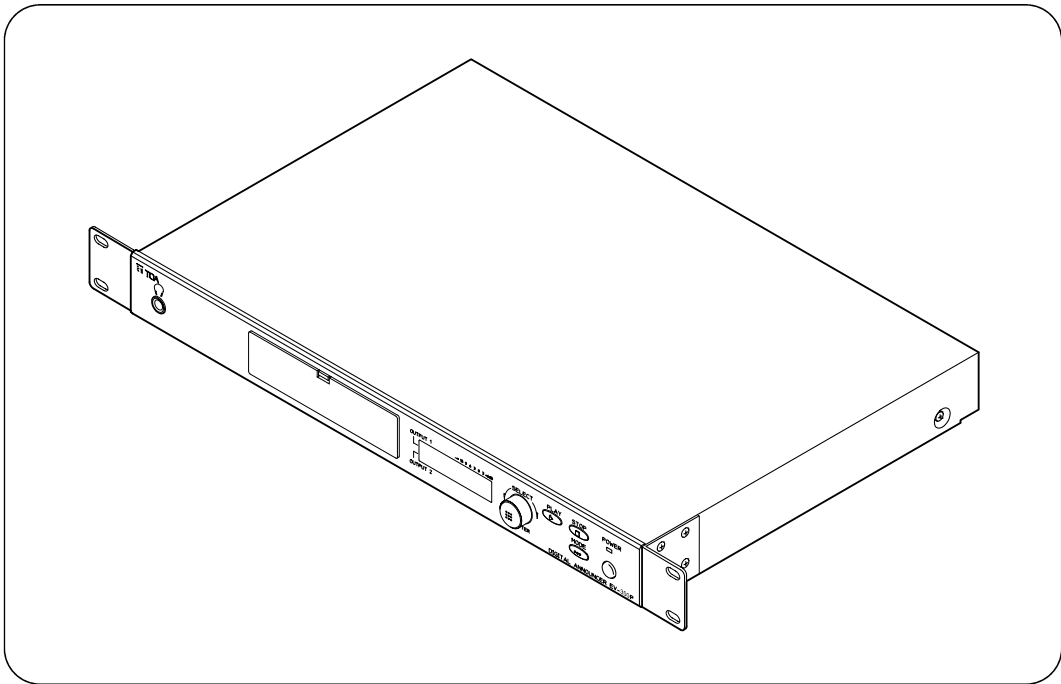




OPERATING INSTRUCTIONS

DIGITAL ANNOUNCER

EV-350P



Please follow the instructions in this manual to obtain the optimum results from this unit.
We also recommend that you keep this manual handy for future reference.

TOA Corporation

TABLE OF CONTENTS

1. SAFETY PRECAUTIONS	6
------------------------------------	---

EQUIPMENT OUTLINE

2. BEFORE OPERATING THE UNIT

2.1. General Description	7
2.2. Features	7
2.3. Handling Precautions	7
2.4. About the Memory Card	
2.4.1. Usable memory cards	8
2.4.2. Before using the SRAM memory card	8
2.4.3. Inserting and ejecting the memory card	9
2.4.4. Handling precautions for the memory card	9

3. NOMENCLATURE AND FUNCTIONS

[Front Panel]	10
[Rear Panel]	11

4. OUTLINE OF OPERATIONAL FUNCTIONS

4.1. Operation and Screen Display	
4.1.1. Keys and dial to be used in each setting and operation	12
4.1.2. About the screen display	12
4.2. Whole Operation Flow (Playback and Setting)	13
4.3. Summarized Operational Functions (Playback and Setting)	14

5. THE SENTENCE AND PROGRAM

5.1. Sentence	16
5.2. Program	16

PLAYBACK FUNCTIONS AND OPERATION

6. PLAYBACK

6.1. Before Starting Playback

6.1.1. Single-source playback mode and dual-source playback mode	18
6.1.2. Output display	18

6.2. Manual Playback

6.2.1. Operating and connecting sections	19
6.2.2. Playback method	19
6.2.3. Playback operating procedure	
[Playback of the program set for output 1]	20
[Playback of the program set for output 2]	20
[Playback of the program set for outputs 1 and 2]	20
6.2.4. Screen display during playback	22
6.2.5. Playback program information display	23

6.3. Emergency Playback (External Activation)	24
--	----

6.4. Playing Back the Emergency Sentence	24
---	----

SETTING FUNCTIONS AND OPERATION

7. SETTING FUNCTIONS

7.1. Setting Functions (1. PROGRAM SETTING)

7.1.1. Program input setting (1-1 PROGRAM INPUT)	25
7.1.2. Playback Method	
[Continuous program playback]	26
[Single-program playback]	26
[Repeat playback]	27
[Endless playback]	28
7.1.3. Step input, erasure and insertion	29
7.1.4. Setting the program output level (1-2 OUTPUT LEVEL)	30
7.1.5. Program verification (1-3 PROGRAM VERIFICATION)	30
7.1.6. Program initialization (1-4 PROGRAM INITIALIZATION)	30
7.1.7. Entering and editing the program title (1-5 PROGRAM TITLE)	30

7.2. Setting Functions (2. EDITING THE SENTENCES)

7.2.1. Verifying the sentence (2-1 SENTENCE VERIFICATION)	
[About the recording sound quality]	30

7.3. Setting Functions

(3. MONITORING THE SENTENCES AND PROGRAMS)

7.3.1. Monitoring the sentence (3-1 SENTENCE MONITORING)	31
7.3.2. Monitoring the program (3-2 PROGRAM MONITORING)	31

7.4. Setting Functions (4. OUTPUT/VOLUME SETTING)

7.4.1. Selecting single- or dual-source playback mode	
(4-1 DUAL-SOURCE PLAYBACK SELECTION)	31
7.4.2. Master volume setting (4-2 MASTER VOLUME)	31

7.5. Setting Functions (5. OPERATION SETTING)

7.5.1. Remote control (5-1 CONTROL FUNCTION SETTING) [Playback and stop]	
[Direct mode and binary mode]	32
[Activation control inputs 1-8 in direct mode]	32
[Activation control inputs 1-8 in binary mode]	33
7.5.2. Activation mode for remote control (5-2 ACTIVATION MODE SELECTION) ..	34
7.5.3. Direct mode	
[Remote playback]	34
[Remote stop]	36
7.5.4. Binary mode	
[Remote playback]	36
[Remote stop]	38
7.5.5. Busy output and playback delay time settings (5-3 BUSY OUTPUT SETTING)	
[Busy output setting]	39
[Playback delay time setting]	39

7.6. Setting Functions (6. ENVIRONMENT SETTING)

7.6.1. Operation beep setting (6-1 OPERATION BEEP)	39
7.6.2. RS-232C setting (6-2 RS-232C SETTING)	39
7.6.3. Password setting (6-3 PASSWORD)	39
7.6.4. Initializing the digital announcer	
(6-4 DIGITAL ANNOUNCER INITIALIZATION)	40
7.6.5. Key lock setting (6-5 KEY LOCK)	40
7.6.6. Version indication (6-6 VERSION INDICATION)	40

7.7. Setting Functions (7. EDITING THE CARDS)

7.7.1. Entering or editing the card name (7-1 CARD NAME INPUT)	40
7.7.2. Software-operated write protection (7-4 SOFTWARE WRITE PROTECT)	40

7.8. Setting Functions (8. COPYING THE PROGRAM)

7.8.1. Copying a program (8-1 PROGRAM COPYING)	41
--	----

7.9. Setting Functions (9. AUTO-LEVEL SETTING)	
7.9.1. Automatic level adjustment (9-1 AUTOMATIC LEVEL ADJUSTMENT).....	41

8. SETTING OPERATION

8.1. An Example of Operation Procedures	42
8.2. Setting Operation (1. PROGRAM)	
8.2.1. Operation procedures (1-1 PROGRAM INPUT)	44
8.2.2. Operation procedures (1-2 OUTPUT LEVEL and 1-3 PROGRAM VERIFICATION)	48
8.2.3. Operation procedures (1-4 PROGRAM INITIALIZATION and 1-5 PROGRAM TITLE)	50
8.3. Setting Operation (2. EDITING THE SENTENCES)	
8.3.1. Operation procedures (2-1 SENTENCE VERIFICATION)	52
8.4. Setting Operation (3. MONITORING THE SENTENCES AND PROGRAMS)	
8.4.1. Operation procedures (3-1 SENTENCE MONITORING and 3-2 PROGRAM MONITORING)	53
8.5. Setting Operation (4. OUTPUT/VOLUME SETTING)	
8.5.1. Operation procedures (4-1 DUAL-SOURCE PLAYBACK SELECTION and 4-2 MASTER VOLUME)	54
8.6. Setting Operation (5. OPERATION SETTING)	
8.6.1. Operation procedures (5-1 CONTROL FUNCTION SETTING)	55
8.6.2. Operation procedures (5-2 ACTIVATION MODE SELECTION and 5-3 BUSY OUTPUT SETTING)	56
8.7. Setting Operation (6. ENVIRONMENT SETTING)	
8.7.1. Operation procedures (6-1 OPERATION BEEP, 6-2 RS-232C SETTING, 6-3 PASSWORD, 6-4 DIGITAL ANNOUNCER INITIALZATION, 6-5 KEYLOCK and 6-6 VERSION INDICATION).....	58
8.8. Setting Operation (7. EDITING THE CARDS)	
8.8.1. Operation procedures (7-1 CARD NAME INPUT and 7-4 SOFTWARE WRITE PROTECT)	60
8.9. Setting Operation (8. COPYING THE PROGRAM)	
8.9.1. Operation procedures (8-1 PROGRAM COPYING)	62
8.10. Setting Operation (9. AUTO-LEVEL SETTING)	
8.10.1. Operation procedures (9-1 AUTOMATIC LEVEL ADJUSTMENT)	63
8.11. Entering Characters	
8.11.1. Usable characters and commands.....	64
8.11.2. Character/command display and [SELECT] dial operation	64
8.11.3. Character input example	65

BROADCASTING OPERATION, INSTALLATION AND CONNECTIONS

9. SOURCE EQUIPMENT BROADCAST

9.1. Making Source Equipment Broadcast.....	66
---	----

10. INSTALLATION

10.1. Connection Examples

10.1.1. Front panel	66
10.1.2. Rear panel	66
10.1.3. Terminal block	67
10.1.4. Error detection output terminal.....	67
10.2. Mounting the Unit in an Equipment Rack	68

10.3. Attaching Rubber Feet..... 68

SPECIFICATIONS

11. SPECIFICATIONS 69

1. SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
- We also recommend you keep this instruction manual handy for future reference.



WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

When Installing the Unit

- This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- Avoid installing the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down and causing personal injury and/or property damage.

When the Unit is Used

- Should the following irregularity be found during use, immediately switch off the power, disconnect

the power supply plug from the AC outlet and contact your nearest TOA dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.

- If you detect smoke or a strange smell coming from the unit.
- If water or any metallic object gets into the unit
- If the unit falls, or the unit case breaks
- If the power supply cord is damaged (exposure of the core, disconnection, etc.)
- If it is malfunctioning (no tone sounds.)
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest TOA dealer.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not insert nor drop metallic objects or flammable materials in the ventilation slots of the unit's cover as this may result in fire or electric shock.
- Do not touch a plug or antenna during thunder and lightning, as this may result in electric shock.



CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

When Installing the Unit

- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.

When the Unit is Used

- Do not place heavy objects on the unit as this may cause the unit to fall or break, which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Contact your TOA dealer as to the cleaning. If dust is allowed to accumulate in the unit over a long period of time, a fire or damage to the unit may result.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. A fire or electric shock may result.

2. BEFORE OPERATING THE UNIT

2.1. General Description

Employing the memory cards as recording media, the unit is a programmable, maintenance-free, playback-only digital announcer.

2.2. Features

- LCD-displayed operation guides and handy selection dial facilitate playback.
- Holds up to two memory cards.
- A maximum of 1,024 sentences recorded with the EV-350R can be combined into a program and played back.
- Up to 256 programs can be played back.
- Two different messages can be simultaneously output to two different locations.
- In emergency situations, an emergency message can be set to override current programs. (The emergency message must be pre-recorded.)
- Playback and stop can be remotely controlled by external equipment.
- Detachable front cover protects the memory cards from tampering.
- Key lock function prevents accidental key setting changes and tampering of the keys.
- Optional emergency power supply panel permits operation even during power failures.
- Built-in timer allows the same message to be repeated at preset time intervals.

2.3. Handling Precautions

- Do not use the unit near heaters or in locations exposed to sunlight. The unit's plastic parts may be deformed or its finish discolored.
- Avoid installing the unit in humid or dusty locations, as doing otherwise may cause the unit's failure.
- When the unit gets dirty with dust or oil, wipe down with a soft, dry cloth. Never use a chemically-processed cleaning towel or volatile liquids, such as benzine and thinner, because the unit's plastic parts may be deformed or its finish discolored.

2.4. About the Memory Card

The memory card to be used in conjunction with the unit is optional. Purchase the card separately from the unit.

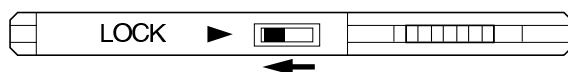
2.4.1. Usable memory cards

When the card is installed which cannot be used with the unit, the indication that the card is unusable is displayed. Even when the card installed is of correct type, if it is broken, the same indication is displayed. Replace the card when such an indication appears.

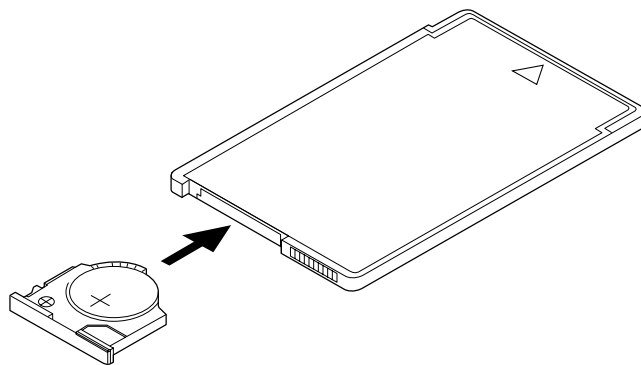
2.4.2. Before using the SRAM memory card

[Backup battery installation]

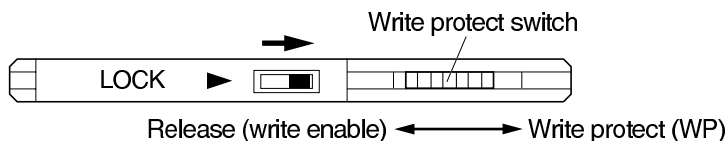
1. Shift the LOCK switch to the left to pull the battery holder out of the card.



2. Place the supplied backup battery in the holder with the [+] side up, then reinsert the holder into the card.



3. Shift the LOCK switch back to the right to lock the holder.
4. Release the write protect switch to enable writing.



Note: Neither the battery nor the battery holder is supplied with the EV-F series cards.

[Backup battery replacement (EV-F series excepted)]

If the battery voltage drops below a marginal level, either of the following indications is displayed on the screen.

CARD A BAT. LOW

CARD A BAT. OUT

Important.

It is suggested that the battery be replaced immediately when the indication of [CARD A BAT. OUT] is displayed.

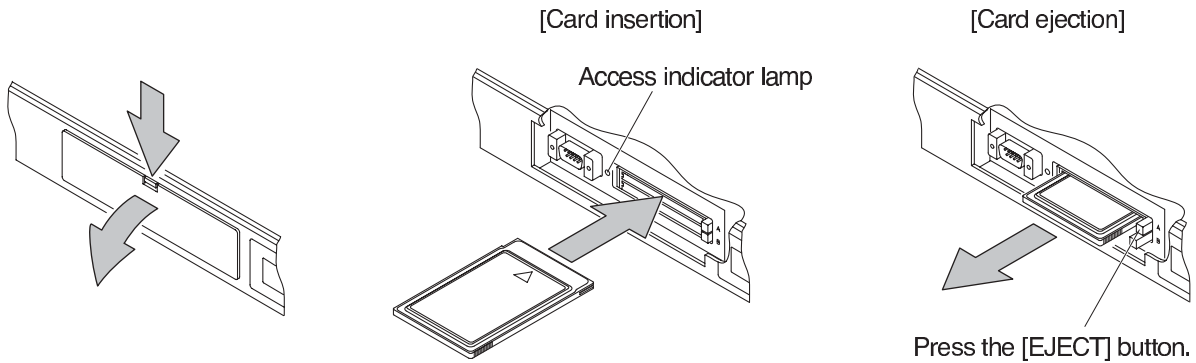
- Each SRAM memory card (EV-M256, EV-M512, EV-M1024, and EV-M2048) has a built-in auxiliary battery that protects the recorded contents from erasure during the backup battery replacement.
- The auxiliary battery is a rechargeable battery. Charging the battery by inserting it into the EV-300P unit for 30 minutes or more protects the recorded contents for about ten minutes during the backup battery replacement.
- When replacing the backup battery, be sure to insert the auxiliary battery into the unit (energized state) for 30 minutes or more to keep the auxiliary battery fully charged before replacing.
- Each battery's life is as follows.
 - EV-M256 : Approximately 5 years
 - EV-M512 : Approximately 4 years
 - EV-M1024: Approximately 2 years
 - EV-M2048: Approximately 1 year
- Use the commercial lithium battery BR2325 or CR2325 when replacing the backup battery.

2.4.3. Inserting and ejecting the memory card

Remove the front cover when inserting or ejecting the memory card.

1. Push down the front cover tab to remove the cover.

2. Insert or eject the card as shown in the figures.



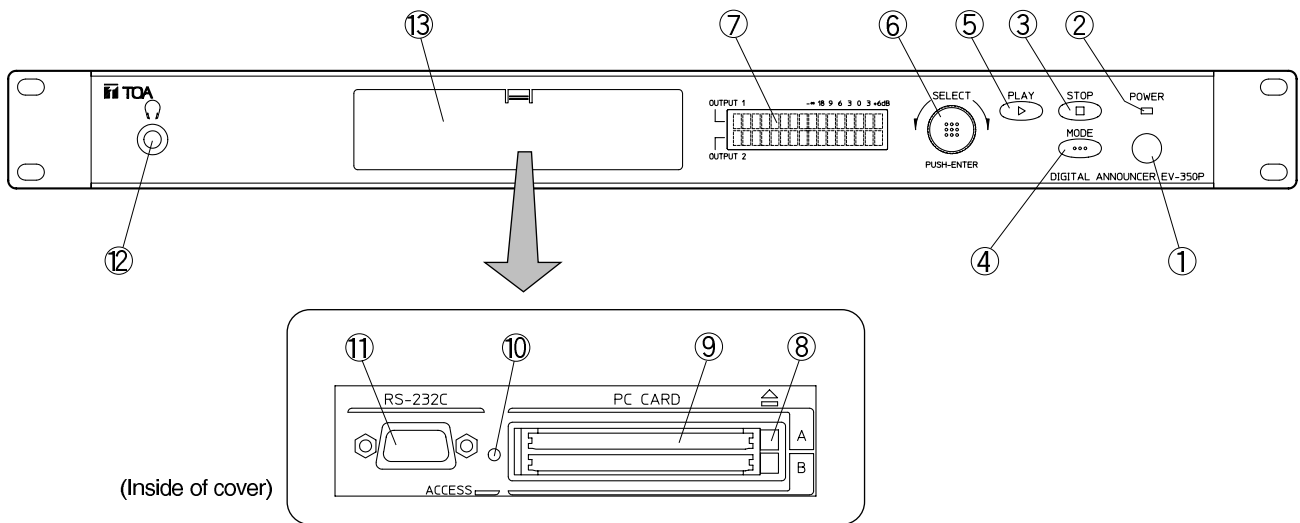
Caution: Do not move the card while the access indicator lamp remains lit or is flashing. Data in the card may be lost.

2.4.4. Handling precautions for the memory card

- Do not use alcohol to clean the surface.
- Do not expose the card to sunlight.
- Replace the battery as soon as it shows a sign of exhaustion. (EV-F series is excepted.)
- Do not get the card wet.
- Put the card in the antistatic envelope (blue) attached to the card when storing. (This also helps prevent foreign matter from accumulating on the edge connector.)

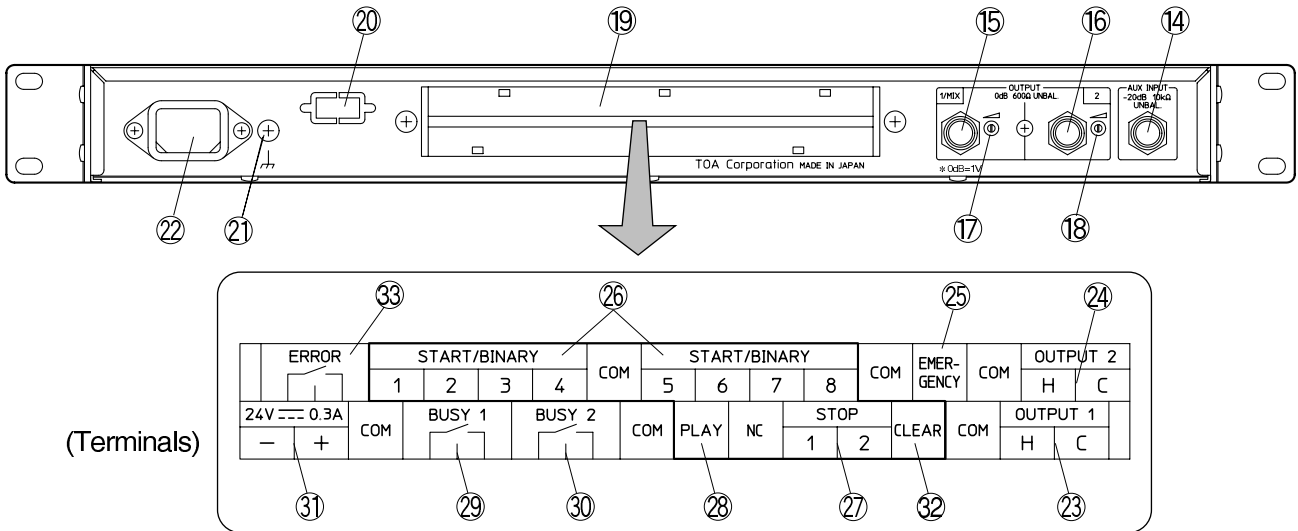
3. NOMENCLATURE AND FUNCTIONS

[Front Panel]



- ① **Power switch**
Power is switched on and off with each depression of this switch.
- ② **Power indicator lamp**
Lights when the power is switched on.
- ③ **Stop key**
Press this key to temporarily stop playback.
- ④ **Mode selector key**
Press this key to switch the initial screen to the setting menu screen. (See p. 12.)
- ⑤ **Playback key**
Press this key when switching the unit from the initial screen display into playback standby, or starting playback of the designated program in playback standby.
- ⑥ **Selection dial**
Selects the operation at playback or setting screen display. (See p. 12.)
- ⑦ **Display screen (LCD)**
Displays playback status, setting contents, etc.
- ⑧ **Eject keys [A, B]**
Eject the card inserted into memory card slots A and B.
- ⑨ **Memory card slots [A, B]**
Memory cards are inserted into these slots.
- ⑩ **Access indicator lamp**
Lights when reading from or writing into the card. To prevent the loss of card data, do not insert nor eject the card while the access indicator lamp remains lit or is flashing.
- ⑪ **RS-232C terminal (D-sub 9-pin male connector)**
Connects to the RS-232C terminal of external equipment.
- ⑫ **Headphones output**
Connects to headphones for monitoring.
- ⑬ **Front cover**

[Rear Panel]

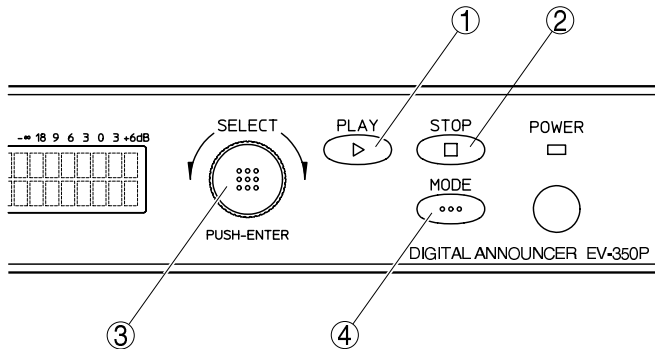


- ⑭ **Auxiliary input**
Connects to external musical equipment to be used for broadcast.
- ⑮ **Output 1**
Sends out the unit's playback signal, or signals from the auxiliary input.
- ⑯ **Output 2**
Sends out the unit's playback signal, or signals from the auxiliary input.
- ⑰ **Output 1 volume control**
- ⑱ **Output 2 volume control**
- ⑲ **Terminal block** (See p. 67.)
- ⑳ **RS-232C terminal receptacle**
Permits removal of the RS-232C terminal from the front to rear cover.
- ㉑ **Grounding terminal**
Be sure to ground this terminal.
- ㉒ **AC inlet**
Connects to the supplied AC power cord.
- ㉓ **Output 1**
Sends out the same signal as output ⑮ (phone jack). (See p. 66.)
- ㉔ **Output 2**
Sends out the same signal as output ⑯ (phone jack).
- ㉕ **Emergency playback control input**
Shorting this input plays back the emergency message. (See p. 24.)
- ㉖ **Activation control inputs 1-8**
Short these inputs when playing back programs. (See p. 32.)
- ㉗ **Stop control input**
Short this input when stopping playback.
- ㉘ **Playback control input**
Short this terminal when playing back the program by means of binary control.
- ㉙ **Busy output 1**
Outputs a make contact signal during playback of the program set for output 1. (See p. 39.)
- ㉚ **Busy output 2**
Outputs a make contact signal during playback of the program set for output 2.
- ㉛ **24 VDC terminal**
Connects to the 24 VDC power supply. Note that the AC power supply and the 24 VDC power supply cannot be used simultaneously. Make sure that the unit is operated on either power supply.
- ㉜ **Clear terminal**
Clears all stored activation inputs when the unit is set in the "Sequential storage and playback" mode.
- ㉝ **Error detection output terminal**
Normally closes.
It will open in such case as no memory card is mounted or the unit malfunctions. (See p. 67.)

4. OUTLINE OF OPERATIONAL FUNCTIONS

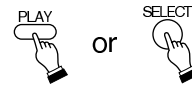
4.1. Operation and Screen Display

4.1.1. Keys and dial to be used in each setting and operation



[Keys and dial symbols indicated in the following flow charts]

- Key or dial depression
- Dial rotation



This symbol is the example of "PLAY" key depression.



1. Playback Key

Used for playback operation.

2. Stop Key

- Terminates playback.
- The display returns to the initial screen when the key is pressed at the menu screen, and to the previous menu screen when pressed at the setting screen.

3. Selection Dial

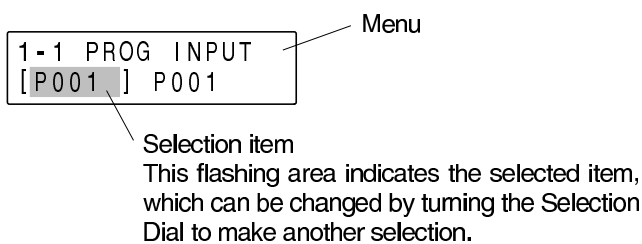
Turning this Dial selects the menu screen, and also the item in the selection area which flashes. Entry is made by pressing on the Dial, which advances the display to the next screen.

4. Mode Key

- Pressing this key while the initial screen is displayed places the unit in setting mode and displays the menu screen.
- The Mode key is also used to display playback program information in playback standby status or during playback.

4.1.2. About the screen display

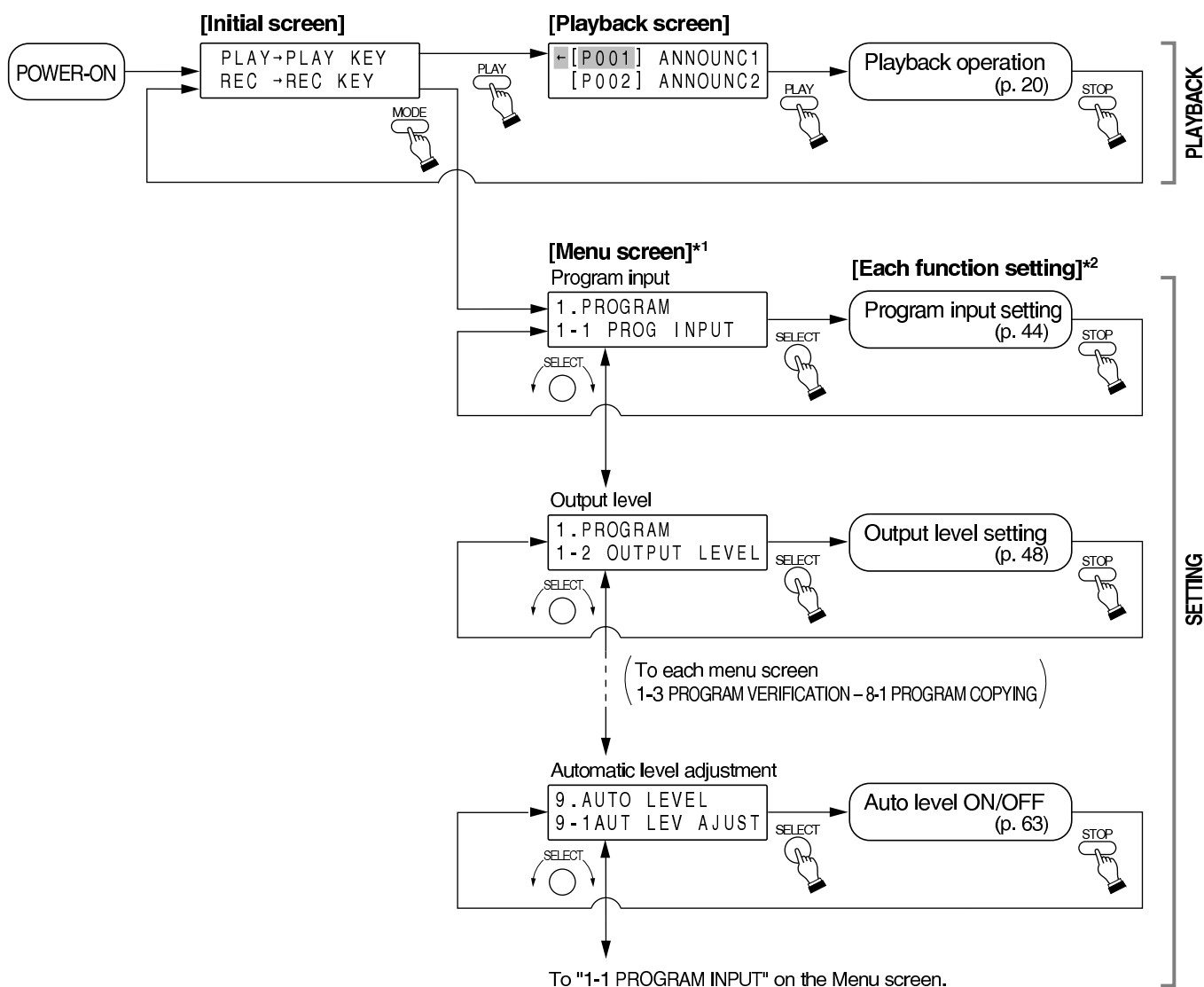
This Program Input screen example explains the selection screen display.



The message as shown below is displayed if no card is inserted into the unit when the power is switched on. In such cases, insert the card as instructed.

CARD NOT SET.
INSERT CARD.

4.2. Whole Operation Flow (Playback and Setting)



*1 Pressing the [STOP] key while the menu screen is displayed returns the display to the initial screen.

*2 Pressing the [STOP] key while the function setting screen is displayed returns the display to the previous menu screen.

Note: When the function setting is completed, the screen returns to the menu screen. To terminate all setting operations, further press the [STOP] key to return to the initial screen.

4.3. Summarized Operational Functions (Playback and Setting)

[Playback]

PLAYBACK	PLAYBACK (p. 19, 32)	Permits program source to be played back on a single channel ("Single-source playback" mode) or on dual channels ("Dual-source playback" mode).
	EMERGENCY PLAYBACK (p. 24)	Broadcasts emergency announcements in precedence over other broadcasts (by program playback, etc.).

[Setting]

1. PROGRAM SETTING *1	1-1 PROGRAM INPUT (p. 25, 44)	Sets sentence numbers, playback methods, and playback outputs for each program.
	1-2 OUTPUT LEVEL (p. 30, 48)	Sets the output level for each program.
	1-3 PROGRAM VERIFICATION (p. 30, 48)	Permits confirmation of the program's title, playback method and contents.
	1-4 PROGRAM INITIALIZATION (p. 30, 50)	Initializes the program by designating its number.
	1-5 PROGRAM TITLE (p. 30, 50)	Assigns the title to the program or changes the registered titles.
2. EDITING THE SENTENCES *1	2-1 SENTENCE VERIFICATION (p. 30, 52)	Confirms the recording sound quality, title, and recording time of the recorded sentence.
3. MONITORING THE SENTENCES AND PROGRAMS *1	3-1 SENTENCE MONITORING (p. 31, 53)	Monitors recorded sentences with headphones.
	3-2 PROGRAM MONITORING (p. 31, 53)	Monitors the programs with headphones.
4. OUTPUT/VOLUME SETTING *2	4-1 DUAL-SOURCE PLAYBACK SELECTION (p. 31, 54)	Selects the program playback mode: "Single-source playback" or "Dual-source playback" mode.
	4-2 MASTER VOLUME (p. 31, 54)	Sets the overall program playback volume.
5. OPERATION SETTING *2	5-1 CONTROL FUNCTION SETTING (p. 32, 55)	Selects the remote control method: "Direct" or "Binary" control.
	5-2 ACTIVATION MODE SELECTION (p. 34, 56)	Sets activation mode of remote playback and remote stop.
	5-3 BUSY OUTPUT SETTING (p. 39, 56)	Sets the busy output for ON or OFF when playing back the program, recording/erasing the sentence, making an announcement, and setting the system.

↓
To the next page

Continued from the previous page

6. ENVIRONMENT SETTING *2	6-1 OPERATION BEEP	(p. 39, 58)	Sets whether or not to sound a beep when operating the keys.
	6-2 RS-232C SETTING	(p. 39, 58)	Sets the RS-232C communication speed.
	6-3 PASSWORD	(p. 39, 58)	Setting a password and enabling the Key Lock function prevent equipment malfunction and tampering with the keys.
	6-4 DIGITAL ANNOUNCER INITIALIZATION	(p. 40, 58)	Simultaneously resets all settings for factory-preset initial values.
	6-5 KEY LOCK	(p. 40, 58)	If the Key Lock function is enabled (ON), the keys and dial other than the power switch cannot be used.
	6-6 VERSION INDICATION	(p. 40, 58)	Displays the equipment program software version.
7. EDITING THE CARDS *1	7-1 CARD NAME INPUT	(p. 40, 60)	Assigns a name to the recorded card or changes the registered name.
	7-4 SOFTWARE WRITE PROTECT	(p. 40, 60)	Protects data registered into the card.
8. COPYING THE PROGRAM *1	8-1 PROGRAM COPYING	(p. 41, 62)	Copies the created program to other program number.
9. AUTO-LEVEL SETTING *2	9-1 AUTOMATIC LEVEL ADJUSTMENT	(p. 41, 63)	Permits uniform sound level even if the program consisting of sentences with different recording levels is played back.

*1 The set data is registered on the memory card.

*2 The set contents are registered in the unit.

5. THE SENTENCE AND THE PROGRAM

5.1. Sentence

The sentence is the minimum unit of recording data that the Digital Announcer handles. One sentence is created per recording.

5.2. Program

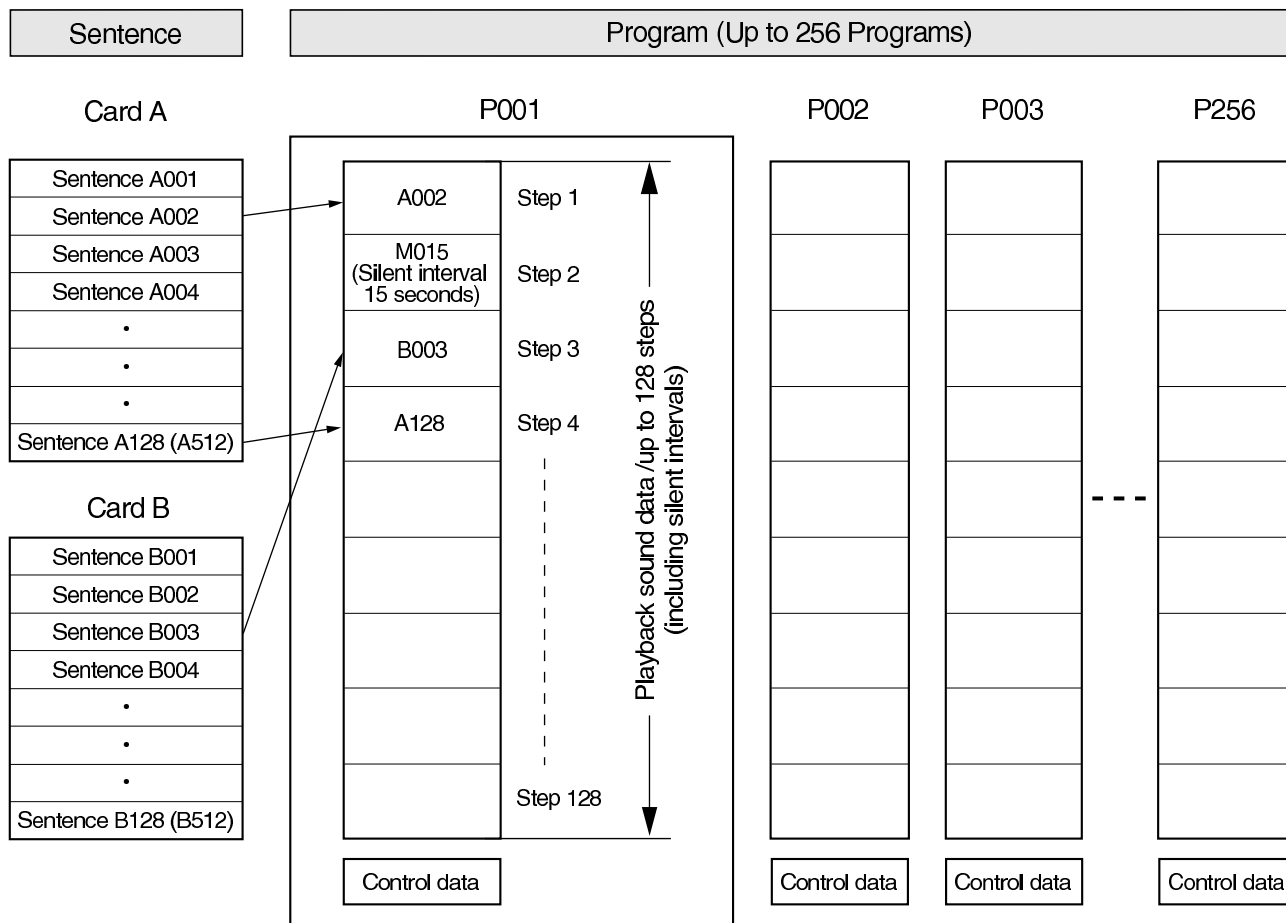
- The program is playback data consisting of Playback Sound Data*¹ and Control Data*². The program is written into a card.
 - *¹ Combined data of Sentence and Silent Interval.
 - *² Comprised of the Playback Method, Output Channel (output 1, output 2 or outputs 1 and 2), Title and Output level (volume).
- Up to 128 steps of the Sentence and Silent Interval can be combined for the Playback Sound Data of one program. The step refers to the sequence of playback.
- The title of up to eight characters (alphanumeric characters and symbols) can be assigned to each program.
- Up to 256 programs (P001-P256) can be input regardless of whether the number of cards inserted is one or two.
- The Silent Interval time of 0-127 seconds can be input, which is adjustable in 0.1-second units if the interval time is 0-10 seconds, and in 1-second unit if 10-127 seconds.
- To play back sounds, designate the program. Playback cannot be achieved by designating the sentence.

Contents to be entered into the program

Data	Content
Playback sound data	Combination of sentence and silent interval (maximum 128 steps)
Control data	Playback method (one of the four methods)
	Output (from output 1 or output 2 or simultaneously from both)
	Program name (program title)
	Program sound volume

Note: If data is not entered, the program is played back as initially set at the factory. (Refer to p. 18 for details.)

Up to 256 programs can be input using the unit (regardless of the number of cards to be used). Sentences to be used in the program can be read from either of the cards inserted into Card Slots A and B.



For details of the "Control data," refer to p. 25 "1. PROGRAM SETTING."

6. PLAYBACK

Playback begins by designating the program. (Refer to p. 16.)

Input the program before starting playback. (Refer to p. 25.)

6.1. Before Starting Playback

6.1.1. Single-source playback mode and dual-source playback mode

The unit comes with two outputs, 1 and 2, which can be designated for individual programs.

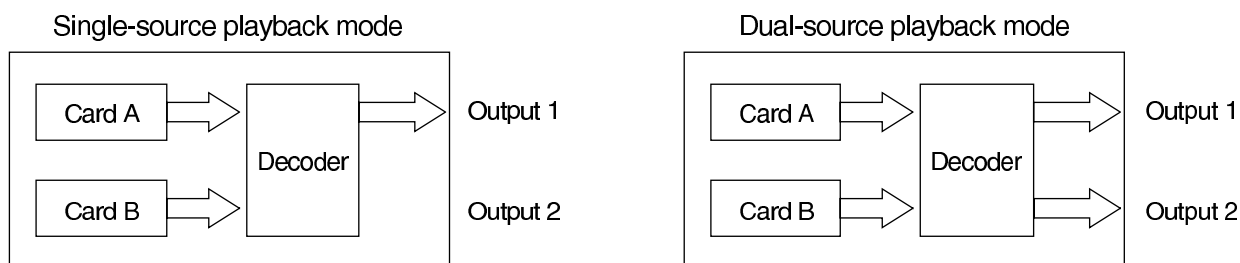
[Single-source playback mode]

Programs are played back only from Output 1 regardless of output settings. Simultaneously playing back two programs set for Outputs 1 and 2 causes the mixed program to be played back from Output 1.

[Dual-source playback mode]

Different playback tones of individual programs can be broadcast from their designated outputs.

Note: The unit is preset for dual-output playback mode. Refer to p. 54 when switching it to single-source playback mode.



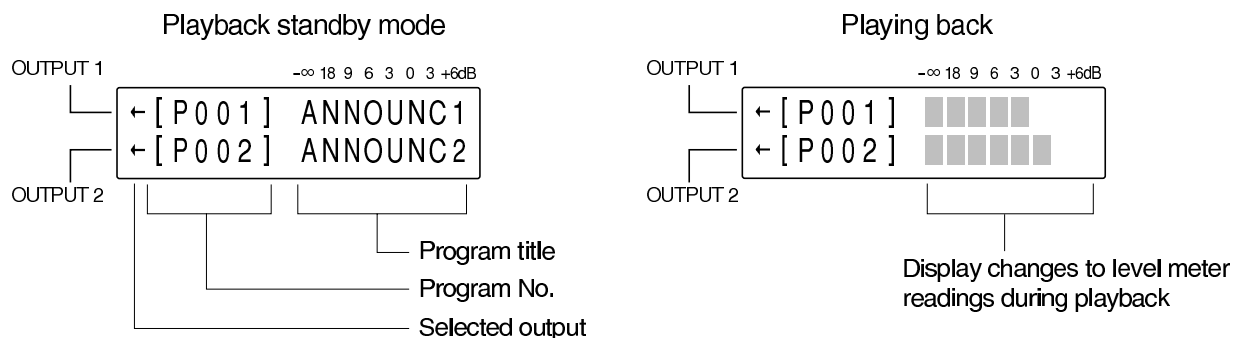
6.1.2. Output display

[Program display]

When the unit is in playback standby mode, both the program number and program title of the program to be played back are displayed. The program set for Output 1 is displayed on the upper row of the screen, while the program set for Output 2 is displayed on the lower row. The program set for both outputs 1 and 2 is displayed on both the upper and lower rows.

[Selected output display]

The arrow is displayed on the left-hand side of the screen during playback or playback standby mode. The arrow indication cycles through the upper row, lower row and both rows as the [SELECT] dial is pressed.

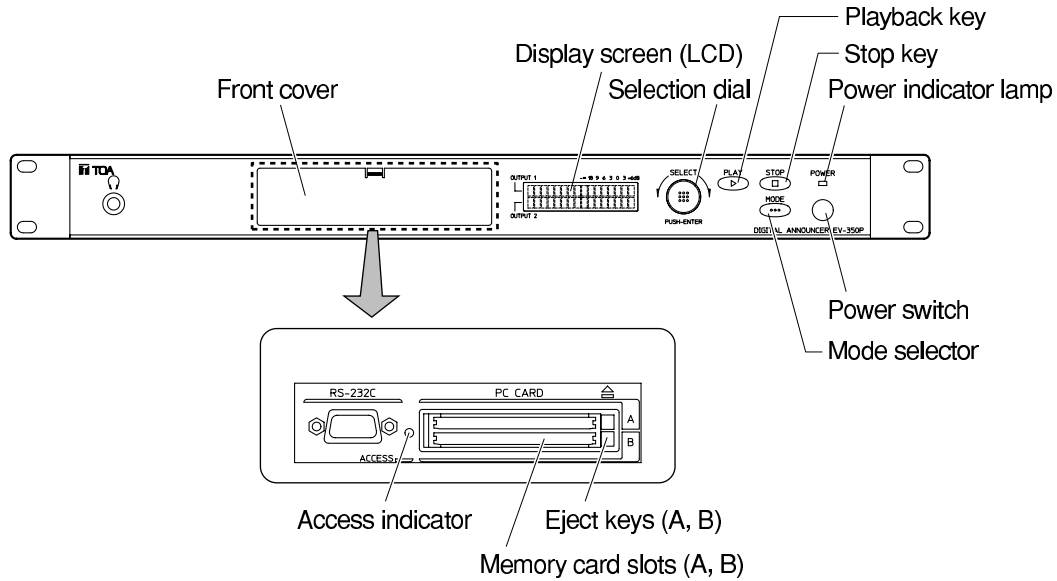


6.2. Manual Playback

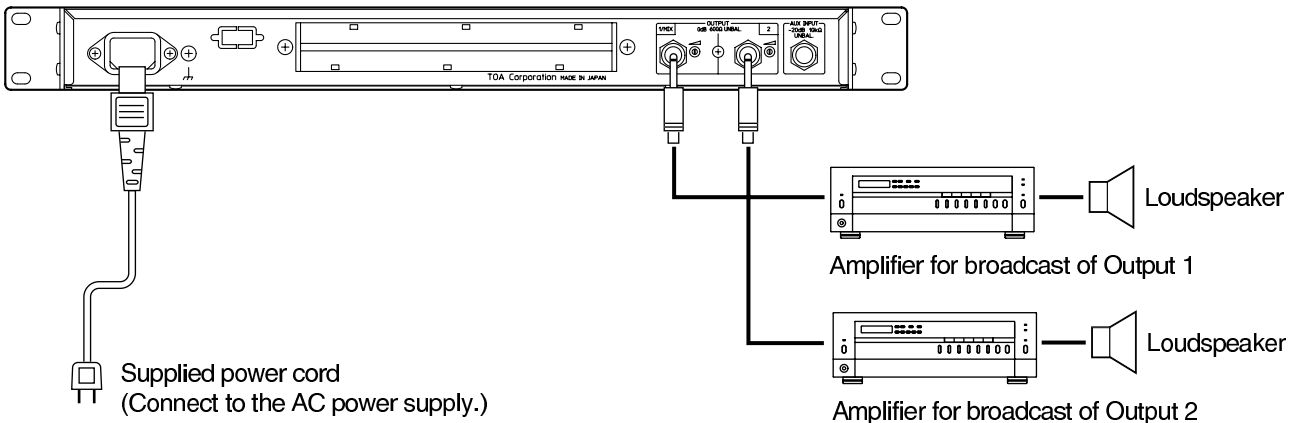
For the remotely-controlled playback, refer to p. 32 “5-1 CONTROL FUNCTION SETTING” [Playback and stop].

6.2.1. Operating and connecting sections

[Front]



[Rear]



6.2.2. Playback method

Here, the method to play back programs already input will be explained.

Step 1. Check the unit for proper connection, then remove the front cover to insert the memory card.

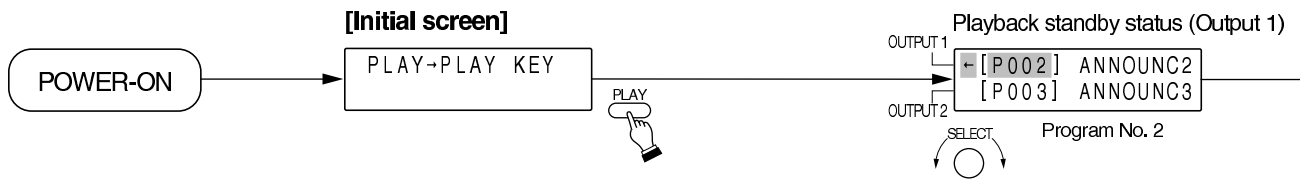
- For about three seconds after inserting the card, the unit accesses the card to read data from it. Any key cannot be used during this period.
- Do not insert nor eject the card while the unit is accessing data, otherwise data in the card may be lost.

Step 2. Switch on the power of both the unit and amplifiers for broadcast, and set the amplifier's volume control to the minimum position.

Step 3. Playback operation starts. (Refer to the next page "Operation procedures.")

Step 4. Adjust the amplifier's volume control to the proper level.

6.2.3. Playback operating procedure
[Playback of the program set for output 1]

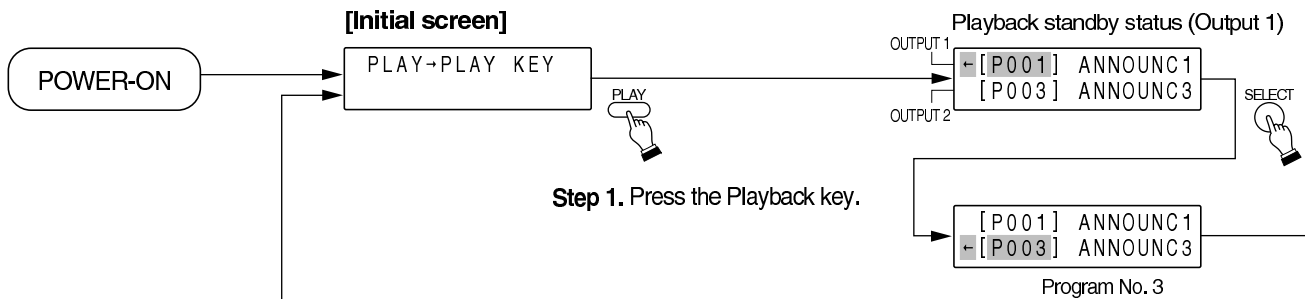


Step 1. Press the Playback key.

Step 2. Turn the Selection dial to select the program number.

Tips: The output volume level can be adjusted with the front panel-mounted operation key. (See p. 23 "Playback program information display.")

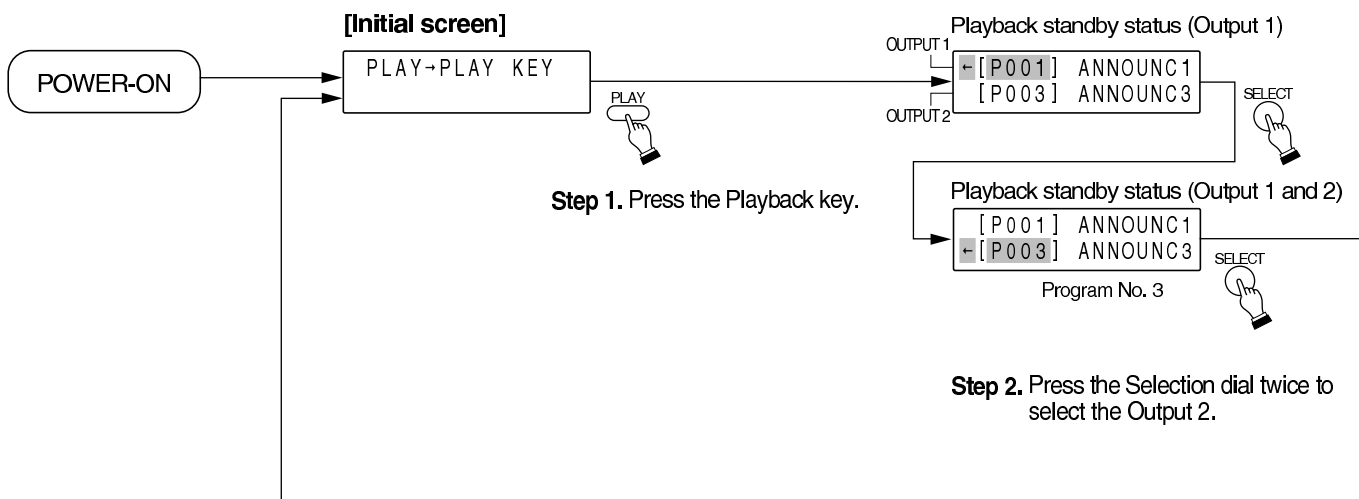
[Playback of the program set for output 2]



Step 1. Press the Playback key.

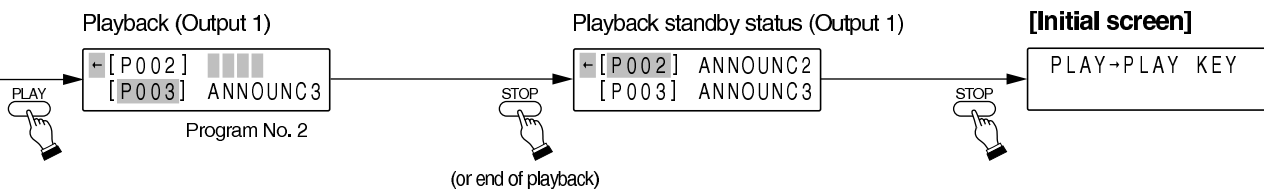
Step 2. Press the Selection dial to select the Output 2.

[Playback of the program set for outputs 1 and 2]



Step 1. Press the Playback key.

Step 2. Press the Selection dial twice to select the Output 2.

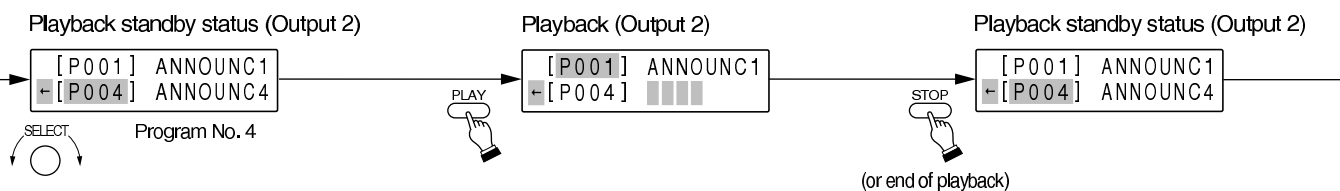


Step 3. Press the Playback key to begin playback.

Tips: The playback screen display can be changed. (See p. 22 "Screen display during playback.")
The output level setting can be changed. (See p. 23 "Playback program information display.")

Step 4. Press the Stop key to return to the playback standby mode. (Repeat Step 2. and 3. for continuous playback.)

Step 5. Press the Stop key to return to the initial screen.

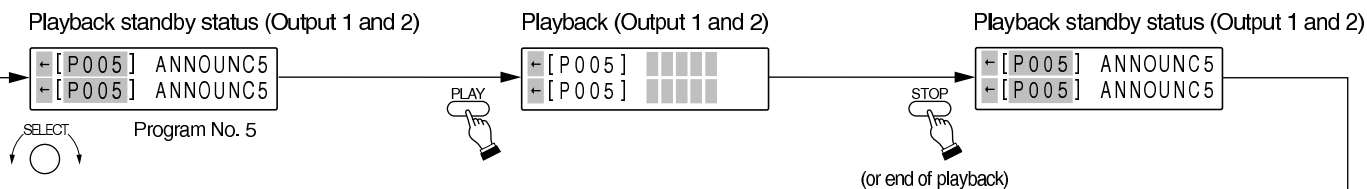


Step 3. Turn the Selection dial to select the program number.

Step 4. Press the Playback key to begin playback.

Step 5. Press the Stop key to return to the playback standby mode. (Repeat Step 3. and 4. for continuous playback.)

Step 6. Press the Stop key to return to the initial screen.



Step 3. Turn the Selection dial to select the program number.

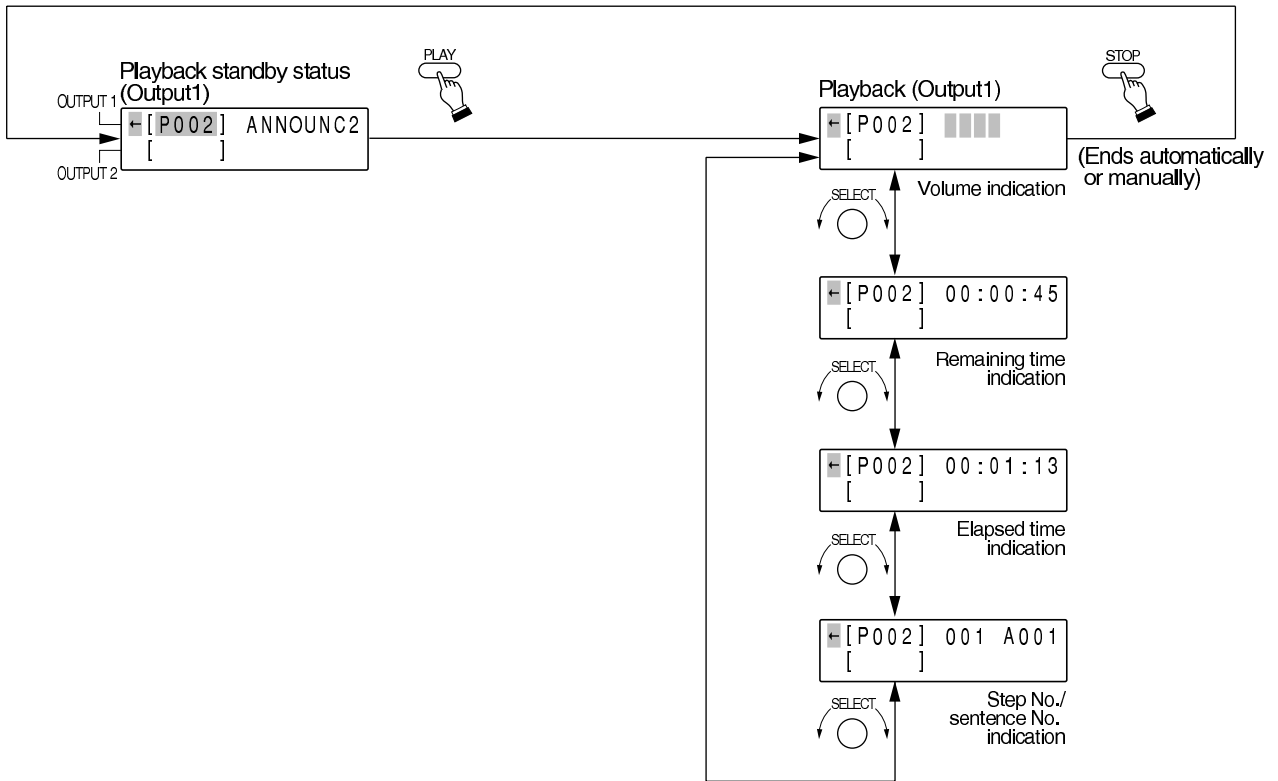
Step 4. Press the Playback key to begin playback.

Step 5. Press the Stop key to return to the playback standby mode. (Repeat Step 3. and 4. for continuous playback.)

Step 6. Press the Stop key to return to the initial screen.

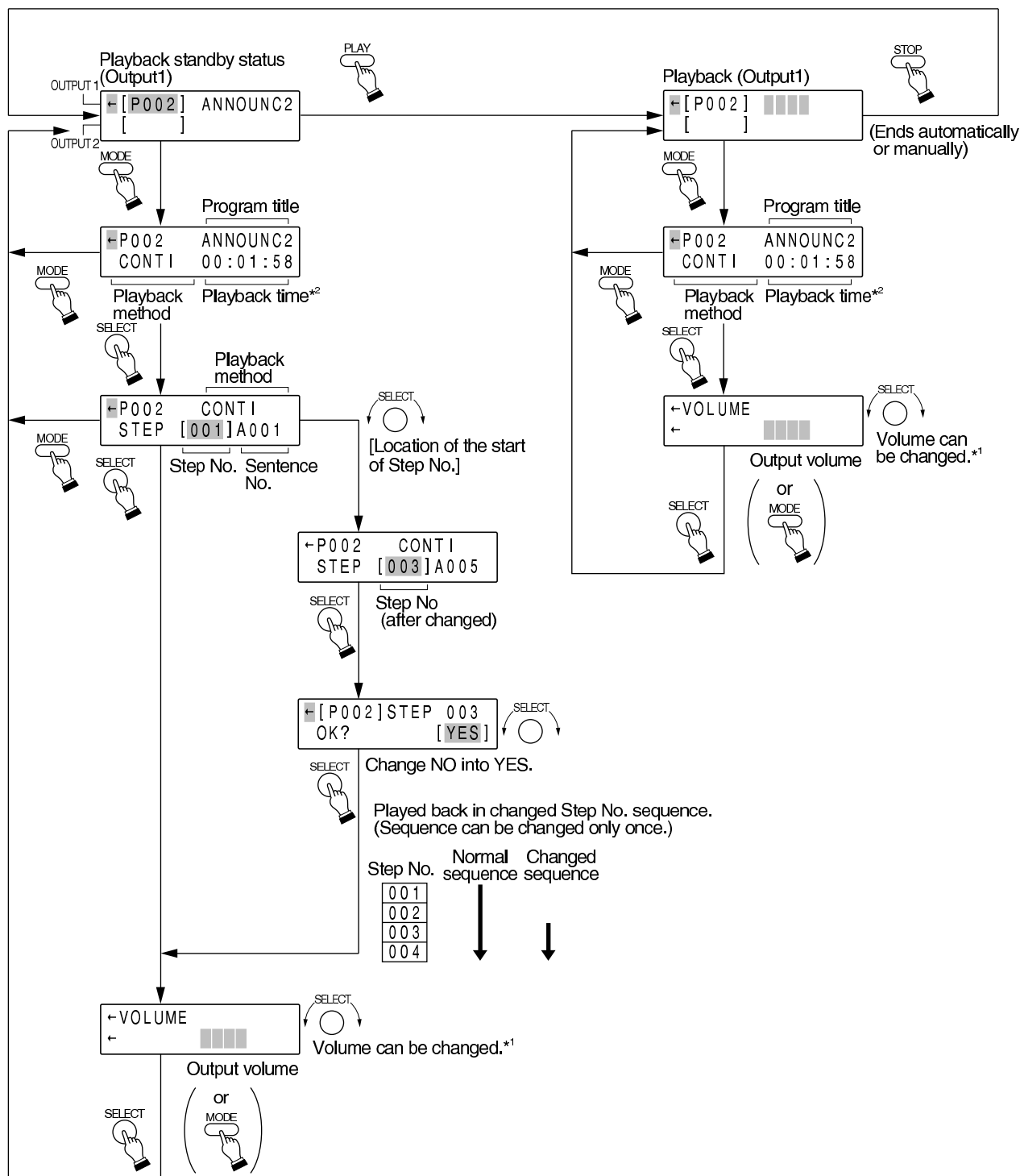
6.2.4. Screen display during playback

Display can be changed by turning the Selection Dial during playback. (This does not adversely affect the current playback output.)



6.2.5. Playback program information display

Master volume settings can be changed while the unit is in playback standby mode or it is playing back.



*1 Changing the volume here changes the setting made in p. 31 "4-2 MASTER VOLUME" of the setting menu.

*2 The playback time is not displayed in Endless playback mode. The Step Number Locate function cannot be used, either.

6.3. Emergency Playback (External Activation)

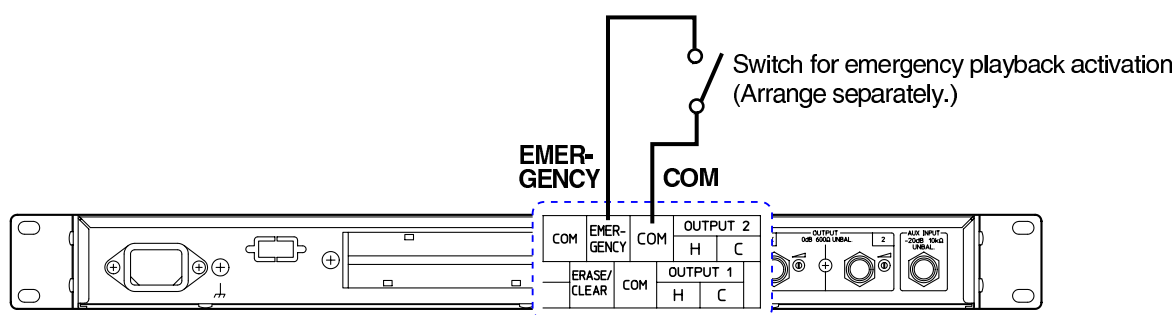
By directly designating and activating a recorded emergency sentence, emergency playback can be achieved with no need to set programs. Even when the unit is in use for broadcast from external equipment or it is playing back a program, the current broadcast is interrupted and the program playback stops, allowing the emergency broadcast to go through using the card containing the recorded emergency sentences.

- The emergency sentence is played back from both Outputs 1 and 2.
- During emergency playback, both busy outputs 1 and 2 are shorted.
- The emergency sentence is broadcast at the maximum sound volume. To adjust the emergency broadcast volume, use the output volume control located on the rear panel.
- Insert the card containing the emergency sentence into card slot A. The emergency sentence recorded on the slot B memory card can be played back only when the card is not inserted into slot A. Emergency playback cannot be accomplished when the card containing no emergency sentence is inserted into slot A.

6.4. Playing Back the Emergency Sentence

The emergency sentence cannot be played back manually. Arrange the switch for emergency playback activation separately, and connect that switch to the emergency playback activation control input located on the rear panel. Shorting that switch activates the emergency playback.

To stop playback of the emergency sentence, press the front-mounted [STOP] key. (This function can not be achieved by remote control.)



The emergency sentence is played back regardless of activation modes 1-7 set at menu “5-2 ACTIVATION MODE SELECTION.”

- One-shot pulse input activation
The emergency sentence is played back once, and then stops.
- Level-operated input activation
The same emergency sentence is played back repeatedly as far as the emergency terminal is closed. When the emergency terminal is opened, playback stops after the remaining part of the emergency sentence is completed.

7. SETTING FUNCTIONS

7.1. Setting Functions (1. PROGRAM SETTING)

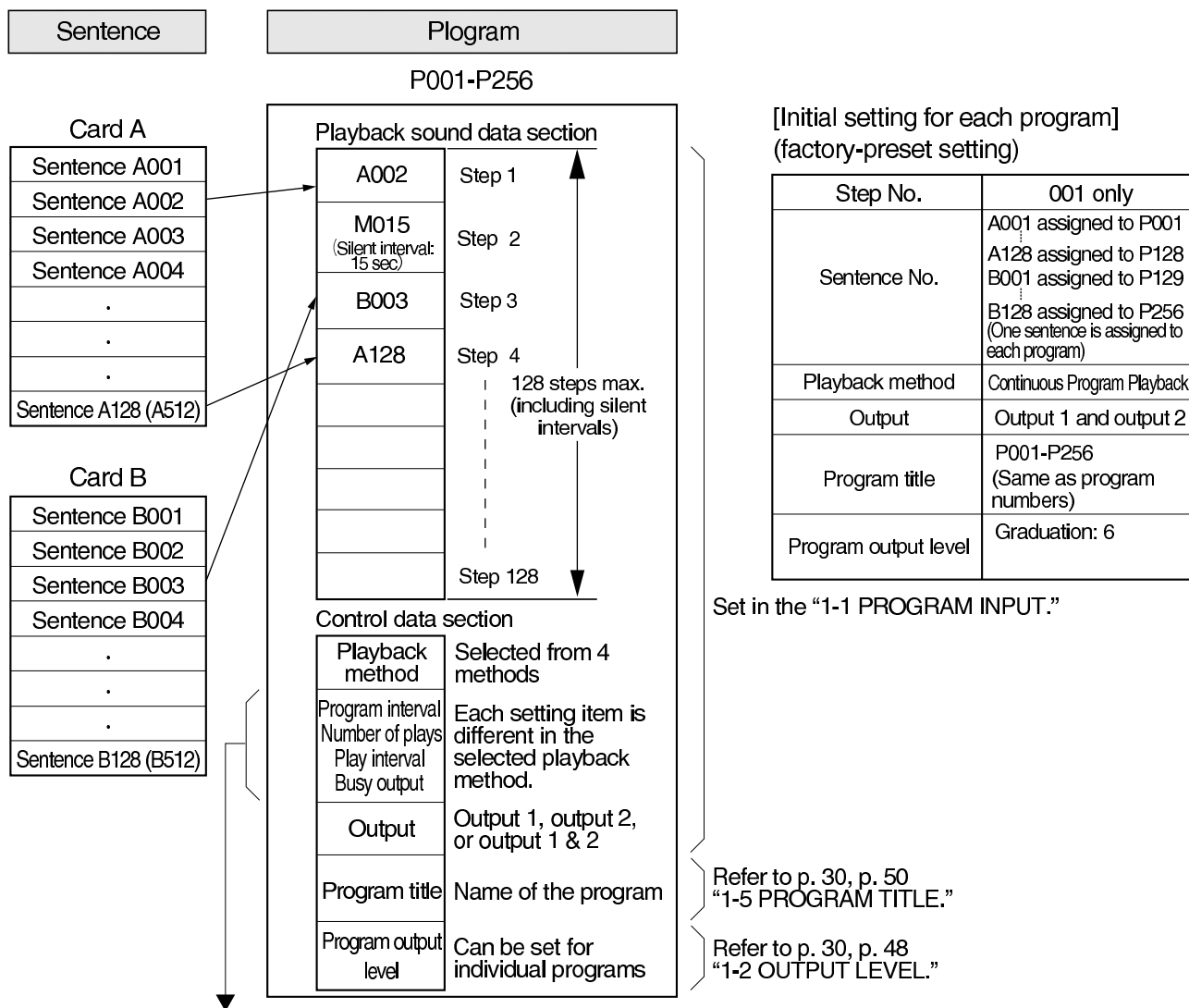
7.1.1. Program input setting (1-1 PROGRAM INPUT)

Refer to p. 44 for the operation procedures.

[Playback sound data section and Control data section]

Each of the programs (P001-P256) consists of the "Playback sound data section" and "Control data section," each of which is composed of input data.

Refer to p. 18 "THE SENTENCE AND PROGRAM" for details.



[Setting items different in playback methods]

Playback method	Program interval (Interval Timer)	Number of plays	Play interval	Busy output
Continuous Program Playback	—	—	—	—
Single Program Playback	OFF (no relation) 10, 20, ...50 sec 1, 2, ...99 min	—	—	ON (At program) OFF (interval)
Repeat Playback	—	1, 2, ...128 repeats, Endress	0, 10, ...50 sec 1, 2, ...99 min	ON (At repeat) OFF (interval)
Endless Playback	—	—	0, 1, 2, 3, 4, 5 sec	—

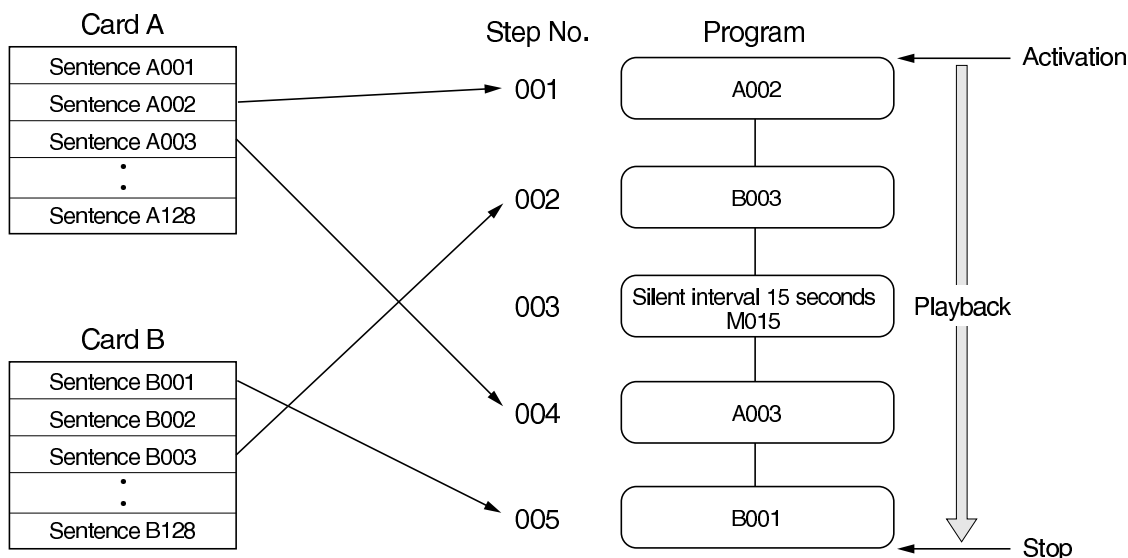
7.1.2. Playback Method

There are 4 different playback methods. Select one of them when making the setting.

[Continuous program playback]

Sentences and silent intervals registered into the program are consecutively played back in order of step number, and playback stops after the program is completed. This method (factory-preset) is used for program playback unless other method is especially selected.

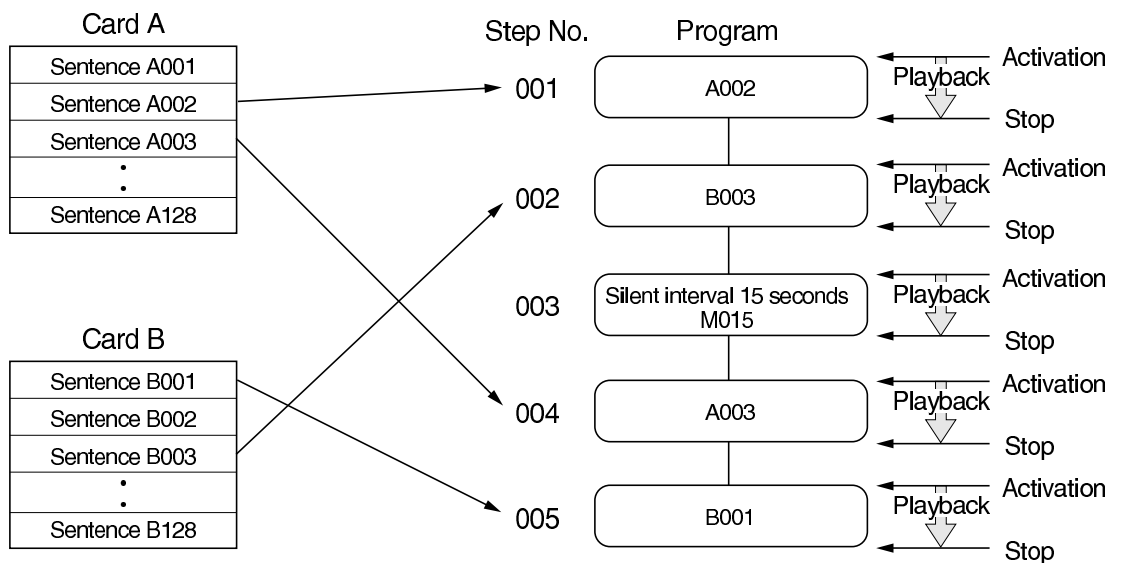
To stop playback manually, press the [STOP] key or short the Stop terminal.



[Single-program playback]

One each of sentences silent intervals registered into the program is played back in order of step number each time the unit is activated. Playback automatically stops after a single sentence is completed. After the last sentence is completed, playback returns to the first step of the program with the next activation. Activating the unit in the Stop mode (initiated by either pressing the [STOP] key or shorting the Stop control terminals) begins playback from the next step number. In addition to manual playback and terminal-activated playback, it is also possible to automatically playback sentences with time intervals (program intervals) set between them using the unit's built-in timer (Interval Broadcast). Intervals of OFF, 10-50 seconds (in 10-second units), or 1-99 minutes (in 1-minute units) can be set.

To stop playback manually, press the [STOP] key or short the Stop terminal.

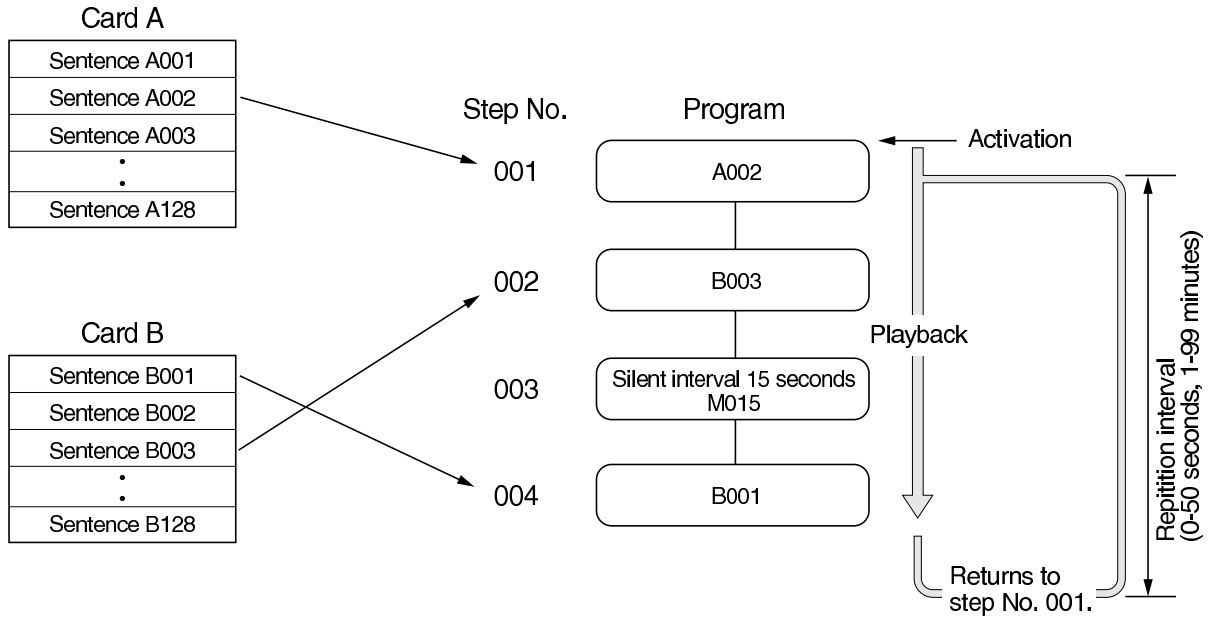


Playback begins with the first sentence (A002) when activated next time.

[Repeat playback]

Sentences and silent intervals registered into each program are repeatedly played back in order of step number at the preset repetition interval (i.e. the duration from the last sentence playback till the first sentence playback) and by the preset number of repetitions. When the program is played back for the set number of repetitions, the unit stops its operation and the initial screen is displayed. Intervals of 0-50 seconds (in 10-second unit) or 1-99 minutes (in 1-minute units) can be set. The number of repeats can be set for either "Endless" or 1 - 128 times.

To stop playback, press the [STOP] key or short the Stop terminal.

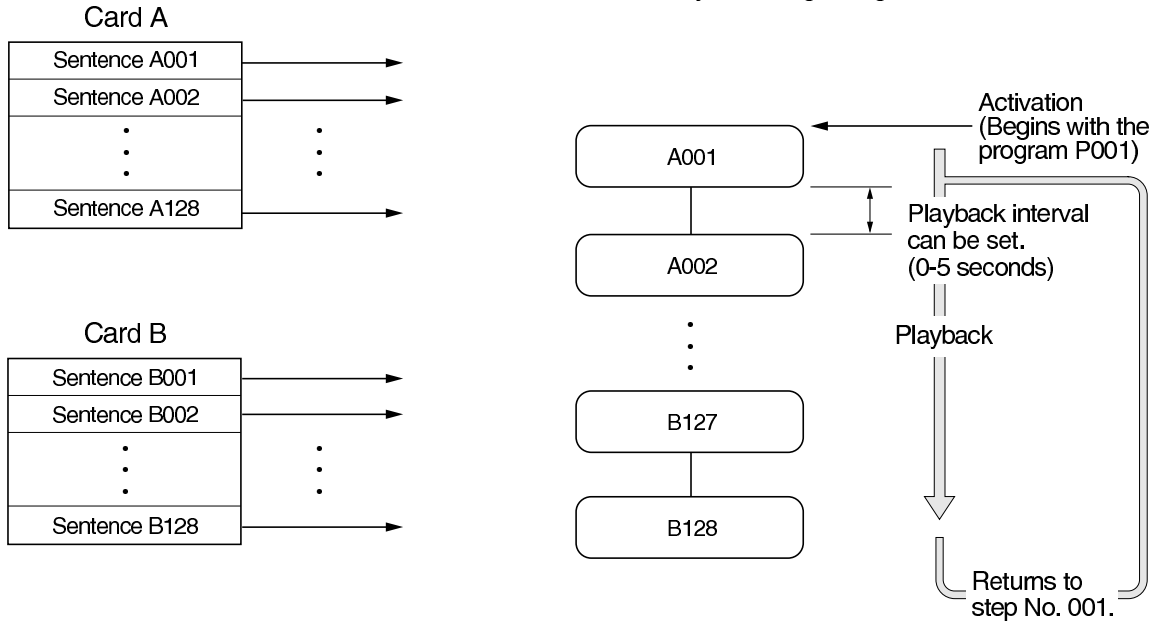


[Endless playback]

This function plays back all the sentences recorded on Card A, being followed by Card B in order of sentence number. After the last sentence is completed, playback returns to the first sentence and continues. Playback intervals of 0-5 seconds can be inserted between sentences.

To stop playback, press the [STOP] key or short the Stop terminal.

Example of the endless playback beginning with the sentence No. A001.



* Note that the playback method of program No. P001 should be preset for "Endless playback."

● Designating the beginning sentence for the endless playback

By selecting and playing back the program number (example: P002) set for the endless playback, the endless playback begins with the sentence (example: A002) corresponding to the program number. The relationship of the program number and sentence number is shown below.

Each of other program numbers (except No.P002 in this example) than designated as endless method can be freely set for the playback method.

Refer to p. 25 "1-1 PROGRAM INPUT" and p. 20 "Playback operating procedure."

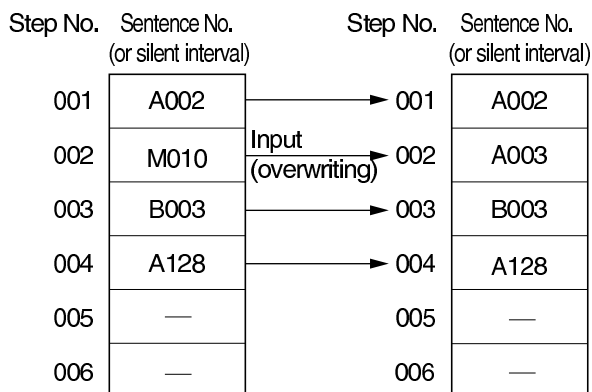
Program No. set for "Endless playback"	→	Beginning Sentence No.
P001	→	A001
P002 (The example shown here)	→	A002 (The example shown here)
⋮		⋮
P128	→	A128
P129	→	B001
⋮		⋮
P256	→	B128

7.1.3. Step input, erasure and insertion

[Step input]

Example when the Sentence No. A003 is input in the Step No. 002.

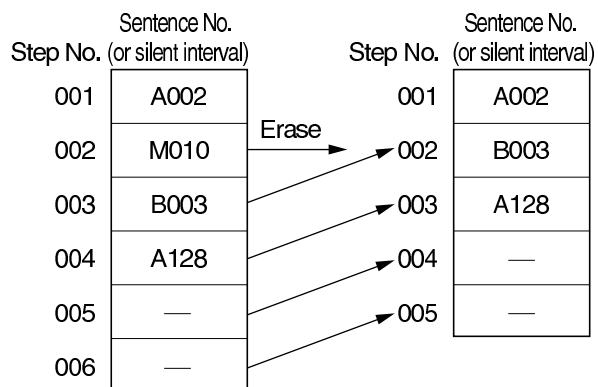
Example when the Sentence No. A003 is input in the Step No. 002



[Erasing the steps]

As steps are erased, the sentence automatically shrinks to close the remaining gaps, and changes the step numbers accordingly.

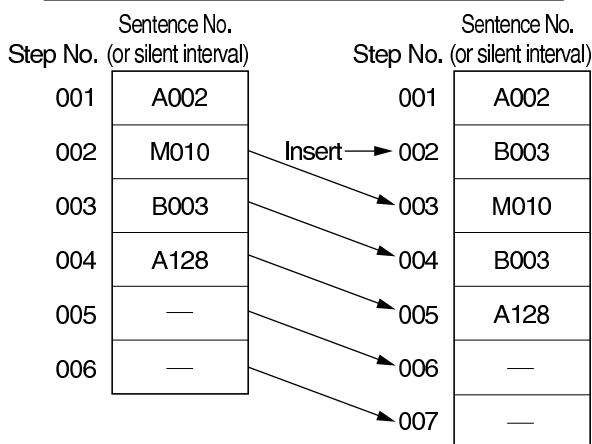
When Step No. 002 is erased



[Inserting the steps]

As steps are inserted, the sentence expands to include the new steps in their designated positions, and changes the step numbers accordingly.

When sentence No. B003 is inserted into Step No. 002



7.1.4. Setting the program output level (1-2 OUTPUT LEVEL)

Output levels can be set for each created program.
Refer to p. 48 for the operation procedures.

7.1.5. Program verification (1-3 PROGRAM VERIFICATION)

You can verify the program title, playback method, and content of the created program.
Refer to p. 48 for the operation procedures.

7.1.6. Program initialization (1-4 PROGRAM INTIALIZATION)

Created programs can be initialized by designating the program number. Initializing a program erases the whole content of that program, and returns its setting to the initial value. (Refer to p. 25.) You cannot initialize all programs at a time.
Refer to p. 50 for the operation procedures.

7.1.7. Entering and editing the program title (1-5 PROGRAM TITLE)

You can assign the title to the created program or modify the registered title.
Refer to p. 50 for the operation procedures.

7.2. Setting Functions (2. EDITING THE SENTENCES)

It is possible to verify the content of the recorded sentence.

7.2.1. Verifying the sentence (2-1 SENTENCE VERIFICATION)

You can verify the recording sound quality, title, and recording time of the recorded sentence.
Refer to p. 52 for the operation procedures.

Note

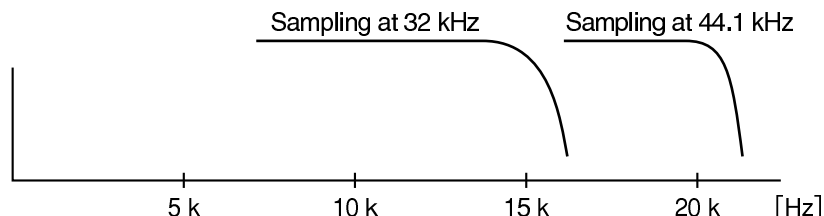
Sounds can be played back only at the headphone output, and not at Output 1 or Output 2.

[About the recording sound quality]

The Digital Announcer performs playback according to the recording sound quality used in the EV-350R's recording. There are eight types of recording sound quality, one of which is selected at the time of recording. The original recording sound quality cannot be changed with the EV-350P.

- The recording sound quality with the 32 kHz sampling frequency is narrower in frequency response but higher in sound quality than that with the 44.1 kHz sampling frequency, even if the recording grade is the same.
- Relationship of sampling frequency to frequency response
 - Sampling frequency of 32 kHz: Frequency response of 20 Hz - 14 kHz
 - Sampling frequency of 44.1 kHz: Frequency response of 20 Hz - 20 kHz

[Sampling frequency-to-frequency response relationship]



- Different sentences recorded using different recording grades and sampling frequencies can be combined and played back as a program (recording unit).

7.3. Setting Functions (3. MONITORING THE SENTENCES AND PROGRAMS)

You can monitor recorded sentences or created programs with a headphone.

Note: Sounds can be played back only at the headphone output, and not at Output 1 or Output 2.

7.3.1. Monitoring the sentence (3-1 SENTENCE MONITORING)

Recorded sentences can be monitored with a headphone.

Refer to p. 53 for the operation procedures.

Caution: Pressing the [PLAY] key causes the unit to switch to playback mode, disabling the monitoring function.

7.3.2. Monitoring the program (3-2 PROGRAM MONITORING)

Created programs can be monitored with a headphone.

Refer to p. 53 for the operation procedures.

Caution: Pressing the [PLAY] key causes the unit to switch to playback mode, disabling the monitoring function.

7.4. Setting Functions (4. OUTPUT/VOLUME SETTING)

7.4.1. Selecting single- or dual-source playback mode (4-1 DUAL-SOURCE PLAYBACK SELECTION)

Set the program playback for either single-source output or dual-source output.

[Single-source playback mode]

Individual output settings for each program are ignored, and broadcast is always made only from Output 1. Output 2 cannot be used. If you simultaneously play back the program set for Output 1 and the program set for Output 2, both programs are mixed and broadcast from Output 1.

[Dual-source playback mode]

Programs are broadcast from Output 1 and Output 2 depending on the setting.

Note: The unit is factory-preset for dual-source playback mode.

Refer to p. 54 for the operation procedures.

7.4.2. Master volume setting (4-2 MASTER VOLUME)

Set the overall volume level of program playback. Although the output volume level individually set for each program is effective as the relative sound volume between programs, the absolute sound volume is determined here.

Refer to p. 54 for the operation procedures.

Note: The volume is factory-preset for [8].

7.5. Setting Functions (5. OPERATION SETTING)

7.5.1. Remote control (5-1 CONTROL FUNCTION SETTING) [Playback and Stop]

Using the control input terminals located on the rear panel, program playback can be remotely controlled by external equipment. It is possible to remotely play back and stop the program set for Output 1 separately from the program set for Output 2.

Refer to p. 55 for the operation procedures.

[Direct mode and binary mode]

Short the activation control input terminals when selecting the program number in remote playback. Two different modes, direct mode and binary mode, are made available as the method (control function) to select the sentence and program numbers by means of the activation control terminals.

Note: The unit is factory-preset for direct mode.

[Activation control inputs 1-8 in direct mode]

Activation control terminal	Playback
	Program No.
1	P001
2	P002
3	P003
4	P004
5	P005
6	P006
7	P007
8	P008

[Activation control inputs 1-8 in binary mode]

Activation control terminal								Play
1	2	3	4	5	6	7	8	Program No.
00000000	P001							
10000000	P002							
01000000	P003							
11000000	P004							
00100000	P005							
10100000	P006							
01100000	P007							
11100000	P008							
00010000	P009							
10010000	P010							
01010000	P011							
11010000	P012							
00110000	P013							
10110000	P014							
01110000	P015							
11110000	P016							
00001000	P017							
10001000	P018							
01001000	P019							
11001000	P020							
00101000	P021							
10101000	P022							
01101000	P023							
11101000	P024							
00011000	P025							
10011000	P026							
01011000	P027							
11011000	P028							
00111000	P029							
10111000	P030							
01111000	P031							
11111000	P032							
00000100	P033							
10000100	P034							
01000100	P035							
11000100	P036							
00100100	P037							
10100100	P038							
01100100	P039							
11100100	P040							
00010100	P041							
10010100	P042							
01010100	P043							
11010100	P044							
00110100	P045							
10110100	P046							
01110100	P047							
11110100	P048							
00001100	P049							
10001100	P050							
01001100	P051							
11001100	P052							
00101100	P053							
10101100	P054							
01101100	P055							
11101100	P056							
00011100	P057							
10011100	P058							
01011100	P059							
11011100	P060							
00111100	P061							
10111100	P062							
01111100	P063							
11111100	P064							

Activation control terminal								Play
1	2	3	4	5	6	7	8	Program No.
00000010	P065							
10000010	P066							
01000010	P067							
11000010	P068							
00100010	P069							
10100010	P070							
01100010	P071							
11100010	P072							
00010010	P073							
10010010	P074							
01010010	P075							
11010010	P076							
00110010	P077							
10110010	P078							
01110010	P079							
11110010	P080							
00001010	P081							
10001010	P082							
01001010	P083							
11001010	P084							
00101010	P085							
10101010	P086							
01101010	P087							
11101010	P088							
00011010	P089							
10011010	P090							
01011010	P091							
11011010	P092							
00111010	P093							
10111010	P094							
01111010	P095							
11111010	P096							
00000110	P097							
10000110	P098							
01000110	P099							
11000110	P100							
00100110	P101							
10100110	P102							
01100110	P103							
11100110	P104							
00010110	P105							
10010110	P106							
01010110	P107							
11010110	P108							
00110110	P109							
10110110	P110							
01110110	P111							
11110110	P112							
00001110	P113							
10001110	P114							
01001110	P115							
11001110	P116							
00101110	P117							
10101110	P118							
01101110	P119							
11101110	P120							
00011110	P121							
10011110	P122							
01011110	P123							
11011110	P124							
00111110	P125							
10111110	P126							
01111110	P127							
11111110	P128							

Activation control terminal								Play
1	2	3	4	5	6	7	8	Program No.
00000001	P129							
10000001	P130							
01000001	P131							
11000001	P132							
00100001	P133							
10100001	P134							
01100001	P135							
11100001	P136							
00010001	P137							
10010001	P138							
01010001	P139							
11010001	P140							
00110001	P141							
10110001	P142							
01110001	P143							
11110001	P144							
00001001	P145							
10001001	P146							
01001001	P147							
11001001	P148							
00101001	P149							
10101001	P150							
01101001	P151							
11101001	P152							
00011001	P153							
10011001	P154							
01011001	P155							
11011001	P156							
00111001	P157							
10111001	P158							
01111001	P159							
11111001	P160							
00000101	P161							
10000101	P162							
01000101	P163							
11000101	P164							
00100101	P165							
10100101	P166							
01100101	P167							
11100101	P168							
00010101	P169							
10010101	P170							
01010101	P171							
11010101	P172							
00110101	P173							
10110101	P174							
01110101	P175							
11110101	P176							
00001101	P177							
10001101	P178							
01001101	P179							
11001101	P180							
00101101	P181							
10101101	P182							
01101101	P183							
11101101	P184							
00011101	P185							
10011101	P186							
01011101	P187							
11011101	P188							
00111101	P189							
10111101	P190							
01111101	P191							
11111101	P192							

Activation control terminal								Play
1	2	3	4	5	6	7	8	Program No.
00000011	P193							
10000011	P194							
01000011	P195							
11000011	P196							
00100011	P197							
10100011	P198							
01100011	P199							
11100011	P200							
00010011	P201							
10010011	P202							
01010011	P203							
11010011	P204							
00110011	P205							
10110011	P206							
01110011	P207							
11110011	P208							
00001011	P209							
10001011	P210							
01001011	P211							
11001011	P212							
00101011	P213							
10101011	P214							
01101011	P215							
11101011	P216							
00011011	P217							
10011011	P218							
01011011	P219							
11011011	P220							
00111011	P221							
10111011	P222							
01111011	P223							
11111011	P224							
00000111	P225							
10000111	P226							
01000111	P227							
11000111	P228							
00100111	P229							
10100111	P230							
01100111	P231							
11100111	P232							
00010111	P233							
10010111	P234							
01010111	P235							
11010111	P236							
00110111	P237							
10110111	P238							
01110111	P239							
11110111	P240							
00001111	P241							
10001111	P242							
01001111	P243							
11001111	P244							
00101111	P245							
10101111	P246							
01101111	P247							
11101111	P248							
00011111	P249							
10011111	P250							
01011111	P251							
11011111	P252							
00111111	P253							
10111111	P254							
01111111	P255							
11111111	P256							

Note: [1] in the table stands for "make".

7.5.2. Activation mode for remote control (5-2 ACTIVATION MODE SELECTION)

Activation mode can be set individually for remote playback and remote stop. Refer to p. 56 for the operation procedures.

[Remote playback]

• Direct mode

- (1) Playback Activation Mode 1 (one-shot pulse input activation, last-in rejected priority)*
- (2) Playback Activation Mode 2 (one-shot pulse input activation, last-in-first-out priority)
- (3) Playback Activation Mode 3 (one-shot pulse input activation, smaller program number priority)
- (4) Playback Activation Mode 4 (one-shot pulse input activation, sequential storage/playback)
- (5) Playback Activation Mode 5 (level-operated input activation, first-in-first-out priority)
- (6) Playback Activation Mode 6 (level-operated input activation, last-in-first-out priority)
- (7) Playback Activation Mode 7 (level-operated input activation, smaller program number priority)

• Binary mode

- (1) Playback Activation Mode 1 (one-shot pulse input activation, last-in rejected priority)
- (2) Playback Activation Mode 2 (one-shot pulse input activation, last-in-first-out priority)
- (3) Playback Activation Mode 3 (one-shot pulse input activation, smaller program number priority)
- (4) Playback Activation Mode 4 (one-shot pulse input activation, sequential storage/playback)
- (5) Playback Activation Mode 5 (level-operated input activation)

[Remote stop]

- (1) Stop Activation Mode 1 (stop during playback)*
- (2) Stop Activation Mode 2 (stop after sentence playback completion)

* : Factory-preset mode

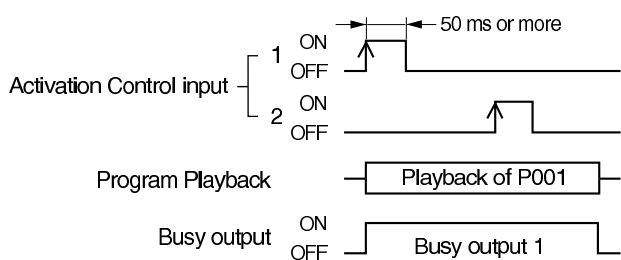
7.5.3. Direct mode

[Remote playback]

Up to eight programs (P001-P008) can be remotely played back. Shorting the Activation Control input enables playback.

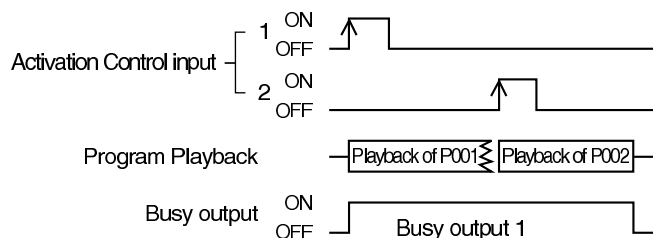
Note: This assumes that program Nos. P001 and P002 are set for Output 1.

- (1) Playback Activation Mode 1 (one-shot pulse input activation, first-in-first-out priority)



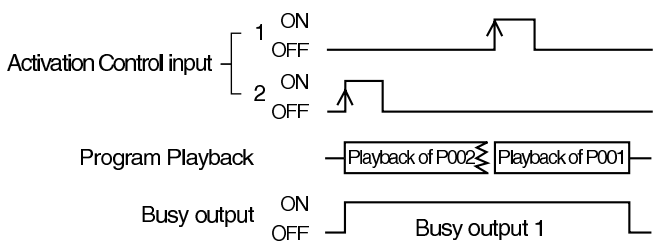
- Playback begins when the Activation Control input is shorted (OFF → ON).
- Any further inputs to the currently-engaged Activation Control input are rejected.
- Programs are played back only once, even if the Activation Control input remains shorted.
- When multiple Activation Control inputs are simultaneously shorted, the program with the smallest number is played back.

- (2) Playback Activation Mode 2 (one-shot activation, last-in-first-out priority)



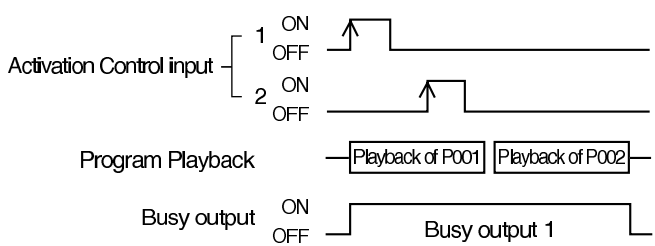
- Playback begins when the activation control input is shorted.
- The most recent Activation Control input takes precedence.
- Programs are played back only once, even if the Activation Control input remains shorted.

(3) Playback Activation Mode 3 (one-shot pulse input activation, small number program priority)



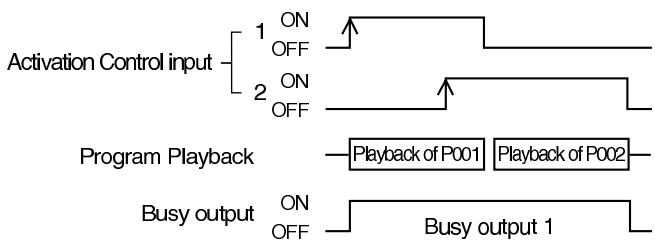
- Playback begins when the activation control input is shorted.
- If the Activation Control input has a smaller program number than that of the currently playing program, the program with the smaller number is played back. The input with the larger program number is rejected.
- Programs are played back only once, even if the Activation Control input remains shorted.

(4) Playback Activation Mode 4 (one-shot activation, sequential storage and playback)



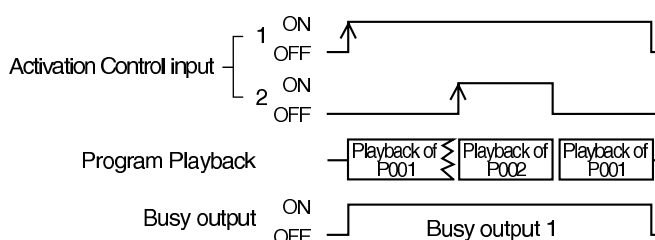
- Playback begins when the Activation Control input is shorted.
- All subsequent Activation Control inputs are sequentially stored and programs are played back in input order.
- Up to 16 inputs are stored for each output.
- When simultaneous Activation Control inputs are received, the program with the smallest program number is played back.
- Programs are played back only once, even if the Activation Control input remains shorted.
- Shorting the Stop Control input stops the program being played back. (If the Stop 1 Control input is shorted when the program is played back from both Outputs 1 and 2, playback from Output 1 stops. However, Output 2 continues to play back the program.) If another control input has been stored, the unit automatically begins to play back the stored program.
- If you short the CLEAR terminal while shorting the Playback Control input, all stored inputs are cleared.

(5) Playback Activation Mode 5 (level-operated input activation, first-in-first-out priority)



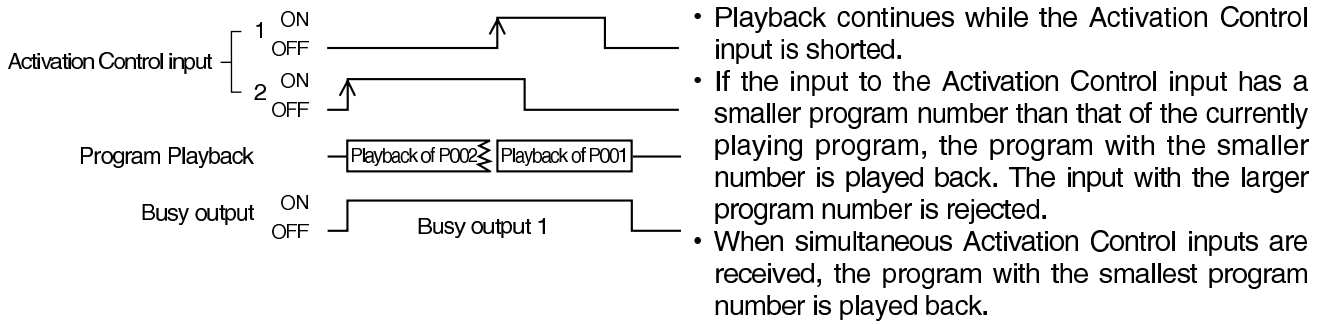
- Playback continues while the Activation Control input is shorted.
- All subsequent Activation Control inputs are rejected during playback.
- Subsequent Activation Control inputs during playback are stored and played back as soon as the current playback is completed.
- When multiple Activation Control inputs are simultaneously shorted, the program with the smallest program number is played back.

(6) Playback Activation Mode 6 (level-operated input activation, last-in-first-out priority)



- Playback continues while the Activation Control input is shorted.
- The most recent Activation Control input takes precedence even during playback.
- During playback, other Activation Control inputs are stored and played back upon completion of the current playback.
- When simultaneous Activation Control inputs are received, the program with the smallest program number is played back.

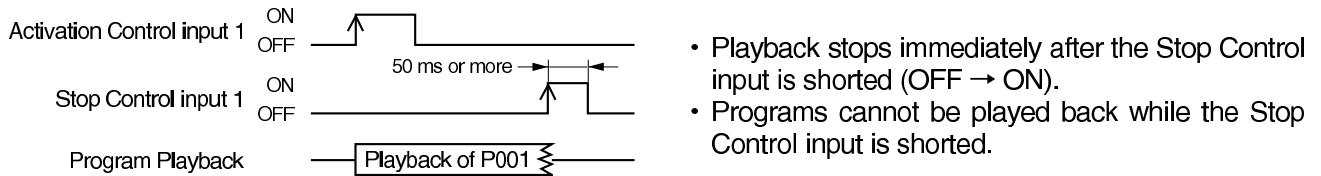
(7) Playback Activation Mode 7 (level-operated input activation, chronological priority)



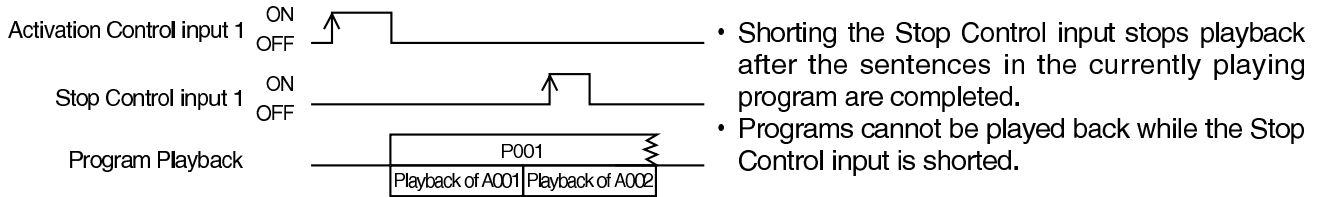
[Remote stop]

You can set Stop mode when in one-shot-pulse-activated Playback Activation Mode (Playback Activation Mode 1-4).

(1) Stop Activation Mode 1 (stop during playback)



(2) Stop Activation Mode 2 (stop after sentence playback completion)



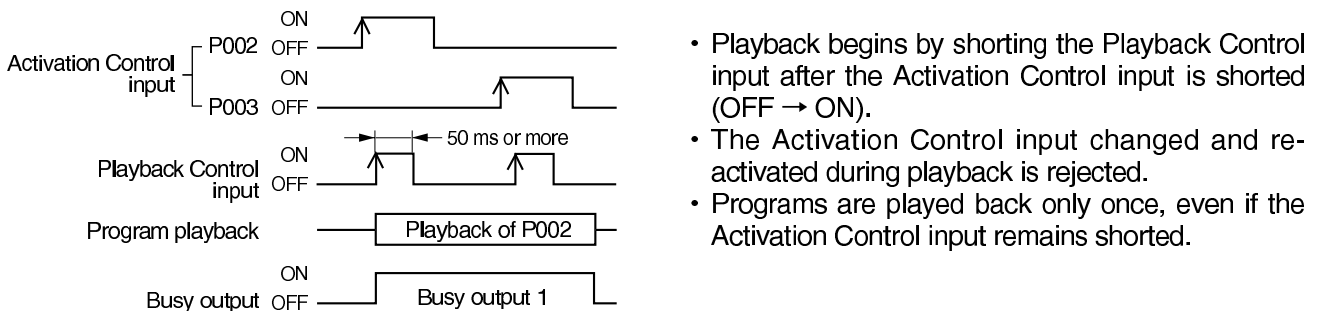
7.5.4. Binary mode

[Remote playback]

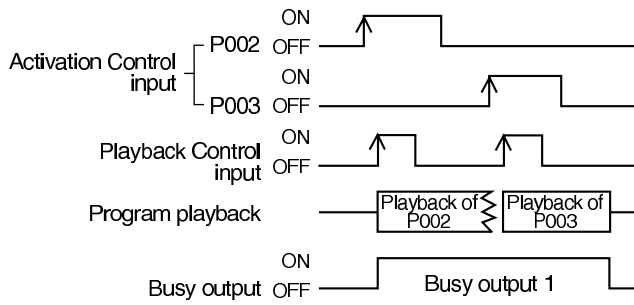
Up to 256 programs (P001-P256) can be remotely played back by shorting the Playback Control input after the Activation Control input is shorted.

Note: This assumes that program Nos. P002 and P003 are set for Output 1.

(1) Playback Activation Mode 1 (one-shot pulse input activation, first-in-first-out priority)

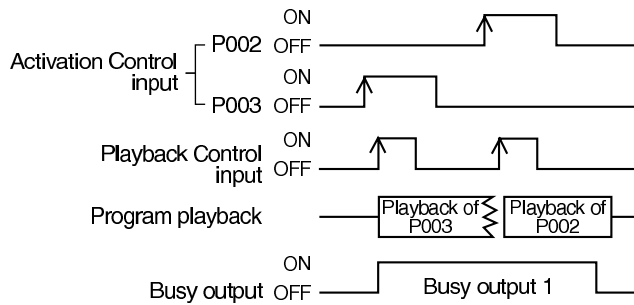


(2) Playback Activation Mode 2 (one-shot pulse input activation, last-in-first-out priority)



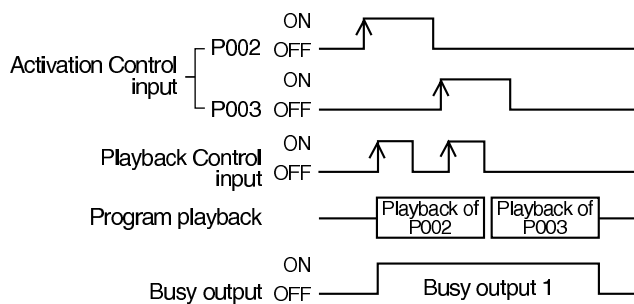
- Playback begins by shorting the playback control input after the Activation Control input is shorted (OFF → ON).
- Priority is given to the most recent Activation Control input and Playback Control input.
- Programs are played back only once, even if the Activation Control input remains shorted.

(3) Playback Activation Mode 3 (one-shot pulse input activation, small program number priority)



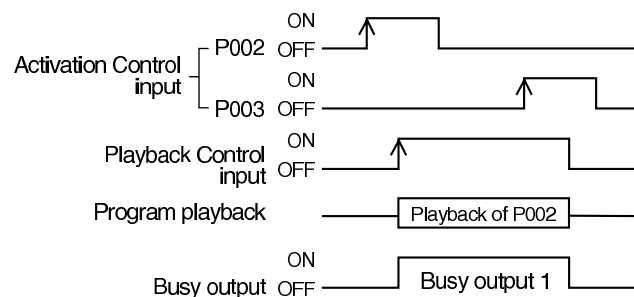
- Playback begins by shorting the Playback Control input after the Activation Control input is shorted (OFF → ON).
- If the Activation Control input and Playback Control input have a smaller program number than that of the currently playing program, the program with a smaller number is played back. The input with the larger program number is rejected.
- Programs are played back only once, even if the Activation Control input remains shorted.

(4) Playback Activation Mode 4 (one-shot pulse input activation, sequential storage/playback)



- Playback begins by shorting the Playback Control input after the Activation Control input is shorted (ON → OFF).
- All subsequent Activation Control inputs and Playback Control inputs are sequentially stored and played back in input order.
- Up to 16 inputs are stored for each output.
- Programs are played back only once, even if the Activation Control input remains shorted.
- Shorting the Stop Control input stops the program being played back. (If the Stop 1 Control input is shorted when the program is played back from both Outputs 1 and 2, playback from Output 1 stops. However, Output 2 continues to play back the program.) If another control input has been stored, the unit automatically begins to play back the stored program.
- If you short the CLEAR terminal while shorting the Playback Control input, all stored inputs are cleared.

(5) Playback Activation Mode 5 (level-operated input activation)

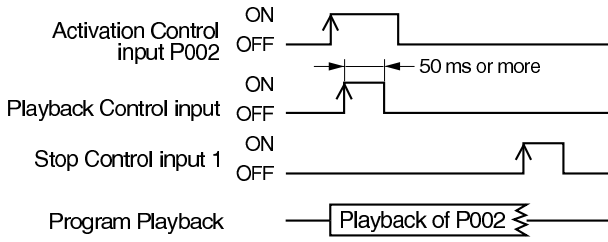


- Playback continues while the Playback Control input is shorted after the Activation Control input is shorted (OFF → ON).

[Remote stop]

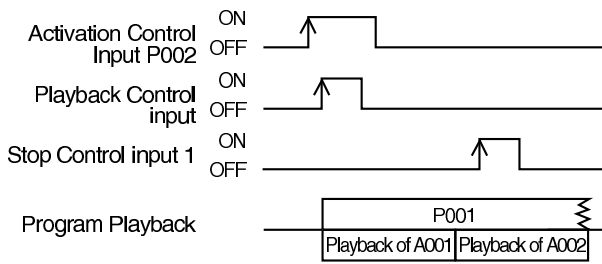
It is possible to set Stop mode when in one-shot-pulse-activated Playback Activation Mode (Playback Activation Mode 1-4).

(1) Stop Activation Mode 1 (stop during playback)



- Playback stops immediately after the Stop Control input is shorted (OFF → ON)
- Programs cannot be played back while the Stop Control input is shorted.

(2) Stop Activation Mode 2 (stop after sentence playback completion)



- Playback stops when the Stop Control input is shorted after the current sentence is played back.
- Programs cannot be played back while the Stop control input is shorted.

7.5.5. Busy output and playback delay time settings [5-3 BUSY OUTPUT SETTING]

[Busy output setting]

Perform the busy output ON/OFF setting at the time of program playback and system setting*1. Setting the playback busy output for ON sends out a contact signal from the busy output terminal corresponding to the output set for each program, whether in single-source or dual-source playback mode. The busy output ON/OFF for system setting can be set for each of busy outputs 1 and 2.

Refer to p. 56 for the operation procedures.

Factory-preset values

- Playback busy output: ON for both busy outputs 1 and 2
- Busy output for system setting: OFF for both busy outputs 1 and 2

*1 When the system busy is set for ON, the busy output is enabled while the following functions are being set or operating.

1-1 PROGRAM INPUT	7-1 CARD NAME INPUT
1-2 OUTPUT LEVEL	7-4 SOFTWARE WRITE PROTECT
1-4 PROGRAM INITIALIZATION	8-1 PROGRAM COPYING
1-5 PROGRAM TITLE	9-1 AUTOMATIC LEVEL ADJUSTMENT
3-1 SENTENCE MONITORING*2	
3-2 PROGRAM MONITORING*2	

*2 Note that the busy output is not enabled even if the playback busy is set for ON.

Tip

Busy outputs to be set in the program input setting

Other than listed above, the busy outputs in program intervals of the single-program playback or in repeat intervals of the repeat playback can be set to ON/OFF for the busy output 1 or 2.

Refer to p. 25 "1-1 PROGRAM INPUT."

[Playback delay time setting]

Set the delay time from playback activation till program playback in the range of 0-99 seconds (in 1-second units).

Refer to p. 56 for the operation procedures.

Factory-preset value

Playback delay time: 0 second

7.6. Setting Functions (6. ENVIRONMENT SETTING)

7.6.1. Operation beep setting (6-1 OPERATION BEEP)

Whether to sound (ON) or not to sound (OFF) a beep when pressing the keys can be set.

Refer to p. 58 for the operation procedures.

Note: Factory-preset for ON.

7.6.2. RS-232C setting (6-2 RS-232C SETTING)

Set the RS-232C communication speed for 4,800 bps, 9,600 bps (factory-preset) or 19,200 bps.

Refer to p. 58 for the operation procedures.

7.6.3. Password setting (6-3 PASSWORD)

Setting the password locks the keys to prevent malfunctions or tampering.

Refer to p. 58 for the operation procedures.

Note: Any password is not preset when the unit is supplied from the factory.

7.6.4. Initializing the digital announcer (6-4 DIGITAL ANNOUNCER INITIALIZATION)

All settings return to the initial values set by the factory.

The setting contents are initialized in the setting menus; "4. OUTPUT/VOLUME SETTING," "5. OPERATION SETTING," "6. ENVIRONMENT SETTING," and "9. AUTO-LEVEL SETTING."

Refer to p. 58 for the operation procedures.

7.6.5. Key lock setting (6-5 KEY LOCK)

This function allows the keys to be locked. You must set the password when using this function. Setting the key lock function for ON disables all the keys and dials except the power switch, preventing malfunctions and tampering.

Refer to p. 58 for the operation procedures.

Note: The key lock function is factory-preset for OFF.

7.6.6. Version indication (6-6 VERSION INDICATION)

Displays the version of the unit's program software. Select the corresponding item with the [SELECT] dial, and the version is displayed.

Refer to p. 58 for the operation procedures.

7.7. Setting Functions (7. EDITING THE CARDS)

You can assign a name to the card.

7.7.1. Entering or editing the card name (7-1 CARD NAME INPUT)

You can assign a name to the recorded card or modify the registered card name.

Refer to p. 60 for the operation procedures.

Note: The menus 7-1 and 7-2 do not exist.

7.7.2. Software-operated write protection (7-4 SOFTWARE WRITE PROTECT)

Set contents of the card can be protected. Protecting the card makes it impossible to register and change programs. It is highly recommended that the finished card be protected to avoid the accidental erasure of the card's contents. Programs can be played back or verified, and sentences verified even if the card is protected.

Note: The software-operated write protection function is factory-preset for OFF for both cards A and B.

When the SRAM card is used, it is protected as follows depending on the card's write protect (WP) switch setting and the on-off status of the software-operated write protection.

WP switch: WP position, software write protection: ON → Protection ON

WP switch: WP position, software write protection: OFF → Protection ON

WP switch: Opposite position of WP, software write protection: ON → Protection ON

WP switch: Opposite position of WP, software write protection: OFF → Protection OFF

Note that the software-operated write protection cannot be set if the WP switch is already set to WP position. To disable the protection of the card with the WP switch in WP position after setting the software-operated write protection for ON, set the WP switch to WP position first, then set the software-operated protection for OFF.

Refer to p. 60 for the operation procedures.

7.8. Setting Functions (8. COPYING THE PROGRAM)

7.8.1. Copying a program (8-1 PROGRAM COPYING)

You can copy a created program to a different program number.
Refer to p. 62 for the operation procedures.

Note: The program to be copied overwrites the program to copy to.

7.9. Setting Functions (9. AUTO-LEVEL SETTING)

7.9.1. Automatic level adjustment (9-1 AUTOMATIC LEVEL ADJUSTMENT)

Setting the automatic level adjustment function for ON allows the sentences recorded at different recording signal levels to be played back at the uniform level when playing back a program. Depending on the programs, the playback sound may not be smooth to the ears. In such a case, set the automatic level adjustment function for OFF.

Refer to p. 63 for the operation procedures.

Note: Factory-preset for OFF.

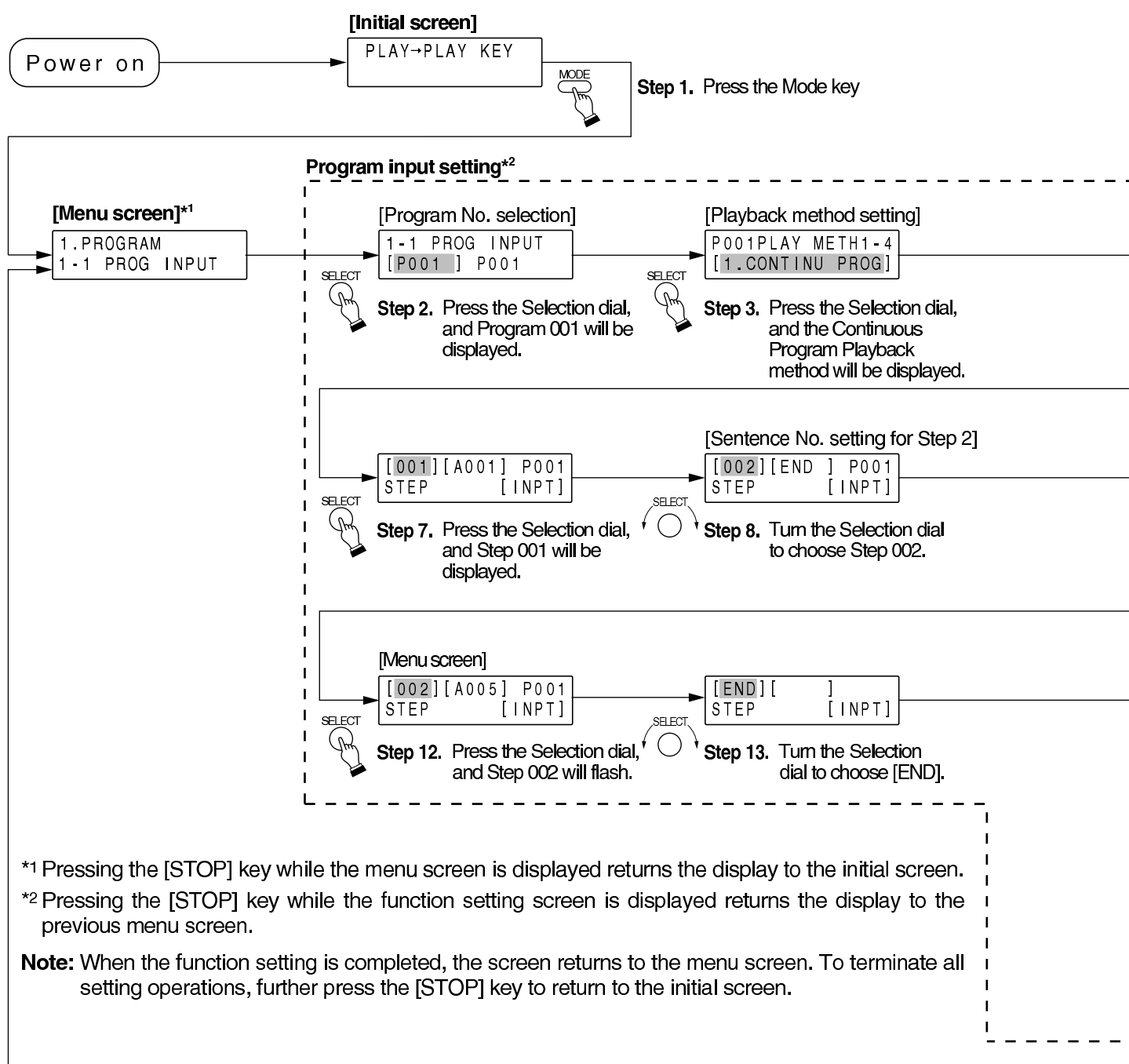
8. SETTING OPERATION

8.1. An Example of Operation Procedures

How to make settings is explained here referring to an example of the "1-1 PROGRAM INPUT"
(See p. 25 and 44).

In this example, the sentence Nos. A001 and A005 are assigned to the program No. P001. Moreover the playback method and Output channel are set as shown below.

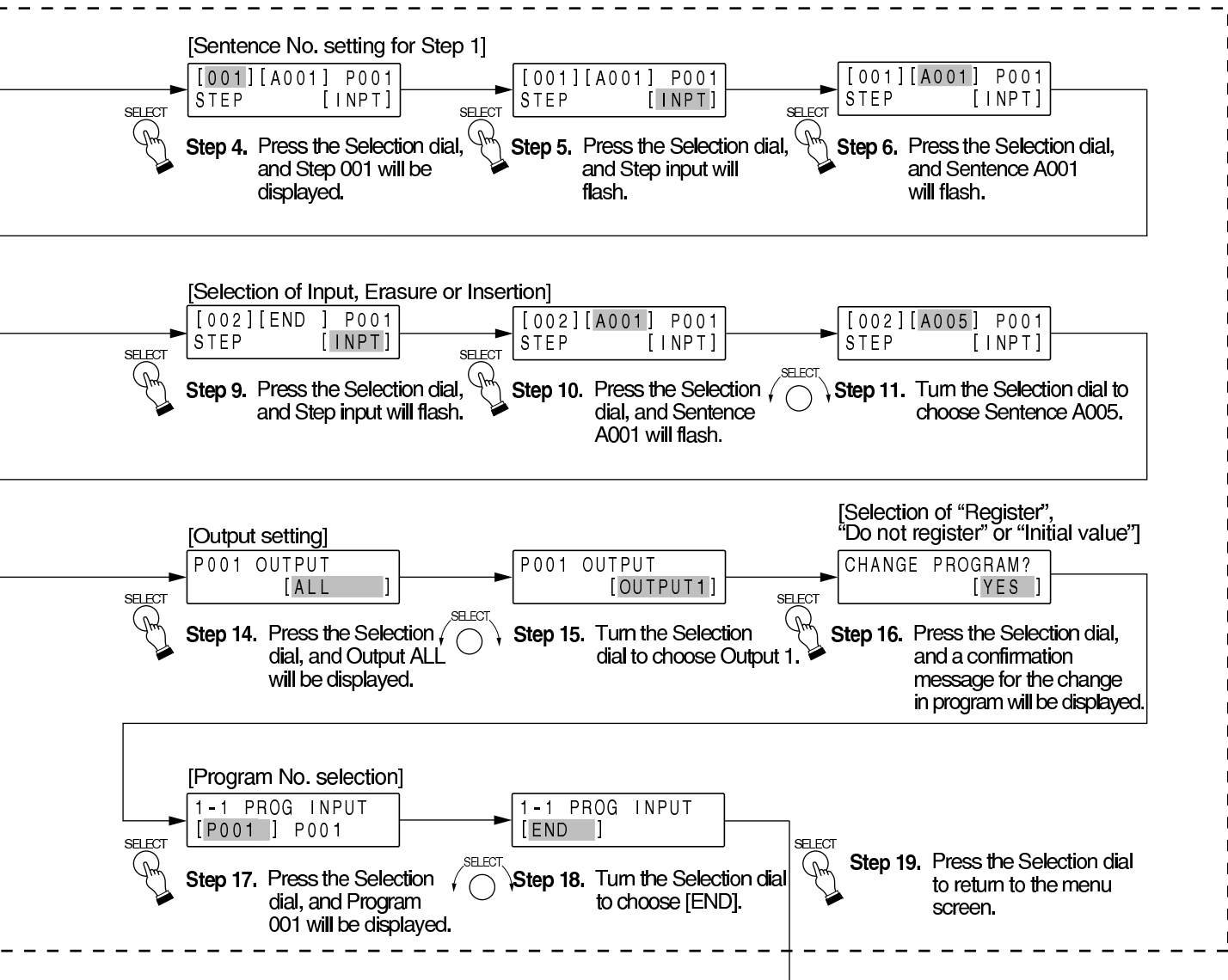
Program No.	Playback method	Step No.	Editing	Sentence No.	Output
P001	Continuous program playback	001	Step input	A001	Output 1
		002		A005	



[Program Initial Setting Value]

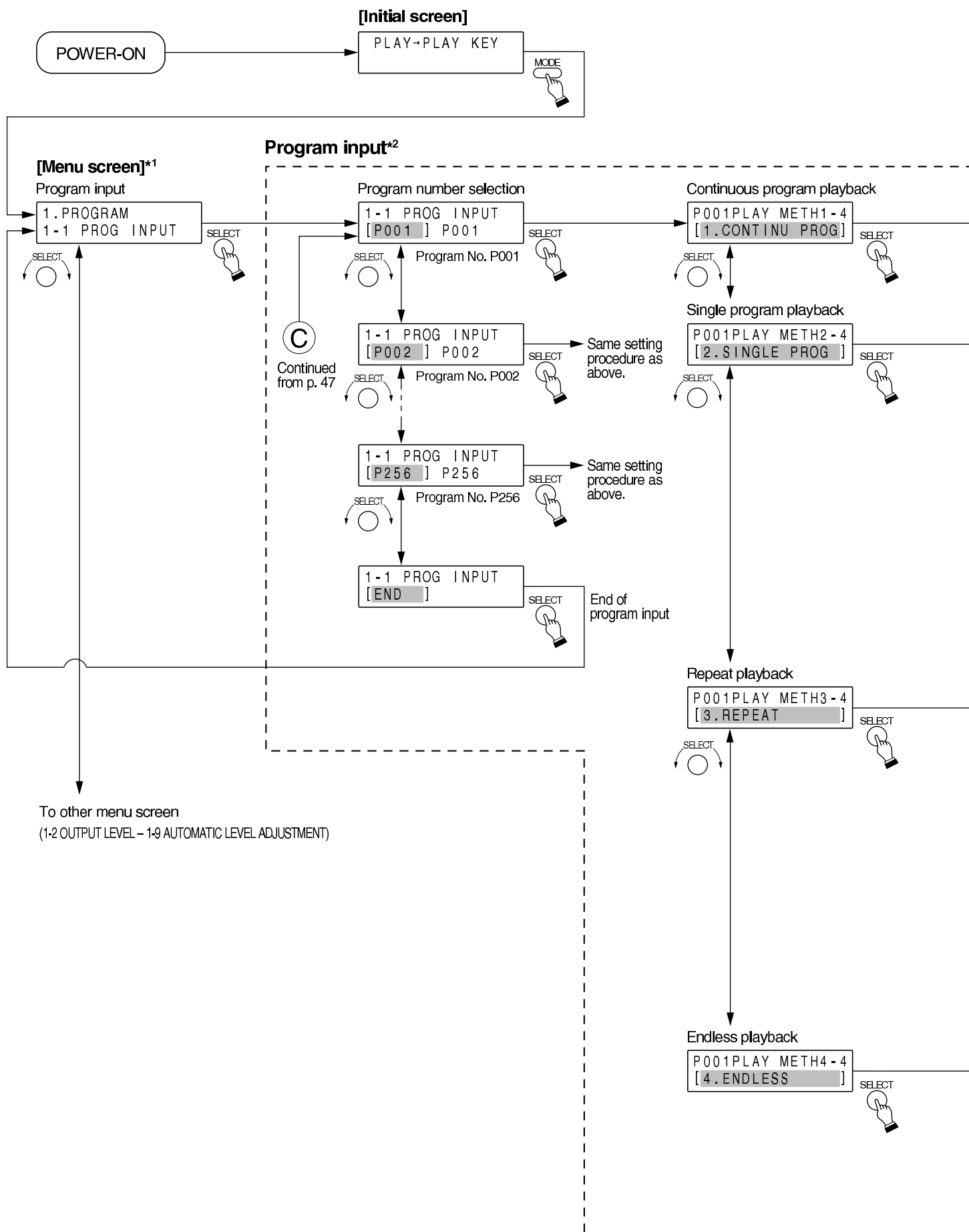
Playback Method	Program Title	Step No.	Sentence No.	Output
Continuous Program Playback	P001-P256 (Same as program numbers)	001 only	A001 for P001 ⋮ A128 for P128 B001 for P129 ⋮ B128 for P256 (1 sentence only for each program)	Output 1 and Output 2

If the program input is not executed, the playback operates in accordance with the initial settings preset at the factory.



8.2. Setting Operation (1. PROGRAM)

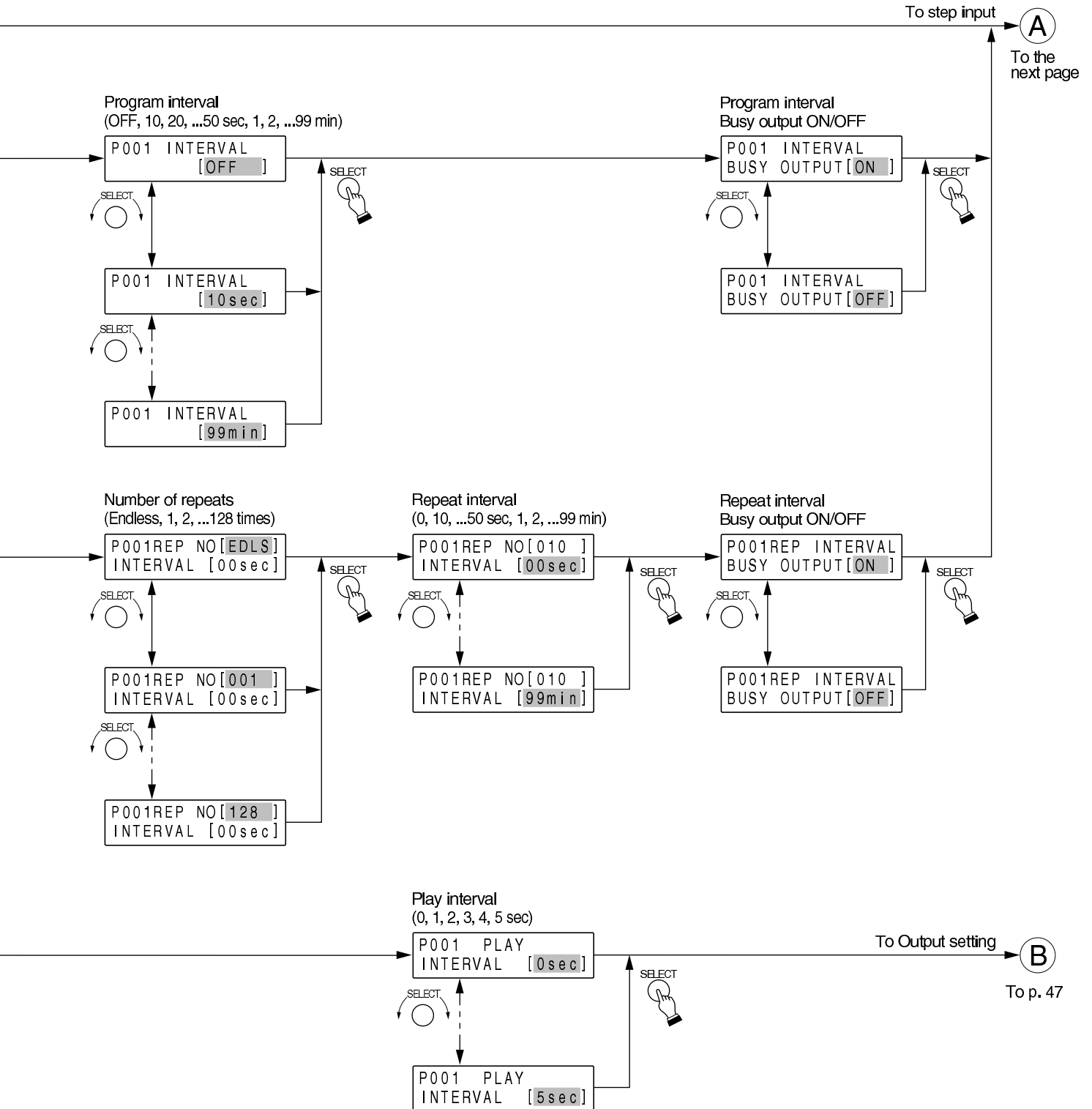
8.2.1. Operation procedures (1-1 PROGRAM INPUT)



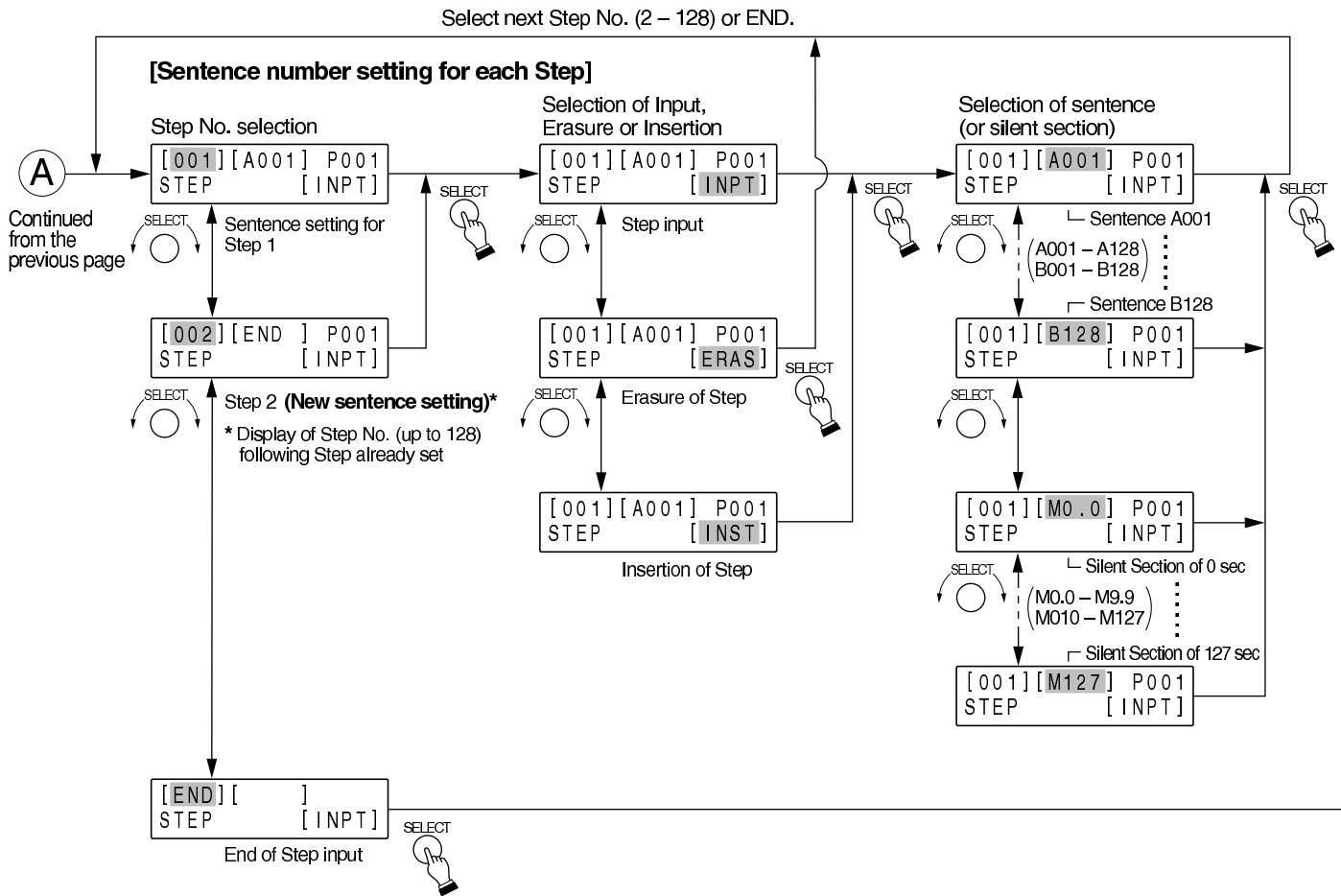
*1 Pressing the [STOP] key while the menu screen is displayed returns the display to the initial screen.

*2 Pressing the [STOP] key while the function setting screen is displayed returns the display to the previous menu screen.

Note: When the function setting is completed, the screen returns to the menu screen. To terminate all setting operations, further press the [STOP] key to return to the initial screen.



Program input



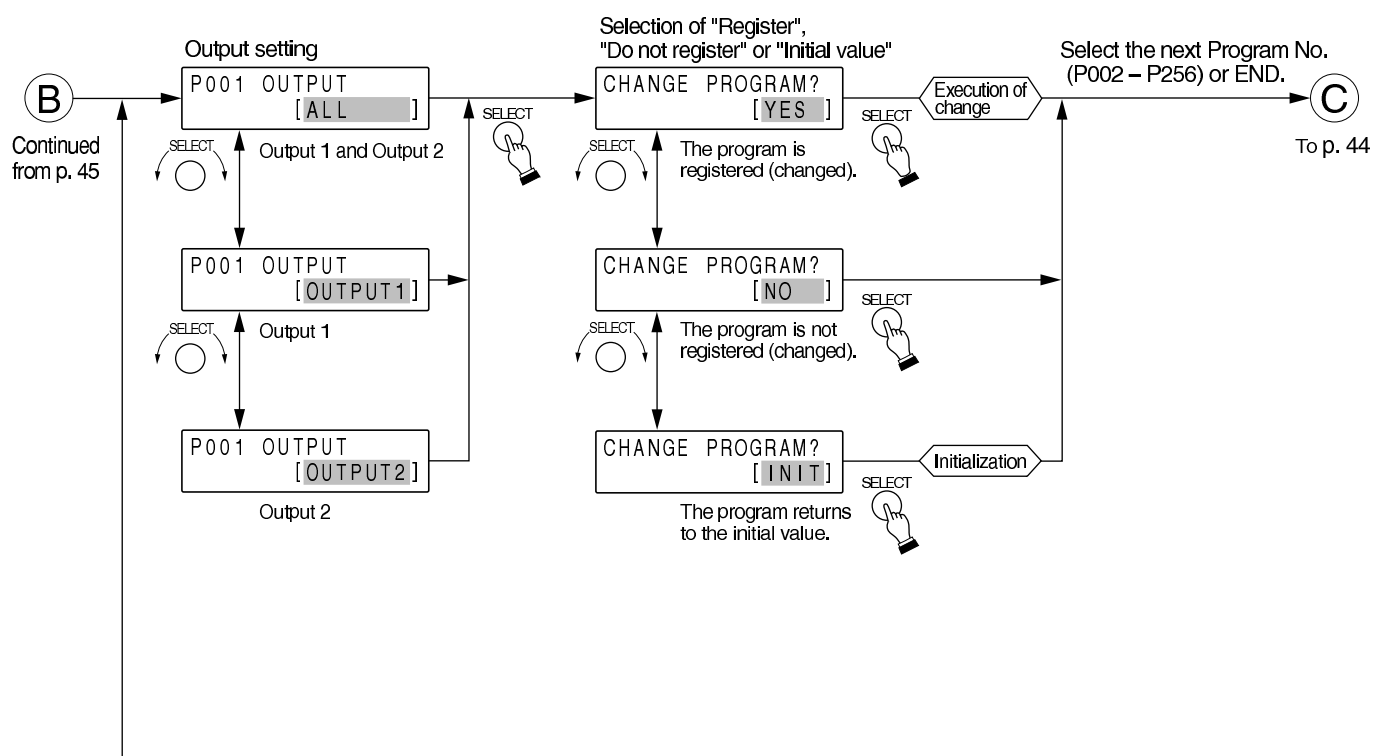
[Selection item and setting contents] (Program input)

Program No.	Setting Contents				
	Playback method	Program interval (Interval Timer)	Number of plays	Play interval	Busy output
P001 – P256	<u>Continuous Program Playback</u>	—	—	—	—
	Single Program Playback	OFF (no relation) 10, 20, ... 50 sec 1, 2, ... 99 min	—	—	ON (At program interval) OFF
	Repeat Playback	—	1, 2, ... 128 repeats, Endless	0, 10, ... 50 sec 1, 2, ... 99 min	ON (At repeat interval) OFF
	Endless Playback	—	—	0, 1, 2, 3, 4, 5 sec	—

Notes

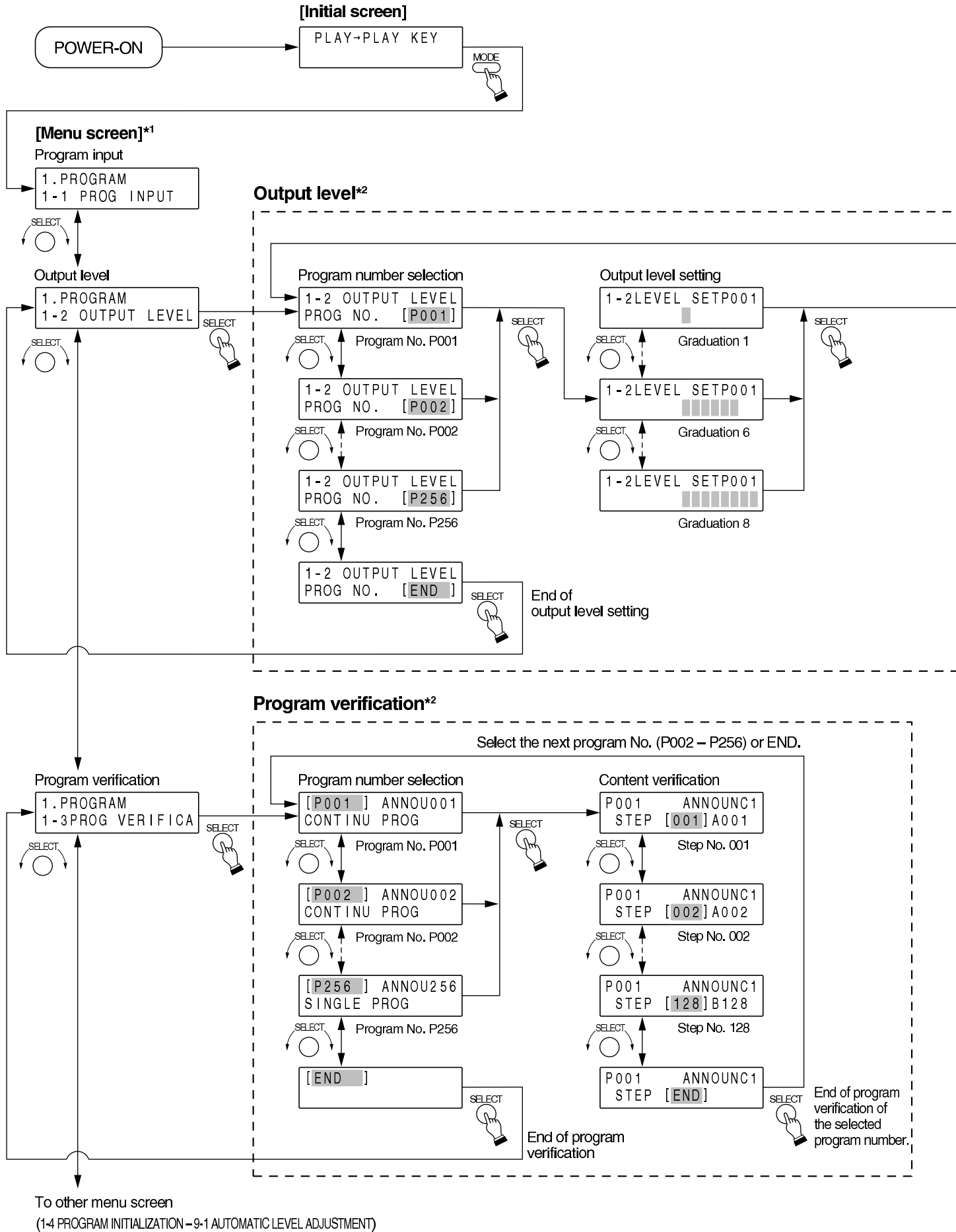
Initial value (set by the factory)

- Underlined part refers to the initial value.
- Sentence No. A001 – A128 are assigned to Program No. P001 – P128, and Sentence No. B001 – B128 to Program No. P129 – P256. (Only one sentence is set for each program.)



Step No.	Setting Contents		
	Editing	Sentence No. (or Silent Section)	Output
001 - 256	Step input Step input deletion Step input insertion	Sentence No.: A001 - A128 B001 - B128 Silent section's silence interval: M0.0 - M9.9 (0 - 9.9 sec, 0.1 sec units) M010 - M127 (10 - 127 sec, 1 sec units)	Output 1 and Output 2 Output 1 Output 2

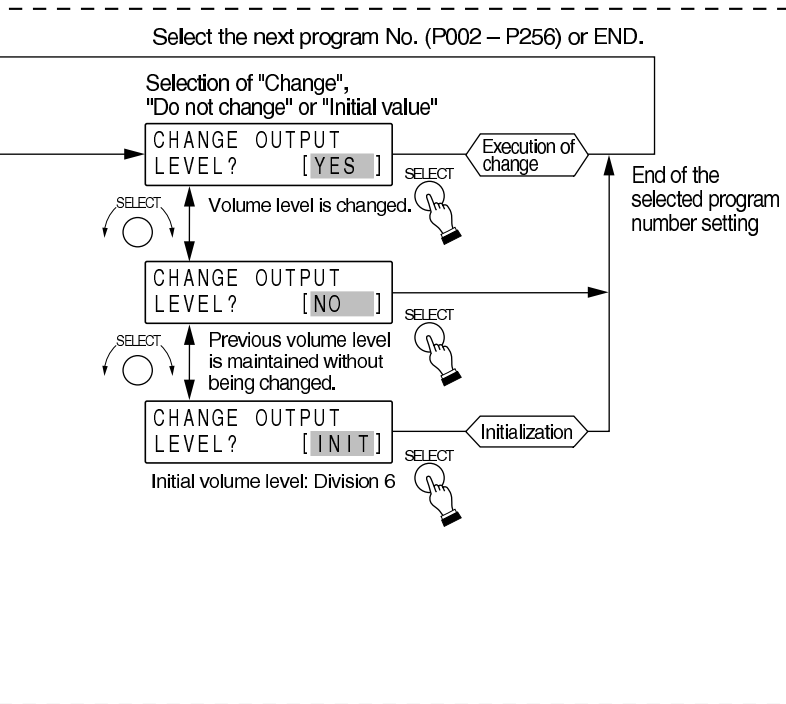
8.2.2. Operation procedures (1-2 OUTPUT LEVEL and 1-3 PROGRAM VERIFICATION)



*1 Pressing the [STOP] key while the menu screen is displayed returns the display to the initial screen.

*2 Pressing the [STOP] key while the function setting screen is displayed returns the display to the previous menu screen.

Note: When the function setting is completed, the screen returns to the menu screen. To terminate all setting operations, further press the [STOP] key to return to the initial screen.



[Selection item and setting contents] (Output level)

Program No.	Setting Contents
	Output Level
P001 - P256	Graduation 1
	Graduation 2
	...
	Graduation 6
	Graduation 7
	Graduation 8

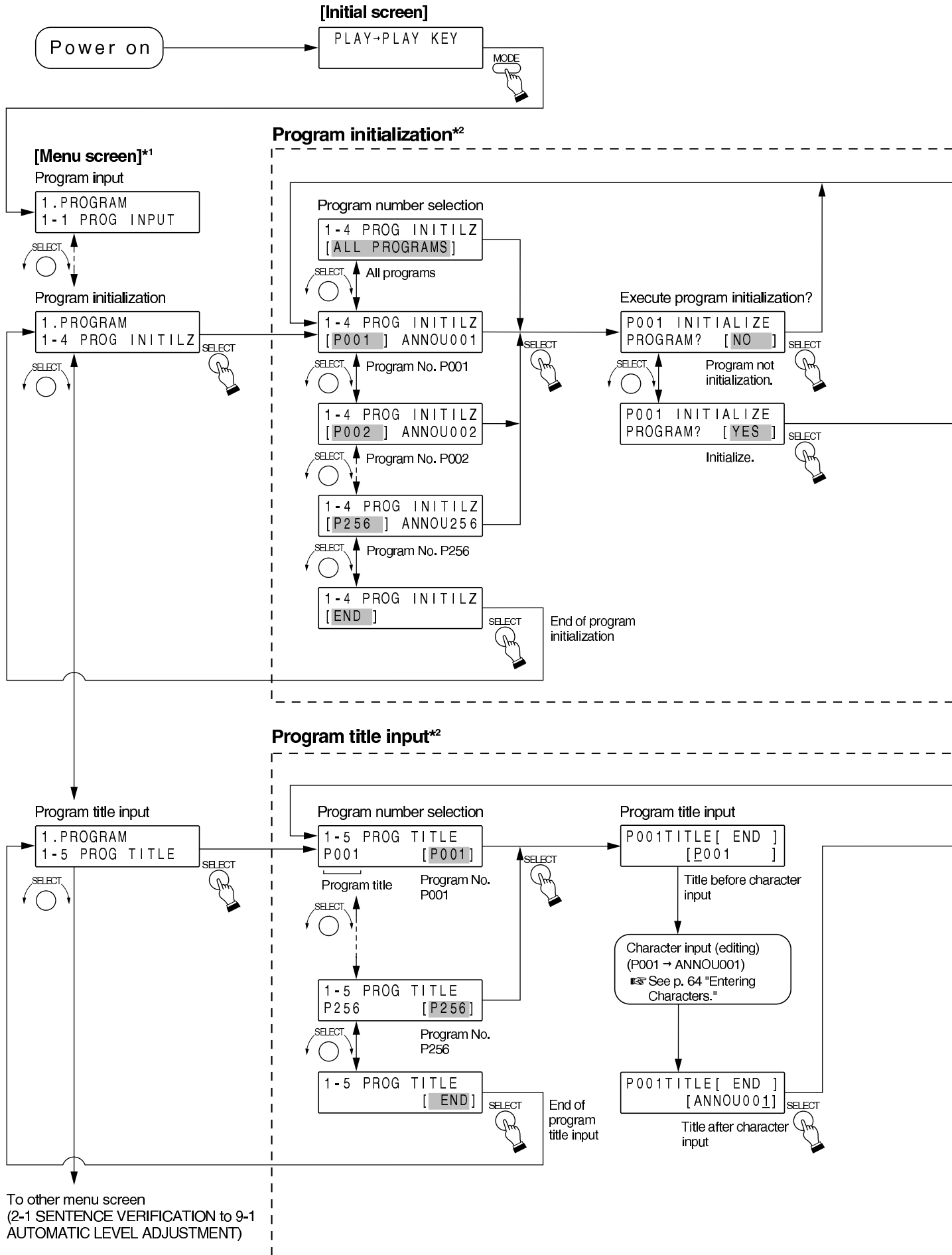
Underlined parts refer to the initial value (set by the factory).

[Selection item and contents to verify] (Program verification)

Program No.	Contents to Verify		Step No.	Contents to Verify
	Program Title	Playback method		Sentence No. (or Silent Section)
P001 - P256	<u>P001 - P256</u> Up to 8 alphanumeric characters	<u>Continuous Program Playback</u>	001 - 256	Sentence No.: <u>A001 - A128</u> B001 - B128 Silent section's silence interval: M0.0 - M9.9 (0 - 9.9 sec, 0.1 sec units) M010 - M127 (10 - 127 sec, 1 sec units)
		Single Program Playback		
		Repeat Playback		
		Endless Playback	—	—

Underlined parts refer to the initial value (set by the factory).

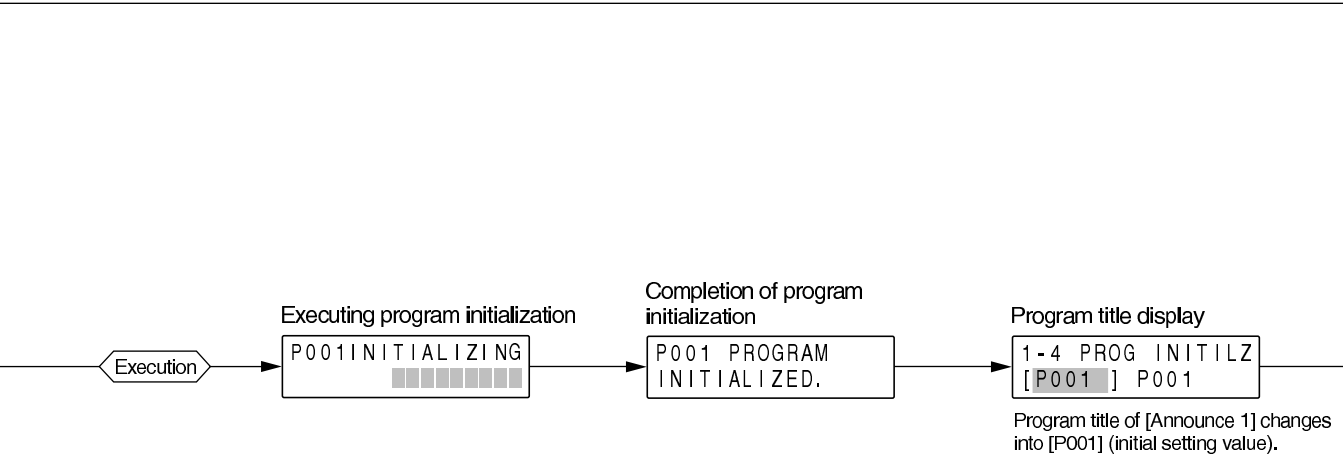
8.2.3. Operation procedures (1-4 PROGRAM INITIALIZATION and 1-5 PROGRAM TITLE)



- *1 Pressing the [STOP] key while the menu screen is displayed returns the display to the initial screen.
- *2 Pressing the [STOP] key while the function setting screen is displayed returns the display to the previous menu screen.

Note: When the function setting is completed, the screen returns to the menu screen. To terminate all setting operations, further press the [STOP] key to return to the initial screen.

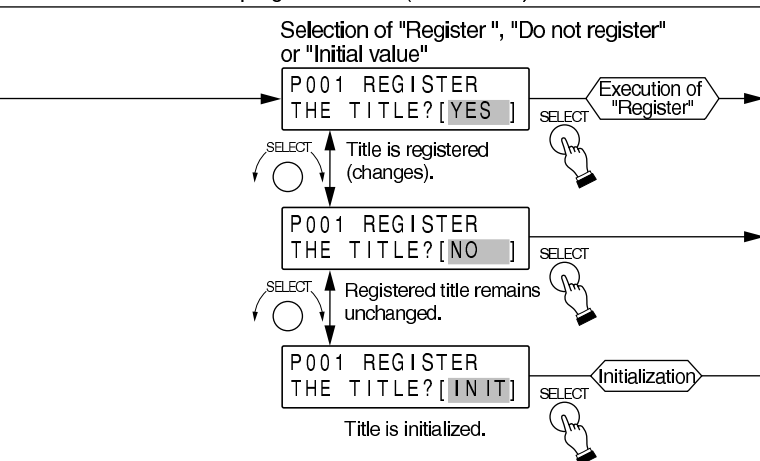
Select the next program number (P002–P256 or All programs) or END.



[Program Initial Setting Value]

Playback Method	Program Title	Step No.	Sentence No.	Output
Continuous Program Playback	P001-P256 (Same as program numbers)	001 only	A001 for P001 : A128 for P128 B001 for P129 : B128 for P256 (1 sentence only for each program)	Output 1 and Output 2

Select the next program number (P002–P256) or END.

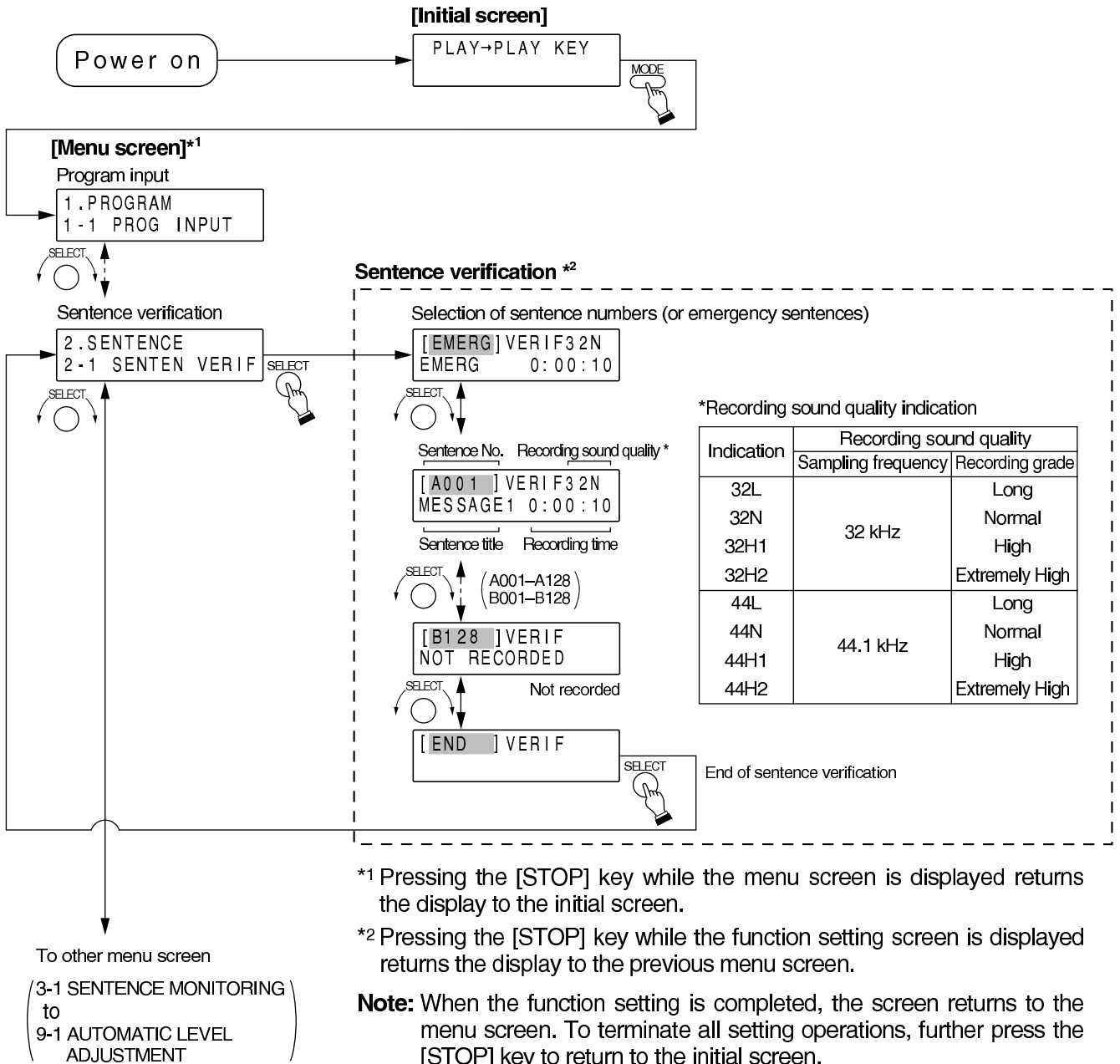


[Selection items and setting contents]

Program No.	Program Title
P001-P256	P001-P256 (same as program numbers)

8.3. Setting Operation (2. EDITING THE SENTENCES)

8.3.1. Operation procedures (2-1 SENTENCE VERIFICATION)



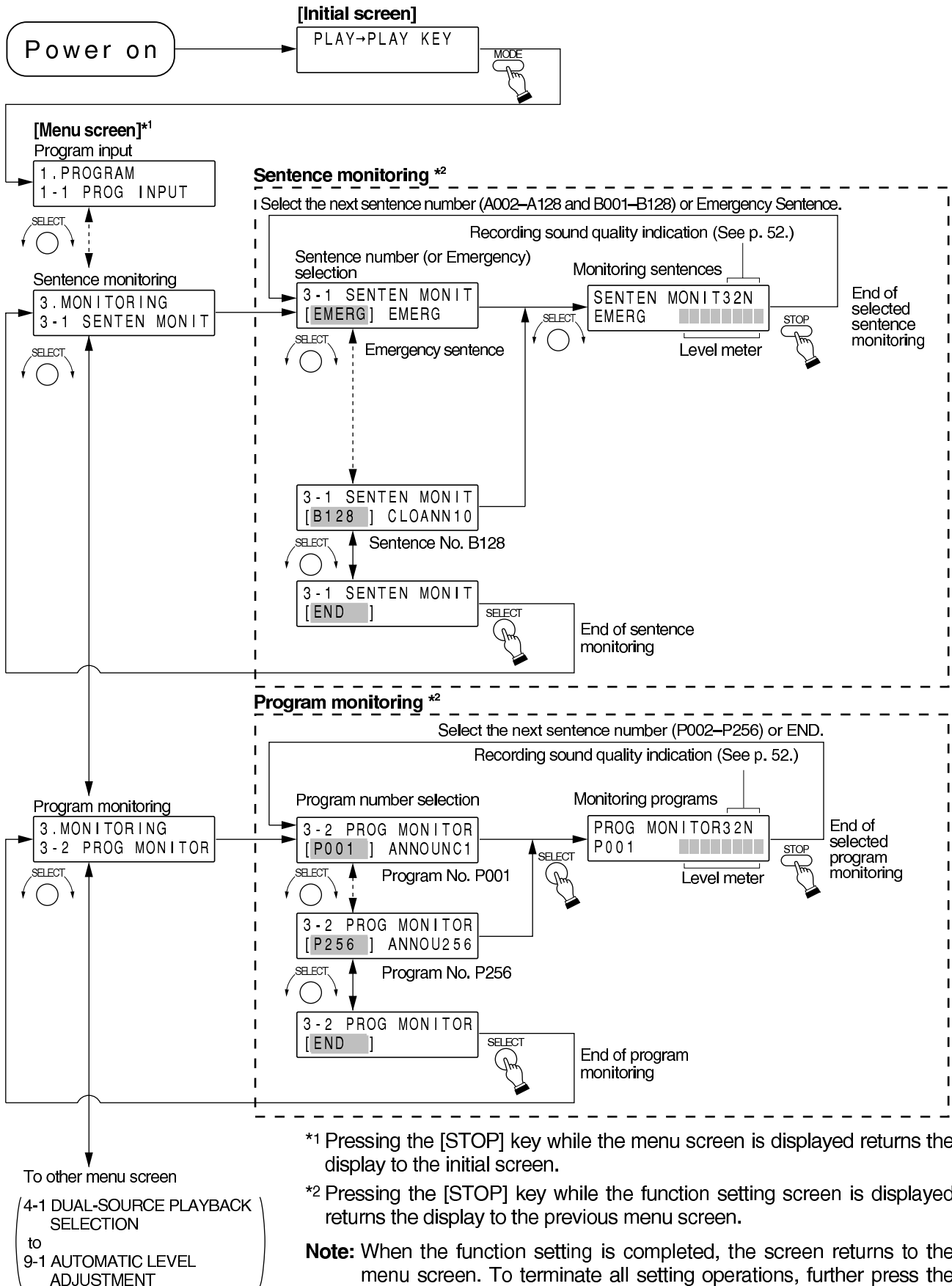
[Selection items and contents to verify] (Sentence verification)

Sentence No.	Contents to Verify		
	Sentence Title	Recording Sound Quality	Recording Interval
A001- A128 B001 - B128	Title character (Up to 8 alphanumeric characters)	32L	X : YY : ZZ (X: Hour Y: Minute Z: Second)
		32N	
		32H1	
		32H2	
		44L	
		44N	
44H1			
44H2			

- (1) The title of the emergency sentence is displayed as "Emergency", while the sentence not recorded is displayed as "not recorded".
- (2) Underline parts refer to the initial value (set by the factory).

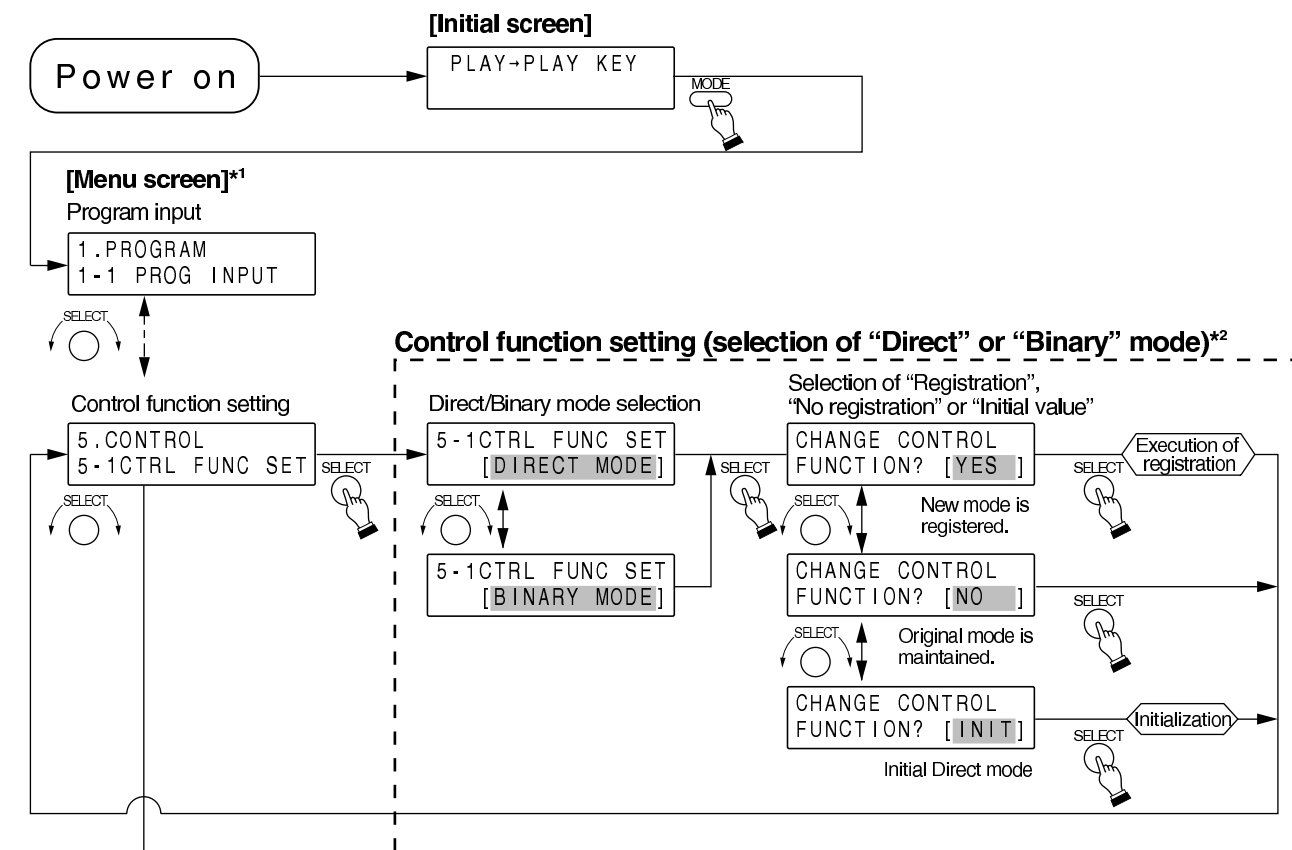
8.4. Setting Operation (3. MONITORING THE SENTENCES AND PROGRAMS)

8.4.1. Operation procedures (3-1 SENTENCE MONITORING and 3-2 PROGRAM MONITORING)



8.6. Setting Operation (5. OPERATION SETTING)

8.6.1. Operation procedures (5-1 CONTROL FUNCTION SETTING)



*1 Pressing the [STOP] key while the menu screen is displayed returns the display to the initial screen.

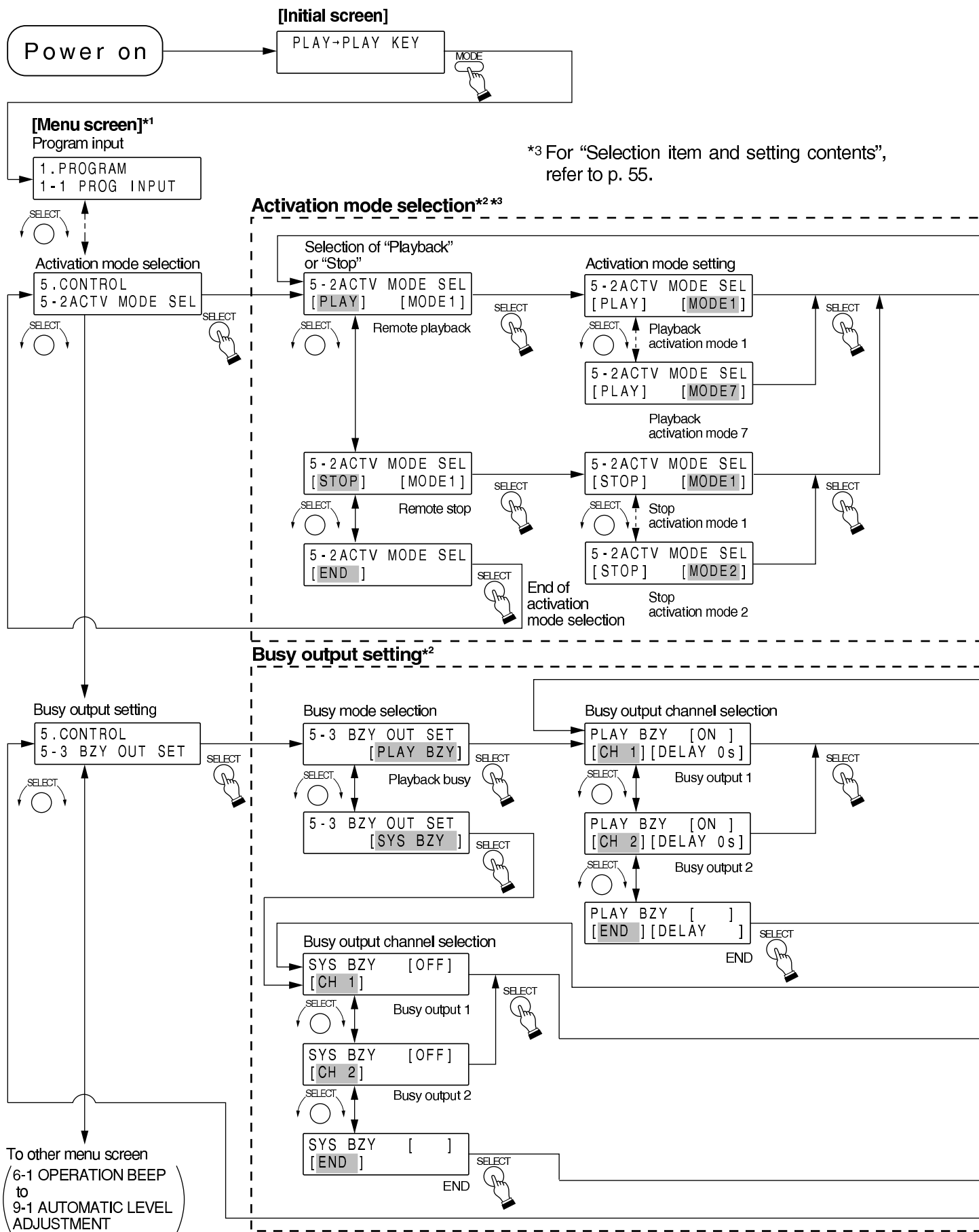
*2 Pressing the [STOP] key while the function setting screen is displayed returns the display to the previous menu screen.

Note: When the function setting is completed, the screen returns to the menu screen. To terminate all setting operations, further press the [STOP] key to return to the initial screen.

[Selection item and setting contents] (Activation mode selection)

Playback/stop	Setting contents		Description of activation mode
	Direct mode	Binary mode	
Remote playback	Activation mode 1	Activation mode 1	Mode 1: One-shot pulse activation, last-in rejected priority
	Activation mode 2	Activation mode 2	Mode 2: One-shot pulse activation, last-in-first-out priority
	Activation mode 3	Activation mode 3	Mode 3: One-shot pulse activation, smaller program No. priority
	Activation mode 4	Activation mode 4	Mode 4: One-shot pulse activation, sequential storage/playback
	Activation mode 5	Activation mode 5	Mode 5: Level-operated activation, first-in-first-out priority (This priority applies to the direct mode only.)
	Activation mode 6		Mode 6: Level-operated activation, last-in-first-out priority
	Activation mode 7		Mode 7: Level-operated activation, smaller program No. priority
Remote stop	Activation mode 1		Mode 1: Stop during playback
	Activation mode 2		Mode 2: Stop after sentence playback completion

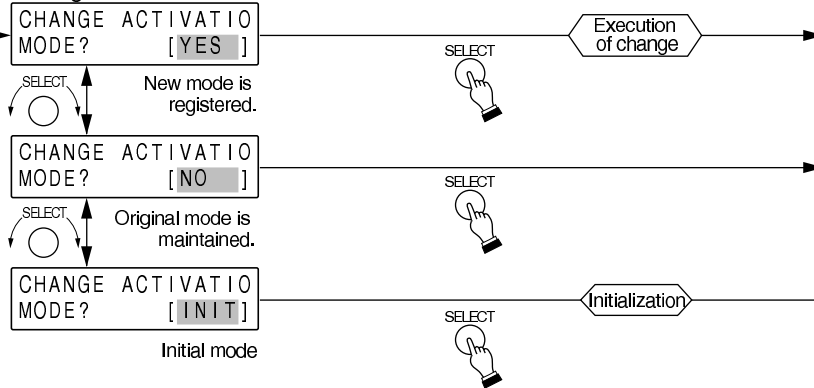
8.6.2. Operation procedures (5-2 ACTIVATION MODE SELECTION and 5-3 BUSY OUTPUT SETTING)



[Selection item and setting contents] (Busy output setting)

Busy mode	Busy output channel	Setting contents	
		Busy output	Playback delay time
Playback busy	Busy output 1 Busy output 2	ON OFF	0, 1, 2,99 seconds
System busy	Busy output 1 Busy output 2	ON OFF	—

Selection of "Registration",
"No registration" or "Initial value"

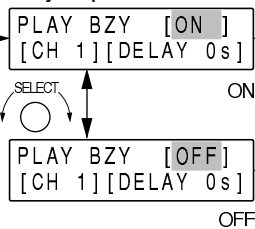


*1 Pressing the [STOP] key while the menu screen is displayed returns the display to the initial screen.

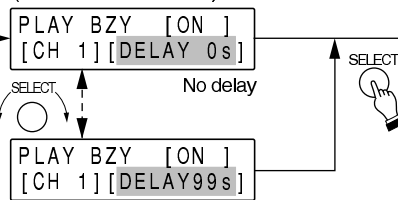
*2 Pressing the [STOP] key while the function setting screen is displayed returns the display to the previous menu screen.

Note: When the function setting is completed, the screen returns to the menu screen. To terminate all setting operations, further press the [STOP] key to return to the initial screen.

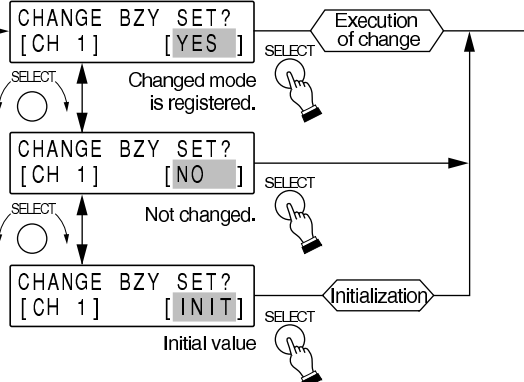
Busy output on-off selection



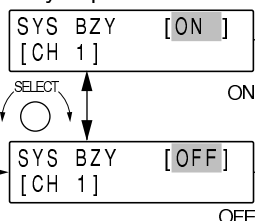
Playback delay time setting
(0, 1, 2... 99 seconds)



99-second delay
Selection "Registration",
"No registration" or "Initial value"

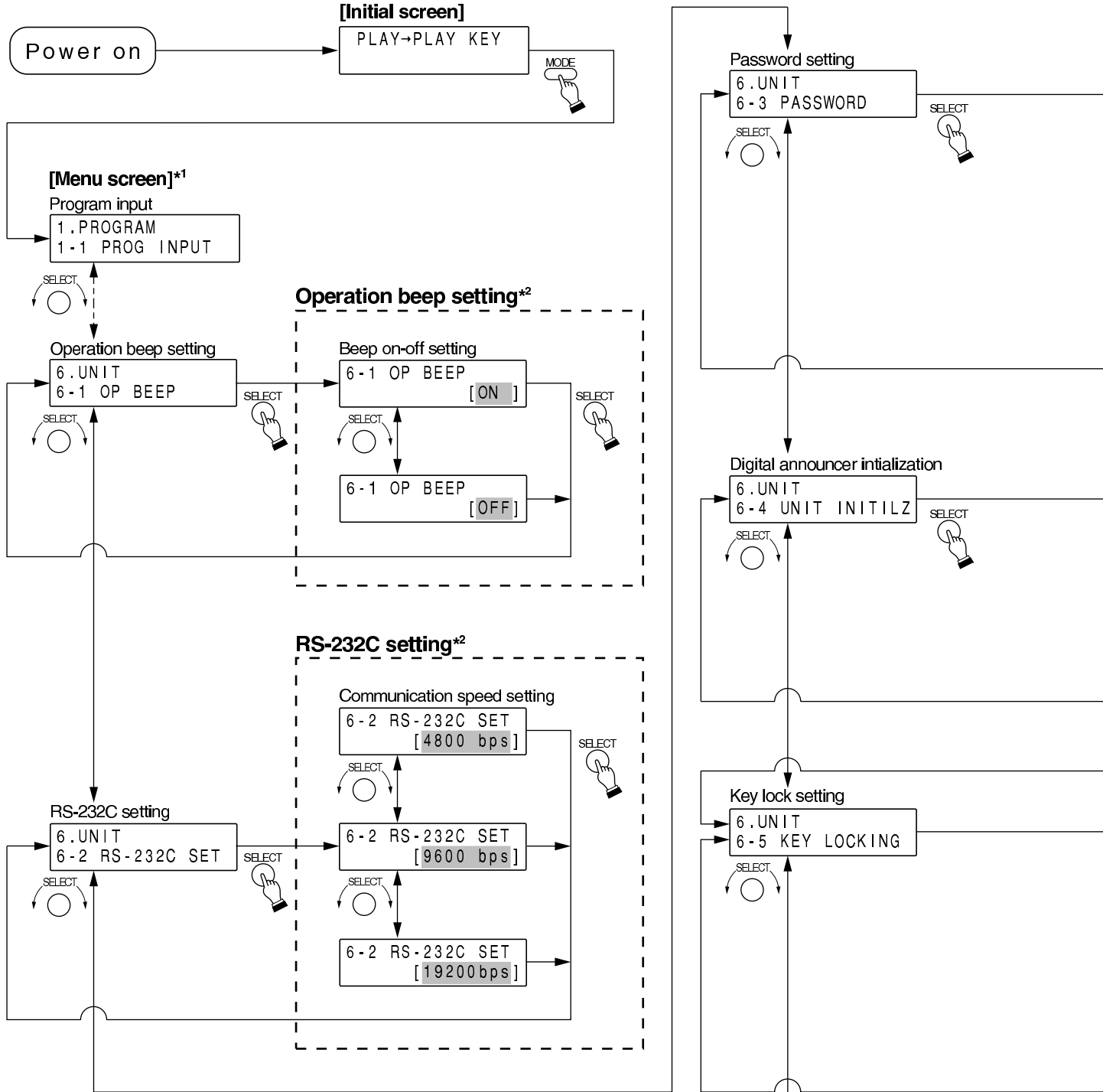


Busy output on-off selection



8.7. Setting Operation (6. ENVIRONMENT SETTING)

8.7.1. Operation procedures (6-1 OPERATION BEEP, 6-2 RS-232C SETTING, 6-3 PASSWORD, 6-4 DIGITAL ANNOUNCER INITIALZATION, 6-5 KEYLOCK and 6-6 VERSION INDICATION)



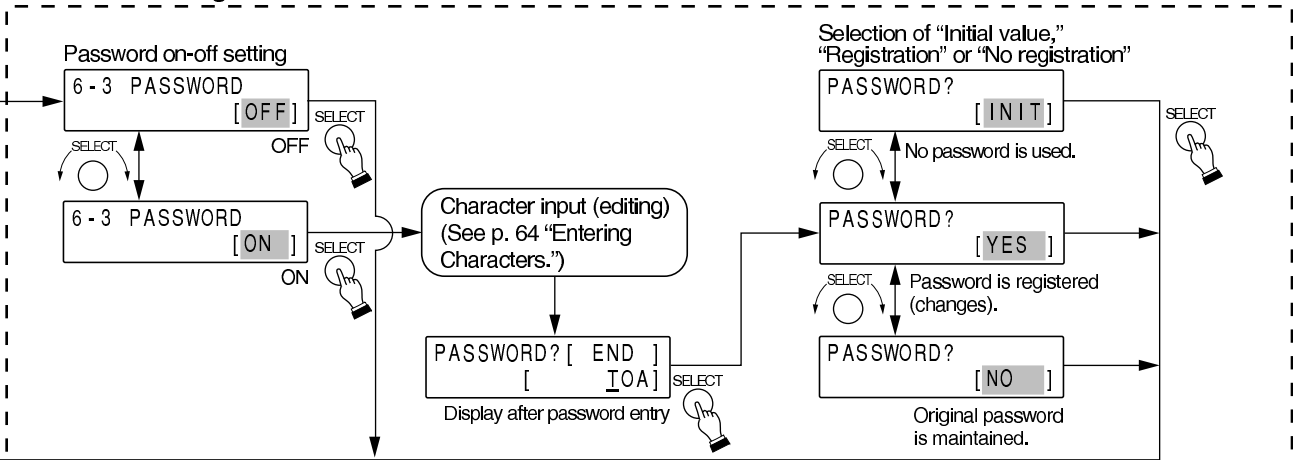
*1 Pressing the [STOP] key while the menu screen is displayed returns the display to the initial screen.

*2 Pressing the [STOP] key while the function setting screen is displayed returns the display to the previous menu screen.

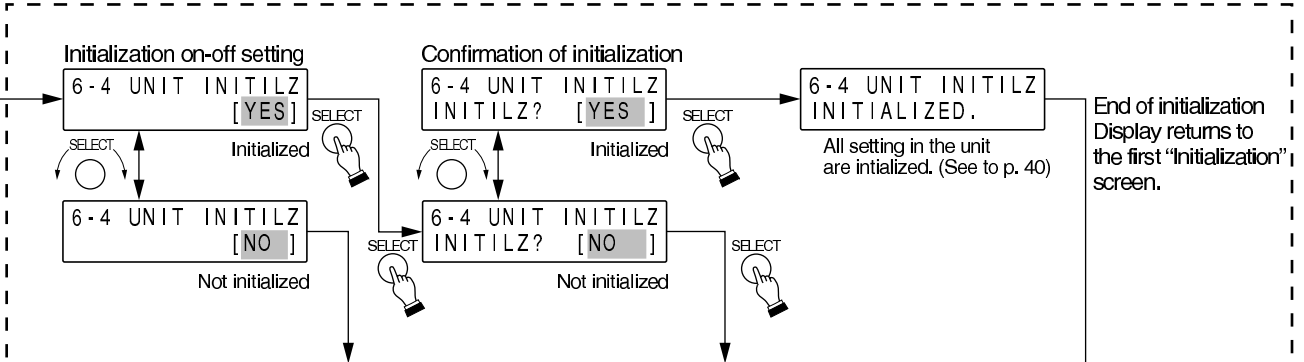
Note: When the function setting is completed, the screen returns to the menu screen. To terminate all setting operations, further press the [STOP] key to return to the initial screen.

Version display
 6. UNIT
 6-6 VERSION 2.00
 To other menu screen
 (7-1 CARD NAME INPUT
 to
 9-1 AUTOMATIC LEVEL ADJUSTMENT)

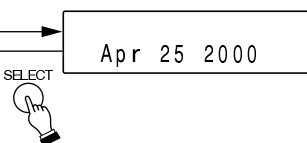
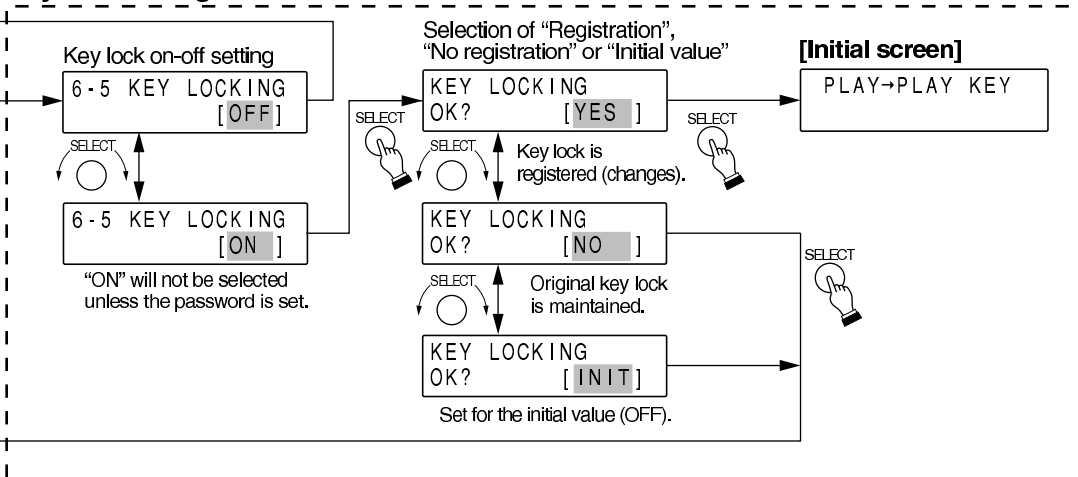
Password setting*2



Digital announcer initialization*2

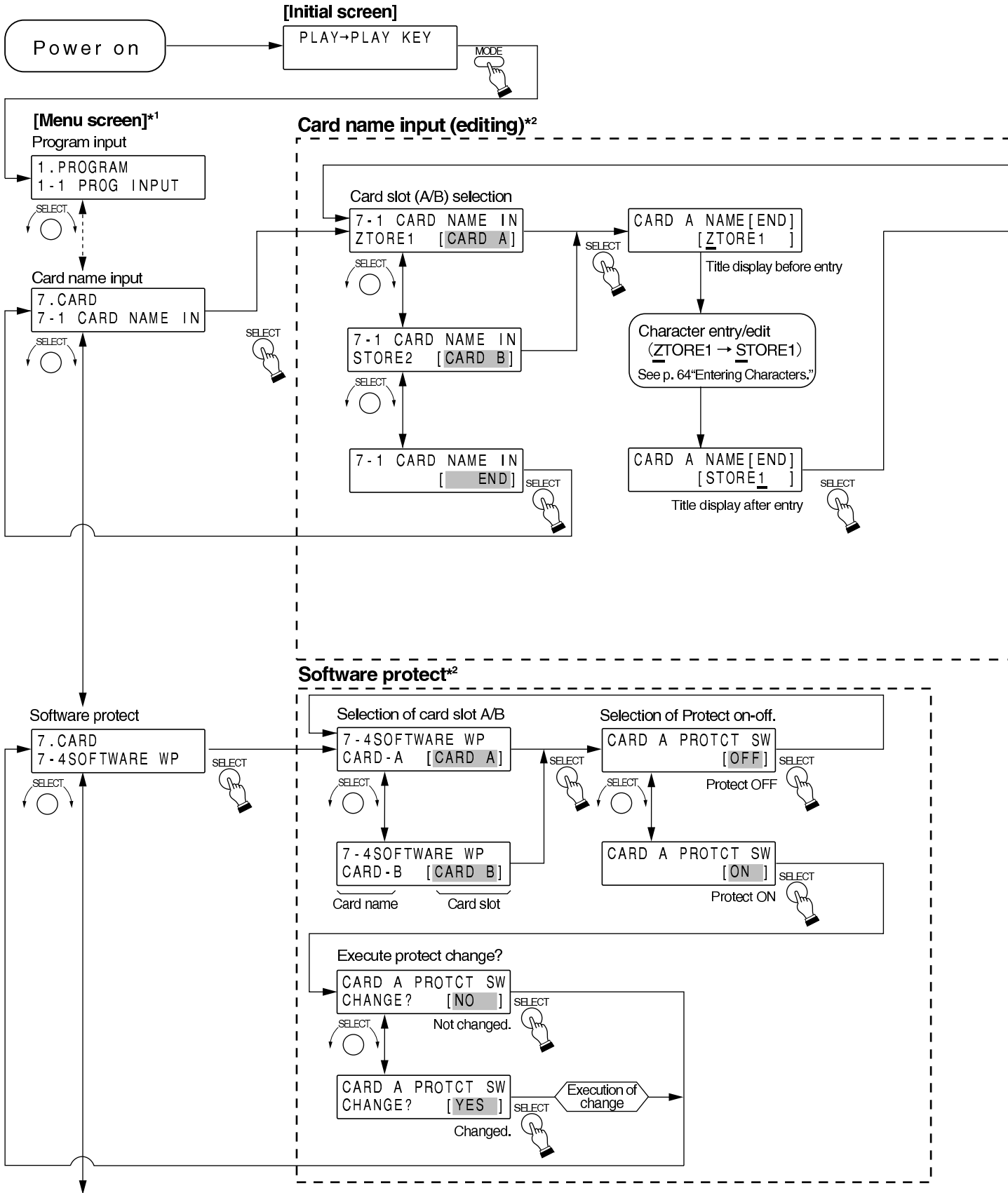


Key lock setting*2

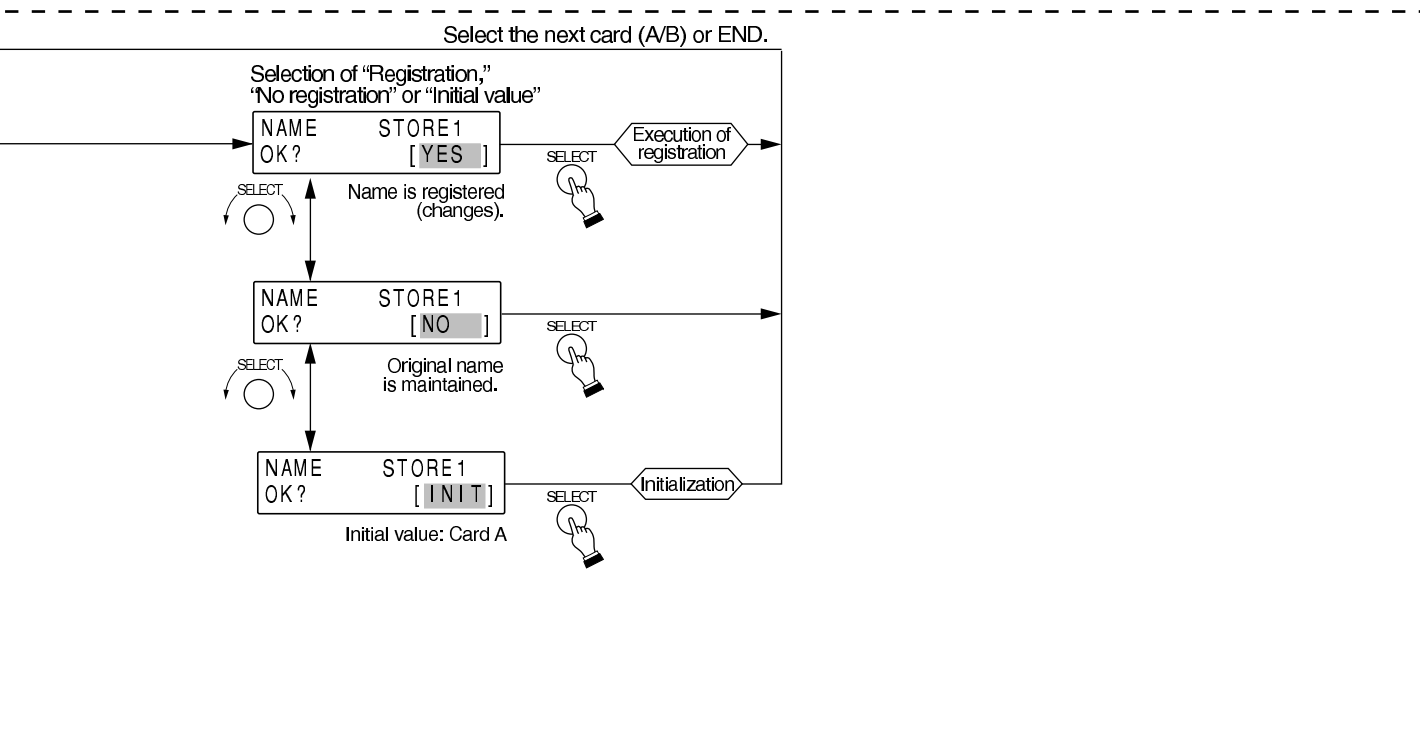


8.8. Setting Operation (7. EDITING THE CARDS)

8.8.1. Operation procedures (7-1 CARD NAME INPUT and 7-4 SOFTWARE WRITE PROTECT)



To other menu screen
(8-1 PROGRAM COPYING
to
9-1 AUTOMATIC LEVEL ADJUSTMENT)



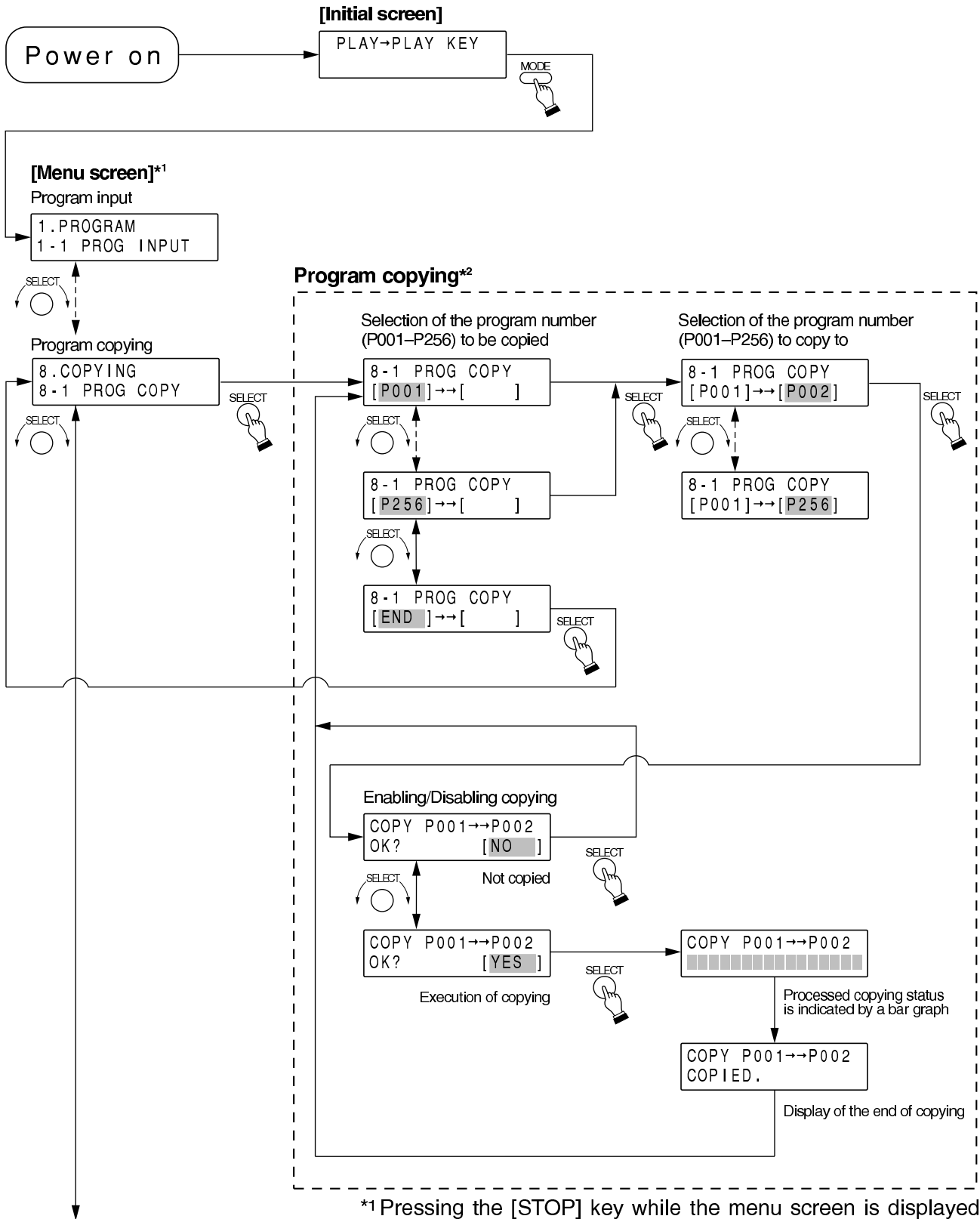
*1 Pressing the [STOP] key while the menu screen is displayed returns the display to the initial screen.

*2 Pressing the [STOP] key while the function setting screen is displayed returns the display to the previous menu screen.

Note: When the function setting is completed, the screen returns to the menu screen. To terminate all setting operations, further press the [STOP] key to return to the initial screen.

8.9. Setting Operation (8. COPYING THE PROGRAM)

8.9.1. Operation procedures (8-1 PROGRAM COPYING)



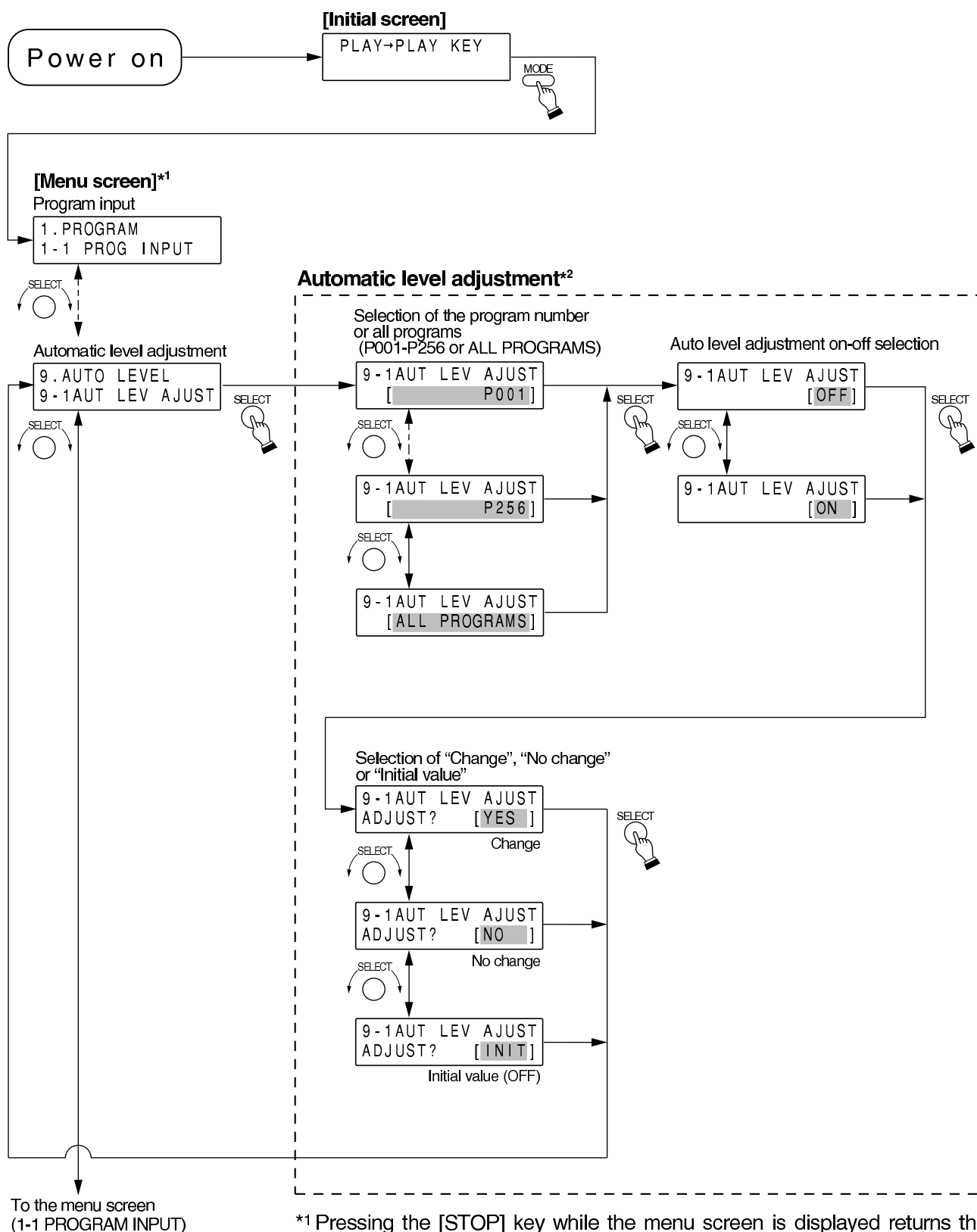
*1 Pressing the [STOP] key while the menu screen is displayed returns the display to the initial screen.

*2 Pressing the [STOP] key while the function setting screen is displayed returns the display to the previous menu screen.

Note: When the function setting is completed, the screen returns to the menu screen. To terminate all setting operations, further press the [STOP] key to return to the initial screen.

8.10. Setting Operation (9. AUTO-LEVEL SETTING)

8.10.1. Operation procedures (9-1 AUTOMATIC LEVEL ADJUSTMENT)



*1 Pressing the [STOP] key while the menu screen is displayed returns the display to the initial screen.

*2 Pressing the [STOP] key while the function setting screen is displayed returns the display to the previous menu screen.

Note: When the function setting is completed, the screen returns to the menu screen. To terminate all setting operations, further press the [STOP] key to return to the initial screen.

8.11. Entering Characters

The program title, card name, and password can be input using up to eight alphanumeric characters. To do this, use the [SELECT] dial.

8.11.1. Usable characters and commands

Characters

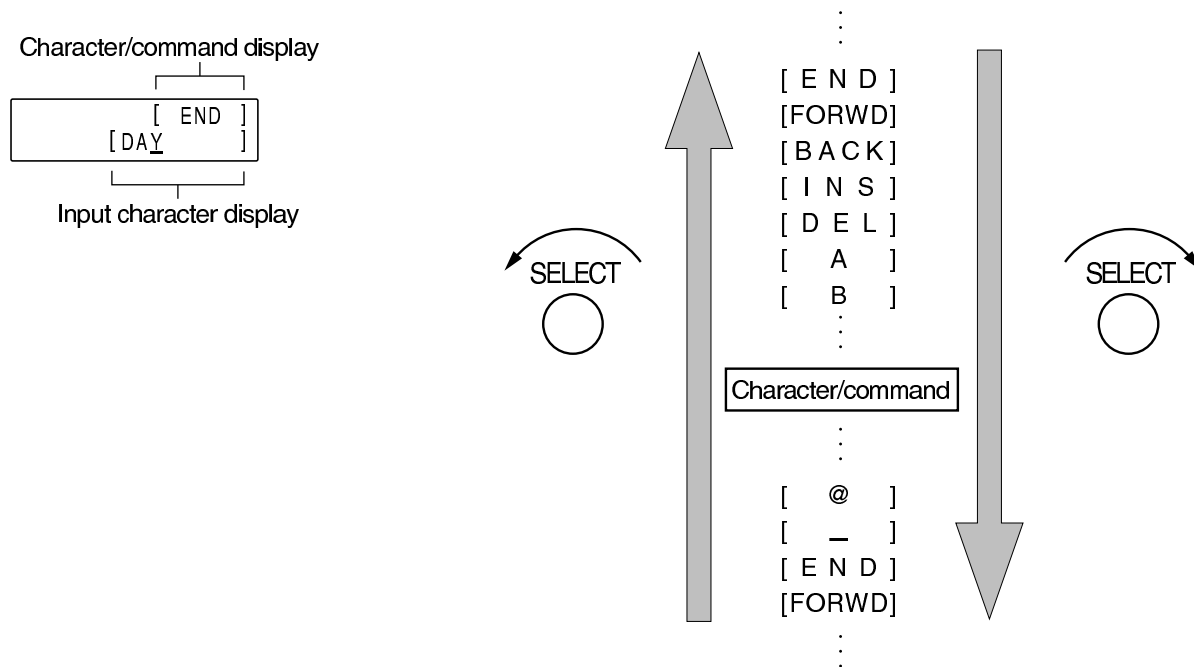
A	B	C	D	E	F	G	H	I	J	K	L
M	N	O	P	Q	R	S	T	U	V	W	X
Y	Z	a	b	c	d	e	f	g	h	i	j
k	l	m	n	o	p	q	r	s	t	u	v
w	x	y	z	0	1	2	3	4	5	6	7
8	9	!	^	#	\$	%	&	()	-	@
—											

Commands

- [END] Terminates the character input screen.
- [FORWD] Moves the cursor right one character.
- [BACK] Moves the cursor left one character.
- [INS] Inserts a space into the cursor position and shifts text right one character.
- [DEL] Erases the character at the cursor and shifts text left one character.

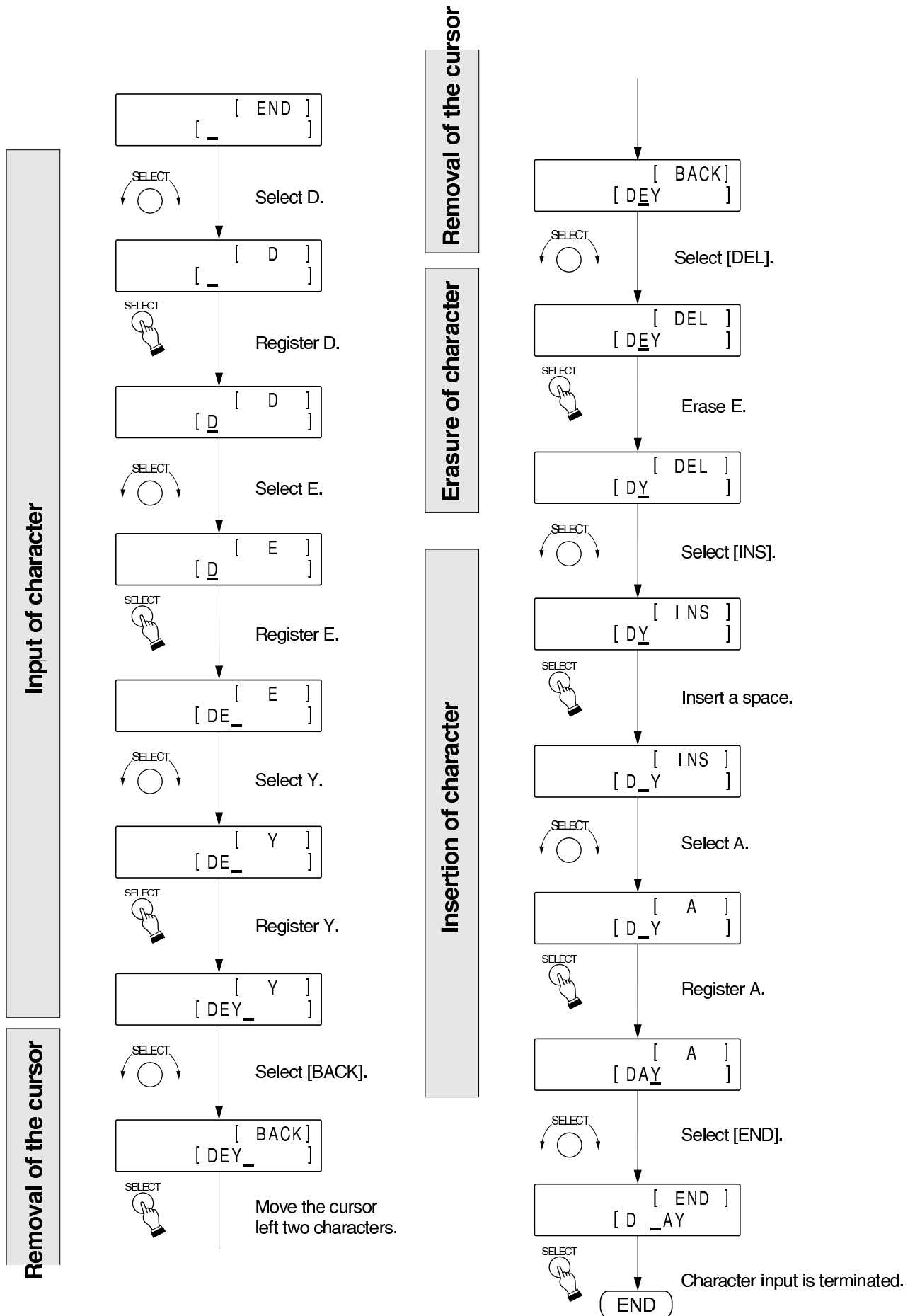
8.11.2. Character/command display and [SELECT] dial operation

As the [SELECT] dial is rotated, the character/command display changes as follows:



8.11.3. Character input example

In this example, the misspelled word "DEY" has been entered, which is corrected to read as "DAY".



9. SOURCE EQUIPMENT BROADCAST

The unit also permits broadcast from external musical equipment connected to the auxiliary input located on the rear panel. Priorities are attached to broadcast as follows.

<Broadcasting priority order>

1. Emergency playback
2. Program playback
3. Broadcast of external musical equipment

9.1. Making Source Equipment Broadcast

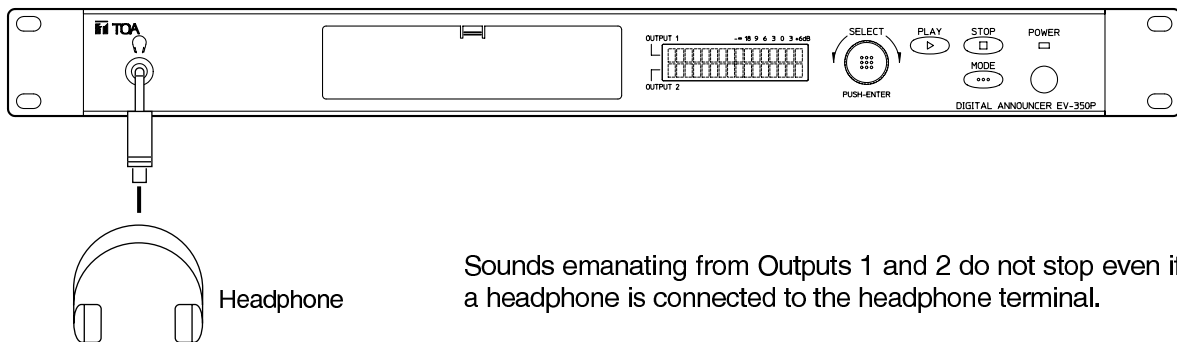
- (1) Connect the external musical equipment to the auxiliary input (phone jack) on the rear panel.
- (2) Playing the external musical equipment, adjust its volume control for the most appropriate level.

10. INSTALLATION

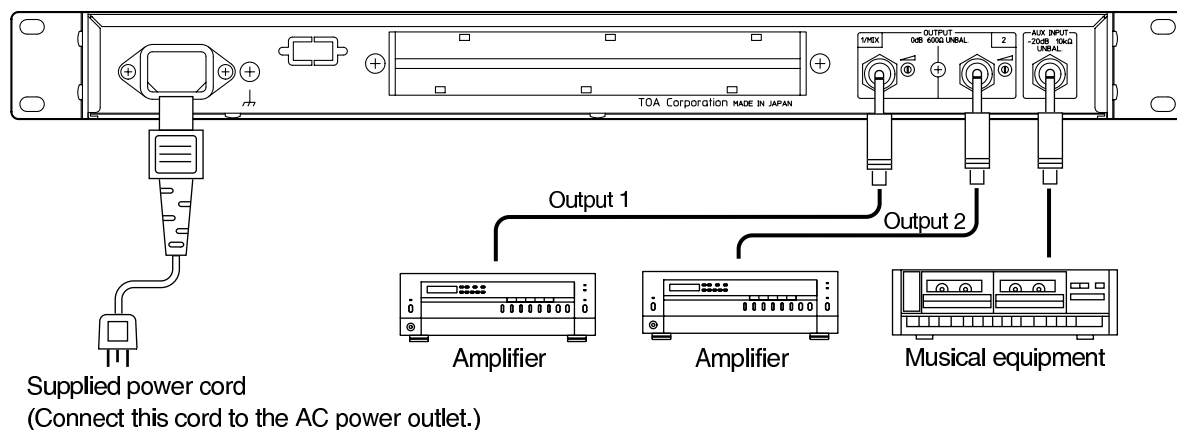
10.1. Connection Examples

When connecting a cassette deck , CD player or other musical equipment or amplifier to the unit or when connecting the unit's power supply, make sure that the power to each equipment is switched off.

10.1.1. Front panel

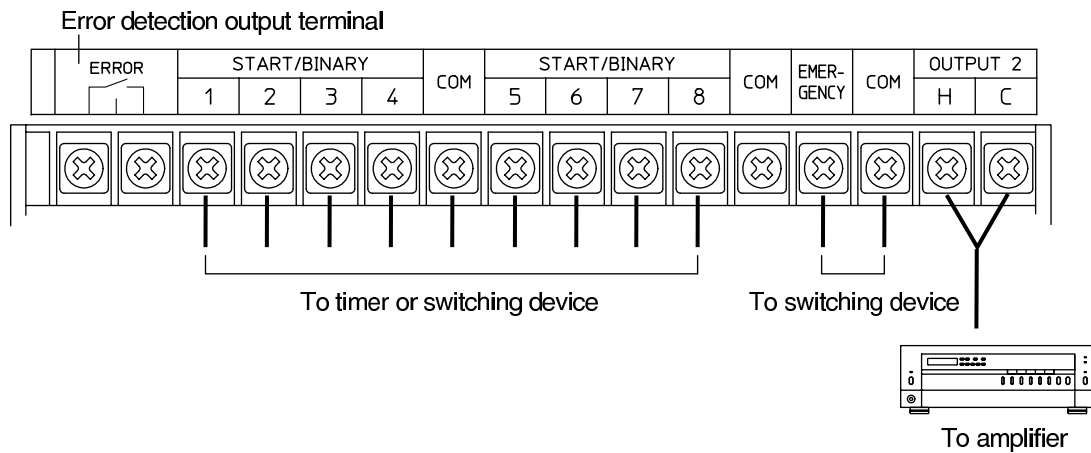


10.1.2. Rear panel



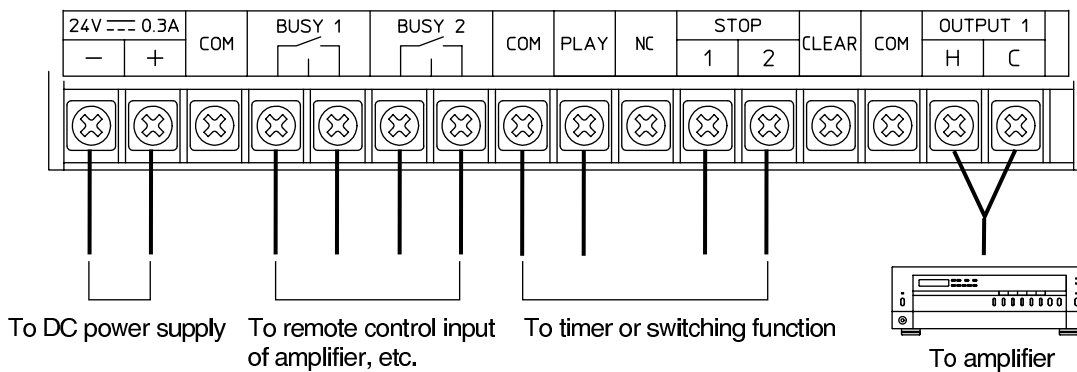
10.1.3. Terminal block

[Upper row]



- Outputs 1 and 2 of the terminal block provide the same signal as the phone jack outputs 1 and 2.
- Use the contact input under the condition of no-voltage make contact, 24 VDC for open voltage, 10 mA for short-circuit current, and 50 ms or more for short-circuit time.
- The contact capacity is 30 VDC/500 mA or less when using the busy output.
- Be sure to use a relay contact with enough capacity when directly controlling the amplifier power.

[Lower row]



10.1.4. Error detection output terminal

This terminal normally closes.

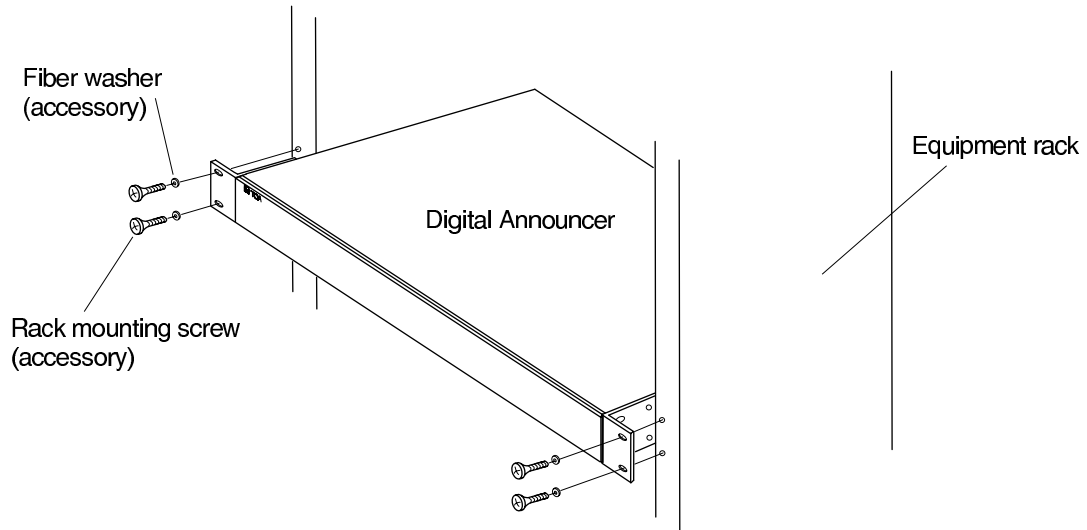
It breaks when the unit falls into the following states:

- (1) No memory card is inserted into Card Slot A or B.
- (2) The memory card of the type that cannot be used or the faulty memory card is mounted.
- (3) The SRAM memory card's battery drops.
- (4) The unit's power is switched off.
- (5) The unit malfunctions.

As to (1) - (4), the terminal makes if the situation returns to normal.

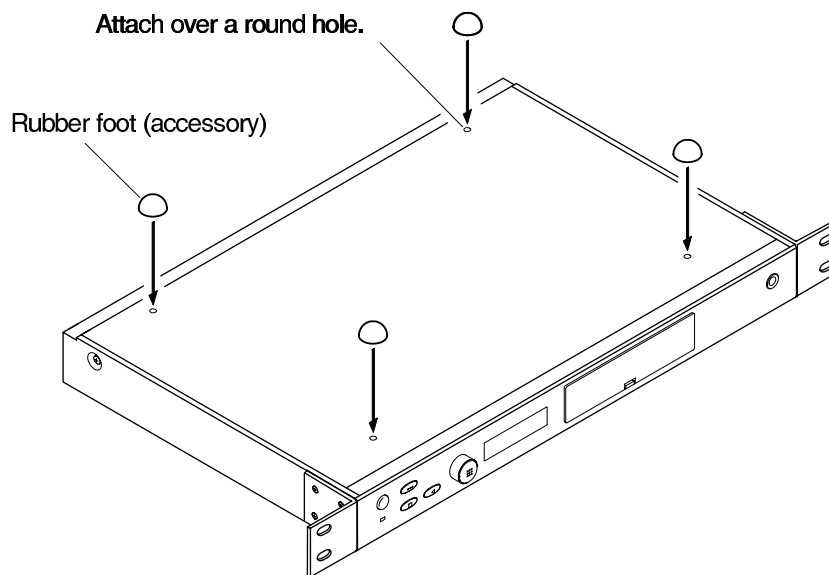
When the unit malfunctions (5), switch off the power once, then switch on the power again. The terminal makes when the problem is corrected. However, should the unit continue to malfunction, its failure can be considered. In such cases, consult with the shop from where the unit was purchased.

10.2. Mounting the Unit in an Equipment Rack



10.3. Attaching Rubber Feet

When installing the unit on the desk, attach the supplied rubber feet to the unit's bottom surface.



11. SPECIFICATIONS

Power Source	AC mains, 50/60 Hz or 24 V DC 0.3 A
Power Consumption	9 W
Output	Outputs 1, 2 : 0 dB*, 600 Ω, unbalanced, phone jack/screw terminal Headphone output : 0 dB*, 100 Ω, unbalanced, phone jack
Input	AUX: -20 dB*, 10 kΩ, unbalanced, phone jack
Mountable Memory Card No.	2 (Slots A/B) Note: Memory cards are optional.
Playback Mode	Single-source mono or dual-source mono (changeable)
No. of Playback Programs	Direct control: 8 programs or Binary control: 256 programs 1 emergency message takes precedence over the above programs and is played back.
Control Input	Activation 1-8, playback, pause 1, pause 2, emergency, clear: No-voltage make contact, 50 ms or more, open voltage 30 V DC, short circuit current 10 mA, screw terminal RS-232C terminal: D-sub connector (9 pins)
Control Output	Busy outputs 1, 2 and Error detection output: Screw terminal, contact capacity 30 V DC 0.5 A
Display	16 characters x 2 lines, LCD with backlight
Frequency response	20-20,000 Hz (sampling at 44.1 kHz) 20-14,000 Hz (sampling at 32 kHz)
Distortion	Under 0.3% (44.1 kHz, recording method: Extremery High)
Finish	Panel: Aluminum, black 30% glossy Case : Surface treated steel plate, black 30% glossy
Weight	4 kg

The above specifications are subject to change without notice.

*0 dB=1 V

● Accessories

Power cord	1
Unbalanced-phone plug cord (2 m)	2
Rack mounting screw	4
Rack mounting washer	4
Rubber foot	4

Traceability Information for Europe (EMC directive 2004/108/EC)

Manufacturer:

TOA Corporation
7-2-1, Minatojima Nakamachi, Chuo-ku, Kobe, Hyogo,
Japan

Authorized representative:

TOA Electronics Europe GmbH
Suederstrasse 282, 20537 Hamburg,
Germany



TOA Corporation

URL: <http://www.toa.jp/>

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