Syncro systems

When pieces of music technology equipment are required to work together, a means may be required to synchronise them. The MIDI standard includes a group of single-byte messages called System Real Time (SRT), four of which are concerned with synchronisation (Clock, Start, Continue and Stop).

The Sync24 system was introduced by the estimable Japanese company, Roland. It was subsequently adopted by a few other manufacturers, but was then largely superseded by the sync facilities of MIDI. Sync24 is popularly known as ‘DIN Sync’, because it uses the round five pin DIN connector, coincidentally the same as is used for MIDI.

The Sync24 connection cannot be made with a plain MIDI cable, as shown in the diagram above, it requires a pin-to-pin cable with pins 1, 2, 3 and 5 connected. Although they use the same type of connector, you should never connect MIDI sockets to Sync24 sockets.

Clever converter

The Philip Rees MDS MIDI to Sync24 Converter listens to an incoming MIDI SRT clock stream and generates a corresponding Sync24 (DIN sync") format output. The MDS appears as a tempo slave to your MIDI system, and is a tempo master in Sync24. When you have installed your sync converter, your Sync24 device(s) should start, play in time, and stop automatically, by remote control from your MIDI master equipment.

Ports provided

The MDS has a MIDI In port, for which a handy MIDI Thru socket is provided. The MDS has a single Sync24 Sync Out socket. The signals have good drive capability, and we have not found any compatibility problems. The Sync24 output is able to drive several Sync24 inputs in parallel. To make use of this you will probably need a special multi-drop cable assembly. Some Sync24 devices, notably the Roland MC-202, have a built-in fan-out capability (like a Sync24 thru) to drive extra slave units - see adjacent diagram.

Continue facility included

As well as regular Start and Stop commands, MDS implements the MIDI Continue command and the corresponding Sync24 feature. Compatible Sync24 devices, such as the MC-4, should resume correctly when synchronised via the MDS.

Some devices, including the otherwise wonderful Roland MC-202, respond to a Continue by resuming from the beginning of the current ‘measure’. You may be able to arrange that your master MIDI sequencer always restarts from the beginning of a measure. You can probably manually set both sequencers to start at the same measure. Alternatively you could always restart the sequence from the top.

TheContinue facility is not included on some Sync24 devices, notably the Roland TB-303 and TR606. When it is omitted, the Continue command will cause the slave to start the sequence from the very beginning.

Gorgeous wee lamps

The ‘POWER’ lamp is lit when mains power is connected to the MDS.

The funky ‘BEAT’ lamp (on the front panel, next to the SYNC OUT socket) flashes on and off in time with the sync stream. The lamp is lit for the first quaver-period of every crochet-period. It will flash four times during a normal common time (4) measure.

The case is 109mm x 109mm x 40mm. It contains an integral mains power supply.