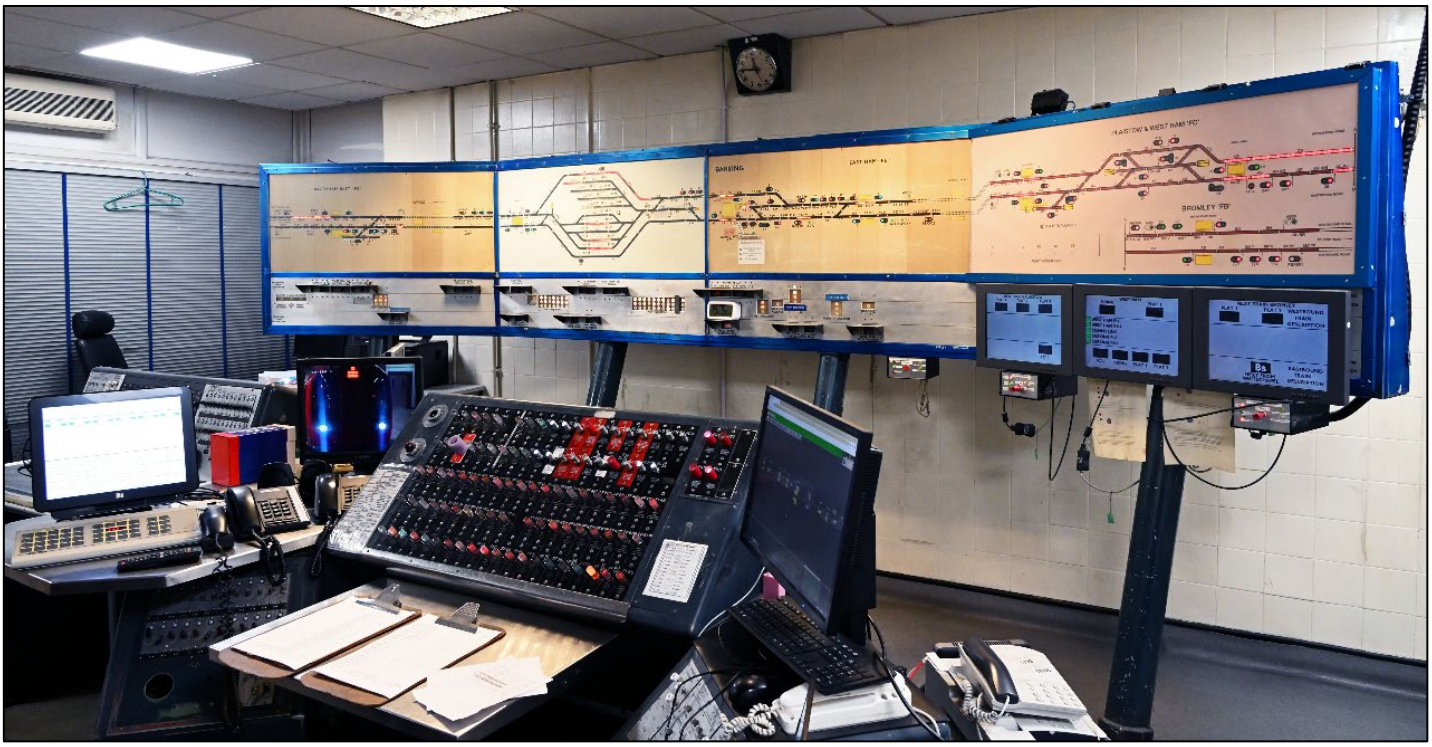
BARKING SIGNAL CABIN: 1960-2023

by Alex Thorkildsen



An overview of Barking Signal Cabin. The auxiliary Push Button Desk Controlling West Ham & Plaistow, East Ham and Dagenham East is on the left which is obscured by the connect radio computer. The main Push Button Desk controlling Dagenham East, Barking, East Ham, Plaistow and Bromley-by-Bow is in the foreground. The computer on the right displaying trackernet, which is stood on the equipment used to change the platform information screens. The diagram is behind in clear view showing the line from Dagenham on the left and West Ham on the right.

Barking Signal Cabin opened on 30 March 1960. Initially controlling just Barking, throughout the following months in the same year, control of the District Line between Bromley-by-Bow and Dagenham East was transferred to here. The only site which passed directly from BR control to Barking was Dagenham East – generally the method adopted was to provide control from a temporary cabin for a short period, pending transfer to Barking. Bromley-by-Bow worked in 'auto through' with points secured normal until transferred to Barking. Plaistow and East Ham both had temporary cabins.

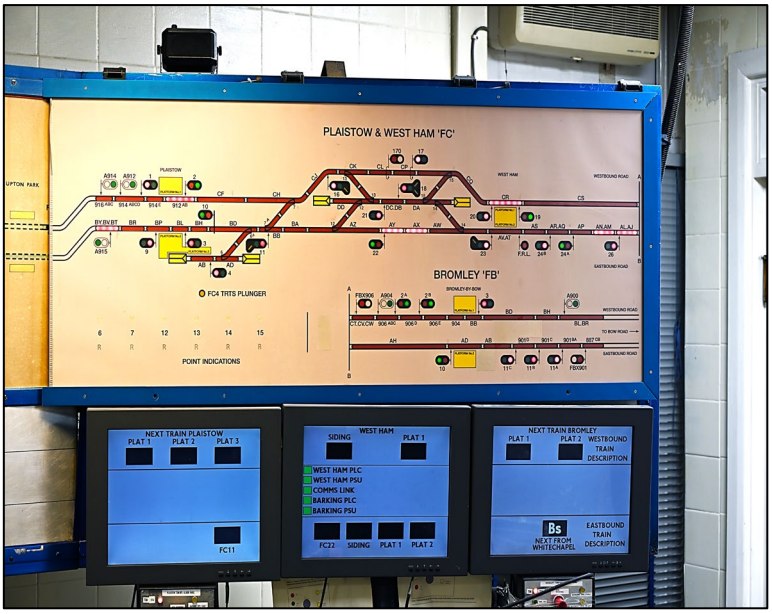
The building is located on the east side of the station. The ground level is Barking (Main) IMR and the top floor is the cabin containing two push button desks. The larger desk covered all the sites, with the auxiliary desk able to control westbound moves at Dagenham East, Barking and Plaistow. The areas controlled are Bromley-by-Bow (prefix FB), Plaistow & West Ham (FC), East Ham (FE), Barking to Upney (FF) and Dagenham East (FG). The diagram consists of four panels showing the District Line from Dagenham East on the left to Bromley-by-Bow at the right. Manually controlled signals are displayed illuminated on the panel to show which aspect is being displayed whilst automatic signals are displayed as a drawing only. As the trains travel between each track circuit block, a set of red lights illuminate on the diagram to show their position. It was designed to be operated by one person with provision for a second, should the need arise. Only a handful of trains terminate at Plaistow and Dagenham during peak times and trains only terminate at East and West Ham during engineering works or disruption.

To operate the desk, the service operator pushes the correct sequence of buttons to build a pre-set route which then automatically changes the signal aspect. For example, when "FF51 Barking Shunt Eastbound to Reception Road 30" is pressed, this changes the junction just after the eastbound platform and changes signal FF51 to proceed so a terminating train can leave the mainline and head to the sidings. The button shall change from red to orange as the route is set and then when the signal has changed to proceed the button shall illuminate green, as shall the corresponding signal on the diagram. Once the train has entered the first track circuit section for this route, the signal shall revert to danger and the button shall illuminate red.

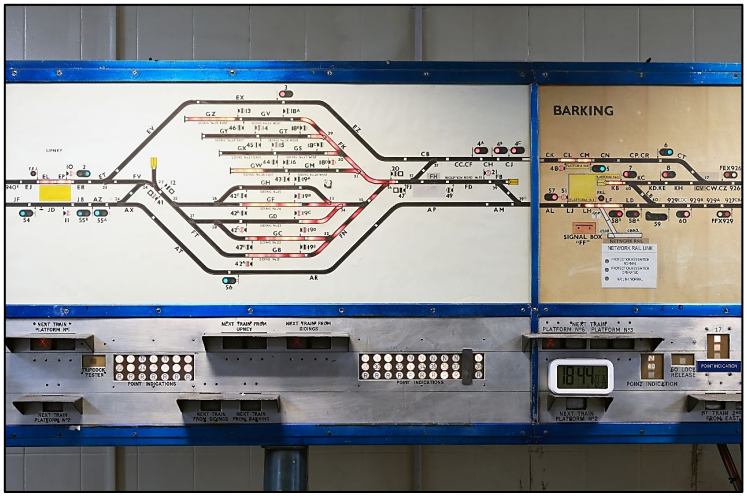
***Left**: A close up of the Push Button Desk controlling Barking to Upney. The Service Operator is pressing FF60, FF59, FF58 "Barking Eastbound Homes to Platform 2". As a train is currently in the eastbound platform as seen on the CCTV monitor, this button shall illuminate orange until the track circuits for the platform are open.*

Usually, areas on the Push Button Desk controlling West Ham & Plaistow, East Ham and Dagenham East; and the Push Button Desk controlling Upney station, are set to automatic mode. This is because as there are so few trains scheduled to reverse at these locations, it is easier to just pre-set the routes and allow the signals to clear once their corresponding track circuits become occupied. This minimises work for the Service Operator so they can focus trains that are required to reverse in the bay platform or the sidings at Barking.

In the photograph *(Below, Left),* a long exposure shows a westbound District Line train departing Plaistow passing FC2, which is the westbound platform starting signal as it changes from Proceed to Danger. In the photograph *(Below, Right),* the train is seen in the station at Plaistow station on the diagram. The difference between the manual illuminated signals and automatic drawing signals throughout the diagram is evident. The photograph *(Below, Lower Right)* shows the Push Button Desk controlling this area.



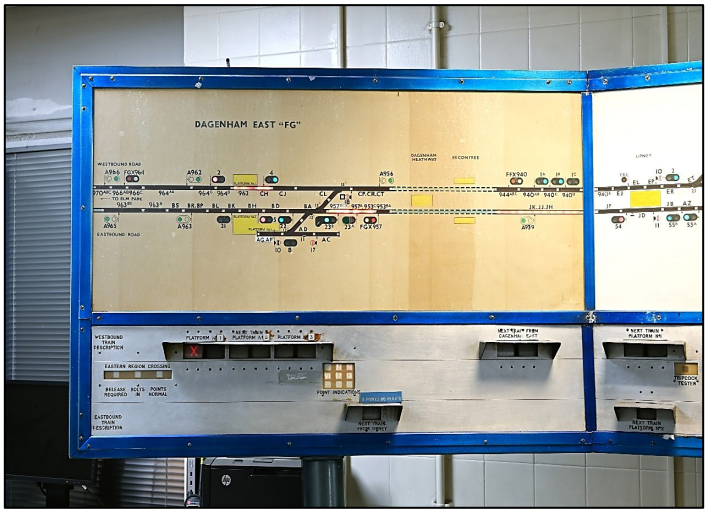
The only signals which are neither manually controlled nor appear on the diagram are repeater signals. This is because they repeat the aspect of their associated stop signal. Should the associated stop signal be at danger, the repeater displays caution and should the associated stop signal show proceed, the repeater displays proceed. Some repeater signals are stand alone, but when it's a short distance to the next stop signal, they are mounted under a stop signal as seen on the next page. In the photograph *(Below, Left),* an eastbound train passes RFF56 (left) and FRFF56 (right) which are the outer home repeaters for Upney. The Fog Signal is specially designed to look different in appearance and light output (wide beam at close range) so that during periods of low visibility, the Train Operator knows that the corresponding stop signal is ahead (120m or 400ft according to the age of the site!). In the photograph *(Below, Right),* the train can be seen approaching FF56 on the diagram. Once it passes into track circuit section 'AT', FF56 shall revert to danger until the two track circuit sections before the next signal ('AT' & 'AX') are unoccupied and the service operator has set the route.



At areas with sidings, such as Barking, Upney and Dagenham East, shunt signals are provided in lieu of colour light signals as the proceed aspect has a different meaning. Shunt signals are disc shaped and rotate to display the desired aspect. A stop aspect is displayed when the red line is horizontal; with the disc rotating to show the red line at a 45° angle to indicate proceed as far as the line is clear and be

prepared to stop short of a train or obstruction. Trains are prohibited from passing shunt signals with passengers. In the photograph *(Opposite, Centre Left)*, S Stock 21506 & 21505 depart Barking Siding No.21 road as they start their westbound journey to Hammersmith. The two available aspects of the shunt signals are evident, with FF19^{B} displaying danger and FF19^{E} displaying proceed. The signals are given the same numbers with different end letters, as they all correspond to the lever used to control the signal. In the photograph *(Opposite, Bottom Left),* the train is departing Siding No.21 on the diagram. The method of displaying the proceed aspect on the diagram is for the horizontal red line to extinguish. To enter the sidings from Upney station, shunt disc FF10 is provided as seen in the photograph *(Opposite, Bottom Right).* When station starter FF2 displays proceed and shunt disc FF10 displays danger, the route is set to Barking station, when this is reversed, the route is set to FF12, the east entrance to Barking Sidings.

As it's mostly hidden away, one could not imagine the sheer intricacy of electronics and mechanics which keep the London Underground running safely and reliably. Both photographs *(Below, Left)* show both sides of the panel displaying Dagenham East to Upney. Once Communications Based Train Control was extended from Stepney Green to Becontree at the close of traffic on Friday 13 January 2023, the Dagenham East area became the only control area to remain at Barking Signal Cabin. The other three diagram panels, the main push button desk and almost all of the secondary push button desk has been boarded up and placed behind perspex panels. Once CBTC is extended from Becontree to Upminster in March 2023, the cabin will be fully decommissioned.



***Above**: (Right) A time exposure of the outer home signal at Upney eastbound, showing all possible aspects on the combined stop and repeater signal and also on the Fog Repeater below. All now history!*

All photos this article: Alex Thorkildsen

APPENDIX – ORIGINAL BARKING SIGNAL CABIN COMMISSIONING DATES

30.03.60	Barking (west end of new sidings)
03.04.60	Barking (Upney, east end of new sidings and Barking station)
08.05.60	Bromley (later Bromley-by-Bow)
08.05.60	Plaistow
08.05.60	East Ham
10.09.60	Dagenham East