

Wire Slip Error Handling

Purpose:

This procedure is intended to assist in solving wire slip and handling errors on the Alpha 433 S/L. If after you have checked the items listed below and you still need further assistance please contact our service department at 1-888-465-6629 and ask to speak with technical service.

How the drive system works: The Alpha 433 is equipped with an Anti-Slip-System. Where two different encoders compare signals between each other to determine wire slippage. These signals are tied into the Delta-Drive system. The wire measuring wheel is located just after the drive belts, and the motor encoder is integrated into the drive motor.

Adjusting the sensitivity of the Anti-Slip-System: The sensitivity of this Anti-Slip-System can be set through the software under the "Parameters" screen. The range is from 2 - 10. By setting the "Slip" to a higher number, the slip system is less sensitive. This could help decrease your slip errors when processing larger gauge wire. The default setting is set at 2 for maximum sensitivity.

Maintenance of the Drive Unit: As defined in chapter 9 of the operators manual the drive unit should be checked for wear and deposited insulation material, check the belt tension and clean the encoder wheel with a soft copper brush. All wire guides should be checked weekly for cleanliness and excessive wear. Any excessively worn parts should be replaced immediately to avoid any unnecessary damage.

Adjusting the Drive unit: As defined in chapter 10 of the operators manual the drive unit belts must be adjusted properly to avoid wire slip errors. The toothed belt must be able to be turned 450 in the middle of its running surface. If it is too loose or too taut it must be adjusted. To perform the adjustment you will need a 19mm open-end wrench and a 6mm Allen key. Using the 6mm Allen key you need to loosen the screw in the top of the large gear to the far right. Using the 19mm wrench loosen the cam lock nut and set the tension by adjusting the nut. Then tighten the Allen screw and recheck your tension. The belt adjustment procedure is also described in chapter 10 of the operators manual.

Presenting the wire to the machine: Wire slip errors could be caused by the way you are feeding the wire to the machine. If your wire is on a spool, examine the dereeler to ensure it is functioning correctly and that it can keep up with the machine. If the wire is coming out of a barrel, it is advised that you use a cone to guide the wire out of the barrel.