THE TRIKO
ANALOG TRI-CHORUS
Programs & Midi Control

User's guide
Version 1.1 septembre 2015

Before starting

PLEASE READ CAREFULLY ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE. KEEP THIS INSTRUCTION SHEET FOR FURTHER REFERENCE. THE SAFETY INSTRUCTIONS MENTIONED IN THIS USER'S GUIDE CAN'T COVER ALL POSSIBLE CONDITIONS AND SITUATIONS. USERS SHOULD BE VERY CAREFUL WHEN USING THIS APPLIANCE.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

ATTENTION: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE

The above symbols warn the users of potential danger in case of misuse of electrical appliances. The thunderbolt in a triangle symbol shows that there is danger of electrocution. The exclamation point symbol shows that there are usage and safety measures which must be observed.

Do not open the appliance under any circumstances. Do not try to repair or to make any modifications (except when your users' guide gives you specific instructions to do so). Contact the manufacturer or your nearest reseller for all repairs or alterations.

When disposing of the appliance, contact a collection and recycling centre for electronic appliances.

INSTALLATION

THIS APPLIANCE MUST BE EARTHED.

Do not remove the protection offered by the polarised or earthed connectors.

A polarised plug has a pin larger than the other. An earthed plug has a receptacle for an equipotential connection. If the connector provided does not match your wall plug, have one installed by a qualified electrician.

Use only the power cord provided which should not be used with any other device.

Take good care of the power cord. Do not let it become twisted, do not walk on it and do not put other things on it. A damaged cord could cause electrocution or a fire!

Before using the appliance overseas, check with your reseller, an approved repair centre or the manufacturer for compatibility with the local standards.

Do not use or store the appliance in very hot (in direct sunlight, near heating devices) or humid conditions (bathrooms, floodable cellars etc.). Do not expose the appliance to rain, dust or strong vibrations.

Take care to always put the appliance on a flat and stable surface. Do not ever install it in unstable positions. Do not ever install the appliance on feet, supports or racks other than those indicated by the manufacturer. If using in a rack, avoid rocking it while moving it. Do not obstruct the ventilation holes.

Do not let any foreign objects (flammables, paper clips, pins etc.) or liquids (water, soda, alcohol, cleaning products) get inside the appliance.

If there is a risk of thunderstorms or if not using the product for a longer period of time, unplug the appliance from the wall.

This appliance, used alone, with an amplifier or with earphones, can produce sound levels which could provoke terminal loss of hearing. Never use it at high levels for long periods of time or in any circumstance where the listening could become uncomfortable. In case of loss of hearing, consult a specialist immediately.

Only use the accessories advised by the manufacturer.

IMPORTANT

Unplug immediately the appliance and contact your reseller, an authorised repair centre or the manufacturer in the following situations :

- The power cable or its plug have been damaged.
- Smoke or unusual odours come out of the appliance.
- Foreign objects or liquids have accidentally come in contact with the appliance.
- The appliance has been exposed to rain or excessive humidity.
- The appliance seems to not function properly or its performance is diminished.

The manufacturer legal warranty does not cover the costs of repairs or replacement in case of improper or incorrect use. These costs are not covered by the manufacturer warranty and therefore will be supported by the owner of the appliance.

Summary

Introduction

Thank you for choosing The Triko. We hope that you will be entirely satisfied with your choice.

We all imagine ethereal, stratospherical, totally unique strings sounds or warm and swirling notes of a simple guitar. All have something in common, the use of a chorus, often multiple (bi or tri). The Triko allows you to rediscover the magic of these enveloping sounds while also offering you the chance to discover yet unknown landscapes.

The basic principle is relatively simple. The original signal is practically delayed by a few milliseconds and then modulated by a slow signal. To create this effect, The Triko uses BBD (Bucket-Brigade Device): imagine that you are water porters, the first receives a water quantity which they pour in the second bucket, then the same happens between the second and the third and so on.
The water is recovered in the last bucket, less the drops that have been lost in the process. It is far from perfect, noisier than the best digital solutions, it needs input and output filters, but it sounds good ;)

By varying the delay, the amplitude of the modulation (amp), the modulation speed (rate), the original signal dosage (dry) and the delayed signal dosage (FX), slow tonal and amplitude modulations are obtained. The Triko combines three separate or synchronised chorus giving you the best effect. The optional FV-1 card, highly recommended, offers varied reverberations and echoes to finish sculpting your sound.

Do not hesitate to contact us on the www.baloran.com forum with your opinions and suggestions.

Synopsis
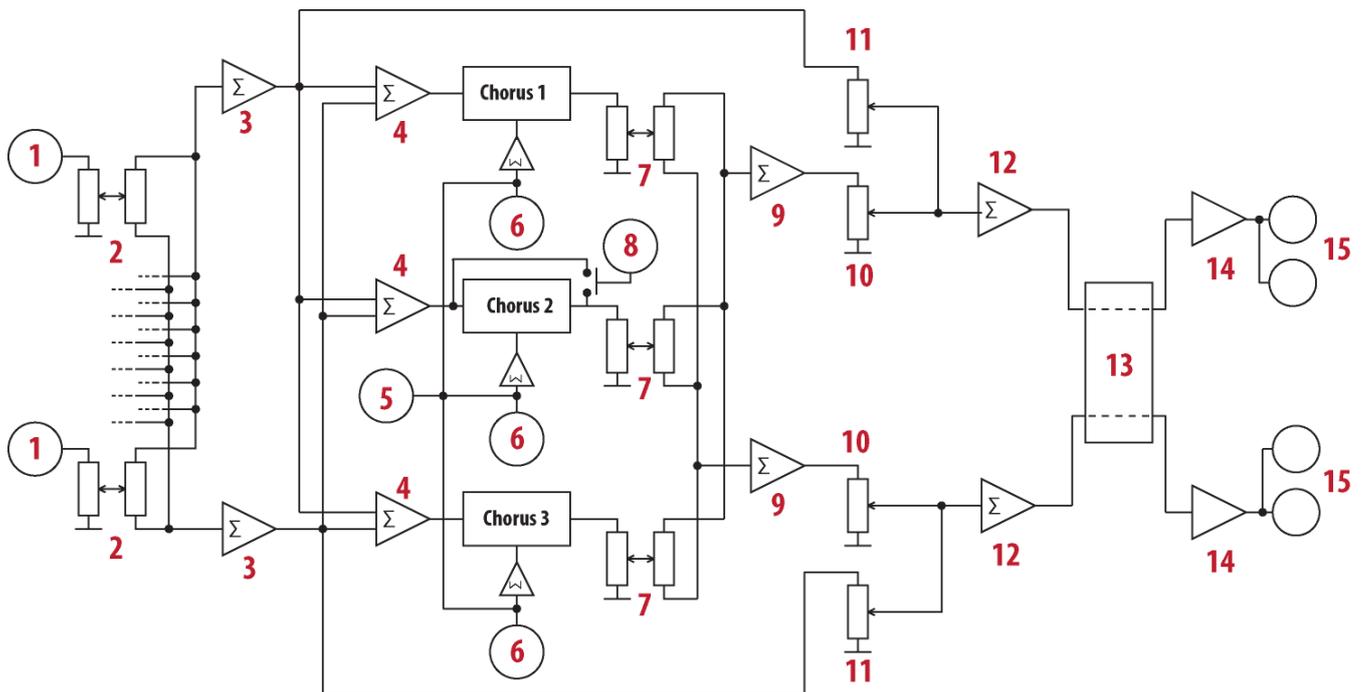
1	Inputs 1 to 8 TS 6.35
2	Volume and Balance controls for Inputs 1 to 8
3	L and R Input Summing.
4	Chorus Input Summing
5	Overmodulation LFO Added with each Chorus LFO
6	Individual LFOs for each Chorus
7	Chorus Output Volume and Balance controls
8	Chorus 2 Re-injection Switch (Flanger)
9	Summing Output L and R Adders
10	L and R Level Settings for Master FX (Chorus)
11	L and R Level Settings for Master Dry (Direct Signal)
12	L and R Summing of Master
13	Connector optional card
14	Output Signal Balun (Line Driver)
15	TRS 6.35 and XLR L and R Outputs

Front
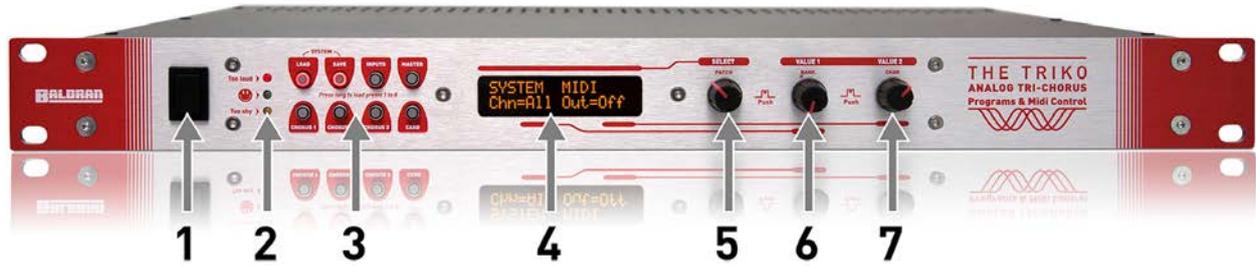
1   ON/OFF switch. In the OFF position, power consumption is zero.

2   Indicators of the intensity of input signal. The measured signal is the inputs mix injected to the three Chorus.

3   8 lit push buttons for accessing the settings.

4   2x16 LCD screen

5   SELECT encoder and push button

6   VALUE1 encoder and push button

7   VALUE2 encoder and push button

At both ends of the front are standard 19inch rack attachment holes.

Back

1   IEC power cord socket (included). Make sure that the cable is properly inserted and solidary with the socket.

2   Midi Out 5-pin DIN socket. This socket can be configured as Midi Thru in the System menu.

3   Midi In 5-pin DIN socket.

4   8 mono line inputs, 50 KOhms, 6.35mm asymmetrical TS jacks. In order to obtain the equivalent stereo inputs, assign 2 inputs, one with the balance all the way to the left, the other all the way to the right.

5   Low impedance stereo output, symmetrical / asymmetrical TS/TRS 6.35mm jacks. Right channel is indicated by a red screw.

6   Low impedance XLR symmetrical stereo output.
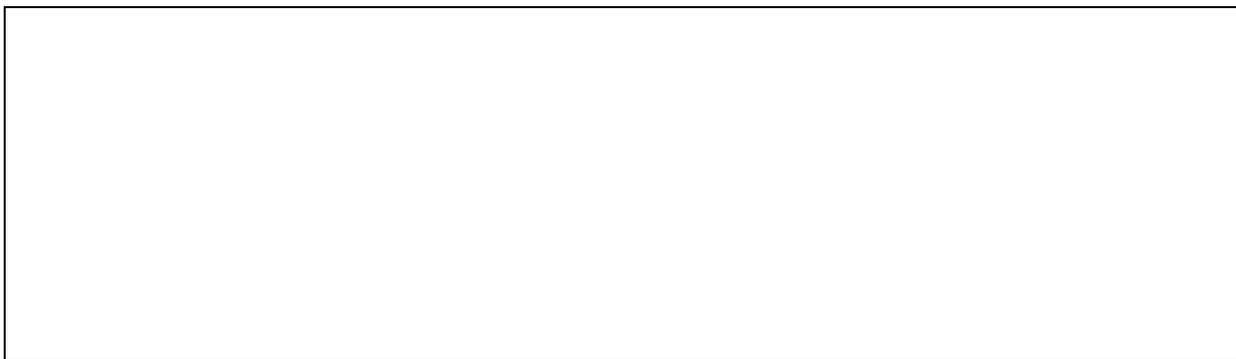
Connections

The Triko can be connected in different ways to an audio system.

Keyboards and Instruments Premixer

In this mode, the 8 inputs (4) receive mono or stereo signals from several keyboards and instruments. The damping and balance controls for each input allows to set the desired volume and to define the positioning of the instruments.

Set the instruments' output volume and the input damping so that the summation of input signals lights up the Smiley LED most of the time without lighting the Too Loud LED which indicates the strength of the LED input signal (2).

The chorus and effects of the optional card are applied to the instruments connected. The Master FX and DRY volume and Master and FX of the optional card allow to set the desired levels of the effects and/or the direct signal.

The mixing signal (5) or (6) is directed towards the stereo input of a mixing panel or an amplifier.

Send / Return / Console group

In this mode, the inputs receive the signals from groups or from effects outputs from your mixing console.

The optional card's Chorus and effects are applied to the connected channels. The optional card's controls of the FX volume and Master and FX DRY allow to set the desired levels of the effects and/or the direct signal.

If you use an optional card like FV-1 (Echo + Reverberation), FX and DRY mastering on The Triko is recommended. In this case, the output signal (outputs 5 or 6) is sent to the input of a stereo section of your mixing console.

If you don't use an optional card, leave the direct (DRY) volume at minimum, the FX volume at maximum and mix them together from your console. In this case, the output signal (outputs 5 or 6) is sent to the RETURN input of your mixing console.

Adding Chorus can change considerably the output volume. You will probably have to correct the input volumes of the other equipment or on The Triko by adjusting the input or master volumes so that they match the input volume on the connected equipment.

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Using The Triko

The Triko has 128 programs which remember the 8-channel premixer settings, the three Chorus settings , the Master settings and the optional card settings. An option in the System Menu (Mix = Prg / Glb) allows controlling the premixer independent of the programs.

Programs loading

Press once the LOAD button.

Select a program using the SELECT encoder. The chosen program is displayed on the screen.

If the Auto Load (Ald = On /Off) system option is active, the program is automatically loaded. If not, press one of the 3 encoders to load the program.

If the Mix Load (Mix = Prg / Glb) system option is active, the settings for Input section (premixer) included in the program are loaded. If not, the settings of the premixer are not affected by the program.

The SELECT encoder allows to scroll through the 128 programs. The VALUE1 encoder allows direct access to one of 16 archives. The number of the active archive is displayed on the top right corner of your screen, for example: BNK=4.

> Programs 1 to 8 of archive 1 can be called directly by pressing more than half a second on one of 8 lit push buttons. These 8 slots would be best suited to store your most important programs.

Programs editing

When you select a program, you might want to personalise it. All the parameters will be described in detail further on in this guide in the chapter Sections. Each section has a dedicated lit button. Simply press the corresponding button to get access to a section.

- Inputs: Volume and balance controls for the 8 inputs.
- Master: Volume and balance of the summation effects, volume and balance of non-modified signal (DRY), rate and speed of the global over-modulation, destination source and dynamic modulation rate.
- Chorus 1: Volume and balance of Chorus 1, waveform and modulation speed, delay and modulation rate.
- Chorus 2: Volume and balance of Chorus 2, waveform and modulation speed, delay
- and modulation rate.
- Chorus 3: Volume and balance of Chorus 3, waveform and modulation speed, delay and modulation rate.
- Card: Volume and balance of the effects of the optional card, type of effect and filter, delay and reinjection, waveform and modulation speed, modulation rate and specific parameter.

In each section, the SELECT encoder allows to select a couple of values, VALUE1 and VALUE2 encoders allow to modify the corresponding parameter. The front panel design emphasizes the link between the displayed value and its modification encoder.

It is not necessary to press on the encoders to change the values.

Press in quick succession on a lit push button to access directly the desired setting. For example:

- Press quickly twice on the Master push button to access the DRY signal volume / balance.
- Press quickly three times on the push button Chorus 2 to access the delay / amplitude of this Chorus.

Chorus 1 and 3 can be synchronised with Chorus 2. To do this, select CH2 as waveform (**Wav**) for the Chorus to be synchronised. In this case the modulation rate (**Rat**) regulates the phase difference compared to the Chorus 2 modulation signal.

Synchronisation is only possible if Chorus 2 uses a sinusoidal, triangular or square modulation signal.

When a Chorus is synchronised with Chorus 2, the two following parameters are inactive being substituted by those of Chorus 2: Delay (**Dly**) and Modulation Amplitude (**Amp**).

This synchronisation function brings the Tri-Chorus performance close to perfection. For best result, set Chorus 1 and 3 in sink with Chorus 2 and Chorus 1 phase difference (**Rat**) at 120°, Chorus 3 phase difference at 240°. Set the Chorus 2 modulation waveform to Sinus, its speed (**Rat**) and amplitude (**Amp**) according to your desire. Don't forget the positioning of each Chorus (**Pan**) and you will have a wonderful spatial resolution.

Programs recording

Press the button SAVE once.

Select the slot for recording using the encoders SELECT (slot) and VALUE1 (archive).

Press one of the three encoders to switch to Name Editing mode. The screen displays: NAME?

VALUE1 encoder allows to select the character you wish to change.

VALUE2 encoder allows to change the character.

After changing the name, press one of the three encoders to confirm the recording. Consequently The Triko returns to LOAD mode.

Volume and balance controls

In each section of The Triko, like for each of the 8 inputs, you can set the volume and the balance. Each of these controls uses a digital potentiometer (digipot) that could be imagined as a gradual attenuator of resistors with a digital switch. These controls are not "continuous" like an analogue command but the resolution remains suited to their functions.

The volume control goes from OFF (attenuation = -90dB) to +10 (no attenuation) in 34 steps. The digital scale is conform to a scale in dB.

The balance control goes from 16< .. 0.. >16, or 32 steps.

You can hear a "click-click" sound in the output signal when you perform "continuous" rotations on these commands.

Setting Input Level

The 100% analogue signal path in The Triko and the use of BBD delaying lines require to adjust the input volume for optimal signal / noise ratio. To help you with this, a three LED display shows continuously the input signal level.

- Too Shy: a signal is present but its volume is weak. You can decrease the damping of the corresponding input. If this is at minimum (+10), try to increase the output level of the source (volume of an instrument, of the console group, etc.).
- (Smiley): a signal is present and its level is satisfactory. If the volume of the corresponding path is very attenuated (display value < 0), you can try to decrease the output volume of the source and to decrease the damping of the input in order to improve the signal / noise ratio.
- Too Loud: a signal is present, its volume is too high. Saturation will be or already is obvious. Increase the damping of the corresponding input or decrease the volume of the source signal. If the Too Loud indicator lights up only from time to time, its volume can be considered as satisfactory

System Menu

Press simultaneous on the lit push buttons LOAD and SAVE.

The SELECT encoder allows you to choose:

- Midi channel controls and the functioning mode of the Midi Out plug (Out/Thru).
- Saving your programs via Midi Sysex.
- Updating of The Triko. The Triko uses two processors. Updating is therefore split in two: update of the command panel and update of the main card.
- Resetting The Triko. This function does not restore the factory settings. To do this you have to reload via Midi Sysex the factory archive, available to download on the website http://www.baloran.com.

Bypass function

This command allows to switch The Triko in Bypass mode. All the effects, chorus and optional card are desactivated.

Press simultaneously on the lit push buttons Chorus 3 and Card. Initialisation of the Bypass mode will be displayed on the screen.

This function is very useful for quickly evaluating the quality of a program, its influence on the tonality and its adaptation to the mix. It allows you to appreciate The Triko's contribution to your sound sources. To exit this mode, push on any of the lit push buttons.

Sections

Load

LOAD	**BNK=1**
04> Old Space	

Loading of a program.

(see Using The Triko / Loading a program)

Save

SAVE	**BNK=1**
04> Old Space	

Recording of a program.

(see Using The Triko / Recording a program)

NAME ?	**BNK=1**
04> Old Space	

Naming a program.

(see Using The Triko / Recording a program)

Input

INPUT	**CHAN x**
Vol=+4	**Pan=< >**

Controlling damping and balance of inputs 1 to 8

(see Using The Triko / Volume and Balance controls and Input Level Controls)

Master

MASTER	**FX**
Vol=+10	**Pan= 2<**

Controlling the volume / balance of the summation of the three Chorus

(see Using The Triko / Volume and balance controls & Connections)

Vol sets the damping of the summation of the three Chorus and **Pan** the balance of this signal.

MASTER	**DRY**
Vol=+8	**Pan= >2**

Controlling the volume / balance of the direct signal.

(see Using The Triko / Volume and Balance controls & Connections)

Vol sets the damping and **Pan** the balance of this signal.

MASTER	**S-MOD**
Rat=120	**Amp=53**

Controlling of the over-modulation S-MOD

This parameter allows to add a sinusoidal signal to the modulation of each Chorus. **Rat** sets the speed (0..360) and **Amp** (0..100) sets the amplitude of this modulation. This allows to obtain modulations close to a legendary Tri Chorus.

```
MASTER        D-MOD

Mod=Lev       Amp=25
```

Controlling of the destination and amplitude of the dynamic modulation

The Triko allows to modulate some parameters through the information of a source: envelope of the entry signal, Midi velocity, Midi knob or Midi Aftertouch Channel. MOD allows to select the destination of this modulation:

- Non = (None) None
- Amp = (Amp) Volume of modulation (+ eventual over-modulation) of Choruses
- Rat = (Rate) Speed of Chorus modulation
- Bth = (Both) Volume and speed of the Chorus modulation
- Fx = (Effect) Volume of the master effect (summation of Choruses)
- Dry = (Dry) Volume of master direct signal
- CFi = (Card Filter) Volume of filter of optional card
- Cde = (Card Delay) Delay of optional card
- CFb = (Card Feedback) Volume of filter of optional card
- CRa = (Card Rate) Speed of modulation of optional card
- CMo = (Card Modulation) Amplitude of modulation of optional card
- CHp = (Card Head/Param) Specific parameters of optional card
- CLv = (Card Level) Volume of the effect of optional card
- Amp (0..100) sets the amplitude of the dynamic modulation.

Amp (0..100) règle l'amplitude de la modulation dynamique.


```
MASTER        D-SRC

Src=Aud
```

Setting the source of dynamic modulation source.

Src allows to choose the source of dynamic modulation.

- Aud = (Audio) Envelope of input signal
- Vel = (Velocity) Velocity of the last Midi note
- MWh = (Mod Wheel) Knob of Midi modulation (CC1)
- Aft = (Aftertouch) Midi Channel Aftertouch
- CC4 = Midi Control Change 4 (Foot)
- CC7 = Midi Control Change 7 (Volume)
- C11 = Midi Control Change 11 (Expression)

Chorus 1, 2 and 3

```
CHOR.n        OUTPUT

Vol=+10       Pan= 2<
```

Control of volume and balance of Chorus "n".

(see Use / Controls of volume and balance)

Vol sets the damping of the summation of Chorus "n" and **Pan** the balance of this signal.

CHOR.n	**WAVE**
Wav=Sin	**Rat=40**

Control of the waveform and of the speed of Chorus modulation « n ».

Wav sets the waveform of the signal which modulates the delay of the Chorus « n »

- Non = (None) No modulation
- Sin = (Sinus) Sinusoid
- Tri = (Triangle) Triangle
- Squ = (Square) Square
- S&H = (Sample & Hold) Random samples
- Rnd = (Random) Random modulation
- Tap = (Tape) Simulation of speed variation of a Tape Echo. For greater realism, this last modulation has been recorded from a Tape Echo.
- CH2 = Synchronisation of Chorus "n" with Chorus 2. This option is available only for Chorus 2 and 3.

Rat (0..360) sets the modulation speed. If **Wav**=CH2, ie this Chorus is synchronised with Chorus 2, this parameter sets the incremental phase difference of the modulation of this chorus compared with Chorus 2.

CHOR.n	**EFFECT**
Dly=120	**Amp=53**

Control of delay of the line and of the amplitude of its modulation.

Dly (0..200) sets the delay of the Chorus to "n" and **Amp** (0..100) sets the amplitude of the modulation. If **Wav**=CH2, ie this Chorus is synchronised with Chorus 2, these two parameters are inactive because they are substitued by those of Chorus 2. The delay setting is approximatively between 2ms (0) and 25ms (200). The amplitude of modulation is corrected so that the delay setting associated with the modulation setting remains at best in the control band.

CHOR.2	**FLANG**
Fla=Off	

Feedback activation (Flanger Effect).

This option is accessible only for Chorus 2. If **Fla** is **On**, the output signal is partially re-injected in its input. This way you obtain the specific sound of the Flanger effect. The modulation amplitude and speed should be chosen carefully in order to obtain the most musical effect. Adding Chorus 1 and 3 as support in this mode will make the result more interesting.

Card

EXCARD	**OUTPUT**
Vol=+10	**Pan= < >**

Control of volume / balance of optional card effects.

(see Use / Control of volume and balance)

Vol sets the damping of the processed signal of the optional card and **Pan** sets the balance of this signal. The direct signal (Dry) volume of optional card FV-1 can't be changed.

EXCARD	TYPE
Typ=TAP	Flt=35

Select the type of effect and setting of the low-pass filter.

List of abbreviated types explained

Type (0..7) set the type of effect:

- TAP = Tape Echo
- PPG = Echo Ping Pong
- ECH = Clean Echo
- GAT = Reverberation "Gate"
- PLA = Reverberation "Plate"
- SHL = Reverberation "Small Hall"
- LHL = Reverberation "Hall"
- BAL = Reverberation "Baloran"

Flt (0..63) sets the frequency of the low-pass filter applied to the input signal. This allows muting the repetitions or reflections. An invaluable setting!

EXCARD	EFFECT
Dly=76	Rep=-12

Control of delay and re-injection.

Dly (0..200) sets the delay of the effect for the echoes as well as for reverberations. **Rep** (Off..+10) sets the volume sets the effect delay for the echoes as well as for reverberations. **Rep** (Off..+10) sets the output re-injection level over the delay input. For echoes, **Rep** sets the number of repetitions up to the specific auto-oscillation encountered in the tape echo chambers. For the reverberations the **Rep** control is only useful only near auto-oscillation.

EXCARD	WAVE
Wav=Sin	Rat= 10

Control of the waveform and of the delay modulation speed.

Wav sets the signal waveform which modulates in turn the effect delay.

- Non = (None) No modulation
- Sin = (Sinus) Sinusoid
- Tri = (tRIANGLE) tRIANGLE
- Squ = (Square) Square
- S&H = (Sample & Hold) Random samples
- Rnd = (Random) Random modulation
- Tap = (Tape) Simulation of speed variation of a Tape Echo. For greater realism the last modulation has been recorded from a Tape Echo.

Rat (0..360) sets the modulation speed. Fast modulation cannot be heard on reverberations. For a good simulation of the wow of a Tape Echo set **Wav** on « Tap », **Rat** at 12-15 and **Mod** at 8-10.

CARD	OTHER
Mod=27	H/P=+2

Sets the amplitude of the modulation and of a specific parameter of the effect.

Mod (0..100) sets the amplitude of the modulation. **H/P** (Off..+10) sets the specific parameter of the effect type:

- FV-1 Echo = Volume of the second play head.
- FV-1 Reverberation = Reverberation pre-delay

SYSTEM	MIDI
Ch=All	Out=Out

Control for the Midi channel and for the working mode of Midi Out socket.

Ch sets the Midi channel on The Triko. Select ALL to accept all channels. Otherwise select a value between 1 and 16. The channel is used for dynamic information (see section Master) and for driving the Midi through The Triko (Control Change, Program Change, NRPN).

Out sets the working mode of the MIDI OUT socket.

- OUT = The MIDI OUT socket is used only for the Dumps SysEx (saving of The Triko)
- THR = The MIDI OUT socket behaves like a MIDI THRU socket. All the MIDI IN messages are copied on MIDI OUT.

SYSTEM	USER
Ald=Off	Mix=Prg

Control of AutoLoad and Mixer Load options.

(See Using The Triko / Downloading programs)

Ald (Auto Load) allows to choose if you want to immediately load the program at each selected insertion location. If **Ald**= « Off » you have to press one of the encoders to load the program.

Mix (Mixer Load) allows you to choose if you want to load the controls for the Input section included in a program. If **Mix**= « Glb » (Global) the mixer controls do not change if changing the program.

SYSTEM	TOOLS
Fnt=Updt. Panel	

Execute system commands.

Use the VALUE1 encoder to select a command then press the encoder to execute it.

- Send Current   = a SysEx dump of the active program is sent to the MIDI OUT socket.
- Send All   = a SysEx dump of the 128 programs of The Triko is sent to the MIDI OUT socket.
- Updt. Main   = The Triko switches to Firmware update of the Main card. Follow the instructions sent in the firmware update file.
- Updt. Panel   = The Triko switches to Firmware update of the Panel card. Follow the instructions sent in the firmware update file.
- Reset All   = All controls of The Triko are reset to factory settings. This does not restore the factory programs.

SYSTEM	CARD
Ext=Echo FV-1	

Selects the optional card

Use the VALUE1 encoder to select a command then press the encoder to execute it.

- None   = No optional card.
- Echo 2399   = An Echo 2399 card is installed in The Triko (not available).
- Echo FV-1   = An Echo FV-1 card is installed in The Triko.

Optional card

Inserting a optional card

Instructions to install a daughter card will be provided with the card or by downloading from the website http://www.baloran.com

The FV-1 card

With a highly performant as well as very musical digital core and its analogue routing, the FV-1 card brings two important main functionalities to The Triko:

The echo

With the FV-1 we have succeeded to generate algorithms and modulations very close to those of a venerated tape echo (Space Echo): the Tape modulation is a real recording of the wow of its model. Thanks to the controls of the amplitude and speed of modulation you can simulate tape echoes which resemble perfectly those coming from a tired cabestan :D

The reinjection allows to go up to and even beyond auto-oscillation.

In mode 0 filtering is introduced over repetition to take it closer to the tone modification of its illustrious model. A second virtual play head with a delay set at half of the main head gives a reacher finish to this emulation.

Other modes available are the "Ping Pong" mode and the "Clean" mode.

Reverberations

We did not aim to offer the most beautiful and the most 2 ensembles of reverberations. We can't do it ;) We have chose instead to work on the ergonomy, the musicality and the originality of the reverberations produced: filtering, modulation, reinjection and pre-delay allow to explore universes of original reverberations with simplified controls.

FV-1 does not allow to have the two functionalities simultaneously.

MIDI interface

Using the MIDI interface

The Triko has the benefit of a complete MIDI specification which offers the following functions:

Saving The Triko programs

The Triko allows to send through MIDI OUT a dump of the current program or of all programs.

Loading a backed-up version through SysEx

Using a suitable program you can send to The Triko at any moment a SysEx dump to restore a previous version. The Triko will let you know that it receives SysEx data.

Program changing through MIDI Program Change

The Triko receives Program Change messages and automatically loads the corresponding program.

Full control of The Triko through MIDI Control Change

In the next chapter you will find a table of all the MIDI commands of The Triko. This will show you how to easily adapt your master keyboard, your MIDI hardware controller (surface, pedal, etc.) or your software environment in order to control The Triko.
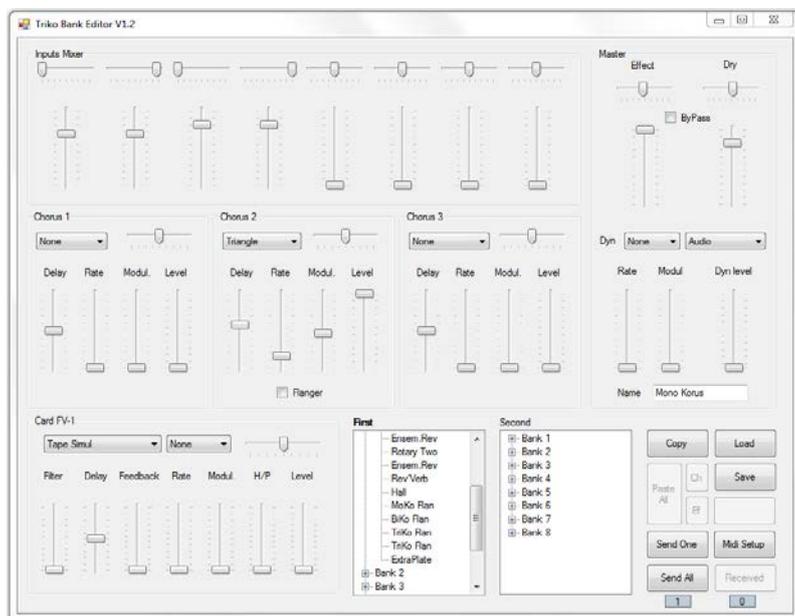
An archive editor / manager (only for OS Windows 7, 8, 10 + NET 4.0 at present) is available on the editor website.

MIDI specifications

Parameters	CC	CC (Hex)	Range	NRPN	Range	Example (decimal format)
Input Level 1..8	16..23	10..17	0..33			176, 16, [Value]
Input Panoramique 1..8	24..31	18..1F	0..32			176, 24, [Value]
FX Level	40	28	0..33			176, 40, [Value]
FX Panoramique	41	29	0..32			176, 41, [Value]
Dry Level	42	2A	0..33			176, 42, [Value]
Dry Panoramique	43	2B	0..32			176, 43, [Value]
Master Modulation Rate	44	2C	0..360/3	44	0..360	176, 44, [Value/3] ou 176, 99, 0, 176, 98, 44, 176, 6, [Value/128], 176, 38, [Value Modulo 128]
Master Modulation Depth	45	2D	0..100			176, 45, [Value]
Dyn Mode	46	2E	0..13			176, 46, [Value]
Dyn Level	47	2F	0..64			176, 47, [Value]
Dyn Source	48	30	0..6			176, 48, [Value]
Chorus 1 Level	50	32	0..33			176, 50, [Value]
Chorus 1 Panoramique	51	33	0..32			176, 51, [Value]
Chorus 1 Onde	52	34	0..7			176, 52, [Value]
Chorus 1 Rate / Phase	53	35	0..360/3	53	0..360	176, 53, [Value/3] ou 176, 99, 0, 176, 98, 53, 176, 6, [Value/128], 176, 38, [Value Modulo 128]
Chorus 1 Delay	54	36	0..200/2	54	0..200	176, 54, [Value/2] ou 176, 99, 0, 176, 98, 54, 176, 6, [Value/128], 176, 38, [Value Modulo 128]
Chorus 1 Modulation Depth	55	37	0..100			176, 55, [Value]
Chorus 2 Level	57	39	0..33			176, 57, [Value]
Chorus 2 Panoramique	58	3A	0..32			176, 58, [Value]
Chorus 2 Onde	59	3B	0..6			176, 59, [Value]
Chorus 2 Rate	60	3C	0..360/3	60	0..360	176, 60, [Value/3] ou 176, 99, 0, 176, 98, 60, 176, 6, [Value/128], 176, 38, [Value Modulo 128]
Chorus 2 Delay	61	3D	0..200/2	61	0..200	176, 61, [Value/2] ou 176, 99, 0, 176, 98, 61, 176, 6, [Value/128], 176, 38, [Value Modulo 128]
Chorus 2 Modulation Depth	62	3E	0..100			176, 62, [Value]
Chorus 2 Flange	63	3F	0..1			176, 63, [Value]
Chorus 3 Level	65	41	0..33			176, 65, [Value]
Chorus 3 Panoramique	66	42	0..32			176, 66, [Value]
Chorus 3 Onde	67	43	0..7			176, 67, [Value]
Chorus 3 Rate / Phase	68	44	0..360/3	68	0..360	176, 68, [Value/3] ou 176, 99, 0, 176, 98, 68, 176, 6, [Value/128], 176, 38, [Value Modulo 128]
Chorus 3 Delay	69	45	0..200/2	69	0..200	176, 69, [Value/2] ou 176, 99, 0, 176, 98, 69, 176, 6, [Value/128], 176, 38, [Value Modulo 128]
Chorus 3 Modulation Depth	70	46	0..100			176, 70, [Value]
Card Level	72	48	0..33			176, 72, [Value]
Card Panoramique	73	49	0..32			176, 73, [Value]
Card Type	74	4A	0..7			176, 74, [Value]
Card Filter	75	4B	0..64			176, 75, [Value]
Card Delay	76	4C	0..200/2	76	0..200	176, 76, [Value/2] ou 176, 99, 0, 176, 98, 76, 176, 6, [Value/128], 176, 38,

						[Value Modulo 128]
Card Feedback	77	4D	0..33			176, 77, [Value]
Card Onde	78	4E	0..6			176, 78, [Value]
Card Rate	79	4F	0..360/3	79	0..360	176, 79, [Value/3] ou 176, 99, 0, 176, 98, 79, 176, 6, [Value/128], 176, 38, [Value Modulo 128]
Card Modulation Depth	80	50	0..100			176, 80, [Value]
Card Param (Head/Predelay)	81	51	0..33			176, 81, [Value]
Bypass	86	56	0..1			176, 86, [Value]

Legal declaration

Laurent Lecatelier, BALORAN SAS representative, 19 rue François Galvaire, 62660 BEUVRY, France declares that the following product: The Triko, Tri-Chorus analogue is conform to this certificate and corresponds to the European regulations concerning the following directives :

2004/108/CE, 2006/95/CE, 2009/95/CE, 2014/30/UE et 2014/35/UE

We declare also that the MeanWell© PT45-B power supply conforms to the directives UP / TUV / CB / EMC /CE , the certificates being available on the manufacturer website:

Low Voltage Directive (73/23/EEC, 93/68/EEC)

EN60950-1 : 2001 Certificat TUV : R9754834

Electromagnetic Compatibility Directive (89/336/EEC)

EN55022, EN61000-3-3, EN61000-3-2, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-1, ENV50204

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