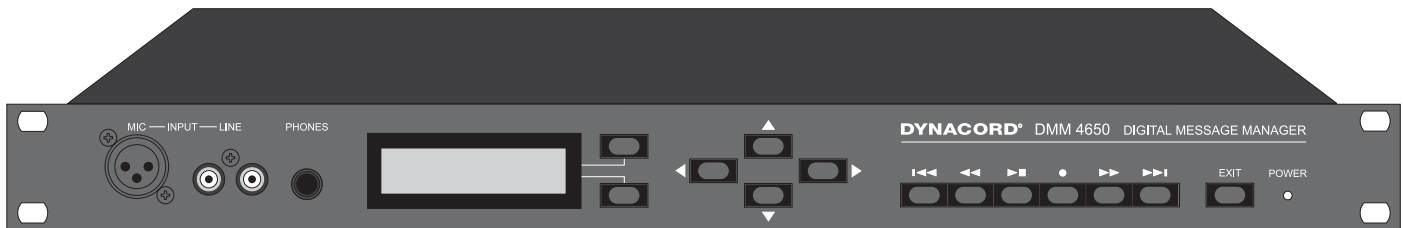


Technical Information

DMM 4650



Description

The DMM 4650 is a signal processor, allowing an universal generation and control of audio signals. The main application is for PA racks, but stand-alone applications are possible as well. The audio signals can consist of alarm, gong, messages and also random combinations. These programs were created by Dynacord and stored as presets.

The audio quality of the messages can be selected depending on memory extension and different user requirements. With maximum memory extension, a total recording time of 16 minutes is possible. Password protection is provided. The operation is easy, like cassette recorders or CD players. A computer interface allows saving and loading of unit configurations and message data.

In order to ensure function reliability, a self-test and a audio data verification is installed. The alarm takes place via an own output "Fault/Error". The device is maintenance-free because no battery or accumulator is installed.

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Installation instructions

The appliance must be protected against:

- drip or splashwater
- direct sun irradiation
- high ambient temperature or direct influence of heat sources
- high air humidity
- heavy dust deposits
- strong vibrations

If the unit is brought directly from a cold to a warm place, dampness can precipitate on the inner parts. The unit may only be put into operation after it has warmed up to the ambient temperature (approx. after one hour).

Should an object or liquid get into the case, disconnect the unit from the current sources immediately and have the device checked by a DYNACORD service center, before further use.

Do not use any sprays to clean the unit, as these can damage it, perhaps causing it to ignite suddenly.

IMPORTANT SAFETY INSTRUCTIONS



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated „dangerous voltage“ within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
AVIS: RISQUÉ DE CHOC ELECTRIQUE, NE PAS OUVRIR.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.


WARNING: CONNECT ONLY TO MAINS SOCKET WITH PROTECTIVE EARTHING CONNECTION.

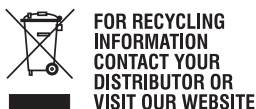
1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufactures instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.
15. To completely disconnect this equipment from the AC Mains, disconnect the power supply cord plug from the AC receptacle.
16. The mains plug of the power supply cord shall remain readily operable.

IMPORTANT SERVICE INSTRUCTIONS

CAUTION: **These servicing instructions are for use by qualified personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the Operating Instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.**

1. Security regulations as stated in the EN 60065 (VDE 0860 / IEC 65) and the CSA E65 - 94 have to be obeyed when servicing the appliance.
2. Use of a mains separator transformer is mandatory during maintenance while the appliance is opened, needs to be operated and is connected to the mains.
3. Switch off the power before retrofitting any extensions, changing the mains voltage or the output voltage.
4. The minimum distance between parts carrying mains voltage and any accessible metal piece (metal enclosure), respectively between the mains poles has to be 3 mm and needs to be minded at all times. The minimum distance between parts carrying mains voltage and any switches or breakers that are not connected to the mains (secondary parts) has to be 6 mm and needs to be minded at all times.
5. Replacing special components that are marked in the circuit diagram using the security symbol (Note) is only permissible when using original parts.
6. Altering the circuitry without prior consent or advice is not legitimate.
7. Any work security regulations that are applicable at the location where the appliance is being serviced have to be strictly obeyed. This applies also to any regulations about the work place itself.
8. All instructions concerning the handling of MOS - circuits have to be observed.

NOTE:  **SAFETY COMPONENT (MUST BE REPLACED BY ORIGINAL PART)**

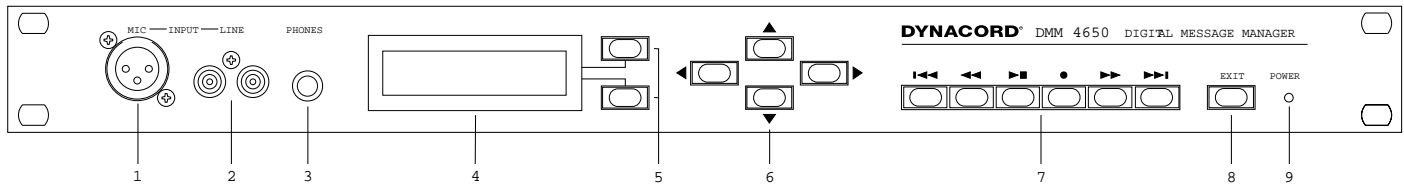


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WEEE Recycling/Disposal Instructions

The Wheelie Bin symbol found on the product or in the manual indicates that this product must not be disposed of with other waste. It is in our category the manufacturer's responsibility to properly dispose of their waste electrical and electronic equipment (WEEE) at the end of its life. Due to the differences in each EU country's management of WEEE, please contact your local distributor. We are committed to facilitate our own electronic-waste-management-system, for the free of charge return of all EVI Audio GmbH products: Telex, Dynacord, Electro-Voice, Midas Consoles, KlarkTeknik and RTS. Arrangements are made with the dealer where you purchased the equipment from, for the returning of all unusable equipment **at no cost**, to the factory in Straubing, for environmental protective disposal.

FRONTPANEL



1. INPUT MIC

XLR socket for connection of a microphone, to record a message. Announcements can also be made via this input.

2. INPUT LINE

Cinch (RCA) socket for connection of stereo or mono sources (tape deck, CD player) to record a message.

3. PHONES

Stereo jack 6.3mm for pre-listen of messages, gong and alarm signals via headphones.

4. MULTIFUNCTIONAL DISPLAY

Back-lit LC display, 2 lines with 16 characters each. Display lights up if any key is pressed. Display light switches off if EXIT key is pressed, or no key is pressed for five minutes.

5. SOFTKEY

The softkeys are used in various ways, depending on the edit mode, and are indicated accordingly in the display.

6. CURSOR

Keys to control the cursor in the display and for modifying data.

7. RECORDER

Keys for TITLE jump back, REW, PLAY, STOP, REC, FAST FORWARD, TITLE jump forward.

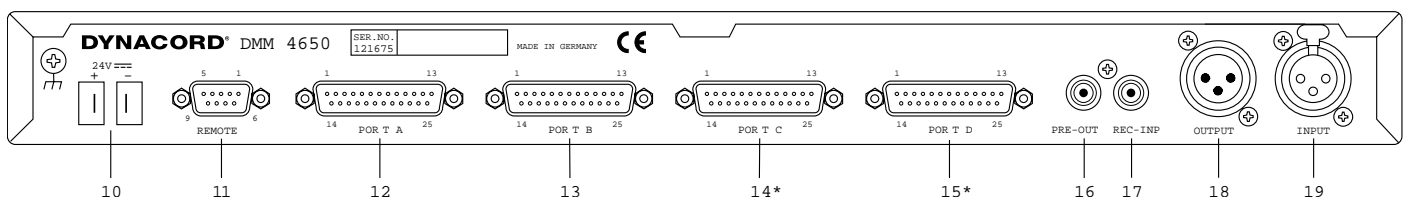
8. EXIT

Key for fast ending of the resp. mode. Each pressing of the key switches back one menu stage.

9. POWER

The LED lights up if the DMM 4650 is ready for operation. If the LED blinks please call a DYNACORD service center immediately.

REARPANEL



10. 24 V DC POWER CONNECTORS

2 flat-pin plugs 6,3mm for connection to emergency power supply or external power sources. Please note right polarity (+)!

11. REMOTE

The 9-pole D-SUB connector REMOTE is a serial computer interface (RS-232) for data saving and for service functions.

12 - 15. PORT A - D

Each input and output is provided in 2-pole floating design and isolated from the DMM 4650 circuit and adjacent lines. Port C (14) and Port D (15) can be retrofitted (NRS 90024).

16. PRE-OUT

Cinch (RCA) socket, pre-listen (wired in parallel to the front-panel stereo jack).

17. REC-INP

Cinch (RCA) socket, record (parallel but decoupled to the cinch socket Input Line at the front panel).

18. OUTPUT

XLR socket 3-pole male, audio output, electronically balanced (transformer can be retrofitted).

19. INPUT

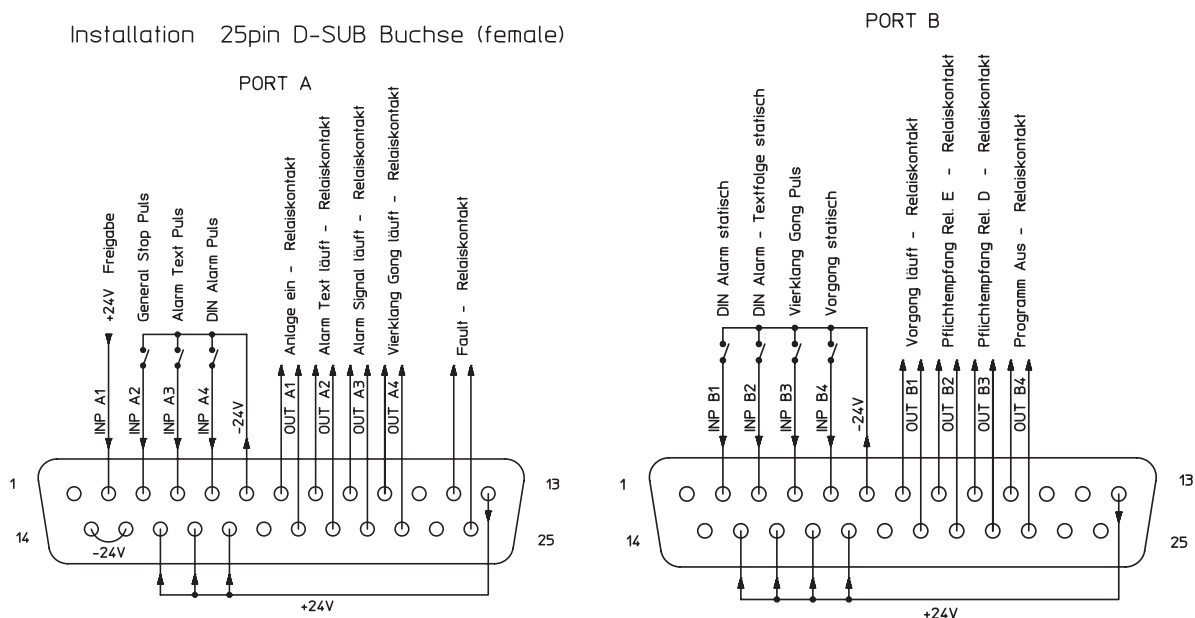
XLR socket 3-pole female, audio input, electronically balanced (transformer can be retrofitted).

Specifications DMM 4650

Operating Voltage	21.6 - 31.2V DC	
Power consumption	max. 18 watts (without retrofitting kits 90204)	
Input voltage	Input	0.775V/0dBu
	*Line Input	0.775V/0dBu
	*Rec Input	0.775V/0dBu
	*Mic Input	1.4mV/ -54dBu at 600 ohms
Max. Input voltage	Input	3.8V/+14dBu
	*Line INPUT	30V/+32dBu
	*Rec INPUT	30V/+32dBu
	*Mic INPUT	50mV/ -24dBu at 600 ohms
* If several of these inputs are used simultaneously, the stated voltages change.		
Input impedance	Input(bal.)	20kOhm
	Input (unbal.)	10kOhm
	Line Input	20kOhm
	REC Input	20kOhm
	Mic INPUT	1,4kOhm
Output voltage	Output	0.775V/0dBu
	Pre-Output	3.2V/+12dBu
	Phones	3.2V/+12dBu
Max. Output voltage	Output	3.8V/+14dBu
	Pre-Output	9V/+21dBu
	Phones	9V/+21dBu
Output impedance	Output (bal.)	136 Ohm
	Output (unbal.)	68 Ohm
	Pre-Output	220 Ohm
	Phones	220 Ohm
Frequency response	Input > Output	20Hz-20kHz -3/0dB
	Mic Input	20Hz-16kHz -18/3dB
	Others	20Hz-16kHz +0/-3dB
Signal-to-noise ratio	Input > Output	> 108dB (A-weighted)
	Message	> 90dB (A-weighted)
THD	Input > Output	< 0.03% (at 1kHz)
	Message	< 0.05% (at 1kHz)
Data format	AD/DA converter	16 bit linear
	DSP internal	24 bit
Sampling rate	35kHz	
Control inputs	Ein < ± 5V = Low Ein > ± 10V = High	
Control outputs	floating relay contacts 1A at 24V DC	
Dimensions	483 X 43.6 X 225 (W x H x D) 19in, 1HU	
Weight	4kg	
Retrofitting kits	NRS 90204	
Port C or D	4 control inputs and outputs	
Memory extension	NRS 90205 message memory extension	
Output transformer	NRS 90210	

LIST FACTORY SEQUENCES				
Sequence	Title	Description	Priority	Stopp trigger
S 20	"Stop all"	Stops all running sequences	99	off
S 21	"Alarmtxt"	Start alarm text (message 00) once	97	off
S 22	"DIN-ALrm"	Start continuous DIN alarm (siren 1200 Hz - 500 Hz, 1 sec. Each)	93	off
S 23	"DIN-ALrm"	Start DIN alarm (key B1 ON), Stop with key B1 OFF	95	B1 Low >00,1s stc
S 24	"Alrm-Txt"	DIN alarm > alarm text > DIN alarm sequence, (start key B2 ON), Stop with key B2 OFF	91	B2 Low >00,1s stc
S 25	"VierkIng"	4-tone gong	89	off
S 26	"Vorgong"	Start Pre-gong (key B4 on), end of announcement with key B4 off	87	B4 Low >00,1s stc
S 27	"Message1"	Start Message 1	80	off
S 28	"Message2"	Start Message 2	80	off
S 29	"EasyRec1"	Start Recording Message 01 (remote recording), start by briefly pressing to input C3 (menu trigger), stop by pressing again to input C3	80	C3 High >00,1s lat
S 30	"EasyRec2"	Start Recording Message 02 (remote recording), start by briefly pressing to input C4 (menu trigger), stop by pressing again to input C4	80	C4 High >00,1s lat
S 31	"Fire-Mic"	Start continuous DIN alarm, pressing the key "fire microphone" allows for an announcement via audio input, after releasing key the alarm is continued.	98	off
S 32	"Ansage"	Announcement via Recording input DMM 4650 as long as key is keeping pressed (System input -20 dB).	80	D3 Low >00,1s stc
S 33	"BZB-ABC"	BZB-ABC alarm	95	off
S 34	"gen-emgc"	Ship alarm "General Emergency"	95	off
S 35	5"fireship"	Ship alarm "Fire"	95	off
S 36	"ManMorse"	Ship alarm "Manual Morse key"	95	off
S 37	"Telefon"	Telephone bell	95	off

Installation example with factory presets:



INPUTS:

All input signals must be applied 200 msec. in order to be recognised. This default can only be modified in menu "Trigger".

A1	Release signal:	Input for check-back signal: unit (power amplifiers) ready
A2	General Stop:	Input (impulse) for interruption of all currently running sequences
A3	Alarm text:	Input (impulse) for previously recorded alarm message (M00)
A4	DIN alarm:	Input (impulse) for continuous DIN alarm (siren 1200 Hz - 500 Hz).
B1	DIN alarm:	Key pressed for DIN alarm on, key released finishes alarm
B2	DIN alarm text:	Key pressed starts sequence, DIN alarm, 1 sec break, alarm text (M00), 1 sec break, DIN alarm, etc., key released finishes this sequence.
B3	4-tone gong:	Input (impulse) for starting 4-tone gong (G20).
B4	Pre-gong:	Input (static), key pressed starts pre-gong and enables announcement via DMM 4650, key released finishes this sequence.

OUTPUTS:

All outputs are floating relay contacts.

A1	System on:	Switches on PA system.
A2	Alarm text running:	Signalling contact for alarm text active.
A3	Alarm signal running:	Signalling contact for alarm signal active.
A4	4-tone gong running:	Signalling contact for 4-tone gong active.
B1	Pre-gong running:	Signalling contact for pre-gong active.
B2	Mandatory relay E:	Switches PA system to mandatory reception (E).
B3	Mandatory relay D:	Switches PA system to mandatory reception (D).
B4	Program off:	Switches current music program off.

Programming Examples for the DMM 4650

Page numbers within brackets (Sxxx) refer to the corresponding page of the DMM 4650's user's manual.

The following examples are based on the assumption that the appliance's mode is set as follows: Software revision 1.1 (page 22), the DMM 4650 is in the factory-preset mode (page 27 and page 36), operation is performed in the user level 3 status (page 10).

Example 1

Intention:

Recording a message that later on is to be played back using a external key.

Summary

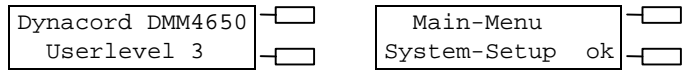
1. Recording a message (i. e. M03) in speech quality.
2. To include the reproduction of this message in an existing installation, an appropriate control sequence has to be established that gets a priority between "fire alert" and "gong" (i. e. priority 90). This sequence also activates an optical signal in form of a lit lamp for the period of the outgoing message. To accomplish the task, this example uses the relay contact 2 of the port A (=A2).
3. An input, which at the moment is unused (i. e. B.4) had been connected to the "Start"-key (page 30). This input has to be programmed in the "Auslöser" (trigger) menu for that pressing the start button activates the above mentioned sequence (S03).

Step By Step Programming

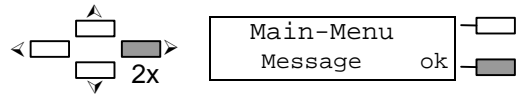
Enter the password for the user level 3 on the display, using the four cursor keys (page 10) and confirm your action with the "ok"-button.



If you have entered the correct password, the display briefly shows this message and then returns to the main menu.

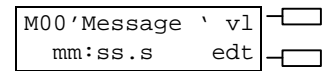


After pressing this cursor key twice, the "Message"-menu appears. Confirm your selection with the "ok"-button.

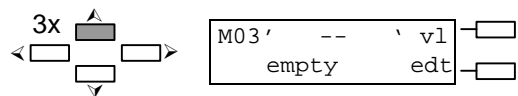


Recording a message

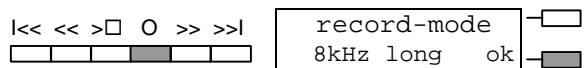
On the display the message number 00 and the name "Message" is shown. The numeric values mm=minutes and ss=seconds equal the time of a message that already exists in the register 00.



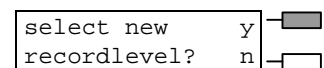
Pressing this cursor key three times displays the required message register 03. The display shows the name of the "empty" message 03.



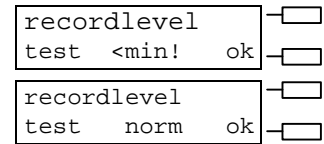
Pressing the "record"-button displays a proposal for the audio quality of the new recording (page 14). Using the soft key "ok" the proposition is confirmed (speech quality).



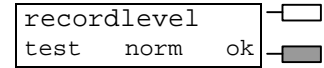
On the display you are asked for the level setting (page 14). Since this is your first recording with the microphone, the level has to be set a new. The microphone has to be connected to the MIC-socket on the front panel and pressing the soft key "yes", the automatic adjustment process for the electronic control is activated.



You have to perform a short test, speaking into the microphone with a normal talking level and in an appropriate distance. Whenever the display changes from "<min" to "norm" the mic level is within the relevant range.

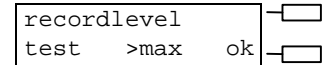


Using the soft key "ok" the setting is being stored and stays in memory (page 14).

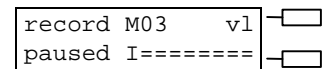


In case the input level was too high and the indication ">max" has been displayed, you have to press the "EXIT" button and follow the procedure once again from the point where the record key was pressed. This time the speaking distance to the microphone should be increased; which results in a lower input level.

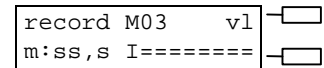
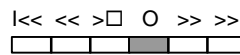
EXIT
█



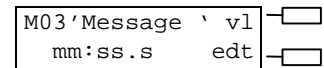
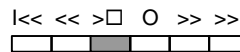
If the level was right ("norm" is shown on the display), after pressing the "ok" key that the appliance is ready for recording. The graphic bar in the lower line of the display allows checking the input level. The Recorder is in the pause-mode (ready to record).



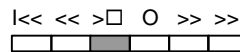
Pressing the record button starts the recording. The recording time gets displayed in m=minutes and ss, s= seconds and the graphic bar offers continuous verification of the actual input level.



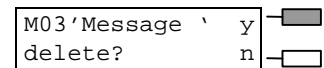
Pressing the stop key terminates the recording and the display shows the starting-menu "message".



Pressing the button "start/stop" lets you control your recording through the PHONES output.



If recording was not successful, you can give it another try by pressing the "record" button. In this case the display shows the message "delete?". When you are sure that this is what you want, you have to acknowledge the fact by pressing the "yes" key.

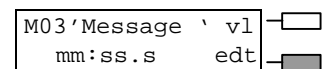


The message 03 is being erased and a you can proceed with a new recording (RECORD key). Recording quality and level setting only have to be re-adjusted if they were the cause for re-recording the message.

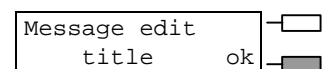
Naming The Message, Title

To provide the new recording (message) with a new name, you have to follow these steps:

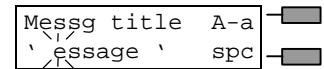
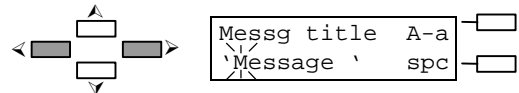
Press the soft key "edit".



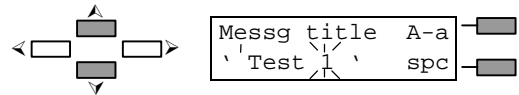
In the display appears the sub menu "Message edit". Using the soft key "ok", the system is ready to accept the entry of a new name.



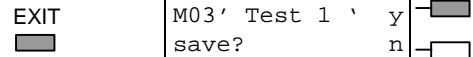
The name ("Message") with a maximum length of eight characters can now be changed as desired. Using the soft key "A-a" lets you choose between the upper and the lower character set. By pressing the "spc" (space) key you can enter spaces. The blinking cursor indicates which character is going to be changed and using the two "horizontal" cursor keys lets you select adjacent characters.



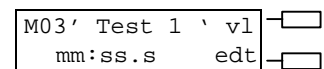
The "vertical" cursor keys select the character that is going to be entered at the cursor position. The example shows the message 'Test 1.'.



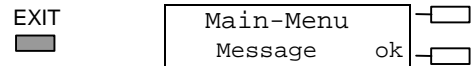
After you have entered the desired title, pressing the "EXIT" key once displays the question "save?". Press the soft key "yes" to store the selected name for the Message 03 into memory.



The display shows the starting menu for the message programming.



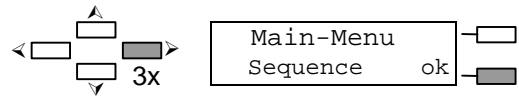
Pressing the "EXIT" button once lets you return to the main menu.



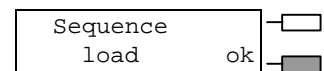
Programming A Control Sequence

Creating a procedure, the newly defined message has to be included into a sequence (page 23). In this example the sequence-preset S 27 is chosen as the root-preset for further programming (page 39).

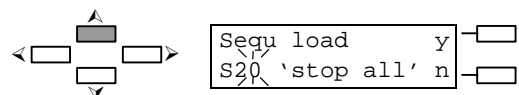
Press the "right" cursor key three times so that the display reads as indicated. Using the soft key "ok" gets you into the "Sequence" menu.



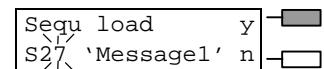
Pressing the soft key "ok" once again shows a menu that lets you select a sequence-preset.



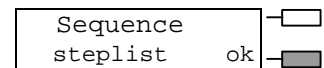
A blinking "0" (cursor) is displayed in the lower line. Press the "up" cursor until the reading shows "S 27".



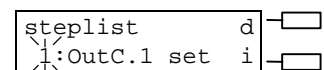
To acknowledge your selection press the "yes" key.



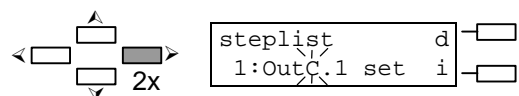
Since the procedure has to be changed in accordance to the new requirements, you have to select its listing by pressing the "ok" key.



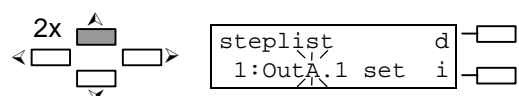
The first step (step 1) of the S 27 listing is displayed. Here, you have to change the relay output (indicator lamp) from port C relay 1 to port A relays 2.



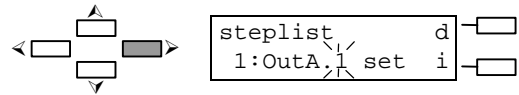
Press the indicated cursor key twice to have the "C" blink.



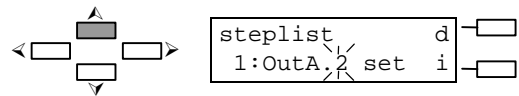
Press the indicated cursor key twice to select port A.



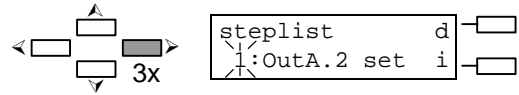
Press the indicated cursor key to have the "1" blink.



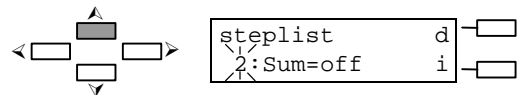
Press the indicated cursor key to select relay 2.



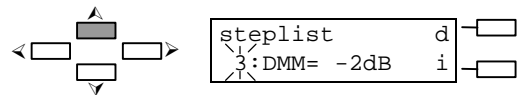
This completes the programming of the relay contact 2 of port A (set). The result is the lighting of an externally connected lamp whenever your sequence is started. Press the indicated cursor key three times to have the "1" blink.



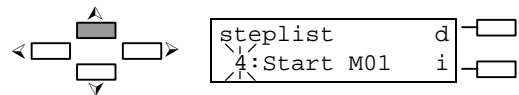
Pressing the indicated cursor key displays step 2 which stays unchanged (disables the master input during the message is outputted).



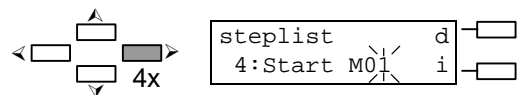
Pressing the indicated cursor key displays step 3 which stays unchanged (sets the message's volume).



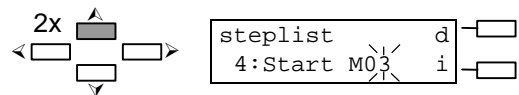
Pressing the indicated cursor key displays step 4 which activates the reproduction of the message "M01".



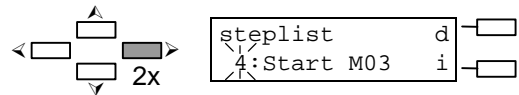
Pressing the indicated cursor key four times sets the blinking cursor to the "1".



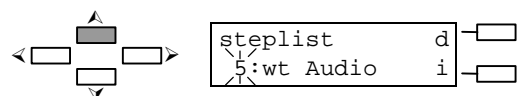
Pressing the indicated cursor key twice selects message 03. This starts the reproduction of your previously recorded message "M03".



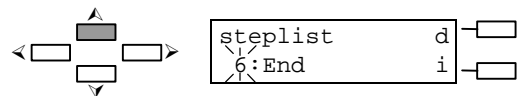
Press the indicated cursor key displays twice to have the "4" blink.



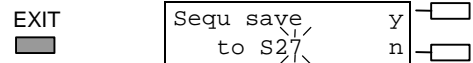
Pressing the indicated cursor key displays step 5 which stays unchanged (wait for the end of the message).



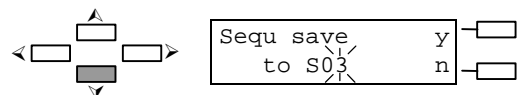
Pressing the indicated cursor key displays step 6 which stays unchanged. This is also the last step of the procedure.



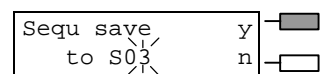
When you press the "EXIT" button, the question "save?" appears on the display.



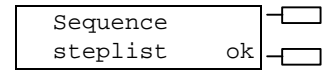
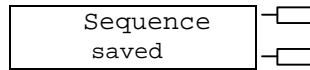
Press the indicated cursor key repeatedly until the display reads the required sequence number (S03).



Pressing the soft key "yes" stores your new sequence-listing as preset S03 into memory.



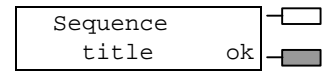
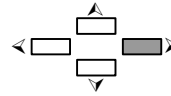
After showing a short message that storing was successful, the display returns to the start-screen of the sequence.



Naming The Sequence, Title

In case you want to give the new sequence its own name, you have to follow this procedure:

Pressing the indicated cursor key enters the title-menu. Pressing the soft key "ok" prepares the system for the entry of a new name.

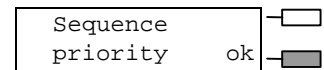
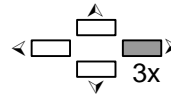


The following programming steps – entering and saving the desired name - are equivalent to the above description of how to enter and store the "title of a message" (page 24).

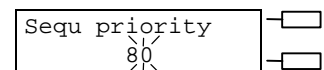
Priority Of The Sequence

The priority of the new sequence S03 has to be set to a value of 90. Thus, follow these steps:

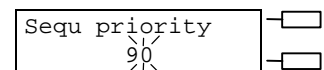
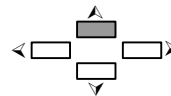
The priority-menu is entered by pressing the indicated cursor key three times and pressing the "ok" key prepares the system for the entering of a new priority value.



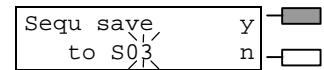
The display shows the programmed priority of the sequence S27.



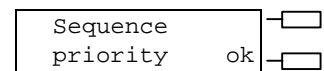
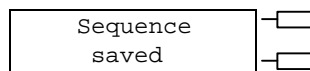
Press the indicated cursor key until the required value of "90" is displayed.



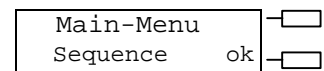
Pressing the "EXIT" button displays the question "save?". Use the soft key "yes" to save the priority for the sequence S03.



After showing a short message that the storing was successful, the display returns to the priority-screen of the sequence.



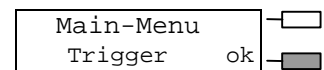
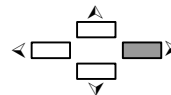
Pressing the "EXIT" key once lets you return to the main menu. This concludes the programming of your new procedure.



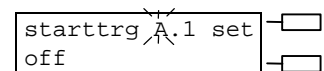
Setting The Trigger

You want your new sequence to be triggered by pressing the desired button on port B input 4. Thus, the programming is performed in the "trigger" menu.

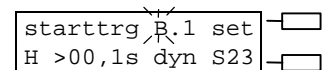
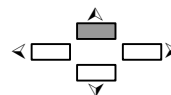
Pressing the indicated cursor key enters the trigger menu. Press the "ok" button to acknowledge your selection.



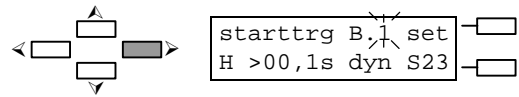
The display shows that the input 1 of the port A is disabled.



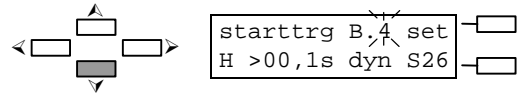
Pressing the indicated cursor key selects the port B. In the bottom line of the display, the setting for port B, input 1 is shown.



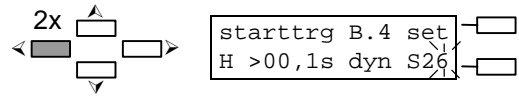
Pressing the indicated key sets the cursor to the number mark of the input.



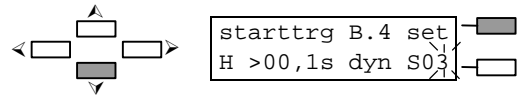
Select the input 4 by pressing the indicated cursor key. The bottom line of the display shows the momentary setting for the port B, input 4, which would start the sequence 26.



Programming the start of the sequence 03 you have to press the indicated key twice to set the blinking cursor to "6".



Press the indicated cursor key repeatedly until the display shows the desired number of the sequence (S03). Pressing the soft key "set" stores your setting into memory.



From now on, pressing the external button at the input B4 activates the sequence 03.

Pressing the "EXIT" key twice ceases the programming. The display is dimmed and you are able to test the functioning of the sequence (example 1).



Example 2

Intention:

You want to activate a factory preset alert using another key than pre-programmed.

Summary

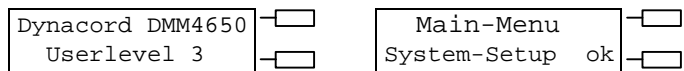
Employing a previously unused input (e. g. B3) you want to trigger included DIN-alert of the DMM 4650. The functioning of the input A4 which is already utilized for the DIN-alert has to be maintained. The new, additional start-key has been already connected to the port B, input 3 (page 30). It has to be programmed in the trigger menu to activate the sequence "DIN-Alarm" (=S22).

Step By Step Programming

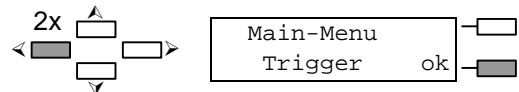
Enter the password for the user level 3 on the display, using the four cursor keys (page 10) and confirm your action with the "ok"-button.



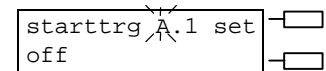
If you have entered the correct password, the display briefly shows this message and then returns to the main menu.



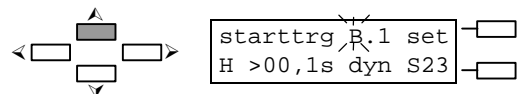
After pressing this cursor key twice, the "Trigger" menu appears. Confirm your selection by pressing the "ok"-button.



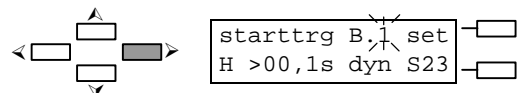
The display shows that input 1 of port A is disabled. You can always change the character on which the blinking cursor is positioned.



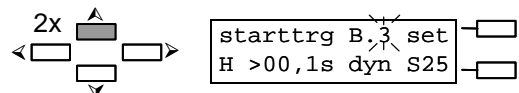
Pressing the indicated key positions the cursor on "Port B". The bottom line in the display shows the momentary setting of port B, input 1.



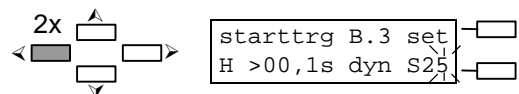
Pressing the indicated key positions the cursor on the number of the input.



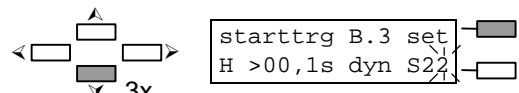
Pressing the indicated cursor key twice selects input 3. The bottom line in the display shows the momentary setting of port B, input 3 which triggers sequence 25.



To start the required alarm-sequence 22, you have to press the indicated cursor key twice so that "5" appears in the display.



Pressing the indicated cursor key three times displays the required sequence number (S22). Press the soft key "set" to store the setting.



From now on, the external button of the input B3 triggers the sequence 22.

Pressing the "EXIT" key twice ceases the programming. The display is dimmed and you are able to test the functioning of the sequence (example 2).



Example 3

Intention:

You want to trigger the pre-programmed 3-tone gong signal (factory-preset G21) by an external key. The functioning of the 4-tone gong signal has to be maintained.

Summary

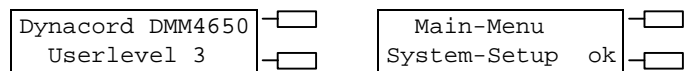
1. To include the reproduction of the 3-tone gong signal in the existing configuration, you have to program a suitable control sequence (e. g. S05). The sequence is also about to trigger an external control-lamp for the time, the gong signal gets reproduced. This example utilizes the identical relay contact 4 of the port A (=A4) that is already in use for the 4-tone signal.
2. The unused input of the pre-gong signal (e.g. B4) has been connected to the start-key (page 30). It has to be programmed in the trigger menu to activate the above sequence (S05).

Step By Step Programming

Enter the password for the user level 3 on the display, using the four cursor keys (page 10) and confirm your action with the "ok"-button.



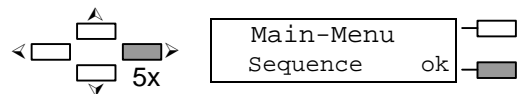
If you have entered the correct password, the display briefly shows this message and then returns to the main menu.



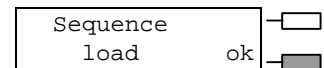
Programming The Control Sequence

Creating a procedure, the 3-tone gong signal G21 has to be included into a sequence (page 23). The sequence-preset S 25 is chosen as the root-preset for further programming (page 39).

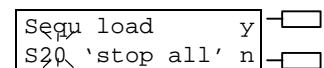
After pressing the indicated cursor key five times, the sequence menu appears on the display. Confirm your selection by pressing the "ok"-button.



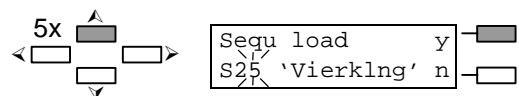
Pressing the soft key "ok" once again shows a menu that lets you select a sequence-preset.



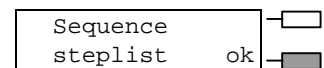
The blinking cursor is positioned at the "0" in the display's bottom line.



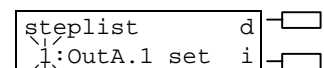
Press the indicated cursor key repeatedly until "S 25" is selected. Press the soft key "yes" to load the sequence preset S 25 (root-sequence).



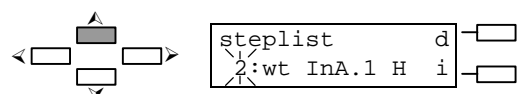
Since the procedure has to be changed in accordance to the new requirements, you have to select its listing by pressing the "ok" key.



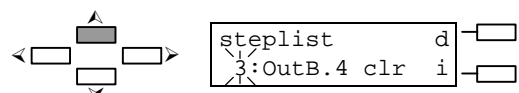
The first step (step 1) of the S 25 listing is displayed, which stays unchanged (relay contact A1 can be utilized to turn the system's power on).



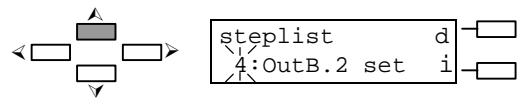
Pressing the indicated cursor key displays step 2 which stays unchanged (release-input A1 of the electro acoustic system ready?).



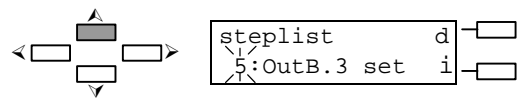
Pressing the indicated cursor key displays step 3 which stays unchanged (relay contact B4 for music off).



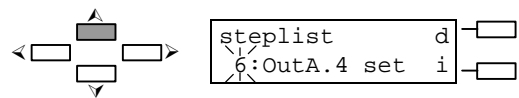
Pressing the indicated cursor key displays step 4 which stays unchanged (relay contact B2 for obligatory reception activated).



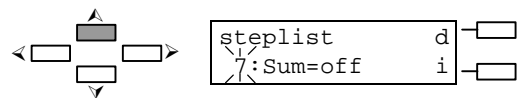
Pressing the indicated cursor key displays step 5 which stays unchanged (relay contact B3 for obligatory reception activated).



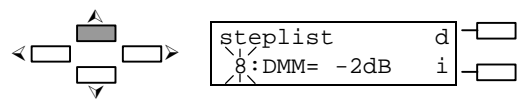
Pressing the indicated cursor key displays step 6 which stays unchanged (relay contact A4 for control lamp "outgoing gong signal").



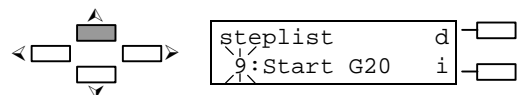
Pressing the indicated cursor key displays step 7 which stays unchanged (switches the master input during the reproduction of the gong signals off).



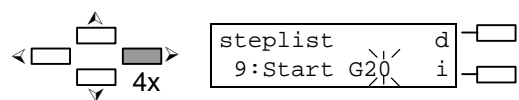
Pressing the indicated cursor key displays step 8 which stays unchanged (setting the volume of the gong signals).



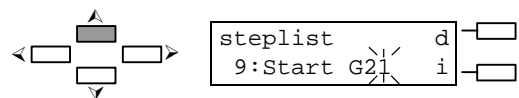
Pressing the indicated cursor key displays step 9. This step normally would trigger the start of the gong signal G20.



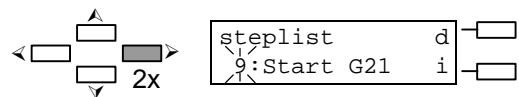
Press the indicated key four times to set the displayed value under the blinking cursor mark to "0".



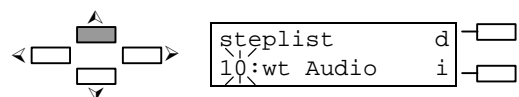
Press the indicated cursor key to select the gong signal G21. This step activates the desired gong signal.



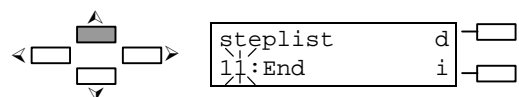
Press the indicated key twice to have the value "9" blink.



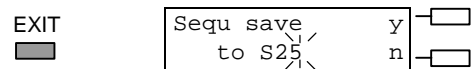
Pressing the indicated cursor key displays step 10 which stays unchanged (wait for the gong signal to fade out).



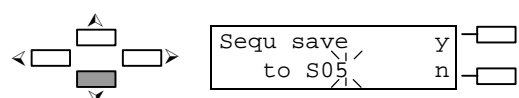
Pressing the indicated cursor key displays step 11 which stays unchanged. This is also the last step of the procedure.



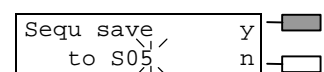
When you press the "EXIT" button, the question "save?" appears on the display.



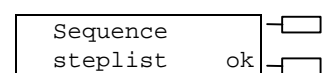
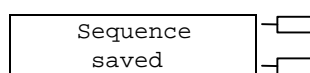
Press the indicated cursor key repeatedly until the display reads the required sequence number (S05).



Pressing the soft key "yes" stores your new sequence-listing as preset S05 into memory.



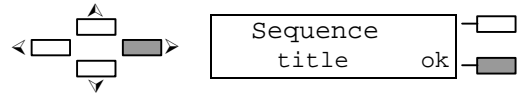
After showing a short message that storing was successful, the display returns to the start-screen of the sequence.



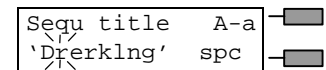
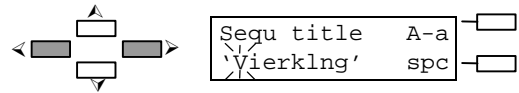
Naming The Sequence, Title

In case you want to give the new sequence its own name, you have to follow this procedure:

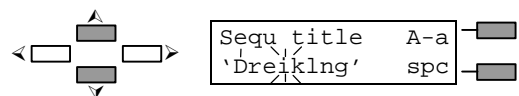
Pressing the indicated cursor key enters the title-menu. Pressing the soft key "ok" prepares the system for the entry of a new name.



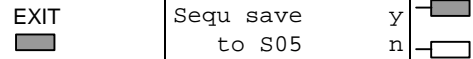
The name ("Vierklng") with a maximum length of eight characters can now be changed as desired. Using the soft key "A-a" lets you choose between the upper and the lower character set. By pressing the "spc" (space) key you can enter spaces. The blinking cursor indicates which character is going to be changed and using the two "horizontal" cursor keys lets you select adjacent characters.



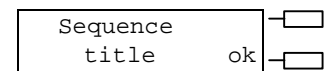
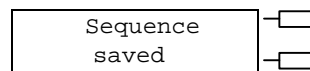
Using the two "vertical" cursor keys, the desired characters can be selected. This example uses the name "Dreiklng".



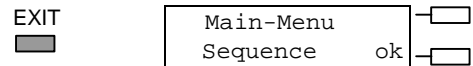
After you have entered the desired title, pressing the "EXIT" key once displays the question "save?". Press the soft key "yes" to save the selected name for the sequence 05.



After showing a short message that the storing was successful, the display returns to the title-screen of the sequence.



Pressing the "EXIT" key once lets you return to the main menu.

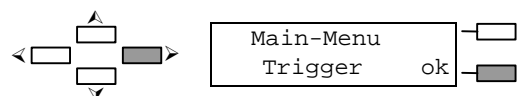


This concludes the programming of your new procedure. The priority level of the sequence has not been altered and is therefore equivalent to the setting of S 25 (4-tone gong signal).

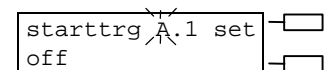
Setting The Trigger

You want your new sequence to be triggered by pressing the desired button on port B input 4. Thus, the programming is performed in the "Trigger" menu.

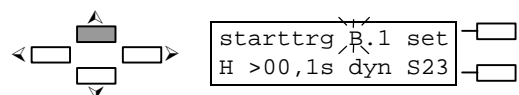
Pressing the indicated cursor key enters the trigger menu. Press the "ok" button to acknowledge your selection.



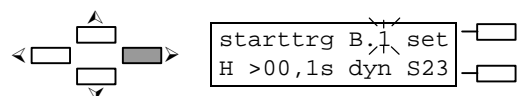
The display shows that the input 1 of the port A is disabled.



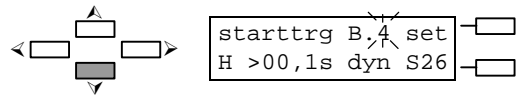
Pressing the indicated cursor key selects the port B. In the bottom line of the display, the setting for port B, input 1 is shown.



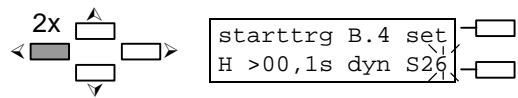
Pressing the indicated key sets the cursor to the number mark of the input.



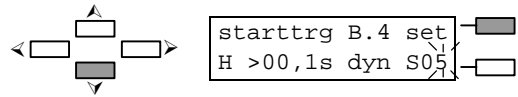
Select the input 4 by pressing the indicated cursor key. The bottom line of the display shows the momentary setting for the port B, input 4, which would start the sequence 26.



Programming the start of the sequence 05 you have to press the indicated key twice to set the blinking cursor to "6".



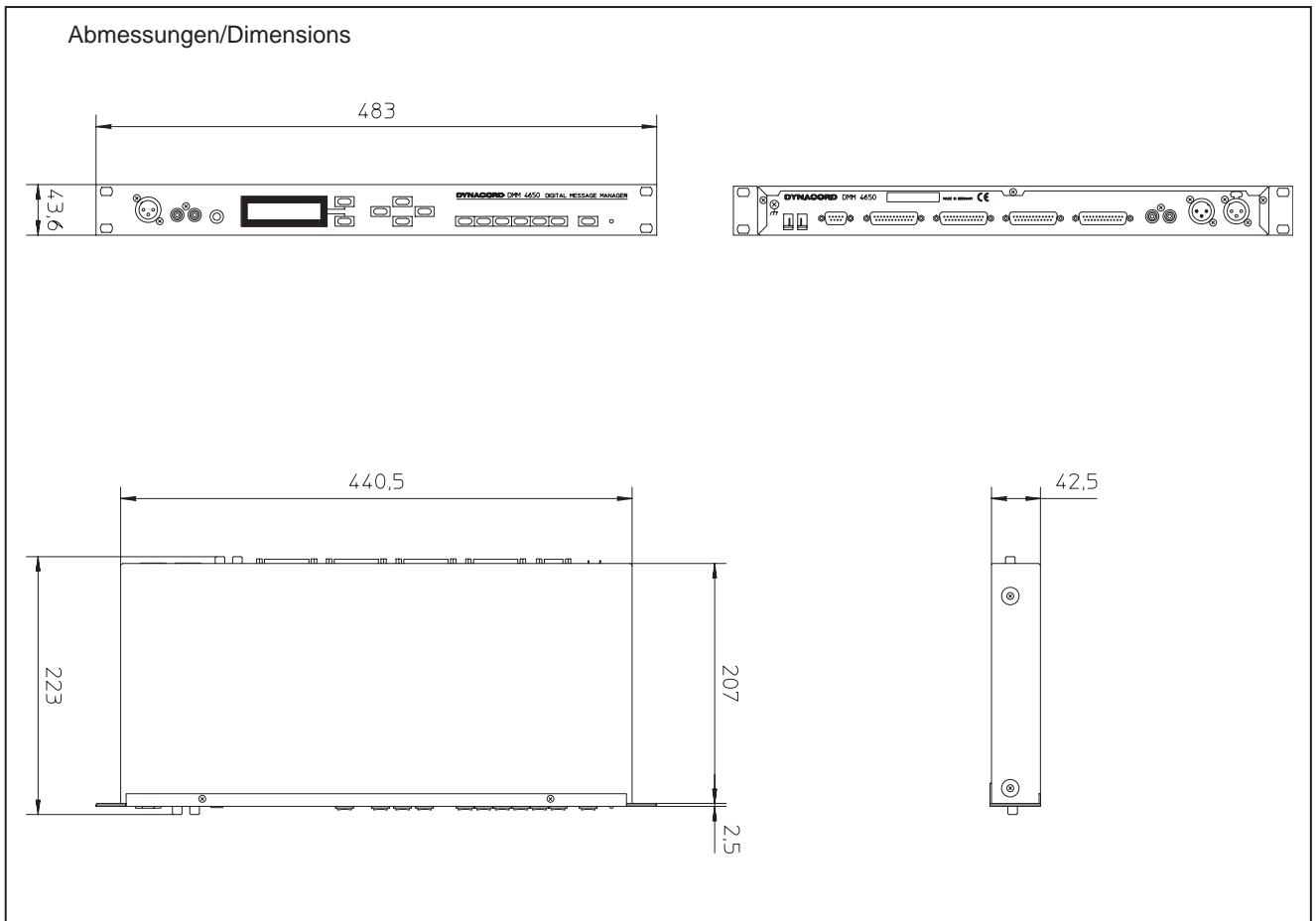
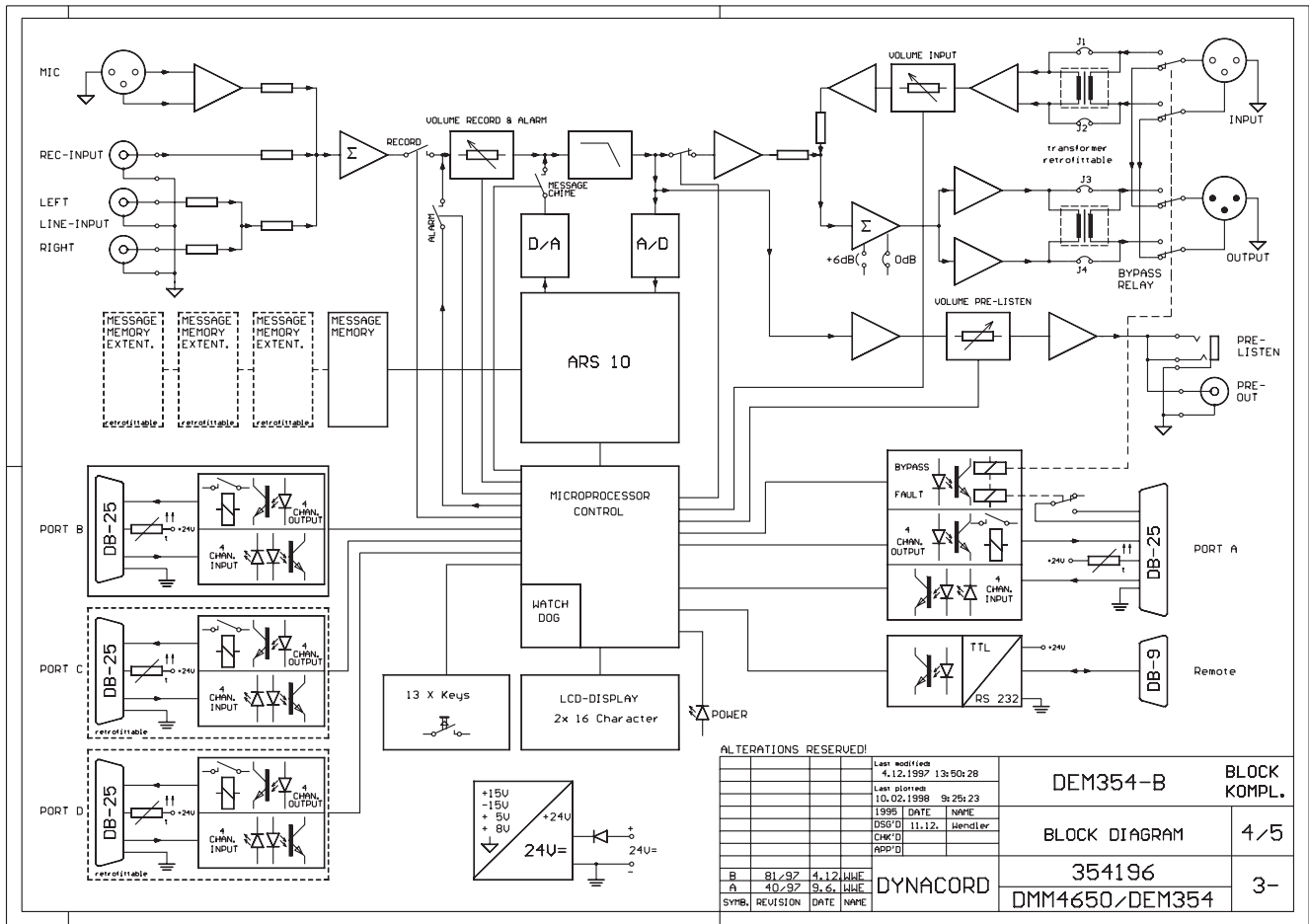
Press the indicated cursor key repeatedly until the display shows the desired number of the sequence (S05). Pressing the soft key "set" stores your setting into memory.



From now on, pressing the external button at the input B4 activates the sequence 05 (=3-tone gong signal).

Pressing the "EXIT" key twice ceases the programming. The display is dimmed and you are able to test the functioning of the sequence (example 3).





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