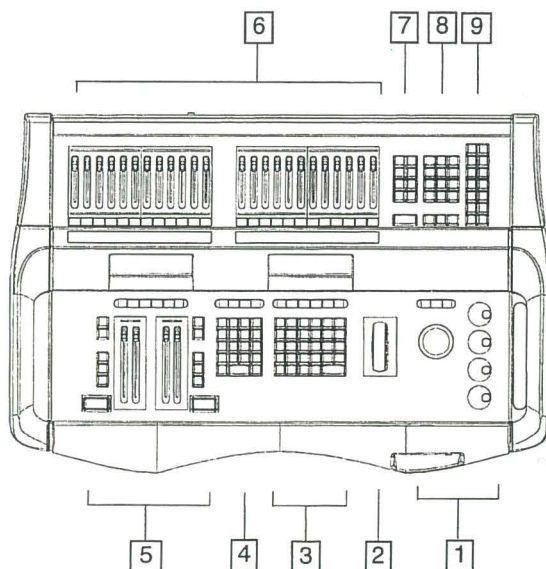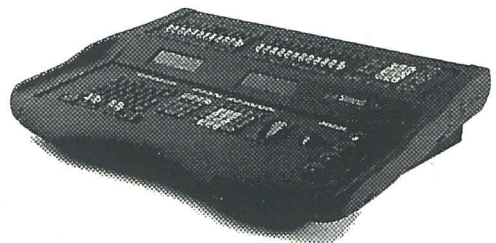# 520/520i™
Portable control consoles

Features

☐ Compact version of our powerful 500 series consoles

☐ Choice of either Lightpalette command line/tracking style operation or GeniusPro preset style operation on all consoles

☐ Powerful integrated moving light capability

☐ Full tracking backup between 2 consoles, or a console and 510i rackmount controller

☐ Choice of standard 520 console or high capacity 520i console with extended channel capacity

1. Tracker ball, rotary controls and option keys for moving light control
2. Multi function wheel
3. Command keypad, context sensitive soft keys and graphics LCD
4. Function keypad and context sensitive soft keys
5. Playbacks, 'GO' button, context sensitive soft keys and graphics LCD
6. Submasters, bump buttons, 'active' and 'loaded' LED indicators
7. Effects keypad
8. Display and command routing keypad
9. User programmable keys

Mechanical & environmental data

Construction	Galvanised sheet steel and aluminium extrusion. Flame retardant ABS controls
Operating Temperature	0° to 40°C ambient (32° to 104°F)
Storage Temperature	-40° to 70°C (-40° to 158°F)
Humidity	5% - 95% non-condensing

Weights and dimensions

length	depth	height	weight	packed vol	packed wt
870mm	590mm	170mm	25kg	0.227 m^3	30 kg

- Console capability can be expanded through a range of powerful application software packages
- Operating software controls up to:

  520:1500 intensity channels and 500 scroller or moving light attributes

  520i: 6000 intensity channels and 2000 scroller or moving light attributes
- Intensity channels may be converted to additional attribute channels
- 2048 DMX outputs can be increased to 8192 (16 DMX universes) with Strand ShowNet Ethernet networks and SN series nodes
- 6 pages of individually programmable submasters. Any submaster can be configured as one of 6 user selectable function masters
- Up to five consoles can be networked together and the master console can be partitioned to allow independent programming of separate elements
- Simultaneous digital and analogue multiplex protocols
- Two proportional electronic patches
- MIDI, SMPTE and ASCII show control are fully supported
- All programming can be controlled from a single display
- New Reporter application provides notification, logging and printing of dimmer and load information (with EC90SV & CD80SV dimmers). Recording of backup presets is also supported
- New BUMP mode per submaster to trigger a macro with the same number as bump key, thus effectively doubling the number of macros which can be triggered from submasters
- 520 equipped with Intel® Pentium processor

  520i equipped with Intel® Pentium II processor
- Integral 3.5" 1.44 MB floppy disk drive and hard disk drive
- 50mm diameter, 16 bit tracker ball and 4 colour coded rotary controls for smooth, accurate positioning of moving fixtures
- Ergonomic keypads for enhanced, more accurate data entry; improved fader knobs for better submaster control
- Two large backlit graphic LCD displays with context sensitive soft keys
- Two VGA colour monitor outputs are standard and may be upgraded to four on 520i with optional dual VGA card
- Network hand held remote
- Remote video node
- Remote multi DMX
- Network printing
- File server
- 16 bit DMX
- Multilingual support in English, Dutch, French, German, Italian, Russian, Spanish, Swedish

520i Design features	
Channels	up to 6000
DMX outputs	8192
Cues	2000
Groups	1000
Macros	1000
Preset focus groups	250
Submasters	24
Sub pages	6
Simultaneous fades	200
Handheld remotes	4
Attributes	99
Fixture library size	99
Profiles	99
Effects steps	600 x 99
Effects playbacks	30
Cue playbacks	2
Remote video	9
Local video	up to 4
SMPTE events	3000

Operating software

520 and 520i console kits come equipped with powerful operating software providing refined lighting control. Additional channel capacity and advanced functionality is added with Strand application software.

Control capacity

520 supports up to 1500 intensity and 500 attribute channels. 520i supports up to 6000 intensity channels and up to 2000 moving light/scroller attributes. Channel and attribute capacity is defined by the operating system software plus the number of channel expansion blocks loaded. Control capacity may be upgraded at any time by additional software in 50 or 200 channel blocks. Intensity channels may be converted to provide more attributes.

Controls

Submasters

520i consoles are provided with 24 submasters. Each submaster has a bump button, and two LED indicators to signal the status and activity of each submaster. Submasters may be used to mix memories, replay cues, including dimming and motion cues. Any submaster can be configured to provide the following special master control functions: master all submasters, audio input, DMX input, effects playbacks, bump level, MIDI.

Attribute controls

A trackerball, three pushbuttons and four rotary controls provide direct access to colour, pan and tilt, and up to 99 attributes of an automated light by entering a single channel number. Colour scroller control is available in the same way. Attributes can be recorded in cues or in preset focus groups which cues can reference. Automated light functions are only available with Tracker™ application software.

Display switching

The display keypad switches the VDU displays between channel, dimmer and cue information. They also provide control path routing to match the active VDU display.

Channel control

Main command keypad for setting channel levels, and recording lighting states. The associated LCD display provides local indication of channel control status, including the functions of six context-sensitive soft keys. Level wheel adjusts channel levels. With Tracker™ software, the tracker ball and rotary wheels are activated to enable a single channel number reference (entered on the command keypad) to give immediate access to all attributes of an automated luminaire, or a scroller.

Playbacks

Two playbacks are provided, which may be configured for independent or combined operation, or condensed to a single playback. The channel control wheel may be used to adjust the rate of progress of a lighting change. Each playback may have a separate cue sheet, enabling lighting cues to be run independently of motion cues, on separate playbacks, if desired. A total of 200 simultaneous fades are supported.

Macros

14 dedicated 'P' keys are available for user macros. The centre soft keys and the user key in the command keypad are also programmable. All 1000 macros are available from the keypad.

Effects

Up to 30 simultaneous effects from a total of 600 per show each containing up to 99 fully overlapping steps can be run from playbacks, macros, timecode events, submasters or manually from the effects playback panel. Effects steps contain recorded intensity levels and attribute positions for scroller or moving light effects. Levels used can be as recorded or random between max and min levels, inverted or alternately inverted. Each effect step can use individually programmable In, Dwell and Out times or may use the effect defaults. Effects can stop when instructed, after the last cycle or after a defined number of cycles or time. Effects can be chained. Step control can be manual, timed, MIDI or audio. Effect, type, direction and speed can be modified while running and updated back into the effects memory if required.

Application software

520i consoles include these application software packages as standard.

Tracker

Tracker adds fully-integrated moving light control to 500 Series consoles. Intuitive controls, displays, preset focus reference groups, auto move when dark, fixture libraries and dual automoving playbacks make Tracker™ easy and fast to use.

Networker

Networker and SN100 Series Ethernet nodes support control of up to 16 DMX universes. SN100 Series nodes can be used as part of a fully-integrated tracking back-up control system, automatically switching the DMX data source from the main to the back-up when the back-up console or PC comes on-line. Combining Networker and Server, up to five users can work simultaneously on the same show. Channels can be partitioned between users to prevent accidental changes. DMX Ports on SN100 series nodes are configurable. You can change a DMX port from an output to an input, or change its address, without patch cables or rewiring. Flexible remote video and control by remote hand held device is provided.

CommuniquéPro

CommuniquéPro provides complete integration through precise timing and co-ordination within show systems. It supplies 12 remote +10V analogue inputs for external submasters or macro switches; interfaces for DMX In (channel or dimmer modes) from remote DMX controllers; supermaster control for DMX In; macros triggered by configurable MIDI input, or configurable RS-232, ASCII serial input; RS-232 for remote ASCII control; MIDI Show Control; MIDI In/Thru/Out, plus a configurable macro trigger output port. Up to 3000 events can be triggered from SMPTE to run cues, effects, macros and submasters. The internal SMPTE clock can optionally override the external clock input if it stops. SMPTE frame rates supported are 24fps, 25fps, 30 drop frames and 30 non-drop frames. User friendly recording of time-code events is provided.

Optional application software

Server

Turns a Windows PC into a comprehensive show file server permitting consoles or PCs running Networker to store show files on the server. Also adds user logins with password protection and access rights. A powerful login display provides easy changing between main, backup and remote console modes.

Reporter

Works with control consoles and SV series dimmers to report temperature and electronic status, load information (including lamp failure) and system information. Allows the user to know the status of all the lamps in the rig and to record rack-based backup cues simply and easily.

Utility software

Off-line Editor

A real time stand-alone program for a 486 or higher PC using MS-DOS or Windows 95 to emulate the operational features of a 500i Series console.

ShowPort

A DOS utility supplied with the operating software and off-line editor to convert show files between Strand Show File format and industry-standard ASCII Light Cues and comma-separated text formats, for transferring shows to and from other consoles.

ShowNet

A Windows 95™ utility to co-ordinate the configuration of SN100 series nodes. Provides named DMX universes, ports and site files. Downloads configuration files over the network.

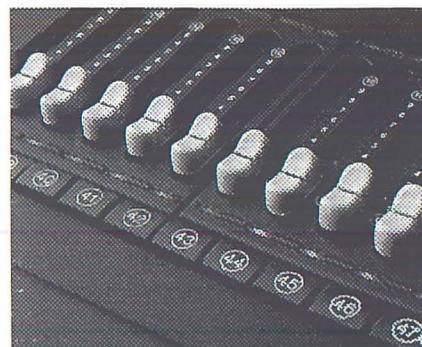## Technical specifications

Supply voltage
100V - 240V 50/60Hz

Processor
520	Intel® Pentium
520i	Intel® Pentium II

Memory
520	16Mb RAM
520i	32Mb RAM

Archive memory
3.5" floppy disk (DOS), internal hard drive or network file server (requires Networker and Server)

Connections

3	DMX512 outputs (512 dimmers per port) 5 pin female XLR
1	DMX 512 input or output 5 pin male XLR
1	Ethernet interface 10Base T or 10Base 2
1	AMX192 output (192 dimmers) 4 pin male XLR
1	D54 output (384 dimmers) 3 pin female XLR
2	RS232 ports 9 pin male D type
1	Parallel printer port 25 pin female D-type
1	MIDI (In/Thru/Out) 5 pin female DIN (x3)
3	Auxiliary RS485/RS232 /handheld remotes 6 pin female XLR
12	Analogue Inputs (0 to +10V) 15 pin D-type female with +10V output
1	Audio input shared with SMPTE Time Code, 10mV to 10V balanced 3 pin female XLR
1	Keyboard
2	VGA monitors (4 optional on 520i) 15 pin female D-type high density
1	Power inlet: IEC320 male
2	Gooseneck lamp outputs 3 pin female XLR

Standards Compliance

EMC emissions to EN55103-1;
EMC immunity to EN55103-2;
Safety: EN60950;
Design & build: ISO9001, cUL1950

Ordering information

Cat No Description

91510	520 console with 200 intensity channels and 200 attribute channels*
91511	520i console with 250 intensity channels and 250 attribute channels*
91512	520i console with 350 intensity channels and 250 attribute channels*

*Includes Tracker, CommuniquéPro and Networker

Software

Cat No Description

Operating Software

67311	GeniusPro/Lightpalette operating software with 100/100 channels
67511	GeniusPro/Lightpalette 50 channel expansion
67513	GeniusPro/Lightpalette 200 channel expansion
67500	GeniusPro Off Line Editor (includes ShowPort™)
67313	GeniusPro PC (OS for PC operation)
67526	ShowNet configuration software

Application Software

67515	CommuniquéPro (communications application software)
67529	Networker (Ethernet application software)
67523	Tracker (automated luminaire software)
67521	Server (central file storage software)
67516	Reporter (reporting software)

Peripherals and accessories

Cat No Description

66012	Monitor 14" VGA - 230V
66013	Monitor 15" SVGA - 110/230V
66014	10.4" Flat screen monitor 110/240V
66015	Dual VGA card
66032	Dust cover for 14" monitor
66214	Designer's keypad
66219	Gooseneck lamp (1)
66123	Base Station EU (433.92 MHz)
66124	Base Station UK (418 MHz)
66126	R120 Hand held remote UK (418 MHz 230V)
66127	R120 Hand held remote EU (433.92 MHz 230V)
66129	R120 Hand held remote wired
66211	Mini keyboard UK
66212	Mini keyboard German
66213	Mini keyboard French

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