

## TRACTION CONTROL FAULT CODE DIAGNOSTICS

ALL ROADTEC MILLING MACHINES ARE EQUIPPED WITH A ELECTRONIC TRACTION CONTROL SYSTEM. THE PURPOSE OF THIS SYSTEM IS TO OPTIMIZE TRACTIVE EFFORT BETWEEN TRACKS IN RELATION TO WORK LOAD AND ENVIRONMENT. TRACTION CONTROL IS MADE POSSIBLE THROUGH A HYDRAULIC FLOW DIVERSION SYSTEM. THEREFORE, IF ONE TRACK IS GETTING BETTER TRACTION THAN THE OTHER TRACKS, HYDRAULIC FLOW WILL BE RESTRICTED TO IT'S HYDRAULIC MOTOR. THIS CAUSES THE TRACK TO TURN SLOWER AS TO EQUALIZE ITSELF WITH THE OTHER TRACKS, THUS KEEPING THAT TRACK FROM SPINNING IN PLACE. IF A PROBLEM SHOULD ARISE, THE TRACTION CONTROL IS EQUIPPED WITH A LED DISPLAY TO INDICATE FAULT CODES.

USE THE FOLLOWING INFORMATION AND FAULT CODE CHART TO HELP DIAGNOSE A PROBLEM WITH THE TRACTION CONTROL.

THE 4-CHARACTER DISPLAY ON THE UNIT WILL FLASH VARIOUS LETTERS DEPENDING ON THE MODE OF OPERATION. UNDER NORMAL OPERATION (NO FAULTS) THE DISPLAY WILL FLASH BETWEEN A BLANK DISPLAY AND THE WORD RUN. WHEN A FAULT CONDITION OCCURS THE DISPLAY WILL SHOW THE FOLLOWING FORMAT FOR ALL ERRORS.

F032

F        THE F SIMPLY INDICATES A FAULT IS BEING DISPLAYED.  
03      THE NEXT 2 DIGITS ARE THE ID THAT HAS THE FAULT.  
2        THIS INDICATES THE TYPE OF FAULT.

- 1    INDICATES A SHORT OF 5 VOLTS.
- 2    INDICATES A VALUE ABOVE THE CALIBRATION MAXIMUM.
- 5    INDICATES A VALUE BELOW THE CALIBRATION MINIMUM.
- 6    INDICATES A SHORT OF 0 VOLTS.
- 7    INDICATES THE ID IS NOT CALIBRATED.
- 8    INDICATES THE VALUE IS OUT OF RANGE.

USE THE CHART ON THE FOLLOWING PAGE TO HELP TROUBLESHOOT FAULT CODES.

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<b>FAULT CODE</b>	<b>DEVICE AT FAULT</b>	<b>CAUSE OF FAULT</b>	<b>MACHINE RESPONSE</b>
01	WATCHDOG TIMEOUT	HARDWARE WATCHDOG NOT SERVICED WITHIN THE NECESSARY TIME.	ALL OUTPUTS ARE DISABLED
02	FRONT LEFT PPU	DC VOLTAGE SIGNAL IS OUT OF RANGE.	ANTISPIN DISABLED
03	FRONT RIGHT PPU	DC VOLTAGE SIGNAL IS OUT OF RANGE.	ANTISPIN DISABLED
04	REAR PPU	DC VOLTAGE SIGNAL IS OUT OF RANGE.	ANTISPIN DISABLED
07	JOG SWITCHES	BOTH JOG SWITCHES ARE CLOSED AT THE SAME TIME.	NO JOG FUNCTION OF REAR TRACK
08	FRONT STEER SENSOR	VOLTAGE SIGNAL IS OUT OF RANGE OR INPUT IS UNCALIBRATED.	ANTISPIN DISABLED, REAR STEER DISABLED
09	REAR STEER SENSOR	VOLTAGE SIGNAL IS OUT OF RANGE OR INPUT IS UNCALIBRATED.	ANTISPIN DISABLED, REAR STEER DISABLED
12	REAR STEER VALVE	CALCULATED OHMS OR FEEDBACK VOLTAGE OUT OF RANGE.	REAR STEER DISABLED
14	FRONT LEFT PPU	SPEED ON OTHER 2 TRACKS BUT 0 SPEED ON FRONT LEFT.	ANTISPIN DISABLED
15	FRONT RIGHT PPU	SPEED ON OTHER 2 TRACKS BUT 0 SPEED ON FRONT RIGHT.	ANTISPIN DISABLED
16	REAR PPU	SPEED ON OTHER 2 TRACKS BUT 0 SPEED ON REAR.	ANTISPIN DISABLED
33	SETPOINT TRIM POT	VOLTAGE SIGNAL IS OUT OF RANGE OR INPUT IS UNCALIBRATED.	LOAD CONTROL ONLY OPERATES ON THE DEFAULT SET POINT RPM
34	ENGINE PPU	NO FREQUENCY SIGNAL	LOAD CONTROL DISABLED
53	SENSOR POWER (+5V)	+5V SUPPLY BELOW 4.75 VOLTS	NO RESPONSE AT THIS TIME BUT ALL SENSORS WILL HAVE BAD READINGS