1.5T CTL PHASED ARRAY COIL (T3014CF) TROUBLESHOOTING GUIDE

Section I:
Checking the PIN diodes with Digital Multimeter (DMM)

NOTE:

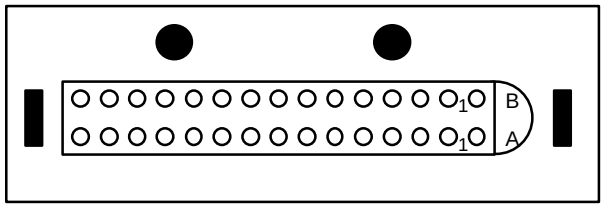
The diodes in this coil are NOT FIELD REPLACEABLE. The steps in this section are included to provide a means of remote troubleshooting to determine if the coil is defective without using system time as well as providing root cause failure to the repair source.

1) Select the DIODE TEST function on the Digital Multimeter(DMM)
2) Connect the NEGATIVE lead of the DMM to the external cable connector row A. Connect the POSITIVE lead to the external cable connector row B. Refer to Table 1 and Diagram 1.
3) A reading of 0.400 to 0.900 should be observed on the DMM
4) If a reading below 0.400 is observed in either direction, either the output cable is shorted or a PIN diode is bad.
5) If a reading above 0.900 is observed in step 2, both PIN diodes are defective. **REPLACE THE COIL**.
6) Connect the NEGATIVE lead of the DMM to the external cable connector row B. Connect the POSITIVE lead to the external cable connector row A. Refer to Table 1 and Diagram 1.
7) A reading of INFINITY should be observed on the DMM.
8) If a reading of INFINITY is observed in both directions, either the output cable is open of both PIN diodes are open.
9) If any of the above conditions fails, **REPLACE THE COIL**. The PIN diodes are not FRU'S.

TABLE 1
DIODE TEST CONNECTIONS

	POSITIVE LEAD CONNECTION		NEGATIVE LEAD CONNECTION	
COIL NUMBER	FOR STEP 2	FOR STEP 4	FOR STEP 2	FOR STEP 4
1	B3	A3	A3	B3
2	B5	A5	A5	B5
3	B7	A7	A7	B7
4	B9	A9	A9	B9
5	B11	A11	A11	B11
6	B13	A13	A13	B13

PIN LOCATIONS ON EXTERNAL CONNECTOR
DIAGRAM 1



Section II:
Checking the External Cable

1) Select the DIODE TEST function on the Digital Multimeter (DMM).
2) Connect the Negative lead of the DMM to the external cable connector row A. Connect the POSITIVE lead to the external cable connector row B. Refer to Table 3-7 and Diagram 1.
3) Flex the external cable, especially near the connectors and the strain relief, and observe that a reading of 0.400 to 0.900 should remain on the DMM, with no instabilities or fluctuations.
4) Connect the NEGATIVE lead of the DMM to the external cable connector row B. Connect the POSITIVE lead to the external cable connector row A. Refer to Table1 and Diagram 1.
5) Flex the external cable, especially near the connectors and the strain relief, and observe that a reading of INFINITY should remain on the DMM, with no instabilities or fluctuations.
6) If the cable fails any of the above tests, **REPLACE THE CABLE (2133085)**.

TROUBLESHOOTING STEPS IN REVIEW:

1) **CHECK THE DIODES.**
2) **CHECK THE CABLE.**
3) **IF THE DIODES ARE BAD, REPLACE THE COIL (T3014CF).**
4) **IF THE CABLE IS BAD, REPLACE THE CABLE (2133085).**