



From: StellarCAT

Re: Firmware Upgrade Version 5.3 Dated: 1 January, 2006

Applicability: Applies to all *ServoCAT* units

Exclusion(s): No exclusions in functionality due to the hardware version of the *ServoCAT* unit

Exceptions: None known

Procedure: Follow the instructions found on your *ServoCAT* CD for installing this upgrade. NOTE: this is an upgrade and not an update (of the configuration). You will however be required to update your unit as well as all defaults and user settings will be lost in this process. If you do not have the default file for your scope contact StellarCAT - we have defaults for Obsessions mainly - these are shipped in the units when it goes to other scope manufacturers as well as when units are shipped to users installing the Retrofit Kit to their non-Obsession brand scope. Contact your scope manufacturer for the data file for your scope if you were not provided one when you took delivery of the scope.

As instructed in the manual (Obsession and Close Clones version 8.X) you will need the following: *ServoCAT*-Sky configuration software installed on a computer, your scopes default (or user programmed) configuration file, 9 pin PC adapter labeled "*ServoCAT* PC Adapter" (older units adapters were not labeled - DO NOT USE THE ADAPTER MARKED "Argo Navis PC Adapter"), and both the 6 conductor satin RJ12 cable (for upgrading) and the 4 conductor satin (or black) RJ11 cable (for configuration). These were shipped with your unit or shipped to your scope builder when the system went to them for your install. If you have misplaced your cables and/or adapters they can be obtained from us for a nominal fee if needed.

In addition this will require version 2.30 of the RFU. If your unit is very early and you have not upgraded since your original purchase you will need to replace your RFU. In addition you will need version 1.4 of the *ServoCAT*-Sky configuration program [NOTE this is a new version supplied with the Gen2 *ServoCAT* units]. Same scenario as above. Contact us if you do not have these versions. The updates for these are free of charge.

- 1) Upgrade the unit.
- 2) Download the default, manufacturer provided, or your own configuration file to the *ServoCAT*
- 3) On older (white box) units you will need to remove an installed jumper. Remove the cover by removing the 2 recessed screws on the bottom. Lift the cover on all four corners. Notice the blue terminal strip near the front plate - pin 1 is closest to the front panel, 6 is on the other end. Cut the jumper that connects pin 5 and 6 on this strip and ensure the wire lead (resistor lead) going to these is now going to pin 6. Replace the cover.
- 4) Use it!

Final note: most of these changes will require an Argo Navis as the DSC and its version to be 2.0.0.

Features and notes:

1) Support for NEW ARGO NAVIS DSC features.

Version 2.0.0 of the Argo Navis (Wildcard Innovations) contains exciting and new features to add ease of use to your *ServoCAT*/Argo Navis Drive system. These are as follows:

- Supports use of the *ServoCAT* handpad "GOTO" button during the ALIGNMENT procedure. While aligning the 2 stars or doing your FIX ALT REF you can replicate an Argo Navis "ENTER" function by pushing the GOTO button on the *ServoCAT* handpad - wired or wireless! The Argo responds with a friendly "bee-boop bee-boop bee-boop" acknowledging the enter button was executed. NOTE: Similar to the ENTER button on the Argo Navis if you had encoder errors during this process the message will still show on the Argo and the "entry" will not be valid. Fix and repeat as necessary.
- Works in conjunction with the Argo Navis "Horizon Limit". Set your location/date/time in the Argo Navis (this feature requires these be set accurately). Then set your desired Horizon and Zenith limits under SETUP/GOTO in the Argo Navis. The default values are 10 and 80. These numbers are the local (your scopes) altitude or elevation angle relative to the ground in degrees. Straight up would be 90 degrees, on the horizon would be 0. Once set if you try to do a GOTO to an object below the horizon limit or above the zenith limit you will get a long "bee-booooooop". This indicates the object is out of limit. The scope will not move to this object. This does NOT inhibit manual (slew) moves.
- Works in conjunction with the Argo Navis "GOTO" function. When you do a GOTO to an object you will hear a gentle "bee-boop" when the scope arrives at the required location. [Note: there are two functioning systems on your scope - the *ServoCAT* will take the scope to the indicated 0.0, 0.0 position - whether or not the object is in the FOV at this time is purely a function of the DSC system. Normally if not it is due to a poor alignment, wrong star picked but not aligned, or mount errors.]

2) Improved Tracking

The "Stellar" tracking of the *ServoCAT* has been improved yet again! A new algorithm tweaks the last bit of tracking capability out of the system.

3) Support for 10,000 count encoders in the SuperProgram:AutoCAL(ibrate) mode

Version 4.6 - 5.1 will allow a proper AutoCAL to be done while using the new super high resolution 10,000 count encoders - however the result reported needed to be scaled to get the proper ratio. Version 5.3 will directly reflect the proper ratio for the 10K encoders. .

4) Support for new "GOTO" only button.

We now offer a "GOTO" button for those that want to use their handpad at the eyepiece and do not want to have to reach up to it to push the GOTO button. This GOTO button will work with no modifications on the Generation 2 units but will require a simple modification on Generation 1 (while box) units.

5) Support for the new Sky Commander XP4

The *ServoCAT* will support use of the lower baud used by the new Sky Commander XP4 (9600 vs. previous units and Argo Navis 19,200). A jumper is included for this purpose.

We are here to help if you have questions on either your Upgrade or Update... if you do not feel comfortable doing either or you do not have the time we can do it here for \$50 including return shipping (ground). PLEASE notify us if you are sending your unit and send it insured for \$600 via either via UPS or Fed-Ex (not USPS).

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