Service Instruction

Update SkyView Software to Version 15.3.3

SI -ASTM-CTLS-54

Repeating Symbols:

Please pay attention to the following symbols throughout this document emphasizing particular information.

▲**Warning:** Identifies an instruction, which if not followed may cause serious injury or even death.

■ **Caution:** Denotes an instruction which if not followed, may severely damage the aircraft or could lead to suspension of warranty.

● **Note:** Information useful for better handling.

1 Planning Information

1.1 Affected Aircraft

Type:	CT
Model:	CTLS-LSA
Series:	CTLS-LSA, CTLSi-LSA, CTLSt-HL-LSA
Serial Number:	All serial numbers with single or dual D700 /D1000/D1000(T) Dynon SkyView installation.
Applicable Countries:	Not limited

1.2 Concurrent Documents

[1] AZ04300013 Rev. 04 Supplement S7 to the Pilot's Operating Handbook (POH)

1.3 Reason

The file updates the software to version 15.3.3, updates the sensor configurations with default Dynon settings and updates the settings needed to go from version 11.1 to version 15.3.3. Any other settings or aircraft data are not altered.

1.4 Subject

Updating the Dynon SkyView firmware to version 15.3.3.

1.5 Compliance

Compliance is on voluntary basis only, when customer decided to update Dynon SkyView firmware to the version 15.3.3. Compliance with this SI must be shown for affected aircraft when completing compliance with [1].

▲**Warning:** Non-compliance with these instructions could result in further damages, personal injuries or death.

1.6 Approval

This SI is approved by the aircraft manufacturer i.a.w. ASTM F2483 for conduct on the aircraft as defined in 1.1. Subsequent to complete and correct conduct of this SI the affected aircraft will still meet the requirements of the applicable ASTM design and performance specification subsequent to the modification.

1.7 Type of Maintenance

Line.

1.8 Personnel Qualifications

Owner/Operator

1.9 Release to Service

Conduct of this SI must be logged in the aircraft log book with date and signature of the responsible person. National regulations have to be considered.

1.10 Weight and Balance

Not affected

1.11 References

1. Drawings:

- none -

1.12 Documents:

[1] AZ04300013 Rev. 04 Supplement S7 to the Pilot's Operating Handbook (POH)

All referenced documents can be obtained from the Flight Design general aviation website in electronic format.

1.13 Superseded Documents

- none -

1.14 Contact Details

For further information on conduct of this SI, or to report any Safety of Flight or Service Difficulty issues contact your Distributor responsible for your country. Your Distributor can be located via the Flight Design general aviation website: www.flightdesign.com under "Dealer Location".

In cases where the local distributor is not known or available contact Flight Design general aviation GmbH directly: customer.care@flightdesign.com

Specific contact in USA:

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In cases where the local distributor is not known or available contact Flight Design general aviation GmbH directly: customer.care@flightdesign.com.

1.15 Disclaimer

This Service Instruction has been generated with utmost care. Nevertheless errors and misunderstandings can never be fully excluded. In case of any doubts the applicant of this Service Instruction is requested to contact Flight Design general aviation immediately to clarify the issue.

2 Resources

2.1 Workshop Conditions

- none -

2.2 Parts

- none -

2.3 Materials

- none -

2.4 Tools

1. USB memory stick with free space of more than 1 Gb
2. PC/Laptop with:
   2.1. An USB port
   2.2. Internet connection to download update files
   2.3. any software to uncompress *.zip files
3. Allen key 3mm
4. Battery charger or ground power (to provide adequate power to aircraft during the update)

2.5 Special tools

- none -

2.6 Manpower

The described task can be performed within approximately 1 hour (working time).
The working time includes:

- SkyView software version identification
- Updating of SkyView software version to 15.3.3
- SkyView System verification

The working time does not include:

- Software download from Flight Design website (depends on connection speed)
- Aircraft and SkyView batteries charging (if required)

2.7 Cost

Not applicable

3 Instructions

3.1 General

This chapter provides extended explanations for the sequential software updating steps.

3.2 General Procedures

Park the aircraft using wheel chocks on both main wheels.

3.3 Software Version 15.3.3 Updating

3.3.1 Software Version Identification

Before updating, the software version has to be verified. Power up the SkyView and check software version on initial boot screen (Fig. 1).

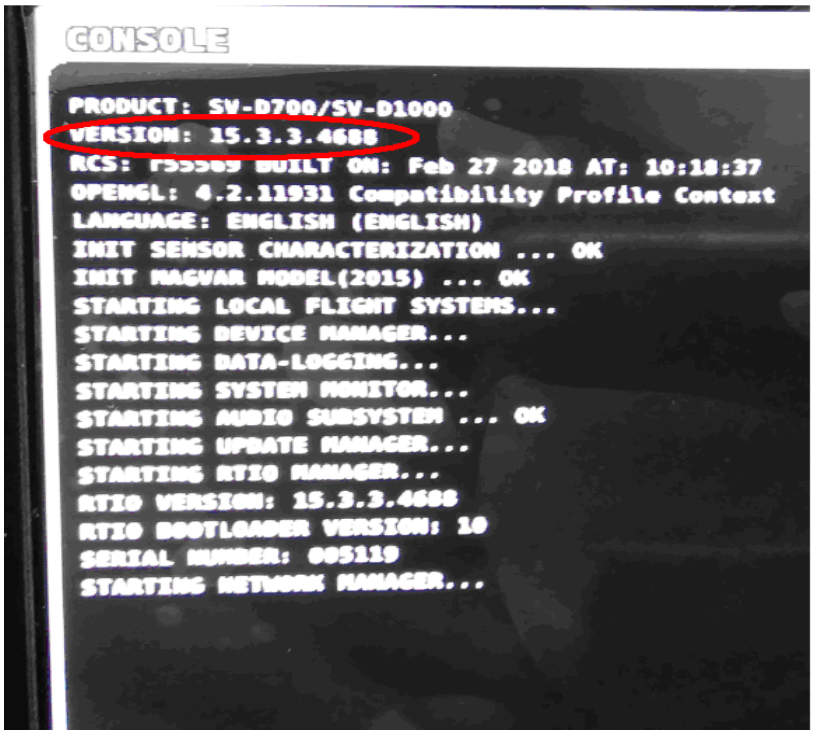


Fig. 1

If the SkyView software version is 11.1, the installation of the provided update files can be conducted according to the steps provided in this instruction.

If the SkyView software version differs from version 11.1, contact Flight Design Customer Care for further information. Please report your current software version and your aircraft serial number on initial contact.

3.3.2 File Downloading

▲**Warning:** Software version 15.3.3 has to be downloaded only from Flight Design website using link below. This software is provided together with configuration files that include specific SkyView settings which are relevant for the specific aircraft model. Uploading incorrect configuration files (for example downloaded at Dynon directly) onto the SkyView system can lead to significant rework at a DYNON facility.

The Dynon SkyView configuration files for the relevant aircraft model can be downloaded via the link below: https://flightdesign.com/dynon-skyview-updates/

Unpack the downloaded zip-file and copy the files to the root folder of the USB memory stick. Do not place configuration files inside any subfolder on the stick.

3.3.3 Backup Preparation

- **Caution**: Updates should be performed with the aircraft connected to an external power source. They should not be done using the optional backup battery or aircraft battery exclusively.
- **Caution**: Updating the software, using the *.duc file to version 15.3.3 will unlock the display, installs the software version 15.3.3 and lock display automatically.

As a safety measure backup files need to be extracted from the system before updating. These files will enable the Flight Design and Dynon support to restore individual aircraft settings if required.

1. Connect the USB flash drive to the USB socket of the Left SkyView Display. Use the USB socket marked with ”L”.
   - **Note:** Depending on the aircraft model the USB port is located either on right side of the instrument console (Fig. 2) or inside middle tunnel under the access panel (Fig. 4). To have access to USB socket inside the tunnel it is necessary to unscrew 4 screws with the Allen key 3mm and remove access panel(1) (Fig. 3).



Fig. 2



Fig. 3



Fig. 4

2. Boot the left and right SkyView displays by switching on master breaker “Master BAT” and Avionic Master switch. Make sure that equipment listed below are switched on:
   - Autopilot circuit breaker (if AP installed);
   - COM or COM/NAV radio;
   - Intercom;
   - Transponder.
3. Enter the SYSTEM SOFTWARE setup of the left SkyView display by holding down both right soft keys (Fig.5)



Fig. 5

- **Note:** The SYSTEM SOFTWARE menu is only accessible on the display the USB flash drive is connected to.
- **Note:** For systems which do not currently have the Flight Design branded firmware 11.1 installed, the “SYSTEM SOFTWARE” menu must be accessed manually

4. Select “EXPORT SETTINGS…” (Fig.6)

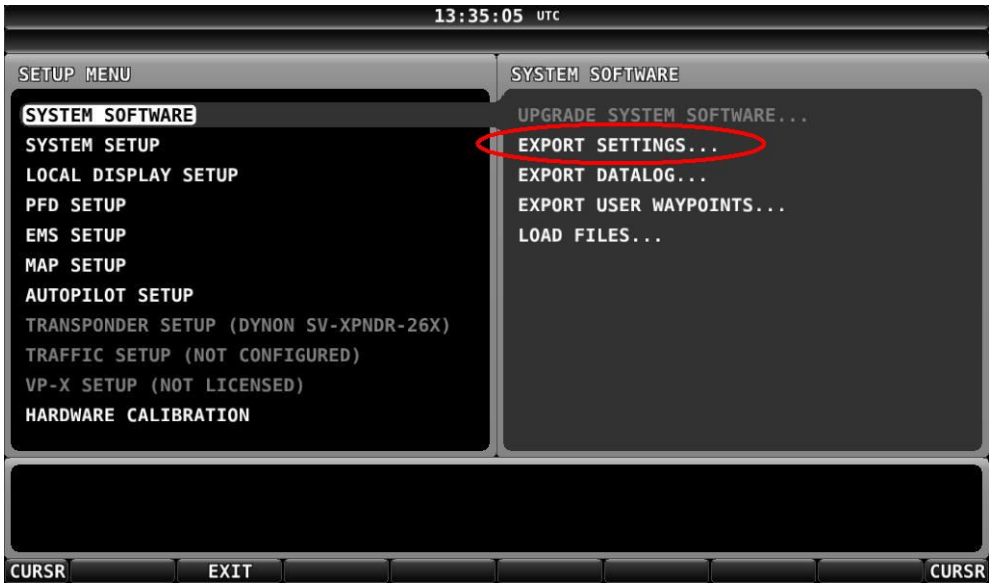


Fig. 6

5. Select an individual name which is recognizable as the backup of the left/right SkyView display and press “EXPORT”.
6. Exit the Setup by pressing “CANCEL” ->”EXIT”
7. Remove USB stick from USB socket marked with “L” and connect to socket “R”. It is not required to power down the SkyView units to do this.
8. Repeat the steps 3..6 on the right SkyView Display.

3.3.4 Software Update

■ **Caution**: Updates should be performed with the aircraft connected to an external power source. They should not be done using the optional backup battery or aircraft battery exclusively.

1. Do not disconnect USB flash drive from the USB socket marked with “R” of the right SkyView Display. It is not required to power down the system.
2. Verify all circuit breaker are pushed in on the circuit breaker board, especially the autopilot circuit breaker, if installed.
3. For the Right screen:
   3.1. Enter setup of the right SkyView display by holding down both right softkeys (Fig.7)



Fig. 7

- **Note:** The SYSTEM SOFTWARE menu is only accessible on the display the USB flash drive is connected to.
- **Note:** For systems which do not currently have the Flight Design branded firmware 11.1 installed, the “SYSTEM SOFTWARE” menu must be accessed manually.

3.2. Select “LOAD FILES” (Fig.8)

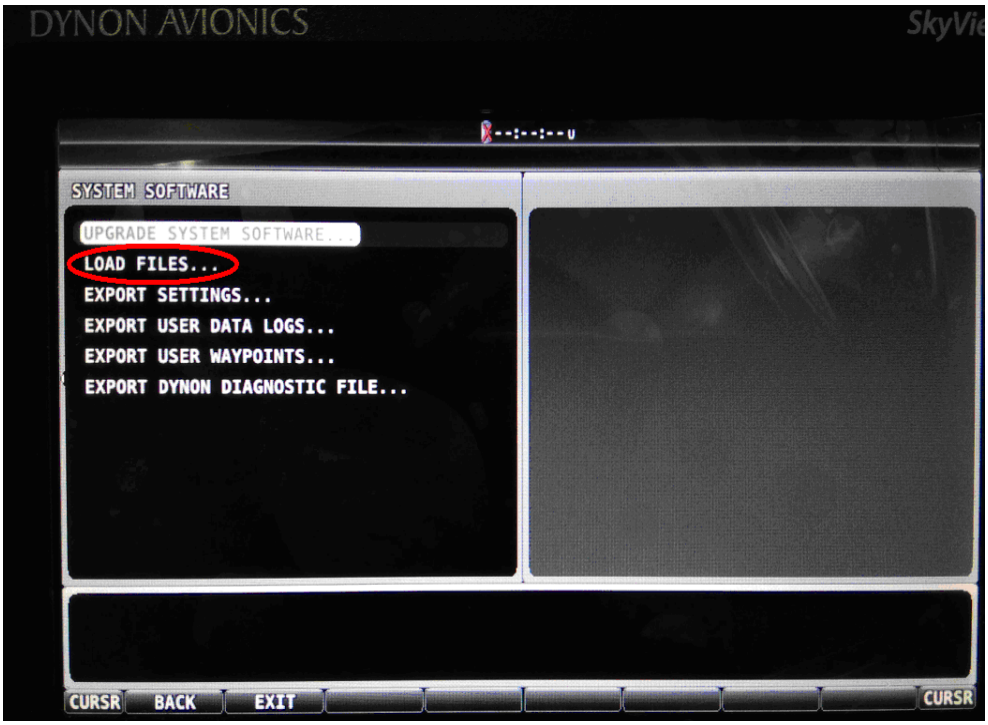


Fig. 8

3.3. Select the update file and press “LOAD” (Fig. 9)

- **Note:** If you backed up your system, there will be a backup file on your USB stick as well. Be careful NOT to upload that file accidentally.

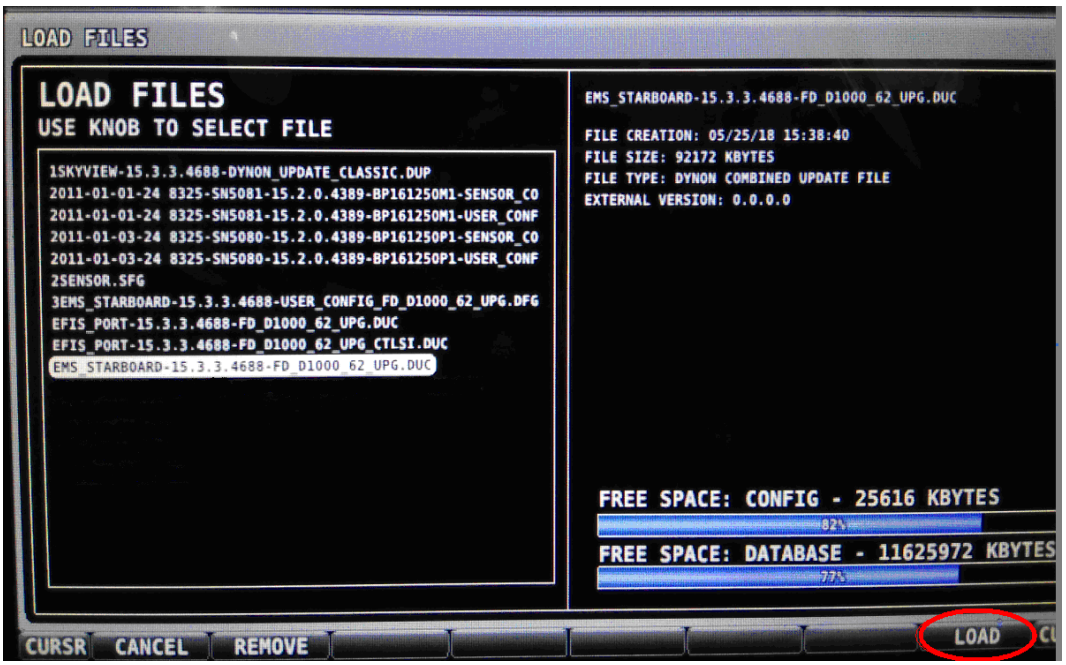


Fig. 9

3.4. Confirm to upgrade the system by pressing “Upgrade”

- **Note** Most likely there are EMS and ADAHRS failures as soon as the right SkyView Displays update is completed. IGNORE these failures until the left SkyView Display is updated as well.

4. Remove USB stick from USB socket marked with “R” and connect to socket “L”. It is not required to power down the SkyView units to do this.
5. Repeat the points 3.1 – 3.4 for the left SkyView Display.
6. Power down the complete system as soon as the Upgrade Process is finished by switching of the Avionics Master Switch and the Battery Power Master Breaker.
7. Remove USB stick.
8. Re-install middle tunnel hatch, when removed.

3.3.5 System Verification

1. Boot the right SkyView display by switching on master breaker “Master BAT”.

2. Push the button 7 (Fig. 10) on the left SkyView display and switch on the unit by switching on the Avionic Master switch. Hold the button seven pressed during the complete boot phase of the display. This procedure will enter a restricted setup menu.



Fig. 10

2.1. Select “SYSTEM SETUP” -> “NETWORK SETUP” (Fig.11)

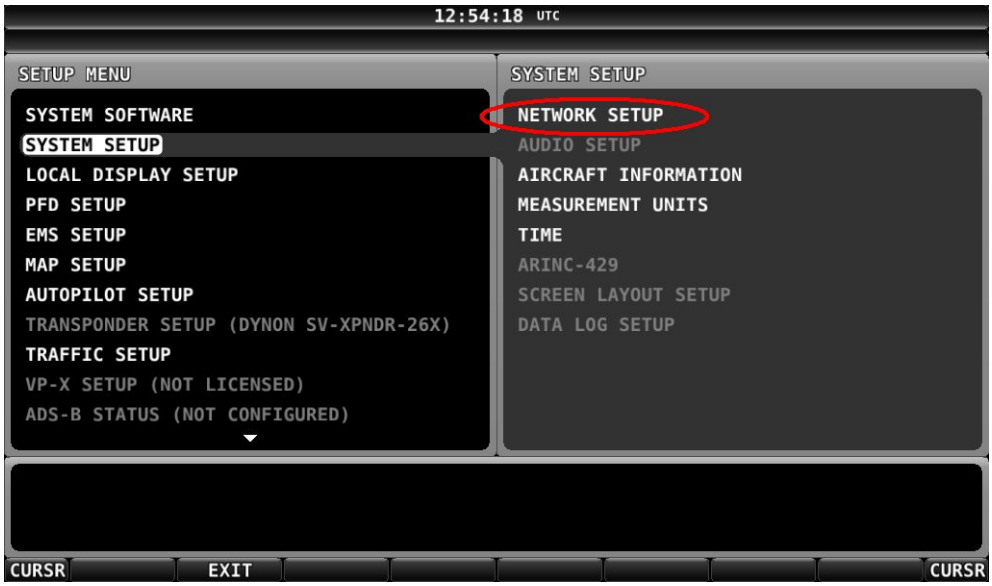


Fig. 11

2.2. Check “NETWORK STATUS…”, the following figure 12 shows an example network status page.

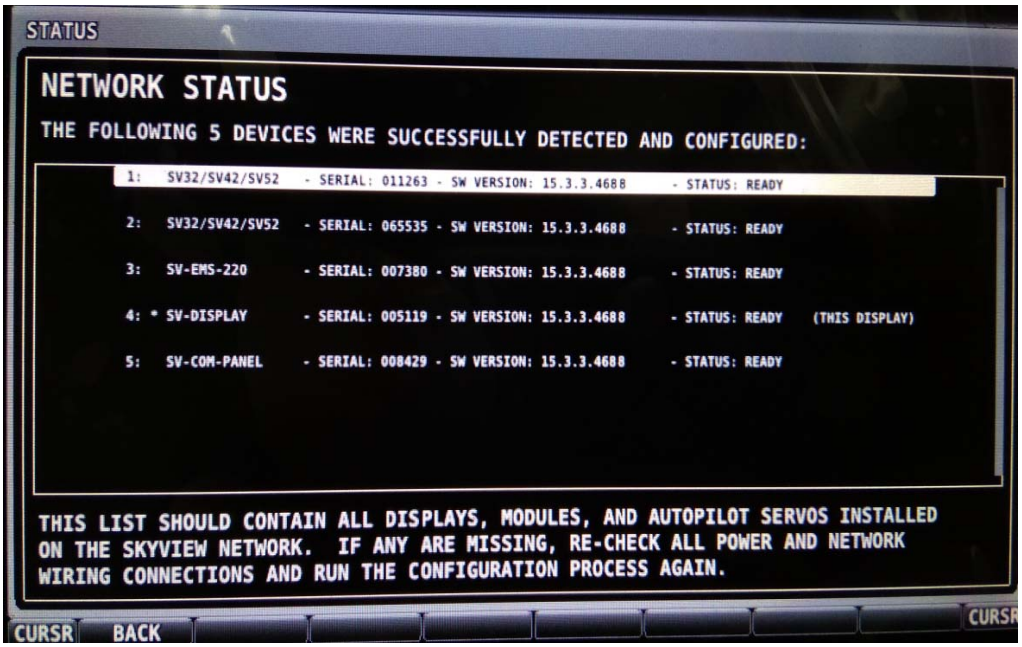


Fig. 12

2.2.1. There shall be no red or yellow markings on any network unit. In case there are, please go back to the “NETWORK SETUP” and select “CONFIGURE…” -> “DETECT”.

2.2.2. If the problem remains, please go back to the “NETWORK SETUP” and select “FORCE NETWORK LOAD…” -> “LOAD”.

● **Note** If the problem persists, please contact to customer.care@flightdesign.com.

2.3. Check that "SYSTEM EVENT" not presented the system menu: SETUP MENU (Fig.13).

● **Note** The SYSTEM EVENT menu will only appear if the SkyView display detects that a “system event” has occurred on (one of your) SkyView display(s).

● **Note** The System Event diagnostic was added in SkyView Software version 13.0. System Event 5 indicates that the SkyView display's internal Solid State Disk (SSD) is experiencing an abnormal number of errors, and thus should be replaced. This feature was added to help detect units that may have potential problems with rebooting in flight or possible screen freezes. To be clear, although System Event 5 is only displayed after updating to v13.0 or later, “System Event 5” is not caused by updating to v13.0 or later; v13.0 and later added this diagnostic to detect an existing situation (abnormal number of errors with the SSD).

If the problem persists, please contact to customer.care@flightdesign.com.



Fig. 13

3. Exit the Setup by pressing “BACK”->“EXIT”
4. Check the message box (Fig. 14).



Fig. 14

5. If there are no further messages, the update process is finished.

3.3.6 Pilot Operation Handbook Supplement Update

The software update requires an update of the applicable Pilot Operation Handbook Supplement S7.

- The POH Supplement S7 Revision 4 [1] is included as PDF file into the downloaded zip folder, see chapter 3.3.2
- Open and print the PDF file.
  - To get an ready printed version contact customer.care@flightdesign.com
- Replace the Supplement S7 Rev.3 by the Supplement S7 Rev. 4
- Read the Supplement S7 Rev. 4 before using the updated SkyView system for the first time inflight!

▲**Warning:** Operating the system outside of the envelope specified or different from the procedures specified in the Supplement S7 Rev.3 can lead to serious injury or even death.

3.4 Documentation

Conduct of this SI must be logged in the aircraft log book with date and signature of the responsible Person conducting the SI. National regulations have to be considered.

4 Appendix

4.1 Changes to Previous Revision

Original Issue – no changes.

4.2 Feedback Template

No specific feedback required.