## Automatic Tramway Signals



FIG. 2.

Type 'C" Car Counting Signal To count up to 10 Cars.

29 x 12 x  $6\frac{1}{2}$  inches.

Weight 80 lbs. Price £60 per block.

The signal box is made from sheet metal and has red and green lights but no semaphores.

The block consists of 2 signal boxes and 4 line contactors.

Each signal box contains a locking coil, setting coil and restoring coil, with the necessary operating mechanism and counting device, all fitted on a substantial insulated base. The base may be removed by releasing 4 screws.

When a car passes under the setting contactor a current passes momentarily through the setting coil, lifts the plunger, and counts the car into the block, and establishes a light circuit shewing Green in the home box in series with Red in the distant box.

As the car passes out of the block under the restoring contactor, a current passes through the restoring coil, lifts the plunger and counts the car out of the block.

The clear signal is not given until as many cars have passed out of the block as entered the block. The signal counts up to 10.

When lights are not shewing the block is empty.

#### THE FOREST CITY ELECTRIC CO., LIMITED.

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Type "B" Non Car Counting Signals

15 x 10 x 6 inches. Weight 60 lbs. Price £30 per block.

The signal box is made from sheet metal and has red and green lights but no semaphores.

The block consists of 2 signal boxes and 4 line contactors.

Each signal box contains a locking coil and setting coil with the necessary contacts and operating mechanism fitted on a substantial insulated base. The base may be removed complete by releasing 4 screws.

When a car passes under the setting contactor a current passes momentarily through the setting coil and establishes a light circuit shewing Green in the home box in series with Red in the distant box.

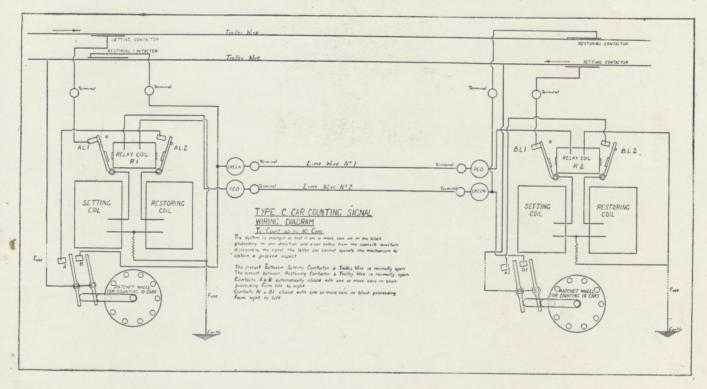
As the car passes out of the block under the restoring contactor, the current through the light circuit is broken, and restores the block to normal.

A locking coil prevents the changing of the signal aspects while a car is in the block, by a car from the opposite direction passing under the setting contactor.

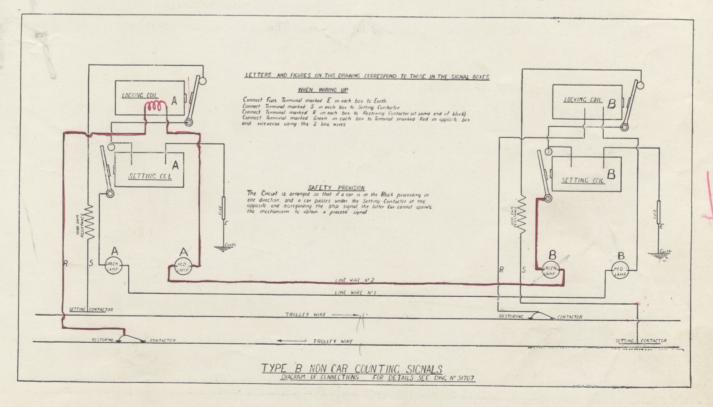
When lights are not shewing the block is empty.

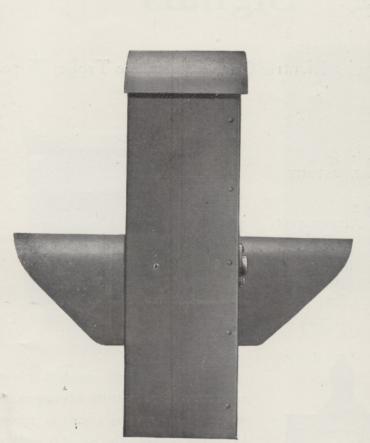
#### "FOREST CITY."

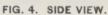
#### Wiring diagram Type "C" car counting signals.



#### Wiring diagram Type "B" non car counting signals.







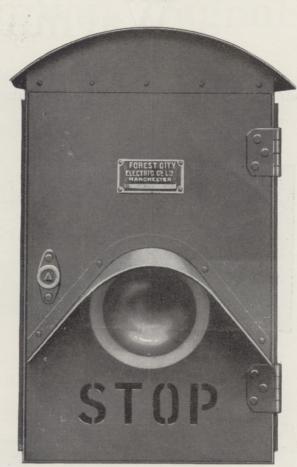


FIG. 5. FRONT VIEW.

Level Crossing Signals operated by Approaching Cars.

20 x  $11\frac{1}{2}$  x  $5\frac{1}{2}$  inches. Weight 35 lbs.

This signal is for the protection of a level crossing and may be suspended in the centre of the crossing or fixed upon a pole or bracket arm.

The signal box is made from sheet metal and has two Red lenses facing in opposite directions and "STOP" signs, which are illuminated as a car approaches the crossing, and extinguished immediately a car passes the crossing. If desired a bell may be rung during the time the Red lights are shewing.

The signal is operated by line contactors, and a block consists of one signal box and 4 line contactors.

Price for signal and 4 line contactors £40.

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# Warning Signals

Operated by Tramcars or Trolley-buses by Electric Current from the Trolley Wire.

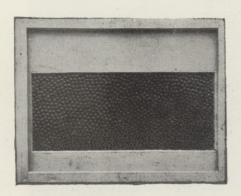


Fig 1 (left).
NORMAL ASPECT

Fig. 2. (right).
SIGNAL ILLUMINATED.

SUPPLIED WITH OR WITHOUT SUNSHADES



The two types of signals illustrated on this page are intended to prevent the numerous accidents caused by tramcars and trolley-buses making a "left" turn from a main street, or entering a main street from a side street without warning.

Fig. 1. shows a sheet iron box signal 25ins. long x 16ins. high x 12ins. wide, with a glass front, normally unilluminated. As the operating vehicle passes under a line contactor, the sign is illuminated as Fig. 2; the warning showing in red against a black ground. The signal is restored to its normal aspect as the vehicle passes under a second line contactor. The warning can be altered to suit the circumstances, as "STOP, NO ROOM TO PASS," "CAR APPROACHING," etc.



Fig. 3. shows the standard type of traffic control signal with the lettering on the centre and lewer lenses altered to convey the desired warning. This signal is supplied as illustrated to use at a left turn. If used to give warning that a tramcar was about to appear from a side street, the lettering would be "STOP, BEWARE OF TRAM," or other suitable words.

Both signals are operated by the trolley current, and when clamped to trampoles, the cost of installation does not exceed £5. The cost of operation would not exceed £1 per annum.

One signal of either type, and two line contactors complete with the operating mechanism cost £25.