TECHNICAL BULLETIN

Date: 11/09/01
Subject: Intellex 1.x DAT Tape Drive Upgrade Technical Bulletin No.TB_110701

DESCRIPTION

The Intellex 1.x was shipped with a DDS2 or DDS3 DAT drive as an optional archive media. The current Intellex (2.x) ship with a DDS4 DAT option. The older versions of the DAT drive are lower capacity, lower reliability and though they are still available from the supplier it is expected that they will soon become obsolete.

In order to address all of these issues, when a DDS2 or 3 fails or needs to be replaced for some reason, a DDS4 drive can be installed. Below are the details of the parts required. There is no mandatory, or marketed upgrade program. This DAT upgrade is a Fit-On-Fail only.

When upgrading an Intellex 1.x to contain a DDS4 drive, the removed DAT drive should be returned to the GSLC via normal parts replacement/return process. For reference purposes, the part number for a DDS2/3 DAT drive is 2025-6039-01.

Identification:

A DDS4 DAT drive can be differentiated from a DDS2 or 3 drive as follows:

- DDS4 contains air vent slots on the right and left side of the front panel.
- DDS2/3 do not have air vents on the front panel.

Compatibility:

A DDS4 drive can continue to use the same (lower capacity) tapes that were used by the DDS2/3 drives. This way a customer that has several Intellex 1.x units with a mix of DDS2/3 and DDS4 drives can continue to use the existing tapes in all units. If this is not an issue to the customer, they may also chose to use the higher capacity (20GB) DDS4 tapes, though these are NOT compatible with the DDS2/3 drives.

DAT Model	Capacity
DDS2	4GB
DDS3	12GB
DDS4	20GB

The Intellex 1.x should have software version 1.6 installed. Lower levels of software have not been validated with this conversion. Though these lower levels should also work, it is recommended that units with software below version 1.6 have the software upgraded prior to upgrading the DAT drive.

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Parts Needed:

Each DAT drive upgrade will require 1 each of the following parts. There is no 'kit' available to combine these into a single order number.

Part Number	Description	
6003-0161-01	SCSI-3 Cable	Existing Intellex 2.x Part
2025-6088-01	DDS4 DAT Drive	Existing Intellex 2.x Part
2025-0309-01	SCSI-3 Terminator, Internal	Existing Intellex 2.x Part
2025-0359-01	SCSI 68 to 50 pin adapter	New Part

Upgrade Instructions:

Following are the detailed instructions for upgrading the existing DDS2/3 drive in an Intellex 1.x to a DDS4 drive. These instructions assume that the Intellex is completely functional (with the possible exception of the DAT drive itself) prior to performing this upgrade.

Tools Required: ESD Strap
Philips Screwdriver

Estimated time:

Upgrade	Validation	Total
30 minutes	15 minutes	45 minutes

(Time does not include overhead or other repairs/upgrades)

CAUTION: ALL ESD PERCAUTIONS MUST BE FOLLOWED.

Upgrade: (refer to illustrations below)
All directions (Right/Left) are when looking at the front of the unit.

1. Make sure customer has backed up all necessary data and configuration information.
2. Make sure customer understands that the unit will be down and not recording for the entire time of the upgrade.
3. Power down unit.
4. Disconnect AC power cord.
5. Remove top Intellex cover (2 screws on rear of unit).
6. Remove old DAT drive.
   A. Remove upper Disk Drive(s) by lifting rear of drive and slide back. Do not remove cables, simply set drive(s) aside. Make note of each disk location.
   B. Remove screw from Upper Disk Support Bracket, on left of support bracket.
   C. Remove Upper Disk Support Bracket by lifting on left side and remove from hinge slots on right side.
   D. Remove lower Disk Drive(s), if any, by lifting off of locating pins. Do not remove cables, simply set drive(s) aside. Make note of each disk location.
   E. Remove Lower Disk Support Bracket by lifting on left side and removing from hinge slots on right side.
   F. Lift rear of old DAT drive and slide out toward rear.
   G. Remove old SCSI cable from DAT drive.
   H. Remove old SCSI cable from Motherboard.
   I. Remove DC power cable from DAT drive.
7. Insert the internal SCSI adapter into the 50-pin SCSI socket, note Pin 1 location.
8. Insert the SCSI cable onto the SCSI adapter, note Pin 1 location (red strip on cable).
9. Insert the middle connector of the SCSI cable into the new DAT drive, note Pin 1 location (red strip on cable).

10. Insert the Internal SCSI Terminator to the end of the SCSI Cable.
11. Plug in DC power connector to the DAT Drive.
12. Insert new DDS4 DAT drive.
    A. Insert new DAT drive through front panel and onto the bottom locating pins.
    B. Install Lower Disk Support Bracket, reverse of step #6E.
    C. Install lower Disk Drive(s) removed, if any, in step #6D.
    D. Install Upper Disk Support Bracket, reverse of step #6C.
    E. Install & tighten Upper Disk Support Bracket mounting screw removed in step #6B.
    F. Install upper Disk Drive(s) removed in step #6A.
13. Perform visual inspection to verify all cables are properly installed and secure.
14. Install and secure Top Cover removed in step #5.
15. Power up unit.

Verification:

1. Have a DDS tape available for use, existing data on the tape will be over-written.
2. Make sure Intellex is powered up and operational.
3. Archive images to DAT drive, wait for about 10 minutes then stop the image back-up.
4. Restore Archived images from DAT tape.
5. Play back the images.
6. If restored images are restored and can be played back, then the installation was successful.

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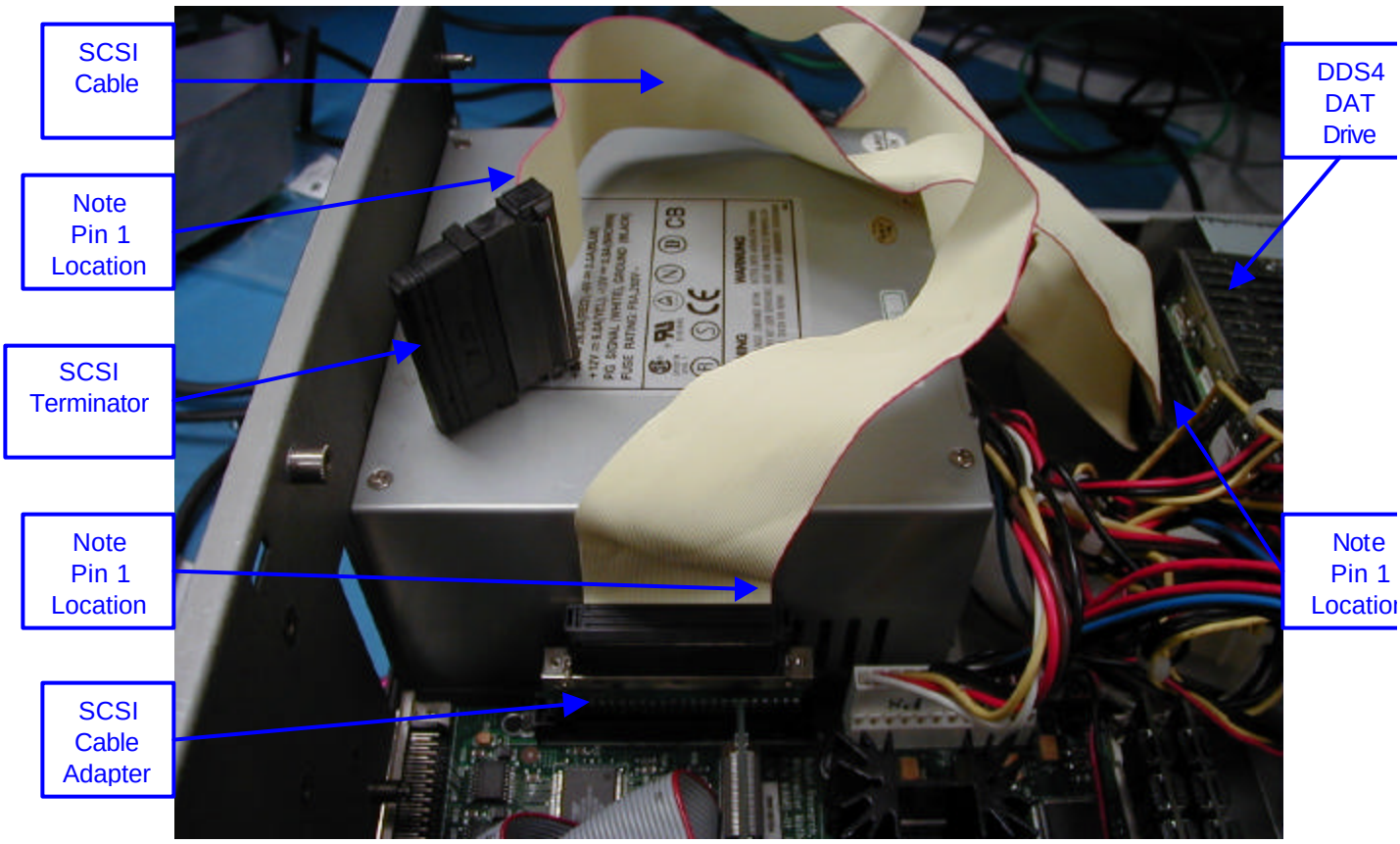
Internal Cable Connections from Motherboard to DDS4 DAT Drive



(NOTE: The above illustration does NOT show the drive and cable in final installed and routed location.)

Internal Cable Connection to DDS4 DAT Drive