Document Number:	CS026
Revision Date:	1/7/2021
Updated By:	KS
Title:	DCE SD Card Reader Upgrade

Caution – Use standard electrical safety and ESD procedures at all times.

Please make certain the unit is unplugged from the AC wall outlet before proceeding with these instructions.

Table of Contents

1. Scope

1.1. This document describes how to upgrade a DCE with either a Zip Drive or previous version SD card reader(Red circuit board) already installed. If DCE has previous model SD card reader installed, an update to the main board software must be performed prior to use. Please note the unit will not function with existing SD card reader software.

2. Responsibilities

2.1. Customer service members will update this document and be able to cover this document with customers as needed.

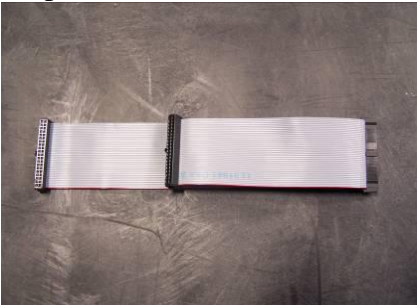# 3. Definitions

3.1. Daughter board
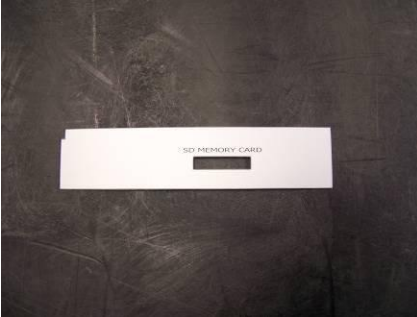

3.2. Card reader

3.3. SD card

3.4. SATA to IDE Adapter w/power cable extender (**will not be required if using an IDE model hard drive**)

3.5. 40-pin ribbon cable

3.6. SD MEMORY CARD Overlay

3.7. (8) 4-40 Screws
3.8. (1) Zip tie

4. Process

4.1. Remove Zip Drive or previous version SD Card reader
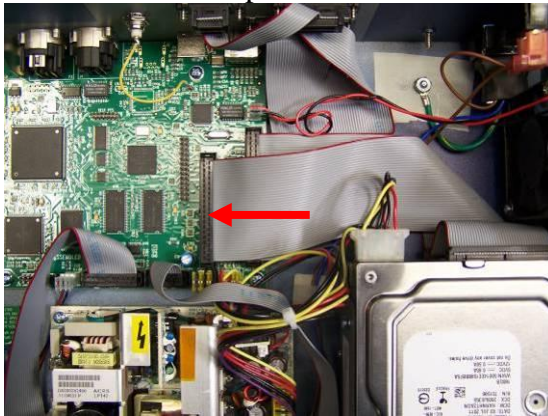
4.1.1. Unplug AC power cable from unit.

4.1.2. Remove the three black screws securing the top cover from the rear of the unit.

4.1.3. Remove the top cover.

4.1.4. Disconnect the 40-pin ribbon cable from the DCE main board.

4.1.5. Disconnect the power cable from the hard drive and Zip drive. (Or SD card reader if equipped, see fig. B) Note: If DCE unit currently has previous version SD card reader installed, remove and discard power adapter (4-pin Molex female to male), if it exists (it may not be in unit).
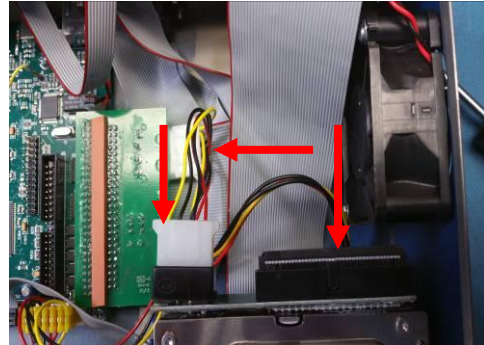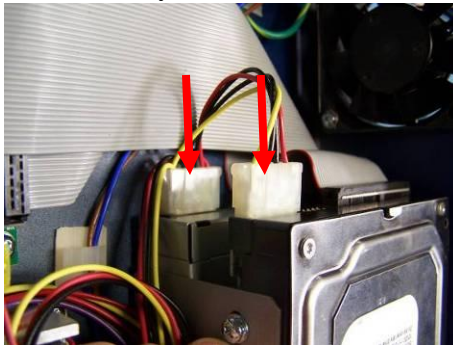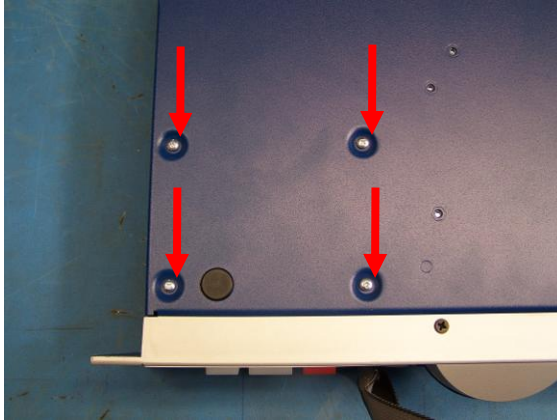

fig.B

4.1.6. While holding drive assembly with one hand, remove the four 6/32 screws securing the drive assembly from the bottom of the unit and discard.

4.1.7. Remove the drive assembly from the unit.

4.1.8. Disconnect the ribbon cable from the drives and discard.

4.1.9. Remove the four screws securing the Zip drive or SD card reader, if previously installed, and set aside.

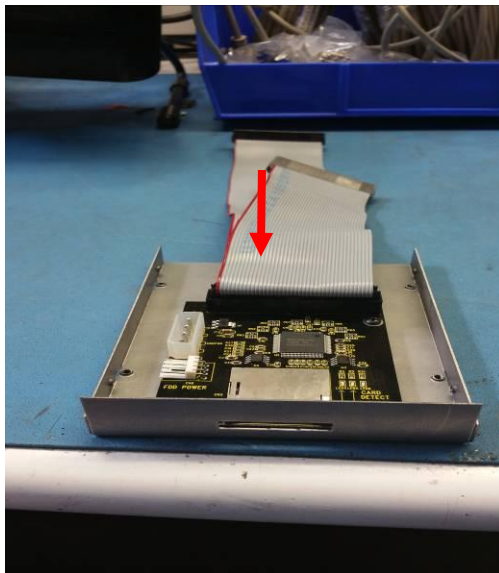4.1.10. Remove Zip drive or SD card reader from the drive assembly.

4.1.11. Remove the Zip drive bezel from the front panel. The bezel is secured to the front panel with adhesive tape. Carefully push outward on the bezel from inside the unit, and remove.

4.1.12. Using a fingernail or flat blade screwdriver as a scraper, remove any adhesive residue from the front panel.
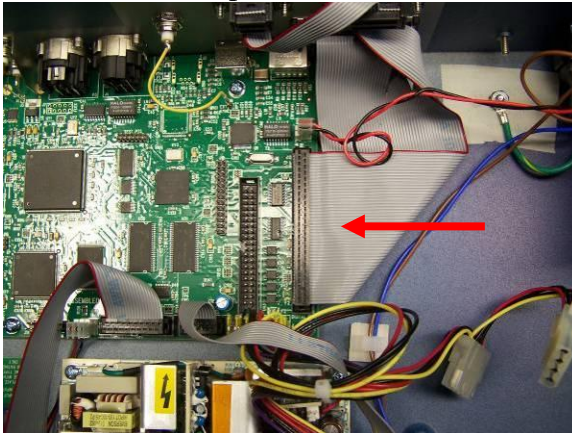
4.2. Upgrade System Software

4.2.1. Connect center connector of new ribbon cable to card reader. This step should be already completed from 360 Systems.
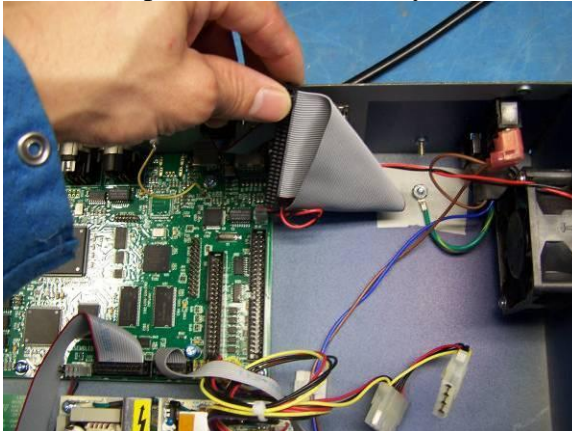
4.2.2. Insert SD card containing DCE software into card reader slot.

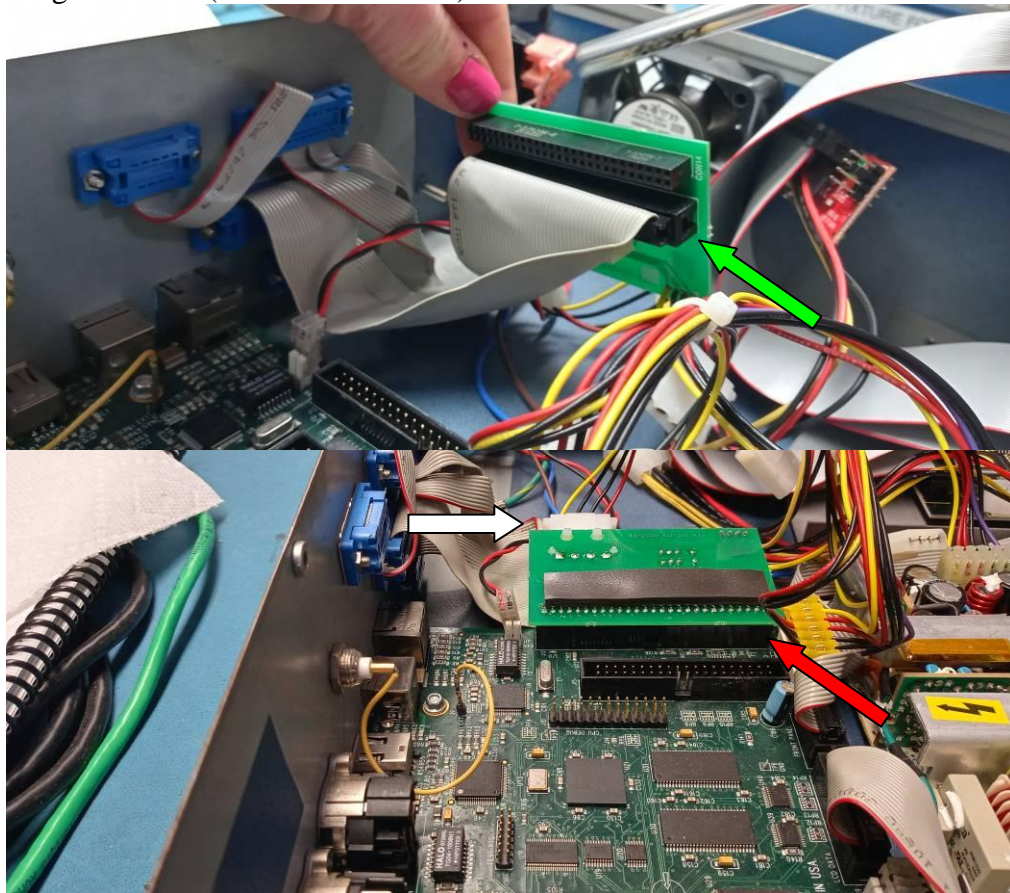4.2.3. Disconnect 50-pin ribbon cable from DCE main board.

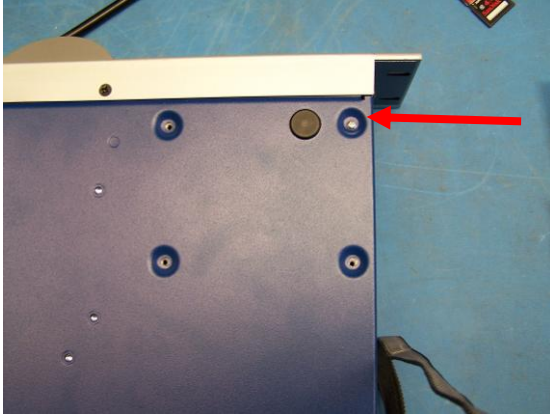4.2.4. Fold 50-pin ribbon cable away from the DCE main board.

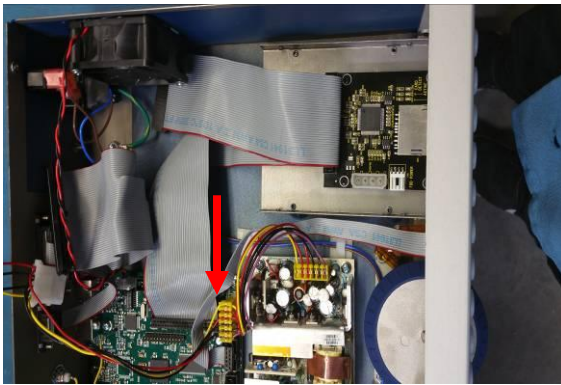4.2.5. Set SD card reader (without the hard drive) inside unit.

4.2.6. Connect 50-pin ribbon cable to bottom of daughter board (green arrow below) and insert daughter board into 50-pin slot on main board (red arrow below). Connect last 4-pin Molex connector from the main DC power cable into the back of the daughter board (white arrow below).

4.2.7. Install one of the provided 4-40 screws through the bottom of the unit to temporarily prevent the SD card reader from moving during the software update process.
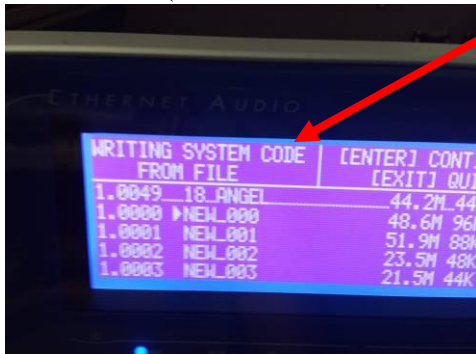

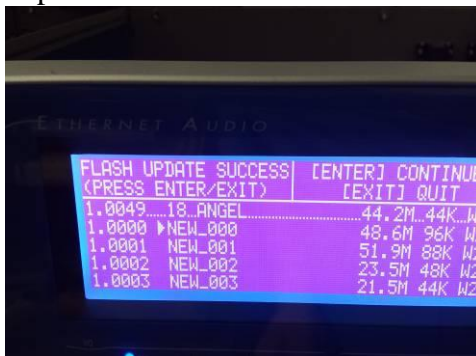4.2.8. Connect 40-pin ribbon cable from SD card reader to DCE main board.

4.2.9. Install top cover and secure with the three black screws removed in step 4.1.2. DO NOT ATTEMPT TO APPLY AC POWER WITHOUT TOP COVER PROPERLY SECURED! SERIOUS INJURY MAY RESULT!

4.2.10. Connect AC power cable and power on unit.

4.2.11. Press HOT KEY 1 while holding UTILITY button.

4.2.12. Press ENTER at prompt to update software. It will then begin to write new software. (WRITING SYSTEM CODE)

4.2.13. Allow the software update to complete, then power off unit and unplug the AC power cable.
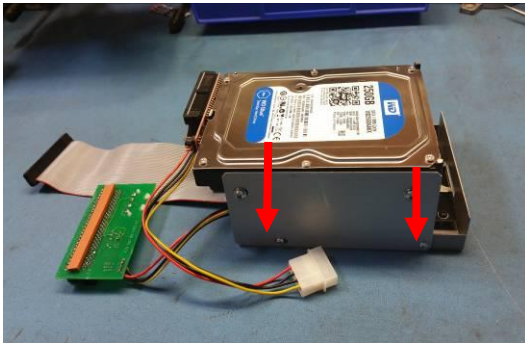

4.3. Remove SD card reader

4.3.1. Remove the three black screws securing the top cover from the rear of the unit.

4.3.2. Remove the top cover.

4.3.3. Disconnect the 40-pin ribbon cable from the DCE main board.

4.3.4. Disconnect daughter board from main board.

4.3.5. Disconnect 50-pin connector from daughter board.

4.3.6. Disconnect the Molex power cable from SD card reader.

4.3.7. Remove the screw securing the SD card reader installed in step 4.2.7.

4.3.8. Remove the SD card reader/daughter board assembly from the unit.

4.3.9. Remove the SD card containing the DCE software.

4.4. Final Installation

    4.4.1. Mount SD card reader/relay board assembly to hard drive assembly using four of the provided screws.

    4.4.2. Connect 40-pin ribbon cable to hard drive if console is using IDE model hard drive, (Fig. A). If using a SATA model hard drive, use SATA to IDE adapter that is supplied in kit, (Fig. B). Adapter should already be set to SLAVE, if not, do so. **If using a zip drive or older (red) SD card reader, set the jumper on the SATA to IDE adapter to MASTER.**

    4.4.3. **If using a IDE hard drive, set the jumper on the IDE drive to SLAVE.**
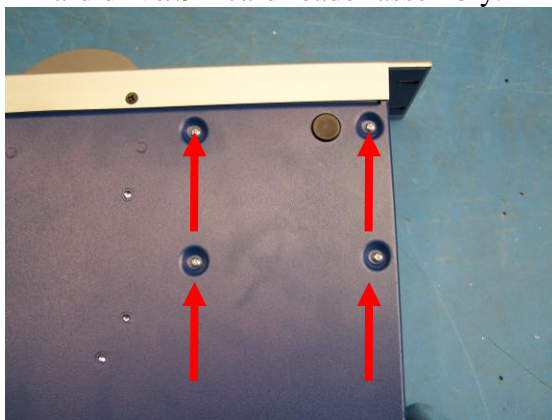

Fig. A   Fig. B

    4.4.4. Remove adhesive backing and install SD MEMORY CARD overlay onto front panel of unit. If your unit was previously equipped with an SD card reader unit then discard old overlay and install the new one provided in the kit.
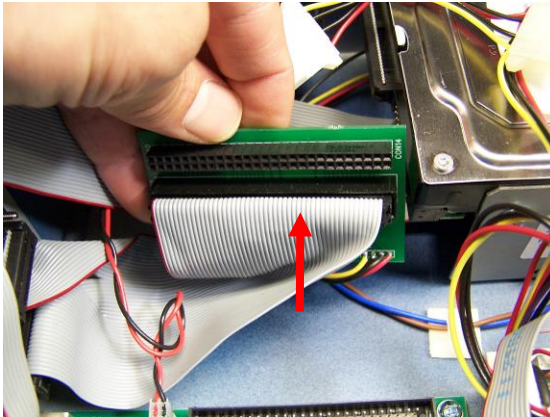
4.4.5. Place hard drive/SD card reader assembly into unit, taking care to carefully align the SD card reader slot with the slot in the overlay.
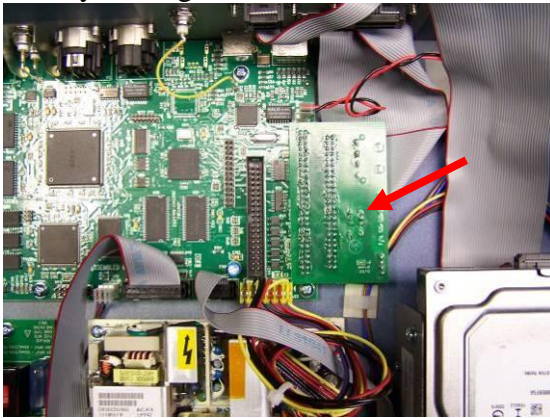

4.4.6. Install four of the provided screws through the bottom of the unit to secure the hard drive/SD card reader assembly.
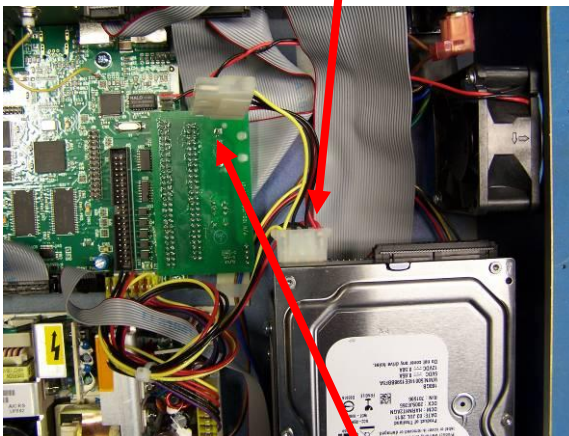

4.4.7. Connect the 50-pin ribbon cable to the daughter board.

4.4.8.   Plug the daughter board into the 50-pin header on the DCE main board. Ensure the 50-pin ribbon cable is not bunched up under the relay board preventing it from fully seating.

4.4.9.   Note: This step pertains to DCE units containing IDE type hard drive.
Plug the 4-pin Molex DC power cable into the hard drive. Plug the ~4" Molex 4-pin connector into the daughter board.
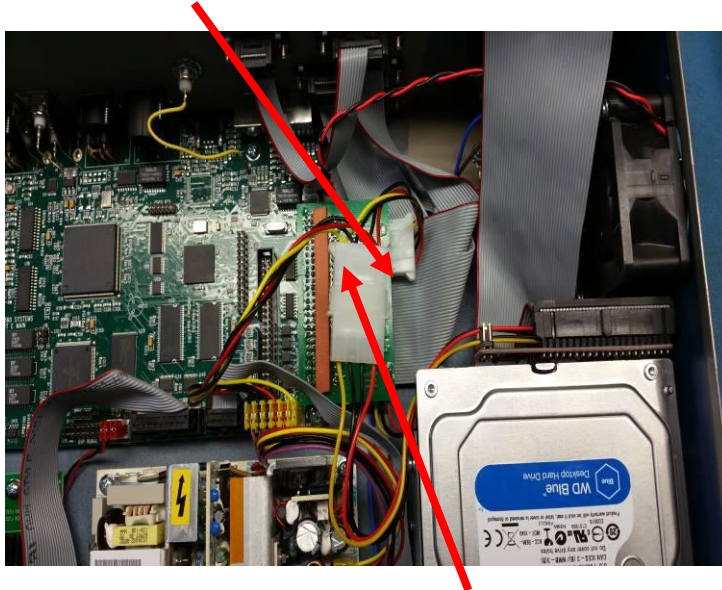

IDE model hard drive shown with 4-pin Molex connector

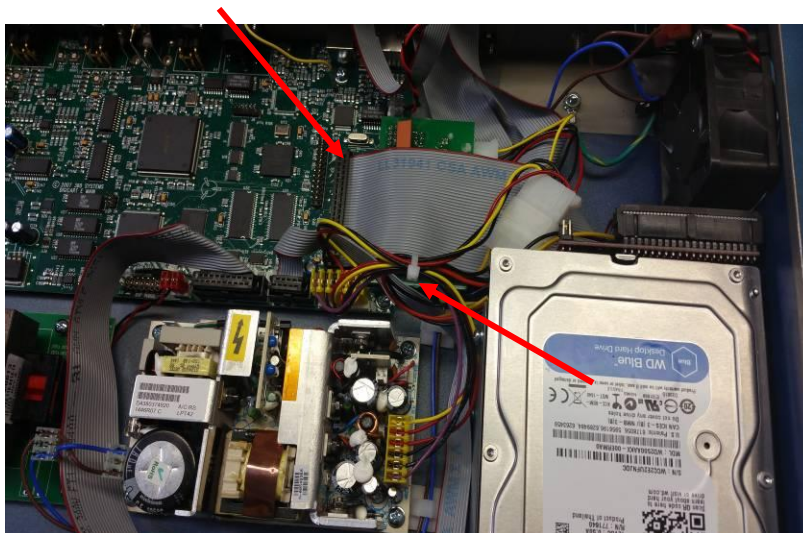Plug the ~4" Molex 4-pin connector into the daughter board.

4.4.10. Note: This step pertains to DCE units containing SATA type hard drive. Plug 4-pin Molex extender cable from IDE to SATA adapter, into the 4-pin Molex connector located on the DCE main board power cable assembly.

SATA model hard drive shown with 4-pin Molex connector attached.

Plug the ~4" Molex 4-pin connector into the daughter board.

4.4.11 Plug the 40-pin ribbon cable into the DCE main board and bind cables using the supplied zip tie referenced in (3.8) to complete SD Upgrade.

4.4.12 Install the top cover.
4.4.13 Install three black screws securing top cover.

5   Normative References

5.4   None

6   Revision History

Date	Brief Description of Change
9/3/2015	Initial Release