5

LINKED CONSOLES

Using two linked 328XD consoles 154

USING TWO LINKED 328XD CONSOLES

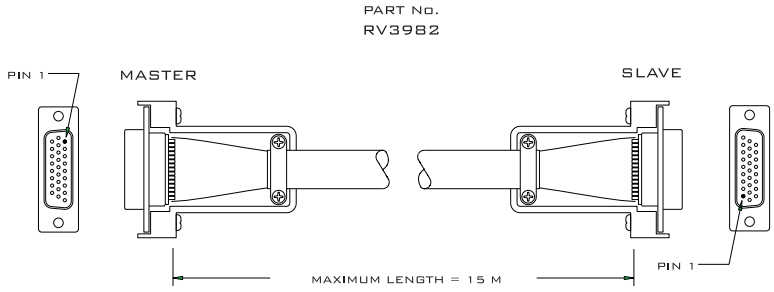
Two 328XD consoles can be linked with a 328XD Link cable, to expand your system to a 32 fader console.

How to link two 328XD consoles

The procedure to link two 328XD consoles together is very simple - we have removed the need to install additional boards by fitting the 328XD LINK port to the rear of the console as standard. A special cable is available from your Soundcraft dealer (part number RV3982) which should be connected to the 328XD LINK port on both of the linked consoles.

When two consoles are linked, a choice needs to be made - which console is going to be the Master? Rather than having to delve into an elaborate menu to set each console to Master or Client mode, the cable itself defines which console is the Master and which is the Client. When you fit the cable for the first time, all you must decide is which of your two consoles will be the Master. Connect the end of the cable labeled "Master" to the 328XD LINK port of that console. The other end (not surprisingly labeled "Client") should be connected to the other console.

For information regarding the link cable pin-outs please see the diagram below:



WIRE LIST			
FROM MASTER	COLOUR	TO SLAVE	SIGNAL DESCR.
PIN 1	WHT/BRN	PIN 9	CAS M->S
PIN 2	BRN/WHT	PIN 8	
PIN 3	WHT/BLU	PIN 3	GRP CASC
PIN 4	BLU/WHT	PIN 4	
PIN 5	DRAINWIRE	PIN 5	SHIELD GND
PIN 6	ORG/BLK	PIN 6	GRP FEED
PIN 7	BLK/ORG	PIN 7	
PIN 8	BLU/BLK	PIN 2	CAS S->M
PIN 9	BLK/BLU	PIN 1	
PIN 10	PNK/GRY	PIN 18	SYNC M->S
PIN 11	GRY/PNK	PIN 17	
PIN 12	---	PIN 13	UNUSED
PIN 13	WHT/GRN	PIN 16	GND
PIN 14	GRN/WHT	PIN 15	
PIN 15	PNK/BRN	PIN 14	GND
PIN 16	BRN/PNK	PIN 12	
PIN 17	WHT/ORG	PIN 11	SYNC S->M
PIN 18	ORG/WHT	PIN 10	
PIN 19	PNK/GRN	PIN 26	CK256 M->S
PIN 20	GRN/PNK	PIN 25	
PIN 21	PNK/ORG	PIN 21	BUS CASC
PIN 22	ORG/PNK	PIN 22	
PIN 23	---	PIN 23	UNUSED
PIN 24	---	PIN 24	
PIN 25	WHT/GRY	PIN 20	CK256 S->M
PIN 26	GRY/WHT	PIN 19	

Boot the consoles simultaneously. the Master 328XD will momentarily display a 'Client Attached' message when boot up is complete.

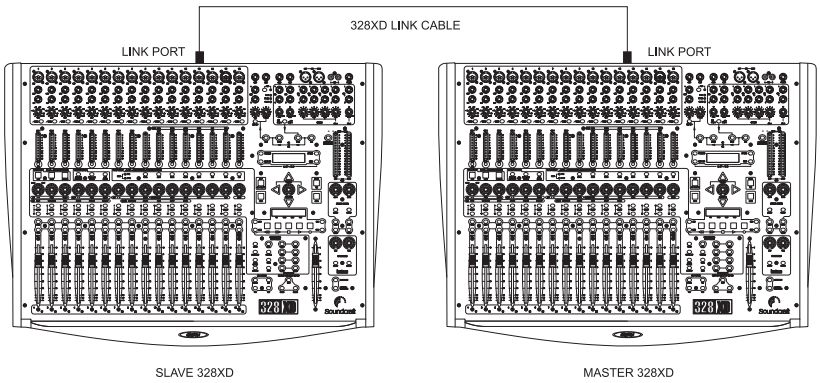
Link cables are supplied from Soundcraft in 3m lengths

Linked Outputs

When two consoles are linked the Master console outputs below carry signals routed from the Client console:

Aux Send 1, 2, 3 & 4

Group Outputs 1-8



Linked Features

When two consoles are linked the following features are linked:

SELECT PANEL QUERY MODE

When any Select Panel switch is put into Query mode (see **Section 3C**), both Master and Client channel SELECT switches will light to indicate channels with active parameters. While holding the Select Panel switch, the SELECT switches of both Master and Client 328XD may be pressed. Additionally the Compressor/limiter and gate Bypass switching can be used in Query Mode across linked desks.

Note that the EQ FLAT function is not available across linked consoles.

SOLO CLEAR

Whenever any channel (or multiple channels) is in SOLO mode, the SOLO CLEAR button on both Master and Client consoles will light. All channels which are in SOLO mode can then be taken out of SOLO mode by pressing the lit SOLO CLEAR button on either the Master or the Client console. Operating SOLO CLEAR on one console will automatically de-select SOLO CLEAR on the other console.

FADER BANK SWITCHING

When switching between fader banks using the BANK SELECT switches above the E-Strip the Client will automatically follow any selection made on the Master.

For example, if both consoles are set to BANK SELECT 1-16, and the BANK SELECT 17-32 switch is selected on the Master console, the Client desk will also switch to BANK SELECT 17-32. When different banks need to be monitored on each console the Master console

bank should be selected first. Bank switching on the Client console will not be followed by the Master, allowing a different bank to be active on the Client console.

GROUP/CHANNEL LINKING

The linking of Input Channels or Groups can be initiated from either the Master or the Client console. Pressing and holding the CHANNEL/GROUP LINK button at the lower right hand side of either the Master or the Client console will allow you to see which Input Channels/ Groups are currently linked. Linked Groups are indicated by lit adjacent GRP switches.

For more detailed information see **Section 3H**.

AUX/FX PRE

This switch operates in a similar way to the CHANNEL/GROUP LINK switch described above. Aux 1, 2, 3, 4, FX-1 & FX-2 sends can be globally (per-console) set to send from the specific channel Pre or Post-Fade by pressing and holding the AUX/FX PRE button on either the Master or the Client console. While holding the switch, using the Aux 1, 2, 3, 4, FX-1 & FX-2 switches above the E-Strip, both Master and Client consoles will indicate which are Pre-Fade (button lit) and which are Post-Fade (unlit). While holding down the AUX/FX PRE button you can also change the status of the AUX or FX sends by pressing the associated button above the E-Strip.

Effects

When two consoles are linked, both Lexicon Effects processors remain individually active for the Master and Client, so that you have four Lexicon effects processors at your disposal.

This allows for console specific use of both types of processing. You should note that an effects processor cannot be fed from input channels on the other, linked console.

Digital Inputs & Outputs on the *Client* console

When two consoles are linked the following points should be noted regarding the digital inputs and outputs of the Client console:

AES/EBU INPUT

The AES/EBU Input operates in the same way as the Master console.

S/PDIF INPUT

The S/PDIF Input operates in the same way as the Master console.

AES/EBU OUTPUT

The AES/EBU Output of the Master 328XD can be set to output the following :

AUX 1&2, AUX 3&4, FX 1&2, GRP 1&2, GRP 3&4, GRP 5&6, GRP 7&8, and CRM.

When configuring the AES/EBU Output for the Master console, all output selections carry the appropriate signals from the Master console, mixed with the relevant audio data from the Client console. Signals transmitted from the AES/EBU output of the Client console, however, are partial mixes of data input to the Client console only, unmixed with audio from the Master console. You may select from the following outputs:

AUX 1&2, AUX 3&4, GRP 1&2, GRP 3&4, GRP 5&6, GRP 7&8.

S/PDIF OUTPUT

The S/PDIF Output of the Master 328XD can be set to output the following :

AUX 1&2, AUX 3&4, FX 1&2, GRP 1&2, GRP 3&4, GRP 5&6, GRP 7&8, and CRM.

When configuring the S/PDIF Output for the Master console, all output selections carry the appropriate signals from the Master console, mixed with the relevant audio data from the Client console. Signals transmitted from the S/PDIF output of the Client console, however, are partial mixes of data input to the Client console only, unmixed with audio from the Master console. You may select from the following outputs:

AUX 1&2, AUX 3&4, GRP 1&2, GRP 3&4, GRP 5&6, GRP 7&8.

ADAT INPUTS

The ADAT Inputs operate in the same way as on the Master or an unlinked console.

TDIF INPUTS

The TDIF Inputs operate in the same way as on the Master or an unlinked console.

ADAT OUTPUTS

The ADAT Outputs operate in the same way as on the Master or an unlinked console, transmitting the Group outputs when DIRECT OUT is disabled. The Group output signals transmit mixed audio data from both the Master and Client consoles.

TDIF OUTPUTS

The TDIF Outputs operate in the same way as on the Master or an unlinked console, transmitting the Group outputs when DIRECT OUT is disabled. The Group output transmit mixed audio data from both the Master and Client consoles.

AUX OPTICAL OUTPUT

In ADAT format this can be set to transmit either the Group outputs 1-8, or the following combination: MIXL, MIXR, AUX1, AUX2, AUX3, AUX4, FX-1 and FX-2 (see **Section 3J Part 5.8** for more information). When the port is configured to transmit the Groups from the Client console they signal is set 6dB low. When the port is configured to transmit AUX/MIX audio data, the MIXL, MIXR, AUX1, AUX2, AUX3 and AUX4 outputs are partial mixes and contain audio data from the Client console only. FX-1 and FX-2 will send the local FX sends from the Client console. Additionally, the AUX Optical Output can be set to transmit the signal present at the coaxial S/PDIF output.

The ADAT and TDIF ports of both the Master and Client console transmit the same audio data simultaneously. The input of both consoles must be set by the user in the Tape Port Select Menu (see **Section 3J Part 5.8** for more information). This increases the flexibility of a complex studio system by allowing dual 32-channel recording to ADAT and TDIF compliant devices.

Menu changes on the Client console

See **Section 3J** for more information on 328XD menu pages.

When two consoles are linked the following points should be noted regarding the menu structure:

328XD INFO

Unaltered.

USER OPTIONS

The DEVICE ID must be set differently from the Master console setting. When initiating a MIDI Dump from a remote source, the consoles are individually identifiable.

The following menu pages are not in the Client console User Options menu as control is global and initiated from the Master console.

MIDI Channel
OMNI Mode
Solo Ch Sel (Channel Select follows SOLO)
Solo AutoC (Solo Auto Cancel)
Bank->Select (Channel Select moves with Bank Select)

MIDI CONTROLLERS

This menu page is unaltered from that displayed by the Master or an unlinked console, however it must be noted that the MIDI Controller bank of the Client console operates independently from that of the Master console.

MIDI CTL PRESETS

This menu page is unaltered from that displayed by the Master or an unlinked console, however it must be noted that the MIDI Controller bank of the Client console operates independently from that of the Master console. If you need to transfer a MIDI Controller Preset from the Master console to the Client console or vice versa, this should be done using the MIDI Dump In/Out feature see **Section 3J Part 5.5** and **Section 3J Part 5.6**)

MIDI DUMP OUT

Unaltered.

MIDI DUMP IN

Unaltered.

TAPE TRIM SETUP

Unaltered.

TAPE PORT SELECT

Unaltered.

SPDIF I/P SETUP

Unaltered. Please refer to the previous section for details of the digital outputs.

AES/EBU I/P SET

Unaltered. Please refer to the previous section for details of the digital outputs.

SPDIF O/P SETUP

CRM is not an available option for a Client 328XD. The remainder of the menu is left unaltered.

AES/EBU O/P SET

CRM is not an available option for a Client 328XD. The remainder of the menu is left unaltered.

TAPE MACH SETUP

This menu does not exist on the Client console as the Master console handles all transport-related commands.

CLOCK SOURCE SEL

This menu does not exist on the Client console as the Master console sends the wordclock from the Master console via the Link Cable for both internal and external clock sources.

SNAPSHOT SETUP

This menu does not exist on the Client console - the Master console should be used for configuration of all global Snapshot parameters.

CH COPY SETUP

This menu does not exist on the Client console - the Master console should be used for configuration of all global Channel Copy parameters. Please also note that it is possible to copy channel settings from the Master console to the Client or vice versa.

CH LINK SETUP

This menu does not exist on the Client console - the Master console should be used for configuration of all global Channel Linking related parameters.

USER SETUPS

This menu does not exist on the Client console - the Master console should be used for configuration of all global User Setup parameters.

Connections & Parameters on the Client console

ANALOGUE AUDIO CONNECTIONS

When two 328XD consoles are linked, the following analogue audio connections contain partial mixes (i.e. audio data from just the Client console inputs) only:

AUX1, AUX2, AUX3, AUX4, MIX L (XLR and Phono), MIX R (XLR and Phono), CRM L and CRM R.

When two 328XD consoles are linked, the two track inputs 2TRK A and 2TRK B on the Client console are redundant.

DATA CONNECTIONS

When two 328XD consoles are linked, the Client RS-422 Port and the Timecode In jack are not used - the Master console should be used to facilitate transport control.

When two 328XD consoles are linked the following Client console parameters are redundant:

CONTROL ROOM MONITORING

DIM, MONO, 2TRK and MIX. These are controlled by the Master console.

SNAPSHOT CONTROL

The LCD display cannot be put into SNAPSHOT mode and the SNAPSHOT CONTROL panel is redundant. Snapshot control is carried out from the Master console.

TRANSPORT PANEL

LOC1/2, REW, FF, STOP, PLAY, REC, STO1/2 & the Timecode Display, as these functions must be activated from the Master console.

SOLO CONTROL PANEL

AFL, PFL and SIP do not function on the Client console - they must be controlled globally from the Master console.

MASTER METERS

The Master Meters (GRP 1-8, Aux and FX Master send meters) are not displayed on the Client 328XD. Likewise dynamics gain reduction meters are displayed only for Stereo Inputs 1 and 2 and FX Returns 1 and 2 when viewing Master Dynamics meters.

DYNAMICS

Dynamics are available to all input channels and FX Return channels on a Client console but not Group or Mix buses.

CLOCK LOSS WARNINGS

Messages to warn of clock loss are displayed on the Master 328XD LCD display only.

MIDI Management of Linked consoles

When two consoles are linked, it is recommended that you do the following:

MIDI DEVICE ID

Set up each console to have a different MIDI Device ID - this will ensure that a MIDI dump request is initiated from an external source, the correct console responds with the Dump Out data.

DUMPING SNAPSHOT DATA

Although the Snapshots for both Master and Client consoles are stored and recalled by operation from the Master console surface, they are held in individual memory areas within each console. Therefore when backing up any data (Snapshots, MIDI Controller Setups, FX Presets or User Setups) you must dump the data from both the Master and the Client consoles independently. When restoring the data using MIDI Dump In, you should always confirm that the data is for the correct console (Master or Client).

DYNAMIC AUTOMATION

The 328XD is capable of having every parameter dynamically automated by MIDI Continuous Controller data. Please remember when working with linked consoles the dynamic automation is console dependent. To record dynamic automation you must connect a MIDI cable from each console and select the desired input within your sequencer software. When playing back previously recorded automation data, ensure the data is sent to the console from which it was recorded.