. You should hear a "click" in the ColumnDrive. If you do not hear the "click", rotate master run switch to STOP-ENGINE, listening for another "click". If the ColumnDrive does not "click" DAY-RUN or STOP-ENGINE, electrical troubleshooting is required.

NOTE: Mechanical mis-assembly will not cause this symptom.

Step 2: Start the engine. If the steering wheel is more than 90 degrees from straight ahead, position the steering wheel to straight ahead, then shut the engine off and restart it.

Step 3: Slowly move the steering wheel about 90 degrees either side of straight ahead several times. During one of the passes across straight-ahead, the torque to turn the wheel will suddenly get much lighter and the steering wheel will try to return to straight-ahead. The system is now awake.

NOTE: If this procedure does not work, continue to the Extended Wake-Up Procedure.

Extended Wake-Up Procedure

NOTE: If the battery is reconnected with the ColumnDrive approximately two revolutions off center, it is possible for the ColumnDrive to wake up two revolutions off-center. The Extended Wake-Up Procedure recovers from this condition.

Step 1: Start the engine and steer to the full left steering stop then steer to the full right steering stop. One of these motions will erase the incorrect center position caused by starting it two turns off center.

Step 2: Steer back to straight ahead and turn off the engine for at least 30 seconds.

Step 3: Perform the Normal Wake-Up Procedure by restarting the engine and slowly moving the steering wheel about 90 degrees either side of straight ahead several times.

NOTE: If the system does not wake up, inspect wiring and mechanical assembly before replacing the column.

Direct all inquiries regarding this bulletin to:

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New Flyer