Please read the notes below before trying your chip for the first time as some features may not work in the manner you are used to.

Function keys – introduction

Function key layouts are listed on the following pages and are standardised across the entire range of chips as far as possible

Not all chips will have all sounds (usually because the prototype didn't make that sound in the first place).

Please note the following regarding operation of the function keys;

1. Horns, air release, door slam and air tank sounds are all playable with the engine switched off, as per the prototype

2. Some sounds are speed dependent and may not produce a sound when the loco is stationary. As an example, the buffer clash sound will only be produced if the loco is moving at slow speeds. Sounds which are normally only heard when the loco is stationary (eg the guard's whistle) are disabled when the loco is moving

3. Some sounds operate automatically and are *enabled* by pressing the appropriate function key. An example of this is the dynamic braking fans (F8). F8 can be left on all the time and the fans will then operate under heavy braking. If F8 is left off the fan sound will never be produced. Switch F8 on or off at any time as required

4. Flange squeal may be turned on and off at any speed, even when stationary. If turned on when stationary the sound will begin when the loco starts to move and increase in intensity as speed increases. As the loco comes to a standstill the squeal will slow and stop

5. Some sounds (eg horns) may be different in one direction to the other

Driving technique (diesel locomotives & DMU's)

On most projects you can move around at slow speed with the engine still at idle; simply open the throttle to a low speed setting and leave it there. The revs will increase and then die back to idle.

Most projects feature several different departure sounds depending upon how wide the throttle is opened when stationary. Open the throttle to the desired speed and leave it there, letting the inertia do the rest.

Inertia settings are quite high because heavy locomotives do not race off from a standstill or stop on a sixpence, even when running light engine. Coupled with the engine sounds themselves, this helps to create the impression of weight and power.

Brief, exaggerated movements of the throttle can be used to trigger thrash or coast at any speed. Once triggered, the throttle can be returned to its original setting (if required) to maintain speed. The inertia setting smooths out the throttle variation so that loco movement appears realistic. Once you learn how the trigger mechanisms work you will be able to thrash and coast at will, adding greatly to the driving experience.

If you drop the throttle suddenly and trigger the coasting sound, the loco will remain in coast until you increase the throttle (ie you decide when you want the loco to apply power again).

‘Multistart’ engine priming & starting (where applicable)

On all projects F1 can be used in the normal manner to start and stop engine sounds. However, some projects feature the ability to stop and restart the priming sequence, prolong engine cranking and / or cause an engine start to fail. This is all achieved by the use of F1 as follows;

1. To carry out a complete, uninterrupted engine start sequence turn F1 on as normal and leave it on. The engine will prime for around 20 seconds, crank and then start. Once the loco is idling, pressing F1 will cause the engine to stop in the normal manner.

To actively *control* the priming, cranking or starting, proceed as follows;

2. Press F1 to start the engine priming sequence. Priming will continue for a pre-determined period of around 20 seconds but can be cut short at any time by turning F1 off again.

If you allow the priming pump to come *to a complete standstill* you can then press F1 again to restart the priming sequence from the beginning. By this method priming may be carried out any number of times as required

Alternatively, if you turn F1 on again *whilst the engine priming pump is running or still winding down* then the engine will begin to crank once the priming pump stops.

3. Once cranking has begun, leaving F1 on will cause the cranking to continue for a pre-determined time and then the engine will start. To prolong the cranking or cause a failed start, proceed as follows *once cranking has begun*;

Turning off F1 and leaving it off will cause a failed start after a prolonged period of cranking. Turn F1 back on again to restart the cranking sequence.

Alternatively, F1 can be turned off to prolong the cranking and turned back on again at any point to trigger the engine to start. Cranking may be prolonged in this way for around 30 seconds but if it is allowed to go too far (ie if F1 isn’t turned back on in time) the failed start will be triggered.

Once a failed start has been triggered, turning F1 back on again will restart engine cranking. By use of the F1 key as above, subsequent start attempts may be prolonged or failed any number of times.

4. The control of priming and cranking is completely independent, ie you may control neither, priming only, cranking only or both.

Operation of vacuum exhauster (where fitted)

Exhausters are used to create the vacuum on vacuum braked trains. Some locos have single-speed exhausters but others can also be operated at high speed to create the necessary vacuum more quickly.

On locos with single speed exhausters, press F14 to turn the exhauster on, and F14 again to turn it off.

Locos with two-speed exhausters can be operated at low speed in the same way, ie press F14 to turn the exhauster on (at low speed), and F14 again to turn it off. To run the exhauster at high speed, first select low speed as indicated, and then turn F14 briefly off and back on again (an off period of 2 seconds or so is about right). The exhauster should then run at high speed. To return to low speed and keep the exhauster running, turn F14 briefly off and back on again. To turn the exhauster off altogether at any time, turn F14 off and leave it off.

Operation of the drive hold feature on diesel locos

The drive hold feature enables the selection of any engine notch at any speed, and is useful to simulate the effect of a very heavy train. Pressing F8 at any speed (including stationary) causes the loco speed to be locked at its current setting. The throttle may then be used to 'drive' the engine sound without affecting the speed of the loco. When F8 is released, the loco speed will slowly come back into line with the throttle setting. F8 may be turned on and off to prolong that process, if required, again to simulate the effect of a heavy train.

Be aware that if F8 is left on when stationary the loco will respond to function key presses but will not move in response to the throttle and this may cause some confusion!

Operation of 'auto-buffering'

The operation of the buffering-up sound on F4 has been altered to make it easier to operate. When you intend to buffer up to some stock, pressing F4 will 'arm' the sound, but the sound will not occur until a split second before the loco comes to a standstill. All you have to do is time the stop to be in the right place.

If you change your mind before buffering up, releasing F4 will disarm the sound and the loco can be brought to a standstill without it.

Pressing F4 when stationary will produce the sound of the coupling going onto the hook (or the sound of the buckeye coupling engaging in the case of buckeye fitted stock).

Configuration of Class 08 sound project to suit different prototypes

.The 08 sound project can be configured via CV to represent different prototypes as follows;

Warning device	Door type	CV48 (v4) / CV155 (v5) set to:
Normal whistle	Wooden	0
Normal whistle	Metal	1
Harsh whistle	Wooden	2
Harsh whistle	Metal	3
Air horn	Wooden	4
Air horn	Metal	5

Operation of the Manual Brake

All sound projects are being updated with the new ESU Manual Braking function to permit a more prototypical driving experience. The brake key (F5) now acts to actually slow the train. Modified projects will have a much higher value in CV4 than previously, so that the loco will coast for a long distance when the throttle is shut off. F5 can then be used momentarily, repeatedly and / or continuously to brake the train, just like a car or real train. Each application of the brake is accompanied by a brake application sound.

The brake function is very intuitive and controllable and allows the train to be stopped in exactly the right place with very little practice. The severity of the braking action is set by CV179. Typical values for CV4 and CV179 are 250 and 40 respectively, but these can of course be altered to suit personal preference.

Auxiliary compressor sounds on electric locomotives and EMU's

The sound you hear on start-up is the auxiliary compressor, the sole purpose of which is to generate air to raise the pantograph. Once the pantograph is up, F7 can be used to operate the main compressor, which generates air for the braking and control systems.

Use of handbrake on electric locos & MPV

Some sound projects feature handbrake sounds from the prototype. The handbrake can be operated automatically, or manually as follows;

Automatic operation: use F1 to start up and shutdown the loco as normal. When the throttle is first opened following a start up, the handbrake will be heard coming off, then the loco will drive off as normal. When the loco comes to a standstill the handbrake will remain off. When the loco is shutdown (F1 turned off) the handbrake will be heard being applied and then the pantograph will come down.

Manual operation: the handbrake can also be applied and taken off manually, allowing the loco to be realistically 'parked'. This is carried out as follows;

Following start-up using F1, the loco's handbrake will be on. To take the handbrake off, briefly turn F1 off and back on again. The handbrake will be heard to come off. The loco can then be driven off as normal.

Once the loco returns to a standstill the handbrake will remain off. To 'park' the loco, briefly turn F1 off and back on again to apply the handbrake. Once 'parked' the loco can be shutdown by turning F1 off, or the handbrake can be removed as above, by briefly turning F1 off and back on again.

Use of 'forward / reverse' on electric locos

On electric locomotives the traction motor blowers start up as soon as the driver selects forward or reverse and remain on until he selects off / idle. This occurs independently of actual loco movement as controlled by the regulator.

On a 'normal' departure the driver would select forward and then open the regulator, so the blowers would start up and then the loco would move off. However, if (for example) the driver was held at a red signal he might select forward in anticipation of the signal clearing but only move off once the signal actually cleared. In this case the blowers would come on and then run for some time before the loco began to move. This can be achieved on the model as follows;

Open the throttle slightly (less than 15% or so). The blowers will start and run indefinitely but the loco will not move until the throttle is raised above 15%. The departure will be smooth, and once moving, the throttle may be reduced below 15% and movement will continue.

A similar situation would occur if the loco was brought to a standstill at a signal the driver is expecting to clear. He would keep the loco in forward and the blowers would keep on running until the loco moved off again. This can be achieved as follows;

Bring the loco to a standstill and close the throttle. *Once the loco has stopped moving*, open the throttle again slightly (you have about 5 seconds to do this after coming to a standstill). The loco will not move but the blowers will continue to run indefinitely. If the throttle is moved above 15% the loco will begin to move and will then be driveable as normal. Alternatively, if the throttle is dropped to zero the blowers will run on and shut down.

Function key layout – diesel & electric locomotives

F0 Lights
F1 Sound on / off (this may be operated in the normal manner, but see also below for operation of ‘Multistart’ on diesel locos, and operation of handbrake on electric locos)
F2 Playable high horn
F3 Playable low horn
F4 Buffer clash (when moving slowly) / Coupling hook (when stationary)
F5 Brake application (when moving) / Brake dump (when stationary)
F6 Driver's door slam
F7 Compressor (Diesel locos) / Main compressor (electric locos)
F8 (On diesel locos) Drive hold (see below)
F9 Automatic, variable-speed flange squeal
F10 Despatch whistle
F11 Guard to driver 'right away' signal
F12 (On diesel locos) Roof fan / Cooler group
F12 (On electric locos) Rheostatic braking fans (where fitted)
F13 Sanders
F14 (On diesel locos) Exhauster (see below)
F14 (On electric locos) Neutral section
F15 Spirax valves popping
F16 (On appropriate locos) Mk3 coach wail (speed-dependant)
F17 Not used
F18 Detonators (A speed-dependant ‘three bang stop’)
F19 Aux 1 (for cab lights etc)
F20 Aux 2 (for cab lights etc)

Function key layout – modern DMU’s & EMU’s

F0 Lights
F1 Sound on / off (this may be operated in the normal manner, but see also below for operation of ‘Multistart’ on DMU’s, and operation of handbrake on EMU’s)
F2 Playable high horn
F3 Playable low horn
F4 Passenger doors open / close (press to open, press again to close)
F5 Windscreen wipers or high pressure windscreen washers
F6 Driver's door open / close (press to open, press again to close)
F7 Compressor or compressor speed-up
F8 Spirax valves
F9 Automatic flange squeal
F10 Despatch whistle
F11 Guard to driver 'right away' signal
F12 Air conditioning
F13 Sanders
F14 Automatic coupling & uncoupling (eg Schafenberg)
F15 Configurable announcement #1
F16 Configurable announcement #2
F17 Configurable announcement #3
F18 Detonators (A speed-dependant ‘three bang stop’)
F19 Aux 1 (for cab lights etc)
F20 Aux 2 (for cab lights etc)

Function key layout – heritage DMU's & EMU's

F0 Lights
F1 Sound on / off (this may be operated in the normal manner, but see also below for operation of 'Multistart' on DMU's, and operation of handbrake on EMU's)
F2 Playable high horn
F3 Playable low horn
F4 Buffer clash (when moving slowly) / Coupling hook (when stationary)
F5 Brake application (when moving) / Brake dump (when stationary)
F6 Driver / passenger door slams (may be left on to produce several different slams in succession)
F7 Sliding door (where fitted) (press to open, press again to close)
F8 Gear change (first gear change at slow speed is automatic)
F9 Automatic flange squeal
F10 Despatch whistle
F11 Guard to driver 'right away' signal
F12
F13
F14
F15
F16 Handbrake on
F17 Handbrake off
F18 Detonators (A speed-dependant 'three bang stop')
F19 Aux 1 (for cab lights etc)
F20 Aux 2 (for cab lights etc)

Function key layout – Tamper

F0 Lights
F1 Sound on / off
F2 Playable high horn
F3 Playable low horn
F4 Buffer clash
F5 Brake application
F6 Driver's door open / close (press to open, press again to close) or slam
F7 Work mode
F8
F9 Automatic flange squeal
F10 Electric horn
F11 Siren
F12 Tamping (also engages work mode if not already selected)
F13 Unlock and deploy tamper banks & unlock and lower trolleys
F14 Raise and lock trolleys & stow and lock tamper banks
F15
F16
F17
F18 Detonators (A speed-dependant 'three bang stop')
F19 Aux 1 (for cab lights etc)
F20 Aux 2 (for cab lights etc)

Function key layout – MPV

F0 Lights
F1 Sound on / off
F2 Playable high horn
F3 Playable low horn
F4 Buffer clash
F5 Brake application
F6 Driver's door open / close (press to open, press again to close) or slam
F7
F8 Spirax valves
F9 Automatic flange squeal
F10 Electric horn
F11 Siren
F12 APU (Auxiliary Power Unit)
F13 Water jets (disabled at speeds below 3mph to prevent railhead damage)
F14 Lower de-icing shoe
F15
F16
F17
F18 Detonators (A speed-dependant ‘three bang stop’)
F19 Aux 1 (steady for floodlights)
F20 Aux 2 (strobing for roof light)

Operation of Class 33 & 4-TC

In order to allow the use of the Class loco and 4-TC either independently from one another, or as a push-pull pairing, there are 3 very straightforward, user-selectable ‘driving modes’ as detailed below.

Only one mode (F0, F19 or F20) should be selected at any one time.

When operated as a push-pull pairing, the loco and unit should both be set to the same DCC address on NOT consisted. They can then be driven as if driving a single loco.

Light engine mode (F0)

Select F0 mode whenever operating the Class 33 or 4-TC on their own. Behaviour is the same as F0 on other DCC locos, ie; white headlights in the direction of travel, red tail lights to the rear, automatic reversal of the lights when ‘changing ends’, and all sounds work in both directions.

Push-pull mode (F19 or F20)

Class 33’s regularly operated in push-pull mode with 4-TC’s, notably on the Bournemouth-Weymouth route. A single press of F19 or F20 can be used to configure all of the sound and lighting functions appropriately for this, with the sound and lighting functions changing ends automatically as appropriate with no further intervention. Directional sounds such as the horns only come from the leading vehicle. ‘Common’ sounds such as brake applications come from both vehicles. The despatch whistle is set to come from the back of the train.

F19 is used if the train is at the loco’s #1 end, and F20 if the train is at the #2 end. If the lights or sounds do not seem to operate appropriately, make sure that F0 is turned off, turn the loco, or move it to the opposite end of the train.

Function key layout

F0 Light engine mode (loco or unit)
F1 Drive sounds
F2 Playable high horn
F3 Playable low horn
F4 Buffer clash (when moving slowly) / Coupling (when stationary)
F5 Brake application (when moving) / Brake dump (when stationary)
F6 Driver’s door slam (light engine mode) / Passenger door slams (push-pull mode)
F7 Compressor
F8 Drive hold
F9 Automatic, variable-speed flange squeal
F10 Despatch whistle
F11 Guard to driver 'right away' signal & optional reply
F12 Radiator fan
F13 4TC internal lights
F14 Two-speed exhauster
F15 Spirax valves
F16 Not used
F17 Not used
F18 Detonators (A speed-dependant ‘three bang stop’)
F19 Push-pull mode, train at #1 end
F20 Push-pull mode, train at #2 end

First Great Western configurable 'West Country' announcements

Featuring the West Country accent of Paul Woolard, railway photographer.

If you *press & release* F15 it says;

Welcome aboard this First Great Western Service to <destination>

If you press F15 *and leave it on* it says;

Welcome aboard this First Great Western Service to <destination> Please familiarise yourself with the safety notices adjacent to the doors

Selection of the destination is made via CV48 (v4 chips) or CV155 (v5 chips) as follows;

CV48 (v4) / CV155 (v5) set to:	**F15**
0	Avonmouth
1	Barnstaple
2	Bristol Temple Meads
3	Exeter Central
4	Exeter St Davids
5	Exmouth
6	Gunnislake
7	Paignton
8	Penzance
9	Plymouth
10	Severn Beach
11	St Ives
12	Westbury
13	Weston Super Mare

South West Trains configurable announcements

If you *press & release* F16 it says;

Welcome aboard this South West Trains service to <destination>

If you press F16 *and leave it on* it says;

Welcome aboard this South West Trains service to <destination> Please familiarise yourself with the safety notices adjacent to the doors

Selection of the destination is made via CV48 (v4 chips) or CV155 (v5 chips) as follows;

CV48 (v4) / CV155 (v5) set to:	**F16**
0	Alton
1	Ascot
2	Basingstoke
3	Guildford
4	London Waterloo
5	Poole
6	Portsmouth & Southsea
7	Portsmouth Harbour
8	Reading
9	Southampton Central
10	Weybridge
11	Weymouth
12	Windsor & Eton Riverside

First Great Western configurable 'Cornish' announcements

Featuring the Cornish accent of Andrew Keast, formerly of Kernow Model Centre.

As there are more than 16 configurable destinations these have been split across two function keys F15 and F16.

If you *press & release* F15 or F16 it says;

Welcome aboard this First Great Western Service to <destination>

If you press F15 *and leave it on* it says;

Welcome aboard this First Great Western Service to <destination> Please familiarise yourself with the safety notices adjacent to the doors

Selection of the destination is made via CV48 (v4 chips) or CV155 (v5 chips) as follows;

CV48 (v4) / CV155 (v5) set to:	**F15**	**F16**
0	Avonmouth	Plymouth
1	Barnstaple	Portsmouth
2	Bristol Parkway	Severn Beach
3	Bristol Temple Meads	St. Erth
4	Cardiff Central	St. Ives
5	Exeter Central	Truro
6	Exeter St. Davids	Westbury via Bath Spa
7	Exmouth	Westbury
8	Falmouth Docks	Weston Super Mare
9	Gunnislake	
10	Liskeard	
11	Looe	
12	Newquay	
13	Paignton	
14	Par	
15	Penzance	

Arriva Trains Wales 143 configurable 'Alcohol' announcements

Featuring authentic recordings of the automated announcements on a real 143

If you press F15 it says;

Welcome aboard. Passengers are reminded that current railway by-laws prevent consumption of alcohol on trains & stations <end of message>

<end of message> selection is made via CV48 (v4 chips) or CV155 (v5 chips) as follows;

CV48 (v4) / CV155 (v5) set to:	F15
0	between Brigend & Barry Town
1	between Caerphilly & Rhymney
2	on the Cardiff Valley Lines network
3	between Potnypridd & Aberdare
4	between Pontypridd & Merthyr
5	between Pontypridd & Treherbert

Arriva Trains Wales South Wales configurable announcements

Featuring the Welsh accent of Peter Lord, of Lord & Butler Model Shop in Cardiff.

As there are more than 32 configurable destinations these have been split across three function keys F15, F16 and F17.

When F15, F16 or F17 is pressed it says;

Welcome aboard this Arriva Trains Wales service to <destination>

Selection of the destination is made via CV48 (v4 chips) or CV155 (v5 chips) as follows;

CV48 (v4) / CV155 (v5) set to:	F15	F16	F17
0	Abercynon	Ebbw Vale	Rhymney
1	Aberdare	Fishguard Harbour	Swansea
2	Bargoed	Gloucester	Taffs Well
3	Barry	Hereford	Tenby
4	Barry Island	Holyhead	Treherbert
5	Bridgend	Maesteg	Ty Glas
6	Bristol Parkway	Merthyr Tydfil	Ystrad Mynach
7	Bristol Temple Meads	Merthyr Vale	
8	Caerphilly	Milford Haven	
9	Cardiff Bay	Mountain Ash	
10	Cardiff Central	Newport South Wales	
11	Cardiff Queen Street	Pembroke Dock	
12	Carmarthen	Penarth	
13	Cheltenham Spa	Pontypridd	
14	Coryton	Porth	
15	Ebbw Vale Town	Radyr	

Arriva Trains Wales North Wales configurable announcements

Featuring the Welsh accent of Peter Lord, of Lord & Butler Model Shop in Cardiff.

As there are more than 16 configurable destinations these have been split across two function keys F15 and F16.

When F15 or F16 is pressed it says;

Welcome aboard this Arriva Trains Wales service to <destination>

Selection of the destination is made via CV48 (v4 chips) or CV155 (v5 chips) as follows;

CV48 (v4) / CV155 (v5) set to:	F15	F16
0	Aberystwyth	Wrexham Central
1	Bangor Gwnyedd	Wrexham General
2	Bidston	
3	Birkenhead	
4	Birmingham International	
5	Birmingham New Street	
6	Blaneau Ffestiniog	
7	Cardiff Central	
8	Chester	
9	Crewe	
10	Llandudno	
11	Llandudno Junction	
12	Llanelli	
13	Machynlleth	
14	Manchester Airport	
15	Manchester Piccadilly	

Northern Trains ‘Geordie’ configurable announcements

Two versions are available, one male and one female. Featuring the accents of driver Iain Munro or Sandra from Shildon.

If you *press & release* F16 it says;

Welcome aboard this Northern service to <destination>

If you press F16 *and leave it on* it says;

Welcome aboard this Northern service to <destination> Please familiarise yourself with the safety notices adjacent to the doors

Selection of the destination is made via CV48 (v4 chips) or CV155 (v5 chips) as follows;

CV48 (v4) / CV155 (v5) set to:	**F16**
0	Alnwick
1	Bishop Auckland
2	Carlisle
3	Chathill
4	Darlington
5	Gateshead Metro Centre
6	Hartlepool
7	Hexham
8	Middlesborough
9	Morpeth
10	Newcastle
11	Nunthorpe
12	Saltburn
13	Sunderland
14	Whitby
15	Whitehaven

Virgin Trains configurable announcements

Two versions are available; Black Country male and Liverpudlian female. Featuring the accents of modeller Neil Woodbine and Shiela Fenton from Megapoints Controllers.

If you *press & release* F15 it says;

Welcome aboard this Virgin Trains service to <destination>

If you press F15 *and leave it on* it says;

Welcome aboard this Virgin Trains service to <destination> Please familiarise yourself with the safety notices adjacent to the doors

Selection of the destination is made via CV48 (v4 chips) or CV155 (v5 chips) as follows;

CV48 (v4) / CV155 (v5) set to:	**F15**
0	Birmingham New Street
1	Blackpool North
2	Carlisle
3	Chester
4	Crewe
5	Edinburgh Waverley
6	Glasgow Central
7	Holyhead
8	Lancaster
9	Liverpool Lime Street
10	London Euston
11	Manchester Piccadilly
12	Preston
13	Shrewsbury
14	Wolverhampton

London Midland configurable announcements

Featuring the Black Country accent of modeller Neil Woodbine.

If you *press & release* F16 it says;

Welcome aboard this London Midland service to <destination>

If you press F16 *and leave it on* it says;

Welcome aboard this London Midland service to <destination> Please familiarise yourself with the safety notices adjacent to the doors

Selection of the destination is made via CV48 (v4 chips) or CV155 (v5 chips) as follows;

CV48 (v4) / CV155 (v5) set to:	**F16**
0	Birmingham International
1	Birmingham New Street
2	Blake Street
3	Coventry
4	Crewe
5	Lichfield City
6	Lichfield Trent Valley
7	Liverpool Lime Street
8	Liverpool South Parkway
9	London Euston
10	Northampton
11	Rugby
12	Rugeley Trent Valley
13	Stafford
14	Walsall
15	Wolverhampton

Scotrail configurable announcements

As there are more than 16 configurable destinations these have been split across two function keys F15 and F16.

When F15 or F16 is pressed it says;

Welcome aboard this First Scotrail Service to <destination>

If you press F16 *and leave it on* it says;

Welcome aboard this First Scotrail Service to <destination> Please familiarise yourself with the safety notices adjacent to the doors

Selection of the destination is made via CV48 (v4 chips) or CV155 (v5 chips) as follows;

CV48 (v4) / CV155 (v5) set to:	**F15**	**F16**
0	Aberdeen	Stranraer
1	Ayr	Wick & Thurso
2	Dundee	
3	East Kilbride	
4	Edinburgh Waverley	
5	Fort William	
6	Glasgow Central	
7	Glasgow Queen Street	
8	Inverness	
9	Kilmalcolm	
10	Kilmarnock	
11	Kyle of Localsh	
12	Mallaig	
13	Oban	
14	Perth	
15	Stirling	

Scotrail configurable automated announcements

Featuring authentic recordings of the automated announcements on a real unit

If you press F17 it plays a message selected via CV48 (v4 chips) or CV156 (v5 chips) as follows;

CV48 (v4) / CV156 (v5) set to:	F17
0	Please note that cheap day tickets are not valid on this service
1	Passengers leaving the train at this station must exit the station via public routes only. Do not trespass on the railway
2	Due to engineering work this train will terminate here. A bus replacement service is in operation. Please ask a member of staff for details
3	Due to engineering work this train will terminate here. Please ask a member of staff about onward travel arrangements
4	Would any first aid or medical staff on the train please make youself known to the on-train staff as soon as possible
5	Please keep hold of your tickets when leaving the train. Barrier checks may be in operation at this station

6	Please mind the gap when alighting from this train
7	In the interests of safety, please do not use the luggage racks above the seats for large or heavy items of luggage. These racks are intended for small items of luggage only
8	Passenger please note that all services are fully non-smoking. Thank you for your co-operation
9	Passenger safety information notices are located throughout this train
10	Please ensure that you take luggage and personal belongings with you when leaving the train

Hitachi IEP configurable announcement messages

Featuring authentic recordings of the automated announcements on a real Hitachi IEP

If you press F16 it plays a message selected via CV48 (v4 chips) or CV155 (v5 chips) as follows;

CV48 (v4) / CV155 (v5) set to:	F16
0	Please do not leave unnattended items of luggage on the train or at the station
1	CCTV is in operation on this train for your safety & security. Please keep an eye on your personal belongings at all times. If you see anything suspicious, please tell a member of staff
2	Smoking is not permitted on any train or station
3	This is an important safety announcement. Please evacuate the train immediately by following the instructions from train crew

Changing volume of individual sounds in v4

If you want to change the *overall* sound volume from your chip, use CV63 as normal. Permissible values are 0 (minimum) to 192 (maximum).

The procedure below should only be used if you wish to alter the *relative* volume of different sounds to one another (eg if you feel the compressor is too loud but all other sounds are ok).

This information is given in good faith. Please read everything before you attempt it. No responsibility is accepted for undesired effects.

First of all you must set two indexing CV's as follows;

Set CV31 to 16

Set CV32 to 1

Once you've done that, the volume control for the various sound slots are as follows;

Sound slot	Volume control CV
1	259
2	267
3	275
4	283
5	291
6	299
7	307
8	315
9	323
10	331
11	339
12	347
13	355
14	363
15	371
16	379
17	387
18	395
19	403
20	411
21	419
22	427
23	435
24	443
Random sounds	451
Brake squeal	459
Gear shift sound	467

You can set values from 0 (minimum volume) up to 128 (maximum).

Before you attempt this there are a few things you should be aware of;

1. If you don't check / set CV31 & 32 as stated before you start you *will* affect

other functions which *will* have unintended consequences. CV259, for example controls multiple things depending upon what values are set in CV's 31 & 32. Set CV31 & 32 as stated, then make a note of all the volume values (CV259, 267 etc) before you start.

2. Sound slot 1 may not match up with F1, it depends on how they have been set up by the programmer. The majority of sound slots in my projects match up with the associated function key for simplicity.

3. Some DCC controllers may not be able to set CV's above 255.

In the unlikely event of the motor juddering at slow speed, this can easily be remedied using the following procedure;

Place the loco on the track with plenty of room in front and behind, or on a rolling road

Set CV54 to zero

Press F1. The loco will shoot off at high speed and then stop. Following this, the motor will run smoothly but you *may* then need to adjust the CV's for top speed (CV5) and mid speed (CV6) to suit your personal preference. Carry this out as follows;

Run the loco at full speed and adjust CV5 for a maximum speed that you are happy with, then set CV6 to half the value of CV5