Program Sound Volume

In the Program Mode you may individually adjust the volume of the five sounds (Buttons 1 through 5). To adjust the volume, press Button 6 and then select and press one of the sounds (Buttons 1 through 5). Each sound has four volume level settings. For example, to adjust the volume of the bell, press Button 6 (you will hear “Program”), wait 2 seconds and then press Button 1. At this point, you will hear a sample of the bell sound in order to judge the volume. Repeat pressing Button 6 and, two seconds later, Button 1 to hear the next volume level, stopping when the desired volume is heard.

Restoring Factory Default Settings
In the Program Mode, press Button 5 five times. You will hear “Program” five times, followed by the air release sound.

Programming - DCC Mode
Your GENESIS F-Unit will operate on any NMRA compatible Digital Command Control (DCC) system. The dual-function decoder has the following features:

- Synchronized diesel engine sound with random sounds
- 1.5 amp capacity
- Programmable for either 2 digit, (1-127) or 4 digit, (1-9,999) addresses
- Programmable start voltage
- Programmable acceleration rate
- Programmable deceleration rate
- Programmable top voltage
- Programmable 14-28/128 speed steps
- Directional lighting (FO)
- Special lighting effects: Mars Light, Gyralight, Beacon or Strobe Light
- 19 accessory sound functions, (F1-F19)
- Advanced consisting (CV19)
- OPS mode programming
- Compatible with NMRA DCC standard
- Complies with part 15 of FCC regulations
- Programmable individual sound volume

Note: The Bell (F1), Dynamic Brake (F6) and Rail Clickety-Clack (F10) cannot play simultaneously – the bell will interrupt the other two sounds.

Programming for DCC Operation – Digital Mode
This decoder supports all program methods including register mode, paged mode, CV programming, direct mode and programming on the main (OPS mode programming). Program the locomotive the same way you would program any other NMRA compatible decoder with your DCC system.

Note: Due to the dual sound decoder nature, it does not support CV read back feature. The Dual-Function decoder is manufactured by Model Rectifier Corporation for Athearn Trains.

### Operation DCC SOUNDS CHART

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>IDLE/MOVING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double click F8</td>
<td>Sounds ON/OFF</td>
</tr>
<tr>
<td>F1</td>
<td>Bell ON/OFF</td>
</tr>
<tr>
<td>F2</td>
<td>Horn</td>
</tr>
<tr>
<td>F3</td>
<td>Air release</td>
</tr>
<tr>
<td>F4</td>
<td>Coupling</td>
</tr>
<tr>
<td>F5</td>
<td>Brake release/Squeal (idle/moving)</td>
</tr>
<tr>
<td>F6</td>
<td>Dynamic Brake</td>
</tr>
<tr>
<td>F7</td>
<td>Coupler Arm</td>
</tr>
<tr>
<td>F8</td>
<td>Coupler Fire</td>
</tr>
<tr>
<td>F9</td>
<td>Engine cooling fan</td>
</tr>
<tr>
<td>F10</td>
<td>Rail click clack</td>
</tr>
<tr>
<td>F11</td>
<td>Air compressor</td>
</tr>
<tr>
<td>F12</td>
<td>Sound On/Off</td>
</tr>
<tr>
<td>F13</td>
<td>Door close</td>
</tr>
<tr>
<td>F14</td>
<td>Coupling crash</td>
</tr>
<tr>
<td>F15</td>
<td>Air pump</td>
</tr>
<tr>
<td>F16</td>
<td>Exhaust</td>
</tr>
<tr>
<td>F17</td>
<td>Short Air release</td>
</tr>
<tr>
<td>F18</td>
<td>Safety valve</td>
</tr>
<tr>
<td>F19</td>
<td>Horn type #1 doppler effect</td>
</tr>
</tbody>
</table>

### CV REGISTER DESCRIPTION RANGE FACTORY VALUE

<table>
<thead>
<tr>
<th>CV</th>
<th>REGISTER</th>
<th>VALUE</th>
<th>FACTORY VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV1</td>
<td>R1</td>
<td>Short address</td>
<td>1-127</td>
</tr>
<tr>
<td>CV2</td>
<td>R2</td>
<td>Start voltage</td>
<td>0-32</td>
</tr>
<tr>
<td>CV3</td>
<td>R3</td>
<td>Acceleration</td>
<td>0-32</td>
</tr>
<tr>
<td>CV4</td>
<td>R4</td>
<td>Deceleration</td>
<td>0-32</td>
</tr>
<tr>
<td>CV5</td>
<td>-</td>
<td>Top voltage</td>
<td>0-32</td>
</tr>
<tr>
<td>CV6</td>
<td>-</td>
<td>Middle voltage</td>
<td>0-1</td>
</tr>
<tr>
<td>CV7</td>
<td>R7</td>
<td>Manufacturer Version</td>
<td>-</td>
</tr>
<tr>
<td>CV8</td>
<td>R8</td>
<td>Manufacturer I.D.</td>
<td>-</td>
</tr>
<tr>
<td>CV9</td>
<td>-</td>
<td>Long address upper byte</td>
<td>192-231</td>
</tr>
<tr>
<td>CV10</td>
<td>-</td>
<td>Long address lower byte</td>
<td>0-255</td>
</tr>
<tr>
<td>CVA</td>
<td>-</td>
<td>Advance consist address</td>
<td>1-127</td>
</tr>
<tr>
<td>CVB</td>
<td>-</td>
<td>Advance consist accessory function assignment works only when CV19 is non zero</td>
<td>0</td>
</tr>
<tr>
<td>CV10</td>
<td>-</td>
<td>Horn type</td>
<td>0-11 (11 is off)</td>
</tr>
<tr>
<td>CV11</td>
<td>-</td>
<td>Horn volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV12</td>
<td>-</td>
<td>Bell type</td>
<td>0-7 (7 is off)</td>
</tr>
<tr>
<td>CV13</td>
<td>-</td>
<td>Bell volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV14</td>
<td>-</td>
<td>Bell ring rate</td>
<td>0-56</td>
</tr>
<tr>
<td>CV15</td>
<td>-</td>
<td>Diesel volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV16</td>
<td>R1</td>
<td>Brake squeal volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV17</td>
<td>-</td>
<td>Dynamic brake volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV18</td>
<td>-</td>
<td>Air release volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV19</td>
<td>-</td>
<td>Air pump volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV20</td>
<td>-</td>
<td>Safety valve</td>
<td>0-3</td>
</tr>
<tr>
<td>CV21</td>
<td>-</td>
<td>Engine cooling fan volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV22</td>
<td>-</td>
<td>Coupling volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV23</td>
<td>-</td>
<td>Noise volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV24</td>
<td>-</td>
<td>Rail clickety-clack</td>
<td>0-3</td>
</tr>
<tr>
<td>CV25</td>
<td>-</td>
<td>User identifier number</td>
<td>0-255</td>
</tr>
<tr>
<td>CV26</td>
<td>-</td>
<td>User identifier number</td>
<td>0-255</td>
</tr>
<tr>
<td>CV112</td>
<td>-</td>
<td>Exhaust volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV113</td>
<td>-</td>
<td>Coupling fire volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV114</td>
<td>-</td>
<td>Brake release volume</td>
<td>0-3</td>
</tr>
<tr>
<td>CV115</td>
<td>-</td>
<td>Auto brake squeal enable/disable</td>
<td>0-1 (1 enable)</td>
</tr>
<tr>
<td>CV116</td>
<td>-</td>
<td>Coupling sound type</td>
<td>0-2 (2 is off)</td>
</tr>
<tr>
<td>CV117</td>
<td>-</td>
<td>Light enable/disable</td>
<td>0-1 (1 enable)</td>
</tr>
<tr>
<td>CV124</td>
<td>-</td>
<td>Back to factory default setting Program CV124 to 1 will reset all CV to factory default</td>
<td>0-1</td>
</tr>
</tbody>
</table>

The Dual-Function decoder is manufactured by Model Rectifier Corporation for Athearn Trains.