MIDI MUTE

USER MANUAL

Geachte klant,

Wij danken u hartelijk voor uw keuze en het vertrouwen dat u in ons produkt stelt.
U deed een goede keus, dit produkt is ontworpen door en voor professionele gebruikers.

Er is gebruik gemaakt van onze enorme "know how" in mengtafel en signaal processor technieken en dit gekombineerd met hoogwaardige komponenten geeft u de zekerheid van een lange gebruiksduur.

Bovenstaande eigenschappen resulteren in een zeer betrouwbaar en bedrijfszeker eindprodukt.

Deze gebruiksaanwijzing helpt u in het optimaal benutten van alle mogelijkheden die dit produkt in zich heeft.

Wij excuseren ons voor het feit dat deze gebruiksaanwijzing uitsluitend in het engels verkrijgbaar is. Dit is een gevolg van het feit dat 99% van onze produkten geexporteerd worden en het engels de algemeen aanvaarde internationale voertaal is.

Mocht u nog vragen hebben dan kunt u zich altijd tot onze dealers wenden.

Dear client,

Thank you for choosing this product.

This product is designed by specialists in the field of professional audio and is intended to be used as a professional tool.

We are confident that you will be using this product for many years to come, and wish you much success.

We always value suggestions from our clients, and we would therefore be grateful if you could complete and return the questionnaire included at the back of this manual, once you have become familiar with this product. We will certainly learn from your comments, and very much appreciate your time doing this.

With kind regards,

Duco de Rijk
President

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MIDIMUTE MANUAL

SYSTEM DESCRIPTION

The midimutesystem is an optional mute controlling device for the Vision, Orion, Triton, Marilon and Avalon consoles.

All above mentioned consoles have internal FET mute switching that can be controlled by the Midimute system.

Every channel has a two pin connector that has to be wired to the CPU board individually. The main CPU board can handle 32 Mutes(switches), an add-on board can accept another 32 switches which makes a total of 64 mutes.

To extend beyond these 64 switches it is needed to parallel another CPU board, which makes the system go for 96 mutes. The second add-on board connected to the second main CPU board brings a total of 12 mutes. By extending the CPU boards plus add-on boards it is possible to create a limitless number of mutes.

Every system needs besides the CPU board and possible add-on's a remote control to store and recall settings. The remote control is connected by an 8 wire computer cable to the consoles mute connector panel. On this panel there are also connectors for MIDI in/out and through.

Small mute systems can be powered up from the consoles power supply. If the mute system goes beyond several hundreds of mutes a second power supply is needed. Inside the consoles there will be three -pen lite" batteries for back-up of the internal memory. Replacement is not to be expected within a year.

The remote is the human interface between the user and the mute system and we have made it as intuitive as possible.

Four seven segment highly visible LED displays are giving easy to read information to the user. There are seven basic modes called

PATCHES

CHANNEL STATUS

MIDI PROGRAM WRITE MODE

MIDI READ MODE

MIDI PATCH WRITE CONTROL

MIDI NOTE WRITE CONTROL

DISPLAY

OPERATIONAL DESCRIPTION

PATCHES

In the display it is possible to look up for a maximum of 128 patches (complete set of mute settings not dependant upon number of mutes)

The display generates in its first segment a "P" indicating that you are in the patch mode. A "point- in the -P- segment indicates that the patch number you have chosen is ACTIVE in the channels. If the display does not show a point, the displayed patch number is NOT ACTIVE in the channels.

UP/DOWN

These two buttons move the patch numbers up and down without actually changing any mute settings in the channels.

RECALL UP/DOWN

These two buttons actually change the channel mute settings related to the stored information under that patch. Recall-up calls up the next display number and changes the channel mute settings. Recall - down calls up the previous setting and changes the channel settings as well.

STORE

Activating this button stores all actual mute settings under the display number that is in the display at this moment of storage.

ESC.

Hitting the ESC. button in the patch mode brings back the latest "recalled- Patch (with point)

Hitting the MODE button moves you up into the channel mute status

CHANNEL STATUS

The display may show "CH (channel), TP (tape), ST (stereo), or GR (group), in the first segments to initiate that you are looking at the channel mute status. The next two segments show the channel number. A green led in the remote shows whether that channel is muted (green led on).

RECALL UP/ DOWN

This button increases/decreases the number showing its mute status.

RECALL

Now you can off-line edit the mutes by hitting the recall button. The MUTE led gives you the status in real time. To store these changes you have to depress the STORE button before you move to the next mode. (Remember that all this information is always related to the patch number that is active at that moment)

UP/DOWN

This function selects between Ch, Tp, St, Gr initialized at the set-up procedure.

STORE

To store these changes you have to depress the STORE button before you move to the next mode. (Remember that all this information is always related to the patch number that is active at that moment)

ESC.

Flitting the ESC. button brings you back into the PATCH mode.

MODE

Depressing the MODE button moves you up to the next mode which is the MIDI WRITE mode.

MIDI PROGRAM WRITE MODE

The display initially shows you the text "out" The left segments are showing the 16 midi channels, while the right segments show a maximum of 99 different patch changes. The MIDI cpu can send a program change with every patch change on a] 116 midi channels at the same time.

UP/DOWN

These buttons are stepping through all the 16 Midi channels.

RECALL UP/DOWN

These buttons are changing the program change data from the displayed midi channel. When "- - " is showing in the display, there will be no program change data sent to external equipment this MIDI channel, hence no changes are taking place at that moment. (Remember that all data is always related to the patch number that is active at that moment).

RECALL

This button, when depressed, shows in a sequence all the stored midi channel information which is real red to the actual patch number which is active in mode menu 1.

ESC.

Hitting this button brings you back into the Patch mode.

STORE

To store these changes you have to depress the STORE button before you move to the next mode. (Remember that all this information is always related to the patch number that is active at that moment).

MODE

I-fitting this button brings you further into the next mode which is called MIDI READ MODE

MIDI READ MODE

As soon as you are in the "MIDI read" mode, the display shows "IN"

The left two segments are showing one of the 16 midi channels, where all patch changes and or note onjoff and other midi information is received and sent. The right segments are showing if the incoming MIDI data receiver is in its on or of(f) mode.

UP/DOWN

This button changes the midi channel number on which you want to receive and send external Midi information.

RECALL UP/DOWN

This button sets the displayed midi channel on or off for receiving data.

STORE

If you perform any change in this mode and you do not hit the STORE button after you have performed change, there will be no changes taking place in the memory, so all old data is still active.

MODE

Hitting this button moves you up to the next mode of the system which is the MIDI PROGRAM WRIT] CONTROL.

ESC.

Hitting this key brings you back into the Patch mode.

MIDI PATCH WRITE CONTROL

This menu shows "Pt. on" or Pt. of(f) and you can determine whether the patch number which has been called needs to be send via ~1 as a program control.

RECALL UP/ DOWN

This button switches the write program write mode on or off.

ESC.

Hitting the ESC. button brings you back into the PATCH mode.

STORE.

To store these changes you have to depress the STORE button before you move to the next mode. (Remember that all this information is always related to the patch number that is active at that moment).

***MIDI NOTE WRITE* CONTROL**

The display will show "nt. on" or "nt of(f)" In this menu you can determine whether you want every mute change on your mixer to be sent as a note on/off command (Mute=note on).

RECALL UP/ DOWN

This button switches the write program on or off.

ESC.

Hitting the ESC. button brings you back into the PATCH mode.

STORE.

To store these changes you have to depress the STORE button before you move to the next mode. (Remember that all this information is always related to the patch number that is active at that moment).

DISPLAY MODE

When you enter the display mode the display shows "disp" By hitting the recall down button a demo program is activated, "ESC" will stop the demo.

UP/DOWN

The up/down buttons change the displays intensity.

Both the ESC. and MODE buttons will bring you back into the basic mode which is the Patch mode.

RECALL

The recall button shows the jumper settings.

STORE.

To store these changes you have to depress the STORE button before you move to the next mode. (Remember that all this information is a] ways related to the patch number that is active at that moment).

ADVANCED FUNCTIONS

When you are in the patch mode it is convenient to switch the midi data receive on or off quickly. This i accomplished by hitting the ESC. and MODE at the same time. You will see the midi channel number changing from on to off or from off to on as desired.

MEMORY CLEARANCE AND CHANNEL SET-UP

When you want to clear the entire internal memory or change the SET-UP follow the next steps.
1. Switch the console off
2. Hold down the ESC. and MODE switches
3. Turn the power on
4. The display will come up with the text -del
5. Now you can decide whether you really want to clear the internal memory.
6. Hitting RECALL deletes the total memory
7. Hitting any other key brings you back in the set-up mode.
8. The Display will show "SET.C"
9. IF you want to change the channel set-up push "RECALL"
10. Now the Edit text shows itself in the display. You can now decide to start all over or only edit specil data.
Recall means, edit only UP/Down means, totally start all over.
11. If you have selected the UP/DOWN button to totally start all over an "A" is seen in display with an associated number. The number tells you how many auto muted mutes are connected to the system. The recall up/down button changes this number.
12. Now all mutes will be activated by the CPU (computer) except one. This one needs to he edited by giving it a number and a name. This is accomplished by the up/down and recall up/down buttons. As soon as you have edited these data hit the "store" button to enter this in to the memory. Repeat these steps for all other channels
The Recall button lets you step back in the process. ***When the battery is low or is disconnected, the program automatically starts up in the set-up mode.***

JUMPER SETTINGS

1-64 master CPU only	**A= off B = off C= off12C terminate = 2 jumpers**
(1 CPU board)	**mstr = on (1/2 J89) MiDi = on 3/4 J89)**
1-64 master CPU	**A= on B = off C off12C terminate = 2 jumpers**
driving slave	**mstr = on (1/2 J89) MIDI = on 3/4 J89)**
(more CPWs)	
65 and up, slave CPU	**A = off B = on C off 12C terminate = off**
	mstr = off (1/2 J89) MIDI = off (3/4 J89)
Factory test only	**A = off B = off C = on**
I2C terminate = 2 jumpers	
(1 CPU board)	**mstr = on (1/2 J89) MIDI = on (3/4 J89)**

Vision Orion Triton Marilon jumper J91 13/18 (2/3)

Avalon jumper J91 0/5 (1/2)

SUMMARY

We are certain that this new product brings more productivity to your work and any suggestion to improve upon the software of this product is more than welcome.

Jan Betten the designer of this particular product has put as much practical functionality into this produc as is possible but he is always anxious to learn from you as a user, so please if you have any suggestions to improve upon this product do not hesitate to write or fax him/us with your idea's.

This manual was written by Jan Betten and Duco de Rijk

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PERSONAL NOTES:

Test Procedure of Midi Mute CPU board 33/64 Board and remote, may 1994

1. Insert an Eprom. with Midi mute software version 2.0 or higher

2. All midi mute boards are tested individually, in stand alone mode. This is 1 CPU board or 1 CPU board with an extender board.

Place the following jumpers;

Short jumper C (J22)
Remove jumper from A (J19) and B (J23)
Short J92 and J93 (i2C terminate)
Short J89 (two shorts between pin 1-2 and pin 3-4)
Short J91 on position 13/18

3. Cheek polarity of electrolytics and position of Ic's

4. Turn on power supply, now the display should light in all segments. If not cheek Jumper J92, J93, (i2C-Terminate).

5. The test of the display shows all led segments on 8.8.8.8. en after that, segments will show a differeni pattern.

6. Via the ESC switch you start the keyboard test. Cheek out all keyboard switches.

7. By pushing the ESC longer than normal you enter the Xtal test. The display shows shows "cloc" representing clock. The lower part of the display shows a moving dot every other second. If not check the value of the Xtal and Cl and C2.

8. Via the ESC switch you enter the RAM test procedure. A 'Y' and "t" shows in the display and ic 4 i under test. If "r oc" shows the IC is oke. However with "rl F' in the display the IC is not working properly or the is a short on the pch.

9. Via the ESC switch you can enter the "output-IC " test pocedue. This test tests 1C8, 19, 22, 23. If the display shows "ic oc" this part of the circuitry is oke. An indication "ic F' means something is wrong in these ic's.

10. Via the ESC switch you enter the MIDI test pocedure. Connect a midi cable between Midi-out and Midi-i, when the connection is good the display shows "oO otherwise "err". Check 1C7 in case of an error, as jumper J89, IC21, 1C6 and R5.

11. Via the ESC switch you enter the 1-0 test, now all mute inputs can be tested. Via a green wire connected to pin 2 of connector J91all mute inputs are tested by individually touching one of the two mute connector inputs positioned alongside the 4067 ic's.

Test 1 is for mute 1, 9, 17, 25, 33, 41, 49, and 57. Segments in the display light when the wire coming from connector J91 (with its shorting jumper in position) is connected with the mute inputs. Via the ESC switch you enter test 2 of Mute inputs 2, 10, 18, 26, 34, 42, 49, 58. This pocedure continues up to test 8, then the program starts all over.

If there is any question left do not hesitate to call us at 0031 294 418014

DECLARATION OF CONFORMITY

Manufacturers Name: D&R Electronica Weesp b.v.

Manufacturers Address: Rijnkade 15B,
1382 GS Weesp,
The Netherlands

declares that the product

MidiMUTE

conforms to the following product specifications:

EMC: **EN 55022: 1987**
CISPR 22 (1993) class B

EN 500082-1 (1992)

Supplementary Information:

The products herewith complies with the requirements of the EMC Directive 89/336/EEC (1989) as amended by the CE Marking Directive 93/68/EEC (1993).

D&R Electronica Weesp b.v.
Rijnkade 15 B
1382 GS WEESP
The Netherlands
President of Engineering

PRODUCT SAFETY

This product is manufactured with the highest standards and is double checked in our quality control department for reliability in the "HIGH VOLTAGE" section.

CAUTION

Never remove any panels, or open this equipment. No user servicable parts inside.
Equipment power supply must be grounded at all times.
Only use this product as described, in user manual or brochure.
Do not operate this equipment in high humidity or expose it to water or other liquids.
Check the AC power supply cable to assure secure contact.
Have your equipment checked yearly by a qualified dealer service center.
Hazardous electrical shock can be avoided by carefully following the above rules.

EXTRA CAUTION FOR LIVE SOUND

Ground all equipment using the ground pin in the AC power supply cable.
Never remove this pin. Ground loops should be eliminated only by use of isolation transformers for all inputs and outputs. Replace any blown fuse with the same type and rating only after equipment has been disconnected from AC power.
If problem persists, return equipment to qualified service technician

PLEASE READ THE FOLLOWING INFORMATION

Especially in sound equipment on stage the following information is essential to know.
An electrical shock is caused by voltage and current, actually it is the current that causes the shock.
In practise the higher the voltage the higher the current will be and the higher the shock.
But there is another thing to consider and it is resistance.
When the resistance in Ohms is high between two poles, the current will be low and vica versa.
All three of these; voltage, current. and resistance are important in determining the effect of an electrical shock.
However, the severity of a shock primarily determined by the amount of current flowing through a person.
A person can feel a shock because the muscles in a body respond to electrical current and because the heart is a muscle it can affect, when the current is high enough.
Current can also be fatal when it causes the chest muscles to contract and stop breathing. At what potential is current dangereous.
Well the first feeling of current is a tingle at 0.001 Amp of current.
The current between 0.1 Amp and 0.2 Amp is fatal.
Imagine that your home fuses of 20 Amp can handle 200 times more current than is necessary to kill. How does resistance affect the shock a person feels.
A typical resistance between one hand to the other in "dry" condition could well over 100,000 Ohm.

If you are playing on stage your body is perspiring extensively and your body resistance is lowered by more than 50%. This is a situation in which current can easily flow.

Current will flow when there is a difference in ground potential between equipment on stage and in the P.A. system. Please do check if there is any potential between the housing of the mikes and the guitarsynth amps, which will be linked by your body on stage. Imagine, a guitar in your hand and your lips close to the mike! A ground potential difference of above 10 volts is not unusual, in improperly wired buildings it can possibly be as high as 240 volts.

Allthough removing the ground wire sometimes cures a system hum, it will create a very hazardeous situation for the performing musician.
Always earth all your equipment by the grounding pin in your mains plug.
Hum loops should be only cured by proper wiring and isolation input/output transformers.

Replace fuses always with the same type and rating after the equipment has been turned off and unplugged.
If the fuse blows again you have an equipment failure, do not use it again and return it to your dealer for repair.

And last but not least be carefull not to touch a person being shocked as you, yourself could also be shocked.
Once removed from the shock, have someone send for medical help inmediately

Always keep the above mentioned information in mind when using electrically powered equipment.

Dear CLIENT,

We care very much about your opinion of our product, and would very much appreciate if you could complete the following questionnaire, and return it to the address below.
Please use a copy of this form if you do not want to damage your manual.

USER NAME .....

ORGANIZATION .....

ADDRESS .....

TOWN .....

POST CODE .....

COUNTRY .....

EMAIL: info@d-r.nl.....

PURCHASING DATE: .....

CONFIGURATION .....

DEALER .....

HOW DID YOU HEAR ABOUT THIS PRODUCT? (please circle)

(Dealer / Advertisement / Exhibition / Other user / Other)

WHAT JOURNALS DO YOU TAKE ON A REGULAR BASIS?

.....
WHAT IS YOUR OPINION OF THE PRICE/QUALITY OF THIS PRODUCT?

.....
WHAT PRICE WOULD YOU CONSIDER SUITABLE FOR THIS PRODUCT?

.....
ANY OTHER SUGGESTIONS?

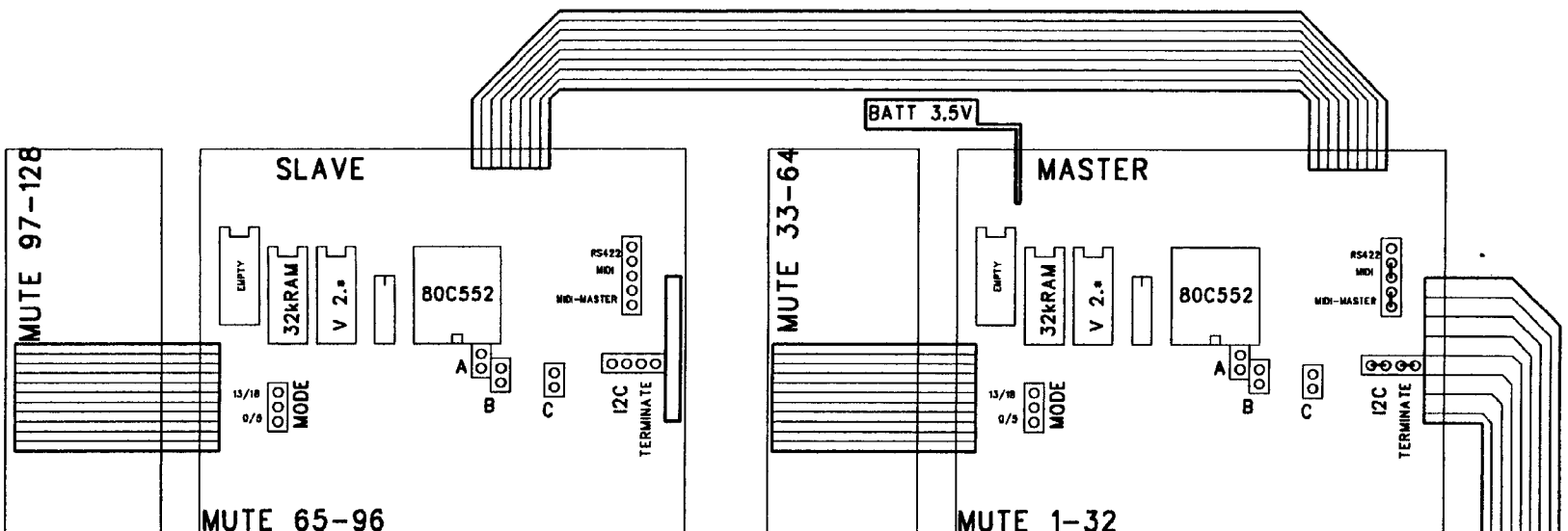
.....
I REQUIRE INFORMATION ABOUT

.....
WHAT OTHER EQUIPMENT DO YOU USE?

.....
PLEASE SEND/FAX TO:
D&R Electronica Weesp bv, Rijnkade 15B, 1382 GS WEESP, The Netherlands **FAX: +31 294 416987**

MIDI MUTE

SERVICE MANUAL



	MASTER			SLAVE		
	A	B	C	A	B	C
1-32	OFF	OFF	OFF			
1-64	OFF	OFF	OFF			
1-96	ON	OFF	OFF	OFF	ON	OFF
1-128	ON	OFF	OFF	OFF	ON	OFF
TEST	OFF	OFF	ON			

VISION en ORION MODE = 13/18
TRITON en MARLION MODE = 13/18
AVALON MODE = 0/5

MIDI-TRU
MIDI-IN
MIDI-OUT
Power +18V, -18V, GND
MIDI-Con.
REMOTE-Con.
REMOTE

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Title:	MIDI-MUTE-CON.
Date:	20-06-1994
Rev:	A
Sheet:	1 of 1
Design:	J. Betten