

**KENTON**

# ***MERGE-8***

**8 into 2 MIDI Merge Box**

MIDI IN 6	MIDI IN 5	MIDI IN 4	MIDI IN 3	MIDI IN 2	MIDI IN 1
<b>KENTON</b> www.kenton.co.uk			<b>MERGE-8</b>		
<b>8 INTO 2 INTELLIGENT MIDI MERGE</b>					
MADE IN THE UK					CE
MIDI IN 7	MIDI IN 8	MIDI OUT 2	MIDI OUT 1	GREEN = 8 AMBER = 2x4	DC IN 9V --G+

# ***Operating manual***

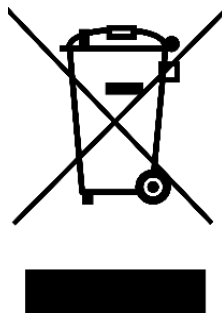
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### **FCC Statement for MERGE-8**

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 or an experienced radio/TV technician for help.

### **Information on Disposal for Users of WEEE**



This symbol on the product and / or accompanying documents means that used electrical and electronic equipment (WEEE) should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product(s) to designated collection points where it will be accepted free of charge. Alternatively, in some countries, you may be able to return your products to your local retailer upon purchase of an equivalent new product.

Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling.

Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with your national legislation.

#### **For disposal in countries outside of the European Union**

This symbol is only valid in the European Union (EU). If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

## Description

The MERGE-8 has eight MIDI In ports and two MIDI Out ports to enable you to connect multiple MIDI devices to one or two MIDI inputs.

The MERGE-8 has opto-coupled MIDI Inputs and separate drive circuits for each MIDI Out socket for optimum performance. The MERGE-8 also contains active circuitry that can restore the quality of signals received at the MIDI Input that may have become degraded by losses in the MIDI cable.

The MERGE-8 is powered by a mains adaptor (supplied), so it doesn't need periodic battery changes to keep it working, enabling you to "fit and forget".

## Operation

The MERGE-8 can be configured to work in two different modes. The first is eight into two – MIDI data received at any of the eight inputs will be merged and transmitted on both of the outputs. This mode is signified by the LED being lit green.

The other mode is a split mode. MIDI In 1 to 4 will be merged into MIDI Out 1, and MIDI In 5 to 8 will be merged into MIDI Out 2. Essentially, this mode can be thought of as two of our MERGE-4 units in one box. This mode is signified by the LED being lit amber.

The mode is changed by pressing the recessed button next to the LED, using a small pointed object such as a pen. The Merge-8 remembers this setting in EEPROM, and will start up in whichever state it was last in prior to power-off.

## Connecting

Ensure that the power adaptor is plugged in, and the LED on the MERGE-8 is on. Connect the MIDI output of your keyboard(s) and/or computer to the MIDI Inputs of the MERGE-8 and connect one of the MIDI Out ports of the MERGE-8 to the MIDI input of the device you want to control.

Do not connect any of the MIDI Out ports of the MERGE-8 back to the MIDI Input of the device which is supplying data to the MIDI In port of the MERGE-8, as this may cause a MIDI loop to occur. This may cause note hangs or other undesirable effects.

## Merging Rules

You may find it useful to have an understanding of the following rules which the MERGE-8 uses when handling certain types of MIDI data.

**Note:** If the MERGE-8 is in split mode (LED lit amber), these Merging Rules apply to both of the four into one merges separately.

The MERGE-8 defines one of the inputs as the *master* input for each of the following data types. One input may be the *master* for one or more data types whilst a different input may be the *master* for another data type.

### MIDI Clock

When power is first applied, no input is defined as a *master* and all clock messages from all inputs will be passed until one input is defined as a *master*.

The most recent input to receive a START command (or Song Position Pointer=0 followed by CONTINUE) will become the clock *master*.

That input continues to be the clock *master* until another input satisfies the above condition.

### Active Sensing

The first input to receive an Active Sensing message will become the Active Sensing *master*. Active sensing messages from that input will be passed to the output, any active sensing messages received at other inputs will be ignored. An input will stay as Active Sensing *master* until no more Active Sensing messages are received at that input for a period of around 5 seconds. Then another input has the opportunity to become the Active Sensing *master*.

### SysEx Messages

While any input is handling a SysEx message it becomes the SysEx *master*, and SysEx messages from all other inputs will be locked out until the message at the *master* input has finished.

SysEx messages may be terminated either with an End Of SysEx command (F7) or with any other status command.

## Firmware version Request:

A firmware version request must be issued within 10 seconds of power being applied to the unit, otherwise it will be ignored.

The firmware version request message is - F0 00 20 13 18 60 F7 (hex)

The unit replies with the version number as F0 00 20 13 18 6F xx xx xx xx F7 (hex). Where xx is a number in ASCII and the leftmost digit is the most significant. For example - F0 00 20 13 18 6F 31 32 33 34 F7 (hex) = version number 1234

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## Specification

Power Input:	9V DC (regulated or unregulated) – never apply more than 12V (never use an <b>unregulated</b> supply greater than 9V as unregulated supplies typically give a higher output than shown)
Power :	100mA, 2.1mm plug (centre positive)
MIDI ports:	8 x In, 2 x Out
Weight:	220g (excluding power supply)
Dimensions:	155 x 80 x 32 mm
Power supply:	Supplied with unit. Specify UK, EU or US type when ordering.

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## Warranty

The MERGE-8 comes with a 12 month (from purchase date) back to base warranty, (i.e. customer must arrange and pay for carriage to and from Kenton Electronics Ltd).

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