For the customers in U.S.A.

Owner's Record
The model and serial numbers are located on the top of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. MDS-B6P Serial No. __________

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE,
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

INFORMATION
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

CAUTION
As the laser beam used in this MD deck is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

Notes on shipping of the unit
When shipping the unit, make sure the following conditions have been met:

• The unit is in shipping mode.
• The unit is packed in its original carton.

Please note that if these conditions are not met, any damage that occurs to the unit during transport will not be covered by the service warranty.
The following caution label is located inside the unit.

This appliance is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT MARKING is located on the side of the unit.

For customers in Canada
This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Pour les utilisateurs au Canada
Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

For the customers in the United Kingdom

WARNING
THIS APPARATUS MUST BE EARTHEO

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:
- Green-and-yellow: Earth
- Blue: Neutral
- Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ∆ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
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1-1 Features

The MDS-B6P is a MiniDisc deck for professional use in any kind of broadcasting, announcements, or program production.

1-1-1 Features of the MiniDisc

ATRAC (Adaptive Transform Acoustic Coding) data compression technology

By eliminating inaudible sound data to obtain a compression ratio of 1:5, ATRAC data compression technology enables the recording of sound information of almost the same quality and quantity as a CD, but on a smaller disc.

74 minutes of playback or recording

A single MD can be used to play back or record up to 74 minutes of sound information. In monoaural mode, you can record and play back up to 148 minutes.

Direct track access

You can use the wire-connected remote controller supplied with the MDS-B5 or an IBM keyboard (not supplied) to directly access any of the MD’s 255 tracks without the long cueing time required for tape.

Various playback functions

The MDS-B6P’s various playback functions include repeat playback, programmed playback, and random playback. You can also vary the playback speed between ±12.5% of the normal speed.

Multiple editing functions

The MDS-B6P’s editing functions allow you to divide, combine, and move tracks on the MD. You can use the rehearsal function to precisely position edit points on a track as you monitor the sound. Unlike tracks on an analog cassette or DAT tape, specific MD tracks or an entire MD can be erased instantly.

Text entry

You can use the wire-connected remote controller supplied with the MDS-B5 or an IBM keyboard to enter titles for recorded discs and tracks. Title data, which can total 1,792 characters per disc, appear in the display window during playback.

Durability

Because MDs use a non-contact system like compact discs, they are superior to cassette tape in durability.

1-1-2 Operational Features

Instant playback function

The MDS-B6P can store the first part of up to 10 selected tracks into memory in order to begin instant playback.

Two cueing modes

You can use the A.MODE button to select the following two cueing modes.

AUTO PAUSE mode

AUTO PAUSE mode pauses the MD deck at the beginning of a track, then starts playback when you press the PLAY/PAUSE button. Use this mode to pre-cue tracks during on-air broadcasting with multiple MD decks.

AUTO CUE mode

AUTO CUE mode pauses the MD deck when it detects a rise in the audio signal following the inaudible portion before the start of a track. This mode is good for playing special sound effects in theater productions, etc.
1-1 Features

NEXT TRACK SELECT function

During single-deck operations, you can specify the next track to be played as you are playing another one.

Single track play

No matter what the cueing mode may be, you can always play back single tracks. After playing a single track, the deck stops rather than pauses, thus preventing the mistaken playback of another track.

Playback display variations

The MDS-B6P displays track information (playing time, track title, etc.) for the current and the next tracks that have been selected for playback. By pressing the DISPLAY button, you can display the following track information:

- Remaining playing time and title of the current track
- Elapsed time and title of the current track
- Remaining playing time of the current track and a list of programmed tracks during Program Play or Instant Playback.
- Playing time and title of the next track

Rehearsal function

You can play back a portion of a track repeatedly in order to precisely determine points for cueing or track division. You can also use the Setup menu to specify the length of the portion to be repeated and the interval between the end of one repeat and the start of another.

RAM Edit function

You can do temporary editing, such as dividing, combining, and moving the tracks on the MD, without overwriting the TOC information. The results of the RAM edit function will be lost when the MiniDisc is ejected. You can use the RAM edit function on pre-mastered MDs.

UNDO function

You can undo the last editing operation (e.g., when you have mistakenly erased a track).

End-of-message (EOM) function

This function outputs a tally signal from the REMOTE(25P) connector before the end of a track or the disc.
You can use the Setup menu to specify how far in advance of the end the tally signal is output.

Cue point function

This function outputs a tally signal from the REMOTE(25P) connector whenever a cue point is detected during playback. Up to 255 cue points can be marked per disc.

Track trimming function

You can temporarily modify the starting and ending points of a track. The head trimming edit allows you to specify the starting point in accordance to the audio rising point.

Digital time meter

The digital time meter displays the accumulated spindle motor operation time.

Easy menu operations

The editing and setting operations on the MDS-B6P are done using two types of menus: the Edit menu and the Setup menu. Menu operations are easily done using the AMS control, turning it to select items and pressing it to select the setting.
Keyboard operations

You can use the supplied keyboard template on any IBM keyboard to operate the MDS-B6P.

Remote control function

The MDS-B6P can be controlled by external control signals input to the REMOTE(25P) connector on the rear panel. You can select any of four pin assignments for the REMOTE(25P) connector, depending on the application.

When the deck is controlled by external control signals, you can disable the operation buttons and controls on the front panel by using the Kill Local function.

RS-232C interface

The MDS-B6P can be controlled by a personal computer or other external equipment connected to the deck through the RS-232C interface.

Rack mounting compatibility

Two MDS-B6P decks can be mounted side by side in a standard 19-inch EIA rack.

TOC data back-up function

If power to the MDS-B6P is suddenly cut off, edited TOC data in the MDS-B6P’s RAM will be saved and maintained by an internal back-up power supply for up to three days.

Note

- TOC data may be lost if the power is cut at the moment of the beginning or the end of editing operation.
- Due to the limited capacity of the RAM, cue points and trimming point specifications are not saved.

Error check function

The MDS-B6P can play back a disc at four times normal playback speed, allowing you to quickly verify the integrity of tracks before a broadcast.
1 PHONES jack and volume control
Connects headphones. Use the volume control to adjust the sound level of the PHONES jack.

2 Display window
Indicates the current MD deck operating status. While the deck is stopped, the disc title, total track number, and total playing time are displayed. During playback, the track title and time information of the current track or the next track are displayed. When using a menu, the menu number and menu item are displayed.

3 Disc compartment
Automatically loads an inserted disc.

4 SINGLE button
Press to play only one track. “1” appears in the display window.

5 A.MODE button
Selects the cueing mode. The following are selected in sequential order each time you press this button.
OFF: The cueing function is disabled. Playback starts when you press the PLAY/PAUSE button or select a track using the AMS control.
A.PAUSE: When you press the PLAY/PAUSE button or select a track using the AMS control, the MD deck locates the beginning of the track and pauses. Playback starts when you press the PLAY/PAUSE button.
A.CUE: When you press the PLAY/PAUSE button or select a track using the AMS control, the MD deck pauses whenever the audio signal rises above a specified threshold level. Playback starts when you press the PLAY/PAUSE button.
6 EJECT button
Press to eject the disc from the disc compartment.

7 DISPLAY button
During playback, press this button to select the following display contents:
• Remaining playing time and title of the current track
• Elapsed time and title of the current track
• Remaining playing time of the current track and the Program Play list during Program Play or the Instant Playback function
• Playing time and title of the next track

8 REHEARSAL button
Press to play a portion of a track repeatedly. If you press this button during playback, the portion starting from that point is repeated. If you press the button while the deck is stopped, the beginning of the first track on the disc or the selected track is repeated.
During rehearsal playing, you can move the repeated portion forward or backward by turning the AMS control. Pressing the \< or \> button changes the unit for adjusting the start of Rehearsal Play.
After confirming the cue point or editing point using the rehearsal function, press the CUE STDBY button to pause the deck at the position where the rehearsal started or press EDIT/NO button to execute an editing function.

9 ENTER/YES button
Press to execute an editing function.
You can also execute editing functions by pressing the AMS control.

10 EDIT/NO button
Press to display the Edit menu or cancel an editing function.

11 AMS control
Turn to locate the beginning of a track.
When using the Edit menu or the Setup menu, turn this control to select the menu item and press it to select the setting.

12 Search buttons
\<\<: Hold down this button during playback to scan backward while monitoring the sound.
\>\>: Hold down this button during playback to scan forward while monitoring the sound.

13 CUE/STDBY (standby) button
Press to return to the position where you last pressed the PLAY/PAUSE button. After finding the position, the MD deck enters playback pause. Use this button to check or return to a cueing position.

14 PLAY/PAUSE button
Press to start playback.
Press during playback to temporarily pause the MD deck; press again to cancel pause.
The PLAY/PAUSE button lights during playback. It flashes while the MD deck is in playback pause.

15 STOP button
Press to stop playback or recording.

16 KEY BOARD connector
Connects any IBM keyboard for control of the MD deck using the supplied keyboard template.
This connector has a cap for protection. Remove the cap only when connecting a keyboard.

Note
While using the keyboard, turning the MD deck off, then turning it on again quickly may cause the keyboard to malfunction. If this occurs, unplug the keyboard cord and plug it again.
1 REMOTE (25P) connector
Connects to external equipment for remote control.

You can choose any of four pin assignments, depending on the purpose.

See "Pin assignments for REMOTE (25P) connector" on page A-3.

2 ANALOG OUT connectors (XLR-type, 3-pin)
Output a two channels of analog audio signals.

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GND</td>
</tr>
<tr>
<td>2</td>
<td>HOT</td>
</tr>
<tr>
<td>3</td>
<td>COLD</td>
</tr>
</tbody>
</table>

3 AES/EBU OUT connector (XLR-type)
Outputs two channels of digital audio signals in AES/EBU format.

4 POWER switch
Press to turn on the MD deck. Press again to turn the MD deck off.
5 Ground connector
Connects directly to ground.

6 AC IN connector
Connects to an AC outlet with the supplied AC power cord.

7 IEC(958) OUT connector (RCA-type, phono)
Outputs digital audio signals (IEC958-TYPE2).

8 PLAYBACK level controls and MODE switch

PLAYBACK level controls
Adjust the analog output reference level during playback. Adjust the level of each channel (CH-1(L)/CH-2(R)) by turning the control with a flat screwdriver.

MODE switch
Selects monaural or stereo mode for the analog output signal.
When MONO is selected, the signals of channel 1 and 2 are mixed and lowered to below –6 dB, then output from ANALOG OUT CH-1(L) and CH-2(R).

9 RS-232C connector

You can use a personal computer connected to the MDS-B6P's RS-232C connector to control the MDS-B6P including following operations:
• Button operations
  PLAY/PAUSE, STOP, EJECT, PREVIOUS, NEXT, CUE STDBY
• Direct track access
• Selecting menu functions
  Selecting the timing for the end-of-message (EOM) tally signal output, setting the AUTO PAUSE and AUTO CUE functions
• Displaying time and character data and messages on an external computer


10 REMOTE connector
Connects the remote controller supplied with the MDS-B5.
3-1 Precautions

3-1-1 Installation Precautions

Install the MD deck on a flat surface in a temperature-controlled room. Avoid using or storing the MD deck at a location that is:
- extremely hot or cold.
- damp.
- subject to severe vibrations.
- subject to strong magnetic fields.
- subject to many hours of direct sunlight or close to heating equipment.

3-1-2 Handling Precautions

- Check the MD deck’s operating voltage before you plug it in. It must be identical with that of your local power supply.
- If you drop any liquid or metal object inside the MD deck, immediately stop using it, unplug the power cord from the socket, and contact Sony service personnel.
- If the MD deck will be unused for a long time, make sure to unplug its power cord from the socket. When unplugging the power cord, grasp it by the plug, not the cord.
- Do not disassemble the MD deck. The laser light used in the deck can cause damage to your eyes. If the MD deck needs to be inspected, contact Sony service personnel.

Caution
The use of optical instruments with this product will increase eye hazard.

Condensation

Bringing in the MD deck from a cold place or turning on the room heating may cause moisture to condense on the lens within the MD deck, resulting in abnormal operation. If this occurs, leave the power on. The moisture will evaporate within an hour and the MD deck will function normally again.
If the MD deck does not operate normally after a few hours, contact Sony service personnel.

If trouble occurs

Should you detect an abnormal noise, smell, or smoke, immediately turn off the power, unplug the power cord from the socket, and contact Sony service personnel.

AC power cord

Do not use any power cord other than the one supplied with the MD deck.

3-1-3 Shipping Precautions

When shipping the MD deck, make sure that the MD deck is packed in its original carton. If not, any damage that occurs to the MD deck during transport will not be covered by the service warranty.
3-2-1 Precautions

- Turn off all equipment before connecting or disconnecting any cables.
- Insert all electrical plugs firmly since incomplete connection may cause noise.
- Use a cord somewhat longer than needed to prevent the plug from being pulled out when jarred or shaken.

3-2-2 Basic Connection Examples

[Diagram showing connections to external devices such as an external remote controller, audio/video equipment, ground, 120 V AC, 220 to 230 V AC, a remote controller supplied with the MDS-B5, a personal computer, a device for analog audio signals, and a device for digital audio signals.]
3-2-3 Connecting and Setting the Keyboard

You can use any IBM keyboard to control the MD deck. The supplied keyboard template has the same key indications found on the front panel of the deck. Be sure to remove the cap from the KEY BOARD connector when connecting a keyboard.

![Key Board Connector](image)

**Specifying the keyboard type**

Use the Setup menu to specify the keyboard type.

1. Press the EDIT/NO button while holding down the STOP button. The Setup menu appears in the display window.

2. Turn the AMS control to display the menu item F07 ("KB ENG 101" or "KB JPN 106") in the window.

3. Press the AMS control. The indication flashes and you can change the setting.

4. Turn the AMS control to select either "KB ENG 101" or "KB JPN 106." Press the AMS control to select the item.

5. Press the EDIT/NO button to exit from the Setup menu.
Unlike CDs (Compact Discs), the Mini Disc is encased within a hard plastic cartridge which allows you to handle it without fear of dust or fingerprint contamination. However, a MiniDisc that has been contaminated or bent may cause the MD player to malfunction. To prevent damage to the contents of a disc and to enjoy clear sound permanently, take the following precautions when handling a MiniDisc.

**Do not open the shutter to expose the disc**

If you do so, the data on the disc may be damaged.

---

**Store MiniDiscs in a proper location**

Do not place the cartridge where it will be subject to extremes of sunlight, temperature, moisture or dust.

**Cleaning the MiniDisc**

Gently wipe the cartridge with a dry soft cloth to remove dust.
You can adjust the analog output reference level during playback within a range of +8 dB to −12 dB by turning the PLAYBACK level controls on the rear of the MD deck.
The analog output reference level is factory set at +4 dB (at −20 dB from full bit).

**Setting the analog output reference level**

1. Play back a disc recorded at −20 dB from the full bit. Adjust the output level of the ANALOG OUT connectors with the PLAYBACK (CH-1/CH-2) level controls.

**Note**
Adjust the PLAYBACK level controls with a flat screwdriver. Do not use excessive force when turning the screwdriver or touch the screwdriver to any part other than the PLAYBACK level controls.
The MDS-B6P provides many playback functions that can be used for a variety of purposes. This section gives an overview of these functions and their application.

**Cueing before playback (AUTO mode)**

With each press of the A.MODE button on the front panel, you can select any one of the following AUTO mode settings: AUTO PAUSE, AUTO CUE, or off.

**AUTO PAUSE function**

If you press the PLAY/PAUSE button while AUTO PAUSE is on, the MD deck will cue to the beginning of the selected track, then pause. To start playback, press the PLAY/PAUSE button again. This function is useful for setting up successive tracks for playback when using multiple MD decks during a broadcast.

**AUTO CUE function**

If you press the PLAY/PAUSE button while AUTO CUE is on, the MD deck will pause after the inaudible portion before the beginning of the selected track at the point where the signal level actually rises. To start playback, press the PLAY/PAUSE button again. This function is useful for playing sound effects in a theater. Use the Setup menu to set the threshold level for detecting the rise in signal level.

*See "6-5 Setting the Auto Cue Function" on page 6-5.*

*When neither the AUTO PAUSE or AUTO CUE function is selected*

Pressing the PLAY/PAUSE button starts MD playback immediately without cueing.

**To start playback instantly**

You can memorize the beginning of selected tracks into the MD deck's built-in memory in order to begin playback the instant you press the PLAY/PAUSE button.

*See "4-8 Starting Playback Instantly (Multi-Access Function)" on page 4-11.*

**To play a single track**

To prevent the unintentional playback of the next track, you can specify playback of one track at a time when pressing the PLAY/PAUSE button.

*See "4-2-3 Playing a Single Track Only" on page 4-3.*

**Checking the playback starting point (CUE STDBY)**

Pressing the PLAY/PAUSE button while playing a track establishes that position as the cue point. Press the PLAY/PAUSE button again to monitor the playback. When you press the CUE STDBY button, the MD deck rewinds to the cue point and pauses.

**Setting the cue point using the Rehearsal function**

When you press the REHEARSAL button during playback, the MD deck begins playing the track section from that position for the duration specified in the Setup menu. While you monitor the sound, press the CUE STDBY button at the place where you want to place the cue point. The MD deck pauses at that point.

*See "4-2-4 Rehearsal Playback" on page 4-3 and "6-6 Setting the Rehearsal Playback Function" on page 6-6.*

**Note**

During shuffle play, the rehearsal playback function operates only within the currently playing track, and cannot be used to return to the position where you pressed the PLAY/PAUSE button last time.
4-2-1 Playing From the First Track on the MD

1 Insert the MD into the MD deck.
   Insert the disc with the arrow pointing towards the MD deck. The deck grabs and loads the disc automatically.
   Disc title, total number of tracks, and total playing time of the disc appear in the display window.

2 Press the PLAY/PAUSE button.
   When both AUTO PAUSE and AUTO CUE are off: The MD deck starts playing the MD.
   When either AUTO PAUSE or AUTO CUE is on: The MD deck enters playback pause after cueing to the beginning of the first track. To start playback, press PLAY/PAUSE button again.
   Title, track number, and time information of the current track appear in the display.

To stop playback
Press the STOP button.

To stop playback temporarily
Press the PLAY/PAUSE button.
To resume playback, press the PLAY/PAUSE button again.

To eject the disc
Press the STOP button to stop playback, then press the EJECT button.

4-2-2 Locating a Specific Point (Search)

To find a specific point on the MD, use the < <> and ➤ buttons during playback to quickly scan forward or backward.

To forward scan the disc
Hold down the ➤ button during playback. Playback will start again from the point at which you release the button.

To backward scan the disc
Hold down the < <> button during playback. Playback will start again from the point at which you release the button.

Note
Sound dropout may occur when scanning tracks created by editing functions.
4-2-3 Playing a Single Track Only

In single-track-playback mode, the MD deck plays only single track that you have selected. This prevents unintentional playback of the next track. In single-track-playback mode, the MD deck stops when track playback ends, even if AUTO PAUSE or AUTO CUE has been selected.

To select single-track-playback mode
Press the SINGLE button.
"1" appears in the display window.
To turn off single-track-playback mode, press the SINGLE button again.

4-2-4 Rehearsal Playback

Press the REHEARSAL button to play back a portion of a track repeatedly. The rehearsal playback allows you to accurately position a cue point or edit point. Pressing the CUE STDBY or EDIT/NO button sets the cue point or edit point.

If you press the REHEARSAL button during playback
The MD deck plays the track starting from the point at which you pressed the REHEARSAL button.

If you press the REHEARSAL button while the MD deck is stopped
The MD deck locates the first track on the MD or the beginning of the track you selected.

To change the playback portion during rehearsal playback
Turn the AMS control.
You can change the time unit for adjusting the start of Rehearsal Play by pressing the <</>> buttons.
When you press the << or >> button, the time unit flashes. Each press of the << button selects the next time unit: "F (frame)", "S (second)", "M (minute)."
And each press of the >> button selects the unit in reverse direction.

To turn off rehearsal playback
Press the REHEARSAL button again.

Use the Setup menu to set the duration for rehearsal playback and the interval between repetitions.

See "6-6 Setting the Rehearsal Playback Function" on page 6-6.
4-3-1 Locating a Specific Track

You can access specific tracks instantly by entering their track numbers with the numeric buttons on the remote controller supplied with the MDS-B5 or a keyboard.

If AUTO PAUSE and AUTO CUE are off, the MD deck begins playback immediately after locating the specified track.

If either AUTO PAUSE or AUTO CUE is selected, the MD deck changes to playback pause after cueing to the beginning of the specified track.

To specify track numbers greater than 10
Press the > button, then press the respective numeric buttons.

Example:
To locate the 15th track, press the > button once, then press 1 and 5.
To locate the 115th track, press the > button twice, then press 1, 1, and 5.

Locating a specific track from the front panel

To locate a specific track, turn the AMS control to display the track number while the MD deck is stopped. To start playback or to locate the beginning of the specified track, press the PLAY/PAUSE button.

4-3-2 Locating the Beginning of a Track (AMS)

During playback or playback pause, turn the AMS (Automatic Music Sensor) control to quickly skip to any track before or after the current one.

Turn the AMS control clockwise to go to a higher track number, or turn it counterclockwise to go to a lower track number.

If AUTO PAUSE and AUTO CUE are off, the MD deck locates the beginning of the specified track and starts playback.

If either AUTO PAUSE or AUTO CUE is on, the MD deck locates the beginning of the specified track and enters playback pause.

Locating a specific track using the remote controller

You can use the remote controller or the keyboard to locate the beginning of a track. To do this, press the \[\ll\] or \[\lll\] button during playback or playback pause.

Each press of the \[\lll\] (or \[\ll\]) button increases (decreases) the track number by one; holding it down increases (decreases) the track number faster.
4-3-3 Preparing the Next Track During Playback

In Next Play mode on a single MD deck, you can locate the next track even during playback of the current track. After specifying Next Play mode in the Setup menu, track selection operations change from the current track to those for the next track.

4 Turn the AMS control clockwise to change the display to “NextPlayOn,” then press the AMS control. Turning the AMS control counterclockwise changes the display back to “NextPlayOff.”

5 Press the EDIT/NO button to exit from the Setup menu.

While you have selected the next track in Next Play mode
The title and time information of the current track temporarily changes to that of the next track.

To keep the information on the next track displayed
Press the DISPLAY button so that “NEXT TRACK” appears.

Specifying Next Play mode

1 Press the EDIT/NO button while holding down the STOP button. The Setup menu appears.

2 Turn the AMS control until “F04:NextPlayOff” appears.

3 Press the AMS control. The indication flashes to show that you can change the setting.
Changing the display information during playback

Each press of the DISPLAY button during playback changes the information in the display as follows:

Remaining playing time and title of the current track

![Display showing remaining playing time and title](image1)

Elapsed playing time and title of the current track

![Display showing elapsed playing time and title](image2)

Playing time and title of the next track

![Display showing playing time and title of the next track](image3)

Display information during Program Play and Instant Playback

During Program Play and Instant Playback, the MD deck displays the program list before it displays the next track's information.

Remaining playing time of the current track and program list

![Display showing remaining playing time and program list](image4)
4-5 Playing Tracks Repeatedly

You can use the Setup menu to select Repeat Play mode. The Repeat Play mode can be used with all other playback modes.

When either AUTO PAUSE or AUTO CUE is activated during Repeat Play
The MD deck enters playback pause at the beginning of the track (or when the audio signal rises).

To select Repeat Play mode

4 Turn the AMS control clockwise to display “Repeat On”, then press the AMS control. The “REPEAT” indication lights. Turning the AMS control counterclockwise changes the setting back to “Repeat Off.”

5 Press the EDIT/NO button to exit from the Setup menu. Pressing the PLAY/PAUSE button starts the repeated playback of tracks.

To play only one track repeatedly

Press the SINGLE button during the Repeat Play mode. The “REPEAT1” indication lights.

1 Press the EDIT/NO button while holding down the STOP button. The Setup menu appears in the display.

2 Turn the AMS control to display menu item F02 (“Repeat Off” or “Repeat On”).

3 Press the AMS control. The indication flashes to show that you can change the setting.
Use the Program Play function to specify the playback sequence of multiple tracks.
- To turn the Program Play function on, use the Setup menu.
- To program tracks, use the Edit menu.
You can specify the playback sequence of up to 25 tracks.

When either AUTO PAUSE or AUTO CUE is activated during Program Play
The MD deck enters playback pause at the beginning of each track in the program (or when the audio signal rises).

To select Program Play mode

1 Press the EDIT/NO button while holding down the STOP button.
The Setup menu appears in the display.

2 Turn the AMS control until menu item F01 ("Continue", "Shuffle", "Program", or "Multi Access") appears.

3 Press the AMS control.
The indication flashes to show that you can change the setting.

4 Turn the AMS control clockwise to display "Program," then press the AMS control.
"PROGRAM" lights up in the display.
Turning the AMS control clockwise displays "Continue", "Shuffle", "Program", and "Multi Access" in sequence. Turning the control counterclockwise displays the same items in reverse sequence.

5 Press the EDIT/NO button to exit from the Setup menu.
After making a program, press the PLAY/PAUSE button to start playing the program.

To play an entire program repeatedly
Select "F01:Program" and "F02:Repeat On" in the Setup menu. The programmed selections will play back repeatedly.
To make a program

1 Press the EDIT/NO button. The Edit menu appears.

2 Turn the AMS control until "01:Program?" appears.

3 Press the AMS control. The display for programming tracks appears.

4 Turn the AMS control to select a track, then press the AMS control. The position for the second track begins flashing. Repeat this step to program up to 25 tracks.

5 Press the ENTER/YES button to complete the program.

To specify track numbers using the numeric buttons

In step 4, use the numeric buttons on the remote controller supplied with the MDS-B5 or a keyboard to enter track numbers. After entering a track number, the next track position begins flashing immediately.

To change a part of the program

In step 3, press the or button until the track to be changed starts flashing. Use the numeric button(s) of the remote controller supplied with the MDS-B5 or the keyboard to change the track number, then press the ENTER button. Press the or button again to change another track number.

To delete tracks from a program

Press the or button until the track to be deleted begins flashing, then press the EDIT/NO button.

To change a programmed track number

Press the or button until the track number to be changed begins flashing, turn the AMS control to change the track number, then press the ENTER/YES button. Press the or again to change another track number.

To delete an entire program

Press the EDIT/NO button until all the tracks in the program are deleted.
You can play all the tracks on the MD in random order.
Use the Setup menu to select Shuffle Play mode.

If the AUTO PAUSE or AUTO CUE function is activated during Shuffle Play
The MD deck enters playback pause at the beginning of each track (or when the audio signal rises).

To select Shuffle Play mode

1. Press the EDIT/NO button while holding down the STOP button.
   The Setup menu appears in the display.

2. Turn the AMS control until menu item F01 ("Continue", "Shuffle", "Program" or "Multi Access") appears.

3. Press the AMS control.
The indication flashes to show that you can change the setting.

4. Turn the AMS control clockwise to display "Shuffle," then press the AMS control.
   "SHUFFLE" lights up in the display.
Turning the AMS control clockwise displays "Continue", "Shuffle", "Program", and "Multi Access" in sequence. Turning the control counterclockwise displays the same items in reverse sequence.

5. Press the EDIT/NO button to exit from the Setup menu.
Press the PLAY/PAUSE button to start Shuffle Play.

To repeat Shuffle Play

Select "F01:Shuffle" and "F02:Repeat On" in the Setup menu to play back all the tracks on the MD in random order.
After the MD deck plays back each track on the MD in random order, it plays them all again in random order.
You can memorize the beginning of a track in the MD deck’s built-in memory to start playback the instant you press the PLAY/PAUSE button.

1. To turn the Multi-Access function on, use the Setup menu.
2. To specify the tracks for instant playback, use the Edit menu.

You can memorize the beginning of up to 10 tracks.

If the AUTO PAUSE or AUTO CUE function is activated during Multi-Access playback

The AUTO PAUSE and AUTO CUE functions do not work when you are using the Multi-Access function. This is because tracks entered numerically are played back instantly from the built-in memory, and thus the A.MODE button is disabled.

3. Press the AMS control.
   The indication flashes to show that you can change the setting.

4. Turn the AMS control clockwise to display “Multi Access,” then press the AMS control.
   “MULTI-ACCESS” and “1” (single track play) light up in the display.

   Turning the AMS control clockwise displays “Continue”, “Shuffle”, “Program”, and “Multi Access” in sequence. Turning the control counterclockwise displays the same items in reverse sequence.

5. Press the EDIT/NO button.
   After “Memorizing” lights up, the MD deck exits from the Setup menu.

To start Multi-Access playback

Enter the number of the track to be played with the numeric button(s) on the remote controller supplied with the MDS-B5 or keyboard.
4-8 Starting Playback Instantly (Multi-Access Function)

To specify tracks for Multi-Access playback

1 Press the EDIT/NO button. The Edit menu appears.

2 Turn the AMS control to display “012:M-Access?”

3 Press the AMS control. The display for specifying tracks appears.

4 Turn the AMS control to select a track, then press the AMS control. The position for the second track begins flashing. Repeat this step to specify up to 10 tracks.

5 Press the ENTER/YES button to complete the track specification procedure.

To specify track numbers using the numeric buttons

In step 4, use the numeric buttons on the remote controller supplied with the MDS-B5 or a keyboard to enter track numbers. After entering a track number, the next track position begins flashing immediately.

To change a part of the track list

In step 3, press the ◀◀ or ►► button until the track to be changed starts flashing. Use the numeric button(s) of the remote controller supplied with the MDS-B5 or the keyboard to change the track number, then press the ENTER button. Press the ◀◀ or ►► button again to change another track number.

Storing the beginning of a track

The beginning of a track is stored in the built-in memory when:
- you change the disc while the Multi-Access function is selected.
- you specify a track for Multi-Access playback using the Edit menu while the Multi-Access function is selected.
- you select the Multi-Access function in the Edit menu after specifying tracks for Multi-Access playback.

To delete tracks from the track list for Multi-Access playback

Press the ◀◀ or ►► button until the track to be deleted begins flashing, then press the EDIT/NO button.

To change a track number

Press the ◀◀ or ►► button until the track number to be changed begins flashing, turn the AMS control to change the track number, then press the ENTER/YES button. Press the ◀◀ or ►► button again to change another track number.

To delete all tracks

Hold down the EDIT/NO button until all the tracks are deleted.
You can vary the playback speed in a range between +12.5% and -12.5% of the normal speed.

- To select variable-speed playback, use the Setup menu.
- To specify the playback speed, use the Edit menu.

### To select variable-speed playback mode

1. Press the EDIT/NO button while holding down the STOP button. The Setup menu appears.

2. Turn the AMS control until menu item F03 (“VariSpeedOff”) appears.

3. Press the AMS control. The indication flashes to show that you can change the setting.

4. Turn the AMS control clockwise to change the display to “VariSpeedOn,” then press the AMS control. “SPEED” lights in the display. Turning the AMS control counterclockwise changes the display back to “VariSpeedOff.”

5. Press the EDIT/NO button to exit from the Setup menu.

After selecting the playback speed, press the PLAY/PAUSE button to start playback.
Use the Error Check function to detect errors on a track and display error positions.

To perform error checking

1. Press the EDIT/NO button.
   The Edit menu appears.

2. Turn the AMS control to select “014:Err Check ?”

3. Press the AMS control.
   The display for selecting the track to begin error checking appears.

4. Turn the AMS control to select the track number.

5. Press the AMS control.
   Error checking starts.
   After error checking finishes, the results are displayed.

6. If any error is detected, press the AMS control again.
   Up to ten positions where error has occurred are displayed.
5-1-1 Types of Editing Functions

Use the Edit menu to select the editing functions. Press the EDIT/NO button, then turn the AMS control to display each edit function and its number one at a time.

There are 10 editing functions.

- (001) Name ? — Recording the title of tracks and discs
- (002) Erase ? — Erasing tracks
- (003) Move ? — Moving tracks
- (004) Combine ? — Combining tracks
- (005) Divide ? — Dividing tracks
- (006) All Erase ? — Erasing all tracks on a disc
- (007) Undo ? — Canceling the last editing operation
- (008) Cue Point ? — Setting cue points
- (009) Head Trim ? — Trimming the starting portion of a track
- (010) End Trim ? — Trimming of ending portion of a track

5-1-2 RAM Edit

The MDS-B6P does not record the results of editing operations in the TOC on the disc; only RAM edit is possible on this deck.

In RAM Edit mode, editing is done temporarily. This mode may be used to edit data on record-protected or premastered discs.

5-1-3 Track Numbers After Editing Operations

If an editing operation results in the deletion or addition of one or more tracks, the MD deck will automatically renumber the affected tracks to reflect that change. For example, if you erase track No. 2, all succeeding tracks will be renumbered, starting with track No. 3 (which becomes track No. 2).

If you do successive track erasures and relocations, it is recommended that you monitor the results of each operation by watching the titles and track numbers in the display and through Rehearsal playback in order to prevent editing errors.

5-1-4 Editing Operations During Rehearsal Playback

Pressing the REHEARSAL button during playback starts Rehearsal playback from that point. After locating the part to be edited, press the EDIT/NO button to do select the editing function.

You can do the following editing functions during Rehearsal playback.

- (005) Divide ? — Dividing tracks
- (008-01) CP In ? — Recording cue points
- (009-01) HT In ? — Trimming of the starting portion of a track
- (010-01) ET In ? — Trimming of the ending portion of a track
5-1-5 Undo Function

If you make a mistake in erasing or moving a track, the Undo function allows you to cancel the results of the last operation.

To undo the last editing operation

1. Press the EDIT/NO button.
   The Edit menu appears.

2. Turn the AMS control until “007:Undo ?” appears.
   This does not appear if the last operation was not an editing operation.

3. Press the AMS control.
   A message will appear asking whether you want to cancel the last operation or not. For example, “Erase Undo ?” appears if the last operation was an erasure of a track.

4. Press the AMS control.
   After “Complete!!” (i.e., the undoing of the last operation) appears, and the MD deck exits from the Edit menu.
Use the erase function to erase a single track or all tracks from a recorded disc.

To erase a single track

1. Press the EDIT/NO button while the MD deck is stopped, playing back, or in playback pause. The Edit menu appears.

2. Turn the AMS control until “006:All Erase ?” appears.

3. Press the AMS control. “All Erase ?” appears to ask whether you wish to cancel the procedure or not. To cancel the erasure of all tracks on an MD, press the EDIT/NO or STOP button.

4. Press the AMS control. “Complete!!” appears and all tracks on the MD are erased. The MD deck then exits from the Edit menu.

To erase all tracks on an MD

1. Press the EDIT/NO button while the MD deck is stopped, playing back, or in playback pause. The Edit menu appears.

2. Turn the AMS control until “002:Erase ?” appears.

3. Press the AMS control. The display for erasing tracks appears and Rehearsal playback of the displayed track starts.

4. Turn the AMS control to select the track to be erased.

5. Press the AMS control. “Complete!!” appears and the specified track is erased.
To randomly access certain portions of a track, the divide function allows you to create separate tracks for each portion. You can also use the divide function to erase selected portions of a track, by first specifying the portion as a separate track, then erasing that track.

**To divide a recorded track**

1. Press the EDIT/NO button while the MD deck is stopped, playing back, or in playback pause. The Edit menu appears.

2. Turn the AMS control until “005:Divide?” appears.

3. Press the AMS control. The display changes for dividing track and the rehearsal playback of the currently displayed track starts.

4. Turn the AMS control to select the track to be divided.

5. Press the AMS control. The rehearsal playback starts to locate the dividing position.

6. Turn the AMS control to adjust the dividing position. The track will be divided at the top position of the rehearsal playback. Pressing the \(</)\(/>\) button allows you to change the unit for shifting the top position of the rehearsal playback. You can choose the unit from “F” (frame), “S” (second), or “M” (minute).

7. Press the AMS control. “Complete!!” appears and the deck starts to play back the divided track for confirmation.
To divide a recorded track during rehearsal playback

Locating the dividing position with the rehearsal playback before using the divide function allows you to skip the procedures for selecting the track to be divided and locating the dividing position.

1. Locate the dividing position with the rehearsal playback.

   See "4-2-4 Rehearsal Playback" on page 4-3 for details.

2. Press the EDIT/NO button.

3. Turn the AMS control until "005:Divide?" appears.

4. Press the AMS control.
   "Complete!!" appears and the deck starts to play back the divided track for confirmation.

Notes
• If "Impossible" indication appears, you can not divide the track you specified. Repeating the division of tracks may produce a track which cannot be divided. This is the restriction on the MiniDisc system and is not out of order.
• The original title for the divided track goes with the former part of it. The latter part of the divided track may be newly named.
5-4 Combining Recorded Tracks (Combine Function)

Use the combine function to combine tracks on a recorded disc. The two tracks to be combined need not be consecutive. And the latter track to be combined can be the track which comes before the former one in track number order.

To combine tracks

1. Press the EDIT/NO button while the MD deck is stopped, playing back, or in playback pause. The Edit menu appears.

2. Turn the AMS control until "004:Combine ?" appears.

3. Press the AMS control. The display changes for selecting the former track to be combined and the rehearsal playback of the currently displayed track starts.

4. Turn the AMS control to select the former track to be combined.

5. Press the AMS control. The display changes for selecting the latter track to be combined and the rehearsal playback of the currently displayed track starts.

6. Turn the AMS control to select the latter track.

7. Press the AMS control. "Complete!!" appears and the deck starts to play back the combined track for confirmation.

Notes
- If "Impossible" indication appears, you can not combine the two tracks you specified. This is the restriction on the MiniDisc system and is not out of order.
- The track title after combined will be the one for the former track to be combined.
- The track shorter than 8 seconds may not be combined.
5-5 Moving Recorded Tracks (Move Function)

Use the move function to change the order of specific tracks.

To move tracks

1 Press the EDIT/NO button while the MD deck is stopped, playing back, or in playback pause. The Edit menu appears.

2 Turn the AMS control until “003:Move?” appears.

3 Press the AMS control. The display changes for selecting the track to be moved and the rehearsal playback of the currently displayed track starts.

4 Turn the AMS control to select the track to be moved.

5 Press the AMS control. The display changes for selecting the track number where the track will be moved to.

6 Turn the AMS control to select the track number where the track will be moved to. The track moves to the track number you selected.

7 Press the AMS control. “Complete!!” appears and the deck starts to play back the moved track for confirmation.

8 After confirming, press the STOP button.
5-6 Editing Titles

Use the Edit menu to enter or edit disc or track titles. A single disc can store up to 1,792 characters of title data. You can enter a title, erase a title, erase all titles on the disc, or copy a title.

To enter the title of a disc or track

1. Press the EDIT/NO button while the MD deck is stopped, playing, or in playback pause. The Edit menu appears.

2. Turn the AMS control until “001:Name ?” indication appears.

3. Press the AMS control. The display for selecting the title editing mode appears. There are four title editing modes.

   “Nm In ?”: Entering titles
   “Nm Erase ?”: Erasing titles
   “Nm All Erss?”: Erasing all titles on the disc
   “Nm Copy ?”: Copying titles

4. Turn the AMS control to select “Nm In ?” then press the AMS control. The display for selecting the track to be entitled appears.

5. Turn the AMS control to select “Disc” to enter a disc name or the track number to enter a track title, then press the AMS control. The display for entering a title appears. When a track number is selected, the track starts to play repeatedly.

6. Turn the AMS control until the first character of the title appears, then press the control to enter the character. Press the AMS control to move, the cursor moves to next character position.

To change the character type
Press the DISPLAY button to choose uppercase, lowercase, or number.

To change an entered character
Press the ◀ or ▶ button to until the character you want to change begins flashing, then turn the AMS control to select a new character.

To erase a character
Press the ◀ or ▶ button until the character you want to erase begins to flash, then press the EDIT/NO button. Pressing the button repeatedly erases successive characters.

To enter a space
Press the ◀ or ▶ button until the character that you want to enter a space before begins flashing, then press the AMS control.

7. Repeat step 6 until you enter the entire title then press the ENTER/YES button. The title you entered is recorded on the disc. “Complete!!” appears and then the title scrolls.
To erase a title

1 Press the EDIT/NO button while the MD deck is stopped, playing, or in playback pause.
The Edit menu appears.

2 Turn the AMS control until “001:Name ?” appears, then press the AMS control.

3 Turn the AMS control to select “Nm Erase ?”, then press the AMS control.
The display for selecting a title to be erased appears. If you select a track number, the track will begin playing back repeatedly.

4 Turn the AMS control to select “Disc” to erase a disc title or a track number to erase a track title, then press the AMS control.
The title you selected is erased. “Complete!!” appears, followed by “No Name.”

To erase all titles on a disc

1 Press the EDIT/NO button while the MD deck is stopped, playing, or in playback pause.
The Edit menu appears.

2 Turn the AMS control until “001:Name ?” appears, then press the AMS control.

3 Turn the AMS control to select “Nm All Ers?”, then press the AMS control.
“Nm All Ers??” appears to ask whether you want to erase all titles on the disc.

4 Press the AMS control again.
All titles on the disc are erased. “Complete!!” appears, followed by “No Name.”

To copy a title

1 Press the EDIT/NO button while the MD deck is stopped, playing, or in playback pause.
The Edit menu appears.

2 Turn the AMS control until “001:Name ?” appears, then press the AMS control.

3 Turn the AMS control to select “Nm Copy ?”, then press the AMS control.
The display for selecting the title to be copied appears.

4 Turn the AMS control to select “Disc” to copy the disc title, or the track whose title you want to copy, then press the AMS control.
The display for specifying the location to be copied to appears.

If you select the track with no name, the “No Name” indication appears.

5 Turn the AMS control to select “Disc” for disc title or to specify the track number to copy to a track, then press the AMS control.
The selected title is copied. “Complete!!” appears.
5-7 Marking the Cue Point

You can mark the cue point anywhere on the track to put out the tally signal from the REMOTE connector (D-sub, 25-pin) during playback.
You can mark up to 255 cue points per disc.
"CUE" appears in the display while the MD deck is outputting the tally signal.

To mark a cue point

1. Press the EDIT/NO button while the MD deck is stopped, playing back, or in playback pause.
The Edit menu appears.

2. Turn the AMS control until "008:Cue Point?" appears.

3. Press the AMS control to display "CP In?".

4. Press the AMS control.
The display changes for selecting the track to be marked with a cue point and the rehearsal playback of the currently displayed track starts.

5. Turn the AMS control to select the track to be marked with a cue point, then press the control.
The rehearsal playback starts for locating the marking point.

6. Turn the AMS control to locate the cue point to be marked.
The beginning of rehearsal playback will be the cue point to be marked.
Pressing the < > button allows you to change the unit for shifting the top position of the rehearsal playback. You can choose the unit from "F" (frame), "S" (second), or "M" (minute).

7. Press the AMS control.
"Complete!!" appears and the deck starts to play back for confirming the cue point.

To mark a cue point during rehearsal playback

Locating the marking position for the cue point with the rehearsal playback in advance allows you to skip the procedures for locating the marking position.

1. Locate the marking position with the rehearsal playback.

See "4-2-4 Rehearsal Playback" on page 4-3 for details.

2. Press the EDIT/NO button.

3. Turn the AMS control to display "008-01:CP In?".

4. Press the AMS control.
"Complete!!" appears and the deck starts to play back for confirming the cue point.
To erase a cue point

1 Press the EDIT/NO button while the MD deck is stopped, playing back, or in playback pause. The Edit menu appears.

2 Turn the AMS control until "008:Cue Point?" appears.

3 Press the AMS control and turn it until "CP Erase?" appears. The display changes for selecting the track whose cue point you want to erase and the rehearsal playback of the currently displayed track starts.

4 Turn the AMS control to select the track whose cue point you want to erase and then press the AMS control. The cue point number in the track you selected appears and the rehearsal playback starts from that cue point.

5 Turn the AMS control to select the cue point number and then press the AMS control. "Complete!!" appears and the deck starts to playback for confirmation.

6 After confirmation, press the STOP button.

To erase all cue points

1 Press the EDIT/NO button while the MD deck is stopped, playing back, or in playback pause. The Edit menu appears.

2 Turn the AMS control until "008:Cue Point?" appears.

3 Press the AMS control and turn it until "CP All Ers?" appears. Then press the AMS control. "CP ALL Ers??" appears to ask whether you want erase all cue points or not.

4 Press the AMS control. "Complete!!" appears.
5-8-1 Head Trimming

The head trimming function allows you to change the beginning of a track temporarily without erasing the actual data on the disc. You can specify the trimming point for the beginning of a track by detecting the rise in the audio signal according to the threshold level set by the Autocue function in the Setup menu. Using this function in conjunction with the Multi-access function allows you to position the start of playback more accurately. "END" appears in the display when you select a track with head-trimming specification.

**To trim the beginning of a track**

1. Press the EDIT/NO button. The Edit menu appears.
2. Turn the AMS control until "009:Head Trim ?" appears.
3. Press the AMS control to display "HT In ?", then press the control. The display for selecting the track to be trimmed appears.

4. Turn the AMS control to select the track to be trimmed. When you want to trim all the tracks on the MD, select the "HT In All" indication instead of a track number.

5. Press the AMS control. Rehearsal playback starts from the rise in the audio signal detected according to the Autocue threshold level set in the Setup menu.

6. Turn the AMS control to specify the trimming point. The start of Rehearsal playback becomes the trimming point. Pressing the "<" button allows you to select "F" (frame), "S" (second), or "M" (minute) as the unit for adjusting the start of Rehearsal Play.

7. Press the AMS control. "Complete!!" appears and playback starts for confirming the results of the operation.

**To trim a track during Rehearsal playback**

Locating the trimming position during Rehearsal playback eliminates the need to use the Edit menu to do the same thing.
1 Locate the trimming position through Rehearsal playback.

For details, see "4-2-4 Rehearsal Playback" on page 4-3.

2 Press the EDIT/NO button.

3 Turn the AMS control until "009-01:HT In ?" appears.

4 Press the AMS control.
"Complete!!" appears and playback starts for confirming the results of the operation.

To erase all head-trimming specifications on a disc

1 Press the EDIT/NO button while the MD deck is stopped, playing, or in playback pause. The Edit menu appears.

2 Turn the AMS control until "009:Head Trim ?" appears.

3 Press the AMS control, then turn the control to display "HT All Ers ?."

4 Press the AMS control.
"HT ALL Ers??" appears to ask whether you want to erase all head-trimming specifications or not.

5 Press the AMS control.
"Complete!!" appears.

To erase the trimming specification at the beginning of a track

1 Press the EDIT/NO button while the MD deck is stopped, playing, or in playback pause. The Edit menu appears.

2 Turn the AMS control until "009:Head Trim ?" appears.

3 Press the AMS control, then turn the control to display "HT Erase ?."

4 Press the AMS control.
The display for selecting the track whose specification is to be erased appears. The specified track begins playing repeatedly.

5 Turn the AMS control to select the track, then press the control.
"Complete!!" appears and playback starts for confirming the results of the operation.
5-8 Trimming

5-8-2 End Trimming

By entering a trimming specification at the end of a track, you can eliminate the ending position without actually erasing sound data on the disc. “END” appears in the display when you select a track with end-trimming specification.

To trim the end of a track

6 Turn the AMS control to specify the amount to be trimmed.
Trimming point will be set at the end of Rehearsal playback. Pressing the ◀/▶ button allows you to select “F” (frame), “S” (second), or “M” (minute) as the unit for adjusting the end of Rehearsal playback.

7 Press the AMS control.
“Complete!!!” appears and playback starts for confirming the results of the operation.

To trim the end of a track during Rehearsal playback

Locating the trimming position during Rehearsal playback eliminates the read to use the Edit menu to do the same thing.

1 Locate the trimming position through Rehearsal playback.

For details, see “4-2-4 Rehearsal Playback” on page 4-3.

2 Press the EDIT/NO button.

3 Turn the AMS control until “010-01:ET In?” appears.

1 Press the EDIT/NO button.
The Edit menu appears.

2 Turn the AMS control until “010:End Trim?” appears.

3 Press the AMS control to display “ET In?”, then press the control again.
The display for selecting the track to be trimmed appears.

4 Turn the AMS control to select the track to be trimmed.

5 Press the AMS control.
Rehearsal playback starts to allow you to specify the trimming point.
4 Press the AMS control.
"Complete!!" appears and playback starts for confirming the results of the operation.

To erase a trimming specification at the end of a track

1 Press the EDIT/NO button while the MD deck is stopped, playing, or in playback pause.
The Edit menu appears.

2 Turn the AMS control until "010:End Trim ?" appears.

3 Press the AMS control, then turn the control to display "ET Erase ?."

4 Press the AMS control.
The display for selecting the track whose trimming specification is to be erased appears. The specified track begins playing repeatedly.

5 Turn the AMS control to select the track, then press the control.
"Complete!!" appears and playback starts for confirming the results of the operation.

To erase all end-trimming specifications on a disc

1 Press the EDIT/NO button while the MD deck is stopped, playing, or in playback pause.
The Edit menu appears.

2 Turn the AMS control until "010:End Trim ?" appears.

3 Press the AMS control, then turn the control to display "ET All Ers ?."

4 Press the AMS control.
"ET ALL Ers ??" appears to ask whether you want to erase all end-trimming position settings or not.

5 Press the AMS control.
"Complete!!" appears.
# Setting items of the setup menu

The Setup menu of the MDS-B6P includes the setting items shown below. Each menu item has the item number for your ease of setting.

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<tr>
<th>Item number</th>
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<th>Contents</th>
<th>Setting values</th>
<th>Page</th>
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<td>F02</td>
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<tr>
<td>F03</td>
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<td>Resume off, Resume Play, Resume Next</td>
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<tr>
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<td>Autocue threshold</td>
<td>Detect threshold level for autocue function</td>
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</tr>
<tr>
<td>F12</td>
<td>Autocue offset</td>
<td>Margin setting for autocue function</td>
<td>AC (O) 0s00f (adjustable range from –9s85f to +9s85f, 1 step = 1f)</td>
<td>6-5</td>
</tr>
<tr>
<td>F13</td>
<td>Rehearsal length</td>
<td>Rehearsal playback time setting</td>
<td>RH (L) 2s00f (adjustable range from 0s00f to 9s85f, 1 step = 1f)</td>
<td>6-6</td>
</tr>
<tr>
<td>F14</td>
<td>Rehearsal interval</td>
<td>Interval for rehearsal playback</td>
<td>RH (I) 1.0s (adjustable range from 0.0s to 8.0s, 1 step = 0.5s)</td>
<td>6-6</td>
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<tr>
<td>F15</td>
<td>Disc EOM</td>
<td>Disc end message function</td>
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</tr>
<tr>
<td>F16</td>
<td>Track EOM</td>
<td>Track end message function</td>
<td>T.EOM 5sec (adjustable range from 1 sec to 35 sec, 1 step = 1 sec)</td>
<td>6-7</td>
</tr>
<tr>
<td>F17</td>
<td>Hours meter</td>
<td>Digital hours meter</td>
<td>S0000</td>
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</tr>
<tr>
<td>F18</td>
<td>Kill Local</td>
<td>Disabling the buttons on the deck during remote controlling</td>
<td>Kill Almost, Kill All</td>
<td>6-9</td>
</tr>
</tbody>
</table>

* The leftmost value of each item is the factory setting. Pressing the EDIT/NO button during using the Setup menu returns the value to the factory setting.
Use the Setup menu to use the timer-activated playback function connecting the MDS-B6P to the timer.

1 Press the EDIT/NO button while holding down the STOP button. The Setup menu appears.

2 Turn the AMS control until the menu item F05 ("Timer off" or "Timer Play") appears.

3 Press the AMS control. The indication flashes to show that you can change the setting.

4 Turn the AMS control to select the timer-activated mode from the values below.

   **Timer off**: Timer-activated function is disabled.
   **Timer Play**: Timer-activated playback is set.

5 Press the AMS control to affect the selection and exit from the Setup menu.

**Note**

Since trimming specifications are not saved to the RAM when power to the MDS-B6P is cut off, head- or end-trimming will not take place during timer-activated playback. You should thus divide the tracks to specify the start and end of playback.
You can set how to resume playback when you press the PLAY/PAUSE button after the deck was stopped with the STOP button being pressed.

**Note**
When you use the shuffle play or Multi-Access function, the playback resume mode setting will be ignored.

**To set the playback resume mode**

1. Press the EDIT/NO button while holding down the STOP button. The Setup menu appears.

2. Turn the AMS control until the menu item F06 ("Resume off", "Resume Play" or "Resume Next") appears.

3. Press the AMS control. The indication flashes to show that you can change the setting.

4. Turn the AMS control to select the playback resume mode from the values below.

   - **Resume off**: Turns the playback resume mode off.
   - **Resume Play**: Pressing the PLAY/PAUSE button starts playback from where you stopped or paused playback.
   - **Resume Next**: Pressing the PLAY/PAUSE button starts playback from the beginning of the next track which follows the one you stopped playback.

5. Press the AMS control to affect the selection and exit from the Setup menu.
External equipment connected to the RS-232C connector at the rear of the MDS-B6P can be used to control the MDS-B6P. Use the Setup menu to set the baud rate, parity, and stop bit length of RS-232C interface before using this interface. Values for each setting item are as follows.

### Baud rate setting (F08: Baud rate)
- **9600 baud**: baud rate 9600
- **4800 baud**: baud rate 4800
- **2400 baud**: baud rate 2400
- **1200 baud**: baud rate 1200

### Parity bit setting (F09: Parity bit)
- **Parity Even**: Use even parity
- **Parity Off**: Use no parity
- **Parity Odd**: Use odd parity

### Stop bit length setting (F10: Stop Bit)
- **Stop Bit 1**: Selects a stop bit length 1
- **Stop Bit 2**: Selects a stop bit length 2

---

**To set up for RS-232C interface**

1. **Press the EDIT/NO button while holding down the STOP button.** The Setup menu appears in the display window.

2. **Turn the AMS control until the menu item you want to set up appears.**
   - **F08**: Baud rate
   - **F09**: Parity bit
   - **F10**: Stop Bit

3. **Press the AMS control.** The indication flashes to show that you can change the setting.

4. **Turn the AMS control to select the value.**

5. **Press the AMS button to affect the selection and exit from the Setup menu.**
6-5 Setting the Auto Cue Function

Turning the AUTO CUE function on by pressing the A.MODE button enables the MDS-B6P to locate the beginning of a track by detecting the rise in the audio signal.

You can adjust the detect level for the rise in the audio signal to locate the beginning of a track more precisely in accordance with input signal.

You can also shift the beginning of a track from the rise in the audio signal.

Threshold level for AUTO CUE function (F11: Autocue threshold)
You can adjust the threshold level for detecting as a silence portion of audio signal. −50 dB (factory setting) is the threshold level used to detect the rise in audio signal from a silence portion. You can adjust this level according to the input signal ranging from −72 dB to 0 dB.

AUTO CUE offset function (F12: Autocue offset)
The AUTO CUE offset function allows you to adjust the margin between the beginning of a track and the rise in the audio signal. You can tune finely the starting point of playback using this function.

You can shift up to 9 seconds 85 frames before or after the rise in the audio signal regarded as 0 second 0 frame (factory setting).

<table>
<thead>
<tr>
<th>Silence portion</th>
<th>Adjustable range</th>
<th>Adjustable range</th>
</tr>
</thead>
<tbody>
<tr>
<td>The beginning of a track</td>
<td>The rising point of audio signal</td>
<td></td>
</tr>
</tbody>
</table>

Setting Up the AUTO CUE function

1. Press the EDIT/NO button while holding down the STOP button.
   The Setup menu appears in the display window.

2. Turn the AMS control until the menu item you want to set up appears.
   F11: Autocue threshold
   F12: Autocue offset

3. Press the AMS control.
   The indication flashes to show that you can change the setting.

4. Turn the AMS control to select the value.

5. Press the AMS button to affect the selection and exit from the Setup menu.
By pressing the REHEARSAL button, the MD deck starts the rehearsal playback from the position you pressed the REHEARSAL button for the specified time.
You can change the time length and interval for rehearsal playback using the setup menu.

See “4-2-4 Rehearsal Playback” on page 4-3 for details.

Rehearsal playback time setting (F13: Rehearsal length)
You can set the rehearsal playback time in frame ranging from 0 second 00 frame to 9 seconds 85 frames.
The factory setting is 2 seconds 00 frame.

Rehearsal playback interval setting (F14: Rehearsal interval)
You can set the interval for rehearsal playback in 0.5 second ranging from 0.0 second to 8.0 seconds.
The factory setting is 1.0 second.

1 Press the EDIT/NO button while holding down the STOP button.
The Setup menu appear.

2 Turn the AMS control until the menu item you want to set up appears.
F13: “RH (L) 2s00f” (Rehearsal playback time setting)
F14: “RH (I) 1.0s” (Interval for rehearsal playback)

3 Press the AMS control.
The indication flashes to show that you can change the setting.

4 Turn the AMS control to set the value.

5 Press the AMS control to affect the setting and exit from the Setup menu.
6-7 Setting the EOM Function

The EOM function enables the MD deck to put out the tally signal which tells the current track or the disc is getting closer to its end.
Use the Setup menu to set when the tally signal is put out before the end of the current track or the disc.
You can set the offset time before the end in 1 second ranging from 1 second to 35 seconds for the Disc EOM function and ranging from 1 second to 35 seconds for the Track EOM function.

To set the EOM function

1. Press the EDIT/NO button while holding down the STOP button.
The Setup menu appears.

2. Turn the AMS control until the menu item you want to set up appears.
   
   F15: "D.EOM 5sec" (Disc EOM function setting)
   F16: "T.EOM 5sec" (Track EOM function setting)

3. Press the AMS control.
The indication flashes to show that you can change the setting.

4. Turn the AMS control to set the value.

5. Press the AMS control to affect the setting and exit from the Setup menu.
This function allows you to display the accumulated operating time of the spindle motor. Use this information as the basis for replacing the BU block.

**To display the digital hours meter**

1. Press the EDIT/NO button while holding down the STOP button. The Setup menu appears.

2. Turn the AMS control until the menu item F17.

   ![F17 display](image)

   **S**: Accumulated spindle motor operating time

3. After checking the meter, press the EDIT/NO button to exit the Setup menu.

**Note**

When the BU block is replaced, a new EEPROM is installed and the hours meter is zeroed. Since this resets the other menu functions as well, you must make the applicable settings again.
When you control the MDS-B6P with the external equipment connected to the RS232C or REMOTE (25P) connector, you can disable the buttons on the front panel of the MDS-B6P to avoid unintentional touch of the operation buttons (Kill Local function). You can choose from two setting modes ("Kill Almost" and "Kill All").

4 Turn the AMS control to select the mode from the values below.

**Kill Almost**: Only the STOP, EJECT, and DISPLAY buttons are in effect.

**Kill All**: All the buttons on the front panel are disabled.

5 Press the AMS control to affect the setting and exit from the Setup menu.

---

### Disabling the buttons on the front panel

1 Press the EDIT/NO button while holding down the STOP button.
The Setup menu appears.

2 Turn the AMS control until the menu item F18 ("Kill Almost" or "Kill All") appears.

3 Press the AMS control.
The indication flashes to show that you can change the setting.
Use a soft cloth slightly moistened with a mild detergent solution to clean the cabinet and panel surface. Do not use solvents that may damage the surface such as paint thinner, benzine, or alcohol.

**About the reset switch**

Removing the screws with a Phillips screwdriver from both side of the MD deck (two screws on each side) and the rear panel (one screw) allows you to open the top panel of the MD deck. You may find the reset switch on the internal board. Pressing the reset switch allows you to reset the microcomputer.

[Image: Diagram of reset switch]

**Note**

Do not press the reset switch in usual operations. Use the reset switch only when the microcomputer hangs to cause the malfunction of the deck, when the any button operations are not accepted, and the like.
The following tables explain in the various messages that appear in the display window.

### Messages during specifying tracks for program playback and multi-access function

<table>
<thead>
<tr>
<th>Message</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Full!</td>
<td>During specifying tracks for program playback, an attempt was made to specify more than 25 tracks. During specifying tracks for multi-access function, an attempt was made to specify more than 10 tracks.</td>
</tr>
</tbody>
</table>

### Other messages

<table>
<thead>
<tr>
<th>Message</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Name</td>
<td>No title is specified for the track or the disc.</td>
</tr>
<tr>
<td>No Disc</td>
<td>There is no disc in the MD deck.</td>
</tr>
<tr>
<td>No Track</td>
<td>The inserted MD has a disc title but no tracks.</td>
</tr>
<tr>
<td>Disc Error</td>
<td>The MD is scratched or missing a TOC.</td>
</tr>
<tr>
<td>Blank Disc</td>
<td>A new (blank) or erased MD has been inserted.</td>
</tr>
</tbody>
</table>

### Messages during editing the MD

<table>
<thead>
<tr>
<th>Message</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot Edit</td>
<td>An attempt was made under the condition* you cannot edit the MD.</td>
</tr>
<tr>
<td>Cannot Undo</td>
<td>The last operation is unable to cancel.</td>
</tr>
<tr>
<td>CP Full !!</td>
<td>An attempt was made to specify more than 256 cue points.</td>
</tr>
<tr>
<td>Impossible</td>
<td>The edit operation was invalid because of restriction on the system.</td>
</tr>
<tr>
<td>Name Full !!</td>
<td>An attempt was made to enter more characters than the restriction.</td>
</tr>
<tr>
<td>No Cue Point</td>
<td>No cue point was specified for the selected track.</td>
</tr>
<tr>
<td>No Head Trim</td>
<td>No head trim setting was specified for the selected track.</td>
</tr>
<tr>
<td>No End Trim</td>
<td>No end trim setting was specified for the selected track.</td>
</tr>
</tbody>
</table>

* The condition under which you cannot edit the MD is: When using the program play, shuffle play, or Multi-Access function
## The Setup menu

Press the EDIT/NO button while holding down the STOP button to enter the Setup menu.

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<tr>
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<th>Page</th>
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</thead>
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<td>Repeat</td>
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<tr>
<td>F03</td>
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</tr>
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<td>Keyboard type</td>
<td>Setting the keyboard type</td>
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<tr>
<td>F08</td>
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<tr>
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<td>Parity bit</td>
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</tr>
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<td>Autocue threshold</td>
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</tr>
<tr>
<td>F12</td>
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<tr>
<td>F13</td>
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</tr>
<tr>
<td>F14</td>
<td>Rehearsal interval</td>
<td>Setting the interval for the rehearsal playback</td>
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<tr>
<td>F15</td>
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<td>Setting the disc EOM function</td>
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</tr>
<tr>
<td>F16</td>
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<td>Setting the track EOM function</td>
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<tr>
<td>F17</td>
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<tr>
<td>F18</td>
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<td>Setting for disabling the buttons on the deck during remote controlling</td>
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</tbody>
</table>
### The Edit menu

Press the EDIT/NO button to enter the Edit menu.

<table>
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<th>Menu item</th>
<th>Setting</th>
<th>Page</th>
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</thead>
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</tr>
<tr>
<td></td>
<td>Nm In ?</td>
<td>Entering a title</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nm Erase ?</td>
<td>Erasing a title</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nm All Ers?</td>
<td>Erasing all titles on the disc</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nm Copy ?</td>
<td>Copying a title</td>
<td></td>
</tr>
<tr>
<td>002</td>
<td>Erase ?</td>
<td>Erasing a track</td>
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</tr>
<tr>
<td>003</td>
<td>Move ?</td>
<td>Moving a track</td>
<td>5-7</td>
</tr>
<tr>
<td>004</td>
<td>Combine ?</td>
<td>Combine tracks</td>
<td>5-6</td>
</tr>
<tr>
<td>005</td>
<td>Divide ?</td>
<td>Dividing a track</td>
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<tr>
<td>006</td>
<td>All Erase ?</td>
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<td>Canceling the last operation</td>
<td>5-2</td>
</tr>
<tr>
<td>008</td>
<td>Cue Point ?</td>
<td>Editing the cue points</td>
<td>5-10</td>
</tr>
<tr>
<td></td>
<td>CP In ?</td>
<td>Specifying a cue point</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CP Erase ?</td>
<td>Erasing a cue point</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CP All Ers ?</td>
<td>Erasing all cue points on the disc</td>
<td></td>
</tr>
<tr>
<td>009</td>
<td>Head Trim ?</td>
<td>Trimming the beginning of a track</td>
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</tr>
<tr>
<td></td>
<td>HT In ?</td>
<td>Specifying the trimming point for the head trim function</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HT Erase ?</td>
<td>Erasing a head trimming point</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HT All Ers ?</td>
<td>Erasing all the head trimming points on the disc</td>
<td></td>
</tr>
<tr>
<td>010</td>
<td>End Trim ?</td>
<td>Trimming the end of a track</td>
<td>5-14</td>
</tr>
<tr>
<td></td>
<td>ET In ?</td>
<td>Specifying the trimming point for the end trim function</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ET Erase ?</td>
<td>Erasing an end trimming point</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ET All Ers ?</td>
<td>Erasing all the end trimming points on the disc</td>
<td></td>
</tr>
<tr>
<td>011</td>
<td>Program ?</td>
<td>Specifying the tracks for Program Play function</td>
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<tr>
<td>012</td>
<td>M-Access ?</td>
<td>Specifying the tracks for multi-access playback function</td>
<td>4-12</td>
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<tr>
<td>013</td>
<td>Speed ?</td>
<td>Setting the speed during the variable speed playback</td>
<td>4-13</td>
</tr>
<tr>
<td>014</td>
<td>Err Check ?</td>
<td>Checking an error for recorded data</td>
<td>4-14</td>
</tr>
</tbody>
</table>
You can choose from following four types of pin assignment when you control the MD deck by inputting the external parallel remote signal to REMOTE (25P) connector on the rear panel.

### For front panel buttons

<table>
<thead>
<tr>
<th>Pin number</th>
<th>I/O</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>CUE/STDBY</td>
</tr>
<tr>
<td>3</td>
<td>I</td>
<td>FF</td>
</tr>
<tr>
<td>4</td>
<td>I</td>
<td>DISPLAY</td>
</tr>
<tr>
<td>5</td>
<td>O</td>
<td>STOP STATUS</td>
</tr>
<tr>
<td>6</td>
<td>I</td>
<td>NEXT (JOG+1)</td>
</tr>
<tr>
<td>7</td>
<td>I</td>
<td>STOP</td>
</tr>
<tr>
<td>8</td>
<td>O</td>
<td>DISC IN</td>
</tr>
<tr>
<td>9</td>
<td>I</td>
<td>Hi</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>Hi</td>
</tr>
<tr>
<td>11</td>
<td>I</td>
<td>JOG PUSH</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>O</td>
<td>5V</td>
</tr>
<tr>
<td>14</td>
<td>O</td>
<td>REC STATUS</td>
</tr>
<tr>
<td>15</td>
<td>O</td>
<td>CUE/STANDBY STATUS</td>
</tr>
<tr>
<td>16</td>
<td>O</td>
<td>REW</td>
</tr>
<tr>
<td>17</td>
<td>O</td>
<td>PLAY/PAUSE STATUS</td>
</tr>
<tr>
<td>18</td>
<td>O</td>
<td>EOM</td>
</tr>
<tr>
<td>19</td>
<td>I</td>
<td>PREVIOUS (JOG–1)</td>
</tr>
<tr>
<td>20</td>
<td>I</td>
<td>PLAY/PAUSE</td>
</tr>
<tr>
<td>21</td>
<td>O</td>
<td>ERROR STATUS</td>
</tr>
<tr>
<td>22</td>
<td>I</td>
<td>Hi</td>
</tr>
<tr>
<td>23</td>
<td>I</td>
<td>KILL LOCAL</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>O</td>
<td>GND</td>
</tr>
</tbody>
</table>

### For auto signal output

<table>
<thead>
<tr>
<th>Pin number</th>
<th>I/O</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>PLAY/STOP (play during make)</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>PAUSE</td>
</tr>
<tr>
<td>3</td>
<td>O</td>
<td>PLAY STATUS</td>
</tr>
<tr>
<td>4</td>
<td>O</td>
<td>CUE TALLY</td>
</tr>
<tr>
<td>5</td>
<td>O</td>
<td>STOP STATUS</td>
</tr>
<tr>
<td>6</td>
<td>I</td>
<td>NEXT (JOG+1)</td>
</tr>
<tr>
<td>7</td>
<td>I</td>
<td>STOP</td>
</tr>
<tr>
<td>8</td>
<td>O</td>
<td>DISC IN</td>
</tr>
<tr>
<td>9</td>
<td>I</td>
<td>Low</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>Hi</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>O</td>
<td>5V</td>
</tr>
<tr>
<td>14</td>
<td>I</td>
<td>PLAY</td>
</tr>
<tr>
<td>15</td>
<td>O</td>
<td>PAUSE STATUS</td>
</tr>
<tr>
<td>16</td>
<td>O</td>
<td>LEVEL MONITOR</td>
</tr>
<tr>
<td>17</td>
<td>O</td>
<td>DISC EOM</td>
</tr>
<tr>
<td>18</td>
<td>O</td>
<td>EOM</td>
</tr>
<tr>
<td>19</td>
<td>I</td>
<td>PREVIOUS (JOG–1)</td>
</tr>
<tr>
<td>20</td>
<td>I</td>
<td>PLAY/PAUSE</td>
</tr>
<tr>
<td>21</td>
<td>O</td>
<td>ERROR STATUS</td>
</tr>
<tr>
<td>22</td>
<td>I</td>
<td>Hi</td>
</tr>
<tr>
<td>23</td>
<td>I</td>
<td>KILL LOCAL</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>O</td>
<td>GND</td>
</tr>
</tbody>
</table>
For instant playback (Multi-Access function)

<table>
<thead>
<tr>
<th>Pin number</th>
<th>I/O</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>No.1 PLAY</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>No.3 PLAY</td>
</tr>
<tr>
<td>3</td>
<td>I</td>
<td>No.5 PLAY</td>
</tr>
<tr>
<td>4</td>
<td>I</td>
<td>No.7 PLAY</td>
</tr>
<tr>
<td>5</td>
<td>I</td>
<td>No.9 PLAY</td>
</tr>
<tr>
<td>6</td>
<td>I</td>
<td>SELECT</td>
</tr>
<tr>
<td>7</td>
<td>I</td>
<td>STOP</td>
</tr>
<tr>
<td>8</td>
<td>O</td>
<td>DISC IN</td>
</tr>
<tr>
<td>9</td>
<td>I</td>
<td>Hi</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>Hi</td>
</tr>
<tr>
<td>11</td>
<td>I</td>
<td>LOAD</td>
</tr>
<tr>
<td>12</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>13</td>
<td>O</td>
<td>5V</td>
</tr>
<tr>
<td>14</td>
<td>I</td>
<td>No.2 PLAY</td>
</tr>
<tr>
<td>15</td>
<td>I</td>
<td>No.4 PLAY</td>
</tr>
<tr>
<td>16</td>
<td>I</td>
<td>No.6 PLAY</td>
</tr>
<tr>
<td>17</td>
<td>I</td>
<td>No.8 PLAY</td>
</tr>
<tr>
<td>18</td>
<td>I</td>
<td>No.10 PLAY</td>
</tr>
<tr>
<td>19</td>
<td>O</td>
<td>PLAY STATUS</td>
</tr>
<tr>
<td>20</td>
<td>I</td>
<td>PAUSE</td>
</tr>
<tr>
<td>21</td>
<td>O</td>
<td>ERROR STATUS</td>
</tr>
<tr>
<td>22</td>
<td>I</td>
<td>Lpw</td>
</tr>
<tr>
<td>23</td>
<td>I</td>
<td>KILL LOCAL</td>
</tr>
<tr>
<td>24</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>25</td>
<td>O</td>
<td>GND</td>
</tr>
</tbody>
</table>

For edit operations

<table>
<thead>
<tr>
<th>Pin number</th>
<th>I/O</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>EDIT</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>CUE/STANDBY</td>
</tr>
<tr>
<td>3</td>
<td>I</td>
<td>FF</td>
</tr>
<tr>
<td>4</td>
<td>I</td>
<td>DISPLAY</td>
</tr>
<tr>
<td>5</td>
<td>O</td>
<td>STOP STATUS</td>
</tr>
<tr>
<td>6</td>
<td>I</td>
<td>NEXT (JOG+1)</td>
</tr>
<tr>
<td>7</td>
<td>I</td>
<td>STOP</td>
</tr>
<tr>
<td>8</td>
<td>O</td>
<td>DISC IN</td>
</tr>
<tr>
<td>9</td>
<td>I</td>
<td>Low</td>
</tr>
<tr>
<td>10</td>
<td>I</td>
<td>Hi</td>
</tr>
<tr>
<td>11</td>
<td>I</td>
<td>JOG PUSH</td>
</tr>
<tr>
<td>12</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>13</td>
<td>O</td>
<td>5V</td>
</tr>
<tr>
<td>14</td>
<td>I</td>
<td>ENTER</td>
</tr>
<tr>
<td>15</td>
<td>O</td>
<td>CUE/STANDBY STATUS</td>
</tr>
<tr>
<td>16</td>
<td>I</td>
<td>REW</td>
</tr>
<tr>
<td>17</td>
<td>O</td>
<td>PLAY/PAUSE STATUS</td>
</tr>
<tr>
<td>18</td>
<td>I</td>
<td>REHEARSAL</td>
</tr>
<tr>
<td>19</td>
<td>I</td>
<td>PREVIOUS (JOG-1)</td>
</tr>
<tr>
<td>20</td>
<td>I</td>
<td>PLAY/PAUSE</td>
</tr>
<tr>
<td>21</td>
<td>O</td>
<td>ERROR STATUS</td>
</tr>
<tr>
<td>22</td>
<td>I</td>
<td>Low</td>
</tr>
<tr>
<td>23</td>
<td>I</td>
<td>KILL LOCAL</td>
</tr>
<tr>
<td>24</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>25</td>
<td>O</td>
<td>GND</td>
</tr>
</tbody>
</table>
RS-232C Protocol

The connection of MDS-B6P with an external personal computer allows MDS-B6P to be controlled from external equipment including the personal computer. This section describes its operating method from a viewpoint of electrical and software specifications.

Specifications

Format: Serial
Electrical characteristics: RS-232C compatible (not compatible with the 9-pin remote (RS-422A) such as Sony VTR for professional use)
Connector: D-sub, 9-pin, male, inch screw

Pin assignment and I/O signals

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>I/O</th>
<th>Signal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>N. C.</td>
<td>Not used.</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>RxDATA</td>
<td>Inputs reception data.</td>
</tr>
<tr>
<td>3</td>
<td>O</td>
<td>TxDATA</td>
<td>Outputs transmission data.</td>
</tr>
<tr>
<td>4</td>
<td>O</td>
<td>DTR</td>
<td>Notifies that the set is ready for communication.</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>GND</td>
<td>Ground</td>
</tr>
<tr>
<td>6</td>
<td>I</td>
<td>DSR</td>
<td>Acknowledges that the personal computer is ready for communication.</td>
</tr>
<tr>
<td>7</td>
<td>O</td>
<td>RTS</td>
<td>Notifies that the set requests data transmission.</td>
</tr>
<tr>
<td>8</td>
<td>I</td>
<td>CTS</td>
<td>Acknowledges that the personal computer requests data transmission.</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>N. C.</td>
<td>Not used.</td>
</tr>
</tbody>
</table>

Contents of menu set screen

<table>
<thead>
<tr>
<th>Items</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission rate</td>
<td>1200, 2400, 4800, 9600 (bauds)</td>
</tr>
<tr>
<td>Parity</td>
<td>ODD, OFF, or EVEN</td>
</tr>
<tr>
<td>Stop bit length</td>
<td>Stop bit 1 or Stop bit 2</td>
</tr>
</tbody>
</table>

1. Press the EDIT/NO button on the deck while holding down the STOP button.
   The Setup menu appears in the display window.
2. Turn the AMS control to display the menu item you want to set (F08: baud rate, F09: parity bit, or F10: stop bit).
3. Press the AMS control.
4. Turn the AMS control to select the setting value.
5. Press the AMS control again to affect the selection. The settings are saved even after the power is turned off and on again.

Communication with the RS-232C interface terminal on the personal computer side

When connecting the RS-232C interface terminal of MDS-B6P with that of the personal computer, perform as follows:
Connect the DSR of MDS-B6P with DTR of the personal computer, and DTR of the set with DSR of the personal computer. These signals notify that both the MDS-B6P and the personal computer are ready for communication.
Also, connect the CTS of the MDS-B6P with RTS of the personal computer. The MDS-B6P does not transmit that data until the CTS is received (that is, the personal computer is ready). Likewise, connect the CTS of the personal computer with RTS of the MDS-B6P so that the communication that meets the processing capacity of the MDS-B6P can be made.

Synchronous mode between MDS-B6P and the personal computer

Adjust the transmission rate, bit length, parity and stop bit length. The following provides a setting method.
Connection of connectors

<table>
<thead>
<tr>
<th>MD deck side</th>
<th>Personal computer side</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pin No.</td>
<td>Signal</td>
</tr>
<tr>
<td>----</td>
<td>------</td>
</tr>
<tr>
<td>2</td>
<td>RxDATA</td>
</tr>
<tr>
<td>3</td>
<td>TxDATA</td>
</tr>
<tr>
<td>4</td>
<td>DTR</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
</tr>
<tr>
<td>6</td>
<td>DSR</td>
</tr>
<tr>
<td>7</td>
<td>RTS</td>
</tr>
<tr>
<td>8</td>
<td>CTS</td>
</tr>
</tbody>
</table>

Timing chart

**In transmitting data**

- CTS
- TxRDY
- WRITE
- TxDATA

When the CTS becomes enabled, the TxRDY (TxREADY) signal of the deck rises up and the deck returns 1 byte of data.

**In receiving data**

- RxDATA
- RxRDY
- RTS
- READ

Upon reception of data, the RxRDY (RxREADY) signal of the MDS-B6P rises up and the set disables the RTS to read that data, then it enables the RTS again.

Transmission rate

The deck can use the transmission rate of maximum 9,600 bauds. As for practical figures at the SMPTE 29.97 Hz:

9600 (bit/sec)/11 (bit)/29.97 (1/sec)=29.12 (byte) \[ 1 \text{ (sec)}/9600 \text{ (bit/sec)} \times 11 \text{ (bit)} = 1.145 \text{ (msec)} \]

Namely, in one frame, the maximum number of bytes is 29 and its byte interval is 1.145 msec. Upon reception of a command in one cycle, the set uses the RTS/CTS of hardware handshake to deassert that RTS (0) line so that it does not receive the next command block for subsequent 30 msec. This means that if the command blocks are transmitted at random, the contents of transmission accumulate or they are destroyed. Also, since the data is received by the interrupt processing of CPU, the communication ignoring handshake, transfer clock or transmission rate allows the set to receive data preceedently, causing other processing not to be executed and resulting in stop of operation. (The deck will be recovered if data reception is canceled.) Thus, the above points should be taken into consideration when making a software using this interface.
Command transmission format

The command transmission format of the set is as shown below.
All codes conform to the ASCII format. (Use uppercase letters for A to F.) Add the line feed (L. F.) and carriage return (C. R.) at the top and end of command respectively. Also, the number of data "N" is given in the ASCII code.

<table>
<thead>
<tr>
<th>L. F.</th>
<th>N</th>
<th>cmd-1</th>
<th>cmd-2</th>
<th>data-1</th>
<th>data-2</th>
<th>C. R.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note
The MDS-B6P does not support a command that gives notice of data receive error.

Examples of command

Example 1: If PLAY command is sent
The playback is automatically starts when the PLAY command is sent in the STOP or PAUSE status. The code of this command is "011H" as given in the command list starting from page A-11.
The "0" is added at the top of each command, which means that if a command containing alphabets such as "0FFH" is used, the "F" indicates hexadecimal "F" but it is not an alphabet "F" of ASCII codes. Therefore, this "0" may be ignored in actual code conversion.
This "011H" is sent in the specified command transmission format, as shown below.

N=2 because total number of data is 2

Example 2: If you specify the track number 123
For this purpose, two commands "TRACK No. LOCATE POINT PRESET" and "TRACK No. LOCATE" must be output.
1 The code of "TRACK No. LOCATE POINT PRESET" is "023H" according to "List of Commands" (see page A-10).
2 The following data is attached with this command.
   DATA1 (10, 1) (0000-255, decimal number)
   DATA2 (**, 100)
This specifies the track number to be played back (up to 255 tracks in one disc can be set).
   "10": Second digit of the track number to be specified
   "1": First digit of the track number to be specified
   "**": Fourth digit of the track to be specified
   "100": Third digit of the track to be specified
   (always set to zero)
   Accordingly, the commands to specify the track number 123 is "023H" and "the contents of DATA" as shown below.

3 The code of "TRACK No. LOCATE" is "01BH" according to "List of Commands" (see page A-10).
   This "01BH" is output in the specified command transmission format, as shown below.

4 Under this condition, if the AUTO PAUSE function is turned off, The MDS-B6P locates and plays the track number 123 immediately. When the AUTO PAUSE function is turned on, The MDS-B6P locates the track and pauses at the beginning of the track.
Primary RS-232C-controllable functions supported by the MDS-B6P

1 Supported functions

<table>
<thead>
<tr>
<th>Items</th>
<th>Descriptions</th>
<th>Reference commands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>STOP</td>
<td>010H</td>
</tr>
<tr>
<td>Operations</td>
<td>PLAY(playback)</td>
<td>011H</td>
</tr>
<tr>
<td></td>
<td>PAUSE ON/OFF (pauses/cancels pauses)</td>
<td>010H</td>
</tr>
<tr>
<td></td>
<td>CUE STANDBY (returns to the point where the play started and pauses)</td>
<td>010H</td>
</tr>
<tr>
<td></td>
<td>CUE (scans forward or backward in fast playback)</td>
<td>016H</td>
</tr>
<tr>
<td></td>
<td>NEXT/PREVIOUS (locates tracks ahead of or before the current point)</td>
<td>01AH</td>
</tr>
<tr>
<td></td>
<td>TRACK LOCATE (plays the specified track)</td>
<td>01BH</td>
</tr>
<tr>
<td></td>
<td>Sets the track order for program play (changes the track order to be played temporarily) and sensing the contents of the setting.</td>
<td>024H</td>
</tr>
<tr>
<td></td>
<td>Sets or clears the program play data (program area).</td>
<td>02CH</td>
</tr>
<tr>
<td></td>
<td>EJECT (ejects a disc)</td>
<td>010H</td>
</tr>
<tr>
<td>Mode settings</td>
<td>TIMER PLAY (starts play automatically when the power is turned on)</td>
<td>034H</td>
</tr>
<tr>
<td></td>
<td>AUTO PAUSE (pauses after playing each track)/AUTO CUE (locates the rising point of the sound at the beginning of the tracks)</td>
<td>030H</td>
</tr>
<tr>
<td></td>
<td>Sets the duration for the EOM function (outputs the status of the end of a track/disc).</td>
<td>032H</td>
</tr>
<tr>
<td></td>
<td>Turns on or off the AUTO DISPLAY (displays the track title and time information alternately).</td>
<td>031H</td>
</tr>
<tr>
<td></td>
<td>Misoperation prevention mode (disables most of the buttons and controls on the MDS-B6P).</td>
<td>04CH</td>
</tr>
<tr>
<td>Status detection</td>
<td>Detects the model name and the software version.</td>
<td>08FH</td>
</tr>
<tr>
<td></td>
<td>Detects that the power is turned on.</td>
<td>074H</td>
</tr>
<tr>
<td></td>
<td>Detects that the disc is inserted or not, the type of the disc (pre mastered or recordable), and the record-protect slot is open or closed.</td>
<td>0D6H</td>
</tr>
<tr>
<td></td>
<td>Detects the total number of tracks and the total disc playing time.</td>
<td>0DDH</td>
</tr>
<tr>
<td></td>
<td>Detects the operation status (playing, stopped, pausing, cueing, or disc has been ejected).</td>
<td>0D0H</td>
</tr>
<tr>
<td></td>
<td>Detects the current program number.</td>
<td>0D5H</td>
</tr>
<tr>
<td></td>
<td>Detects that the next track is located during playing.</td>
<td>076H</td>
</tr>
<tr>
<td></td>
<td>Detects the setting of the EOM function.</td>
<td>076H</td>
</tr>
<tr>
<td></td>
<td>Detects that an error message is output.</td>
<td>070H</td>
</tr>
<tr>
<td></td>
<td>Detects that a caution is output.</td>
<td>071H</td>
</tr>
<tr>
<td></td>
<td>Detects that an illegal message is output.</td>
<td>072H</td>
</tr>
<tr>
<td>Items</td>
<td>Descriptions</td>
<td>Reference commands</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Time information</td>
<td>Detects the total operation time of the spindle motor.</td>
<td>05EH</td>
</tr>
<tr>
<td></td>
<td>Detects the elapsed time of the current track.</td>
<td>0D8H</td>
</tr>
<tr>
<td></td>
<td>Detects the remaining time of the track being played or paused.</td>
<td>0DCH</td>
</tr>
<tr>
<td>Character information</td>
<td>Detects the disc title.</td>
<td>0D7H</td>
</tr>
<tr>
<td></td>
<td>Detects the title of the current track.</td>
<td>0D9H</td>
</tr>
<tr>
<td>Editing functions</td>
<td>TRACK ERASE (Erases the current or specified track.)</td>
<td>013H</td>
</tr>
<tr>
<td></td>
<td>ALL ERASE (Erases the contents of the disc at one time.)</td>
<td>013H</td>
</tr>
<tr>
<td></td>
<td>DIVIDE (Divides a track.)</td>
<td>017H</td>
</tr>
<tr>
<td></td>
<td>COMBINE (Combines tracks.)</td>
<td>018H</td>
</tr>
<tr>
<td></td>
<td>MOVE (Change places of tracks.)</td>
<td>019H</td>
</tr>
</tbody>
</table>

2 Functions not supported
- Inserting a disc (Disc insertion is performed only through the manual operation.)
- Detection of the total elapsed time and total remaining time of the disc.
- Displaying all the titles on the disc (Titles are displayed only one at a time.)
<table>
<thead>
<tr>
<th>Upper digit</th>
<th>Lower digit</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<tr>
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<td>CUE STANDBY</td>
<td>EJECT</td>
<td>AUTO PAUSE</td>
<td>AUTO CUE SELECT</td>
<td>MECHA STATUS</td>
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<td>ERROR SENSE</td>
<td>AUTO PAUSE</td>
<td>AUTO CUE RETURN</td>
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<td>REQUEST</td>
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<td></td>
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<tr>
<td>1</td>
<td>PLAY</td>
<td>AUTO DISPLAY</td>
<td>SELECT</td>
<td>CAUTION</td>
<td>SENSE</td>
<td>REQUEST</td>
<td>AUTO PAUSE</td>
<td>DISPLAY RETURN</td>
<td>MECHA STATUS</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>END OF MESSAGE</td>
<td>TIME PRESET</td>
<td>ILLEGAL</td>
<td>SENSE REQUEST</td>
<td>END OF MESSAGE</td>
<td>TIME RETURN</td>
<td>MECHA STATUS</td>
<td>REQUEST</td>
<td>AUTO PAUSE</td>
<td>AUTO CUE RETURN</td>
<td>MECHA STATUS</td>
<td>REQUEST</td>
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<tr>
<td>3</td>
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<td>TRACK NO.</td>
<td>LOCATE</td>
<td>POINT</td>
<td>PRESET</td>
<td>POWER ON</td>
<td>TIMER RETURN</td>
<td>TRACK NO.</td>
<td>LOCATE POINT RETURN</td>
<td>MECHA STATUS</td>
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</tr>
<tr>
<td>4</td>
<td>PGM TRACK</td>
<td>NO. PRESET</td>
<td>TIMER PLAY</td>
<td>SELECT</td>
<td>POWER ON</td>
<td>STATUS</td>
<td>PGM TRACK</td>
<td>NO. RETURN</td>
<td>TIMER PLAY RETURN</td>
<td>MECHA STATUS</td>
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<td>5</td>
<td>MULTI ACCESS PRESET</td>
<td>TRACK NO.</td>
<td>SENSE</td>
<td>CURRENT</td>
<td>TRACK NAME</td>
<td>SENSE</td>
<td>ERROR SENSE</td>
<td>CURRENT TRACK TIME SENSE</td>
<td>ERROR SENSE</td>
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<tr>
<td>6</td>
<td>CUE</td>
<td>NEXT AMS</td>
<td>SET</td>
<td>DISC STATUS</td>
<td>SENSE</td>
<td>MODE CHANGE</td>
<td>STATUS</td>
<td>NEXT AMS</td>
<td>RETURN</td>
<td>DISC STATUS RETURN</td>
<td>MECHA STATUS</td>
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<tr>
<td>7</td>
<td>DIVIDE</td>
<td>DISC NAME</td>
<td>SENSE</td>
<td>SENSE</td>
<td>IN</td>
<td>DISC NAME</td>
<td>SENSE</td>
<td>REQUEST</td>
<td>MECHA STATUS</td>
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<tr>
<td>8</td>
<td>COMBINE</td>
<td>CURRENT</td>
<td>TRACK TIME</td>
<td>SENSE</td>
<td>ERROR SENSE</td>
<td>CURRENT TRACK NAME</td>
<td>SENSE</td>
<td>ERROR SENSE</td>
<td>CURRENT TRACK NAME</td>
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<td>MOVE</td>
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<td>TRACK NAME</td>
<td>CAUTION</td>
<td>SENSE</td>
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<tr>
<td>A</td>
<td>TRACK LOCATE</td>
<td>PLAY MODE</td>
<td>SELECT</td>
<td>ERROR DATA CLEAR</td>
<td>PLAY MODE</td>
<td>SELECT</td>
<td>ERROR DATA CLEAR</td>
<td>MECHA STATUS</td>
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</tr>
<tr>
<td>B</td>
<td>TRACK NO. LOCATE</td>
<td>REPEAT</td>
<td>MODE SELECT</td>
<td>CAUTION</td>
<td>DATA CLEAR</td>
<td>MECHA STATUS</td>
<td>REQUEST</td>
<td>REQUEST</td>
<td>MECHA STATUS</td>
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</tr>
<tr>
<td>C</td>
<td>PGM MODE SET</td>
<td>SWITCH ENABLE</td>
<td>SELECT</td>
<td>CURRENT TRACK REMAIN TIME SENSE</td>
<td>PGM MODE RETURN</td>
<td>SWITCH ENABLE RETURN</td>
<td>CURRENT TRACK NAME</td>
<td>SENSE</td>
<td>REQUEST</td>
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</tr>
<tr>
<td>D</td>
<td>MULTI ACCESS SET</td>
<td>KILL LOCAL</td>
<td>MODE SELECT</td>
<td>TOTAL TRACK NO.</td>
<td>TOTAL TIME SENSE</td>
<td>ERROR STATUS RETURN</td>
<td>MULTI ACCESS SLOT</td>
<td>RETURN</td>
<td>KILL LOCAL MODE RETURN</td>
<td>TOTAL TRACK NO.</td>
<td>TOTAL TIME RETURN</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>E</td>
<td>HOUR METER SENSE</td>
<td>CUE POINT</td>
<td>STATUS SENSE</td>
<td>INFORMATION REQUEST</td>
<td>INFORMATION RETURN</td>
<td>HOUR METER RETURN</td>
<td>INFORMATION REQUEST</td>
<td>MECHA STATUS</td>
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</tr>
</tbody>
</table>

indicates that the data is attached to the command.
**INFORMATION REQUEST**

Command: 00FH  
Function: Requests the information such as model name and version of the MDS-B6P.  
Data: None  
RETURN command: 08FH

**STOP, PAUSE, CUE, STANDBY, EJECT**

Command: 010H  
Function: Activates the STOP, PAUSE, CUE, STANDBY or EJECT function.  
- **STOP function**  
  Stops the motor and rotation of the disc. The mechanism becomes completely stationary.  
- **PAUSE function**  
  The MDS-B6P stores the audio signals in the buffer memory while in the PAUSE mode, therefore the audio signals are immediately played without the time lag when the deck changes to PLAY mode. Also, while pausing at the beginning of a track, the silent portion at the beginning of the track is skipped if the AUTO CUE function is turned on. This enables the playback starting exactly from the rising point of the sound. Note that the AUTO PAUSE function is automatically turned on when the AUTO PAUSE function is turned on. For details, see “AUTO PAUSE, AUTO CUE SELECT” Command: 030H.  
- **CUE STANDBY function**  
  When this command is output, the deck locates the position where the playback started the last time and pauses at the point. This function is useful for relocating a certain point in a track after confirming the point by listening.  
- **EJECT function**  
  The deck ejects the disc. This command is active only when the deck is stopped. There is no command for inserting the disc since the disc insertion is possible only through manual operation. Therefore, you cannot insert the disc once ejected by command operation using an external remote controller.

Data: 1  
DATA1  
000H: STOP  
001H: CUE STANDBY  
002H: PAUSE ON  
003H: PAUSE OFF  
0004: EJECT (disc ejection only, active only when the deck is stopped)  
RETURN command: None

**PLAY**

Command: 011H  
Function: Starts playback.  
**Note**  
Even when the deck is pausing, the deck starts playback whenever the PLAY command is sent without sending the PAUSE OFF command.  
Data: None  
RETURN command: None

**ERASE**

Command: 013H  
Function: Erases (a) track(s).  
When the “003H: TRACK ERASE” or “004H: ALL ERASE” described below is output, the current track or the entire contents of the disc are erased in an instant.  
Data: 1 (3)  
DATA1  
003H: TRACK ERASE (Erases a specified track.) (See “Note on the TRACK ERASE command” below.)  
004H: ALL ERASE (Erases all tracks on a disc.)  
RETURN command: None
**Note on the TRACK ERASE command**
Output this command only when the deck is stopped or pausing. If it is output during playback, confusion may occur due to deletion of (a) track(s).
- When erasing a specific track while the deck is stopped, send the following data after sending DATA1 (003H): DATA2 (10, 1) (*000—255 (in decimal number)), DATA3 (**, 100)
- When erasing a specific track while the deck is pausing, send DATA1 (003H).

**CUE**

Command: 016H
Function: Starts cueing while monitoring the sound in faster speed than normal playback.

**Notes**
- The cueing is possible only when the deck is playing.
- The pitch of the playback sound does not change. However, the playback sound is chopped and you might not be able to recognize the detail of the track.
- You cannot change the cueing speed.
- On the MDS-B6P, cueing is performed by holding the ◄ or ► button while it is playing.

Data: 1
DATA1
002H: fast forward scan
002H: fast backward scan
RETURN command: None

**DIVIDE**

Command: 017H
Function: Divides a track. This command is accepted in the PLAY or PAUSE mode.

DATA: 1
DATA1
000H: Divides a track at the position where the deck is currently playing or pausing.
001H: Starts the rehearsal to divide a track at the position where the deck is currently playing or pausing.
002H: Shifts the rehearsal starting point in forward direction.

003H: Shifts the rehearsal starting point in reverse direction.
004H: Divides a track at the current rehearsal starting point.
005H: Changes the unit for moving the rehearsal starting point in the following order: frame → Sec → Min.

**Note**
Sending this command in the PLAY mode could change the track numbers, resulting in confusion.

RETURN command: None

**COMBINE**

Command: 018H
Function: Combines succeeding tracks. This command is accepted in the STOP, PLAY or PAUSE mode.

DATA: 1 (3)
DATA1
000H: If there are no DATA2 and DATA3: A track currently being played or paused and the previous track are combined.
If there are DATA2 and DATA3: When in the STOP mode, a track specified by the DATA2 and DATA 3 and the previous track are combined.
001H: Starts rehearsal play for combining the tracks at the position where the two tracks will be joined. If there are DATA2 and DATA3, the rehearsal playback at the position where the track specified by DATA2 and DATA3 and the previous track will be joined starts.
002H: The tracks are combined at the rehearsed position
DATA2 (10, 1)
DATA3 (**, 100)
Specify the track No. to be combined in the STOP mode.

**Note**
Sending this command in the PLAY mode could change the track numbers and may result in confusion. Therefore, operation should be performed in the PAUSE status.

RETURN command: None
**MOVE**

Command: 019H

Function: Moves a specific track to the desired position to change the order of play. Issue this command in the STOP, PLAY or PAUSE mode.

DATA: 2 (4)
- DATA1 (10, 1)
- DATA2 (**, 100) destination (001-255, decimal number)
- DATA3 (10, 1)
- DATA4 (**, 100) the track to be moved (001-255, decimal number)

**Notes**
- If the MOVE command is executed in the PLAY or PAUSE mode, DATA: 2 is required.
- Sending this command in the PLAY mode could change the track numbers and may result in confusion.
- If the MOVE command is executed in the STOP mode, DATA: 4 is required.

RETURN command: None

---

**TRACK No. LOCATE POINT PRESET**

Command: 023H

Function: Specifies the track to be located. This command is used together with the "TRACK No. LOCATE" (019H) command listed above.

DATA: 2 (1)
- DATA1 (10, 1) (001 to 255, decimal number)
- DATA2 (**, 100)
- DATA1=0FFH: TRACK No. LOCATE POINT SENSE
- However, when DATA1 is 0FFH, TRACK No. LOCATE POINT SENSE becomes active to request the RETURN command 0A3H.

RETURN command: 0A3H

---

**TRACK LOCATE**

Command: 01AH

Function: Skips the tracks in forward or reverse direction.

DATA: 1
- DATA1
  - 000H: NEXT
  - 001H: PREVIOUS

RETURN command: None

---

**TRACK No. LOCATE**

Command: 01BH

Function: Locates a specific track. This command is used together with the "TRACK No. LOCATE POINT PRESET" (023H) command described below to locate a track preset by the 023H command.

**Note**
Although the deck does not provide this function, the devices used for recording or playback supports this function by operating the 10 keys on the remote controller.

DATA: None
RETURN command: None

---

**PGM TRACK No. PRESET**

Command: 024H

Function: Selects the tracks for program play. The tracks can be set for each program area. (program area 1-25).

In this case, set the track order and program area.

DATA: 4 (2)
- DATA1 (10, 1)
- DATA2 (**, 100)
- Track No. (001 to 255) (DATA1: 0FFH)
  - (DATA2: ** for PGM SENSE)
- DATA3 (10, 1) track order (STEP) (01 to 25)
- DATA4 (10, 1) program area (00 to 39)

**Note**
If DATA3 and DATA4 are omitted (DATA: 2), the program area is 00, and the tracks are assigned sequentially to the area where no track number has been assigned.

RETURN command: 0A4H
**MULTI ACCESS PRESET**

Command: 025H  
Function: Registers tracks for multi-access function into the slot.  
DATA: 3  
DATA1 (10, 1)  
DATA2 (**, 100): (track number 001 to 255)  
DATA3 (10, 1): slot No. 1 to 10  
DATA1: 0FFH for sense  
RETURN command: A5H  

**Notes**  
- Set from the slot No.1. If you set from other than the slot No.1, Tr 1 is assigned to the slot which has not assigned a track.  
- If you set the slot which has already been assigned a track, it will be overwritten and the previous setting will be lost.  
- This command overwrites only the specified slot and the settings in the other slots remain. If you want to set fewer slots than in the previous setting, clear the slots using the command 2DH before setting (see the example below).

**Example:**  
Previous setting: /1-2-3-4-5/  
If you want to assign Tr 9, 8, and 7 to the slot 1, 2, and 3 respectively without clearing the slots using the command 2DH, the slot No.1, 2, and 3 are overwritten and the slot No.4 and 5 remain, resulting the setting of "9-8-7-4-5/". If you clear the slots using the command 2DH before setting, the setting results in "/9-8-7/.

**NEXT AMS SET**

Command: 026H  
Function: Sets the Next AMS function.  
DATA: 3  
DATA1: (10, 1)  
DATA2: (**, 100)  
: Tr No. 001-255  
: Tr No. 001-255 (when playback mode is continuous play)  
: slot No. 1-10 (when playback mode is multi access play)  
: step No. 1-25 (when playback mode is program play)

DATA3: 000H: next AMS off  
: 001H: next AMS on  
DATA1: 0FFH for sense  
RETURN command: A6H  

**Notes**  
- To set the Next AMS function, set the DATA1 or DATA2 to "Tr No. DATA3 = 01H."
- To change the Tr No. setting, set the Tr No. DATA3 to 01H you want to change to DATA1 or DATA2.
- To turn the Next AMS off, set the DATA3 = 00H.

**PGM MODE SET**

Command: 02CH  
Function: Sets the data in a specific program area for program play.  
DATA: 2 (1)  
DATA1  
000H: PROGRAM SET  
001H: PROGRAM SET PAUSE  
002H: PROGRAM SET PLAY (active only when the AUTO PAUSE and AUTO CUE functions are off)  
0CCH: PROGRAM CLEAR (Program area = 00, if there is no DATA2)  
0EEH: PROGRAM MODE RESET (There is no DATA2)  
(This command is accepted in the STOP mode only)  
0FFH: PROGRAM MODE SENSE (There is no DATA2)  
DATA2 (10, 1)  
Program area (00 to 39)  
(In the case of PROGRAM CLEAR command, the program area = 0AA means that all program areas are cleared.)  

**Note**  
In the PROGRAM SET, PAUSE, PLAY or PROGRAM CLEAR mode, the program area is 00 if there is no DATA2.

RETURN command: 0ACH
**MULTI ACCESS SET**

Command: 02DH
Function: Plays, memorizes, and clears the track data specified for multi-access function.

DATA: 1
DATA1: (10, 1): Instant playback of slot No. 1-10
DATA1: (10, 1): 0AAH: Loading the track data into the memory
DATA1: (10, 1): 0CCH: Clearing the setting
DATA1: (10, 1): 0FFH: Used for sense to show the slot number currently played.

RETURN command: ADH

Notes
- Merely presetting using the command 25H will not set the track data into memory. The DATA1: 0AAH of this command should be executed to set the track data into memory before instant playback.
- Clearing the track data in the memory using 0CCH must be done while the MD deck is stopped.
- The sensing must be done during playback or pause status.

**AUTO DISPLAY SELECT**

Command: 031H
Function: Switches the display on the deck between title display and the time display. Since the title and time are displayed simultaneously at all times, the deck does not respond to this command.

DATA: 1
DATA1
0FFH: (always returns 001H = AUTO DISPLAY ON)

RETURN command: 0B1H

**END OF MESSAGE TIME PRESET**

Command: 032H
Function: This function outputs the status from RS-232C connector when the remaining time up to the end of track becomes several seconds (settable range: 1 to 35 sec. in the Track EOM and 1 to 10 sec. in the Disc EOM) during playing of a certain track.

The use of this function enables control of other external equipment, expecting the end of track.

Note
To turn off this function, set the EOM to 000H.

DATA: 1
DATA1
000H: EOM MODE OFF
If Track EOM is set:
    (10, 1) {*00 to 035, decimal number}
If Disc EOM is set: (E, X)
X=0: one second before the end of the disc
X=1: two seconds before the end of the disc
X=9: ten seconds before the end of the disc
0FFH: EOM SENSE

RETURN command: 0B2H
Command Descriptions

**TIMER PLAY SELECT**

Command: 034H
Function: Starts playing automatically when the power is turned on. This function expects a simple control by an external timer device that turns on/off the AC power supply.

DATA: 1
   DATA1
   000H: TIMER PLAY OFF
   001H: TIMER PLAY ON
   002H: TIMER PLAY RESUME PLAY
   003H: TIMER PLAY RESUME NEXT
   0FFH: sense

RETURN command: 0B4H

**PLAY MODE SELECT**

Command: 03AH
Function: Selects the play mode.

DATA: 1
   DATA1
   000H: CONTINUE
   001H: SHUFFLE
   002H: PROGRAM
   003H: MULTI ACCESS
   0FFH: sense

*Note*
Use this command while the MD deck is stopped.

RETURN command: 0BAH

**REPEAT MODE SELECT**

Command: 03BH
Function: Selects the repeat mode.

DATA: 1
   DATA1
   000H: REPEAT OFF
   001H: REPEAT ON
   0FFH: sense

*Note*
Use this command while the MD deck is stopped.

RETURN command: 0BBH

**KILL LOCAL MODE SELECT**

Command: 03DH
Function: Selects the Kill Local function mode.

DATA: 1
   DATA1
   000H: KILL ALMOST
   001H: KILL ALL
   0FFH: sense

*Note*
Use this command while the MD deck is stopped.

RETURN command: 0BDH

**SWITCH ENABLE SELECT (KILL LOCAL function)**

Command: 04CH
Function: Enables/disables operation buttons on the front panel of the deck. Select the DISABLE (KILL LOCAL function) when you want to prevent misoperation. Also, the deck provides the KILL LOCAL function in the parallel remote control mode, and the function is active if either RS-232C control or parallel control is turned on.

DATA: 1
   DATA1
   000H: DISABLE
   001H: ENABLE
   0FFH: SWITCH ENABLE SENSE

RETURN command: 0CCH

**MECHA STATUS SENSE**

Command: 050H
Function: Demands to output the status information of mechanism.

For the description of statuses, see “MECHA STATUS RETURN”: 0D0H on page A-??.

DATA: None

RETURN command: 0D0H
**TRACK No. STATUS SENSE**

Command: 055H
Function: Demands to output current track number.
DATA: None
RETURN command: 0D5H

**DISC STATUS SENSE**

Command: 056H
Function: Demands to output information including a disc is inserted or not, if it is premastered or recordable disc, and if the record-protect slot is open or not.
DATA: None
RETURN command: 0D6H

**DISC NAME SENSE**

Command: 057H
Function: Demands to output the disc title (character information).
DATA: 1, or none (in this case, DATA=000H)

<table>
<thead>
<tr>
<th>DATA1</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>000H</td>
<td>1 to 8 characters from the beginning</td>
</tr>
<tr>
<td>001H</td>
<td>9 to 16 characters from the beginning</td>
</tr>
<tr>
<td>002H</td>
<td>17 to 24 characters from the beginning</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>009H</td>
<td>73 to 80 characters from the beginning</td>
</tr>
<tr>
<td>00AH</td>
<td>81 to 88 characters from the beginning</td>
</tr>
<tr>
<td>00BH</td>
<td>89 to 96 characters from the beginning</td>
</tr>
<tr>
<td>00CH</td>
<td>97 to 100 characters from the beginning</td>
</tr>
</tbody>
</table>

RETURN command: 0D7H

**CURRENT TRACK TIME SENSE**

Command: 058H
Function: Demands to output the elapsed time of a track in PLAY or PAUSE mode. The “minute/second” and “minute/second/sub-second” can be selected.

**Note**
The MD format of the deck does not contain the time code. For this reason, the set does not support the slave operation by means of external cycle or phase modulation.

DATA: 1

<table>
<thead>
<tr>
<th>DATA1</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>000H</td>
<td>Output of minute/second</td>
</tr>
<tr>
<td>001H</td>
<td>Output of minute/second/sub-second</td>
</tr>
</tbody>
</table>

RETURN command: 0D8H

**CURRENT TRACK NAME SENSE**

Command: 059H
Function: Demands to output the title (character information) of the current track in PLAY or in PAUSE mode.

DATA: 1, or none (in this case, DATA1=000H)

<table>
<thead>
<tr>
<th>DATA1</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>000H</td>
<td>1 to 8 characters from the beginning</td>
</tr>
<tr>
<td>001H</td>
<td>9 to 16 characters from the beginning</td>
</tr>
<tr>
<td>002H</td>
<td>17 to 24 characters from the beginning</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>009H</td>
<td>73 to 80 characters from the beginning</td>
</tr>
<tr>
<td>00AH</td>
<td>81 to 88 characters from the beginning</td>
</tr>
<tr>
<td>00BH</td>
<td>89 to 96 characters from the beginning</td>
</tr>
<tr>
<td>00CH</td>
<td>97 to 100 characters from the beginning</td>
</tr>
</tbody>
</table>

RETURN command: 0D9H
**CURRENT TRACK REMAIN TIME SENSE**

Command: 05CH  
Function: Demands to output the remaining time from current point in PLAY or PAUSE mode to the end of track.  
*Note*  
This function outputs the time in minute/second only, and the sub-second time is not output.  
DATA: None  
RETURN command: 0DCH

**TOTAL TRACK No., TOTAL TIME SENSE**

Command: 05DH  
Function: Demands to output the total number of tracks and total time of a disc.  
DATA: None  
RETURN command: 0DDH

**HOUR METER SENSE**

Command: 05EH  
Function: Demands to output total operation hours of spindle motor.  
*Note*  
On the deck, the time is displayed in the MENU mode.  
DATA: 1  
000H: Operation hours of spindle motor  
RETURN command: 0DEH

**DISC NAME IN**

Command: 067H  
Function: Enters disc title.  
DATA: 2 to 9  
DATA1  
000H: 1 to 8 characters from the beginning  
001H: 9 to 16 characters from the beginning  
002H: 17 to 24 characters from the beginning  
009H: 73 to 80 characters from the beginning  
00AH: 81 to 88 characters from the beginning

DATA2: The first character set in DATA1  
DATA3: The second character set in DATA1  
DATA4: The third character set in DATA1  
DATA5: The fourth character set in DATA1  
DATA6: The fifth character set in DATA1  
DATA7: The sixth character set in DATA1  
DATA8: The seventh character set in DATA1  
DATA9: The eighth character set in DATA1  
*Notes*  
- When you want to input a disc title fewer than 8 characters, decrease the number of DATA as required. For example, if you want enter "ABC", set the number of DATA to four and make each DATA as follows:  
  DATA1: 00H  
  DATA2: A  
  DATA3: B  
  DATA4: C  
As the character part is ASCII data, the actual data sent is as follows:  
- DATA1=0CCH erases the disc title and will not be accepted during recording.

**TRACK NAME IN**

Command: 069H  
Function: Enters track title.  
DATA: 2 to 9  
DATA1  
000H: 1 to 8 characters from the beginning  
001H: 9 to 16 characters from the beginning  
002H: 17 to 24 characters from the beginning  
009H: 73 to 80 characters from the beginning  
00AH: 81 to 88 characters from the beginning  
00BH: 89 to 96 characters from the beginning  
00CH: 97 to 100 characters from the beginning  
0CCH: Erases a track title.  
0AAH: Erases all titles (of both tracks and disc) on the disc.
DATA2: The first character set in DATA1
DATA3: The second character set in DATA1
DATA4: The third character set in DATA1
DATA5: The fourth character set in DATA1
DATA6: The fifth character set in DATA1
DATA7: The sixth character set in DATA1
DATA8: The seventh character set in DATA1
DATA9: The eighth character set in DATA1

Notes
- When you want to input a track title fewer than 8 characters, decrease the number of DATA as required. For example, if you want enter “ABC”, set the number of DATA to four and make each DATA as follows:
  - DATA1: 000H
  - DATA2: A
  - DATA3: B
  - DATA4: C

  As the character part is ASCII data, the actual data sent is as follows:

<table>
<thead>
<tr>
<th>Line Feed</th>
<th>N=7</th>
<th>&quot;069H&quot;</th>
<th>&quot;00H&quot;</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Carriage Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>00AH</td>
<td>037H</td>
<td>036H</td>
<td>039H</td>
<td>030H</td>
<td>030H</td>
<td>041H</td>
<td>042H</td>
</tr>
</tbody>
</table>

- During playback, pause, recording, or AMS status, a track name will be entered to the currently played or selected track.
- While the MD deck is stopped, a track name will be entered to the track specified with the command 023H (Track No. LOCATE POINT PRESET). The command 023H have to be issued before entering a track title.
- DATA1=0CCH erases a track title.
- DATA1=0AAH erases all the track and disc titles on the disc and will not be accepted during recording.

ERROR SENSE REQUEST

Command: 070H
Function: The deck outputs this information to indicate that an error (failure or trouble) occurred within the deck.
If this information is output, the controller should issue the "ERROR SENSE": 078H command to sense its contents.
DATA: None
RETURN command: 078H

MODE CHANGE STATUS

Command: 076H
Function: The deck notifies that the mode has changed as indicated with DATA1.
DATA: I
  - DATA1
  000H: MECHA STATUS CHANGE
  Upon this request from the deck, the controller should issue the "MECHA STATUS SENSE": 050H.
DATA: 4
DATA1 (10, 1)
DATA2 (**, 100) track No. (001 to 255)
DATA3 (10, 1) track order (STEP) (01 to 25)
DATA4 (10, 1) program area (00 to 39)
REQUEST command: 024H

**MULTI ACCESS PRESET RETURN**

Command: 0A5H
Function: Returns information for the "MULTI ACCESS PRESET": 025H.
DATA: 3
DATA1 (10, 1)
DATA2 (**, 100) track No. (001 to 255)
DATA3 (10, 1) slot No. (1-10)
REQUEST command: 025H

**NEXT AMS RETURN**

Command: 0A6H
Function: Returns information for the "NEXT AMS SET": 026H.
DATA: 3
DATA1 (10, 1)
DATA2 (**, 100) track No. (001 to 255)
DATA3: 000H: NEXT AMS OFF
001H: NEXT AMS ON
REQUEST command: 026H

*Note*
DATA1 and DATA2 is undefined when the NEXT AMS is turned off.

**PGM MODE RETURN**

Command: 0ACH
Function: Returns information for the "PGM MODE SET": 02CH.
DATA: 2
000H: PGM MODE OFF
001H: PGM MODE ON
REQUEST command: 02CH

**MULTI ACCESS SLOT RETURN**

Command: 0ADH
Function: Returns information for the "MULTI ACCESS SET": 02DH.
DATA: 1
DATA1: (10, 1): the slot currently played back
REQUEST command: 02DH

**AUTO PAUSE, AUTO CUE RETURN**

Command: 0B0H
Function: Returns information for the ON/OFF of AUTO PAUSE or AUTO CUE function.
DATA: 1
DATA1
000H: AUTO PAUSE OFF
001H: AUTO PAUSE ON
002H: AUTO CUE ON
003H: AUTO SPACE ON
REQUEST command: 030H

**AUTO DISPLAY RETURN**

Command: 0B1H
Function: Returns information for the ON/OFF of AUTO DISPLAY function.
DATA: 1
DATA1
001H: AUTO DISPLAY ON
The deck always returns AUTO DISPLAY ON (0001H).
REQUEST command: 031H

**END OF MESSAGE TIME RETURN**

Command: 0B2H
Function: Returns information for the setting of END OF MESSAGE function.

*Note*
Set this to 000H to turn off the EOM function.
DATA1
000H: EOM MODE OFF
001H: EOM RETURN
When it is set at the end of track: (10, 1) {*000 to 035, decimal number}
Command Descriptions

When it is set at the end of disc: (E, X)
X=0: one second before the end of the track
X=1: two seconds before the end of the track
... etc...
X=9: ten seconds before the end of the track
REQUEST command: 032H

**TIMER PLAY RETURN**

Command: 0B4H
Function: Returns information for the setting of TIMER PLAY function.
DATA: 1
  DATA1
  000H: TIMER PLAY OFF
  001H: TIMER PLAY ON
  002H: TIMER PLAY RESUME PLAY
  003H: TIMER PLAY RESUME NEXT
REQUEST command: 034H

**PLAY MODE RETURN**

Command: 0BAH
Function: Returns information for the "PLAY MODE SELECT": 03AH.
DATA: 1
  DATA1
  000H: CONTINUE
  001H: SHUFFLE
  002H: PROGRAM
  003H: MULTI ACCESS
REQUEST command: 03AH

**REPEAT MODE RETURN**

Command: 0BBH
Function: Returns information for the "REPEAT MODE SELECT": 03BH.
DATA: 1
  DATA1
  000H: REPEAT OFF
  001H: REPEAT ON
REQUEST command: 03BH

**KILL LOCAL MODE RETURN**

Command: 0BDH
Function: Return information for the "KILL LOCAL MODE SELECT": 03DH.
DATA: 1
  DATA1
  000H: KILL ALMOST
  001H: KILL ALL
REQUEST command: 03DH

**SWITCH ENABLE RETURN (KILL LOCAL function)**

Command: 0CCH
Function: Returns information for the "SWITCH ENABLE SELECT (KILL LOCAL function)": 04CH.
DATA: 1
  DATA1
  000H: DISABLE
  001H: ENABLE
REQUEST command: 04CH

**MECHA STATUS RETURN**

Command: 0D0H
Function: Returns information for the "MECHA STATUS SENSE": 050H.
DATA: 1
  DATA1
  bit7: REC bit (in RECORD mode)
  bit6: TOC WRITING (writing TOC on disc)
  bit5: CUE bit (during fast forward scan)
  bit4: STOP bit (in STOP mode)
  bit3: REVERSE bit (during fast rewind scan)
  001H: PLAY
  010H: PAUSE ON
  012H: STOP
  013H: EJECT
  014H: DISC OUT (disc has been ejected)
  023H: CUE (during fast forward scan)
  02BH: CUE (during fast rewind scan)
  052H: TOC WRITING
  080H: REC STANDBY, REC PAUSE
Note
Each “bitX” listed above expresses the DATA definition listed under “bitX” in binary notation. Therefore, the commands actually returned are the DATA only such as “001H” and “023H”.
REQUEST command: 050H

TRACK No. STATUS RETURN

Command: 0D5H
Function: Returns information for the “TRACK No. STATUS SENSE”: 055H.
DATA: 3
DATA1 bit0: EOM STATUS
DATA2 (10, 1) {001 to 255, decimal number}
DATA3 (**, 100)
REQUEST command: 055H

DISC STATUS RETURN

Command: 0D6H
Function: Returns information for the “DISC STATUS SENSE”: 056H.
DATA: 1
bit4: REC PROTECT (record protect status)
bit3: PRE RECORDED DISC (a premastered disc is loaded)
bit0: DISC PRESENT (a disc is loaded)
REQUEST command: 056H

DISC NAME RETURN

Command: 0D7H
Function: Returns information for the “DISC NAME SENSE”: 057H.
DATA: 9
DATA1
000H: 1 to 8 characters from the beginning
002H: 9 to 16 characters from the beginning
00BH: 89 to 96 characters from the beginning
00CH: 97 to 100 characters from the beginning
DATA2
First character set by DATA1
DATA3
Second character set by DATA1
DATA4
Third character set by DATA1
DATA5
Fourth character set by DATA1
DATA6
Fifth character set by DATA1
DATA7
Sixth character set by DATA1
DATA8
Seventh character set by DATA1
DATA9
Eighth character set by DATA1
REQUEST command: 057H

CURRENT TRACK TIME RETURN

Command: 0D8H
Function: Returns information for the “CURRENT TRACK TIME SENSE”: 058H. The elapsed time of the track in PLAY or PAUSE mode.
DATA: 3 (4)
DATA1
000H: Outputs minute/second
002H: Outputs minute/second/sub-second
DATA2
(Minute) 0 to 74
DATA3
(Second) 0 to 59
DATA4
(Sub-second) 0 to 85
REQUEST command: 058H

CURRENT TRACK NAME RETURN

Command: 0D9H
Function: Returns information for the “CURRENT TRACK NAME SENSE”: 059H.
DATA: 9
DATA1
000H: 1 to 8 characters from the beginning
002H: 9 to 16 characters from the beginning
00BH: 89 to 96 characters from the beginning
00CH: 97 to 100 characters from the beginning
00BH: 89 to 96 characters from the beginning
00CH: 97 to 100 characters from the beginning
**Command Descriptions**

**DATA2**
First character set by DATA1

**DATA3**
Second character set by DATA1

**DATA4**
Third character set by DATA1

**DATA5**
Fourth character set by DATA1

**DATA6**
Fifth character set by DATA1

**DATA7**
Sixth character set by DATA1

**DATA8**
Seventh character set by DATA1

**DATA9**
Eighth character set by DATA1

REQUEST command: 059H

---

**HOUR METER RETURN**

Command: 0DEH
Function: Returns information for the “HOUR METER SENSE”: 05EH.

**DATA:**
- **DATA1**: 000H: Total operation hours of spindle motor
- **DATA2**: (10, 1)
- **DATA3**: (1000, 100)
- **DATA4**: (**, 10000)

REQUEST command: 05EH

---

**ERROR SENSE RETURN**

Command: 0F8H
Function: Returns information for the “ERROR SENSE”: 078H.

**DATA:**
- **DATA1**: (**, ***)
- **DATA2**: (, *)

**Note**
Read the above case as **, **, *** (Example: 1-05, 2-50).

In case of no error:
- **DATA1**: (0, 0)
- **DATA2**: (, 0)

REQUEST command: 078H

**ERROR code:**
1-04: An error occurred in RAM (Random Access Memory: write/read memory).

---

**TOTAL TRACK No., TOTAL TIME RETURN**

Command: 0DDH
Function: Returns information for the “TOTAL TRACK No., TOTAL TIME SENSE”: 05DH.

**DATA:**
- **DATA1**: (10, 1) TOTAL TRACK No.
- **DATA2**: (**, 100) TOTAL TRACK No.
- **DATA3**: (minute) TOTAL TIME
- **DATA4**: (second) TOTAL TIME

REQUEST command: 05DH

---

**CAUTION SENSE RETURN**

Command: 0F9H
Function: Returns information for the “CAUTION SENSE”: 079H.

**DATA:**
- **DATA1**: (**, ***)
- **DATA2**: (, *)

**Note**
Read the above case as **, **, **.

In case of no caution:
- **DATA1**: (0, 0)
- **DATA2**: (, 0)

REQUEST command: 079H
ERROR code:
1-05: Backup Data Clear
1-11: Digital IN Unlock
1-13: Protected (disc is record-protected)
1-14: Disc Full (no area remains for recording)
1-16: Retry (recording is retried because of vibration and flaw in disc)
1-17: Disc Error (many flaws or no TOC in disc)
1-18: Cannot Edit (editing is impossible)
1-19: Impossible or Sorry (editing is impossible)
Specifications

General

Power requirements
AC 120 V, 60 Hz (for the U.S. and Canada)
AC 220 to 230 V AC, 50/60Hz (for the European countries)

Power consumption 25 W

Operating temperature 5°C to 35°C (41°F to 95°F)

Storage temperature -20°C to +55°C (-4°F to 131°F), without moisture condensation

Dimensions (w/h/d) About 212 × 139 × 375 mm (8 7/16 × 5 7/16 × 14 7/8 inches)

Weight About 5 kg (11 lb)

Laser characteristics

Laser Semiconductor laser (λ=780 nm)

Emission duration: continuous

Laser output power Max. 44.6 μW

* This output is the value measured at a distance of 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.

Digital audio signal format

System MiniDisc digital audio system
Disc MiniDisc
Modulation format EFM (Eight to Fourteen Modulation)

Digital audio channel 2 channels, 1 channel
Sampling frequency 44.1 kHz

Error correction ACIRC (Advanced Cross Interleave Reed Solomon Code)

Rotation mode CLV (about 400 to 900 r.p.m.)

Output connectors

Analog output (LINE)

Connector XLR-3, FEMALE
Output impedance Approx. 150 ohms, balanced
Reference level +4 dBs (factory setting)
(+8 dBs to -12 dBs)

Maximum level +24 dBs
Load impedance More than 10 kilo ohms

Digital output (COAXIAL)

Connector RCA PHONO
Reference level 0.5 Vp-p
Load impedance 75 ohms

Digital output (AES/EBU)

Connector XLR-3, MALE
Load impedance 110 ohms

Remote connectors

REMOTE (25P)

Connector D-SUB 25-pins (female)
Format Parallel
Input level L: ground short (less than 100 ohms)
H: open collector (high impedance)

Output level L: less than 0.8 V (Imax: 50 mA)
H: 10 k pull-up (5 V)

+5 V output Imax. 200 mA*

* When connecting the keyboard, the total value of the +5 V output and keyboard power consumption must be lower than Imax. 200 mA.

RS-232C

Baud rate Max 9600 (1200 baud/2400 baud/4800 baud/9600 baud, changeable by button operation)

Word length Length 8 bits
Stop bit Stop bit 1/Stop bit 2, changeable by button operation

Parity Parity Odd/Parity Even/Parity Off, changeable by button operation
Audio characteristics

Frequency response  20 Hz to 20 kHz, ±0.5 dB
Signal-to-noise ratio More than 95 dB (with A-weight filter, when playing back premastered disc)
Total harmonic distortion Less than 0.05% (at reference level*, 1 kHz, when playing back premastered disc)
Wow and flutter Below measurable limit (±0.001%, W.Peak)

* The reference level is the level at –20 dB from the full bit on the peak level meter scale.

Supplied accessories

Keyboard template (1)
AC power cord (1)
Operation manual (1)

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Design and specifications are subject to change without notice.
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