

Codonics Virtua

Virtua-2 Optical Drive Replacement

Technical Brief

Overview

This document describes the procedure for replacing an optical drive on a Codonics® Virtua® Medical Disc Publisher, Virtua-2 model. A Virtua-2 can be identified by the model number on the manufacturer's label or a Recorder serial number beginning with 81C, 81R, 82C or 83C. This spare part is not compatible with the Virtua-1 model.

The following items are included in the Virtua-2 optical drive spare part kit (SP-00329):

- ◆ 2 Optical drives (SATA)
- ◆ 12 Torx M-3 screws
- ◆ 4 washers
- ◆ USB cable
- ◆ Operating Software Disc
- ◆ Accessories and Manuals Disc

NOTE: Optical drives are modified to be compatible with the Virtua Recorder. Do not replace with standard consumer SATA optical drives.

Codonics recommends replacing both optical drives. If only one is replaced, make sure to store the unused optical drive flat and not expose it to extreme temperatures. The screws and washers are provided as spares and can be discarded if not used.

The following tools are required to complete these service instructions:

For Serial Numbers 81C, 81R, or 82C

- ◆ T10 Torx driver (torque driver recommended)
- ◆ Felt-tip pen

For Serial Number 83C

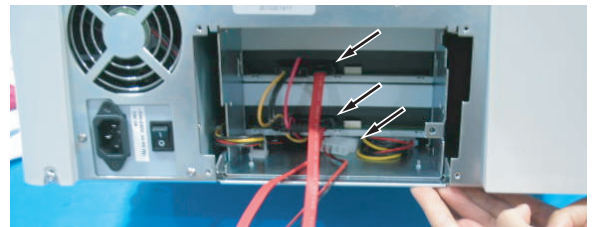
- ◆ #2 Phillips driver

System Preparation

1. If Virtua is not already shut down, make sure all job processing is complete. Then perform a soft shutdown by pressing the System power button for about a second or logout and shutdown using the touch screen.
2. Wait for the System status light to turn off and switch off the power supply switches on the rear of the System and disconnect the power cords.
3. Remove any discs and store them in a disc holder.
4. Disconnect the eSATA cables and the USB cable from the Recorder. Lift the Recorder from the Controller and place on a work surface to proceed with replacing the optical drives.

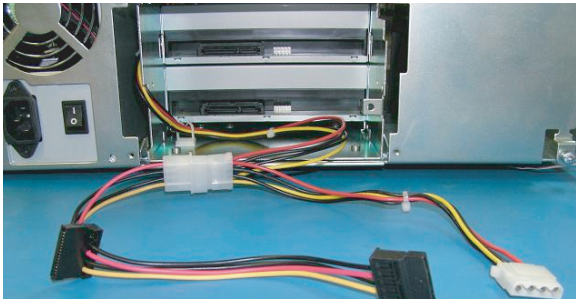
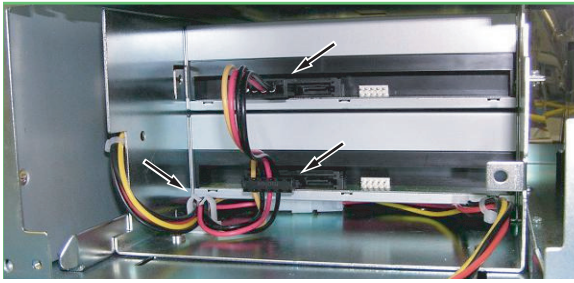
Drive Replacement 81C, 81R, or 82C

1. Use the Torx driver to remove the four screws securing the drive-bay fan assembly. Unplug the SATA cables from the optical drives and unplug the power connector that is plugged into the fan, if equipped.

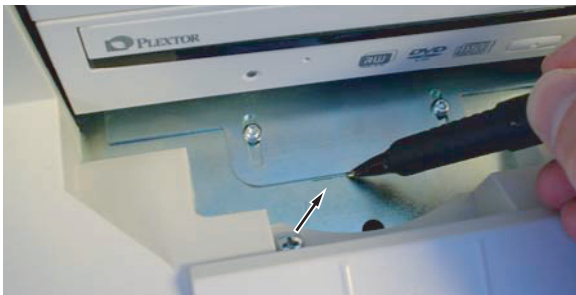


NOTE: The clip on the SATA connector must be pressed to release the connector from the optical drive.

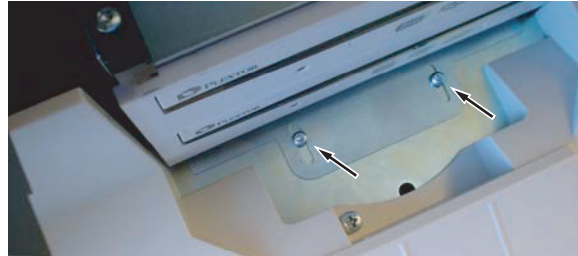
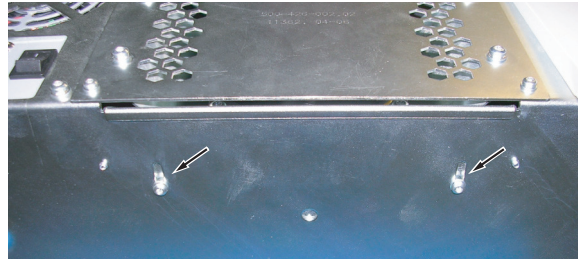
2. Unplug the SATA power converter cable from the optical drives. Pull power cables out of the cable guide.



3. Mark the location of the drive bay bracket on the chassis using a felt-tip pen at the front of the Recorder as shown.

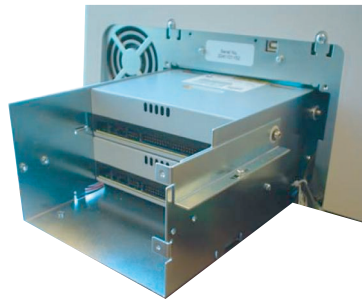


4. Remove the two screws and washers securing the back of the drive bay from the underside of the Recorder. Use the Torx driver to remove the two screws and washers securing the drive bay at the front of the Recorder.



NOTE: The two screws securing the front of the drive bay bracket are shorter than the other screws. Set these aside for re-use in securing the front of the drive bay bracket or replace with the screws provided.

5. Move the power connectors to the side and slide the drive bay out of the Recorder.



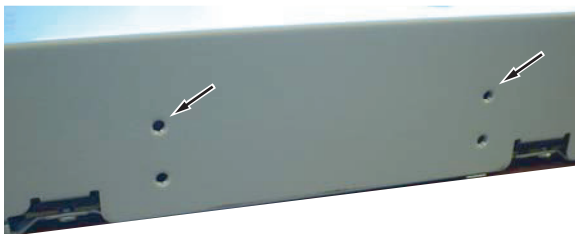
NOTE: Use care when removing the drive bay, the power supply cables are easily pinched.

6. Use the Torx driver to remove the four screws holding each optical drive.

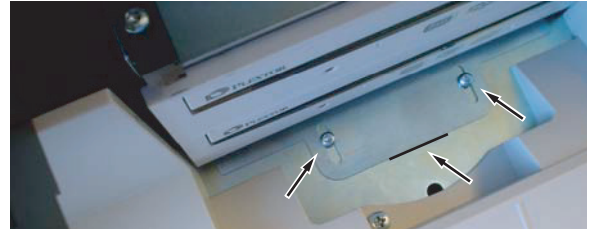


NOTE: Do not remove the two screws holding the two top optical drive mounting brackets. If the top drive needs to be adjusted for calibration, loosen the two screws holding the two top optical drive mounting brackets. Adjust position and tighten screws to approximately 6 in-lbs (0.68 Nm).

7. Install one of the new optical drives into the bottom location of the bracket and loosely secure with the screws. The screws should fasten to the upper row of threaded holes on the optical drive. Then insert the second new optical drive into the upper location of the bracket. Use the Torx driver to torque all eight screws securing the optical drives to approximately 6 in-lbs (0.68 Nm).

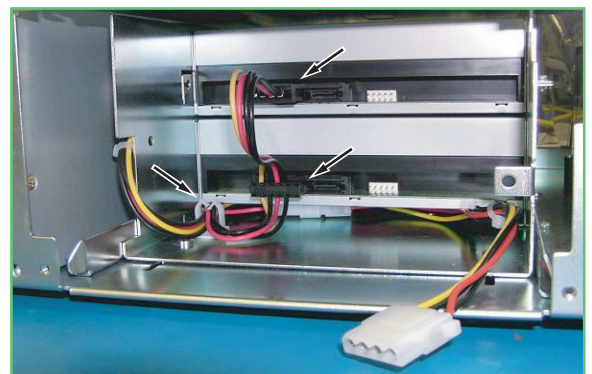


8. Reinstall the drive bay. Align the drive bay bracket to the mark made in step 3. Using the two short screws and two washers, secure the front of the drive bay. Use the Torx driver to torque both screws to approximately 6 in-lbs (0.68 Nm).

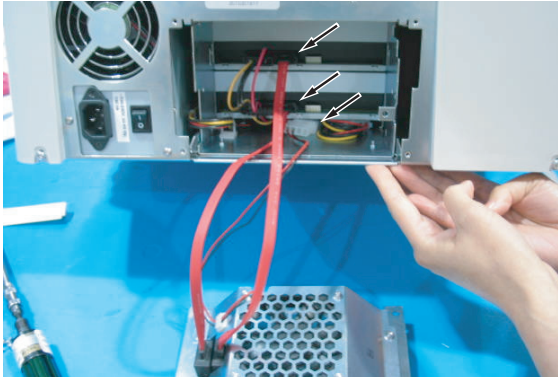


NOTE: Be sure not to damage the metal fingers at the top of the Recorder drive bay when reinstalling. Slightly push up on the metal fingers as the drive bay is guided into position. Use the short screws from step 4 to secure the front of the drive bay.

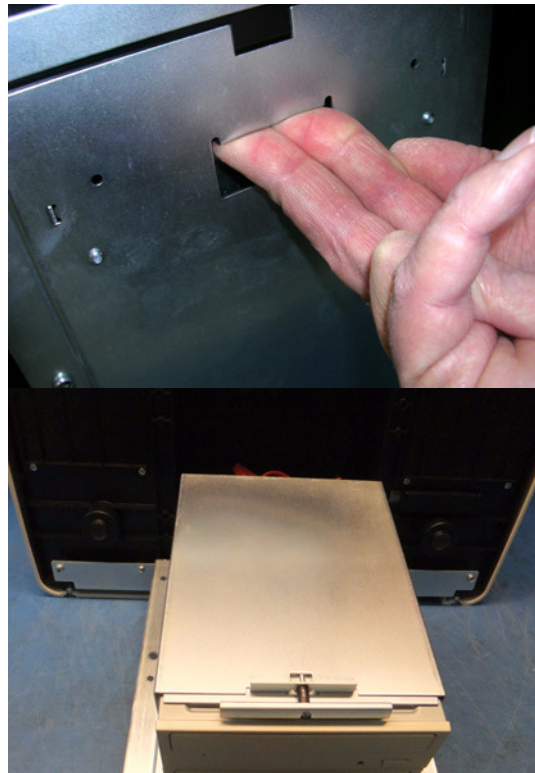
9. Using two of the screws and remaining two washers, secure the back of the drive bay from underneath the Recorder. Use the Torx driver to install the screws but do not tighten so the drive bay position can be adjusted during calibration.
10. Make sure the optical drive power cable is correctly routed along the bottom of the chassis with no wires trapped underneath the drive bay bracket. Insert the drive power cable into the cable guide. Connect the SATA power converter cable to the optical drives as shown with the end of the converter/power cable connected to the top optical drive. Tuck the converter/power cable connection under the lower optical drive and leave the remaining optical drive power connector available to provide drive-bay fan power, if equipped.



11. From the fan assembly, plug the SATA cable that is closest to the center of the Recorder into the upper optical drive. Plug the remaining SATA cable into the lower optical drive. Plug the drive bay fan into the remaining drive power connector in the bay. Use the Torx driver to secure the fan assembly with four screws. Torque the screws to approximately 6 in-lbs (0.68 Nm).

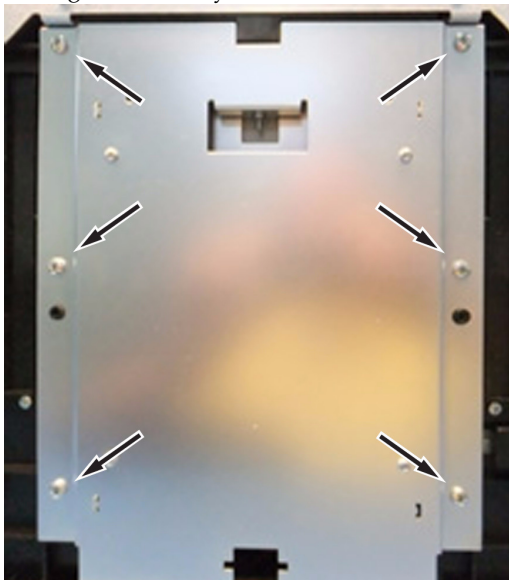


2. Grasp the top slot, lift up slightly and pull down the drive bay.

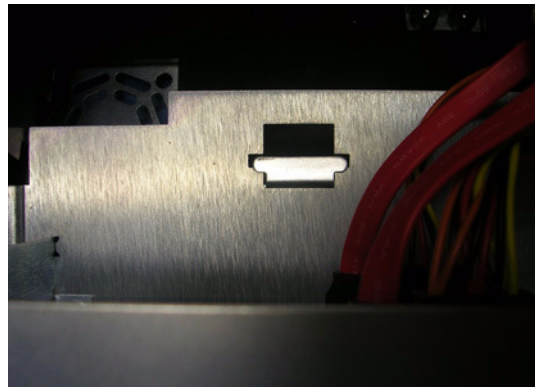


Drive Replacement 83C

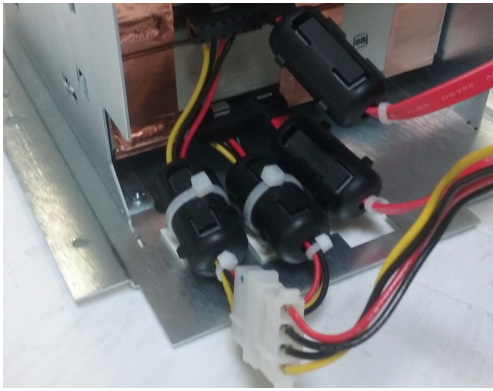
1. Lay the Recorder on its back with the bottom showing and using the #2 Phillips driver remove the six screws holding the drive bay.



3. Remove the drive bay from the Recorder by aligning the holding tab with the slot on the drive bay.



4. Disconnect the SATA Power and SATA cables from the CD/DVD drives.



5. Remove the SATA power cable from the power supply. If SATA power cables are being replaced, remove the ferrites from the cable. Place them on the new SATA power cable.
6. Using a T10 Screwdriver, remove the four optical drive retaining screws on the top drive and remove it. Insert the new drive and align front edge with front edge of the bottom drive. Replace screws and tighten to 6 in-lbs.



7. Replace bottom drive using same alignment method described in the previous step.
8. Connect the SATA Power cables to the CD/DVD drives and Power Supply. Connect the SATA cables making sure that SATA 1 is connected to the bottom drive.



9. Secure SATA power cable ferrites to the floor of the drive bay as shown in the preceding image. Refer to Technical Brief 901-612-002 for SATA power cable tie down details.
10. Carefully fold the cables into the Recorder and align the slot on the drive bay with the tab on the Recorder chassis. Lift the drive bay into the Recorder and replace the 6 screws removed in Step 1.
11. During the drive position calibration, the two screws shown in the picture below are used to move the drives to center the disc front to back on the drives door.



Calibration

NOTE: Prior to starting calibration, the Recorder must be reconnected to the Controller and version 4.1.0 Operating Software or higher must be loaded.

The Recorder now needs to be calibrated. For detailed instructions, please refer to the Virtua Recorder Calibration Technical Brief.

For 81C, 81R, or 82C, reference step 6 in the **Drive Replacement, 81C, 81R, or 82C** section for adjusting the position of the top optical drive.

For 83C, reference step 10 in the **Drive Replacement 83C** section for adjusting the position of the top and bottom optical drive.

Technical Support

If problems occur during installation, contact Codonics Technical Support between the hours of 8:30AM and 5:30PM EST (weekends and U.S. holidays excluded).

Phone: +1.440.243.1198

Email: support@codonics.com

Website: www.codonics.com

Get it all with just one call
800.444.1198

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