TITLE: Proportional Amplifier Field Calibration

1.0. PURPOSE

1.1. This document provides the procedure to field calibrate the proportional amplifier using the pressure transducers as reference.

2.0. SCOPE

2.1. The specific part numbers affected by this document are 15-03784.

3.0. RESPONSIBILITIES/AFFECTED DEPARTMENTS

3.1. Department responsible for the content and implementation of the document:

3.1.1. Service

4.0. TOOLS NEEDED

4.1. 13mm Wrench

4.2. 4mm Hex Key

4.3. 5mm Hex Key

4.4. Driver set

5.0. DEFINITIONS

5.1. RESET: Clear all settings (equations, PWM etc.) on the amplifier:
Press up button and down button simultaneously.

5.2. FLASH: Fast and Bright – LED illuminated and flashing.

5.3. CURRENT: Setting range of the current, Parameter switch 1
0 for low current, press down button
1 for high current, press up button

5.4. MIN: Lower limit of the dead-band compensation
0-60%, Parameter switch 2

5.5. MAX: Upper limit of the maximum current
30-100%, Parameter switch 3

6.0. INSTRUCTIONS

6.1. Remove louvered hydraulic compartment covers.

6.2. Clear all existing equations and other settings on the amplifier plug by pressing the up and down button simultaneously for a RESET. The parameter LED will respond with a short and flashing of the LED.

6.3. Turn the parameter switch to position #1.

6.4. Press the up button. LED will FLASH fast and bright.

6.5. Enter the maximum force on the HMI (12000 LBS on the 618, 16000 on the 824).

6.6. Complete a setup stroke.

6.7. Change the dwell to three (3.0) seconds.

6.8. Apply force.

6.9. While machine is under dwell read the value on the pressure transducer. The correct range for the pressure is in Fig. 1.1:

Machine type:	**Min. pressure**	**Max. pressure**
618	3100 PSI	3160 PSI
824	2580 PSI	2630 PSI

Fig. 1.1

6.10. Adjust the maximum system pressure with the main relief accordingly.

6.11. Repeat until the maximum system pressure is within the correct range in Fig. 1.1.

6.12. Cycle the machine for 15 minutes. Dwell to remain at three (3.0) seconds.

6.13. Lower the force on the HMI to 1000 LBS and complete three more cycles. Dwell to remain at three (3.0) seconds.

6.14. Enter the maximum force on the HMI again. Dwell to remain at three (3.0) seconds.

6.15. Turn the parameter switch to position #3 to adjust MAX.

6.16. While applying force press the DOWN button till the system pressure lowers to the values in Fig. 1.2. Maintainer may need to hold UP or DOWN button to adjust values.

Machine type:	**HMI force set to:**	**Pressure reading:**
618	12000 LBS	2950 PSI
824	16000 LBS	2450 PSI

Fig. 1.2

6.17. Enter 1000 LBS of force on the HMI.

6.18. Turn the parameter switch to position #2 to adjust MIN

6.19. While applying force press the UP button till the system pressure increases to value in Fig. 1.3. Maintainer may need to hold UP or DOWN button to adjust values.:

Machine type:	**HMI force set to:**	**Pressure reading:**
618	1000 LBS	305 PSI
824	1000 LBS	250 PSI

Fig. 1.3

6.20. Adjusting the LOW pressure will impact the HIGH pressure and vice versa.

6.21. Repeat the process as needed to maintain +/- 1% of values in Fig 1.2 & Fig. 1.3.

6.22. Reassemble and return Proportional Amplifier selector switch to position zero (0).

6.23. Replace covers.

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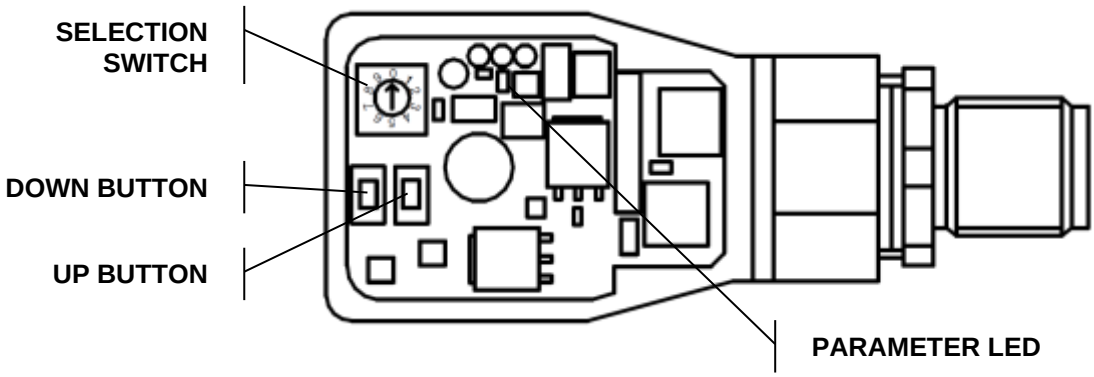
7.0. Component descriptions on amplifier plug



8.0. END