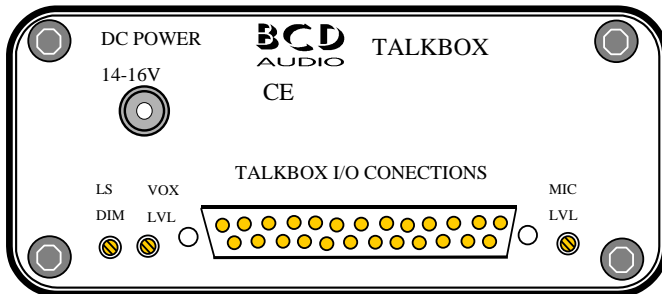


# AUDIO D-Type Pin-outs

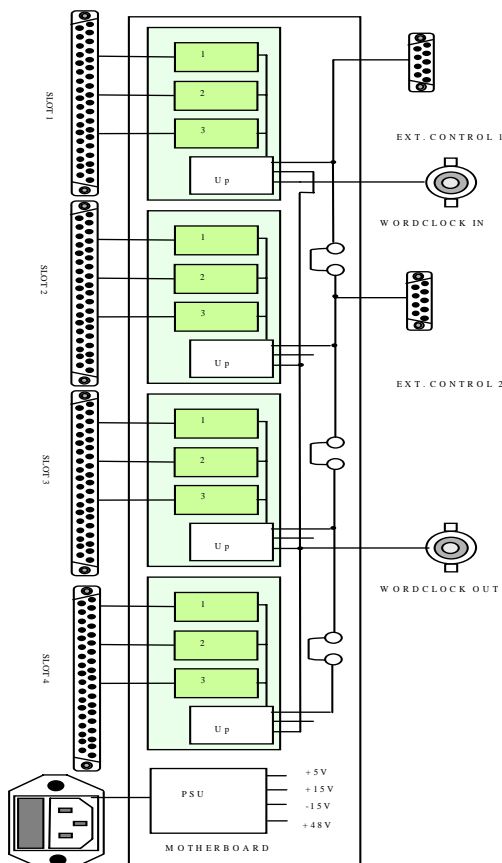
## TALKBOX



### Talkbox – D25F connector

- Pins 1 and 14 : Balanced microphone signal.
- Pins 2 and 15 : Signal ground.
- Pins 3 and 16 : Balanced high level mic output.
- Pins 4 and 17 : Balanced line level input one.
- Pins 5 and 18 : Balanced line level input two.
- Pin 6 : Mix input (virtual earth level).
- Pin 19 : Mix 2 output: link to 6 for mixed feed.
- Pin 7 : Spare, no connection.
- Pin 20 : VOX output option, low = signal present.
- Pin 8 : DIM2 input, low = active, 12V float
- Pin 21 : PTT input/output, low = signal, 12V float.
- Pin 9 : Ground
- Pin 22 : DIM input, low = dim, 5V compatible.
- Pin 10 : Microphone output, unbalanced.
- Pin 23 : MUTE input, low = dim, 5V compatible
- Pin 11 : Input 1 or mixed output, unbalanced.
- Pin 24 : Loudspeaker output, if fitted.
- Pin 12 : Input 2 output, unbalanced.
- Pin 25 : Loudspeaker and PSU ground.
- Pin 13 : +15V power input / output.

# INSTALLER-12 1U RACK BOX



### Audio Signal Connections

Four 37 way Female Dtypes each with 12 signal pairs, and interleaved grounds.

#### Dtype connector pin usage

#### Piglet number

Pins 1, 20	Signal pair 1 +/-	1
Pins 2, 21	Signal pair 2 +/-	1
Pins 3, 22	Ground	
Pins 4, 23	Signal pair 3 +/-	1
Pins 5, 24	Signal pair 4 +/-	1
Pins 6, 25	Ground	
Pins 7, 26	Signal pair 5 +/-	2
Pins 8, 27	Signal pair 6 +/-	2
Pins 9, 28	Ground	
Pins 10, 29	Signal pair 7 +/-	2
Pins 11, 30	Signal pair 8 +/-	2
Pins 12, 31	Ground	
Pins 13, 32	Signal pair 9 +/-	3
Pins 14, 33	Signal pair 10 +/-	3
Pins 15, 34	Ground	
Pins 16, 35	Signal pair 11 +/-	3
Pins 17, 36	Signal pair 12 +/-	3
Pins 18, 37	Ground	
Pin 19	Chassis ground	

The above connector pin out ensures that there is a ground pin in between every two signal pairs. The Piglet schedule guarantees that Digital and Analogue signals are arranged to always have a ground between them. The external wiring should be planned with the actual signal usage in mind.

# PROGRAMME AUDIO MONITOR UNIT



The AMU is normally supplied with an eight way audio selector. An Analogue or a mixer selector can be fitted. The audio inputs are at the D37 connector.

### D37 Analogue selector schedule

Pins 1,20	Input Pair 1L +/-
Pins 2,21	Input Pair 1R +/-
Pins 3,22	Input Pair 2L +/-
Pins 4,23	Input Pair 2R +/-
Pins 5,24	Input Pair 3L +/-
Pins 6,25	Input Pair 3R +/-
Pins 7,26	Input Pair 4L +/-
Pins 8,27	Input Pair 4R +/-
Pins 9,28	Input Pair 5L +/-
Pins 10,29	Input Pair 5R +/-
Pins 11,30	Input Pair 6L +/-
Pins 12,31	Input Pair 6R +/-
Pins 13,32	Input Pair 7L +/-
Pins 14,33	Input Pair 7R +/-
Pins 15,34	Input Pair 8L +/-
Pins 16,35	Input Pair 8R +/-
Pins 17,36	Sel Output L +/-
Pins 18,37	Sel Output R +/-
Pin 19	Ground

### D37 Mixed selector schedule

Pins 1,20	AES-3 Input 1 +/-
Pins 2,21	AES-3 Input 5 +/-
Pins 3,22	AES-3 Input 2 +/-
Pins 4,23	AES-3 Input 6 +/-
Pins 5,24	AES-3 Input 3 +/-
Pins 6,25	AES-3 Input 7 +/-
Pins 7,26	AES-3 Input 4 +/-
Pins 8,27	AES-3 Input 5 +/-
Pins 9,28	Input Pair 5L +/-
Pins 10,29	Input Pair 5R +/-
Pins 11,30	Input Pair 6L +/-
Pins 12,31	Input Pair 6R +/-
Pins 13,32	Input Pair 7L +/-
Pins 14,33	Input Pair 7R +/-
Pins 15,34	Input Pair 8L +/-
Pins 16,35	Input Pair 8R +/-
Pins 17,36	Sel Output L +/-
Pins 18,37	Sel Output R +/-
Pin 19	Ground

Mixed selector Inputs 1-4 are always AES-3.  
Mixed selector Inputs 5-7 are AES-3 if signal is present, otherwise Analogue source. Short together unused AES inputs at D connector to prevent false input detection.

Selector output is always Analogue; it also appears on two male XLR connectors.

# INDICATION & CONTROL D-TYPE PIN-OUTS

Some of our products use 15pin D-Type connectors for GPI style alarm tally, control & indications:

## DELAYED PROGRAMME COMPARATOR



### Indication and control

A 15 way Male D connector is used for indication and control. Isolated relay contacts signal the state of the Alarm and Same relays. The Alarm state is signalled even under power fail conditions. A low-power, fused source of 5V is available at this plug, and may be used to power external circuitry, up to 100mA maximum load.

Four grounding contact GPI inputs are available, but currently have no main function.

If all four GPI inputs are asserted together the unit will restart its main program. This will not function if the Processor is completely frozen, but will restore operation after most crash conditions.

The GPI inputs float to 3V, have a logic threshold of 1.6V, and are tolerant of 5V. The inputs are protected for voltages in excess of 5V.

### Connector Pinout and usage

Pin 1 External control ground.

Pin 2 Assert to ground to select GPI in one.

Pin 3 Assert to ground to select GPI in two.

Pin 4 Assert to ground to select GPI in three.

Pin 5 Assert to ground to select GPI in four.

Pin 6 Provides an internally fused source of 5V.

Pin 7 Relay output contact for FAIL indication.

Pin 8 Relay output contact for SPARE indication.

Pin 9 Relay output contact for SAME indication.

Pin10 Relay common for FAIL, AUTO and SAME. Electrically isolated.

Pin11 Spare.

Pin12 Spare.

Pin13 Spare.

Pin14 Spare.

Pin15 Spare common.

# INDICATION & CONTROL D-TYPE PIN-OUTS

Some of our products use 15pin D-Type connectors for GPI style alarm tally, control & indications:

## AUTOMATIC PROGRAMME CHANGEOVER UNIT



### Indication and control

A 15 way Male D connector is used for indication and control. Isolated relay contacts signal the state of the Routing, Alarm and Fail relays. The routing and Alarm states are signalled even under power fail conditions. A low-power, fused source of 5V is available at this plug, and may be used to power external circuitry, up to 100mA maximum load.

Four grounding contact GPI inputs override the routing.

When these are asserted the unit is forced to the desired path.

When these are released, the unit will resume automatically switching the signals according to the set-up parameters.

If all four GPI inputs are asserted together the unit will restart its main program. This will not function if the Processor is completely frozen, but will restore operation after most crash conditions.

The GPI inputs float to 3V, have a logic threshold of 1.6V, and are tolerant of 5V. The inputs are protected for voltages in excess of 5V.

### Connector Pinout and usage

Pin 1 External control ground.

Pin 2 Assert to ground to select input A.

Pin 3 Assert to ground to select input B.

Pin 4 Assert to ground to select input Reserve.

Pin 5 Assert to ground to select Main. (Either input A or B)

Pin 6 Provides an internally fused source of 5V.

Pin 7 Relay output contact for FAIL indication.

Pin 8 Relay output contact for AUTO indication.

Pin 9 Relay output contact for WARNING indication.

Pin10 Relay common for FAIL, AUTO and WARNING. Electrically isolated.

Pin11 Relay output contact for INPUT A.

Pin12 Relay output contact for INPUT B.

Pin13 Relay output contact for RESERVE.

Pin14 Relay output contact for MAIN.

Pin15 Relay common for INPUT A, B, RESERVE and MAIN. Electrically isolated.

## Generic D-Type Pinouts

BCD Audio equipment uses some commonly found D-Type standards. We use a DB9F connector for 'RS232' serial terminal access. VT100 emulation as found in Windows' Hyperterminal is fine. Our equipment is wired as DCE, Data Communications Equipment and therefore a straight-through cable is required. Required connections in **red**, optional hardware 'handshake' signals shown as normal, while unused signals shown in **blue**.

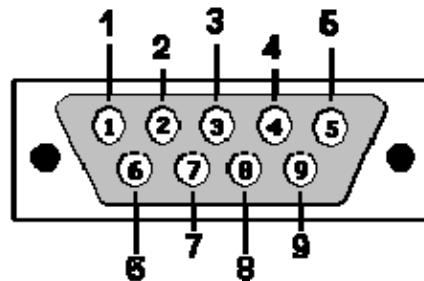


### Terminal (PC)– DB9 connector

Data Terminal Equipment (PC)

- Pin 1—DCD Data Carrier Detect
- Pin 2—RX Receive Data**
- Pin 3—TX Transmit Data**
- Pin 4—DTR Data Terminal Ready
- Pin 5—Common Ground**
- Pin 6—DSR Data Set Ready
- Pin 7—RTS Request To Send
- Pin 8—CTS Clear To Send
- Pin 9—RI Ring Indicator

### RS232 DB9 (EIA/TIA 574)

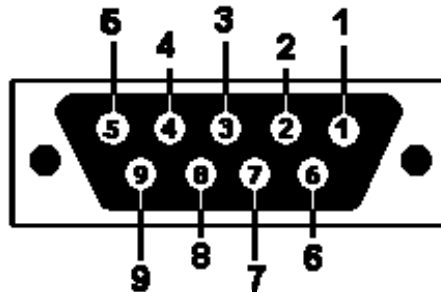


Male Connector  
pin numbering.

Shown looking at  
pins.

Data Communications Equipment (as used by  
BCD Audio)

- Pin 1—DCD Data Carrier Detect
- Pin 2—TX Transmit Data**
- Pin 3—RX Receive Data**
- Pin 4—DSR Data Set Ready
- Pin 5—Common Ground**
- Pin 6—DTR Data Terminal Ready
- Pin 7—CTS Clear To Send
- Pin 8—RTS Request To Send
- Pin 9—RI Ring Indicator



Female Connector  
pin numbering.

Shown looking at  
holes.