

## Inputs

### 1 Mic

A high quality XLR (-129dBu EIN) with 60dB gain range accepts balanced or unbalanced mic or DI box signals.

### 2 Line

A jack socket with 50dB of gain range accepts both balanced and unbalanced line level signals from tape machines, keyboards or samplers. The high impedance balanced input offers extra protection against unwanted hum and noise in electromagnetic and electrically hostile live environments. ProTracker's line input also has a built in DI capability avoiding the need for DI boxes.

### 3 Individual +48v Phantom Power Switching

This provides power for condenser microphones without the need for batteries. Each input channel has its own switch enabling a mixture of Condenser and Dynamic microphones to be used.

### 4 Mic/Line Switch

This switch connects the Mic or the Line input to the channel. It allows you to put the unit in the rack with all connections made.

### 5 Input Gain Control

This gives you full control of the signal between 0 and 60dB.

### 6 100Hz High Pass Filter

The 12dB/Octave 100Hz filter is an effective tool for tackling mic popping or low frequency rumble on stage.

## 7 Monitor/Input Insert Switch

The Insert can be switched between monitor or channel paths. With the Insert in the input path, the channel can be connected to external effects or mixing consoles. With the insert in the monitor path you can use effects units or mixing consoles as above, whilst monitoring your multitrack.

## 8 Auxiliary Control

Sends a signal from ProTracker to effects units or monitors on stage.

## 9 Aux Monitor/Input Switch

Place your Auxiliary control in either monitor path or the input path, without having to repatch. With the switch in the monitor path, you can use effects in tape play back mode.

## 10 Pan Control

Positions your mono signal in the stereo image.

## 11 Fader Control

Sets the channel level. A custom fader law gives ProTracker a smooth, predictable response. Normal operating position is at the '0' mark, with an additional 10dB of gain at the top of the fader, for extra gain when you need it.

## 12 Overload LED Indicator

The overload LED is designed to illuminate 4dB before the signal peaks. This ensures a clean audio signal without distortion, essential in a recording environment.

## 13 Limit LED Indicator

This LED indicates that the Limiter is active and the signal is rising above the selected limit threshold which is set in the Master Section.

As digital tape machines are normally unforgiving when signals exceed their dynamic range, the Limit LED is an indication that the multitrack inputs will not overload.

## 14 Limiter Switch

This switches the Limiter into each channel individually.

## 15 PFL (Pre-Fade Listen) Switch

This allows you to set up the input gain for '0' on the meters, ensuring that the channel fader has a smooth, predictable response. Use PFL whilst mixing down for listening to individual channel levels.

## 16 Individual +4/-10 Switch

Normally at +4dB, this allows each channel's tape send to be matched correctly with both pro and semi-pro machines. It saves considerable time when level matching a multitrack tape recorder.

## 17 Individual Tape Send

A balanced 1/4" 'A' gauge jack feeds signals from the channel to be recorded by a multitrack recorder, post-fader.

## 18 Individual Tape Return

A balanced 1/4" 'A' gauge jack allows signals to be returned from a multitrack recorder.

## 19 Insert Send

A 1/4" 'A' gauge unbalanced jack sends pre-fader signals to processors such as graphic equalisers or compressors. Alternatively, it allows connection to a FOH console independent of the Tape Send.

## 20 Insert Return

A 1/4" balanced jack returns signals from processors such as graphic equalisers or compressors.

## Master Section

### 21 Auxiliary Master Control

Sets the Aux master level. The output is impedance balanced to keep the signal free of hum and other interference.

### 22 Aux Pre/Post Switch

This Global control selects whether the Aux signal is taken before or after the fader. If the Aux is in pre fade mode, it normally drives foldback monitors on stage. If the Aux is in post fade mode, it will drive effects.

### 23 Mix 7/8 Switch

This switch patches the mix bus into channels 7/8. This allows the output of 6 channels of unmixed signals and a master of the entire mix, on the same 8-track machine, via channels 7/8.

### 24 I/P to Mix Switch

Gives you the choice to route the Mic, Line or the Tape return to mix. If used in conjunction with the 7/8 to Mix switch, you can send your input signal to mix and still send your tape return signals to channel 7/8 to mix mix down. This allows you to record onto tape and use ProTracker as a Front-of-House desk simultaneously.

### 25 Stereo Return

2 balanced 1/4" 'A' gauge jacks feed the main stereo mix via the stereo return control fader. This can be used for external effect processor returns or as another stereo input for CD, cassettes etc.

### 26 Stereo Ret PFL

Ideal for monitoring effect returns.

### 27 Mix Left and Right Faders

Control ProTracker's final output level to the main impedance balanced outputs. 60mm faders with smooth custom fader laws give predictable response for perfect fades every time.

### 28 Bargraph Meters

8 segment LED meters let you keep an eye on levels in the main stereo bus.



### 29 Limit Threshold Control

Globally 'set and leave' the limit threshold between 42 and 24dB. Set to 1dB below your maximum multitrack input level to ensure clarity of sound.

### 30 Solo LED

This Global LED tells you that you have a PFL switched on.

### 31 2 Trk Replay Switch

Select for switching the 2 jack inputs to the monitor bus. Use it for cassette/DAT master monitoring.

### 32 Aux

Allows you to monitor ProTracker's Auxiliary bus.

### 33 Mon 7/8

Allows you to monitor channels 7/8.

### 34 Mix

Allows you to monitor the mix bus.

### 35 Mon/Phones Pot

Sets the level of the headphones and monitor output left and right jacks.

### 36 Headphone Socket

Plug in your headphones to monitor 2 Trk replay, Aux, Mon 7/8 or Mix.

### 37 Power On/Off Switch

The integrated custom built power supply can operate between 85 and 265 V, 50/60Hz AC. The power supply has been built in for ease of use in a rack mount situations.

### 38 Expand Out

A 9 way D-type connector takes unbalanced signals out to another ProTracker. This serial bus allows almost unlimited numbers of ProTrackers to be connected to each other.

### 39 Expand In

A balanced Input receives signals from other ProTrackers.

### 40 2 Trk Monitor +4dBu Connectors

XLR Balanced left and right inputs allow professional DAT/reel-to-reel master tape playback to be monitored in the headphones or monitor left and right outputs.

### 41 2 Trk Monitor -10dBV Connectors

RCA Phono unbalanced left and right inputs allow semi-professional DAT/Cassette master tape playback to be monitored in the headphones or monitor Left & Right outputs.

### 42 Mix Output +4dBu

XLR Balanced Left and Right outputs allow connections to professional DAT and public address amplifiers.

### 43 Mix Output -10dBV

XLR Unbalanced left and right outputs allow connections to semi-professional DAT and public address amplifiers.

### 44 Aux Send

An unbalanced 1/4" 'A' gauge jack connects ProTracker to effects processors and foldback monitoring systems.

### 45 Monitor Output Left & Right

2 unbalanced 1/4" 'A' gauge jack inputs for connecting the monitor bus to an external amplifier. The headphones will override the monitor outputs when connected.

# WHAT IS PROTRACKER?

**It's never been easier to take a digital multitrack recorder out on the road. But teaming it up with a compact mixer that's up to the task of making "studio-quality" live digital recordings is not so easy. So Spirit have created ProTracker.**

An 8 channel in-line console in a 3U rack frame, ProTracker is ideal for digital and analogue multitracks. You can use ProTracker for live recording at venues without interfering with the vital role of the Front-of-House console. Take ProTracker out on location, too, or install it in OB vehicles. ProTracker is ideal for overdubbing in small studio setups and it'll even double as a Front-of-House mixer at small gigs.

With a power supply that works around the world, ProTracker really frees you to make recordings anywhere where you can take your multitracks. With its Expand facility, you can daisy-chain almost any number of ProTrackers to accommodate much larger multitrack setups.

All this flexibility would count for nothing if ProTracker did not deliver digital quality results. ProTracker's ultra clean signal path is the result of considerable research and circuit refinement: a specially designed mic preamp ensures very low noise, all the inputs and outputs are balanced and there's even a DI capability on each input, eliminating the need for external DI boxes.

An onboard limiter

guarantees that digital tape clipping won't happen when you're not watching the levels.

But all this is just the beginning. For the full story, take a close look at ProTracker's features list:

## MAIN FEATURES

- In-line monitoring signal format - 2 discrete inputs per channel
- 8 channels with 60mm linear faders (-90dB cut off)
- Expansion sockets for daisy-chaining ProTrackers
- New high quality, high gain mic pre-amp (-129dBu EIN) with switchable 48V phantom power on every input
- Balanced Line inputs with built-in DI capability for instruments
- Switchable High Pass Filter on every channel
- Built-in Limiter (300µSec attack time/ 3 Sec release), selectable on every channel
- Insert and Aux switchable between channel and monitor paths
- Aux globally switchable pre/post fader
- PFL on each channel
- Overload and Limiter indicators on each channel
- Monitor fader and Pan control
- Balanced Tape Send/Return, switchable between +4dBu and -10dBV
- Separate pre-fade Insert and Return sockets, eliminating the need for Y-cables
- Stereo Effects Return with fader and PFL
- Inputs switchable to Mix to allow simultaneous front-of-house mixing and recording
- Mix routable to Tape Sends 7/8 for simultaneous 2-track recording on a single multitrack, without affecting multitrack feeds from channels 1 to 6
- Headphone monitoring of 2-track return, Aux, 7/8 or Mix
- Solo indicator
- Monitor Outputs follow headphone output
- Mix Output and 2-Track Return accept +4dBu XLRs or -10dBV RCA phones
- 100 - 240 VAC operation with internal universal switching power supply
- Road quality construction



# L.A. STORY



SPIRIT CONSOLES are designed by perfectionists, but they are also specified by sheer enthusiasts who get serious kicks out of innovating a new board. None more so than Spirit's man in the USA, GARY LYNN. He's wanted us to build ProTracker for years - so who better than to explain the concept now he's finally got his heart's desire. What a pity he's no longer on the road himself.

**"In the mid-70s (I'm showing my age), when I was cutting my teeth in recording, several LA engineers were experimenting with a method of recording referred to as "direct to tape tracking".**

**What this meant was, a good quality Mic plugged into a pre-amp (usually custom built) then plugged directly into the multitrack**

**recorder. The idea was to avoid as much electronic circuitry in the signal path as possible for the cleanest sound. In those days most mixing consoles usually had several transformers in the channel path and were a bit noisy compared to now. This "direct to tape" method of recording was (in my opinion) one of the main contributors to the so called "LA Sound" - good, natural-sounding clean tracks. Even today, with very quiet, clean-sounding consoles, you can ask any professional engineers and they'll unanimously agree that "direct to tape" is still the best way to go for tracking. You'll never get a good sounding mix if the tracks aren't cut clean to begin with.**

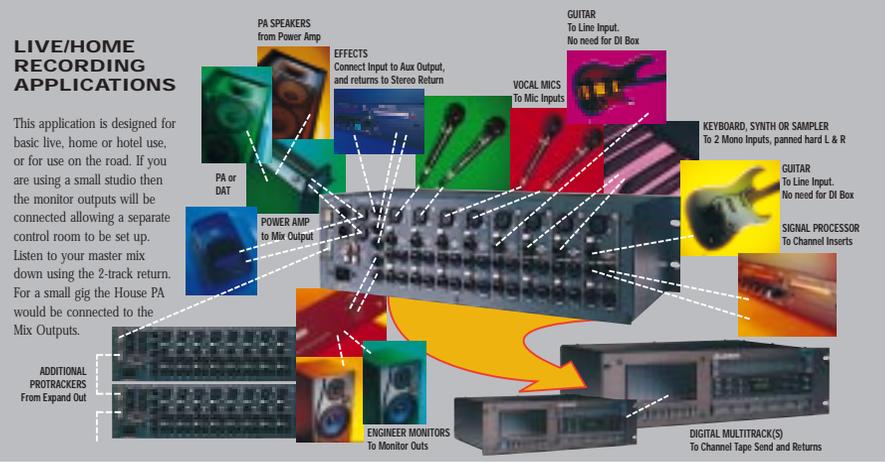
**So you may say "Why not use the little mixer I already have for tracking?" The simple reason is, with the affordable 8 track digital tape machines available today, it's even more important to have the**

**cleanest tracks possible. With ProTracker, we've used the best, lowest distortion, Mic pre's we could design, and added to it a High Pass Filter to eliminate stage rumble that eats up valuable headroom in digital recordings. We also built in a very fast attack limiter to keep you from worrying about overloading when everybody "gets into it" and plays too loud (digital machines are very unforgiving when you overload them). With ProTracker you will always get uncompromised professional results."**



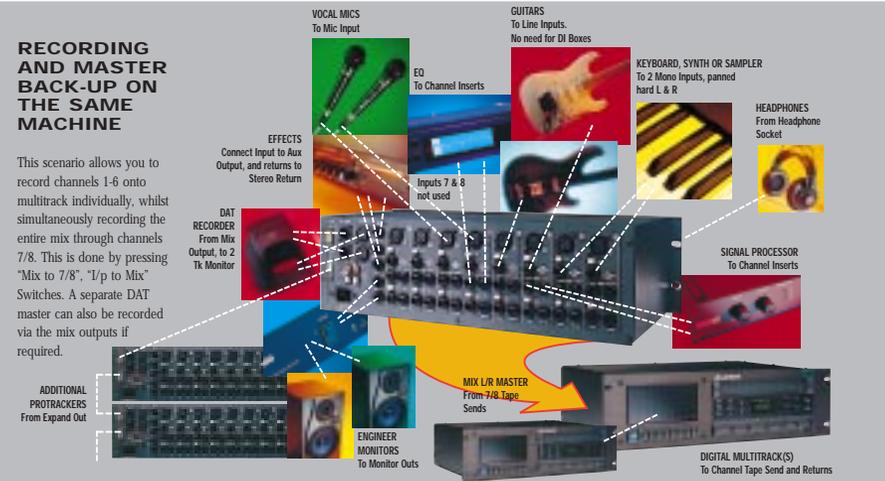
## LIVE/HOME RECORDING APPLICATIONS

This application is designed for basic live, home or hotel use, or for use on the road. If you are using a small studio then the monitor outputs will be connected allowing a separate control room to be set up. Listen to your master mix down using the 2-track return. For a small gig the House PA would be connected to the Mix Outputs.



## RECORDING AND MASTER BACK-UP ON THE SAME MACHINE

This scenario allows you to record channels 1-6 onto multitrack individually, whilst simultaneously recording the entire mix through channels 7/8. This is done by pressing "Mix to 7/8", "I/p to Mix" Switches. A separate DAT master can also be recorded via the mix outputs if required.



## PROFESSIONAL LIVE RECORDING SITUATIONS

In this example, ProTracker acts as a "recording" submixer, with a separate Front of House desk handling the House PA. Alternatively ProTracker can act as a splitter itself by feeding signals from its insert send jack to the main board.

