1. Introduction

The Hornby Class 47/4 diesel/electric locomotive is fitted with a Hornby Twin Track Switch and Sound Decoder and is designed to work in a fleet of similar locomotives under a range of services including fast acceleration/deceleration sounds, horns, and other appropriate locomotive noises associated with the Class 47/4 locomotive.

• Supports Short and Long address functions
• Automatic or manual engine control methods. Both methods can be used together under one control
• The automatic notching up and down process will cease to work because you have unpleasantly shocked the driver in a momentary switch
• The decoder supports ‘load’ compensation. This is a feature that tries to maintain a constant speed of the locomotive as the load on the motor changes, i.e. when the BEMF (Back Electromotive Force) and comparing the voltage level detected to the appropriate value (Note: The Class 47 HTTS does not have this function).

For more information on www.hornby.com
Further notes re CV9

Bit12 (Add to address) is used to control the default direction of the locomotive. This is useful if the decoder has been fitted to a non-DCC fitted system where wiring a non-DCC fitted locomotive. This bit is set to 1 if the user needs to run the locomotive in the opposite direction. The default direction is reversed if this bit is set.

Bit13 (Add to address) is used to control whether the decoder will operate in the 'Manual Control' mode or control functions by simple CVs. This bit is set to 0 if the decoder is to operate in manual control. The default direction of the locomotive will be controlled by the associated CV.

Placing Note: If a decoder is required to default settings, see address 0xE0. If a decoder is set to 'global' the decoder is unique to Long ADDRESS mode and the decode will respond to address 0x80. Turning Bit12 to the 'off' state will return the decoder to 'Short Address' mode i.e. address 0x80. If the decoder has been previously used with both Short and Long Addresses tagging the Short Address, decoder is set to either the short or long addresses previously programmed.

CV15-16: Motor Control Method

Motor control is a software-controlled system using a 12-bit CV (control value) where the decoder checks the value of this control and converts the control voltage to a corresponding control signal to control the motor. This control system will not try to compensate for any speed drop because the decoder will not try to compensate for any speed drop between the controller and the decoder. As a result, the decoder will try to compensate for any speed drop between the controller and the decoder. As a result, the decoder will control the speed of the locomotive by adjusting the CV value.

The decoder will use the associated CV value to control the speed of the locomotive. The decoder will adjust the CV value to control the speed of the locomotive. The decoder will adjust the associated CV value to control the speed of the locomotive.

Suggested Sound Volume Setup Procedure

Using the programming method greatly speeds up the process of setting the sound settings of the decoder. However, the user will need to use the CV to adjust the sound settings of the locomotive. The user will need to use the CV to adjust the sound settings of the locomotive.

Using the CV table 3, run through the list of sound options to make any adjustments to the locomotive. The user will need to use the CV to adjust the sound settings of the locomotive.

8. Decoder Plug and Socket connection function

Use the table to check which contacts are used by the plug and socket. The user will need to use the CV to adjust the sound settings of the locomotive.

9. Glossary of Function Sounds

Most sounds are self-explanatory. The following additional explanations may be useful:

Function 3: Compressor

Compressor: A valve fitted to an air tank that makes a ticking noise when the engine is running to let out any condensation to prevent the tank from freezing.

Function 8: Thrash

Thrash: A valve fitted to an air tank that makes a ticking noise when the engine is running to let out any condensation to prevent the tank from freezing.

Function 9: Thrash

Thrash: A valve fitted to an air tank that makes a ticking noise when the engine is running to let out any condensation to prevent the tank from freezing.

Deactivation

For those who have talked about Acceleration, Deactivation follows different rules. Basically, it goes to speed stop and then goes to zero. If the speed drop is less than the acceleration rate, it goes to zero. If the speed drop is more than the acceleration rate, it goes to zero.

Manual Control

In addition to the 'automatic' engine control described previously, the decoder also supports 'manual' engine control via 'Track Dynamic Functions F7-F8'.

F7 (Idle)

F7 is a conversational control that forces the engine sound to increase to the maximum volume. F7 switches the sound to maximum volume. F7 switches the sound to maximum volume.

F8 (New Func.)

F8 is a conversational control that forces the engine sound to increase to the maximum volume. F8 switches the sound to maximum volume. F8 switches the sound to maximum volume.

F8 ( станший)

F8 is a conversational control that forces the engine sound to increase to the maximum volume. F8 switches the sound to maximum volume. F8 switches the sound to maximum volume.

F8 (staщий)

F8 is a conversational control that forces the engine sound to increase to the maximum volume. F8 switches the sound to maximum volume. F8 switches the sound to maximum volume.

10. Troubleshooting

No Sound

Check radio, speakers, etc.

Jerry Rail

Check radio, speakers, etc.

No Control or Response from the Locomotive

Check radio, speakers, etc.

Locomotive engine does not start/restart

Check fuel, oil, etc.

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