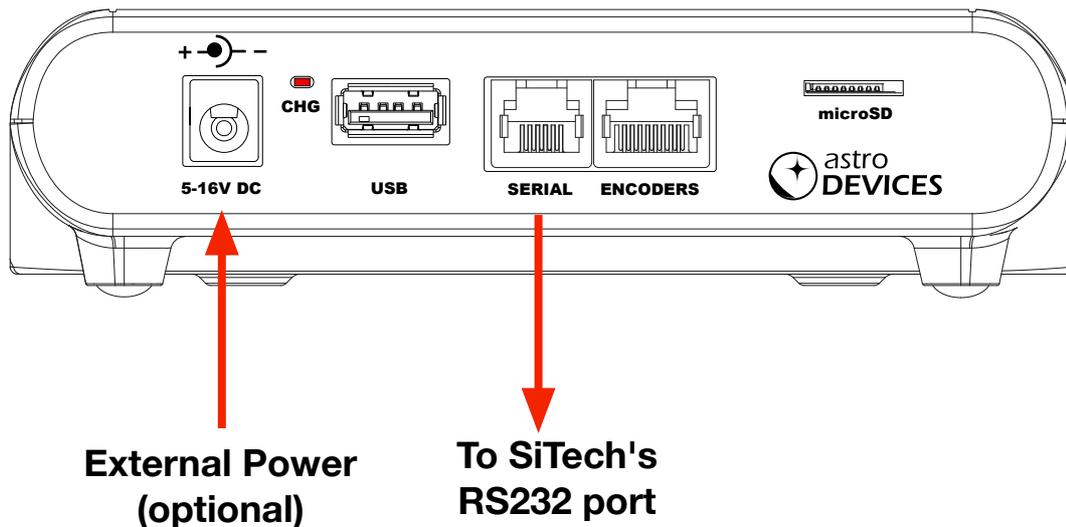# Using Nexus DSC with SiTech Servo Controller

This document describes how to setup your Nexus DSC with SiTech's Servo Controller.

Requirements

- Nexus DSC
- SiTech's Servo Controller unit
- Serial cable Nexus DSC – SiTech (RJ11 to RJ22)

Connections

External Power (optional)

To SiTech's RS232 port

HERE IS A LIST OF CONNECTIONS:

- Nexus DSC's serial port must be connected to RS232 port on SiTech's Servo Controller
- Telescope encoders must be connected to SiTech's Servo Controller
- Optionally Nexus DSC can be optionally connected to the same battery as used to power the servo controller

Please refer to the user manual of the servo controller for details on configuring it for use with your telescope. However please make sure that it is not configured for Argo Navis or SkyCommander. Please see screenshots of the configuration pages below. Please note that parameters will most likely be different for your telescope.

This telescope is equipped with 40000 steps encoders. Please make sure that encoder ticks are set to the correct value.

Please make sure that both Argo Navis and SkyCommander are disabled:
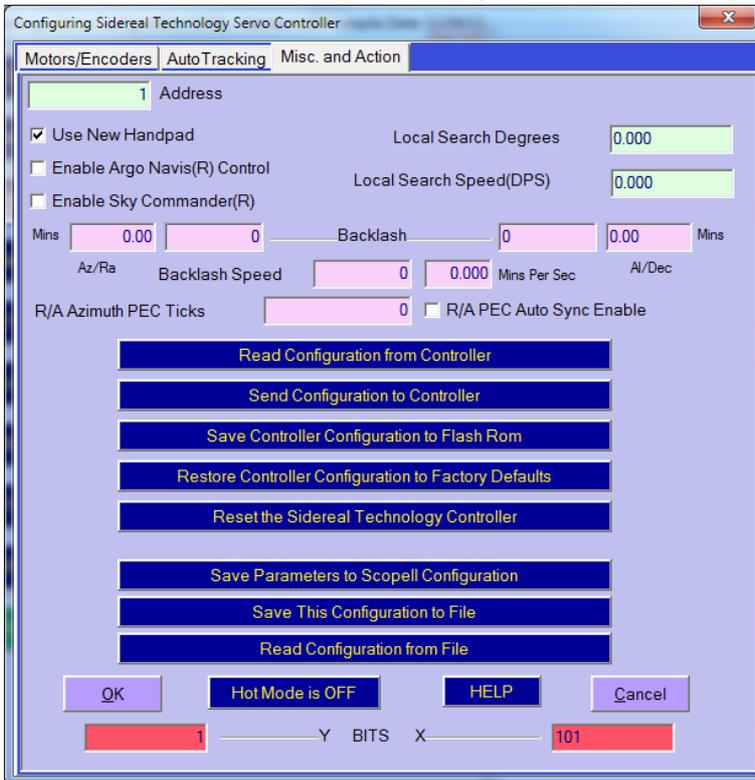
Setting Nexus DSC up for SiTech's Servo Controller
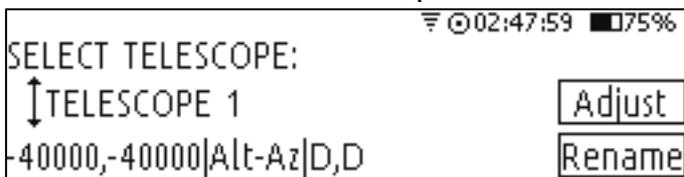
Please turn Nexus DSC ON. The following steps need to be taken only once.
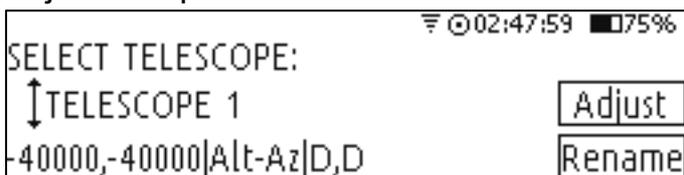
1. Encoder steps
   Go to Settings->Telescope

Make sure the encoder steps are set correctly:

Adjust if required:

Please note that the encoder steps have the same values as in Servo Controller's configuration for the telescope.
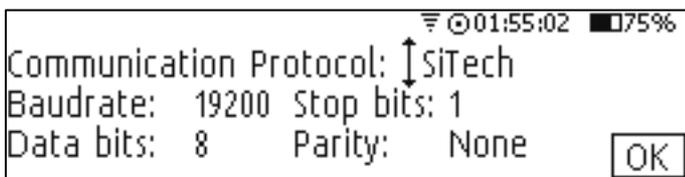
2. Serial port settings.

Go to Settings->Communications:

Select Serial and press the OK key:

Make sure that the settings are as follows:

Change them if required and make sure you keep pressing the OK key until you exit this screen to save the new settings.

⚠️ **Please power power cycle Nexus DSC if you changed any settings for Serial port**

Testing communications

Now you can test communications between Nexus DSC and SiTech:

1. Make sure both Nexus DSC and Servo Controller are turned off.
2. Turn Servo Controller on first.
3. Now turn Nexus DSC on.
4. Go to Test->Serial
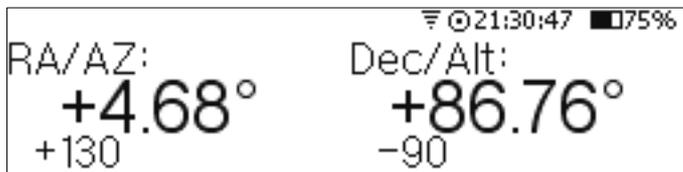
You will see the following screen:


```
Serial port:SiTech
Received: 0 bytes
Sent: 0 bytes
```

If you set everything correctly then you will see that **Received** and **Sent** are constantly incrementing.

You can also go to Test->Encoders

Test

Encoders

Move the telescope and make sure that the values are changing.


```
RA/AZ:              Dec/Alt:
  +4.68°              +86.76°
+130                -90
```

The setup is finished now.

Using Nexus DSC with SiTech's Servo Controller

Now you can perform the two star alignment and use the telescope. Please note that if Servo Controller is powered down for any reason you will have to perform the two star alignment again and make sure that Servo Controller is turned on before Nexus DSC.

DONE

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