



SD - 1

USER MANUAL

DATEQ
audio technologies

Safety instructions

- 1 All safety instructions, warnings and operating instructions must be read first.
- 2 All warnings on the equipment must be heeded.
- 3 The operating instructions must be followed.
- 4 Keep the operating instructions for future reference.
- 5 The equipment may never be used in the immediate vicinity of water; make sure that water and damp cannot get into the equipment.
- 6 The equipment may only be installed or fitted in accordance with the manufacturers recommendations.
- 7 The equipment must be installed or fitted such that good ventilation is not obstructed in any way.
- 8 The equipment may never be installed in the immediate vicinity of sources of heat, such as parts of heating units, boilers, and other equipment which generates heat (including amplifiers).
- 9 Connect the equipment to a power supply of the correct voltage, using only the cables recommended by the manufacturer, as specified in the operating instructions and/or shown on the connection side of the equipment.
- 10 The equipment may only be connected to a legally approved earthed mains power supply.
- 11 The power cable or power cord must be positioned such that it cannot be walked on in normal use, and objects which might damage the cable or cord cannot be placed on it or against it. Special attention must be paid to the point at which the cable is attached to the equipment and where the cable is connected to the power supply.
- 12 Ensure that foreign objects and liquids cannot get into the equipment.
- 13 The equipment must be cleaned using the method recommended by the manufacturer.
- 14 If the equipment is not being used for a prolonged period, the power cable or power cord should be disconnected from the power supply.
- 15 In all cases where there is a risk, following an incident, that the equipment could be unsafe, such as:
 - if the power cable or power cord has been damaged
 - if foreign objects or liquids (including water) have entered the equipment
 - if the equipment has suffered a fall or the casing has been damaged
 - if a change in the performance of the equipment is noticedit must be checked by appropriately qualified technical staff.
- 16 The user may not carry out any work on the equipment other than that specified in the operating instructions.

SD1**Silence Detector****General**

The DATEQ SD-1 has been designed for activating backup-units if the regular audio signal fails.

The SD-1 is equipped with opto-coupler outputs to start and stop the connected backup-devices and an alarm-output to which a telephone-dialler can be connected. Parallel to the alarm-output the SD-1 comes equipped with a solid-state relay. This makes it possible to switch on and off the mains supply of the backup-devices.

With trimmers at the back of the silence detector the start and stop delay and the no-audio detection level can be adjusted. The backup input has a gain-trimmer. With the internal dip-switches various switching patterns can be selected to start and stop the backup-units. Furthermore it is possible to enable an internally trimmable pilot-tone detection and to select a different timing mode. By pressing the bypass switch at the front the main-input will be selected.

Product support

If you have any questions about the SD1, or about other DATEQ products please contact:

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Connecting



The tables below show the various connections.

Ground Lift

Switch to make the outputs floating with respect to the earth. When the switch is pushed downwards the outputs ground will be linked to the frame.

Input Level

Gain-preset for the backup-input. Range +/-12dB.

Backup input (2x cinch)

Pin	Function	Type
Tip	Audio +	In
Shield	Audio GND	GND

Main input (2x XLR-F)

Pin	Function	Type
1	Audio GND	GND
2	Audio +	In
3	Audio -	In

Main output (2x XLR-M)

Pin	Function	Type
1	Audio GND	GND
2	Audio +	Out
3	Audio -	Out

Function of the trimmers

Trigger level	no-audio detection sensitivity	-25 .. -70 dBu
Start Delay	Time between no-audio detection and backup-start	0 .. 60 sec.
Stop Delay	Time between audio detection and backup-stop	0 .. 60 sec.

Output Optocouplers connector

Maximum rating: 25V / 50mA

Pin	Function	Type
1	Stop -	Out
2	Start -	Out
3	Backup fail -	Out
4	Alarm -	Out
5	NC	
6	Stop +	Out
7	Start +	Out
8	Backup fail +	Out
9	Alarm +	Out

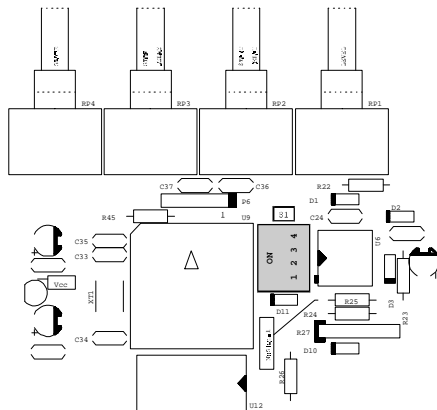
Alarm Relay

Solid state relay output. The backup-devices main supply can be switched on and off with this output. Maximum rating: 230V/ 2A.

Settings

To adjust the internal jumper-settings the SD-1 has to be opened. First loosen the bolts at the front and at the back of the SD-1 one turn. Next unscrew three the screws of the top-lid completely. Now the lid can be folded of the SD-1.

With the internal dip-switches some extra settings can be made. In the drawing below the dip-switches are shown.



Switch number	Function
1	Pilot alarm
2	Inverted outputs
3	Pulsed outputs
4	Timing mode

Pilot alarm

When this function is enabled the backup-device will be activated when the pilot-tone (19kHz) is not active or when the audio at the main-input stops. When this switch is disabled (default) the backup device will only start when no audio is present at the main input. The pilot-tone detection level can be adjusted with trimmer RT1.

Inverted outputs

By activating this switch the alarm outputs will be inverted.

Pulsed outputs

When this switch is active the start and stop output will generate a 100mSec pulse to start and stop the backup-device. This function can be combined with the 'inverted outputs' function.

Timing mode

With this switch the detection-mode can be adjusted.

When the switch is in the ON-position the start and stop timers will reset as soon as an audio-signal is detected.

When the switch is in the OFF-position the timers will count up and down according to the presence of the detected signal.

- The advantage of disabling this function: The backup device will not stop when there are only short sporadic signals or noises on the line.
- The advantage of enabling this function: When in an interview a natural silence occurs the timers will immediately reset when a person starts to speak.

Technical specification

INPUTS

MAIN INPUT	Electronically balanced
Signal level	+6dB @ 600ohm
Impedance.....	12 kohm nominal
Noise	< -86 dB (IHF-A)
Crosstalk.....	> 90 dB @ 1 kHz
THD+N.....	0.002%
BACKUP INPUT	Cinch
Signal level	0 dB @ 600ohm adjustable (+/-12dB)
Impedance.....	6 kohm nominal
Noise	< -86 dB (IHF-A)
Crosstalk.....	> 85 dB @ 1 kHz
THD+N.....	0.02%
Detection threshold.....	-25...-70dBu

OUTPUTS

MAIN OUTPUT	+6 dB balanced/ 600ohm
OUTPUT CONNECTOR	DB9-F
Max. voltage	25V
Max. current.....	50mA
SOLID STATE RELAY.....	
Max. voltage	230V
Max. current.....	2A

GENERAL

MAINS SUPPLY

Voltage range	220...240 VAC / 50 Hz
Power consumption	15 W

DIMENSIONS AND WEIGTH

Front	483 x 44 mm (B x H) = 19", 1HE
Depth.....	205 mm without connectors
Weigth	1.6 kg Nett.