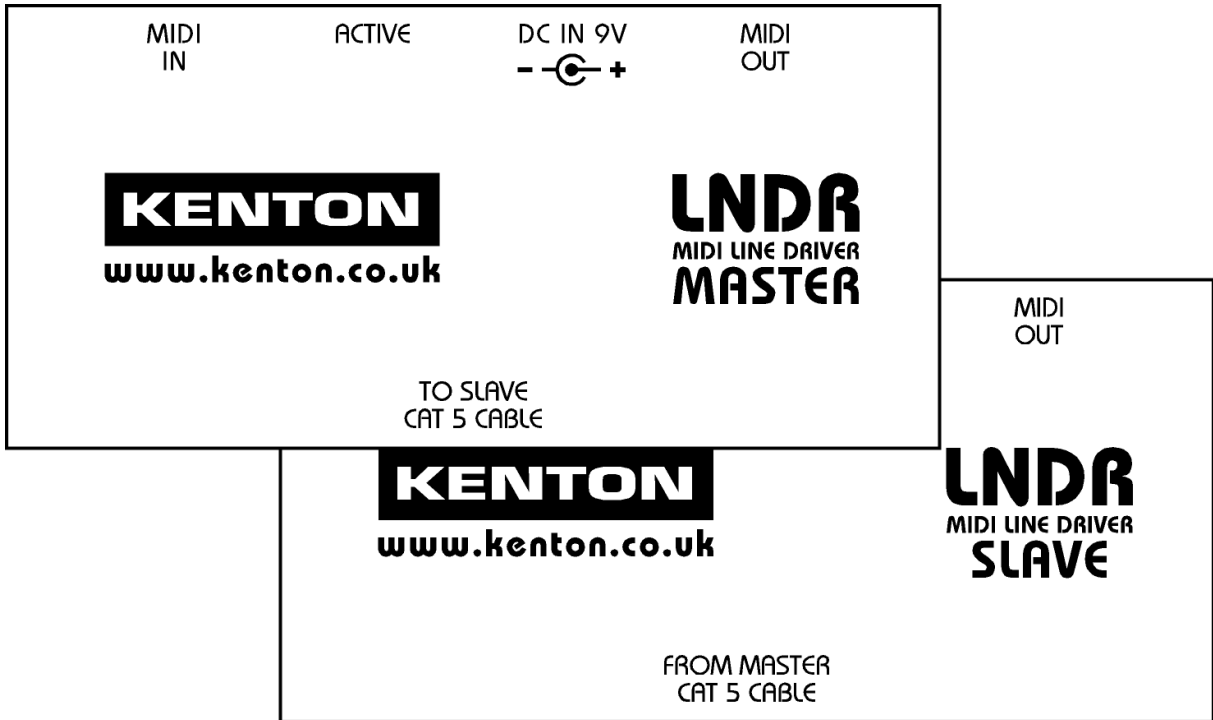


KENTON

LNDR

MIDI line driver - master & slave pair



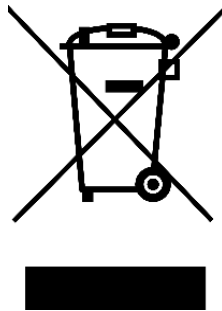
Operating manual

FCC Statement for LNDR

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 LNDR MIDI line driver is supplied as a pair of units with a MIDI Input and a MIDI Output at both ends to enable you to connect MIDI devices to each other over much greater distances than is usually possible using standard MIDI cables.

A MIDI signal applied to the MIDI IN of the master will appear at the MIDI out of the slave. Similarly a MIDI signal applied to the MIDI IN of the slave will appear at the MIDI out of the master. You can send signals in both directions at the same time.

The master and slave units are very similar, however the master supplies power for both units – the slave unit does not have a power input socket.

The LNDR system 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".

Connecting

Ensure that the power adaptor is plugged in to the master, and the ACTIVE LEDs on the LNDR master & slave units are both on. Ensure you have a CAT5 cable connecting the master unit to the slave unit. Connect the MIDI out of your keyboard or computer to the MIDI IN of the LNDR master and connect the MIDI OUT of the LNDR slave to the MIDI input of the device you want to control. Alternatively connect the MIDI out of your keyboard or computer to the MIDI IN of the LNDR slave and connect the MIDI OUT of the LNDR master to the MIDI input of the device you want to control.

If possible use MIDI cables no greater than 5 metres in length for the MIDI INs of the LNDR. The MIDI INs should ideally be driven direct from the signal source, not at the end of a daisy chain of THRU's. If necessary use a thru box such as the THRU-5.

Note that the CAT5 cable from an LNDR master should **only** be connected to an LNDR slave, not to another master, and **NEVER** to any other device, even if it has a similar connector. (e.g. Ethernet)

CAT5 cable info

You should use good quality CAT5 cable. For distances greater than 100 metres you should use CAT5e cable. Ideally use ready-made CAT5 cables which are available in many lengths, however if you wish to make your own, it is vital that the cable pairs are connected to the correct pins. It is not sufficient that pin 1 connects to pin 1 (2-2, 3-3 etc.), it is also essential that pin 1 is paired with 2, 3 with 6, 4 with 5, and 7 with 8. You will find that the twisted pairs have complementary colours, white/orange with orange/white etc. Cables should be wired to the EIA-568B standard at both ends. Don't use crossover cables. You can find out more about CAT5 wiring on the internet. Search for "straight through RJ45".

Although we recommend wiring to the EIA-568B standard, the CAT5 cable can alternatively be wired to the EIA-568A standard. However, both ends must be wired to the same standard.

Troubleshooting

Check that you are using a properly wired CAT5 cable – see above.

Check that you are using a “straight through” cable, **not** a “crossover” cable.

Check that the “active” LEDs are lit.

If you encounter problems at very long distances, it could be the result of volt-drop in the CAT5 cable, in which case substituting the power supply for a 12 or 15 volt unit type will help. Note that we have tested the LNDR system to over 750 metres using the supplied PSU without problems.

Specification

Power Input	9V to 12V DC (regulated or unregulated)
Power	85mA, 2.1mm plug (centre positive)
MIDI	1 x In, 1 x Out on each unit (standard 5 pin DIN connectors)
Interconnect	CAT5 cable required with RJ45 connectors
Protocols	MIDI and RS485 full duplex
Range	500 metres between master & slave over CAT5e cable
Weight	110g (each unit, excluding power supply)
Dimensions	100 x 46 x 32 mm (each unit)
Power supply	Supplied with unit. Specify UK EU or US type when ordering.

Warranty

The *LNDR* system 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). In the unlikely event of a problem, contact us by email through our website or by telephone.



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