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DSA83UP Instrument Upgrades for the DSA8300 Digital Serial Analyzer

Instructions

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DSA83UP kit instructions

This kit describes how to install and activate available upgrades for the DSA8300 Digital Serial Analyzer instrument.

Available upgrades:

- Option ADDJNB01 (Upgrade 80SJNB Essentials to 80SJNB01)
- Option ADVTRIG (Advanced Trigger)
- Option JARB (Jitter Analysis on Arbitrary Data)
- Option JNB (Jitter, Noise and BER Analysis)
- Option JNB01 (Jitter, Noise and BER Analysis as well as Serial Data Link Analysis)
- Option 400G-M4 (4-channel Transmitter and Dispersion Eye Closure Quaternary (TDECQ) analysis software)
- Option HDD8 (replacement hard disk drive)

Kit parts list

Quantity	Description	Part number
1	DS83UP Kit Instructions (this document)	075-1037-XX
1	DSA8300 Jitter Analysis software CD	063-4393-XX
1	HDD8 hard disk drive (Opt HDD8 order only)	HDD8

Upgrade options

NOTE. Tektronix recommends updating the TekScope application software to the latest version available. Compare the TekScope application version number of your instrument with the version available from the Tektronix website for your instrument. If a newer version is available, download and install.

Option ADDJNB01 Option ADDJNB01 consists of a keycode to enable the 80SJNB Advanced software applications.

Option ADDJNB01 upgrades oscilloscopes currently running the 80SJNB Essentials (Option JNB) Application software to 80SJNB Advanced.

Option ADVTRIG Option ADVTRIG consists of a keycode to enable the Advanced Trigger software functions.

Option ADVTRIG enables advanced triggering for synchronous acquisition of repetitive patterns with lengths from 2 to 2²³ (8,388,608) bits, without the need to provide a pattern trigger. The instrument requires this option to use the clock/pattern trigger source/mode and to run the 80SJNB (Jitter, Noise and BER Analysis) software applications.

Option JARB Option JARB consists of a keycode to enable the 80SJARB application software.

Option JARB enables the 80SJARB Basic Jitter Analysis on Arbitrary Data software application. This application is a basic jitter measurement tool capable of measuring jitter on any random or repetitive waveform. The acquisition method uses simple decomposition, which limits analysis. Repeatability is pattern dependent.

Option JNB Option JNB consists of a keycode to enable the 80SJNB Essentials application software.

Option JNB enables the 80SJNB Essentials software application for DSA8300 instruments. This application software offers a complete analysis of jitter, noise, and BER, with decomposition of components for a clear understanding of a signal's problems and margins. The acquisition methodology requires a repetitive pattern and the presence of option ADVTRIG in the DSA8300. Both accuracy and repeatability are improved relative to the 80SJARB application because the tool has access to the complete signal pattern. Installing this option on a DSA8300 also enables the 80SJARB application.

Option JNB01 Option JNB01 consists of a keycode to enable the 80SJNB01 Advanced application software.

Option JNB01 enables the 80SJNB Advanced software application for DSA8300 instruments. This application software offers a complete analysis of jitter, noise, and BER, with decomposition of components for a clear understanding of a signal's problems and margins. In addition, the 80SJNB Advanced option adds features to the 80SJNB Essentials software for serial data link analysis, including fixture de-embedding, channel emulation, FFE/DFE equalization, and pre-emphasis/de-emphasis. Installing this option on a DSA8300 also enables the 80SJARB application.

- **Option 400G-M4** Option 400G-M4 consists of a keycode to enable the 400G-M4 4-channel Transmitter and Dispersion Eye Closure Quaternary (TDECQ) analysis PC software to connect to the DSA8300 instrument.
 - **Option HDD8** Option HDD8 is a hard drive assembly to replace the existing DSA8300 hard drive. The drive includes the latest in-production instrument operating system and application software. The hard drive capacity will be equal to or greater than the drive that shipped with the product.

Installing jitter application software

- **1.** Power on the instrument and wait until the DSA8300 TekScope application is running.
- 2. Insert the *DSA8300 Digital Serial Analyzer Jitter Analysis Software* CD into the instrument media drive. The instrument opens the installation tool.
- **3.** Click on the software to install (**80SJNB** or **80SJARB**). Follow on-screen instructions to complete the installation.
- **4.** Enable the option functionality (for purchased options). (See page 3, *Enabling a software option*.)

Enabling a software option

- 1. Power on the instrument and wait until the DSA8300 TekScope application is running.
- 2. Click Utilities > Option Installation.
- 3. Click Continue.
- 4. Enter the option installation key and click Continue.
- 5. Click **Restart Now** to restart the instrument. The instrument must be restarted to enable the option.
- 6. Click Utilities > Option Installation and check that the option is listed in the Enabled Options pane.

Installing option HDD8

NOTE. Save any user-generated files, that you want to copy to the new drive, onto a network drive or memory device (USB memory device) before removing the drive from the instrument

- 1. Power off the instrument.
- **2.** Connect the instrument grounding strap to the front panel, and wear the grounding strap on your wrist.
- **3.** Loosen the two thumbscrews holding the hard disk drive (HDD) assembly (located at the upper-left corner of the back of the instrument).
- 4. Pull the HDD assembly from the instrument. Refer to your company or organization requirements for moving, storing, or disposing of the old drive.
- **5.** Insert the new HDD8 drive in the instrument. Make sure that the assembly is fully seated in the instrument.
- 6. Tighten the thumbscrews.
- 7. Power on the instrument. Verify that instrument passes power-up diagnostics.

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