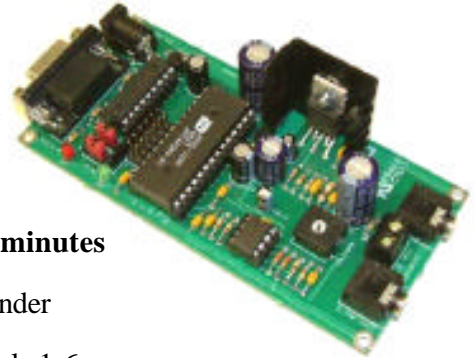# *Sound Board - Pro Module (E)*

Controller
Version 2.1

The **Sound Board Pro E Module** provides the following features:
· Up to **4 minutes** recording time for 1 channel or multiple channels (1-9).
· **7 watt** mono amplifier with volume preset control for external speaker.
· Line **output** socket for connection to remote amplifier and speaker.
· Line **input** recording socket, for connection to sound input source.
· Playback under **manual** / **sensor** activation or direct **computer** control.
· The supplied ISD **sound chip** has a frequency response up to **3.4kHz**
· Manual, Sequence or Random Playback modes

Operation

The **Sound Card Pro** module has sufficient memory to record up to **4 minutes**
of recorded sound at a frequency response up to **3.4kHz**
The Sound Card Pro has **6 - playback channels** in manual mode, or under
computer mode control can operate 1-9 sound channels.
The Sound Card Pro E can also random or in sequence playback channels 1-6.

Operation of the Sound Card Pro module is controlled by the following settings:

Connections on Board:

Power Socket : 9 - 12 V DC at 800 mA, center + pin is positive.
DB -9 Connector: RS232 port, 9600 baud, 8N1 commands in on pin 3, status information sent on pin 2
Control Jumper : Set to **L** position for local (manual control). Set to **R** for RS232 control in Playback mode.
Mode Jumper : Set to **P** for Playback of sounds, set to **R** for Recording sounds.
LED's : Indicate module mode status (RED - Recording, GREEN - Playback, Stand-by)
Jumper Pins 1-6 : Short together channel number pin-set to re-play a particular track when in Playback and Local control modes. Short and hold any pin pair to record when in Local and Record modes. Pins are 5V TTL logic, pulled low to activate on start.
Jumper Pins 5-6 : (**5**) Short together will playback random, (**6**) shorted together will playback Sequence
Volume Control : Amplifier output terminal volume, **NOTE: does not adjust line output signal volume, only speaker connector output port terminal.**
Line Input : 3.5mm mono jack socket. (1/8" jack)   320mV p-p for maximum volume.
Line Output : 3.5mm mono jack socket (1/8" jack)   1V p-p buffered output.
Speaker Port : Wire connection terminal for 4 or 8 ohm speaker connection.   7- watt mono amplifier with
                                                                                    volume preset feature

Recording Session:

Disconnect any RS-232 interface cable connection between the computer and the sound board pro module before starting any recording. **NOTE:** Sound recording may only be performed under manual method and can not be downloaded directly from the computer into the RS-232 port. If sounds are to be loaded from the computer into the sound chip, then they must be downloaded into the sound pro board using the line input connection jack and audio cable connected to the computer sound card output. Channels -1 to 9 may be recorded with a limit of 4 minutes total duration.

All channels must be recorded within the same session - it is not possible for example to change only channel - 2 as a single recorded session only. All sound channels must be recorded during the same session, starting at sound channel -1 and completing at sound channel - 9
If a single sound is to be recorded, then the sound board pro module can simple be placed in record mode and all channels 1-9 will be recorded to as a single channel.
NOTE: Only channels 1-6 can be activated for playback manually or by sensor. Sound channels **7-9** and 1-6 can be activated by computer interface control (RS-232 setup).
HINT: Pre-organize your sounds in sequence format for quick easy recording.

Recording Session - **Single Sound Set**
- Set the **Control** jumper to the **L** (local) position.
- Connect a suitable audio source device to the **line input** socket on the board. (CD player, Stereo, etc)
- Adjust the sound level from the sound source, mid range **Do not over drive (volume) the sound source output sound level as this will cause audio distortion in recording to the chip. You may have to try several sound recording attempts to find the best setting.**
- Set the **Mode** jumper to **R** (record) - the **RED LED** will begin to flash ON and OFF.
- **Short** together and **keep shorted**, pin pairs -1 to start record audio. The RED LED will no longer flash and will stay ON continuously to indicate now recording in session.
- Start (activate) sound source playback (CD player, Stereo, etc)
- When the selected sound source is done playing, Release the shorted pin pair -1, to stop recording sound into the ID sound chip. (RED LED flashes).
- Note when the Sound IC chip has reached it's max capability (4 minutes) the RED LED will flash indicating total recording time has been reached.
- You can stop recording at any time, you do not need to go the full 4 min. if not needed.

Playback Session: **Single Sound Set**
Local Mode Setting
- Set the **Mode** jumper to **P** (playback)- the GREEN LED will flash.
- Short pin-pair -1 on-board to start playback of recorded sound channel 1-9 continuously.
- Playback will continue until the end of channel 1 - 9 is reached or until the mode jumper is briefly reset to **R** (record).

Recording Session - **Multiple Sound Sets**
- Set the **Control** jumper to the **L** (local) position.
- Connect a suitable audio source device to the **line input** socket on the board. (CD player, Stereo, etc)
- Adjust the sound level from the sound source, mid range **Do not over drive (full volume) the sound source output sound level as this will cause audio distortion in recording to the chip.**
- Set the **Mode** jumper to **R** (record) - the **RED LED** will begin to flash ON and OFF.
- **Short** together and **keep shorted**, pin pair - 1 to record audio. The RED LED will no longer flash and will stay ON continuously to indicate recording session started.
- Start sound source playback (CD player, Stereo, etc)
- When the selected sound source is done playing, Release the shorted pin pair -1, **to pause recording** for channel -1 (RED LED flashes).
- Select the next audio source to be recorded and again short and keep shorted pin pair -1 to record that next channel. Release the pin pair to pause recording**.** Select the next audio source to be recorded and again short and keep shorted pin pair -1 to record the next channel.
- Repeat until all the required channels are recorded. (1- 9) (if channels are not needed, simple short pins, on and off until all nine channels have been selected.)
- **NOTE:** If the limit of 4 minutes is exceeded anytime before recording all 9 channels has been done, then the RED LED will flash when pin-pair -1 is shorted and only those channels recorded before exceeding time will have sound. **All channels must be recorded within the same session** - it is not possible for example to change only channel - 4 as a single recorded session only. All sound channels must be recorded during the same session, starting at sound channel-1 and completing at 9, or until max record time has been reached
- Set the Mode jumper to **P** (playback) to quit recording mode.

Playback Session: **Multiple Sound Sets**
Local Mode Setting
- Set the Mode jumper to **P** (playback) - the GREEN LED will flash.
- Short pin-pair -1 on-board to start playback of recorded sound channel -1.
- Playback will continue until the end of channel - 1 is reached or until the mode jumper is briefly reset to **R**.
- Short pin-pair - 2 on-board to start playback of recorded sound channel - 2.
- Repeat, shorting any pin-pair 1-6 on-board to start playback of selected sound channel 1-6
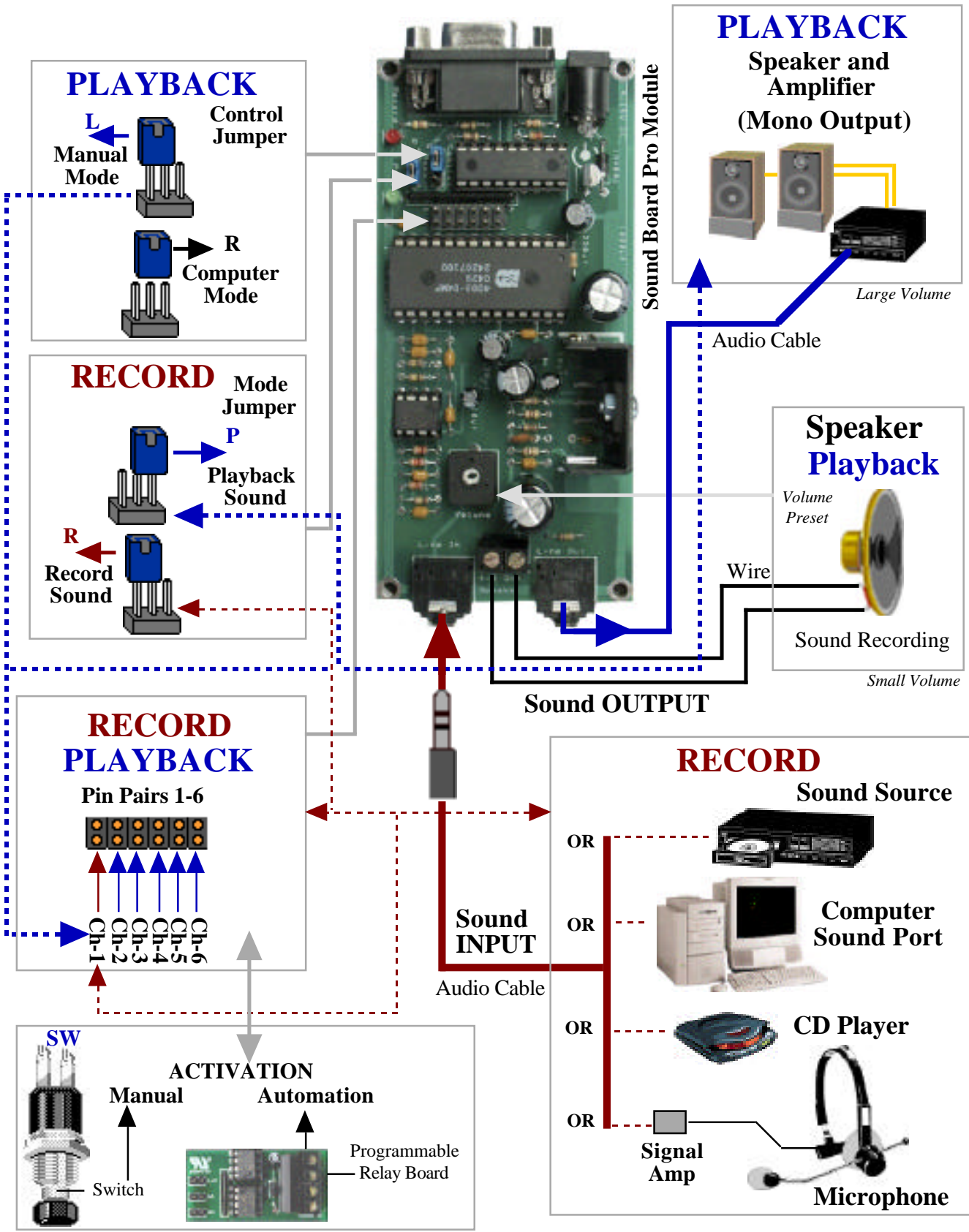
Random or Sequence Playback
- See random and Sequence Setup for details.

Remote - Computer Playback
- See Computer Playback Setup for details.

Version 2.2

Sound Board Pro Module (E)

PLAYBACK

Control Jumper

L ← Manual Mode

R → Computer Mode

RECORD

Mode Jumper

P → Playback Sound

R ← Record Sound

RECORD PLAYBACK

Pin Pairs 1-6

Ch-1 Ch-2 Ch-3 Ch-4 Ch-5 Ch-6

SW

ACTIVATION

Manual   Automation

Switch

Programmable Relay Board

PLAYBACK
Speaker and Amplifier (Mono Output)

Large Volume

Audio Cable

Sound Board Pro Module

Speaker Playback

Volume Preset

Wire

Sound Recording

Small Volume

Sound OUTPUT

Sound INPUT

Audio Cable

RECORD

Sound Source

OR

OR   **Computer Sound Port**

OR   **CD Player**

OR

Signal Amp

Microphone

Version 2.1

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Phone (303) 651-3794
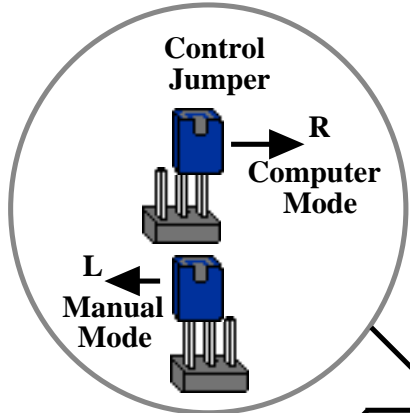
Sound Board Pro E
Overview

Recommended
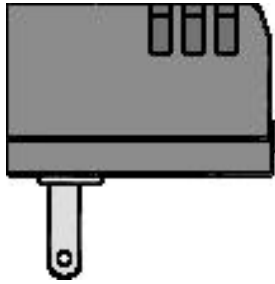
2.1 mm Connector

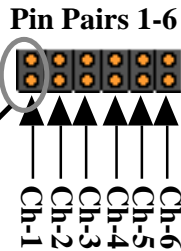**Wall Plug Power Supply Regulated 9 Vdc @ 800 mA**

Regulated Power

9 Vdc @ 800 mA
- outside - Vdc — ■ Black
- center + Vdc — ▬ Red

2.1 mm Connector

center + Vdc
outside - Vdc

Control Jumper

R → Computer Mode

L ← Manual Mode
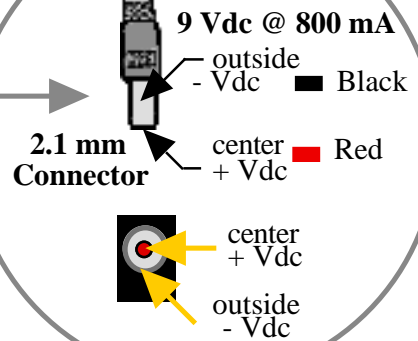
DB-9 (F) Connector Computer Control of Ch-1-Ch-9

Regulated + 9 Volt DC Connector

Record LED (RED)

Mode Jumper
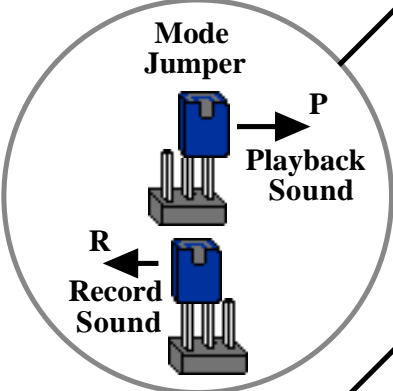
P → Playback Sound

R ← Record Sound

Playback LED (GREEN)

Pin Pairs 1-6

Ch-1
Ch-2
Ch-3
Ch-4
Ch-5
Ch-6

Sound IC Chip

Sound Board Pro E Module

Pin Pair - 1 Shorted Together

Amplified Output Terminal Port
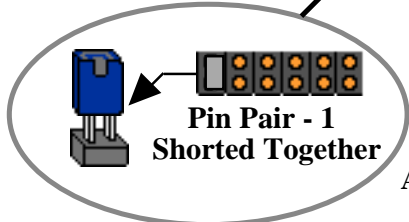
4 - 8 Ohm Speaker

Amplified Output Controller

Speaker Amplified Output Port (7 Watts)

Line In from Audio Source

1/8'' Mono Mini Audio Jack

Line out to Amplifier Speaker

1/8'' Mono Mini Audio Jack

Version 2.1

Sound Board Pro E

Computer Control Ch-1 - Ch-9

(Mono Output) Speakers and Amplifier

Speaker Amp

Speakers

Audio Amp

ASCII s (Stop Playback)
ASCII 1 - 9 (Play Channel)

OR

OR

OR

Sound Board Pro E Module

Audio Cable

OR
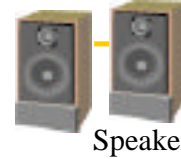
Sound OUTPUT

Speaker

Recorded Sound Playback

Wire

Wire

OR

Audio Cable

Sound INPUT

OR

Sound Source

OR

Computer Sound Port

OR

CD Player

OR

Signal Amp

Microphone

Ch-6
Ch-5
Ch-4
Ch-3
Ch-2
Ch-1

Pin Pairs 1-6

SW6 Ch-6
SW5 Ch-5
SW4 Ch-4
SW3 Ch-3
SW2 Ch-2
SW1 Ch-1

Push Buttons (Momentary)

Manual / Sensor Playback Start

Version 2.1

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Sound Board Pro E

Controller

Ver 2.1

Manual Playback Mode

Sound Board Pro E Module

Pin Pair Jumper Block
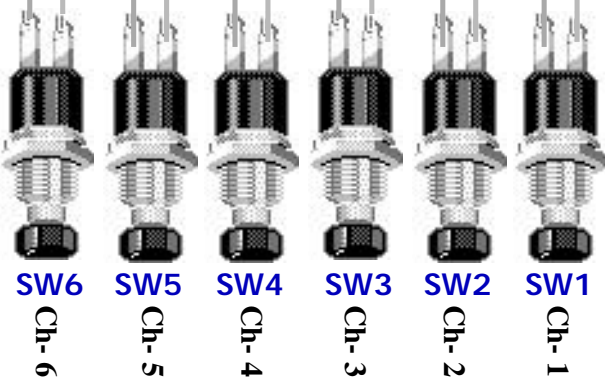
Ch-6
Ch-5
Ch-4
Ch-3
Ch-2
Ch-1

Pin Pairs 1-6

SW6   SW5   SW4   SW3   SW2   SW1

Ch-6   Ch-5   Ch-4   Ch-3   Ch-2   Ch-1

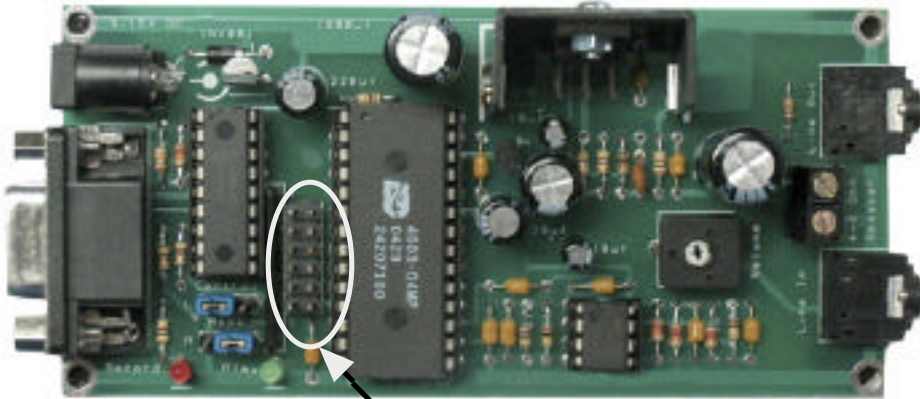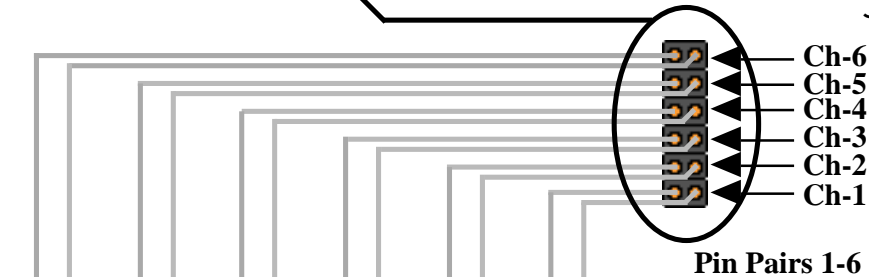**Push Buttons (Momentary)**

Manual / Sensor Playback Start

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Sound Board Pro E

Controller

Ver 2.1

Manual Playback Mode
Option Switch Setup

Sound Board Pro E Module

Ch-6
Ch-5
Ch-4
Ch-3
Ch-2
Ch-1

**Pin Pair
Jumper Block**

Pin Pairs 1-6

**Common
Connection
(GND)**

SW6   SW5   SW4   SW3   SW2   SW1

Ch-6   Ch-5   Ch-4   Ch-3   Ch-2   Ch-1
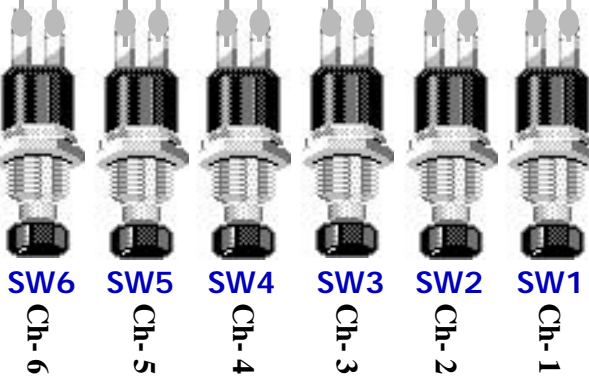
**Push Buttons
(Momentary)**

**Manual / Sensor
Playback Start**

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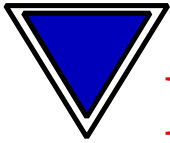
Sound Board Pro E

Enhanced   *Controller*

Ver 2.1

Sequential Playback Mode

- Record Audio channels 1-6
- Turn **OFF** power supply, or remove power connector from board.
- Place a jumper block over **Pin Pair-6** (This configuration will be read at power up and will put the board into the sequential playback mode).
- Power up the board (Turn **ON** power).
- Short / activate **Pin Pair- 1** (or switch, relay) This will playback channel -1.
- Short / activate **Pin Pair-1** again at the end of playback channel -1, the board will now playback channel - 2.
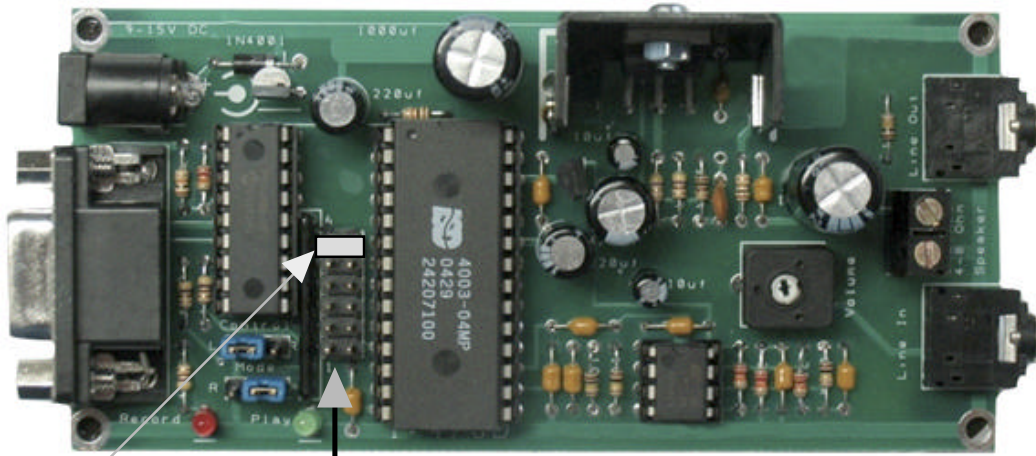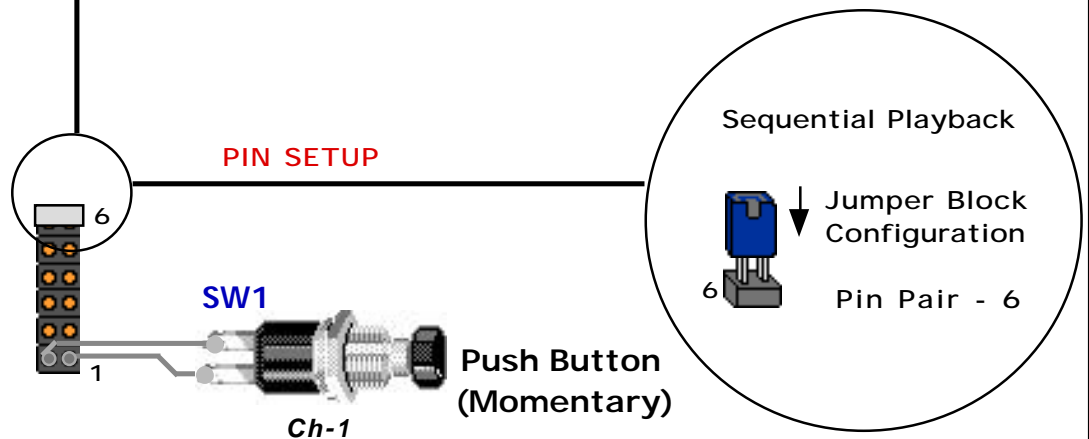- Repeat - Short / activate **Pin Pair-1** for each additional channe 3 - 6. When channel - 6 is reached, cycle will restart at channel -1.

Pin Pair Jumper Block

PIN SETUP

Sequential Playback

SW1

Push Button (Momentary)

Ch-1

Jumper Block Configuration

Pin Pair - 6

Note: Not all channels need to be used in the Sequential or Random Mode. You can record any number of channels from 1 through 6 The controller board will playback the number of channels you record in the Sequential or Random Mode. See operation section for more details.
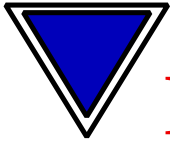
Sound Board Pro E

Enhanced   *Controller*

Ver 2.1

Random Playback Mode

- Record Audio channels 1-6
- Turn **OFF** power supply, or remove power connector from board.
- Place a jumper block over **Pin Pair-5** (This configuration will be read at power up and will put the board into the random playback mode).
- Power up the board (Turn **ON** power).
- Short / activate **Pin Pair-1** (or switch, relay) This will randomly playback a channel -1 through channel - 6
- Short / activate **Pin Pair-1** again at the end of playback, the board will now randomly playback a channel -1 through channel - 6 again. Repeat for random channel playback.

Pin Pair Jumper Block

PIN SETUP

Random Playback

Jumper Block Configuration

Pin Pair - 5

SW1

Ch-1

Push Button (Momentary)

Note: Not all channels need to be used in the Sequential or Random Mode. You can record any number of channels from 1 through 6 The controller board will playback the number of channels you record in the Sequential or Random Mode. See operation section for more details.

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OPTIONAL
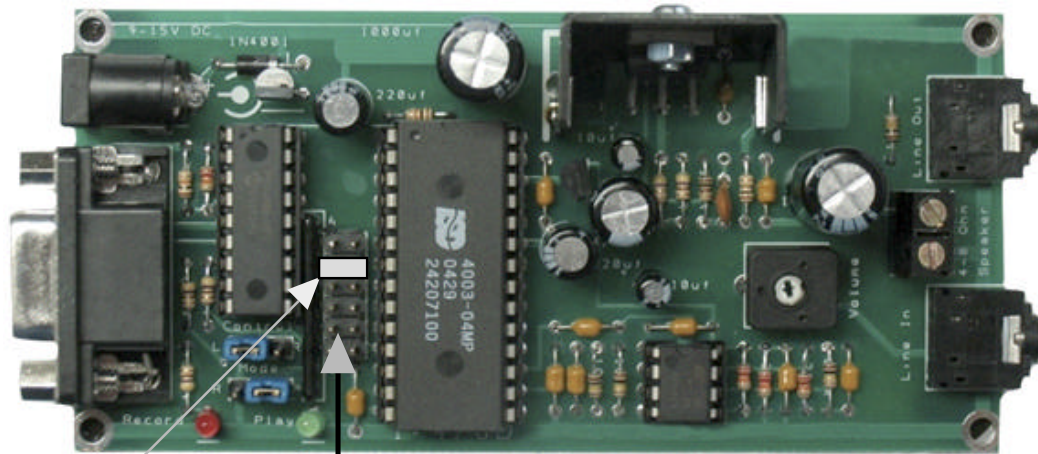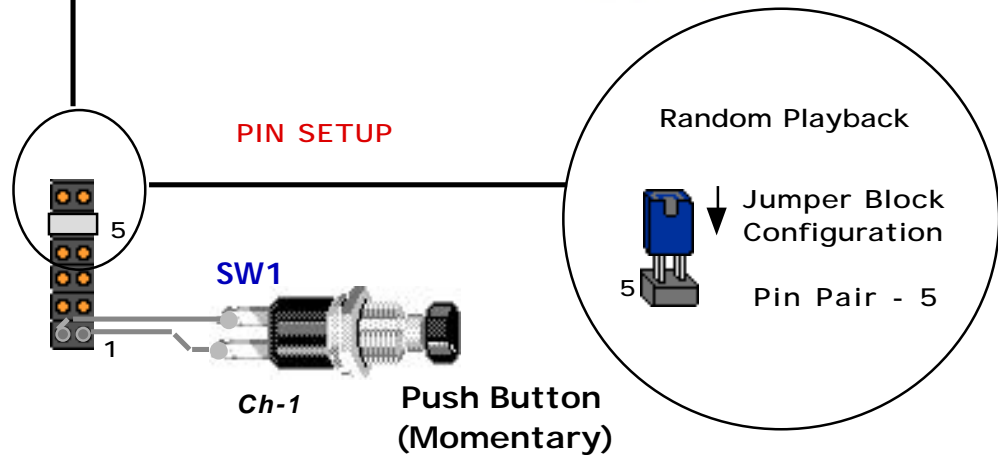### • Remote Computer Mode - Playback

Serial Com Port
DB - 9 Connector
Com Port
9600 8N1

Computer

Remote - Computer Mode

- Place the Sound Card Pro remote control jumper in the **R** position.
- Connect a RS-232 interface cable between the computer serial port DB-9 connector and
   the DB-9 connector on the sound card pro.
- Set the computer communication port to (9600 8N1)
- Start a software command source, example Hyperterminal or equivalent software program..
- Send ASCII - **1** through **9** to playback channel -1 to 9
- Send ASCII - **s** to stop sound playback at any point.

Cable Configuration	
DB-9 M = **DB-9 F**	
Pin 2 ○━━○ **Pin 2**	
Pin 3 ○━━○ **Pin 3**	
Ccommunication port (9600 8N1)	

ASCII Communication	
ASCII - 1	**Playback Channel - 1**
ASCII - 2	**Playback Channel - 2**
ASCII - 3	**Playback Channel - 3**
ASCII - 4	**Playback Channel - 4**
ASCII - 5	**Playback Channel - 5**
ASCII - 6	**Playback Channel - 6**
ASCII - 7	**Playback Channel - 7**
ASCII - 8	**Playback Channel - 8**
ASCII - 9	**Playback Channel - 9**
ASCII - s	**STOP Playback of current Channel at any point.**

Version 2.1

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Sound Board Pro E
- **Interface Cable**
- **Remote Computer Mode Playback**

Serial Port

Cable Configuration

DB-9 M	=	DB-9 F
Pin 2	●━━○	Pin 2
Pin 3	●━━○	Pin 3

DB-9 Male Connector

DB-9 Male Connector

DB-9 Hood

DB-9 M

Pin 3   Pin 2   Pin 1

DB-9 M

Pin 3   Pin 2   Pin 1

Wires Not Used

RS-232 Cable

DB - 9 Connector

Sound Module

Remote - Computer Playback Mode

- Place the Sound Card Pro remote control jumper in the **R** position.
- Connect a RS-232 interface cable between the computer serial port DB-9 connector and the DB-9 connector on the sound card pro.
- Set the computer communication port to (9600 8N1)
- Start a software command source, example Hyperterminal or equivalent software program..
- Send ASCII - **1** through **9** to playback channel -1 to 9
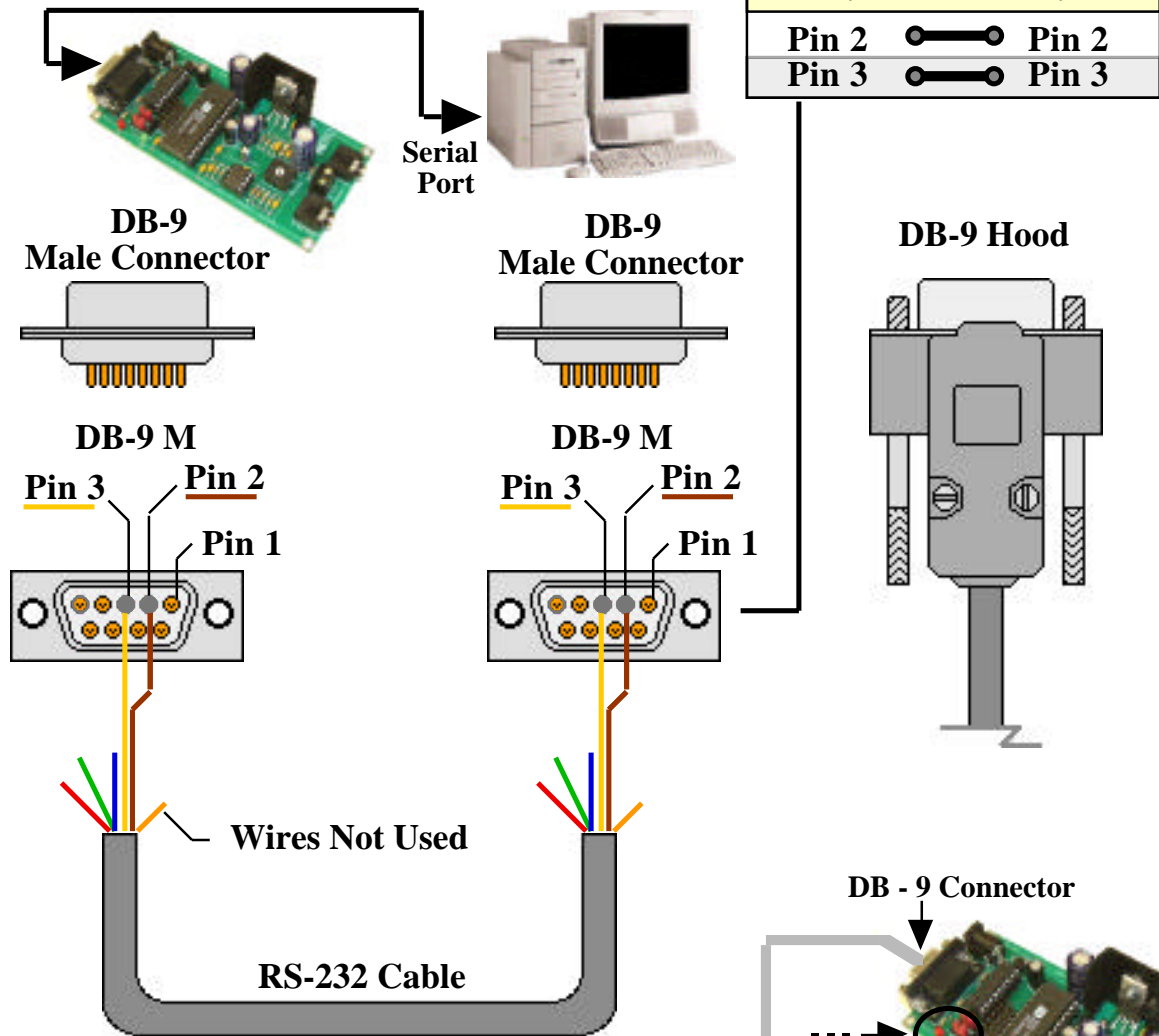- Send ASCII - **s** to stop sound playback at any point.

Cable

Serial Com Port
DB - 9 Connector
Com Port
9600 8N1

Computer

Version 2.1
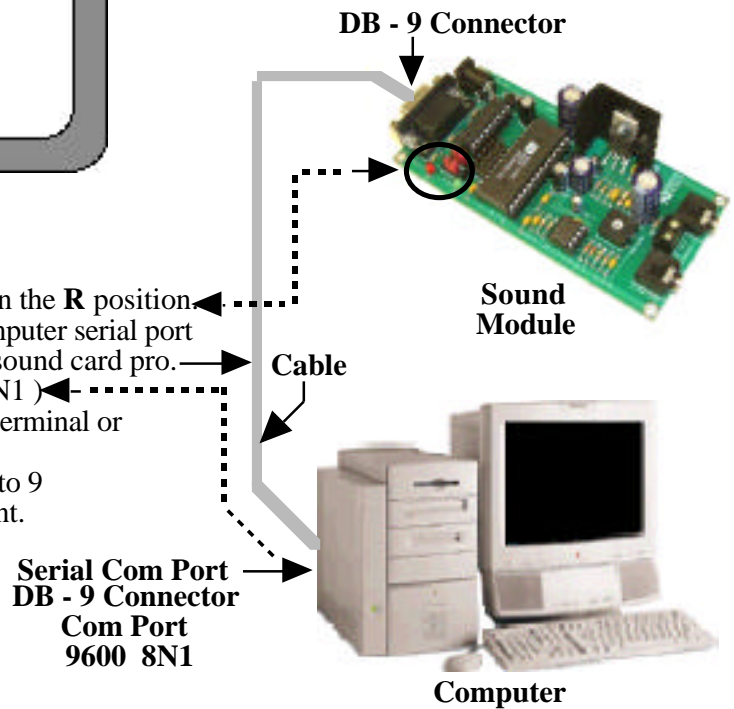
Sound Board Pro E Module
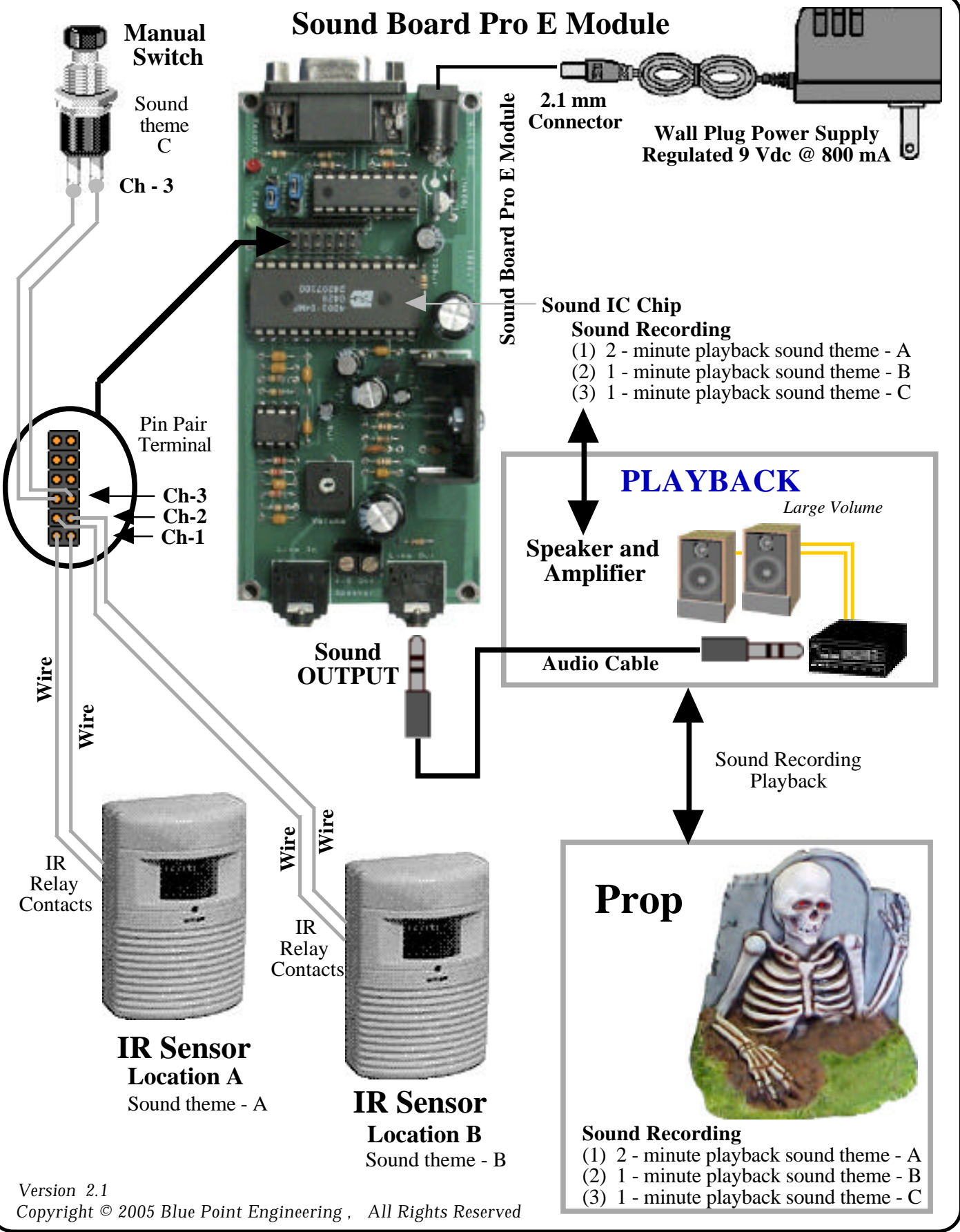
Manual Switch

Sound theme C

Ch - 3

2.1 mm Connector

**Wall Plug Power Supply
Regulated 9 Vdc @ 800 mA**

Sound Board Pro E Module

Sound IC Chip

Sound Recording
(1) 2 - minute playback sound theme - A
(2) 1 - minute playback sound theme - B
(3) 1 - minute playback sound theme - C

Pin Pair Terminal

Ch-3
Ch-2
Ch-1

PLAYBACK

Large Volume

Speaker and Amplifier

Wire
Wire

Sound OUTPUT

Audio Cable

Wire
Wire

IR Relay Contacts

Sound Recording Playback
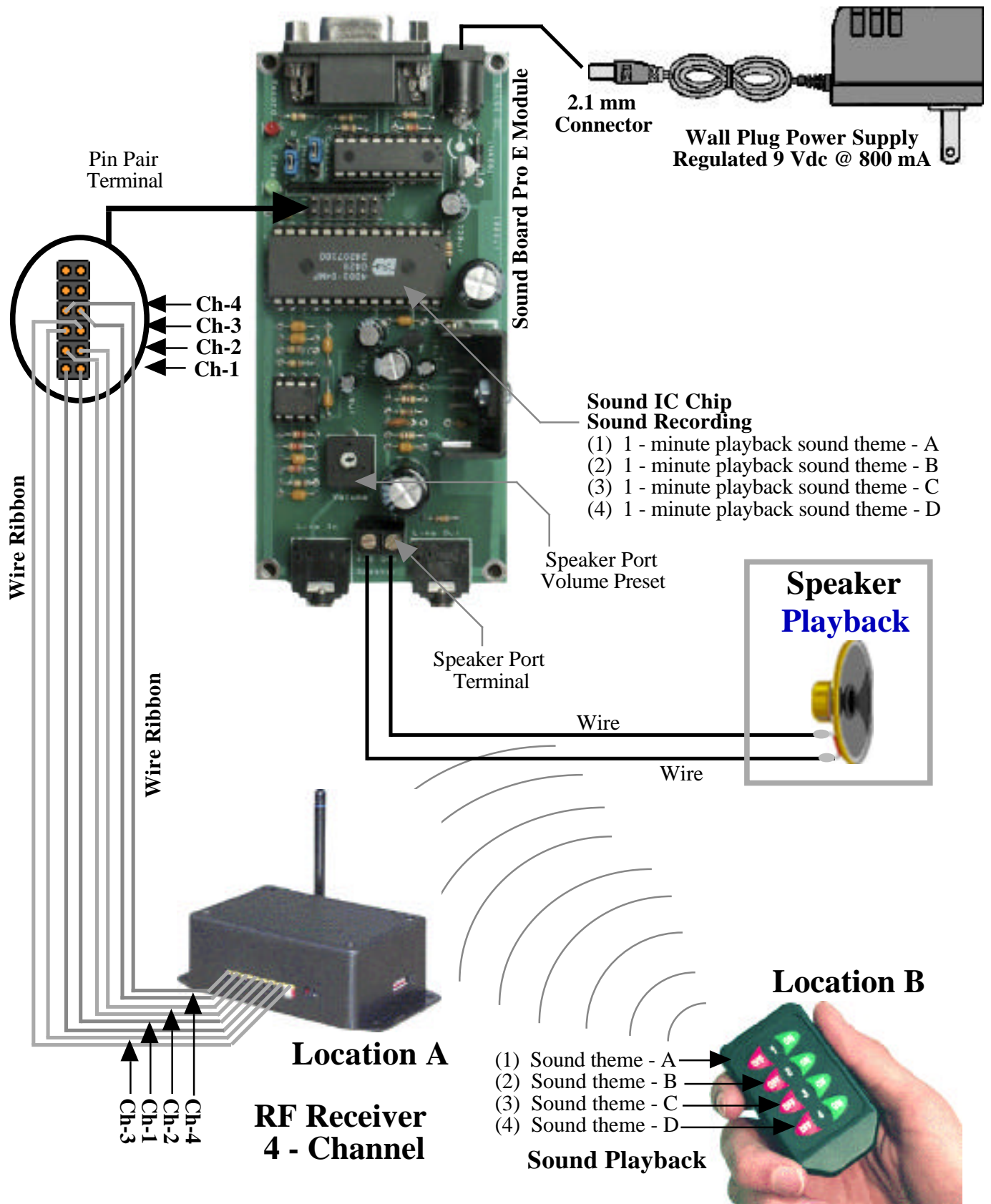
IR Relay Contacts

**IR Sensor
Location A**
Sound theme - A

**IR Sensor
Location B**
Sound theme - B

Prop

Sound Recording
(1) 2 - minute playback sound theme - A
(2) 1 - minute playback sound theme - B
(3) 1 - minute playback sound theme - C

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Sound Board Pro E Module - Optional Remote Control Set-up

2.1 mm Connector

Wall Plug Power Supply Regulated 9 Vdc @ 800 mA

Sound Board Pro E Module

Pin Pair Terminal

← **Ch-4**
← **Ch-3**
← **Ch-2**
← **Ch-1**

Wire Ribbon

Wire Ribbon

**Sound IC Chip
Sound Recording**
(1) 1 - minute playback sound theme - A
(2) 1 - minute playback sound theme - B
(3) 1 - minute playback sound theme - C
(4) 1 - minute playback sound theme - D

Speaker Port
Volume Preset

Speaker
Playback

Speaker Port
Terminal

Wire

Wire

Location B

Location A

(1) Sound theme - A ⟶
(2) Sound theme - B ⟶
(3) Sound theme - C ⟶
(4) Sound theme - D ⟶

**RF Receiver
4 - Channel**

Ch-3
Ch-1
Ch-2
Ch-4

Sound Playback

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Sound Board - Pro E Module
Troubleshooting Guide

Q. **I am trying to change sound channel - 4 to a new sound, but it will not record?**
A. All channels must be recorded within the same session - it is not possible for example to change only channel - 2 as a single recorded session only. All sound channels must be recorded during the same session, starting at sound channel -1 and completing at sound channel - 9

Q. **How do I activate Channel 7-9 in playback?**
A. Channels 1-6 can be activated for playback manually or by sensor. Sound channels **7-9** and 1-6 can be activated by computer interface control (RS-232 setup).Place the Sound Card Pro remote control jumper in the **R** position.
Connect a DB-9 / RS-232 interface cable between the Computer serial port and the DB-9 connector on the Sound Card Pro
Start a software command program, example Hyperterminal or equivalent software.
Set the computer communication port to (9600 8N1)
Send code ASCII - **1** through **9** from the computer / software to playback track 1 to 9
Send code ASCII - **s** to stop sound playback at any point from the computer / software.

Q. **I am trying to record all channels 1-9, but I am having trouble past channel 5?**
A. If the limit of 4 minutes is exceeded anytime before recording all 9 channels has been done, then the RED LED will flash when pin-pair -1 is shorted and only those channels recorded before exceeding time will have sound.

Q. **I am trying to use the volume control on-board but it will not adjust the volume?**
A. The volume control does not adjust line output signal volume, only speaker connector output port terminal.

Q. **When I playback a sound recorded the audio is bad.**
A. Adjust the sound level from the sound source, to mid range or lower Do not over drive the sound source output sound level volume as this will cause audio distortion in recording to the chip. It may take some tweaking to figure out what is the best sound level and values to record at.

Q. **How can I erase the sound chip?**
A. Recording a new set of sounds, is really the only way to full erase the chip, but you can clear the sound channels without recording over it, by trying the following:
Set the Control jumper to the L (local) position.
Set the Mode jumper to R (record) - the RED LED will begin to flash ON and OFF.
Short together pin pair - 1 on and off- 9 times, this will re-program the sound chip with a very quick white noise signal on each channel, if played back.

Q. **Where do I find a cable to connect the computer RS-323 to the sound card pro?**
A. The cable used is a standard Male to Male DB-9 with straight through pin wires (1 to 1, 2 to 2, 3 to 3, 4 to 4, 5 to 5, etc. The sound card uses commands in on pin 3, status information sent on pin 2.
You can also build you own cable, see information on interface cable setup in this manual.

Q. **How can I make the sound card operate by automated control?**
A. Using a Wizard- IV or single programmable relay control board, will let you operate the sound card automatically, or triggered by a remote sensor or switch , see information on automated setup in this manual.

Q. **I get a hum or strange noise recorded within my sound ic chip recording?**
A. Make sure that you have a good quality audio cable connected from the sound card to your sound source.
Check to see that your original sound source does not have the extra noise in it.
Do not over drive the sound source volume when recording to the chip.
Make sure that there are no power sources or signal creating sources around,. across, or near your audio cable.

Version 2.2

Sound Board - Pro E Module
Troubleshooting Guide Cont.

Q. **I hear a low sound tone, beeping, or a sound like a European police car siren and I notice that the sound seems to be in sync with the flashing of the Green LED?**

A. Adjust the sound level from the sound source, to mid range or lower Do not over drive the sound source output sound level volume as this may cause audio distortion, over amplification.
Change power supplies to a **Regulated** power supply type with a Grounded 3 prong plug in.
Make sure that you have an 8-Ohm speaker attached to the sound board.
Use a good quality audio cable connected from the sound card to the speaker.
Check to see that the audio cable is not routed under the sound board, or past an open power supply source.

Q. **Sound playback audio is slowed or extra fast sounding**

A. Check the Power supply to the Sound Board. The supply must be 9Vdc at 800 mA or more to work correctly, any voltage difference could effect the electronics, causing audio distortion. change the power supply to a regulated 9Vdc @ 800mA or 1 Amp supply.

Q. **Sound playback audio is normal, but sometimes is distorted, slow or fast sounding when played.**

A. Check the Power supply to the Sound Board. The supply must be 9Vdc at 800 mA or more to work correctly. Change the power supply to a Regulated 9Vdc @ 800mA or 1 Amp supply.

Q. **Random or Sequential Playback mode no working.**

A. You didn't set the jumper to the playback mode position before powering up the board.
Place the jumper into the proper pin position and power up the board
Trigger Channel -1 each time to playback randor or sequence playback.

Q. **I recorded only 2 minutes of sound, but the board is not responding for several more minutes.**

A. When the selected sound source is done playing, Release the shorted pin pair -1, to stop recording sound into the ID sound chip. You do not have to go the full 4 minutes, there may be white sound recorded after your sound and is playing back up to the 4 minutes before automaticaly reseting for the next sound playback action. Note: You can stop recording at any time, you do not need to go the full 4 min. if not needed.

Q. **I am using a microphone directly to record sound, but no sound is recording.**

A. You must use a powered microphone that can output a 2Volt Peak to Peak signal to provide enough power to the sound input circuit on the Sound Board Pro board.

Q. **Sound Playback not completed when channel is triggered.**

A. Do you have a Modified (LA) Sound Board Pro with Instant On and Off Playback.?, If so, then the board is designed to playback the sound channel as long as the channel is activated, if you have this modification, then you must hold the button for the channel down to play the full sound, if you release the button or only toggle the playback button then the sound only plays back for as long as the button is activated. The normal playback mode on the Sound Board Pro is set to play the full sound recorded in the channel, you can not stop the sound once it is activated.

| The Controls are arranged as 6 - pairs of duo pins on the board		
Board Description	**Jumper Block Position**	
R / P Mode - • Record Mode (R) **• Play-Back (P)**	**RECORD Mode** **- Left Position**	**PLAYBACK Mode** **- Right Position**
Pin Pairs 1- 6 (Switch Connections)	**Pin 1- 6** **When Pin Set is shorted, Channel playback**	
Pin Pairs 1 (Ch 1- Ch 6 Sequential or Random Playback)	**Pin - 6 - Sequential playback on power up.** **Pin - 5 - Random playback on power up.**	

Automated Playback Examples

Sound Board Pro E Module
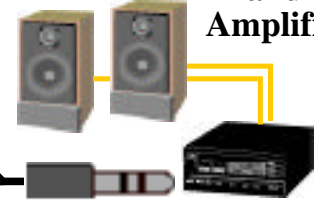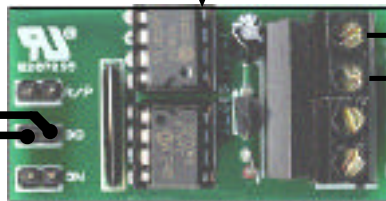
Speakers and Amplifier
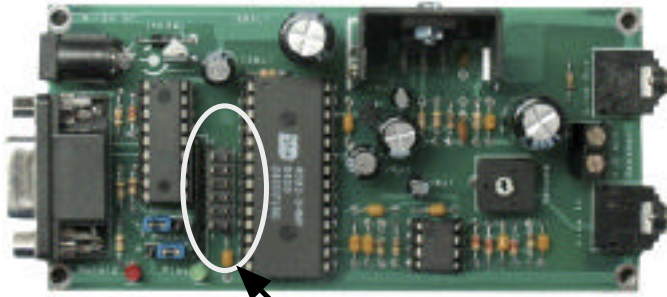
Sound OUTPUT

Audio Cable

(Mono Output)

REMOTE SENSOR
- *Floor Mat Switch.*
- *PIR Sensor.*
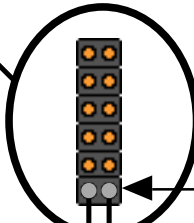- *Manual Operated Switch.*
- *Relay Contact Switch, etc.*

Ch-6
Ch-5
Ch-4
Ch-3
Ch-2
Ch-1

Pin Pairs 1-6

Single Channel Automated Playback

Programmable Single Relay Module

Wire   Wire

Relay Contact

Wire Terminal Block

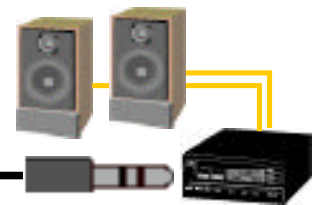**Sound Board Pro E Module**

Audio Cable

Sound OUTPUT

Speakers and Amplifier

(Mono Output)

REMOTE SENSOR
- *Floor Mat Switch.*
- *PIR Sensor.*
- *Manual Operated Switch.*
- *Relay Contact Switch, etc.*

Ch-6
Ch-5
Ch-4
Ch-3
Ch-2
Ch-1

Pin Pairs 1-6

6 - Channel Automated Playback
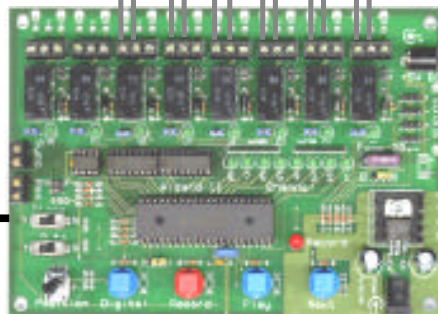
Wizard - II Programmable Controller Board

Version 2.1

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Phone (303) 651-3794

Sound Board Pro Optional PIR Sensor Setup
- PIR Sensor
- PIR Power / Relay Board

Sound Board Pro Module

Sound OUTPUT

Ch-1

Speaker and Amplifier

Header Pins

Ch-6
Ch-5
Ch-4
Ch-3
Ch-2
Ch-1

A

B

9 Vdc Power Supply

PIR Sensor

PIR Power / Relay Board

Version 1.0
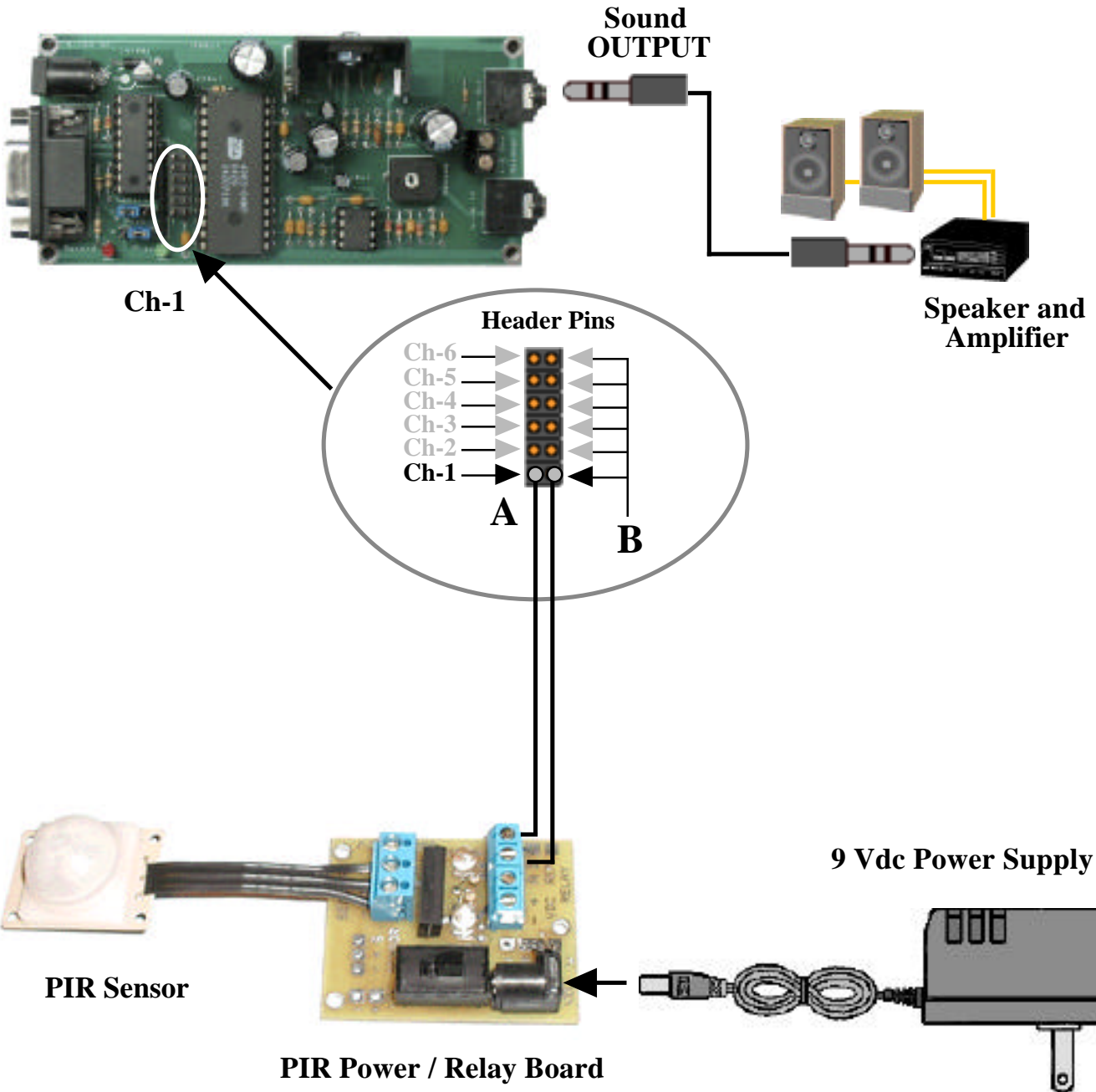
Sound Board Pro Optional Sound Amplifier
- **Audio Cable**
- **Power Amp Playback**

Sound Board Pro Module

Sound OUTPUT
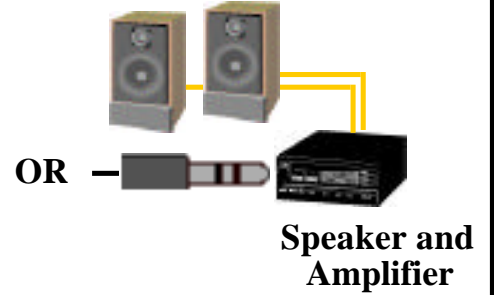
OR

Speaker and Amplifier

OR

Radio Shack Mini Amp

OR

Other Audio Amp

Version 1.0

Sound Board Pro Module
Optional Cable and Adapter Board Overview

Sound Board Pro Ribbon Cable and Adapter Board

Wire Terminal Block

Ribbon Direction

Blue Wire

Channel 1-6 Header Pin Connector

Sound Board Pro Module

Wire Terminal Block

Random Playback Jumper Sequence Playback Jumper

Manual Switch

Optional Manual Momentary Button

Ribbon cable and connector to Sound Board Pro

Ch 6

Ch-6

Ch-2

Ch-1

Manual Switch

Blue Wire

Looping Playback Jumper (CH-1)

Record Button and Test Channel - 1 Button

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Version 2.0