DCC Function Chart – American Announcement Mode

Some function buttons have different effects when the Turbo is idle and when it is running. Press F12 to change between American and Canadian announcement modes.

FUNCTION	EFFECT-IDLE	EFFECT-RUN
F0	HEADLIGHT/TAIL LIGHT	SAME
F1	BELL	SAME
F2	HORN	SAME
F3	GYRALITE	SAME
F4	ALL ABOARD	BRAKE SQUEAL
F5	NEW YORK DEPARTURE ANNOUNCEMENT	NEW HAVEN STATION ANNOUNCEMENT
F6	BOSTON DEPARTURE ANNOUNCEMENT	PROVIDENCE STATION ANNOUNCEMENT
F7	DOORS OPEN	AIR RELEASE
F8	CHANGE ENGINE VOLUME	SAME
F9	DOORS CLOSE	BRAKE SQUEAL
F10	ENGINE SHUT DOWN	AIR RELEASE
F11	BELL RING RATE	SAME
F12	CANADA/USA TOGGLE	SAME
F13	BELL VOLUME	SAME
F14	HORN VOLUME	SAME
F15	ANNOUNCEMENT VOLUME	SAME

Additional Sound Functions – Canada and USA

(same for Moving and Idle, included for 28-function DCC systems)

F16 All Aboard USA
F17 New York
F18 Boston
F19 New Haven
F20 Providence
F21 All Aboard Canada
F22 Toronto
F23 Montreal
F24 Guildwood
F25 Kingston
F26 Dorval
F27 Toronto Onboard
F28 Air Release

Note for American and Canadian Turbos: If you manually use F10 to shut down the decoder, you need to press any function button two times to restart the Turbo.

The decoders support the new NMRA protocols that use up to 28 functions (F28). Some of the older DCC systems on the market do not use functions past F12. We've purposefully tried to keep all of the important functions in the "Top 12."

DCC Function Chart – Canadian Announcement Mode

Some function buttons have different effects when the Turbo is idle and when it is running. Press F12 to change between Canadian and American announcement modes.

FUNCTION	EFFECT-IDLE	EFFECT-RUN
F0	HEADLIGHT/TAIL LIGHT	SAME
F1	BELL	SAME
F2	HORN	SAME
F3	GYRALITE	SAME
F4	EN VOITURE, ALL ABOARD	TORONTO ARRIVAL ANNOUNCEMENT
F5	TORONTO DEPARTURE ANNOUNCEMENT	GUILDWOOD STATION ANNOUNCEMENT
F6	MONTREAL DEPARTURE ANNOUNCEMENT	KINGSTON STATION ANNOUNCEMENT
F7	DOORS OPEN	DORVAL STATION ANNOUNCEMENT
F8	CHANGE ENGINE VOLUME	SAME
F9	DOORS CLOSE	BRAKE SQUEAL
F10	ENGINE SHUT DOWN	AIR RELEASE
F11	BELL RING RATE	SAME
F12	CANADA/USA TOGGLE	SAME
F13	BELL VOLUME	SAME
F14	HORN VOLUME	SAME
F15	ANNOUNCEMENT VOLUME	SAME

DCC First Run

For prototypical operation, refer to TurboTrain Prototypical Operation on page 23.

The first time you run your new Turbo there are a few steps you should take to make sure the train operates properly:

1. Test the TurboTrain on a DC-powered track first if possible. If it runs properly (lights, sound, forward and reverse) on DC, it will run trouble free on DCC. The train has already been tested at the factory on DCC, but it doesn't hurt to be sure.

2. Each PDC comes with a factory default DCC address of 3. Before programming a new address into the TurboTrain, test run it on your DCC system on address 3. This will also ensure there are no problems with the train.

3. Test all functions (lights and sound) on the default address of 3. Use the Function Charts on these pages.

CV Chart

CV	REGISTER	DESCRIPTION	RANGE	DEFAULT
CV1	R1	Short address	1-127	3
CV2	R2	Start voltage	0-32	0
CV3	R3	Acceleration	0-32	0
CV4	R4	Deceleration	0-32	0
CV5	–	Top voltage	0-32	32
CV6		Speed curve select: 0=linear; 1=slow increase at slow speed; 2=fast increase at slow speed	0-2	0
–	R6	Page number	–	–
CV29	R5	Basic configuration	–	2
CV7	R7	Manufacturer version number	–	32
CV8	R8	Manufacturer ID	–	143
CV17	–	Long address upper byte	192-231	192
CV18	–	Long address lower byte	0-255	3
CV19	–	Advanced consist address	0-127	0
CV21	–	When CV21=0, all accessory functions will follow its own address. When CV21=1, all functions will follow the consist address	–	0
CV50	–	Announcement volume	0-3	3
CV51	–	Horn volume	0-3	3
CV53	–	Bell volume	0-3	3
CV54	–	Bell ring rate	0-1	0
CV55	–	Engine volume (4=engine sound off)	0-4	2
CV56	–	Brake squeal volume	0-3	3
CV57	–	Air release volume	0-3	3
CV58	–	Door open/close volume	0-3	3
CV59	–	American/Cananda version	0-1	0-1
CV105	–	User identification number	0-255	0
CV106	–	User identification number	0-255	0
CV125	–	Factory default setting: program it to 1 to restore all the CVs to default settng	–	0

TurboTrain DCC/DC FUNCTION CHART

DCC	EFFECT-IDLE	EFFECT-RUN
F0	HEADLIGHT/TAIL LIGHT	SAME
F1	BELL	SAME
F2	HORN	SAME
F3	GYRALITE	SAME
F4	USA: ALL ABOARD; CANADA: EN VOITURE, ALL ABOARD	USA: BRAKE SQUEAL; CANADA: TORONTO ARRIVAL ANNOUNCEMENT
F5	USA: NEW YORK; CANADA: TORONTO DEPARTURE ANNOUNCEMENTS	USA: NEW HAVEN; CANADA: GUILDWOOD STATION ANNOUNCEMENTS
F6	USA: BOSTON; CANADA: MONTREAL DEPARTURE ANNOUNCEMENTS	USA: PROVIDENCE; CANADA: KINGSTON STATION ANNOUNCEMENTS
F7	DOORS OPEN	USA: AIR RELEASE; CANADA: DORVAL STATION ANNOUNCEMENT
F8	CHANGE ENGINE VOLUME	SAME
F9	DOORS CLOSE	BRAKE SQUEAL
F10	ENGINE SHUT DOWN	AIR RELEASE
F11	BELL RING RATE	SAME
F12	CANADA/USA TOGGLE	SAME
F13	BELL VOLUME	SAME
F14	HORN VOLUME	SAME
F15	ANNOUNCEMENT VOLUME	SAME

DC	EFFECT-IDLE	EFFECT-RUN
—	HEADLIGHT/TAIL LIGHT	SAME
1	BELL	SAME
2	HORN	SAME
3	GYRALITE	SAME
4	USA: ALL ABOARD; CANADA: EN VOITURE, ALL ABOARD	USA: BRAKE SQUEAL; CANADA: TORONTO ARRIVAL ANNOUNCEMENT
5	CHANGE ENGINE VOLUME	SAME
6	SHIFT KEY	SAME
1A	USA: NEW YORK; CANADA: TORONTO DEPARTURE ANNOUNCEMENTS	USA: NEW HAVEN; CANADA: GUILDWOOD STATION ANNOUNCEMENTS
2A	USA: BOSTON; CANADA: MONTREAL DEPARTURE ANNOUNCEMENTS	USA: PROVIDENCE; CANADA: KINGSTON STATION ANNOUNCEMENTS
3A	DOORS OPEN	USA: AIR RELEASE; CANADA: DORVAL STATION ANNOUNCEMENT
4A	DOORS CLOSE	BRAKE SQUEAL
5A	CANADA/USA TOGGLE	AIR RELEASE