Galaxy Dimension and 2-Way Audio

Introduction

The Galaxy Dimension allows multiple audio channels to be linked to the intruder system in order to provide audio verification following an alarm activation. This will allow sound from the area of the alarm activation to be transmitted to the Alarm Receiving Centre with the alarm signal. This can be recorded audio captured at the time of the activation as well as live audio. Depending on the set-up, it may be possible for the operator at the receiving centre to talk back to the site. An Audio Controller card is required to enable audio on the Galaxy. This allows up to two audio channels to be connected. If further channels are required, the audio system can be expanded using the MUX modules. Each alarm group on the Galaxy can have one audio channel assigned to it.
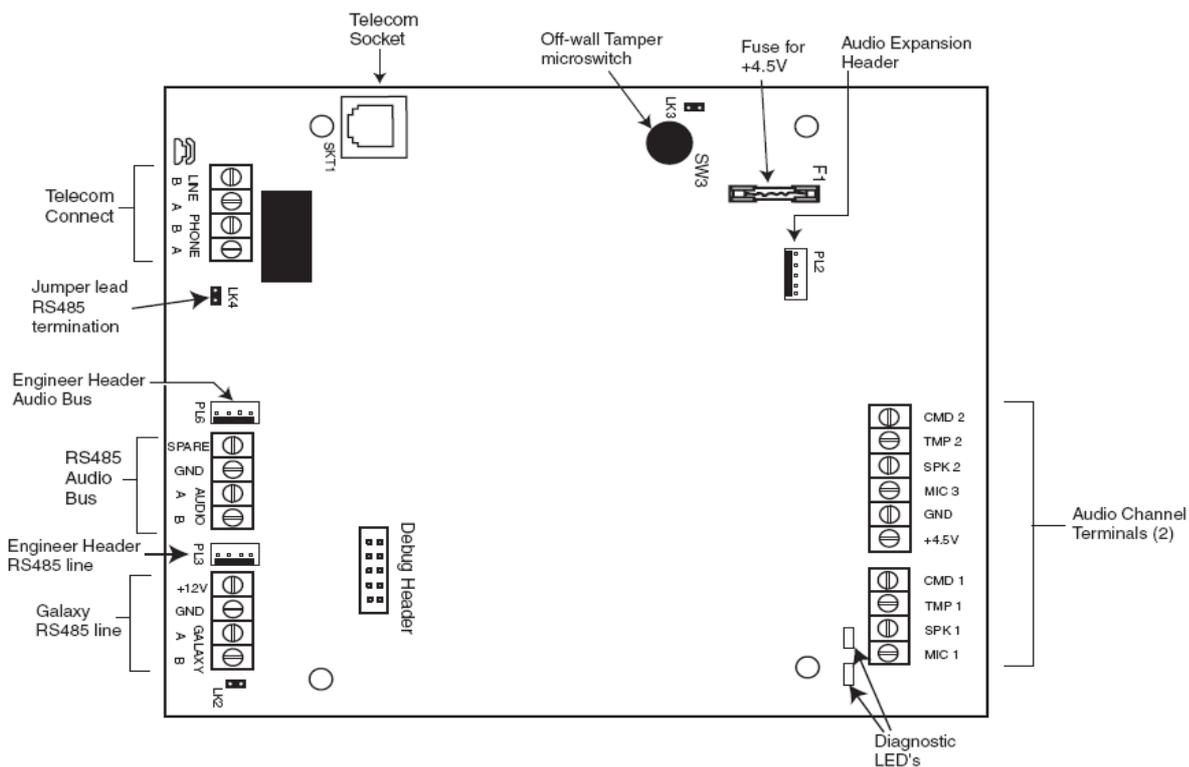
Audio Interface

The Audio Interface is connected to the Galaxy RS485 line to allow the panel to control the audio function and connected to the PSTN line to allow it to transmit the audio signals to the Alarm Receiving Centre.

Notes: 1. Make sure that the Galaxy RS485 cable is at least 30 cm away from other cables.
2. Make sure that the Galaxy RS485 cable does not run parallel to other cables for extended distances (maximum 5 metres).

For expansion using MUX modules, the Audio Interface all has connections for a high speed digital audio bus in order to connect the MUX modules. Up to three speaker-mic devices, such as the TP800, can be connected to each audio channel.

The Audio Interface acts as the master to a dedicated Audio RS485 line on to which 8 off-board Mux Modules can be connected.

# Addressing

The Audio Interface has a fixed module address.

Mounting

The Audio Interface is mounted in two ways:
• above the control panel PCB using a specially designed mounting plate.
• inside a standard RIO box separate from the control panel.

Connecting the Audio Interface to the PSTN

The Audio Interface must be connected to the Galaxy panel PCB as in the following diagram.
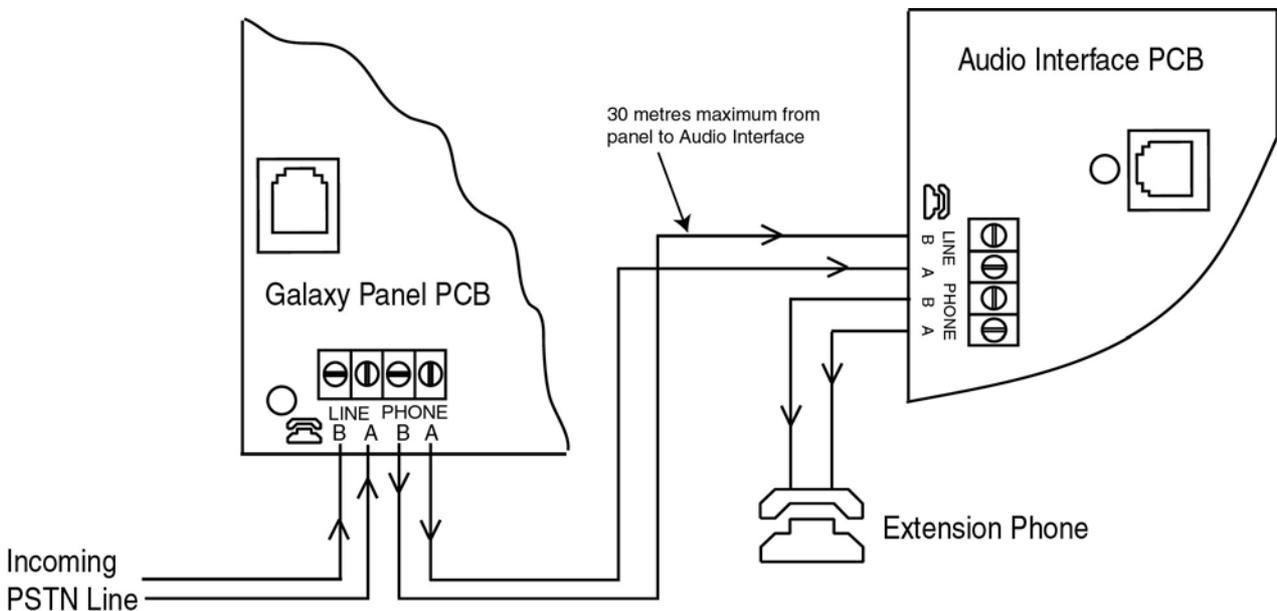
Connecting Microphones and speakers

The Audio channels can work with most line-level audio equipment. Microphones must have a pre-amplifier that deliver audio at line level (3V peak to peak). The audio card can transmit audio to speakers with their own amplifier which accepts line level signals. Please see any instructions with the Microphone device regarding the adjustment of sensitivity. The Galaxy Audio system can be used with the following Honeywell audio devices:

TP800:   Speaker and Microphone unit
IS215TCE-MIC: PIR detector with built-in microphone

TP800 Connection

The following table details the terminal connections of the TP800 speaker unit to the Audio Interface:

Audio Controller	TP800
GND	VS-
+4.5V	VS+
CMD	CMD
SPK	RML
MIC	ECOUT
TMP	AP
	AP

Link AP to VS- to complete tamper circuit

Table 3-7. TP800 Connections to Audio Controller

IS215TCE-MIC Connection

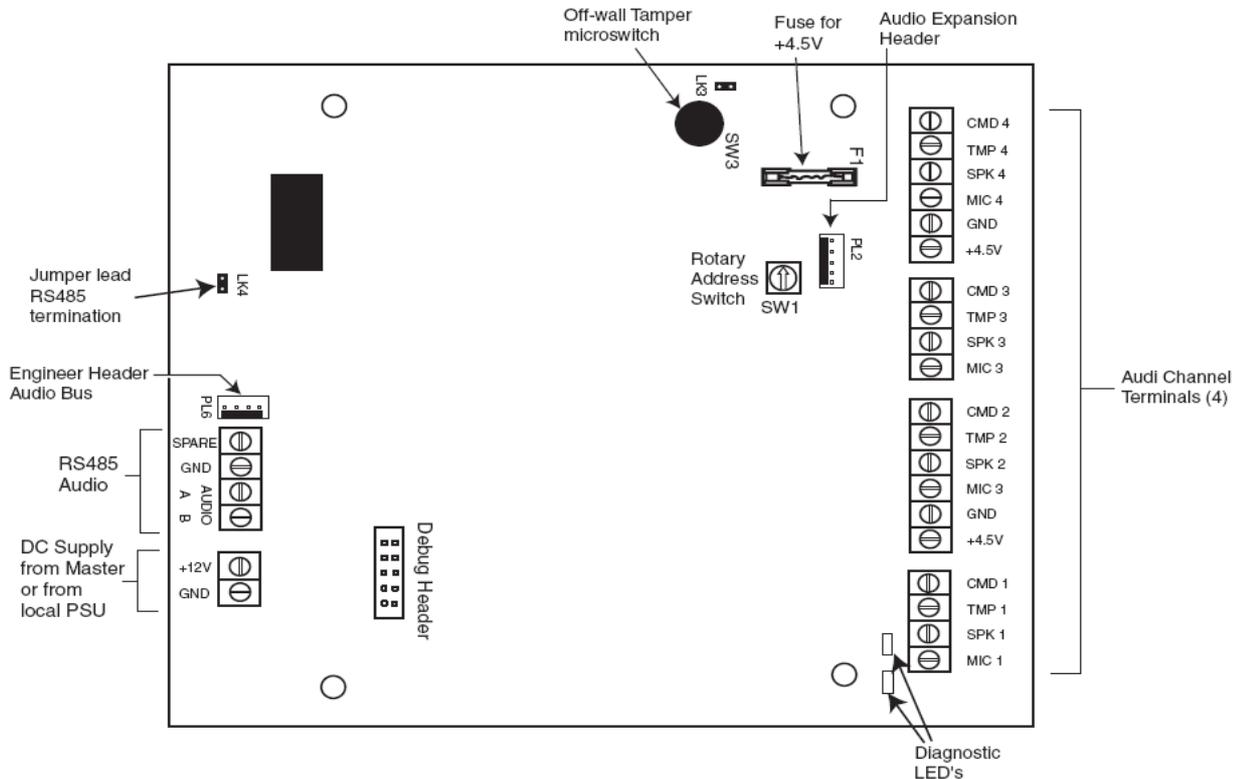| Audio Interface	IS215TCE-MIC
GND	-
12V	+
MIC	M
GND	G

IS215 connection to Audio Controller

MUX Module

The MUX Module allows four additional audio channels to be connected. It is connected to the RS485
Audio Bus and acts as a slave module to the Audio Interface.
Each audio channel can have three standard speaker-mic devices such as the TP800 connected.

Addressing

The Mux Module must be given a unique address **before** it is connected to a power supply. This address is selected using the 16-way Rotary address Switch (SW1). Valid addresses are 0 - 7.

Connecting the MUX Module to the Audio Interface

The MUX Module is connected to the Audio Controller via the RS485 Audio Bus. The following table shows the connections.

Audio Control RS485 Bus	MUX RS485 Audio Bus
GND	GND
Audio A	Audio A
Audio B	Audio B

Table 3-8. Mux Connections

NOTE: The MUX module can either be supplied with DC power from the Audio Interface or from a local Power Supply Unit (eg Smart). See Figure 3-8.

Connecting Microphones and speakers

The MUX module is connected to microphones and speakers as per the Audio Controller. See table 3-7.

Using the audio

Programming set up

The Audio channels must be mapped to alarm groups using **menu**. This allows the Galaxy panel to know which audio channel to send to the alarm receiving centre following an alarm activation. In this menu, its also possible to specify which type of alarm events will result in listen-in operation.

In use

The audio system continuously records the audio from all channels in a 10 second loop. When an alarm activation occurs, the audio form the specified channel stops recording and the audio from the time of the alarm is saved, including a few seconds from before the activation of the detector. The panel will dial the Alarm Receiving Centre normally and transmit the alarm message and then stay on the line to allow the operator to listen to the audio. The Galaxy system will automatically select the specific channel to be transmitted. The operator has three control options using a DTMF telephone keypad;

1:      Talk to site
2:      Listen to recorded audio from the activated channel
3:      Listen to live audio from the activated channel
99:     End call