EXTREME I

EXTREME EQUIPMENT SALES & RENTALS

PowerDrive PSPD Modification For RT Communication Revision 1.0

Date: April 11, 2023

Applicability: All sizes and configurations Issued By: David Smith, Operations Manager Approved By: David Smith, Operations Manager

BACKGROUND INFORMATION

After extensive investigation, including run data provided by Extreme, the PowerDrive sustaining engineering group has ordered a field change on the PSPD board of the PowerDrive electronics module.

Under specific conditions within its normal operating window, and specific circuit tolerances the control unit will stop powering the antenna to enable real time communication with the existing PSPD design. The recommended change is the replacement of a single surface mount resistor on the board from 2k ohm to 560 ohm. This modifies the circuit to function as intended for all operating conditions.

The change will be tracked as 'Field Change Order #25' for the PowerDrive electronics module in all Extreme systems as the modification is made to tools.



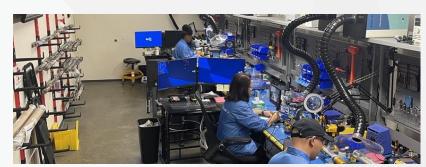
PSPD Board and cover with visual marking after modification



New component installed properly

To execute the change, the component must be replaced per IPC 7711/7721, section 4.1.1. Conformal coat must also be replaced and cured for 24 hours after replacement. After the board is fully repaired, the electronics module will receive the highest level of maintenance (Service Level 3) that includes a full heat regualification.

Extreme is now fully qualified by SLB to repair electronics components in Katy, TX. All technicians executing this modification have all relevant training per IPC and SLB guidelines.



PowerDrive electronics lab in Katy, TX

UPGRADE PROCESS

PowerDrive rental tools will be modified as Service Level 3 is performed for any reason. Triggers for Service Level 3 include component repairs or hourly operating limits. To expedite the process, a small pool of boards will be modified and exchanged onto the tool before service.

Unless otherwise stated, sold tools will also be upgraded per similar process as Service Level 3 is performed.

New boards from manufacturing will come modified starting within the coming months. Unmodified boards will be modified before they are installed on tools.