

Driving the Class 86 - An Illustrated Method

The class 86 is called a "TAP Changer".

To get it to GO FASTER you have to TAP the throttle and NOT always move it.

This is the method for expert mode using the F4 HUD

- Raise the pantograph ("P")
- Release brakes must be released before anything
- Move "W" or "S" to full
- Tap the "A" Key (usually twice i.e. two notches) until it reads 60% on the HUD
- Now TAP "A" **gently** without moving it from 60%, and if you have tapped it correctly, you should see the amps* reading start to climb.
*Look in the window below the speedo in the F4 HUD.
- Tap it say once or twice to move off slowly so you do not get wheel-slip or passenger discomfort.
- To go faster keep repeatedly tapping until your speed is around 50/60 mph then you can tap the "A" key to 100% -it will then go as fast as it can.
- Usually at around these speeds the amps will not rise on tapping the "A" key then that is a good time to move the tap changer to 100%.
- To slow down TAP the "D" key until it reads 60% and the tap gently keeping the tap changer at 60% so the amps reduce and eventually fall to zero (e.g. for a signal or a station)
- Note tap the "D" key until it reads "0" %
- Do NOT brake until the "D" key is at zero and ZERO amps are shown in the F4 HUD otherwise the Class 86 may not start again!
- Brake until you stop then reduce the W/S key to zero and press the "F" key. The Reverser must always be returned to 0% when the Class 86 is stopped.
- If you CAN'T RESTART – and the tap changer is still at 60% - tap the D key to reduce amps to 0% and then press the "D" key until it reads 0%, press the W/S key to 0% and make sure that there are zero or negative amps being generated then press the "F" key and re-start as above.

To move again repeat the above!

See Pictures below

The Controls that we will be using:



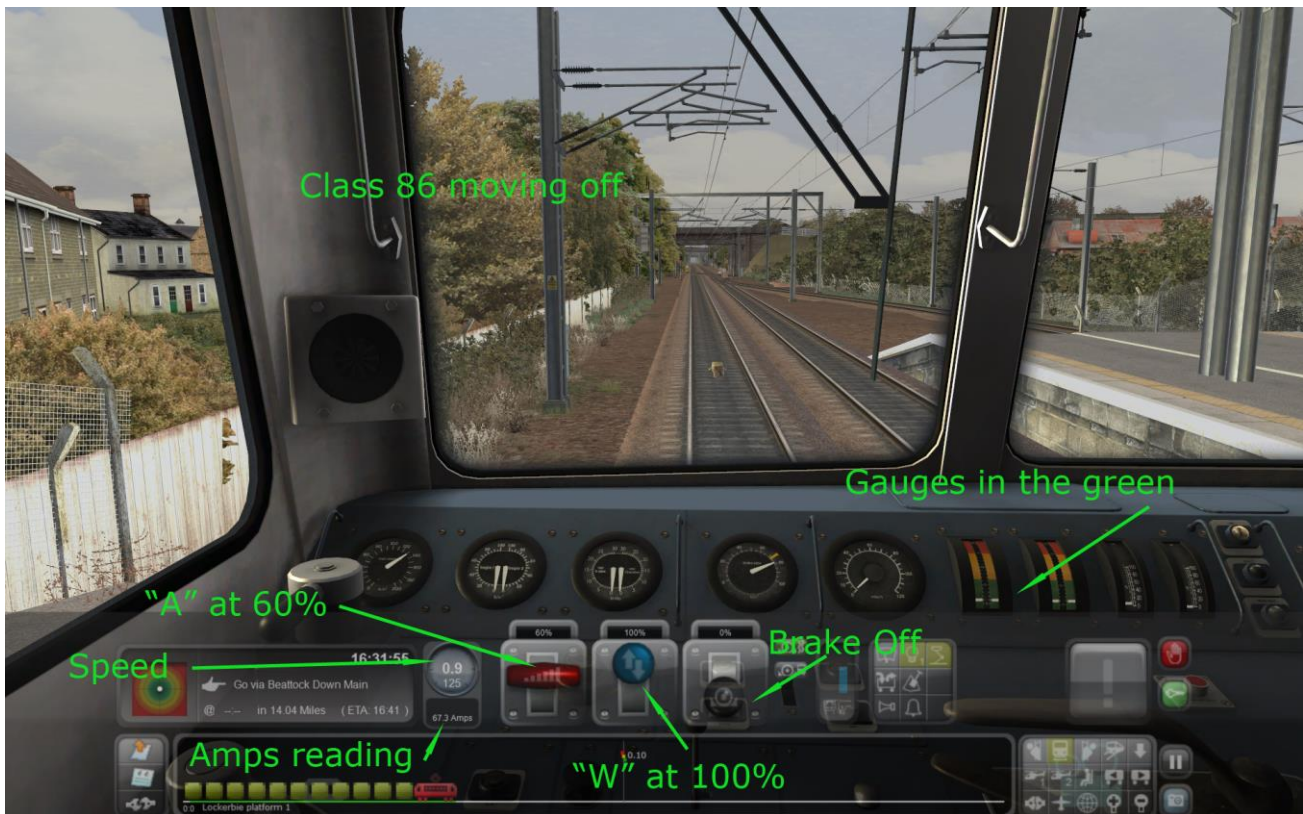
These are the basic controls in the Class 86 using the F4 HUD.



This is the Class 86 stopped at a station. Note the positions of the controls



Ready to move off – Release Brake



- Move "W" or "S" to full
- Tap the "A" Key firmly (usually twice) until it reads 60% on the HUD
- Now TAP it **gently** without moving it from 60% - amps start to climb in the window below the speedo in the F4 HUD. Gauges in Green.
- Tapping "A" too much may induce wheel-spin.



Keep A at 60% keep tapping to raise amps – gauges just in yellow but will fall to green. Tap "A" slowly but progressively to increase speed smoothly.



As speed increases, note "A" is still at 60%, Amps are near maximum, Gauges in Yellow.



"A" still at 60% Amps falling as speed picks up, Gauges in Green



Moved "A" to 100% (maybe too early) Gauges in Yellow. Picking up speed



"A" at 100% (no more tapping) Gauges in green. Speed will top out in low 90's



This is around the top speed of the Class 86



Shows effect on speed and gauges when climbing a steep incline like Beattock Summit



Position of the gauges and tap changer as we start to slow down and prepare for braking.



Further speed reduction. Using "D" reduced amps to zero i.e. no power



Braking started – Tap changer reduced to zero (minus amps – no power)



Stopped. Move W/S Reverser to zero (always when stopped). Amps now zero.



Use of "F" fault key. Tap Changer – 0% Amps 0.00 – W/S Reverser at 0% when all set to zero press F key and the power will be reset.



Re-start after clearing fault.
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