

# DPU Troubleshooting Guide

## INFORMATION

Always give locomotives a complete air and load test before going into DP, repair your problems first then do DP testing. Test both as Lead and Remote. Try using a computer as a troubleshooting aid. If you see Radio Fail on Link up, you are linked. When you have a link problem, wattmeter the radios and antennas. If unit watt meters ok, try Linking to a third unit to find out which unit has problem. Try reseating all DP Cards before changing any of them out. Right Transducer is FL-1 Transducer. Left transducer is FL-2 transducer. Pkt Comm Timeout (SD 90): If you get a Brake Comm Timeout and a Throttle Comm Timeout at the same time you will also get a Pkt Sw Comm Timeout: Try rebooting Rockwells Power Supply, Wabco Air Brake Circuit Breaker and EMD computer Circuit Breaker. Leave Systems shut off for a full two minutes before turning back on.

## CONTROL CONSOLE PROBLEMS

Control Console keeps cycling: Replace Card #3 or Control Console  
No time or date on Control Console: Replace card #3  
When ever Control Console is turned on it reads Jan 1: Memory B/O, replace card #3  
Control Console no response when buttons are pushed: Replace card #3 or Control Console  
Control Console going blank: Replace Control Console  
Control Console shows solid fail light: Replace Control Console  
Control Console shows solid fail light: Reseat all DP cards

## LINK PROBLEMS

Always wattmeter radios and antennas when you have a link problem  
If unit wattmeter's ok, try linking to third unit to find out which unit has problem  
Unit will not link as Lead or Remote: Found both antennas unplugged  
Unit will not link: Replace card #7 or card #3  
Unit will not leak as lead or remote: Replace both DP radios  
No link as Remote, works good as leader: Replace Diagnostic board  
No link as Lead, works good as a Remote: Frequency wires 1 & 4 reversed  
Unit will no link, links OK by changing unit number: Replace Thumb wheel switch (S3)  
Unit will not link: Replace radio A  
Unit will not link: Replaced B/O Antenna  
Unit will not link: Replaced Radio power supply  
Unit will not link (SD 90): Replace DLCP  
Unit will not link (SD 90): Replaced J3 radio cable

## EMERGENCY (PENALTY) PROBLEM

Emergency no reset in DP mode (SD 90): Replaced DLCP  
Emergency (Penalty) no reset in DP Mode (SD 90): SMF wire off on TB 54  
Emergency no reset in DP mode (SD 90): Replace IDP Feedback circuit board  
Emergency Valve failure while trying to reset PC (SD 90): Replace RC3 from LIU to TB 54  
Emergency after full service: Replace BCCP  
Emergency no reset in DP Mode: Replace Relay Driver Board  
Emergency when doing leakage test, BP & ER press jumping: Replace BPCP or Left transducer  
Unit going to Emergency while running BP test in DP: Replaced BCCP  
Remote Penalty, would not reset: Replace EPIC Cab Control Computer  
Fail DP Train Check / Leakage Test: Replaced BPCP  
PC no reset in DP: Replace EPIC LIU  
PC nor reset in DP (SD 90): Replaced DLCP  
PC no reset in DP: Train Line Air Valve not in correct position  
Emergency when moving automatic to release: Found wire off EM2  
PC no reset, BPCP venting air: DP Loco/Conv switch in wrong position

Emergency when moving automatic handle: Car problem, units were alright  
Emergency when moving handles: Change out Handles  
Keeps getting CCS penalty on remove: Cutout CCS on Remote  
Emergency Valve failure while trying to reset PC: Dp Loco/Conv switch in wrong position  
Emergency from Pkt Comm Timeout (SD 90): If you get a Brake Comm Timeout and a Throttle Comm Timeout at the same time, you will also get a Pkt Comm Timeout: Replace Rockwells Cab Consolidated Computer

### RADIO PROBLEMS

Unit will not link (SD 90): Replaced 33 Radio Cable  
Unit will not link: Replaced Radio A  
Radio Fail A or B: Replace appropriate Radio  
Unit will not Link as Lead or Remote: Replaced both DP Radios  
Radio circuit B/O, Radio new: Replaced A1 Radio Circuit Board

### TRANSDUCER PROBLEM

BV will not come in DP: Replace BPCP or Right Transducer on appropriate unit  
FL-1 Failure on Control Console: Replace Right Transducer on appropriate unit  
FL-2 Failure on Control Console: Replace Left Transducer on appropriate unit  
Unexpected flow in DP: Replace Right Transducer or Left Transducer on appropriate unit  
Transducer Failure: Repair "D" plug on transducer  
No Flow from Remote: Check Train Line Air Valves and/or Replace Remotes Right Transducer  
BV will not come on Remote in DP: Replace DLCP/IPM on Lead (SD 90)

### RELAY DRIVER PROBLEMS

No load on Remote in Reverse: Replace Relay Driver Board  
Emergency no reset in DP Mode: Replace Relay Driver Board  
Unit would not come out of TH1: Replace Relay Driver Board  
Throttle position different between Control Console and Unit: Replace Relay Driver Board

### BINARY ANALOG PROBLEMS

Control Console shows load at all times: Replace Binary Analog Board  
Tractive Effort (Amps) reading all the time on Control Console: Replace Binary Analog Board  
No Tractive Effort (Amps) on Control Console: Replace Binary Analog Board  
Miscompare or throttle sticking, Binary Fail light on: Replace Binary Analog Board  
Unit dies when going from throttle 6 to idle: Replaced Binary Analog Board

### DLCP/IPM PROBLEMS

Unit will not link (SD 90): Replace DLCP  
Emergency no reset in DP Mode (SD 90): Replace DLCP  
Emergency Valve failure while trying to reset PC (SD 90): Replace DLCP  
BV will not come in Remote in DP: Replace DLCP/IPM on Lead (SD 90)  
Dist. Pw box appears but contains no instruction (SD 90): Reboot and/or replace DLCP  
Mode problem on SD 90: Replace DLCP/IPM  
Mode problem on SD 90: Cycle Computer Control Circuit Breaker  
Smart Keys very slow on SD 90: Change Rockwell CCC or DLCP

### MISC. PROBLEMS

Neg or Pos Voltage Power Supply Failure: Replace Card #3, Card #8 or System Power Supply  
Remote unit moves the wrong direction: Check both units lead/opposite switch for proper setup  
Brake Comm Timeout on Control Console (SD 90): Replace EPIC CCC or BCC  
Dynamic Brakes not working properly in DP: Replaced Analog Board (A5)

**EB fail light in System Module: Replace EPIC Cab Control Computer**  
**Control Console shows 1K Tractive Effort all the time: Replace Traction Motor Current Isolation Board (SP)**  
**IBA Loopback Error: Make sure air is property set to Lead Cut-ins**  
**IBA Loopback Error: Replace EPIC IARP**  
**EQR Loopback Error: Replace EPIC BPCP**  
**If EB Fail light is on, check E brakes with PC. Go after E Brake on unit side**  
**Fail light on Control Console: Replace Card #3 or Card #8**  
**Dist. Pw box appears b;ut contains no instructions (SD 90): Reboot and/or replace DLCP**  
**Brake warning while in DP: Cleaned snow from front 27 pt receptacle**  
**Data Timeout & Stars on computer screen: Replace Rockwell CCC**  
**Data Timeout & gauges read ok: Problem is EMD 2000**  
**Control Console shows load at all times: Replaced Card #3 or Card #8**  
**Ind Brakes won't release on Remote: Replace Card #3**  
**Remote no load and/or no dynamics (SD 90): Replace DIO4**