GECKODRIVE MOTOR CONTROLS

SERVO DRIVE TROUBLESHOOTING

COMMON PROBLEMS AND SOLUTIONS

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Geckodrive, Inc. servo drives generally have a limited number of things that will prevent them from functioning, ranging from encoder problems to step and direction polarity being reversed. Follow the tree below to find the cause of your problem and how to solve it.

1.) Is the FAULT LED on continuously?
    a. Yes
        i. Do you have servo lock?
            1. Yes
                a. Can you move the drive with step and direction commands?
                    i. Yes
                        1. If you still have a problem, please call our technical support.
                    ii. No
                        1. Check polarity of the step and direction signals.
                        2. Check that you have the correct pin designations in your step pulse generating program.
                        3. Check step and direction wires are going to correct inputs on the drive and step pulse generator.
            2. No
                a. Does the motor turn continuously without being told to?
                    i. Yes
                        1. If the fault light is off, your encoder is not being seen by the drive. Verify that it is hooked up correctly and that its required voltage is +5V and requires no more than 50mA (if being powered by the drive).
                        2. If the fault light is on, the drive must come back for service.
                    ii. No
                        1. Your motor is not being seen by the drive. Use an ohmmeter on pins 3 and 4 of the drive with power turned off and measure the resistance. You should see very low resistance, generally around one Ohm, if your motor is connected

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properly. If not then you must check your cable, connections and motor.

b. Is the LIMIT trimpot turned all the way CCW?
    i. Yes
        1. Turn the trimpot a quarter turn from the CCW limit and try again.
    ii. No
        1. Move on to the above tab (Moving continuously without being commanded).

ii. Does your motor turn a fraction of a revolution once a second?
    1. Yes
        a. Turn off power to the drive and swap CH A and CH B of the encoder on the drive and reapply power. If this does not solve the problem, return the encoder to the original settings and move on.
        b. Turn DAMP and GAIN one quarter of a turn from the CCW limit (9 o'clock position). If the motor still jumps, do the above step. If the problem continues, the drive must come back for evaluation.
    2. No
        a. Move on to the above tab (Do you have servo lock?).

b. No
    i. Do you have a jumper between pins 5 (RESET) and 7 (ENC +)?
        1. Yes
            a. Stop sending step pulse signals and check the FAULT LED. If it is still on the drive must come back for service.
        2. No
            a. Check to see power is being applied. If it is and the problem persists, the drive must come back for evaluation.