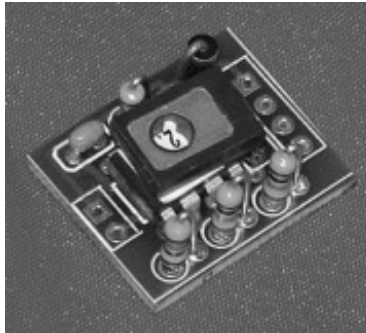# TAS-1308
TMCC Whistle Controller Installation Instructions

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970 Windham Ct
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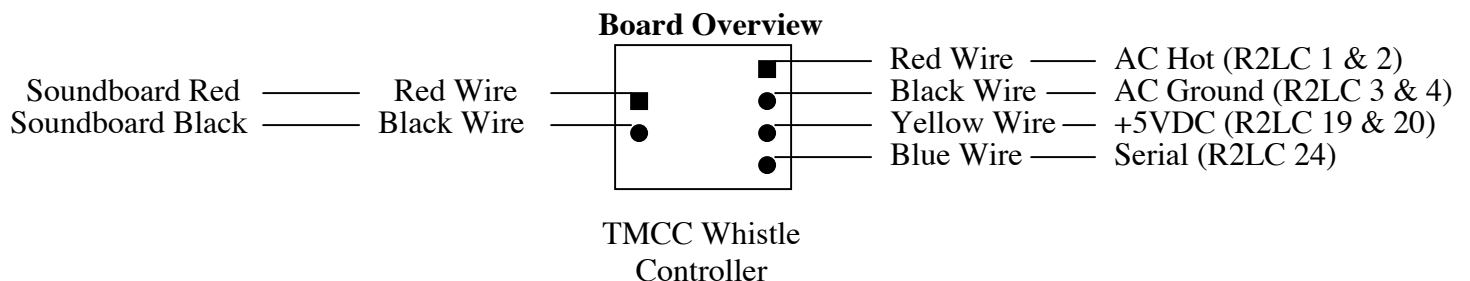**www.tastudios.com**

Introduction

The TMCC Whistle Controller Board is designed as an add-on upgrade to any of TAStudios' command control upgrade boards without sounds. The Whistle Controller is designed to receive and decode the serial data stream from the R2LC command receiver and generates a positive DC offset to activate a conventional whistle or horn soundboard. This board only activates the whistle or horn, not the bell. Once the TMCC Whistle Controller is installed it will operate in both a command and conventional environment.

The TMCC Whistle Controller will require soldering to successfully install it. We have included two pieces of heat shrink tubing to cover the solder connections and protect them from shorting out inside the locomotive. To install the shrink tubing, simply slide it over the wire to be soldered, away from the solder connection. Once the solder connection is made and the joint has cooled, simply slide the heat shrink tubing over the joint and heat it up with a lighter or a match. It will shrink down over the joint and protect the connection.

Installation Kit Contents

1 TMCC Whistle Controller Board w/ color-coded wires
1 Installation manual

Board Overview

Soundboard Red ——— Red Wire

Soundboard Black ——— Black Wire

Red Wire ——— AC Hot (R2LC 1 & 2)
Black Wire ——— AC Ground (R2LC 3 & 4)
Yellow Wire ——— +5VDC (R2LC 19 & 20)
Blue Wire ——— Serial (R2LC 24)

TMCC Whistle
Controller

Installation Instructions

To begin the installation, locate the soundboard you wish to connect the TMCC Whistle Controller Board to. There will be two power wires on the soundboard red and black. Disconnect these wires from wherever they are currently connected. These wires will connect to the wires illustrated on the first page as "Soundboard Red and Soundboard Black". These are the connections where you will want to use the enclosed heat shrink tubing.
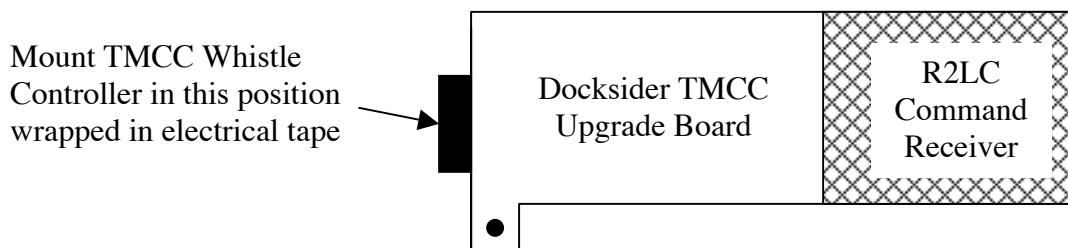
Now, locate the Lionel R2LC radio board. The remainder of the wires (4 in all) will need to be soldered to the backside of the R2LC. The connections should be made as illustrated below.

Backside of Lionel R2LC Command Receiver.

Pins shown are located on the backside of the board, opposite The 24-position female socket.

Solder Red AC Hot wire here (pins 1 & 2)
Solder Black AC Ground wire here (pins 3 & 4)

Solder Yellow +5VDC wires here (pins 19 & 20)

Solder Blue serial wire here (pin 24)
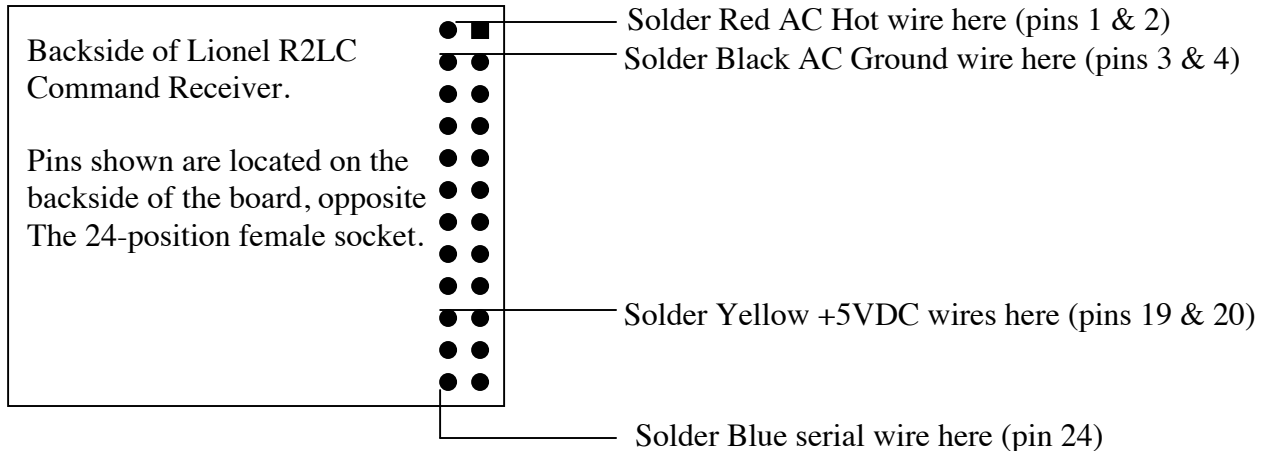
NOTE: When soldering the wires to these pins, please ensure the wires touch only the pins you are soldering them to, otherwise a short circuit will occur and could possibly cause permanent damage to your R2LC receiver.

Mounting the Board

Once you have the TMCC Whistle Controller wired you must find an adequate place to mount the board. For installations such as the Lionel Docksider locomotives with the TAStudios Docksider Board the best position is directly under the tabbed end of the Docksider Board, just above the speaker area. The diagram below illustrates this position.

Mount TMCC Whistle Controller in this position wrapped in electrical tape

Docksider TMCC Upgrade Board

R2LC Command Receiver

We strongly recommend wrapping the TMCC whistle Controller with electrical tape prior to mounting to the locomotive frame. This way you can protect the board from shorting out inside the locomotive. Use the double-sided tape to mount the board, providing you have adequate room.

Tech Support

If you should require technical help during the installation process please call our technical support department at 330-533-7181 Monday-Friday 9a-5p EDT.