New Features Available with the Quantum Titan Sound-Decoder

Congratulations on purchasing an Atlas Gold Series sound-equipped locomotive that is equipped with the QSI Quantum Titan sound decoder, the most feature-packed and technologically-advanced sound-decoder available today. The Quantum Titan sound decoder includes all the features of the original QSI Quantum system, used in previously-released Atlas Gold Series locomotives, plus many new features.

Quantum Titan Architecture

The Quantum Titan sound decoder has a new architecture that gives it considerably more "horsepower" than earlier sound decoders from QSI and other manufacturers. Some highlights of this new architecture are:
- Higher speed processors,
- A 64 Mbit memory, This much memory allows the Titan system to store multiple diesel horns (or other sounds) that can be chosen by the user. (Initially, one of two diesel horns can be selected by the user.)
- Up to 128 mono sound channels are available,
- Ten selectable lighting outputs that are each programmable for any of eleven different lighting effects.

Note: An individual Atlas locomotive will utilize only a subset of the above capabilities, not all of them.

Additional DCC Functions Available with Quantum Titan

The original QSI Quantum DCC and sound system used DCC functions F0 and F1-F12 to control various sounds, lights, and other features. The new Quantum Titan sound-decoders use DCC functions F13-F28 (in addition to F0 and F1-F12). The new Titan system uses the functions F11 to F28 to trigger the following features:
- DCC function F11 to toggle between the primary and the secondary horns. (After pressing F11 once, F2 will operate the secondary horn in the normal way.),
- DCC function F13 to decrease System Volume by 2 dB,
- DCC function F14 to increase System Volume by 2 dB,
- DCC function F15 to play the Grade Crossing horn sequence (long, long, short, long), but only when the locomotive is moving,
- DCC function F26 to start the Fuel Loading Scenario (dialog and sounds appropriate to fueling with diesel oil), but only when the locomotive is stopped,
- DCC function F27 to start the Maintenance Scenario, but only when the locomotive is stopped,
- DCC function F28 to start the Water Loading Scenario, but only when the locomotive is stopped. (For example, this scenario might be used to generate dialog and sounds appropriate to adding water to a steam generator in a diesel passenger locomotive.)

In order to use the above new features, you need a DCC system that supports DCC functions F0 and F1-F28. Most currently-sold DCC systems do support F0 and F1 - F28. If your DCC system does not support the total range of these functions, check with the manufacturer of your system to see if an upgrade is available.

Other New Features

Other newly-available features of Titan sound-decoders include
- The availability of CV51.20 to set up (or turn off) automatic horn warning signals that will be generated by the sound decoder including:
  - Two short horn blasts when starting in FWD,
  - Three short horn blasts when starting in REV,
  - One short horn blast when coming to a stop.
- The availability of CV6 to adjust the mid-range speed of a locomotive. Using CV6 to set directly the mid-range speed provides an alternative to using CV25 to select a speed curve.
- Gradual brightening and dimming of locomotive lights when they are turned on and off.
- Lower minimum locomotive speeds.

03/19/2012