



From: StellarCAT

Re: Hardware Upgrade Version 5.9 Dated: 26 December, 2009

Applicability: Applies to Gen2 (black box) and Gen1 (off-white box) *ServoCAT* units with exceptions

Exclusion(s): There are exclusions in functionality due to the hardware version of the *ServoCAT* unit

NOTE: If your *ServoCAT* has software older than version 5.4 (released Jan 06) you need to read the release notes for it as well to know the additional features it brought to the system.

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 (or similar dobs) - 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!

Features and notes:

1) Support for NEW ARGO NAVIS DSC features.

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

- Signals a "beep" (in the Argo Navis) when the initial connection to the Argo Navis is made (during and before the end of the alignment process). Note this is required - you **MUST** have this connection established **BEFORE** the alignment is done.
- Signals a "beep" (Argo Navis) if the power to the *ServoCAT* has been disconnected after an initial connection was made assuming the AN has not been powered down. [This is great for reestablishing the "servocat" protocol with the Argo if the *ServoCAT* has to be powered down, say for multiple updates during initial setup of the system.]

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

- Altitude sensitive AZ speed control while guiding. This also applies to the spiral search patterns.

2) Improved Backlash control

When used with Gen2 (or Gen3) *ServoCAT*'s the system will provide better, smoother overall backlash compensation control. This is in taking advantage of hardware features present in these versions. In Gen2 *ServoCAT*'s the control will still be very good - but it will not be any different than what was present previously.

3) Support for the new ServoCAT Hand

The new hand controller (now a true controller and not a "pad") is shipping with Gen3 *ServoCAT*'s and is available as an upgrade to Gen1 and Gen2 *ServoCAT*'s. The wireless version is also available for Gen2 *ServoCAT*'s but is not compatible (without a modification internally) on Gen1 units. This brings to the system: a total of 4 GUIDE speeds including 2 selectable at the HC for greater flexibility. A total of 6 Spiral Search Patterns/speeds for a wider range of scope usage. Refer to the HC instructions for more information about this unit and its use.

4) Support for the new "HOME" button.

A home button can be used to "home" the scope to the position where it was when powered up. This is great for those in an observatory. This is not supported in Gen1 without internal modifications.

5) Support for Gen3 USB PC Port

Gen3 *ServoCAT*'s will ship with a built in USB port for PC control - both update and upgrade as well as planetarium use.

**Final note: most of these changes will require an Argo Navis as the DSC and its version to be 2.0.0.
Also set the Argo Navis SETUP/SERIAL/SERIALx/startup parameter to "servocat"**

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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