

## Operational Description.

### News Work Station NWS-01

The NWS-01 News Work Station is designed to be the ideal solution to the needs existing in Radio Station News Departments and other News Gathering Installations, for a practical and easy to operate Audio Source Control and Monitor Panel for use with modern PC based Digital Recording and Editing Systems.

The NWS-01 is Monophonic, designed to be the complete answer to News Editing requirements and is constructed in an elegant 3 unit high Rackmounting casing, and feature the following.

#### **Source Selection in 5 groups.**

- External Line Selector, selecting up to 96 sources from an external audio switcher.
- Network Source Input with Talkback and Programme send facility.
- Telephone Systems Input with programmable facilities.
- Local 4 Way Source Input Selector.
- Balanced and Unbalanced inputs for Local 1 and 2.
- Microphone Input with Limiter.

#### **Programme Control.**

- Rotary Record Level Control.
- Programme Level Limiter with LED Indicators.
- Equaliser with 10 selectable Pre-Set settings.
- Equaliser In/Out Switch.

#### **Monitor Control.**

- Push Button Monitor selection from 3 sources.
- Rotary Monitor Volume Control.
- Automatic Monitor Mute and Dim functions.
- Headphone Output.
- 2 Balanced Auxiliary Monitor Inputs.
- Balanced Talkback Input.
- Dual Monitor Loudspeaker Power Amplifier.

#### **Talkback Facilities.**

- 6 General Balanced Talkback Outputs.
- PTT Contacts on TB 1 and 2.

#### **Programme Output.**

- 2 Programme Outputs for feeding Recording Equipment.
- Outputs both Balanced and Unbalanced.

## Detailed Operational facilities.

### Group Selection.

The 5 Group Selector Push Button Switches are arranged to be Mutually Excluding meaning that only one of the five external Group Sources can be active at any one time.

Some of the selector switches have slightly different operation and are here described individually.

### External Line Selector. Latching Function.

Pressing the External button will activate the External line input group, illuminate the LED in the Push Button and clear any other group selected.

### Network Selector. Latching Function.

Pressing the Network Button will activate the Network input, illuminate the LED and clear any other group selected.

### Telephone Selector. Latching Function.

Pressing the Telephone Button, will "Take" the Telephone Line and connect it to the News Work Station input, illuminate the LED and clear any other group selected.

Pressing the Telephone Button again, will "Clear" the Telephone Line and switch the input off, leaving no input group selected.

### Local Selector. Latching Function.

Pressing the Local Button, will activate the Local Input, illuminate the LED and clear any other group selected.

### Voice Selector. Momentary Function.

Pressing and holding the Voice Button down will switch any selected input group off and channel the Microphone to the output.

Releasing the Voice Button will switch the Microphone off, and restore the previously selected group to be active as before.

## Operational details for each input group.

### External Group Input.

This is a single Monophonic Balanced Input, designed to accept audio signals from an external Audio Routing Switcher.

This Input is provided with an Input Line Selector designed to interface to a standard RSS-01 Audio Switcher, or a Custom Built ELAN Audio Routing Switcher via an RS 485 bus.

The Controller is powered from the switcher, and will switch audio from up to 96 line sources depending on the size of the switcher.

Control is by simple Up-Down Push Buttons with the selected line numerically indicated on two 7 segment LED Displays.

## **Network Group Input.**

This is a single Monophonic Balanced Input, normally fed from the Network News Line at normal line level.

The Network Group input is provided with a Momentary Talk button for sending output from the Work Station Microphone down the Network line, and a Push On-Push Off "Send" button with LED indicator for sending Recorded Audio material down the Network line. The LED will flash to keep the operator aware in this state.

By fitting the link to GENERAL OPTIONS 1 on the front PCB, the SEND switch will become momentary operation.

The "Send" Audio is derived from the Playback Monitor System, and follows whatever Playback source is selected.

Floating PTT Relay Contacts are provided, intended to operate external switching automatically close whenever the Talk or Send Buttons are activated.

The Network feed output is switched to line through a Relay, permitting several News Work Stations to be connected in parallel to the Network Line.

The Send condition cancels when "Send" button is pressed again, or automatically when the Network Group selector button or another Input Group selector button is pressed.

The "Talk" button does not cancel the Send condition.

## **Telephone Group Input.**

This function is more complex, and incorporate selectable control programming allowing several possible modes of operation in conjunction with different telephone systems.

2 sets of Control Relay Contacts and operating voltages are available from the News Work Station for operating telephone interfaces.

The actual Telephone interface or Hybrid Unit, **is not** supplied with the NWS-01.

Possible Telephone Interfaces are.

- Simplex Operation.
- Full Hybrid Interface.
- 4 Wire operation with Digital PABX.

### **Simplex Operation. (Modes 1 and 2)**

This is the simplest system, and allows Recording from the Telephone System, and Sending of Voice and Recorded Material down the Telephone line.

Pressing the Telephone selector switch takes the line, intercepts the Telephone Speech Circuit, and connects the News Work Station to Record from the telephone system.

Pressing this button again, disconnects and restores the telephone call to the normal telephone or will drop the call off.

While in the Record Mode, pressing the "Talk" button will cut the Record feed off and channel speech from the News Work Station Microphone down the Telephone Line.

The "Talk" button can be internally programmed to be Momentary operation, or Push On-Push Off with the LED indicating the On state.

Pressing the "Send" button, clears the "Talk" button condition and channel selected Playback Audio down the Telephone Line.

The "Send" button operates as a Push On-Push Off function with LED Indication of state.

Pressing the Telephone selector switch, drops the line, and clear any "Send" or "Talk" condition to Off.

### **Full Hybrid Operation. (Mode 3)**

As above, pressing the Telephone selector switch, connects the Hybrid Unit across the Telephone Line, and connects the News Work Station to Record from the telephone system.

"Talk" and "Send" is not activated until pressed.

Pressing "Send" cuts the Record feed, allowing clean audio material to be sent down the telephone line.

Pressing "Send" again reverts to the Record condition.

Pressing "Talk" leaves the Record feed active allowing the recording of two way telephone conversations or interviews.

Pressing "Talk" again reverts to the Record condition.

### **4 Wire operation with Digital PABX. (Mode 4)**

As before, pressing the Telephone switch, connects the News Work Station to Record from the telephone system.

"Talk" or "Send" is not activated until pressed.

Pressing "Send" cuts the Record feed, allowing clean audio material to be sent down the telephone line.

Pressing "Send" again reverts to the Record condition.

Pressing "Talk" leaves the Record feed active allowing the recording of two way telephone conversations and interviews.

Often, the Hybrid Action provided by Digital PABX systems is insufficient to provide good quality telephone interviews.

The News Work Station provide "Ducking" for the receive audio which is activated by pressing and holding down the "Talk" switch.

When set for 4 wire operation, pressing the "Talk" button again, does not revert to the Record condition.

If necessary to revert to the Record condition, press the "Send" button twice.

### ***Setting the telephone mode.***

MODE 1 is the default setting with no links fitted to the links called TELEPHONE OPTIONS on the front PCB.

MODE 2 is set by fitting a link to "A".

MODE 3 is set by fitting a link to "B".

MODE 4 is set by fitting a link to "C".

### **Local Group Input.**

This group is provided with 4 switchable Monophonic Balanced Inputs, selectable by electronically interlocking switches with LED indicators.

Local Inputs 1 and 2 are also provided with Unbalanced RCA Connector Inputs for operation with Unbalanced Recording Equipment.

Local Input 1 is also Playback Input 1, and connected to the output from Recording System 1.

Local Input 2 is the Playback Input 2, and connected to the output from Recording System 2.

### **Microphone Input.**

The NWS-01 is provided with a high quality Microphone Input Pre-Amplifier and Limiter, and is suitable for both Dynamic and Condenser Microphones.  
+ 12V DC Phantom Power is provided.

A Condenser Microphone is highly recommended if used near a Computer Video Screen.

### **Voice Input.**

The Voice button is arranged as a Press to Talk switch and is intended as a "Voice Slate" button only.

Pressing the Voice button will mute any selected input group while it is held down.

On release of the Voice Button, any previously selected input will restore to previous operation.

### **Monitor Loudspeaker "Muting" or "Dimming".**

The Loudspeaker output will automatically "Mute" whenever the "Voice" or one of the "Talk Buttons" are held down or active.

Pressing any of the Talkback Buttons, will "Dim" the Monitor Loudspeaker Level.

## **Programme Control.**

Programme Control is kept simple and consists of a High Quality Rotary Gain Control Potentiometer, a Switchable Equaliser having 10 Pre-Set Equalisation Curves, 9 Active and 1 Neutral controlled by two Push Buttons, an Equaliser In-Out switch and a Limiter in the output to prevent overload of the Recording Equipment.

### **Programme Level Control.**

In operation, simply advance the Gain Control Potentiometer until the Limiter indicates OK or 3 dB of limiting.

The Limiter is intended to control maximum programme level and prevent overload of the attached recording equipment.

### **Equaliser.**

The Equaliser is provided with two switches, one up, one down which selects any one of 10 different factory set equalisation curves, 0 being neutral with the others, 1 to 9 selecting various practical Equaliser settings intended to improve audio quality.

A 7 Segment LED Display indicates which setting is selected.

The Equaliser In-Out switch illuminates when the Equaliser is By-Passed.

In operation, simply step up or down through the various Pre-Set Curves and use the one which sounds the best.

Use the In-Out switch to evaluate the action and sound quality changes made by the Equaliser.

## **Monitor System and Control.**

The Monitor section is quite comprehensive, and arranged to provide Loudspeaker and Headphone Monitoring from the Record Output, and the two Playback Returns, PB-1 and PB-2 which are controlled by three electronically interlocked Push Buttons and a High Quality Rotary Monitor Volume Control.

In addition, three Auxilary monitoring inputs are provided and mixed into the general monitor system.

These are the general Talkback Input and Aux-1 and Aux-2.

Aux-1 and 2 are general inputs and may be used in conjunction with a radio telephone system or connected across the Network line for permanent monitoring of it or any other application needed.

Monitor output is to a Headphone, and to two Loudspeakers each fed from identical audio power amplifiers.

The loudspeakers are normally mounted on each side of the Video Monitor of the News Editing System to give an illusion that the sound comes from the Video Monitor.

The Headphone Socket (Not Supplied) should be mounted below the desk and be provided with switching contacts to mute the Loudspeakers when the Headphone is plugged in.

The Monitor Loudspeakers automatically mute when the microphone is "On", and will "Dim" whenever a Talkback Button is pressed.

## **Talkback System.**

The NWS-01 is provided with 6 Balanced Line Level Talkback outputs, controlled by Push Button Switches and Relays.

Two of the Talkback outputs, TB-1 and TB-2 are provided with PTT Contacts to operate external facilities such as Radio Telephones or Line Switching etc.

## **Programme Outputs.**

The NWS-01 is provided with 2 programme outputs intended for feeding external recording equipment.

Each output is arranged to provide Balanced and Unbalanced feeds at levels adjustable to suit practically any type of external recording equipment including PC Based Sound Cards.

The Unbalanced Outputs appear on RCA type connectors.

Normally Record 1 Output would be used to feed a PC Based Digital Recording and Editing System, and Record 2 Output used to feed other Recording Equipment such as a DAT Recorder or a Mini Disk Recorder for Audio Backup, Archiving or other uses.

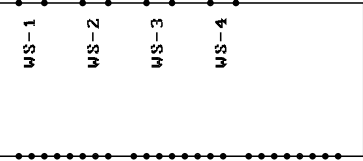
The Playback return from Recording System 1 is permanently connected to Playback Input 1 for Monitoring and Screen Editing purposes and to Local Input 1 for Cross Dubbing to the other recording system.

Recording System 2 is permanently connected to Playback Input 2 and Local Input 2 for the same reasons.

Automatic interlocking is provided to mute the individual Record Outputs in order to prevent feedback from Output to Input when the Recording system is selected to feed from itself.

Example is, Record Output 1 is muted when Record System 1 is selected to Local input 1 and Local input Group is active.

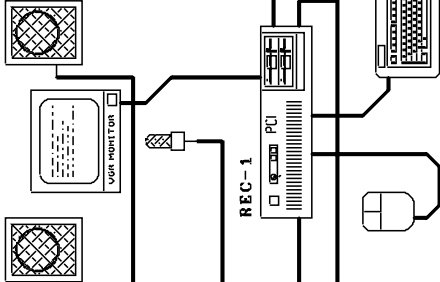
CUSTOM BUILT ROUTING SWITCHER



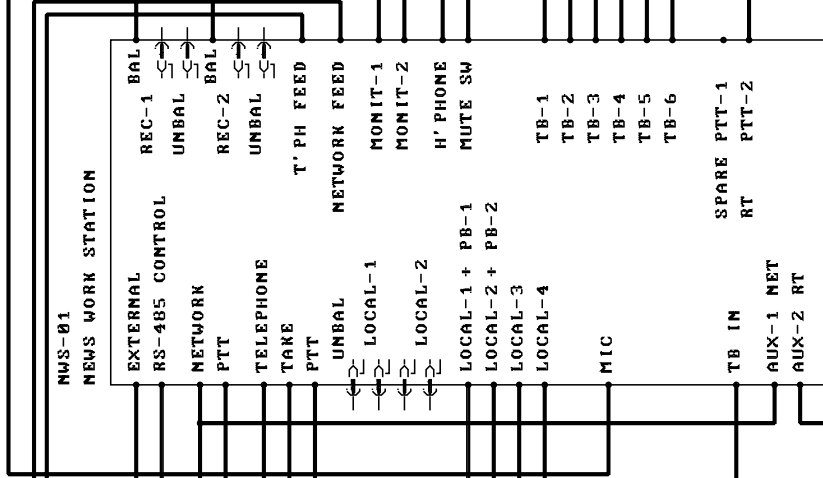
VARIOUS SOURCES

# SUGGESTED NEWS WORK STATION INSTALLATION

PC BASED NEWS EDIT SYSTEM



LOCAL AREA NETWORK



REC-1

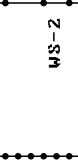
HEADPHONE SOCKET BOX

SECOND RECORDER REC-2

TO RT SYSTEM  
IN  
OUT  
PTT

GEN TB IN

LOCAL SOURCE



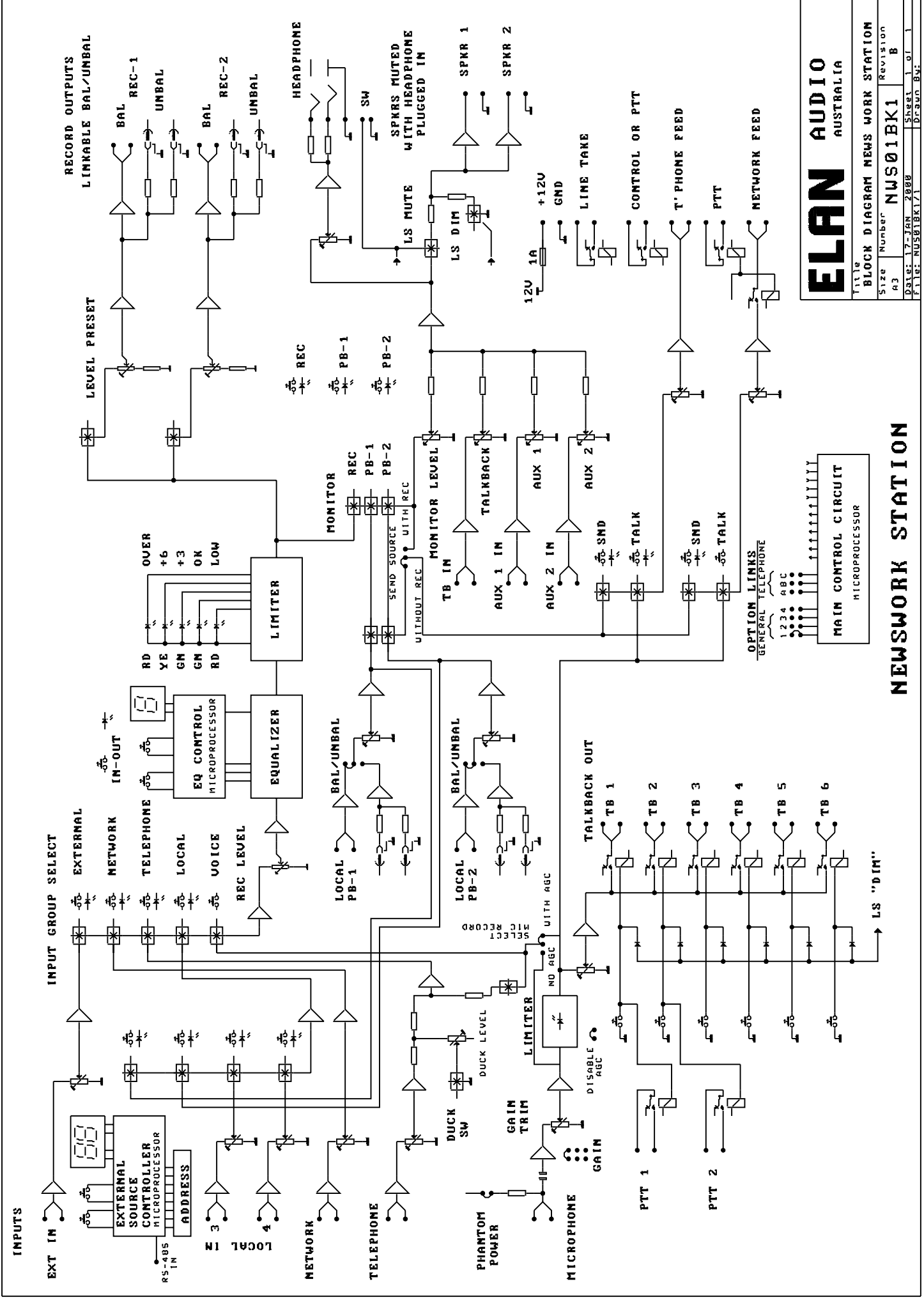
PHONE



# ELAN AUDIO AUSTRALIA

|           |                             |
|-----------|-----------------------------|
| Title     | TYPICAL MWS-01 INSTALLATION |
| Size      | A3                          |
| Number    | NWS-01 IN                   |
| Revision  |                             |
| Date:     | 5-NOV-1998                  |
| Sheet     | of                          |
| File:     | NWS-01IN/1                  |
| Drawn By: |                             |

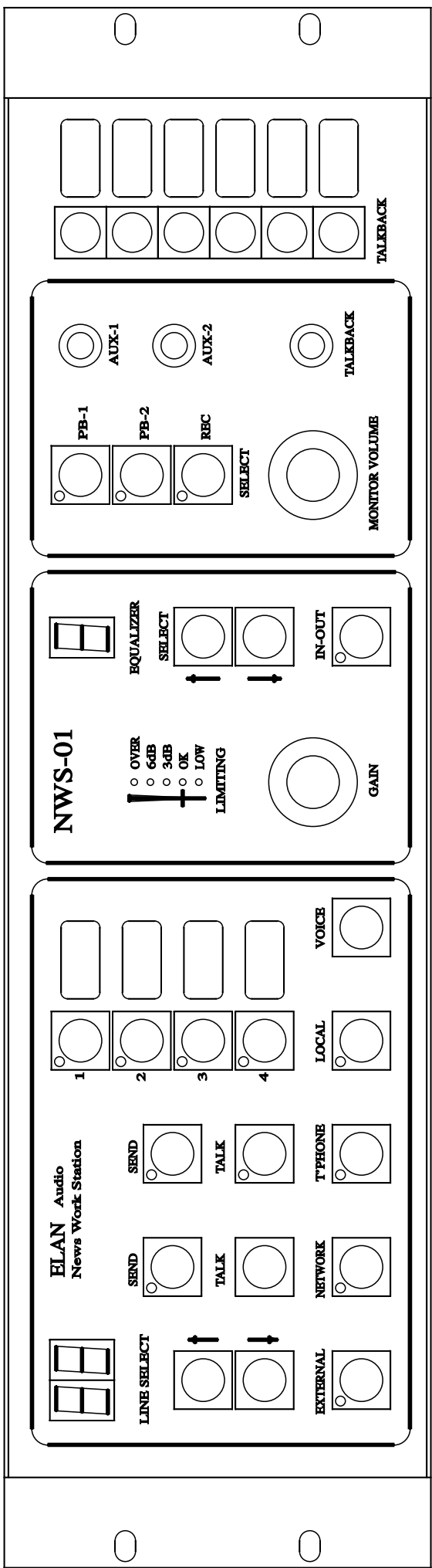




# ELAN AUDIO AUSTRALIA

|       |             |                                 |
|-------|-------------|---------------------------------|
| TITLE |             | BLOCK DIAGRAM NEWS WORK STATION |
| SIZE  | Number      | Revision                        |
| A3    | NWS01BK1    | B                               |
| DATE: | 17-JAN 2008 | SHEET 1 OF 1                    |
| FILE: | NWS01BK1/1  | DRAWN BY:                       |

## NEWSROOM STATION



NWS-01PN

NWS-01 News Work Station

# News Work Station



# NWS-01

NWS-01B.jpg (979x799x16M jpeg)

