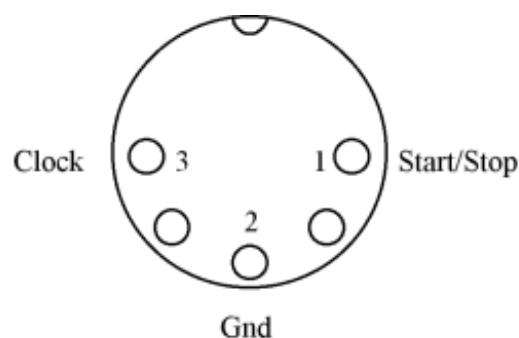**DIN Sync specification**

The SYNC standard was introduced in the eigthies by Roland for synchronization of sequencers, drum machines, arpeggiators and similiar devices. The SYNC standard uses the signals clock (or tempo) and start/stop (or run/stop). The signals are TTL compatible. This means the low state is 0V, the high state is about +5V. The clock signal defines the speed of the sequence or drum pattern. The start/stop signal defines if the sequence is running (start/stop = 0V -> stop, start/stop = +5V -> running).

The SYNC standard uses 5 pin DIN sockets (same as used for MIDI but uses different pins) with the following pin-out:

In some applications the remaining pins (4 and 5) are even used as "tap", "fill in" or "reset and start". But this differs from device to device.

To connect two SYNC devices a cable with a a 3 or 5 pin plug on each side has to be used. The pins 1, 2 and 3 have to be connected (in contrast to MIDI that uses the pins 4 and 5). A standard MIDI cable is not suitable as here the pins 1 and 3 may be unconnected !

SYNC Input/Output: Some SYNC devices have SYNC In and SYNC Out sockets Others have only one socket that can be switched between input and output (e.g. TR808). The third group uses switched sockets. This means that the socket is switched to input if a plug is inserted (e.g. TB303). If you want to use this socket as output a special plug without ring has to be used as the ring of the plug operates the switch. For details refer to the user's manual or service manual of the regarding device.

Connection of MIDI and SYNC equipment: We offer some interfaces that convert the corresponding MIDI messages (MIDI clock, start, stop) into SYNC compatible signals (e.g. MSY2, MAUSI, MCV24, REGELWERK, SCHALTWERK). In all these cases MIDI is used as an input. This means the incoming MIDI messages are converted to SYNC signals. SYNC is an output in this case. Interfaces with the reverse direction (SYNC = input, MIDI = output) are not usual. We do not offer such interfaces.

Quelle:
http://www.doepfer.de/faq/gen_faq.htm