# Welcome To QSI Solutions!

#### **Quantum Revolution**

"Realism is what you want to make it"

### Key Attributes

- Passionate Devotion to Prototypical sound and operation
- ◆All Scales
- Multiple Formats
- ◆ Steam Diesel Electric Gas Turbine
- Programmable/Down Loadable Sounds
- ◆Rated for 2 amps HO/O Rated for 3 amps O/G

#### Sound Performance - Steam

- Realistic chuff sound
- Regulated Throttle
  - Smooth Momentum
  - Automatic Sound Transition
  - Intensity
- Throttle or Cut-off mode
- Progressive Chuff
- Timbre "Cut-off Inertia"

#### Sound Performance - Steam

- Sound of Power- exhaust load/grades/curves
- Doppler Effect
- Accurate Synchronization (no need for cam)
- Disconnect / Shutdown
- Articulated sound simple and compound
- Prototypical Braking
- Semi Automatic Speed Matching helpers/consisting
- Dual Whistle Function Switchable. Single Button Control of: Hoot, Blast, Fancy Ending & Doppler
- Bell

# Sound Performance – Steam Prototypical Sounds

- Cylinder Cock Release ejects condensed water
  - Start up, or after being stationary (timed)
- Slow start Eliminates broken couplers
- Drifting Saves fuel and water
- Rod Clank
- Customizable Grade Crossing Auto Bell
- Braking initial 5 lb air release then stop

# Sound Performance - Steam **Ancillary Sounds**

- Dynamo
- Air Pump 1
- Air Pump 2 (if applicable) Steam Blower Hiss
- Boiler Pop-off
- Blow Down
- Injector
- Air Brakes
- Squealing Brakes
- Coupler: Crash, slack adjust, release
- User Loadable Sound Effect (with Quantum Programmer)

#### Sound Performance - Diesel

- Exhaust and Motor Sounds
- Regulated Throttle
- Sound of Power
- Load Responsive Exhaust Sounds
- Heavy Load
- Disconnect/Stand By/Shutdown
- Dual Horn Function Switchable. Single Button
- Control of: Hoot, Blast, Fancy Ending & Doppler
- Customizable Grade Crossing with
  - prototypical bell/lighting effects

# Sound Performance – Diesel Ancillary Sounds

- Turbo
- Air pump
- Vents and cooling fans
- Long air let-off
- Short air let-off
- Dynamic Brakes (exhaust volume to notch 1)
- Coupler: Crash, slack adjust, release
- Air Brakes
- Squealing Brakes
- User Loadable Sound Effect (with Quantum Programmer)

- Regulated Throttle
  PID (very slow/slow/mid/hi speed)
  Important Speed Controls
  - Back EMF
  - CV 2 Start Voltage
  - CV 3 Acceleration
  - CV 4 Deceleration
  - CV5 Hi Speed Max
  - CV 6 Mid Speed Max
  - Forward/Reverse Trim
  - Speed Curves
  - Scale MPH/Odometer (EMD Transition)

- Multiple Speakers
  - 2 watt output
  - 4/8/16 Ohm speakers
- Braking Lighting
  - 6 lighting outputs
  - Individual intensity controls for all lighting states (bright, dim, mid, etc)
  - Ramp up/down timing controls
  - U Format has 12v common and 5v common supports all scale lighting options when used with resistors
  - A Format has 5v common with onboard resistors for direct connection of LED's/1.5v bulbs

#### **Diesel Lighting Functions**

- Automatic or User Control Of all Lights in Four states
  - FWD, NFF, REV, NFR
  - Can be set to: Bright/Dim/Off or Special Effect Where Applicable
- Head/Rear lights
- Ditch lights work together
- MARS
- Overhead Beacon (Blinking, Rotary, Strobe, Prime Beacon)
- Cab
- Marker
- Number Boards
- Any of the above available as both front and rear

#### Consisting

- Easy to set up
- Speed Matching
  - CV2,5,6/Speed Curves
  - Multiple Locos w/QSI (Revolution or OEM) will adjust to each other
- In-consist function controls for lead, rear and middle locos

#### Steam Lighting Functions

- Head/Rear Light
- Mars Light
- Marker
- Number Boards
- Cab
- Dual Firebox (with exhaust flare synchronized to chuff sound)

- Status Reports
- Scale MPH adjustable
- Odometer
- Wheel Diameter (steam)
- Synchronization (steam)
- Speed Steps per Notch (diesel)
- Room Temperature