



# Integration Guide

## ZDF-1 Disk/Tape Controller

ZDF-1 Disk/Tape Controller has been verified by Engineering for use in the following disk and tape drives and Data General CPU's.

### SECTION A: Data General Processors

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#### OPERATING SYSTEMS\* & DRIVERS

CPU	Bus	Disk Drivers**	Tape: 6021/MTX	6125/MTA
NOVA 4	DCH	RDOS	RDOS	N/A
S/120	DCH	RDOS & AOS	RDOS	AOS
S/140	DCH	RDOS & AOS	RDOS	AOS
S/280	DCH	RDOS & AOS	RDOS	AOS

\* Operating Systems = RDOS (6.0 to 7.5) and AOS (6.0 to 7.5)

\*\* Disk Drivers = 6060, 6061, 6067, 6160, 6161, 6122, 6214

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### ZDF-1 FEATURES SUMMARY

\*\* Requires an "I/O ONLY" slot in the chassis.

\*\* Both FCC & Non-FCC cabling styles are off the backplane.

DISK: \* Supports Data Transfer Rates & Formats: 1.2 MB/sec (10 Mhz) = ZETA 1 and compatibles 1.8 to 2 MB/sec (16 Mhz) = ZETA 3

TAPE: \* Supports Data Transfer Rates up to 1 MB/sec.

\* Supports tri-density tape drives when density selection is made from the tape drive.

## SECTION B: Verified Drives

LEGEND: SS = Start/Stop  
 S = Streamer  
 SS/S = Start/Stop & Streamer

### Tape Drives

Drive Model	800 bpi (NRZI)			1600 bpi (PE)			6250 bpi (GCR)		
	TYPE	IPS	KB/sec	TYPE	IPS	KB/sec	TYPE	IPS	KB/sec
Cipher F880				S	100	160			
CDC 92185-01				S	75	120	S	75	469
Fujitsu 2444				S	75	120	S	75	469
Kennedy 9400	SS	75	60	SS	75	120	SS	45	281
Kennedy 9600	S	100	80	S	100	160			
STC 2921				SS	50	80	SS	50	312
Telex 9251	SS	50	80	SS	50	80	SS	50	312

### Disk Drives

Disk Drive Model	Xfer Rate MB/sec	Un- formatted Capacity	FORMATTED CAPACITY		
			RDOS Below Rev. 7.0	RDOS, Rev. 7.0 & Above	AOS
CDC 9710 ASD	12	82	67	73	73
CDC 9715-160 FSD	12	165	134	147	147
CDC 9720-368 Sabre	18	368	149/149	324	147
CDC 9771 XMD-I	18	825	268/268	360/360	147/147
Fujitsu 2351 Eagle	1.9	475	207/207	207/207	190/190

Drives not listed above may be submitted to ZETACOR for integration testing on a time-and-materials basis. Call the ZETACOR Sales Team for details on how.

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SECTION C: If you know of devices, other than those listed in Section B, that are running with ZDF-1, please write, telex or fax our Customer Support Group with the information so they can be added to this section.

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		Disk Drivers**	Tape: 6021/MTX	6125/MTA
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S/140	DCH	RDOS & AOS	RDOS	AOS
S/280	DCH	RDOS & AOS	RDOS	AOS

\* Operating Systems = RDOS (6.0 to 7.5) and AOS (6.0 to 7.5)

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### ZDF-1 FEATURES SUMMARY:

- \* Requires an "I/O ONLY" slot in the chassis.
- \* Both FCC & Non-FCC cabling styles are off the backplane.
- DISK: \* Supports Data Transfer Rates & Formats:  
1.2 MB/sec (10 Mhz) = ZETA 1 and compatibles  
1.8 to 2 MB/sec (16 Mhz) = ZETA 3
- TAPE: \* Supports Data Transfer Rates up to 1 MB/sec.  
\* Supports tri-density tape drives when density selection is made from the tape drive.

Sections B and C (Verified Drives) are on reverse side.

## SECTION B: VERIFIED DISK DRIVES

Disk Drive Model	Xfer Rate MB/sec	Unformatted Capacity	FORMATTED CAPACITY		AOS & AOS/VS
			RDOS below Rev. 7.0	RDOS, Rev 7.0 & above	
Century Data AMS 571	2.0	615	267/267	534	190/190
CDC 9710 RSD	1.2	82	67	73	73
CDC 9715-160 FSD	1.2	165	134	147	147
CDC 9715-340 FSD	1.2	344	279	305	277
CDC 9715-500 FSD	1.8	516	227/227	454	277 or 190/190
CDC 9720 EMD-I	1.8	368	149/149	324	277
CDC 9720 EMD-III	1.8	738	320/320	640	277/277 or 602**
CDC 9771 XMD-I	1.8	825	268/268	360/360	277/277/73 or 602**
Fujitsu 2351 Eagle	1.9	475	207/207	207/207	277 or 190/190
Fujitsu 2333*	2.5	337	134/134	147/147	277 or 147/147
Fujitsu 2344*	2.5	690	276/276	602 or 301/301	277/277 or 602**
Fujitsu 2361 EagleXP*	2.5	690	275/275	602 or 301/301	277/277 or 602**

\* Zetaco recommends against interfacing these 20 Mhz drives on the Data Channel (DCH), because performance limitations will likely result (depending on the CPU.)

\*\* AOS/VS ONLY

## SECTION C: OTHER DISK DRIVES

Although the disk drives listed below have NOT been tested in Zetaco's labs and verified as operational with Zetaco controllers, they are successfully running within our Customer base.

Ancodyne 8160	Fujitsu M2280	NEC D2246	Pertec 199	Toshiba 182
7110	M2284	D2247	265	184
	M2294	D2257	332	186
Ampex 165	M2298	D2352		
330	M2311	D2268H		
	M2322	D2362		
Century Data T306	Kennedy 5380	Northern 8204	Priam 3450	
AMS 315	53160	82087	7050	
AMS 513	7340	Telcom 82107	803	
C2075	7380		804	
T82			806	
			807	
CDC 9762	Mega-vault 26	Tecstor 85	808	
9766	80	160	3350	
9775	132	165	6650	
9457	186	200	15450	
	212	300		

## ZETACO ZDF-1 DUAL FUNCTION DISK/TAPE CONTROLLER

Problem: Booting RDOS rev. 7.5 Build Tape

Solution: Replace EPROM on Tape side of controller

1. Locate the ZDF-1 controller in the computer chassis. Remove the controller board, noting the chassis slot number it occupies, and lay on a flat surface. Remove board cover by taking out four corner screws.
2. At location B5, the EPROM 2732/A is to be replaced with the new component 2732/A.
3. The components have been socketed for easy removal and insertion. Note the direction of the notch in the original component. Insert a small screwdriver between the component and socket, and gently lift the component up and out.
4. Remove the new component from its container. The component has a notch on one edge. Orient the notch in the same direction as the original component, which is towards the handle edge.
5. Insert the new component in its proper socket, making sure that the pins line up with the socket holes (the pins can become bent otherwise). Apply slight pressure until the component is properly seated, making sure that pins do not bend during insertion. Inspect for bent or out-of-socket pins. Reattach the board cover using the four screws.
6. Re-insert the controller into the proper chassis slot and apply slight pressure on the plastic handles until it is fully seated. Apply power - you are ready for re-use.