

Midi 2 x Loop



- User Manual
- Instrukcja obsługi
- Bedienungsanleitung

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Dear Customer,

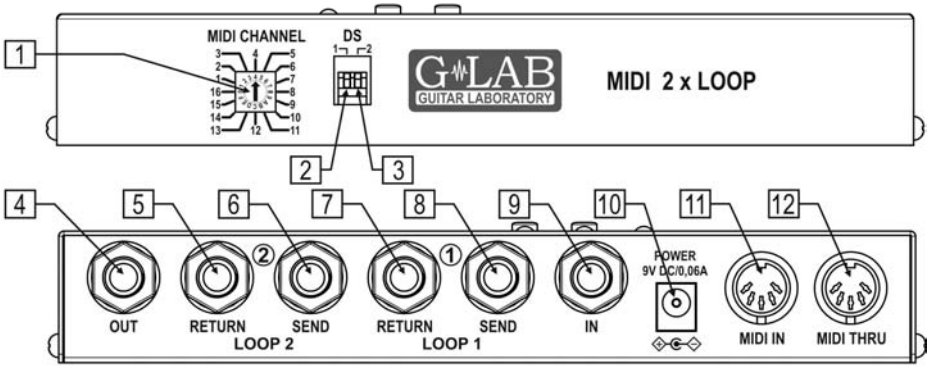
Congratulations for choosing our G LAB product!

MIDI 2 x LOOP (M2L) is a loops' switcher controlled by MIDI interface or manually, by using the buttons. M2L should be controlled by programmable MIDI controller (which enables to program and send chosen MIDI PROG CHANGE or CTRL CHANGE commands for any controller's preset). It is particularly recommended to use the M2L as an extension of the G LAB GSC guitar system controllers. Due to its passive signal path it is also possible to use the M2L as an A/B/Y switcher.

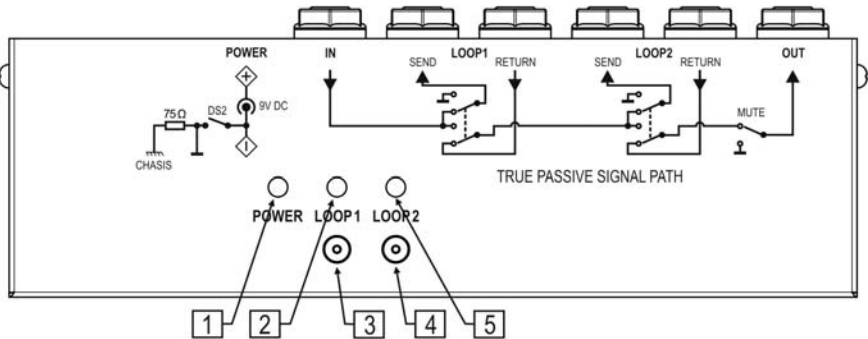
Basic characteristics:

- two bypassed (by electro mechanic relay) loops to connect the pedal effects or serially connected sets of effects,
- muting circuit based on opto elements,
- MIDI THRU connector to connect other MIDI devices,
- power supply and active loop indicators,
- possibility to control two M2L units by one Program Change command,
- two buttons for loops' manual on/off switching,
- power supply 9V DC (direct current).

Structure



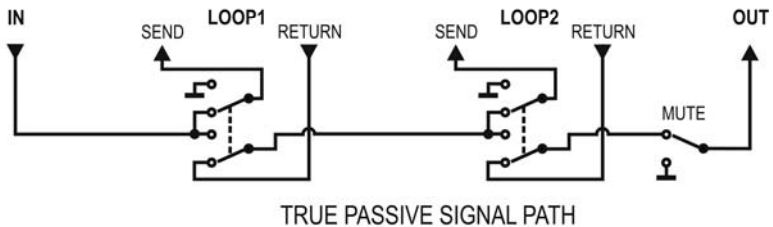
- 1 - MIDI channel settings switch
- 2 - DS1 micro switch
- 3 - DS2 micro switch
- 4 - Signal output connector
- 5 - LOOP 2 signal input (RETURN)
- 6 - LOOP 2 signal output (SEND)
- 7 - LOOP 1 signal input (RETURN)
- 8 - LOOP 1 signal output (SEND)
- 9 - Signal input connector
- 10 - Power supply connector
- 11 - MIDI input
- 12 - MIDI copy (THRU)



- 1 - Power supply indicator
- 2 - Loop 1 status indicator
- 3 - Loop 1 on/off button
- 4 - Loop 2 on/off button
- 5 - Loop 2 status indicator

Scheme and signal path description

M2L has true passive signal path (without signal boosting and buffering elements). Owing to this the M2L doesn't influence the guitar tone (doesn't change the tone and doesn't cut the signal). It is recommended to use the M2L to "exclude" from the effects' signal path the effects without true bypass function. Controlling by MIDI provide galvanic separation from controlling device. It is recommended to use 9V DC from separated source. Every time after switching on the power supply both effect loops are switched off and the signal path is "opened".



Manual loops switching

To manual loops switching there are used two buttons signed LOOP1 and LOOP2. To switch on/off the loop press corresponding button.

MIDI channel setting

To set the MIDI channel use the rotatable knob signed as MIDI CHANNEL. To switch the channel use the small screwdriver to turn smoothly central part of the switcher to the right or to the left. The arrow-head indicates set channel (letter A, B, C, D, E, F correspond successively with the channel numbers 10, 11, 12, 13, 14, 15, and number 0 indicates channel 16).

Controlling via MIDI commands

M2L can be controlled by Program Change commands. **DS1** micro switch serves to choose the digit in Program Change commands that should be considered by the M2L.

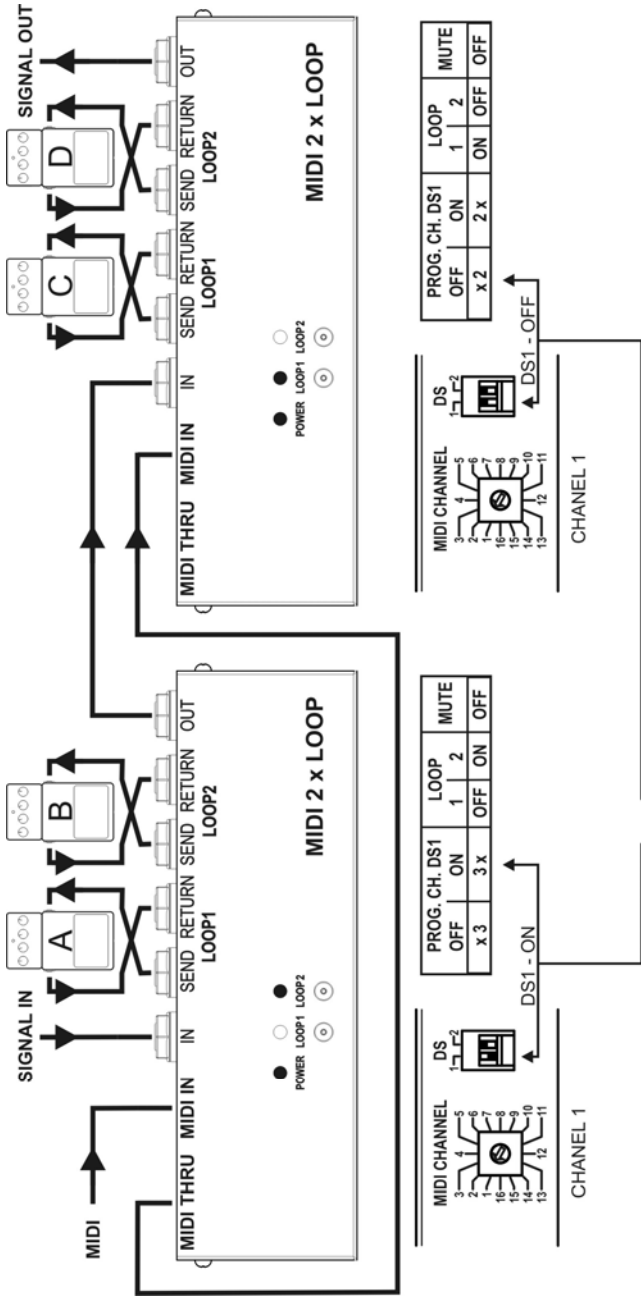
DS1=ON – received is the decimal digit of program number (units' digit is ignored)

DS1=OFF – received is the units' digit of program number (decimal digit is ignored)

The table below shows the Program Change command functionality.

PROGRAM CHANGE		LOOP		MUTE
DS1=OFF	DS1=ON	1	2	
x 1	1 x	OFF	OFF	OFF
x 2	2 x	ON	OFF	OFF
x 3	3 x	OFF	ON	OFF
x 4	4 x	ON	ON	OFF
100		ON	ON	ON
101		RESTORE		OFF
x – don't care (0÷9)				
Program Change true value = value -1				

Using the **DS1** micro switch enables controlling two M2L units by one Program Change command (see example below).



PROGRAM = 32 ACTIVE EFFECTS B and C

Scheme of connection in series of two M2Ls

M2L looper can be also controlled by single Control Change command or by separate controllers of the particular functions.

The tables below show functionality of Control Change commands depending from the **DS1** switch setting.

CONTROL CHANGE			
NUMBER		VALUE	
DS1=OFF	DS1=ON		
80	82	0 ÷ 63	LOOP1 OFF
		64 ÷ 127	LOOP1 ON
81	83	0 ÷ 63	LOOP2 OFF
		64 ÷ 127	LOOP2 ON
7		0	MUTE ON
		1 ÷ 127	MUTE OFF

CONTROL CHANGE				LOOP		MUTE
NUMBER	VALUE		1	2		
	DS1=OFF	DS1=ON				
85	x 1	1 x	OFF	OFF	OFF	
	x 2	2 x	ON	OFF	OFF	
	x 3	3 x	OFF	ON	OFF	
	x 4	4 x	ON	ON	OFF	
	100		ON	ON	ON	
	101		RESTORE	OFF		

DS2 ground lift switch

DS2 micro switch serves to connect controlling circuit ground to main signal ground. If the 9V power supply circuit is fully separated from any other groundings it is recommended to switch **DS2** to **ON** position.

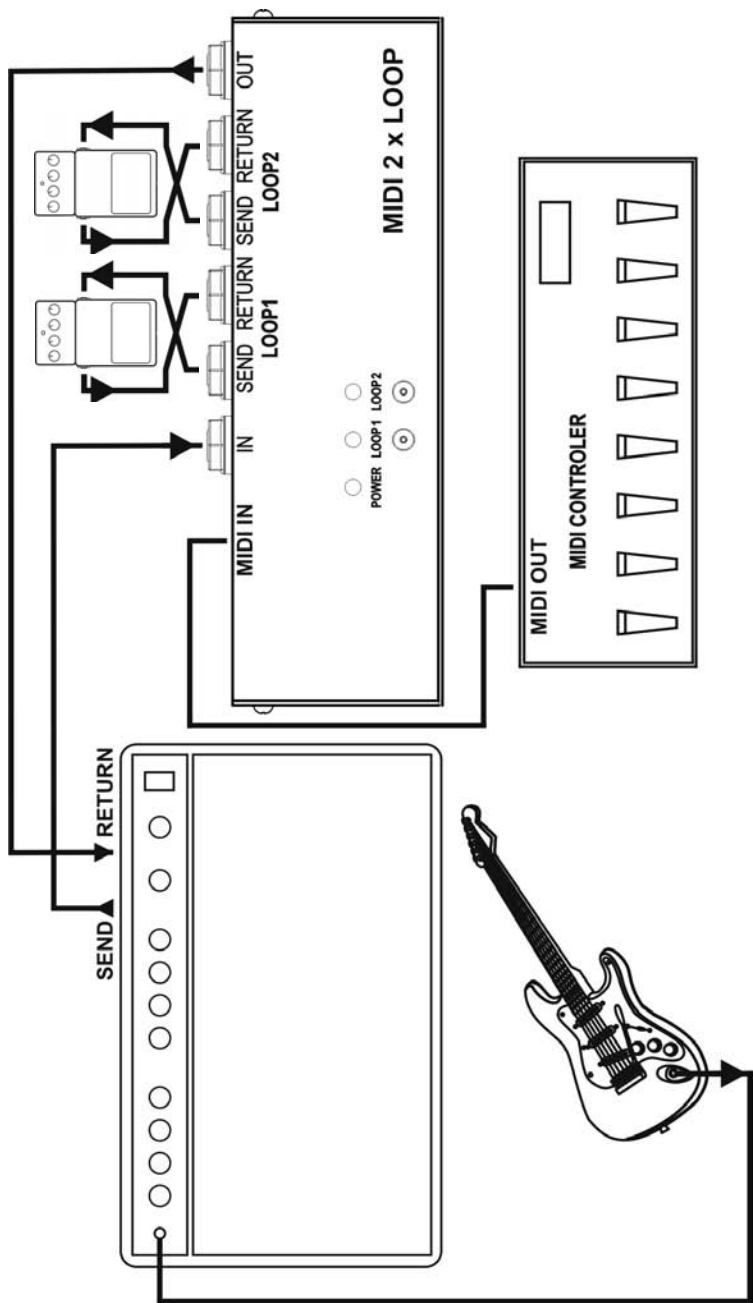
Power supply

M2L should be supplied from 9V (DC) external adaptor (efficiency 60 mA or more). Before plugging the power supply check the pin polarisation. M2L is protected against opposite polarity.

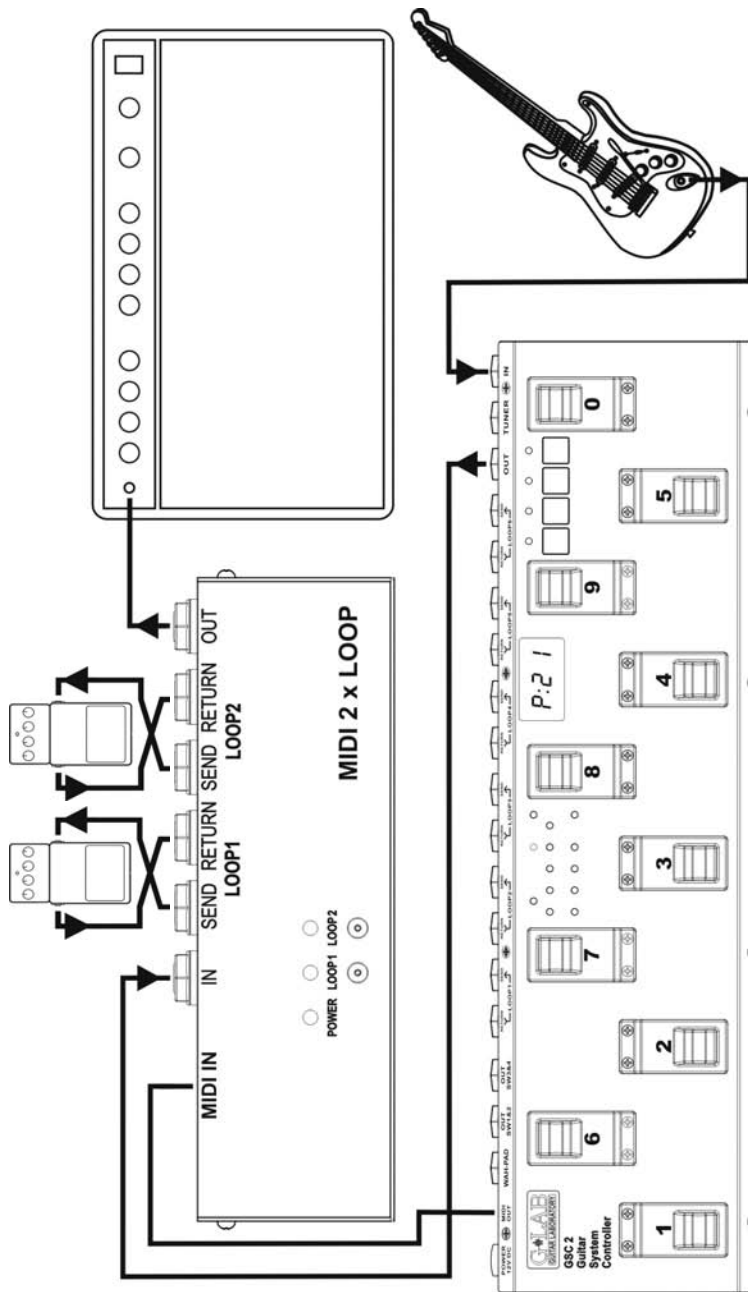
ATTENTION!: Damage of the M2L caused by improper power supply causes the loss of the warranty.

Possible using of the M2L

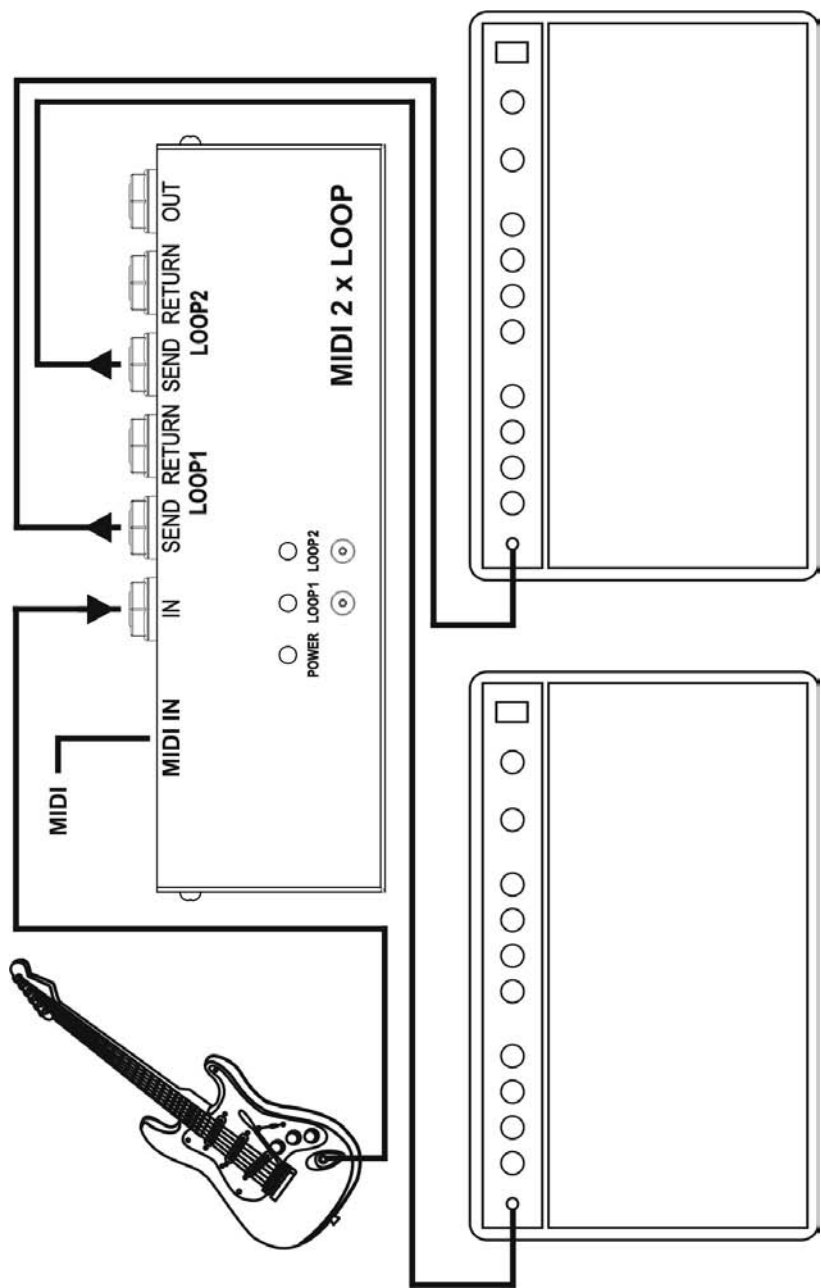
Below are shown the possible schemes of M2L connection with the guitar system.



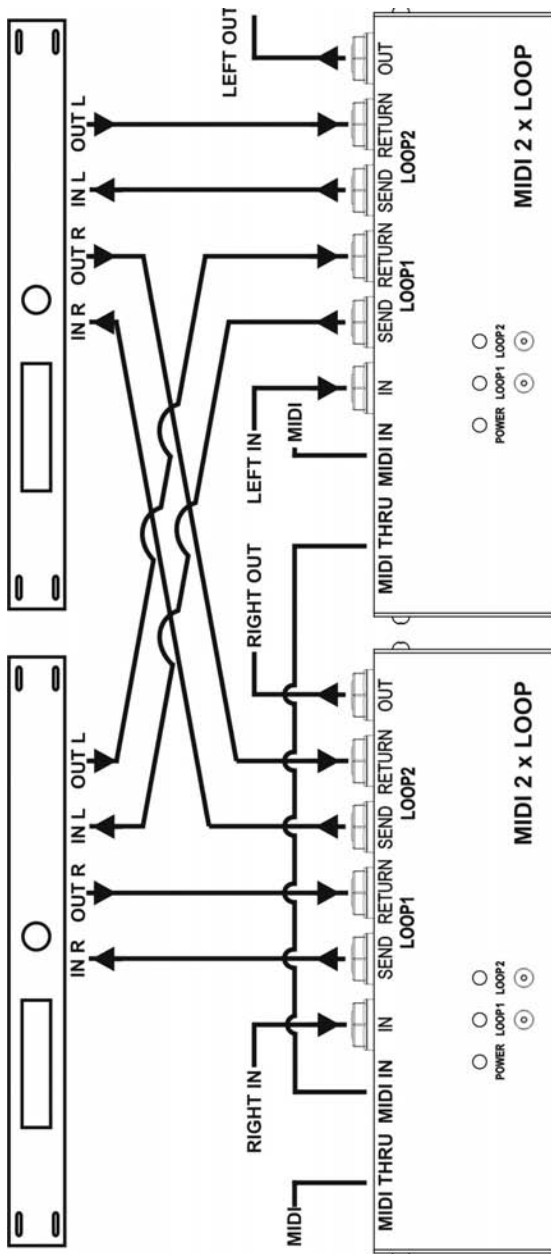
Scheme of M2L connection to the amp's effect loop



Scheme of extending GSC with two effect loops



A/B/Y switcher



Two stereo effects' switcher (TRUE BYPASS)

Parameters

Dimensions (depth x width x height)	205 x 70 x 38 mm
Weight	450 g
Maximal input signal	30 dBu
Power supply	9V DC (8,7 to 9,4V), 60 mA

MIDI implementation chart

G LAB MIDI 2xLOOP M2L rev. 1.04

17.11.2008

Function	Transmitted	Recognised
Basic Channel		
Default	X	1
Changed	X	1-16
Mode		
Default		
Messages	X	X
Altered		
Note Number	X	X
True Voice	X	X
Velocity		
Note ON	X	X
Note OFF	X	X
After Touch		
Keys	X	X
Channels	X	X
Pitch Bend	X	X
Control Change	X	7, 80-83,85
Prog Change	X	1-4,10-14,20-24,30-34,40-44,100-101
System Excl.	X	X
System Common		
Song Pos	X	X
Song Sel	X	X
Tune	X	X
System real time		
Clock	X	X
Commands	X	X
Aux Messages		
Local ON/OFF	X	X
All Notes OFF	X	X
Active Sense	X	X
Reset	X	X

X: NO

FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer for help.

Declaration of Conformity

ELZAB S.A., ul. Kruczkowskiego 39, 41-813 Zabrze, Poland,
declare under sole responsibility, that the following product:

G LAB/ MIDI 2 x LOOP (G LAB M2L)

conforms with requirements of the EC Council Directives:

- 2006/95/EEC Low Voltage Directive,
- 2004/108/EEC Electromagnetic Compatibility,

and holds CE mark. Above named product conforms with the following standards:

- PN-EN 60065:2004 /EN 60065:2002/ Audio, video and similar apparatus - Safety requirements.
- PN-EN 55103-1:2000 /EN 55103-1:1996/ Electromagnetic compatibility - Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use - Part 1: Emission
- PN-EN 55103-2:2001 /EN 55103-2:1996/ Electromagnetic compatibility - Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use - Part 2: Immunity

Jerzy Biernat

President of the ELZAB S.A. Board of Directors

Copy of original EC declaration of conformity is available for download on our website <http://www.glab.com.pl>



DO NOT PLACE THIS PRODUCT INTO THE WASTE CONTAINER !

This device is marked with a cross-lined waste container symbol according to 2002/96/EU Directive on Waste Electric and Electronic Equipment.

Such marking informs that after usage equipment can not be trashed together with other household waste.

An user obligation is to return wasted equipment to a party collecting wasted electric and electronic equipment. Parties collecting such equipment organise a system, including local collection points, shops and other units, allowing to return such equipment. This Directive assures an user free of charge utilisation of such delivered equipment.

This device is made of materials which can be recycled or utilised after becoming out of use. Proper handling of wasted electric and electronic equipment reduce demand for row materials and contribute in avoiding harmful consequences for environment and health of people caused by dangerous components and not proper storing and utilising of such equipment.



G LAB is a brand of ELZAB SA

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