



DEE KAY SYSTEMS

7, BITTON AVENUE,
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TQ14 8HD

THE RED DRAGON

INTRODUCTION

In this simulation you are to drive a train from Cardiff to London Paddington. The train may be one of the following:

- a) A non-stop HST run - 'The Hibernian'
- b) A stopping HST run - 'The Red Dragon Express'
- c) A stopping loco-hauled summer Saturday run

The trains are arranged above in order of difficulty from A to C.

DISPLAY FORMAT

The simulation is presented as a two part display on the television screen, the upper section giving information a driver would have from visual observations and his background knowledge of the route. The lower section being a monitor of the locomotive controls and performance. Milepost distances (mp) are given throughout in integer tenths of a mile from Cardiff Central Station.

THE ROUTE, SPEED RESTRICTIONS AND SIGNALLING

From Cardiff there is a short steep drop and then the line becomes very flat for its run along the coast to Newport where a slight climb ensues to Hillfield Tunnel before dropping into Newport Station itself. From here the line to Severn Tunnel Junction appears virtually level but a series of undulations is present, some of them steep.

From Severn Tunnel Junction the line drops down under the river Severn. The line becomes level for a while (under an area of the river known as the 'shoots') before climbing up through Pilning and on to Patchway where the Bristol line leaves and the main line swings left and into Bristol Parkway. From here the line climbs at 1.300 to a summit at Badminton exactly 100 miles from Paddington. The line now drops at a similar rate to Little Somerford before climbing back up a little to Wootton Bassett Junction where the line from Bristol and Bath comes in from the right. We are now on Brunel's line from Bristol and although the climb continues to Swindon, it is hardly steep.

From Swindon onwards the gradients do not exceed 1.650 and the pattern is of a general drop all the way to Paddington.

Line speeds are our approximations of the line speeds in force during the summer of 1986. The maximum allowed speed at any time is displayed as part of the driver information, along with details of the next change in line speed. In addition permanent way slacks may be in force and notice is given when approaching these. Works are possible near Badminton, after Chipping Sodbury Tunnel and near Shivenham after Swindon. You should make a note of these when displayed at the beginning of the game.

The line is signalled with multiple aspect colour lights throughout, and as such you will encounter at least a double yellow and a yellow signal before you reach a red signal. As you approach all signals at caution or danger you will receive a cab warning indication (aws) which if not acknowledged within 6 seconds will bring an automatic application of the emergency brake.

MOTIVE POWER AND TRAIN SCHEDULES

Both the 'Red Dragon' and 'Hibernian' will feature a HST and you will be asked to pick a front and rear power car from the Western Region pool. During the simulation only the power car cab you are sitting in is displayed.

The Summer Saturday train is booked for a class 47 and there is a good choice of these. However, class 50's were sometimes known to be substituted in emergencies and indeed up until may 1986, had been regular performers on loco-hauled trains to Paddington. All the class 50 locomotives are therefore included. The loco-hauled train was an inconsistent train where loadings are concerned. It would load between 8 and 13 coaches depending on demand. The schedules are given in the appendix and you will note recovery time is included. There is some variation between trains on recovery time.

To catch up time you may drive slightly above the line speed but will be penalised should you travel 3 mph or more above the line speed. Should you exceed even this by a fair margin you may be reprimanded or even relieved from duty.

The simulation clock runs in real time when travelling at below 30mph or when approaching hazards, double time between 30mph and upto 5 mph below your locomotive maximum speed. It will run in quadruple time above this.

LOCOMOTIVE CONTROLS AND DRIVING TECHNIQUE

The tractive characteristics of your locomotive are realistically reproduced in the simulation although the controls have been somewhat simplified to the now standard Dee-Kay Systems format.

Engine power is varied by adjustment of the master controller which is calibrated between 0 (engine idling with drive disconnected) and 5 (full power). At low speeds care must be taken not to trip the generator overload trip which will be triggered should you select too high a power setting, thus producing dangerous current that could cause damage to the electrical equipment. High speed trains have alternators rather than generators and as such if too high a setting is selected with these, all that happens is that a current limiting device come into operation. Failures happen from time to time and if you are unlikely you should continue with reduced power as best as you can.

The brake handle is similarly calibrated from 0 (off) to 5 (full on) although position 5 should only be used in an emergency. You should brake with caution as you approach adverse signals, and if a signal remains at red you should draw up within 35 yards of it to obtain telephone instructions about the situation. For station stops (including Paddington) there are controlled signal sequences and you should draw up within 35 yards of the starter signal (or buffer stops) in order to be positioned in the platform correctly.

CONTROL KEYS

Controller	Increase	- P
	Decrease	- O
Brakes	Increase	- X
	Decrease	- Z
AWS Cancel	Space Bar	
Pause	H	
Restart	R	

GETTING STARTED

Spectrum The program is loaded by typing LOAD""

APPENDIX
TRAIN SCHEDULE

MP	LOCATION	1A13	1A31	1A67
0.0	Cardiff Central	D 07.25	09.56	16.19
11.6	Newport	A 07.36	10.08	
		P		16.30
		D 07.40	10.11	
21.7	Severn Tunnel Jct.	P 07.49	10.21	16.39
33.3	Bristol Parkway	A 07.58	10.32	
		P		16.48
		D 08.00	10.35	
38.0	Westerleigh Jct.	P 08.04	10.41	16.51
	Recovery time	(+3)	(+3)	(+3)
62.3	Wootton Bassett Jct.	P 08.20	11.02	17.08
67.8	Swindon	A 08.25	11.07	
		P		17.12
		D 08.31	11.12	
	Recovery time	(+3)		(+3)
91.9	Didcot	P 08.48	11.33	17.28
108.9	Reading	A	11.43	
		P 08.56		17.36
		D 11.45		
126.4	Slough	P 09.05	12.00	17.45
136.0	Southall	P 09.10	12.06	17.50
	Recovery time	(+2)	(+5)	(+2)
144.9	Paddington	A 09.20	12.18	18.00

1A13 - 06.30 Swansea - Paddington (HST) 'Red Dragon'

1A31 - 08.55 Swansea - Paddington (47/50)

1A67 - 14.12 Fishguard Harbour - Paddington (HST) 'Hibernian'