

# MYLOCOSOUND

## PREMIUM SOUND FOR LARGE SCALE, NORTH AMERICAN STEAM LOCOMOTIVES

### 1. OVERVIEW

- Provides a chuff sound which matches the loco speed and load.
- Five recorded 3, 5 and 6 chime whistles.
- Other selectable sounds include two bells, safety valve, "All aboard", coal shovelling, injectors, three brake pumps, rod clank, drain cocks and brake squeal.

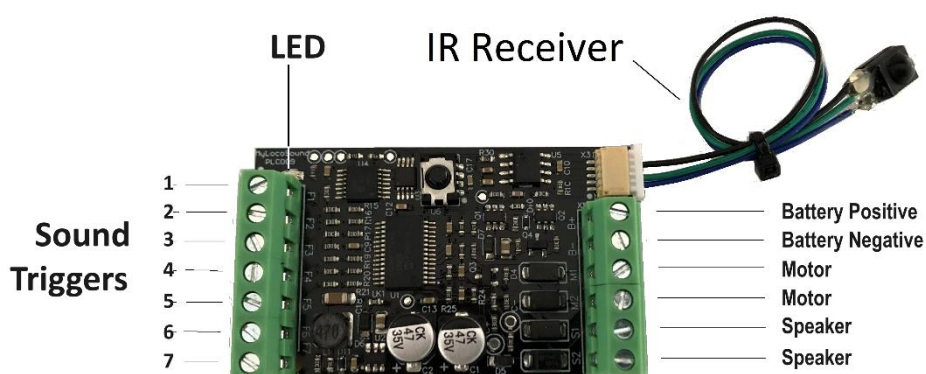
### 2. CONTENTS

The soundcard generates recorded and synthesised sound which is adjustable to reproduce the sounds of most steam locos and railmotors. The terminal connections on the right are necessary for the soundcard to generate a chuff which varies with the loco speed and load. The terminal

connections on the left trigger the various sounds where the locomotive controller has the appropriate outputs available. The trigger terminals are labelled F1 to F7 and are referred to by these labels in these instructions e.g. "Triggering F1" means to close a contact between the F1 terminal and the Battery negative terminal.

Sounds can also be triggered by the infra-red TV remote control which works with the soundcard. Although it can be used when running in the garden, the remote control is intended mainly for the adjustment and testing of sounds due to its short range.

The remote control communicates with the soundcard via two infra-red receivers. One is located on the soundcard and the other is on a flying lead which allows it to be fixed to any external surface of the loco. Adjustments to the sounds can then be made without taking the loco apart to access the soundcard.



### 3. CONFIGURING THE SOUND CARD

The soundcard has three modes:

1. **Sound setting** mode in which you can select the sounds you want by pressing the Mute button.
2. **Operating setting** in which you can choose the way the sounds are triggered by pressing the Enter button.
3. **Run mode** in which the soundcard does its job on your railway.

All sound settings are done using the TV remote control and we will cover that first. To place the soundcard into Sound Setting mode point the remote control at the soundcard or the receiver on the end of the flying lead and press the **Mute** button. The LED on the soundcard will blink slowly and all sounds will cease. Next press one of the keys on the remote control and the number of beeps will

indicate the current sound setting as listed below. Press the key again and the setting will move to the next sound listed below. At any time, you can press the **Mute** button to hear the sound you have selected or to return to run mode.

All operating settings are also done using the TV remote control. To place the soundcard into Operating Setting mode point the remote control at the soundcard or the receiver on the end of the flying lead and press the **Enter** button. The LED on the soundcard will blink fast and all sounds will cease. Next press one of the keys on the remote control to indicate the current operating mode and again to move through the options listed below. At any time, you can press the **Enter** button to return to run mode.

Note: Some TV remotes do not have an **Enter** button or they have an **Enter** button which the soundcard is unable to understand. If you hit this problem then you can get into Operating Settings by doing the following:

- Press **Mute** to get into Sound Setting. The LED will blink slowly.
- Press the Zero button.
- You will now be in Operating Setting. The LED will blink fast.
- When you are done, press **Mute** to return to Sound Setting.
- Press **Mute** again to return to run mode.

The volume of all sounds can be varied by using the volume up/down buttons on the TV remote while that sound is playing.

All settings are listed in a quick reference table on the last page of these instructions.

#### 4. SOUND SETTING OPTIONS (MUTE BUTTON)

**Power Button – Not used in sound setting.**

**Button 0 – Chuff Sensitivity.** As you throttle up and down to change the speed of the locomotive, the chuff sound will change. It will be loud when accelerating, softer when coasting and faint when decelerating. Press this button to change the sensitivity of the chuff to throttle changes as indicated by the number of beeps when pressed. One beep indicates maximum sensitivity. Five beeps sets minimum sensitivity ie. the chuff will not change. The default sensitivity is two and change to one if you want more sensitivity or three or more if the chuff sounds erratic. One beep is recommended for pushbutton throttles.

**Button 1 – Whistle.** This is used to select the style of whistle which suits your locomotive. Every one of these whistles has an adjustable volume. Each time you press the 1 button the number of beeps will increase to indicate that the whistle listed below has been selected. If you wish to hear that whistle, press the Mute button on the remote control to reactivate the sound then press the 1 button to start the whistle and then again to stop it. The pre-selected whistles available are:

- 1 beep** – Crosby 3 Chime
- 2 beeps** – Logging 3 Chime
- 3 beeps** – Nathan 5 Chime
- 4 beeps** – Lima 5 Chime (**Default**)
- 5 beeps** – Nathan 6 Chime
- 6 beeps** – Thomas the Tank Engine whistle

**Button 2 – Bell.** This is used to select the type of bell from the list below.

**1 beep** – High pitched brass bell.

**2 beeps** – Lower pitched bronze bell (**Default**)

**Button 3 – Guard.** This is used to select the guard's sounds from the list below.

**1 beep** – Sounds "All aboard"

**Button 4 – Not used in sound setting.**

**Button 5 – Airbrake compressor pump sounds**

**1 beep** – Sounds pump 1. (**Default**)

**2 beeps** – Sounds pump 2.

**3 beeps** – Sounds pump 3.

**Button 6 – Fireman sounds**

**1 beep** – Injector only.

**2 beeps** – Coal shovelling only.

**3 beeps** – Injector and coal shovelling alternate. (**Default**)

**Button 7 – Locomotive chuff sound in motion**

**1 beep** – Deep chuff for a heavy locomotive (**Default**)

**2 beeps** – Sharper chuff for a smaller locomotive

**3 beeps** – Narrow gauge locomotive chuff

**Button 8 – Deceleration sounds**

**1 beep** – Brake squeal as it stops (**Default**)

**2 beeps** – Rod clank when slowing down

**3 beeps** – Both brake squeal and rod clank

Note that the rod clank is only audible when the loco has stopped chuffing when slowing down.

**Button 9 – Not used in sound setting.**

## 5. OPERATING SETTING OPTIONS (ENTER BUTTON)

**Power Button – Battery or Track Power.** The soundcard can be used with battery power, with or without a locomotive, or with locomotives which are powered from the track. Press this button to switch:

**1 beep** – Battery power. (**Default**)

**2 beeps** – Track power with a 9v support battery. The soundcard will automatically turn itself off when the locomotive has not moved for thirty seconds. Turning the power up a little will turn the soundcard back on. The support battery will automatically recharge when the track voltage exceeds 10v.

**3 beeps** – Track power with a 7.2v support battery. The soundcard will automatically turn itself off when the locomotive has not moved for thirty seconds. Turning the power up a little will turn the soundcard back on. The support battery will automatically recharge when the track voltage exceeds 8v.

#### **Button 0 – Coasting sound**

**1 beep** – The chuff volume decreases to a lower level when the locomotive is coasting at constant speed. **(Default)**

**2 beeps** - The chuff volume remains the same when the locomotive is accelerating or coasting.

#### **Button 1 – Whistle operation options.** There are three whistle operating modes available:

**1 beep** – Indicates manual operation. In this mode all sounds are triggered by manual press of the TV remote button or by Function 1. With battery radio control, the whistle will sound for as long as function 1 is closed. With track power the whistle will sound for one second when function 1 is triggered by track magnets. **(Default)**

**2 beeps** – Indicate simple automatic mode. This is designed for controllers which have no function buttons, as is often the case with track power, or at exhibitions, etc. where you don't want to operate manually. The whistle will sound once automatically when the loco moves off and then once more three times a minute when the loco is on motion. A reed switch can be placed under the loco and be connected to the F1 terminal to make the whistle sound when the loco passes over a magnet. Another reed switch, connected to the F2 terminal, can be used to trigger the bell. If the bell is set to one beep then it will ring continuously until the loco passes over another magnet. If the bell is set to two beeps then it will ring for the set time.

**3 beeps** – Indicate American automatic mode. Again this is designed for controllers which have no function buttons, as is often the case with track power, or at exhibitions, etc. where you don't want to operate manually. However, it follows American rules. The whistle will sound two long toots when the loco moves off forwards or three short when backing up. If these occur the wrong way around then reverse the leads at the M1/M2 terminals. When the loco stops, a single short toot will indicate brakes on. A reed switch can be placed under the loco and be connected to the F1 terminal to make the whistle sound the grade crossing sequence when the loco passes over a magnet. Another reed switch, connected to the F2 terminal, can be used to trigger the bell. If the bell is set to one beep then it will ring until the loco passes over another magnet. If the bell is set to two beeps then it will ring for the set time.

#### **Button 2 – Bell operations.** This is used to select the bell operation from the list below.

**1 beep** – Manual bell. Starts ringing repeatedly when the button is pressed until the button is pressed again.

**2 beeps** – Timed bell. When F2 is triggered, rings repeatedly for a predetermined time. To set that time, press the Mute button to exit setting mode and then press Button 2 to ring the bell. When the bell has rung for as long as you want, press Button 2 again to stop the ringing. The time is then set and the bell will ring for that time when F2 is triggered while running.

**3 beeps** – Automatic bell. Rings repeatedly when the motor voltage is less than 4 volts.

**4 beeps** – Automatic bell. Rings repeatedly when the motor voltage is less than 8 volts.

**5 beeps** – Automatic bell. Rings repeatedly when the motor voltage is less than 12 volts.

**6 beeps** – Manual bell. Rings once only each time the button is pressed.

**Button 3 – Guard.** Sounds the guard each time the TV remote button 3 or function 3 is triggered.

**Button 4 – Safety Valve.** This will operate in four ways:

**1 beep** – Manual. Starts blowing when the button is pressed or F4 is triggered and stops when pressed again.

**2 beeps** – Throttle controlled. When the loco is stationary, turn the throttle up a little and the safety valve will blow off until you turn the throttle off or forwards to move off. For this to work, the chuff start must first be set as described below.

**3 beeps** – Automatic. Blows for 10 seconds once a minute.

**4 beeps** – Automatic. Blows for 10 seconds once every 2 minutes. **(Default)**

**Button 5 – Westinghouse Brake Pump.** This will operate in two ways:

**1 beep** – Manual. Sounds only if the TV remote 5 button is pressed or function 5 is triggered.

**2 beeps** – Automatic. Sounds whenever the locomotive is stationary.

**3 beeps** – Automatic. Sounds for 20 secs every minute when the locomotive is stationary. **(Default)**

**Button 6 – Fireman.** The injectors or coal shovelling will operate in three ways:

**1 beep** – Manual. Starts when the button is pressed and stops when pressed again.

**2 beeps** – Automatic. Sounds for 20 seconds every 2 minutes when the loco is stationary.

**3 beeps** – Automatic. Operates for 20 seconds once every 4 minutes when the loco is stationary.

**Button 7 – Steam Chuff.** The locomotive chuff can be generated in three ways:

**1 beep** – Automatic chuff based on the motor voltage for two or four cylinders. **(Default)**

**2 beeps** – Automatic chuff based on the motor voltage for locomotives with three cylinders.

**3 beeps** – Mechanically triggered chuff. For locomotives which have an electric motor and a built in chuff trigger on an axle. The output from that chuff trigger needs to be connected to the F7 terminal on the soundcard. Note that the chuff trigger will function only when there is a voltage the M1/M2 terminals.

**4 beeps** – Mechanically triggered chuff. For locomotives which **do not** have an electric motor but have a built in chuff trigger on an axle. The output from that chuff trigger needs to be connected to the F7 terminal on the soundcard.

When automatic chuff is selected, the chuff needs to be set to correctly match the loco. This is done with the sound active. Starting from static, turn up the throttle until the loco just starts moving and then press the Power button on the remote control. This will set the voltage at which the chuff starts.

Next the chuff rate needs to be set to four or three beats per wheel revolution depending on the number of cylinders as above. Before doing this step it is a good idea to turn off all other sounds so that you can clearly hear the chuff alone. Then throttle up the loco so that it is running at a scale walking pace and use the channel up/down buttons on the remote to adjust the chuff rate to the correct number of beats per revolution. When you are satisfied then restore the other sounds.

A customer, Rik Bennett, has made an excellent video of setting the chuff which can be seen by going to YouTube and searching for “MyLocoSound steam setting”. It can also be accessed through the steam page at [www.mylocosound.com](http://www.mylocosound.com).

**Button 8 – Brake Squeal.** This will operate in these ways:

**1 beep** – Not required. **(Default)**

**2 beeps** – Automatic with the clank, if selected, sounding when the motor voltage is 6 to 12 volts.

**3 beeps** – Automatic with the clank, if selected, sounding when the motor voltage is 4 to 8 volts.

**4 beeps** – Automatic with the clank, if selected, sounding when the motor voltage is 3 to 6 volts.

**Button 9 – Drain cocks.** When a locomotive has been static for a while water condenses in the cylinders and can cause damage as a result of priming. When the locomotive moves off the driver will open the drain cocks for a short time and the chuff will be replaced with a hiss. There are three options:

**1 beep** – Not required. **(Default)**

**2 beeps** – Automatic for ten seconds after a one minute stop.

**3 beeps** – Automatic for ten seconds after a three minute stop

**Resetting the soundcard back to factory default settings.** If you get in a bit of mess and want to start again then you can reset the soundcard by holding down the 0 (zero) button of the remote control for three seconds. You will then hear five beeps and all settings will revert to the defaults for the country you have selected. These include the default sounds, 2/4 cylinders and a voltage controlled chuff. It will not change the country.

You can change all the above settings whenever you wish and the changes will be effective immediately.

## 6. OPERATING THE SOUND CARD

When the loco is running, the engine sounds should operate automatically, getting louder when accelerating and softer when slowing down or idle.

Where your controller has function buttons then you can use them as follows to trigger terminals F1 to F6:

- Terminal F1. Sounds the main whistle. On track power the whistle will sound for one second so that it can be triggered by track magnets. On radio control the whistle sounds for as long as the function is triggered.
- Terminal F2. Operates the bell for as long as the button is pressed.
- Terminal F3. Sounds the “All aboard”.
- Terminal F4. Sounds the safety valve blowing off.
- Terminal F5. Switches the Westinghouse brake pump when manual mode has been selected.

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For more information, please visit the web site at [www.mylocosound.com](http://www.mylocosound.com) or e-mail [sales@mylocosound.com](mailto:sales@mylocosound.com).

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TV Remote Control	Beeps	Mute Pressed - Sound Setting	Enter Pressed - Operating Setting
<b>Power Button</b>	1		<b>Locomotive is battery powered</b>
	2		Locomotive is track powered with 9v battery
	3		Locomotive is track powered with 7.2v battery
<b>Button 0 – Chuff Sensitivity</b>	1	Chuff maximum sensitivity to throttle changes	Chuff volume reduces when cruising
	2	▼ ▼ ▼	Chuff volume stays high when cruising
	3	▼ ▼ ▼	
	4	▼ ▼ ▼	
	5	Chuff minimum sensitivity to throttle changes	
<b>Button 1 - Whistle</b>	1	Crosby 3 chime	<b>Manual whistle control</b>
	2	Hancock 3 chime	Automatic Whistle every 20 secs
	3	Nathan 5 chime	US whistle rules with grade crossing
	4	<b>Lima 5 chime</b>	
	5	Nathan 6 chime	
	6	Thomas the Tank Engine whistle	
<b>Button 2 - Bell</b>	1	Brass bell	Manual on/off
	2	<b>Bronze bell</b>	Automatic timed ring when F2 is triggered.
	3		<b>Rings when motor below 4 volts</b>
	4		Rings when motor below 8 volts
	5		Rings when motor below 12 volts
	6		Rings once each time button is pressed
<b>Button 3 - Guard</b>	1	<b>“All aboard”</b>	<b>Manual</b>
<b>Button 4 – Safety Valve</b>	1		Manual on/off
	2		Throttle nudge operated
	3		<b>Automatic once a minute</b>
	4		Automatic once every three minutes
<b>Button 5 – Brake Pump</b>	1	<b>Slow pump</b>	Manual on/off
	2	Fast pump	Automatic each time the locomotive stops
	3	Alternate pump	<b>Automatic for 20 secs per minute</b>
<b>Button 7 – Chuff Sound</b>	1	<b>Deeper, big engine chuff</b>	<b>Voltage triggered 2/4 Cylinder (4 chuffs/rev.)</b>
	2	Sharper, small engine chuff	Voltage triggered 3 Cylinder (6 chuffs/rev.)
	3	Narrow Gauge Chuff	Switch/Wheel trigger at F7 terminal and motor
	4		Switch/Wheel trigger and no motor
<b>Button 8 – Decelerating</b>	1	<b>Brake squeal</b>	<b>Not used</b>
	2	Rod clank when slowing to a stop	Automatic with clank at 6 to 12 motor volts
	3	Both rod clank and brake squeal	Automatic with clank at 4 to 8 motor volts
	4		Automatic with clank at 3 to 6 motor volts
<b>Button 9 – Drain Cocks</b>	1		<b>Not used</b>
	2		Automatic after a one minute stop
	3		Automatic after a three minute stop

Default settings are shown in bold.