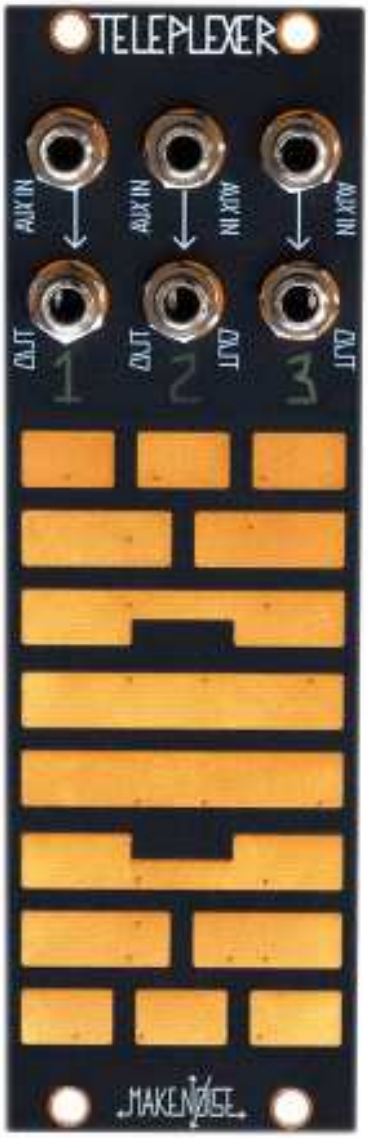
TELEPLEXER



MAKE NOISE

Limited WARRANTY:
Make Noise warrants this product to be free of defects in materials or construction for a period of one year from the date of purchase (proof of purchase/invoice required).

Malfunction resulting from wrong power supply voltages, backwards power cable connection, abuse of the product or any other causes determined by Make Noise to be the fault of the user are not covered by this warranty, and normal service rates will apply.

During the warranty period, any defective products will be repaired or replaced, at the option of Make Noise, on a return-to-Make Noise basis, with the customer paying the transit cost to Make Noise.
Please contact Make Noise for Return To Manufacturer Authorization.

Make Noise implies and accepts no responsibility for harm to person or apparatus caused through operation of this product.

Never apply to the TELEPLEXER signals from outside the system in which the TELEPLEXER is installed. Using signals from outside the modular system where the TELEPLEXER is installed will void this warranty.

Please contact technical@makenoisemusic.com with any questions, needs & comments, otherwise...
go MAKE NOISE.

http://www.makenoisemusic.com

Thank you
Design Assistant: Matthew Sherwood
Beta Analysts: Walker Farrell, Joe Moresi, and Pete Speer.
Test Subjects: Richard Devine and Surachai

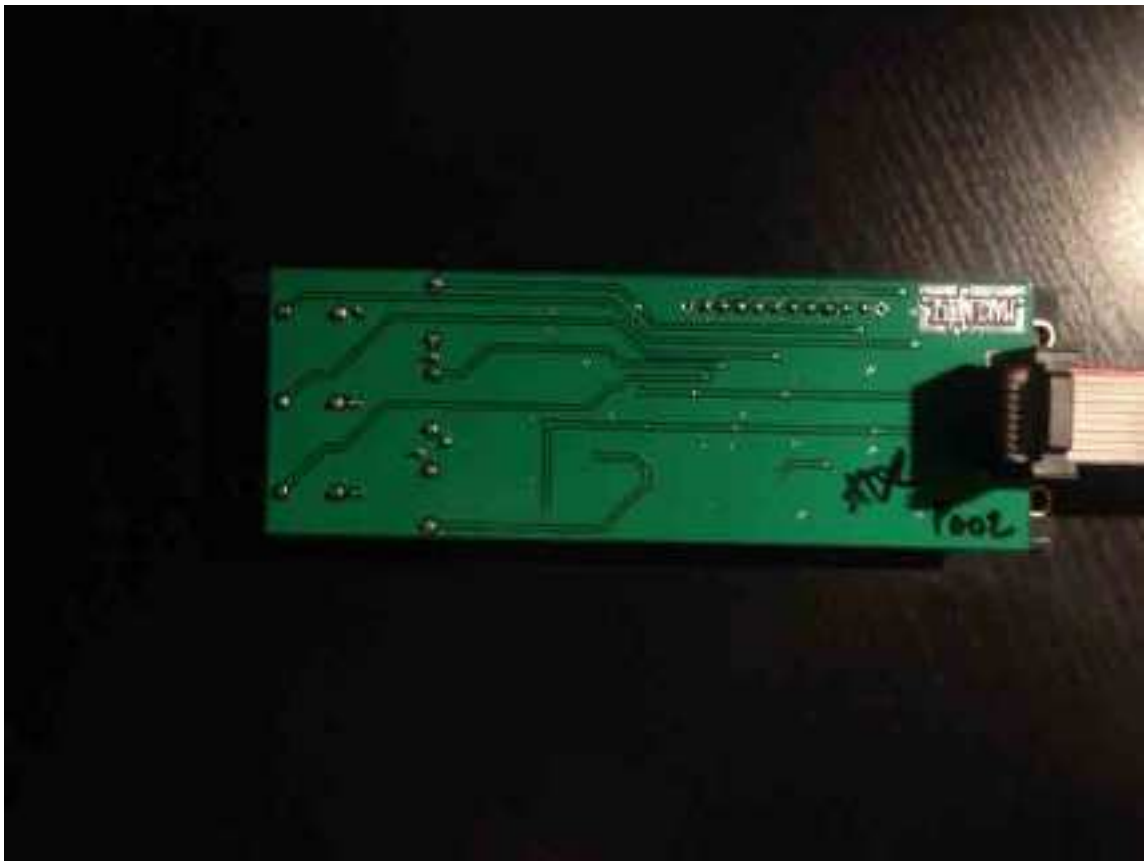
Installation:

The Make Noise Teleplexer is an electronic signal router requiring 20mA of +12V and 20ma of -12V regulated power and properly formatted distribution receptacle to operate. It is designed to be used within the euro format modular synthesizer system.

Go to http://www.doepfer.de/a100_man/a100t_e.htm for the details of this format.

To install, find 8HP of space in your euro-rack synthesizer system, confirm proper installation of included power cable on backside of module (see picture below), plug the 16pin end power cable into the euro-rack style power distribution board, minding the polarity so that the RED stripe on the cable is oriented to the NEGATIVE 12 volt supply line. This is USUALLY at the bottom.

Please refer to your case manufacturers' specifications for location of the negative supply.



Proper installation of included power cable on module.
Please note the RED BAND.

Overview:

The Teleplexer is a telegraph style multiplexer.

You likely know what a telegraph is, but have you considered the musical value of the telegraph? As the building blocks of synthesis are a by-product of communications technologies, why not look to telegraphy for inspiration? The speed and agility telegraph operators displayed relaying life-altering messages across the world was staggering toward some form of future musical genius.

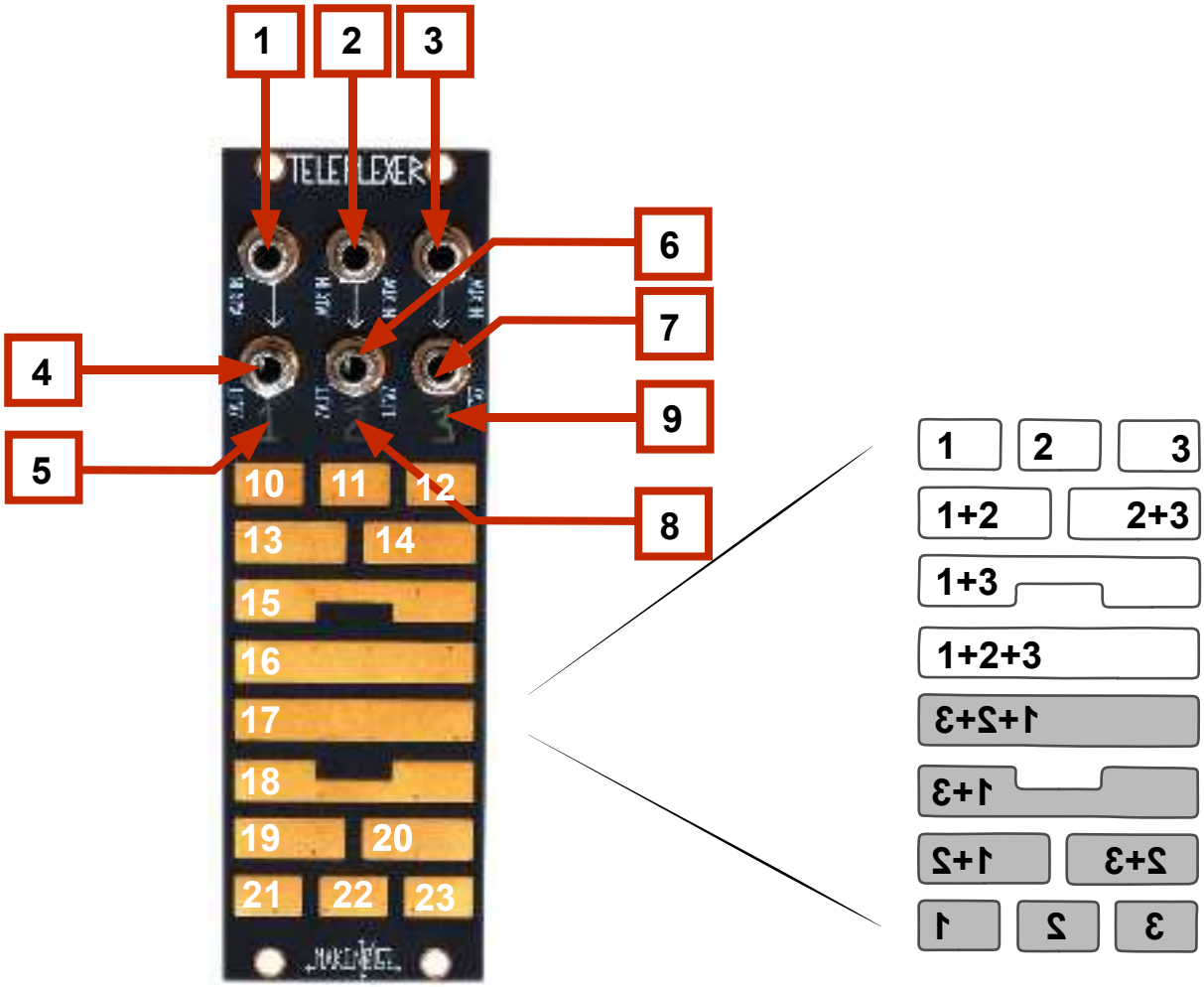
In musical applications a multiplexer is type of signal router. It allows for any one of several signal inputs to be routed to a single signal output. It is useful for switching quickly between multiple modulation or audio sources in a patch.

The Teleplexer applies the fast, physically immediate techniques of telegraphy to playing the modular synthesizer. The user patches any number of Source Cables and then touches them to the surface of the Teleplexer to create patch connection. The user determines the destination(s) and polarity of signal by touching the Source Cable to any one of the 14 metal plates.

The Teleplexer is designed to inspire you to explore modulation schemes, spontaneous timbral shifts and to be physically involved with the modulation process. Although the primary purpose of the Teleplexer is to allow for complex, momentary modulations, it may also be used for jumbling multiple audio signals together at the whim of the user or creating polyrhythmic timing variations.

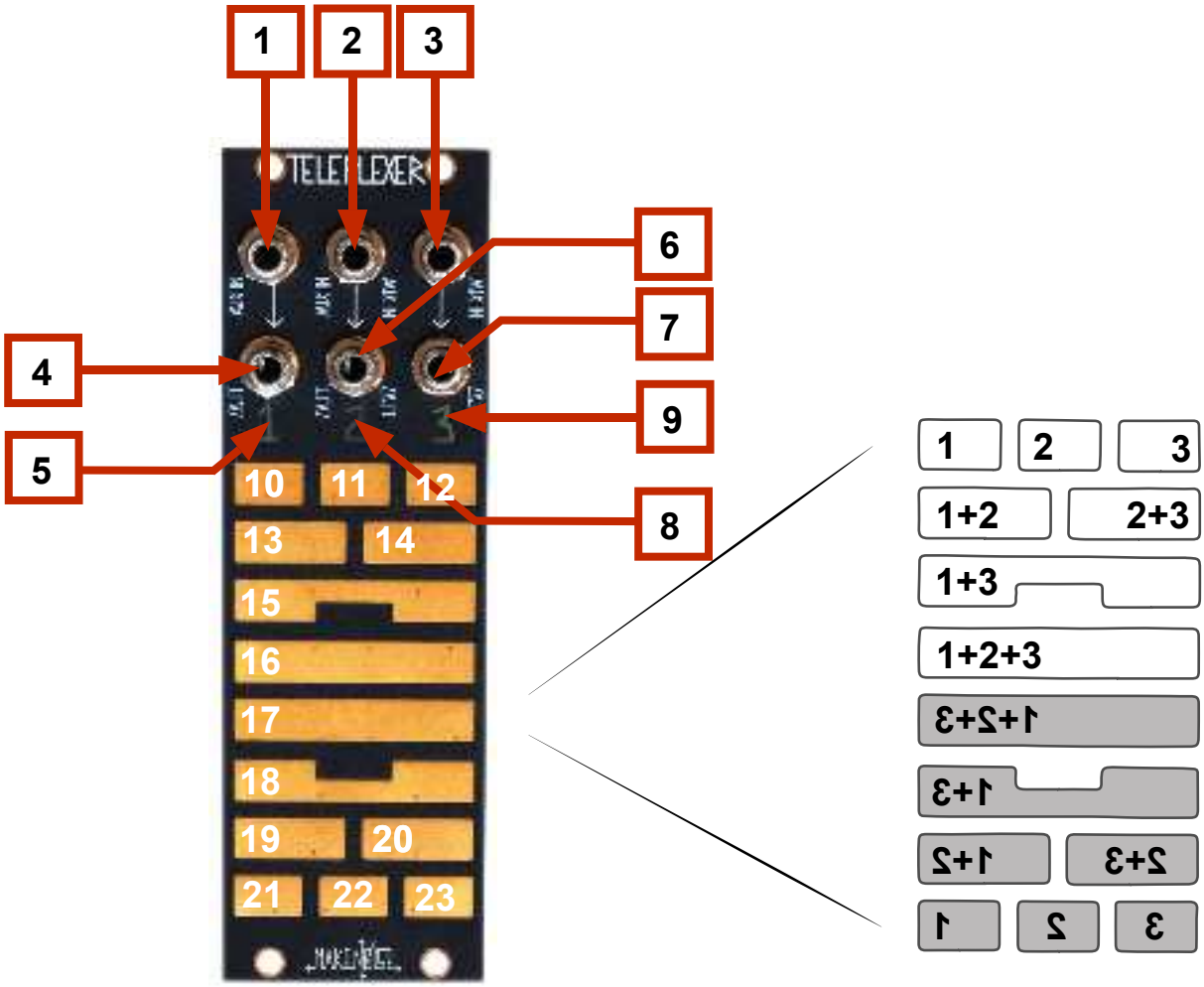
Do not use signals from outside the modular system where the TELEPLEXER is installed.
Your TELEPLEXER faceplate will become worn with use. This is OK and will not have any effect on the functionality of the TELEPLEXER. Just keep the faceplate clean using a soft, dry cloth.

You’ve done some patchin’- now it is time to do some teleplexin’...



Teleplexer Interface

1. Aux. IN CH. 1: direct coupled signal input, continuously added to CH. 1
2. Aux. IN CH. 2: direct coupled signal input, continuously added to CH. 2
3. Aux. IN CH. 3: direct coupled signal input, continuously added to CH. 3
4. OUT CH. 1: direct coupled signal output for CH. 1
5. OUT CH. 2: direct coupled signal output for CH. 2
6. OUT CH. 3: direct coupled signal output for CH. 3
7. CH. 1 Signal Indication: channel number lights to show level and polarity of signal. Green is positive signal and red is negative signal.
8. CH. 2 Signal Indication: channel number lights to show level and polarity of signal. Green is positive signal and red is negative signal.
9. CH. 3 Signal Indication: channel number lights to show level and polarity of signal. Green is positive signal and red is negative signal.



Output Channel Routing

10. Plate (+1): sends signal to output 1, non-inverted
11. Plate (+2): sends signal to output 2, non-inverted
12. Plate (+3): sends signal to output 3, non-inverted
13. Plate (+1) + (+2): sends signal to outputs 1 and 2, non-inverted
14. Plate (+2) + (+3): sends signal to outputs 2 and 3, non-inverted
15. Plate (+1) + (+3): sends signal to outputs 1 and 3, non-inverted
16. Plate (+1) + (+2) + (+3): sends signal to all outputs, non-inverted
17. Plate (-1) + (-2) + (-3): sends signal to all outputs, inverted
18. Plate (-1) + (-3): sends signal to outputs 1 and 3, inverted
19. Plate (-1) + (-2): sends signal to outputs 1 and 2, inverted
20. Plate (-2) + (-3): sends signal to outputs 2 and 3, inverted
21. Plate (-1): sends signal to output 1, inverted
22. Plate (-2): sends signal to output 2, inverted
23. Plate (-3): sends signal to output 3, inverted

Source Cables
These are cables where one end of the cable is patched to the output of a signal generator/ processor in the modular system and the other end is not patched. The tip of the Source cable is touched to the surface of the TELEPLEXER at the location and time of the desired patch connection. When the tip of the source cable is removed from the surface of the TELEPLEXER, the patch connection is broken and ended. Possible sources include LFO, Envelope, Sequence, Random Voltage, Clock, Gate, Pulse, Audio Signals and more. As long as the signal is generated within the modular system in which the TELEPLEXER is installed, it is OK to use. It is not OK to use signals from outside the modular system where the TELEPLEXER is installed.

Auxiliary Ins
We included one unity gain Aux IN per channel on the TELEPLEXER. These inputs are useful when you have a signal source that you would like to run continuously to the destination or where you would like to control the signal level/routing elsewhere in the patch using a VCA or Voltage Control Switch, for example. The plates allow you to add (using the non-inverting plates) or subtract (using the inverting plates) signals from the signal patched to the Aux IN.

For example, you might want to sequence the FOLD parameter, and then add and subtract 2 different LFOs from the sequence. To do this, you would patch the Sequence to the Aux IN, the OUT to the FOLD CV IN, and the patch Source Cables to CH. 1 and CH. 4 of MATHS programmed for some type of LFO. Using the attenuvertors on MATHS, you could set the desired modulation depth while using the TELEPLEXER to momentarily add or subtract the LFOs from the sequence.

OUTs
The outputs of the TELEPLXER are to be patched to your desired destinations. Each of the 3 outputs is capable of driving multiple destinations, so buffered multiple is not needed. Each output has LED indication of channel number (1, 2 or 3), signal polarity (Green is Positive, Red is Negative) and signal level (stronger signals are brighter). Just about any input within the modular system will work as a destination. It is possible to route Control Voltages (LFOs, Envelopes, Sequences, Random Voltages), Audio Signals (VCO Waveform outputs, signal processor outputs), and Timing signals (Clocks, Gates, Pulses); however, it is generally not desirable to mix these signals. For example, an audio signal will not be useful when patched to a timing destination. Therefore, it is a good idea to teleplex control voltages OR timing events OR audio signals.

The PLATES
The metal plates on the face of the TELEPLEXER are how the user communicates with the module. Touching the tip of a Source Cable to these plates allows user to create connections in a patch. The result is everything from momentary modulations to sustained timbral shifts to complete jumbling of signal path. It is possible to use as many sources as desired- only your available patch cables will be the limit. Sources should only come from within the system where the TELEPLEXER is installed.

The 14 plates cover every possible combination of signal routing to the 3 outputs. Inverted routes are included as well, making it possible to both add & subtract voltages by using several sources at multiple plates. For example, touch Source Cable 1 to Plate (+1) and Source Cable 2 to Plate (-1) and you will be subtracting these to signals with the result appearing at OUT 1. If you were to touch Source Cable 1 to Plate (+1) + (+2) and Source Cable 2 to Plate (+2), you will be adding these to signals- the result appearing at OUT 2. Additionally, Source Cable 1 would appear at OUT 1.

Patch Ideas:
Coming soon!