



# Ethernet Nodes

## SN100, SN102, SN103, SN104

- Microprocessor-based Ethernet nodes
- Designed for use with 300 and 500 series consoles with Networker™ software installed
- For use with the ShowNet™ data and network DMX patching software
- These powerful nodes allow you to connect all the peripheral devices in your facility using easily installed, low cost category 5 Ethernet data cables
- Support for over 18,000 DMX addresses



### SN100, SN102

- Provide remote video (2), remote printing, remote fader input, remote handheld devices, Midi ports and 2 DMX In/Out connectors
- SN100 can be used as a portable unit or, with the mounting kit supplied, for wall mounting
- SN102 for 19in rack mounting
- Universal power supply
- Choice of Ethernet connection systems - 10Base2 and 10BaseT
- Programmable via network, 3.5in disk drive or keyboard port
- Two SN100/102 units connected together may be used to distribute DMX over long distances using Ethernet independent of a console
- Printer, digitizer and remote fader inputs standard



### SN103, SN104

- Provide remote DMX and handheld remote control over Ethernet for all consoles
- 10BaseT Ethernet connections
- SN103 is 110/230V, SN104 is 48v DC powered



#### Mechanical Data

**Construction**      Zinc coated steel box construction.  
                                  Flame proof ABS controls

#### Environmental data

**Operating Temp**    32° to 104°F ambient (0° to 40°C)  
**Storage Temp**        -40° to 158°F (-40° to 70°C )  
**Humidity**                5% - 95% non-condensing

#### Weights and dimensions

	SN100	SN102	SN103	SN104
<b>Length</b>	13in (330mm)	19in (483mm)	8.4in (215mm)	8.4in (215mm)
<b>Depth</b>	6.5in (165mm)	10.2in (260mm)	4.7in (120mm)	4.7in (120mm)
<b>Height</b>	2.6in (65mm)	3.5in (88mm)	8.4in (215mm)	8.4in (215mm)
<b>Weight</b>	6.8lb (3.1kg)	7.7lb (3.5kg)	7.7lb (3.5kg)	7.7lb (3.5kg)





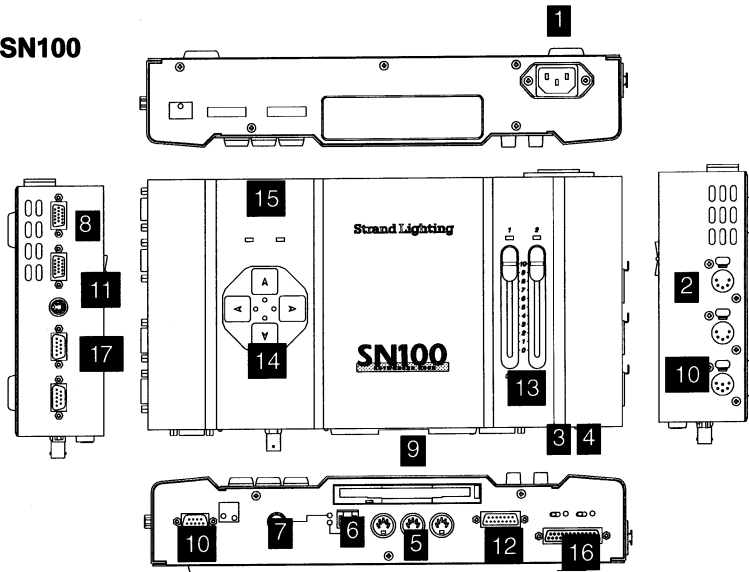
## SN100 & SN102

The ShowNet SN100 and SN102 are microprocessor based devices for providing access, at a remote location, to signals present at a 500 series console operating Networker™ software. They are multipurpose Ethernet nodes which offer connections for DMX signals, and up to two VGA monitors. SN100 may be permanently installed by wall-mounting using the bracket supplied, or simply connected temporarily to any Ethernet output where access to specific signals is needed. SN102 offers similar facilities but in a 19in rack mounted version. Operating software is supplied with Networker™ application software and is installed via the floppy disk drive of the SN100 and SN102. SN100 features two local faders that can be remote submasters and 12 analog fader or switch inputs. A handheld or dimmer status reporting port is also standard.

## SN103 & 104

SN103 and SN104 are wall mounted network nodes allowing cost effective distribution of up to four DMX signals over Ethernet wiring. SN103/104 nodes feature 4 connectors. Each connector may be configured as a DMX input or output using ShowNet DMX patching software. The fourth connector on all nodes may be configured as a handheld remote port and a power supply for the handheld is included with each node. The SN103 has an internal mains power supply and the SN104 may be remotely powered by a low voltage power supply (by Strand Lighting).

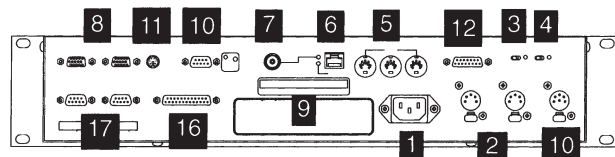
### SN100



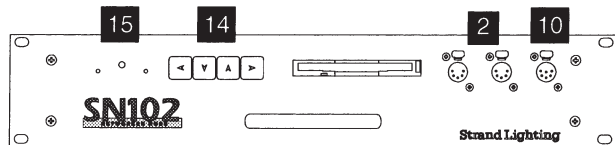
- |  |  |
|--|--|
| 1. Mains input                                 | 9. Floppy disk drive                         |
| 2. DMX 512 in/out                              | 10. Handheld remote                          |
| 3. Dimmer feedback termination switch          | 11. Keyboard port                            |
| 4. Remote control interface termination switch | 12. Analog in                                |
| 5. MIDI In/Thru/Out                            | 13. Programmable slider faders with LEDs (2) |
| 6. Ethernet 10BaseT                            | 14. VDU display scroll controls              |
| 7. Ethernet 10Base2                            | 15. Power and network OK indicator LEDs      |
| 8. Video out (2)                               | 16. Parallel printer port                    |
|  | 17. Digitizer and mouse ports                |

### SN102

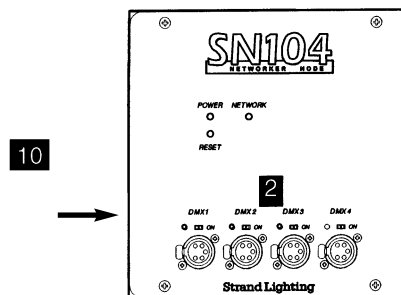
Front panel



Rear panel



### SN104



# Network Nodes

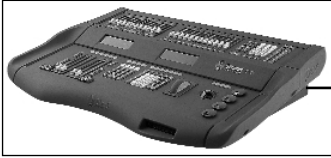


# Strand Control Systems

## Typical Networker and ShowNet layout

### Stage/studio floor

520i console partitioned to control a set of channels e.g. moving lights



### Multiple consoles

All Strand networks support multiple consoles and multiple facilities



### 510i show controller

provides full tracking backup for main console



### Main console

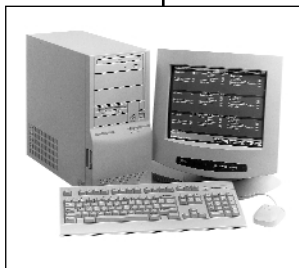
550i console partitioned to control channels for conventional fixtures during programming. Reconfigures to control all fixtures for playback



**Ethernet hub** interconnects all devices in the Ethernet system. Optimises wiring layout and increases the number of available ports in remote locations



**File server** provides show storage for all other consoles and PCs. Access rights per station



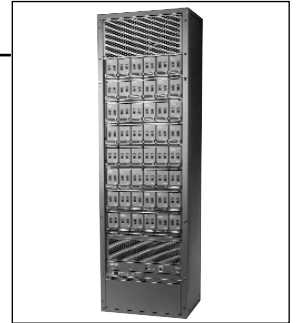
### SN100 series nodes

provide DMX data to dimmer racks or any DMX fixture



### Dimmer Racks

Discrete DMX source mapping with priority console assignments is standard with ShowNet.



### SN102

Multi-function nodes providing access at remote locations to DMX and video signals distributed over ShowNet

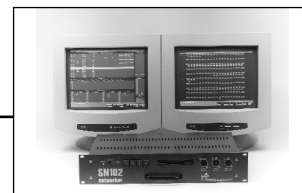


**Intelligent luminaires and colour scrollers** add flexibility and diversity to the lighting design. Consoles feature specialised commands and controls to speed up programming and playback of shows using these devices

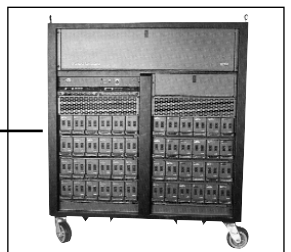


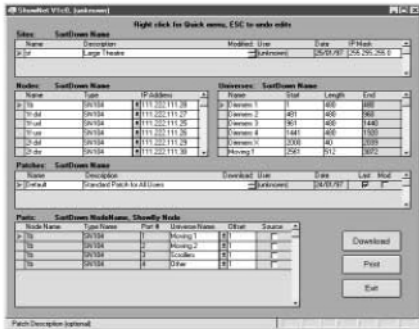
### Stage Manager's station

monitors the video of any console or PC on the network



### Dimmer racks





This graphic illustrates how easy it is to route DMX using a simple point and click interface and is perhaps the most powerful part of ShowNet. Over 18,000 DMX addresses are supported on ShowNet networks.

## Technical Specifications SN100/SN102

- Supply voltage** 100/240V 50/60Hz, autosensing
- Processor** Intel® 386 processor
- Archive memory** 3.5in floppy disk (DOS)
- Connections**
  - DMX512 (512 dimmers per port, selectable)
  - In/Out, 5 pin female XLR (3)
  - Handheld remote, RS232/RS485, 6 pin female XLR (1)
  - Comms ports, RS232, 9 pin male D-type (1)
  - MIDI (In/Thru/Out) (3)
  - 12 analog Inputs +10V, 15 pin D-type female (1)
  - Keyboard, mini-DIN (1)
  - VGA monitors, high density 15 pin female D-type (2)
  - Ethernet: 10Base2 thin wire, BNC 10BaseT twisted pair, RJ45
  - Power inlet: IEC320 (male)
- Standards compliance** EMC emissions to EN50081-1, EN55014; EMC immunity to EN50082-1, IEC1000-2-2; Safety: EN60950, EN60439 Part 1 (Also part 12 BS5486); design & build: ISO9000, UL1950
- Software** SN100 operating and configuration software is supplied with Networker™ application software.
- Control capacity** Up to 1024 DMX signals for dimmers, scrollers or DMX automated lights. May be configured to 1024 out, 512 in & 512 out or 1024 in. DMX address ranges for each DMX line on the network are set up at the console. Handheld remote panels may be added to any SN103/4.

## Technical specifications SN103/SN104

- Supply voltage** 48V DC (SN104), 100/240V 50/60Hz (SN103)
- Connections** 4 DMX In/Out 5 pin female XLR
- Control capacity** Up to 2048 DMX signals for dimmers, scrollers or DMX automated lights. May be configured to 2048 out, 1024 in & 1024 out or 2048 in. Handheld remote ports may be added to any SN103/4.

### Ordering information

#### Cat No Description

- 65100 SN100 Ethernet Node, freestanding or wall mounted
- 65102 SN102 Ethernet Node, 19in rack mounted
- 65103 SN103 DMX Ethernet node, 110/230V
- 65104 SN104 DMX Ethernet Node, 48V DC
- 65105 Rack Mount SN103R

**Strand Lighting Inc**  
6603 Darin Way, Cypress, CA 90630, USA  
Tel: +1 714 230 8200 Fax +1 714 230 8173

**Strand Lighting (Canada)  
Inc/Eclairages Strand (Canada) Inc**  
2430 Lucknow Drive No 15  
Mississauga Ontario L5S 1V3 Canada  
Tel: +1 905 677 7130 Fax: +1 905 677 6859



The Company reserves the right to make any variation in design or construction to the equipment described.  
© Strand Lighting Ltd. 2002  
Strand™, Strand Lighting™, Strand Quartzcolor™ are trademarks of Strand Lighting Limited and Strand Lighting Inc.