

The staff at Akai would like to thank you for buying the DD1500. Developed by the same team of engineers that developed the Akai DD1000, the world's first Magneto Optical Disk recorder/editor, we are confident that the DD1500 will be a sound investment, offering many years of reliable service and will be a product you can rely on in your daily work.

The DD1500 is a powerful multi-track digital audio recorder and editor. Being a dedicated system with no host computer required, its performance is optimised for recording, editing and syncing audio to picture and so offers ease of use and speed of operation with no prior knowledge of computers and/or hard disk digital recording required.

The system comprises three main units:

DD1500m This is the system's main signal processor and contains custom LSI developed especially for the DD1500m. All the timecode interfaces you are likely to require such as SMPTE, BI-PHASE, VITC, RS422, etc., are provided as standard as well as a variety of wordclock inputs and outputs allowing the DD1500 to be integrated into virtually any professional work environment. Two digital AES/EBU inputs and outputs are supplied as standard and optional digital I/O boards may also be installed in the DD1500m.

DD1500x This is the system's disk drive. This can house up to two Sony 1.3GByte Magneto Optical (MO) disk drives or an MO and a fixed hard disk. It connects to the DD1500m using SCSI.

DD1500a This unit allows you to add analogue inputs and outputs to the system as you require. Each unit may contain up to eight inputs and eight outputs and two units may be used with the system.

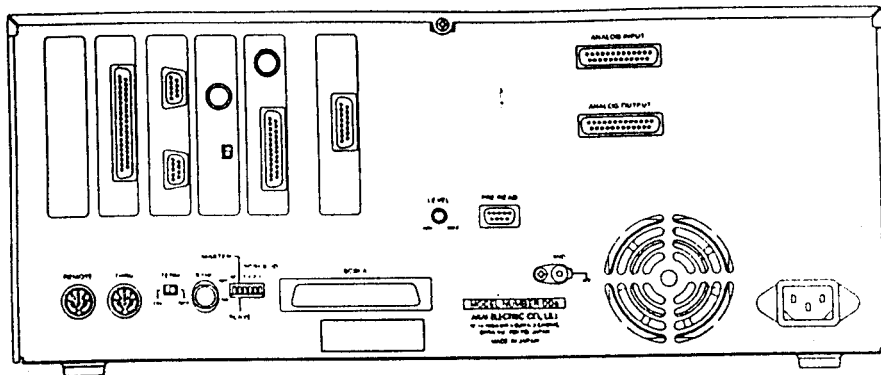
**DL1500**

This is the system's controller. It offers dedicated keys for most day-to-day functions making the system fast to learn and easy to use. Dedicated track select and transport keys and autolocator functions give it the feel of a normal MTR whilst sophisticated editing functions allow you to edit audio quickly and precisely. The specially designed jog wheel allows you to 'scrub' audio across all 16 tracks just like reel rocking ordinary tape and, using RS422 control of a VTR, you can jog audio and picture together.

The DL1500 also has a special custom LSI developed purely for generating the graphics you see on the external VGA monitor. Being optimised for the task, you will see that screen updating is exceptionally fast, offering smooth waveform scrolling and lightning fast zoom in and zoom out. At no time are you left sitting there waiting for the screen to update and waveforms to re-draw. A simple but effective colour scheme eliminates eye strain even in prolonged sessions. You will no doubt be pleased to know that the screen you see on the monitor is the only one you work in and there are no multiple, stacked 'windows' to confuse you and no separate record or edit modes to have to enter making operation fast and consistent.

**AKAI DD8 DIGITAL DUBBER**

REAR PANEL

**OPTION SLOTS**

There are six slots on the rear panel for installing option cards. The first four slots from the left hand side are for general purpose interface cards such as the IB-805R (RS422 interface) or the IB-806B (Biphase interface). The fifth slot is for a digital audio interface card such as the IB-D8TIF (TDIF interface), IB-D8MA (AES/EBU interface) or IB-804A (ADAT interface). The final slot is for the connector to the Tascam MU-8824 Meter Bridge (this is part of the IB-D8TIF option card).

There are two more slots available for installing the analog option cards IB-D8AD (8-channel analog input) and IB-D8DA (8-channel analog output).

REMOTE/THRU CONNECTORS

These connections are used for sync signals when multiple DD8s are connected together.

TERMINATOR SWITCH

This switch selects 75Ω termination for the SYNC connector for use with video sync signals.

SYNC CONNECTOR

This BNC can accept either TTL wordclock or video sync signals (such as 'black and burst' house sync signals) and is used to synchronise the DD8 to an external clock source.

SCSI-B ID SWITCHES

These DIP switches are for use when the optional IB-801S SCSI-B interface board is installed in the DD8. They are used to set the DD8's SCSI ID and control termination for the SCSI-B bus. (Note that this switch has no effect on the SCSI-A bus).

SCSI-A CONNECTOR

This 50-pin Amphenol connector is used to connect external SCSI drives to the DD8.

GROUND TERMINAL

This terminal is provided to allow you to earth the DD8 in the event of ground loops.

MAINS INPUT

Mains power is connected here.

PRE-READ LEVEL

This control is used to adjust the level of the oscillator signal that will be generated at the pre-read output connector.

PRE-READ CONNECTOR

This connector can be used to replace the 'pre-read' output generated by some dubbers that have a second playback head mounted before the main playback head. Note that the DD8 does not generate an audio signal here. Instead, it uses an oscillator which is switched on and off as the playback signal reaches a preset threshold.

- * • IB-D8TIF - 8-channel TDIF digital input/output board
25-pin D-sub (TASCAM DA-88 pin assignment) with BNC connector for Word Clock Out and 15-pin D-sub (TASCAM DA-88 pin assignment) for TASCAM MU-8824 Meter Bridge connection
- IB-D8MA - 8-channel AES/EBU digital input/output board
25-pin D-sub connector x 1
- IB-801S - SCSI-B interface board - occupies 2 expansion slot spaces
50-pin Amphenol connector x 2
- * • IB-802T - LTC interface board
1/4" phone connector x 2
- IB-803M - MIDI interface board
5-pin DIN connector x 3
- IB-804A - 8-channel ADAT optical digital input/output board
- IB-805R - RS422 interface board
9-pin D-sub connector x 1
- * • IB-806B - Biphase interface board
9-pin D-sub connector x 2
- * • IB-808G - GPIO parallel interface board
37-pin D-sub connector x 1
- * • IB-809E - AKAINET (Ethernet) interface board
BNC connector x 1 with 50-ohms terminator switch
- EQ8 - 8-channel EQ board
For the interchangeability of DR8/DR16/DD1500 disks
- EXM1508 - Expansion 8Mb memory board

Standard accessory

- Cable set for AD/DA boards and SCSI Drive connection: 1
- Power cable: 1
- Operator's manual: 1

*Restriction of board installation:
SCSI-B or AKAINET Interface,
TDIF, ADAT or Multi-AES/EBU interface

(0dBu = 0.775Vrms)

*** OPTIONS WE HAVE INSTALLED**

Digital Dubbers-Akai DD8

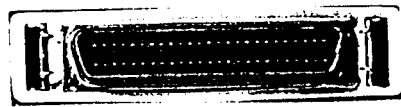
POINTS TO DISCUSS WITH CUSTOMERS DURING ORDERING

<u>Rear Connector</u>	<u>Cable Type Needed</u>	<u>Notes</u>
Analog In	DB 25 to user requirement	FXLR, TRS, ¼"
Analog Out	DB 25 to user requirement	MXLR, TRS, ¼"
TDIF Digital Interface	DB 25 to DB 25 w/BNC Attached	Use PW88D in Green- Ask about Length needed 6' OR 20'
SCSI A	SCSI 1 to user requirement (for external SCSI Devices)	Ask Customer what type HIS gear needs
Time Code IN	¼", to user requirement	¼", XLR, BNC, RCA
Time Code Out	¼", to user requirement	¼", XLR, BNC, RCA
Bi-Phase In	9 Pin to 9 Pin	Standard
Bi-Phase Out	9 Pin to 9 Pin	Standard
Remote Control DL-1500	BNC to BNC Coax	Special Cable

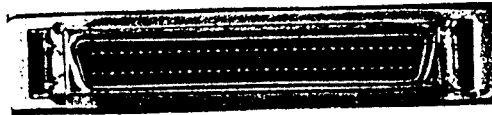
SCSI CABLE CONNECTORS



SCSI 1, 50 PIN



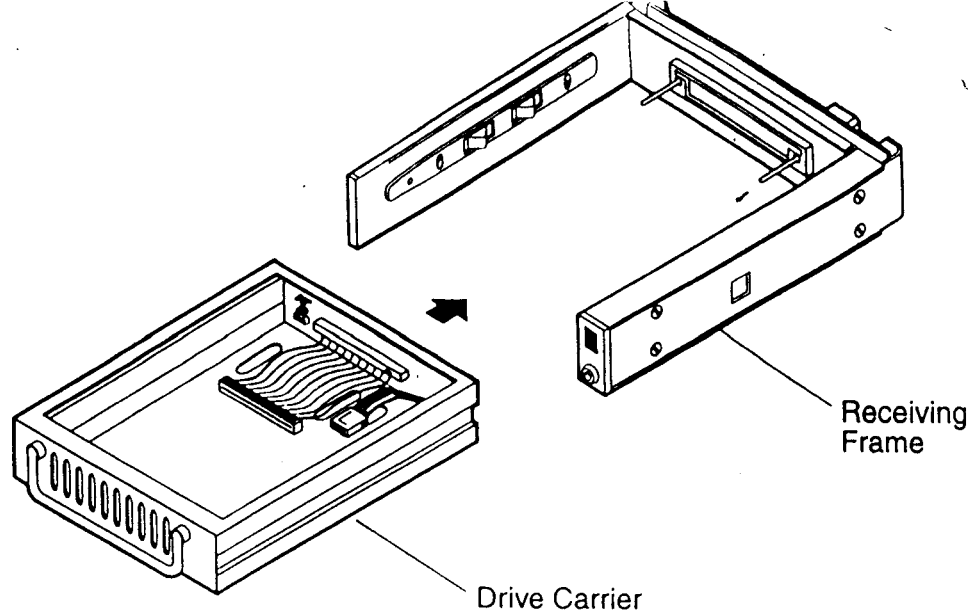
SCSI 2, 50 PIN



SCSI 3, 68 PIN

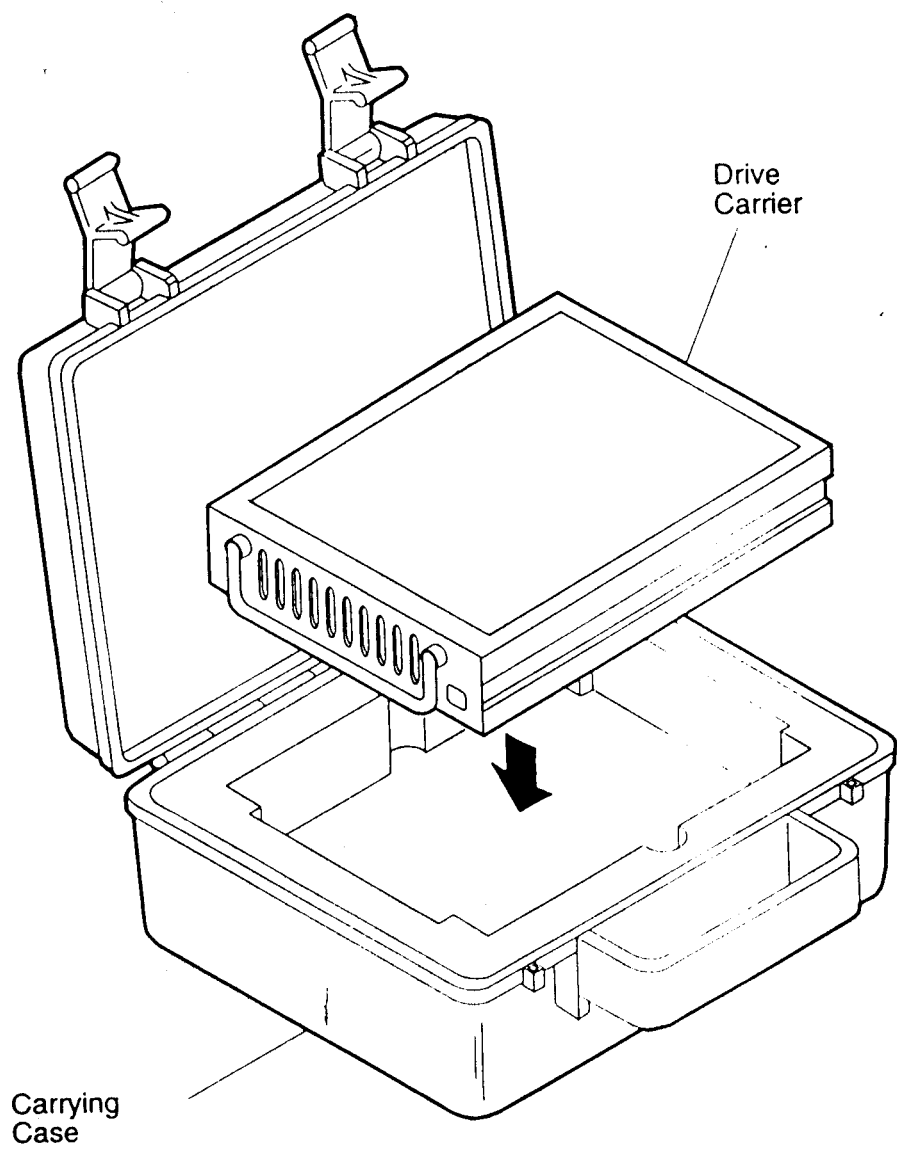


DB 25



Receiving Frame and Drive Carrier

Carrying Case



HARD DISK AVAILABLE RECORDING TIME

FROM AKAI MANUAL

DIRECTORY PAGE

The Directory page allows you to view all files on a selected disk. The default is to show Project files on the disks, but there are other files as well.

DIRECTORY			File Type: PROJECT	Disk : 0
Use DATA +/- to scroll			Project 1	Scene 5
			Effects	
Type	File	Disk	DELETE	EXIT

Pressing Type (F1) moves the cursor to the File Type field which allows you to select which type of file will be displayed.

Pressing File (F2) moves the cursor into the list of files and allows you to scroll through the list using the DATA +/- keys.

Pressing Disk (F3) moves the cursor to the Disk field which allows you to select the SCSI ID of the drive you wish to view.

Pressing DELETE (F5) deletes the Project selected by the cursor.

UTILITIES PAGE

Pressing UTILITIES on the LOAD PROJECT page will take you to the following screen.

UTILITIES	Disk : 0
Free on disk : 01:48:46:20.01	
Total capacity : 606Mb	
Disk used : 57Mb	
INFO	FORMAT
CLEAN	BACKUP
COPY	EXIT

Here you may perform certain disk utility routines. These are:

DISK INFO

Pressing INFO (F1) will display the following screen:

DISK INFO	Format: Normal		ID: 0
	total	used	available
MEDIA	622Mb	91Mb	530Mb
DATA	9Mb	0Mb	9Mb
AUDIO	612Mb	91Mb	521Mb
SONY	S00-F521-00	1.04	EXIT

This screen gives more information about the type and size of the disk, how much of the disk is used and how much is free. These values are expressed in Megabytes.

The only field accessible in this page is the ID field in the top right hand corner. Here, you may select to view other disks that may be connected to the system.

Tascam MMR-8 Owner's Manual • Appendix A • Control Panel Summary

SHIFT+3

Free time register

Digital Dubbers

Hard Drive Record Times (Referenced to Tascam MMR-8)
Hours shown are as displayed on MMR-8

4 Gig Drive

<u>Tracks in Record</u>	<u>Free time Available</u>
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None	12:23:21:03
1	12:23:21:03
2	06:11:40:16
3	04:07:47:01
4	03:05:50:08
5	02:28:40:06
6	02:03:53:15
7	01:46:11:17
8	01:32:55:04

9 Gig Drive

<u>Tracks in Record</u>	<u>Free time Available</u>
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None	01:33:10:35
1	01:33:10:35
2	12:46:35:02
3	08:31:03:11
4	06:23:17:16
5	05:06:38:01
6	04:15:31:20
7	03:39:01:13
8	03:11:38:23

Note: All of these numbers vary with the Sample Rate used, Frame Rate, and 16 or 24 bit.
The numbers above were taken with 29.97 non drop frame, 44.1k sample rate, and 16 bits.

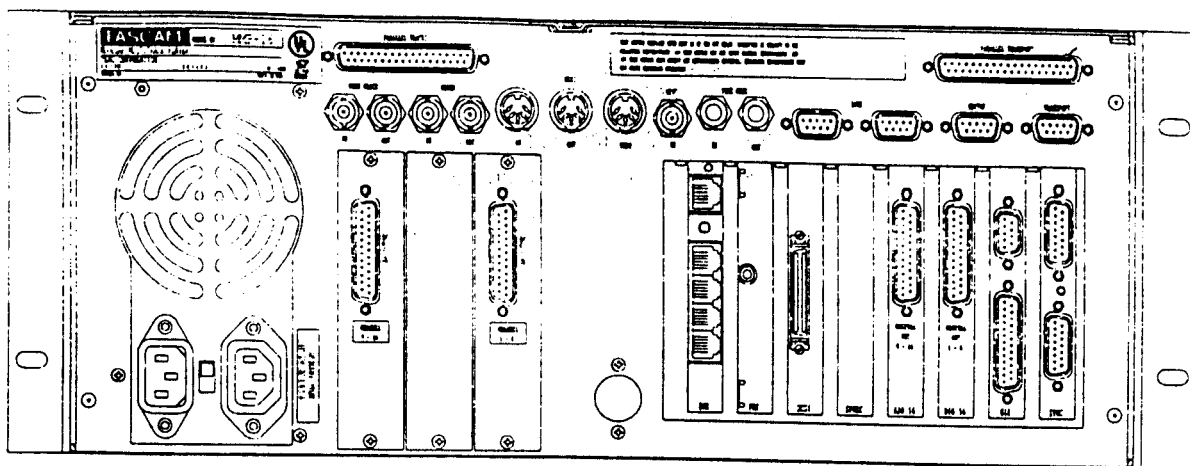


Figure 2-3. MMP-16 Back Panel

MMP-16 Back Panel Connections

The MMP-16 back panel has connectors for the system analog and digital audio output, as well as various types of synchronization and control signals. The following MMP back panel connections are described in this chapter, and the pin outs for many of these connectors are given in Appendix D: Cable Information.

- Analog audio out (x2)
- Digital audio out (x2)
- Biphase in (BOB)
- Biphase out (BOB)
- Mono mix audio out (PRX)
- SCSI
- Remote control (UI/B)
- MMR bus (Sync)
- Word clock in
- Word clock out
- Video in
- Video out
- Midi in
- Midi out
- Midi thru
- VITC in
- Time code in
- Time code out
- Lynx (2 connections)
- Editor (Sony 9-pin)
- Transport (Sony 9-pin)
- Parallel Tracks
- Parallel Transport

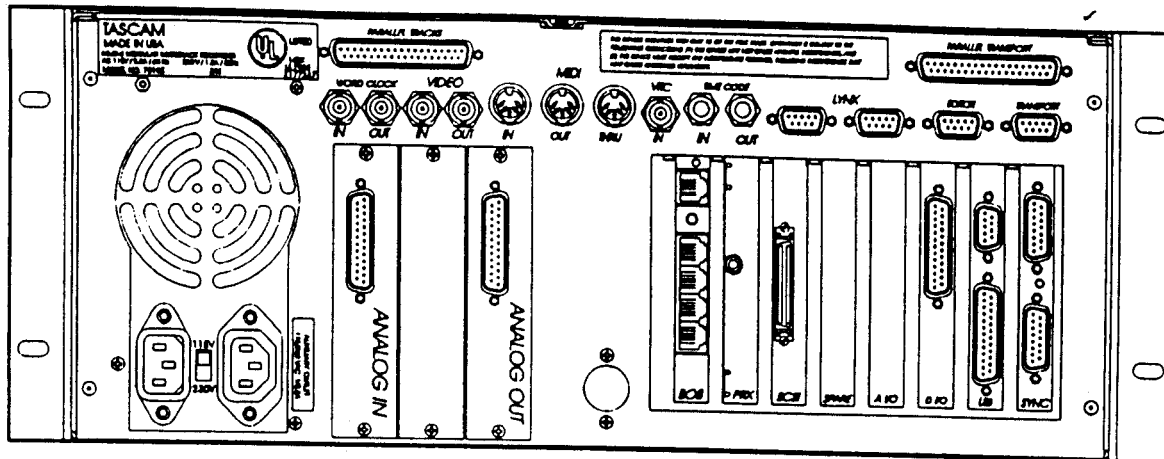


Figure 2-3. MMR-8 Back Panel

MMR-8 Back Panel Connections

The MMR back panel has connectors for the system analog and digital audio input/output, as well as various types of synchronization and control signals. The following MMR back panel connections are described in this chapter, and the pin outs for many of these connectors are given in Appendix D: Cable Information.

- Analog audio in
- Analog audio out
- Digital audio I/O
- Biphase in (BOB)
- Biphase out (BOB)
- Mono mix audio out (PRX)
- SCSI
- Remote control (UI/B)
- MMR bus (Sync)
- Word clock in
- Word clock out
- Video in
- Video out
- Midi in
- Midi out
- Midi thru
- VITC in
- Time code in
- Time code out
- Lynx (2 connections)
- Editor (Sony 9-pin)
- Transport (Sony 9-pin)
- Parallel Tracks
- Parallel Transport

DIGITAL DUBBERS-TASCAM MMR/MMP

POINTS TO DISCUSS WITH CUSTOMERS DURING ORDERING

<u>Rear Connector</u>	<u>Cable Type Needed</u>	<u>Notes</u>
Analog Input	DB25 to user requirement	FXLR, TRS, ¼"
Analog Output	DB25 to user requirement-	MXLR, TRS, ¼"
Digital, AES/EBU	DB25 to XLR'S Labeled "Digital IN/OUT, MMR-8/MMP-16"	Special cables only,
SCSI	SCSI 2 to SCSI 1* SCSI 2 to user requirement	When using our external cases* Ask customer what SCSI type HIS gear needs
Time Code IN	¼" to user requirement	¼", XLR, BNC, RCA
Time Code Out	¼" to user requirement	¼", XLR, BNC, RCA
Word Clock IN	BNC to user requirement	BNC, XLR, ¼", RCA
Word Clock Out	BNC to user requirement	BNC, XLR, ¼", RCA
Video In (Sync)	BNC to BNC	Most common Typical Black burst input
Video Out (Sync)	BNC to BNC	Most common
Sync Cable	15 pin to 15 pin	Special Cable w/ Ferrite beads
9 Pin Control (RS-422)	9 pin to 9 pin	Ask if customer needs
Biphase Sync	RJ-6 to RJ-6	Phone Style cable For Tascam to Tascam Digital Dubber connection
	RJ-6 to Amphenol 7 pin	For Tascam to Magna Tek Film Stripe Dubber
Remote Control MMRC	DB 25 to DB 25	Special Remote Cable

Special Note: IBM Standard 101 Keyboard can be plugged into REMOTE CONTROL for ease in typing in Project names and Numbers -offer to customer when he is going to take the Remote Control on rental.