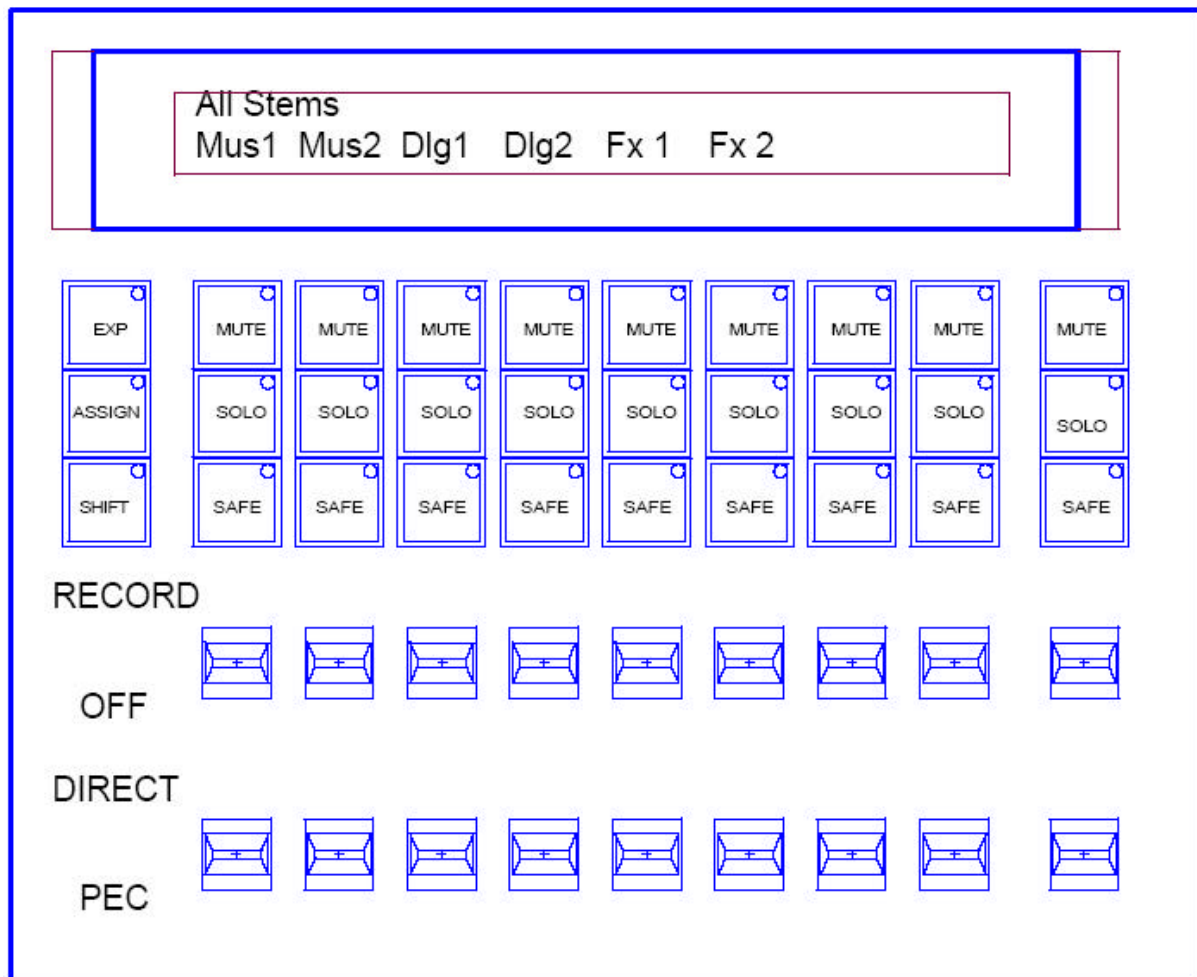




Pec - Direct Remote For DAW's

PD-1, a new approach to film style monitoring, film pioneered multi-channel recording, some current mixes can have over 200 separate elements in any section. The combination of multiple segments with multi-channel plus multi-format delivery requirements has forced film dubbing mixers to develop a flexible way of working which calls for an appropriate monitoring system. Two main elements have evolved, the concept of stems, premixed multi-channel elements, typically music, dialogue and effects and the 'Pec-Direct' panel (Pec = Photo Electric cell) This could also be called a 'tape-direct' or today 'disk-direct', We prefer the original 'Pec-Direct'.



The typical monitor section in a film desk is a completely separate mixer with for example 6 stems of 8 tracks requiring 48 'Direct' inputs and 48 'Pec' inputs. The inputs are routed to up to 8 outputs (For example a 7 track mix of L, R, C, Sub/FX, LS, RS, CS). The dialogue stems may only be mono, the music stems may be two or three track or four track, and up to 7 track effect stems.

The PD-1 provides a new way to implement the 'Pec-Direct' panel concept. The solo, mute and source/playback switching are implemented within the digital audio workstation. By switching within the workstation a large number of interconnections and hardware is eliminated, for instance a 48 track Pec/Direct unit would require 96 inputs!. The audio is then mixed within the workstation to generate the individual monitor feeds (LCRS...).

Pec - Direct Panel Operation

The panel is made up of 8 individual channels and a Master. The individual channels may be assigned to up to 64 individual tracks or one of 16 stems. The master may be assigned to one of the sixteen Stems (Dlg1..Dlg4, Mus1..Mus4, Fx1..Fx4, Aux1..Aux4) or one of eight Groups. The sixteen stems may be defined with any combination of tracks up to a maximum of 8 tracks, the eight Groups may be defined with any combination of track and stems up to a maximum of 8.

Display

Stem

Dialogue 1 [Dlg 1]	* Error Message *
Tk01 Tk02 Tk03 Tk04 Tk05 Tk06 Tk07 Tk08	

The Top line of the display shows the current Stem Name and [Short Name] and user message
The Bottom line shows the Track assigned to each channel of the selected stem.

Group

Group 1	* Error Message *
Dlg1 Dlg2 Mus1 Fx1 Fx2 Aux1 Tk01 Tk02	

The top line shows the MGroup Name and user message
The bottom row shows the Stems/Tracks assigned to each channel

Keys

Channel MUTE

If assigned to a Track this key will mute the selected track, the LED will be illuminated when the track is muted.

If assigned to a Stem the channel mute will mute all tracks in the selected Stem. The LED will flash when some but not all of the tracks are muted, and be fully on when all tracks in the stem are muted.
The Mute LED's will also illuminate to indicate mute due to Solo.

Channel SOLO

If assigned to a Track the channel solo will solo the selected track, The LED will be illuminated when the track is solo.

If assigned to a Stem the channel solo will solo all tracks in the selected Stem. The LED will flash when some but not all of the tracks are solo, and be fully on when all tracks in the stem are solo.
Solo's are additive.

Channel READY/SAFE

If assigned to a Track the channel safe will safe the selected track. The LED will be illuminated when the track is safe.

If assigned to a Stem the channel safe will safe all tracks in the selected Stem. The LED will flash when some but not all of the tracks are safe, the LED will be fully on when all tracks in the stem are safe.

This key may be configured as a SAFE or READY key.

Master MUTE

The Master Mute will mute all tracks/Stems in the selected Stem/MGroup. The LED will flash when some but not all channels are mute, the LED will be fully on if all channels are mute.

Shift followed by Master Mute will clear all Mutes even those not defined by the panel.

Master SOLO

The Master Solo will Solo all tracks/Stems in the selected Stem/MGroup. The LED will flash when some but not all channels are solo, the LED will be fully on if all channels are solo.

Shift followed by Master Solo will clear all Solos even those not defined by the panel.

Master READY

The Master Mute will safe/ready all tracks/Stems in the selected Stem/MGroup. The LED will flash when some but not all channels are safe, the LED will be fully on if all channels are safe.

This key may also be configured as a Master Safe key

Shift followed by Master Ready will safe all tracks even those not defined by the panel.

ASSIGN

When the Assign key is flashing the panel is in assign mode and tracks or stems may be assigned to the selected MGroup.

The channel Mute key will increment the Selected Track or Stem Name assigned to its channel.

The channel Solo key will increment the Selected Track or Stem Name assigned to its channel.

The Master Channel Mute Key will increment the Selected Stem/MGroup for the Panel.

The Master Channel Solo Key will decrement the Selected Stem/MGroup for the Panel.

EXPAND

If the Expand Led is off and the panel is assigned to a MGroup then depressing the Expand key will cause the Expand led to flash and 'Select Stem' will be displayed.

Whilst the Expand Led is Flashing depressing any key on a channel that is defined to a Stem will expand the stem (The Master Channel is assigned to the selected Stem), and the Expand LED will illuminate fully.

If the Expand key is fully on then depressing Expand will re-select the MGroup.

SETUP PARAMETERS

The following setups are provided

Number of tracks

Menu 93:- Monitor Tracks 0=8 1=16 2=24 3=32 4=40 5=48 6= 56 7=64

This sets the maximum number of tracks regarded as monitor tracks, For instance when working on a DAW there may be 4 stems each of 6 tracks used for record/monitor, and 64 playback tracks.

Use Mute for Solo

Menu 94:- Use Mute Cmd for Solo 0= Yes, 1= No
--

Solo may be implemented by using either the Solo or Mute command, select according to the DAW. One advantage of using Mutes for solos is that the Solo mute width is limited by the setting of the number of Monitor Tracks.