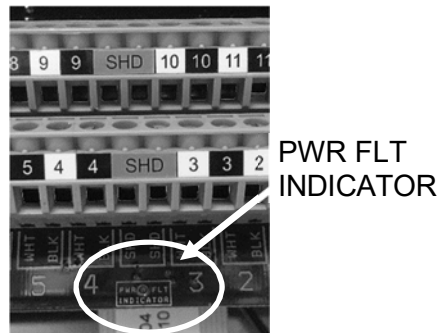
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Problem: Provide a method for determining preamplifier communication issues and how to isolate problems with the preamplifier.

Answer: During normal operation, the (legacy) SONARtrac firmware will ping the preamplifier located within the sensor head cover for diagnostic information such as hardware and software numbers, as well as diagnostic voltages and temperatures. This will occur about every 10 seconds. If the transmitter cannot communicate with the preamplifier, the diagnostic values seen in SYSINFO file, and within the INFO screen of the transmitter menu, will not be available. If there are no other system failures the SONARtrac may continue to provide valid flow measurement; however, DIAGNOSTIC operations such as SENSOR CHECK or GAIN adjustment will not be possible. (As noted in the installation manual any failure during SENSOR CHECK should be confirmed by repeating the test to verify that the failure duplicates).

In the decision tree on the following pages the “Power Fault Light” (PWR FLT INDICATOR) location is on transmitter terminal board below the SHLD termination points of the sensor band cable.



The typical mA draw on the -12Vdc and / or +12Vdc preamp power lines at terminal 11 or 12 on the terminal board is ≈90mA. Current limiting (PWR FLT light illuminates) occurs at ≈170mA.

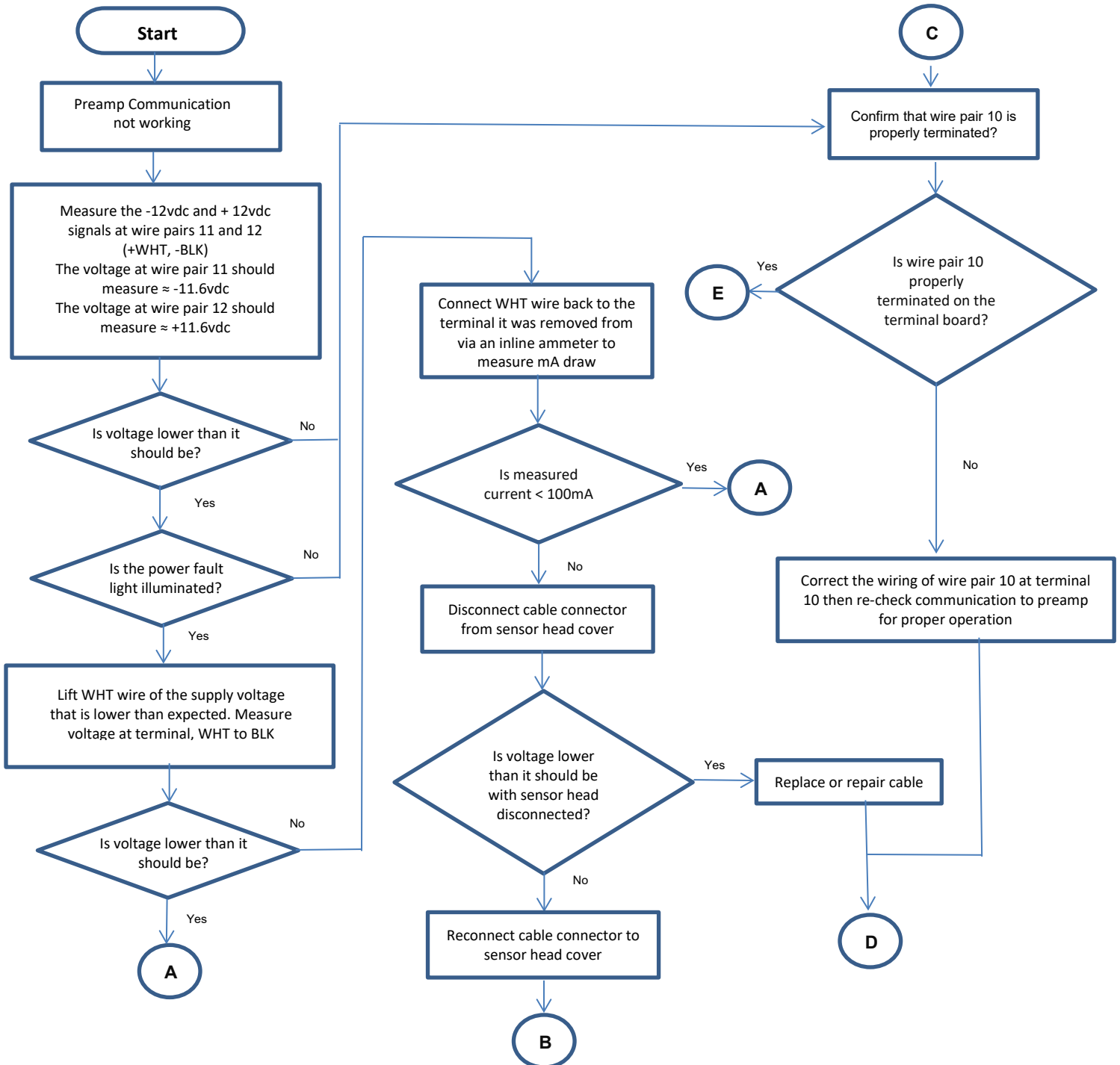
If the Preamp Gain is set too high such that the sensors are saturating this may result in the PWR FLT INDICATOR flashing. If the meter was properly commissioned, the gain will have been adjusted with process flow present.

IMPORTANT: Prior to trouble shooting ensure the wire pairs number 10, 11, and 12 are properly attached to their mating terminals (10 WHT/BLK, 11 WHT/BLK, 12 WHT/BLK).

A method for determining the cause of failure follows.

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Isolating cause of failure





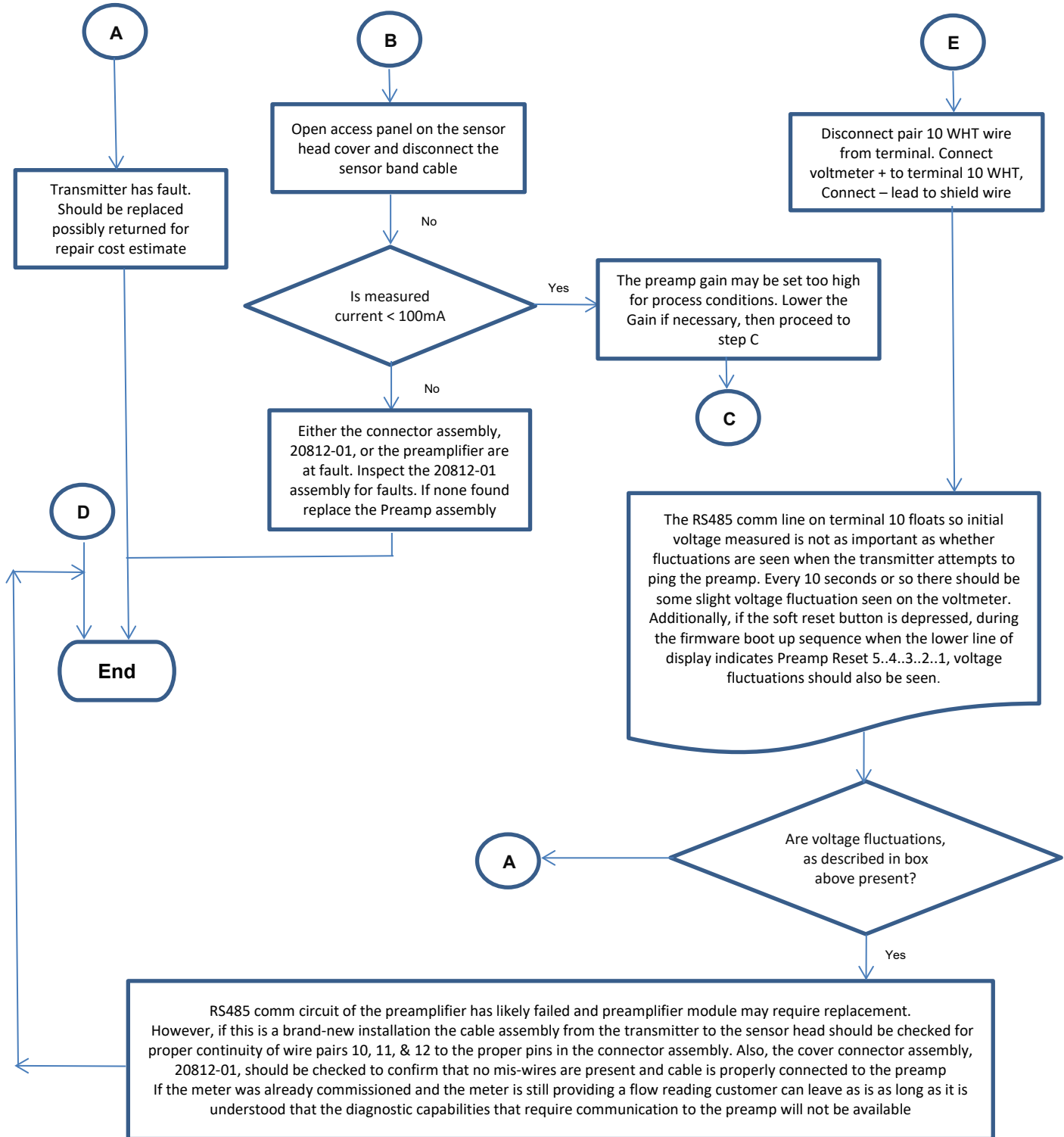
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Contact CiDRA Technical Support or Customer Support with any questions.

Revision History

Rev	Date	Changed By	Approved By	Change Description
01	27Nov18	T. Griffin	D. Garcia	Initial Release
02	23Jul25	T. Griffin	T. Griffin	Revised flow chart

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