

APPROACH WARNING TO MIDSECTION INTERLOCKED LC GATES

Approach warning is to be provided to all gateman of interlocked LC gates to enable timely closing of the gate to road traffic to clear the signals for approaching train.

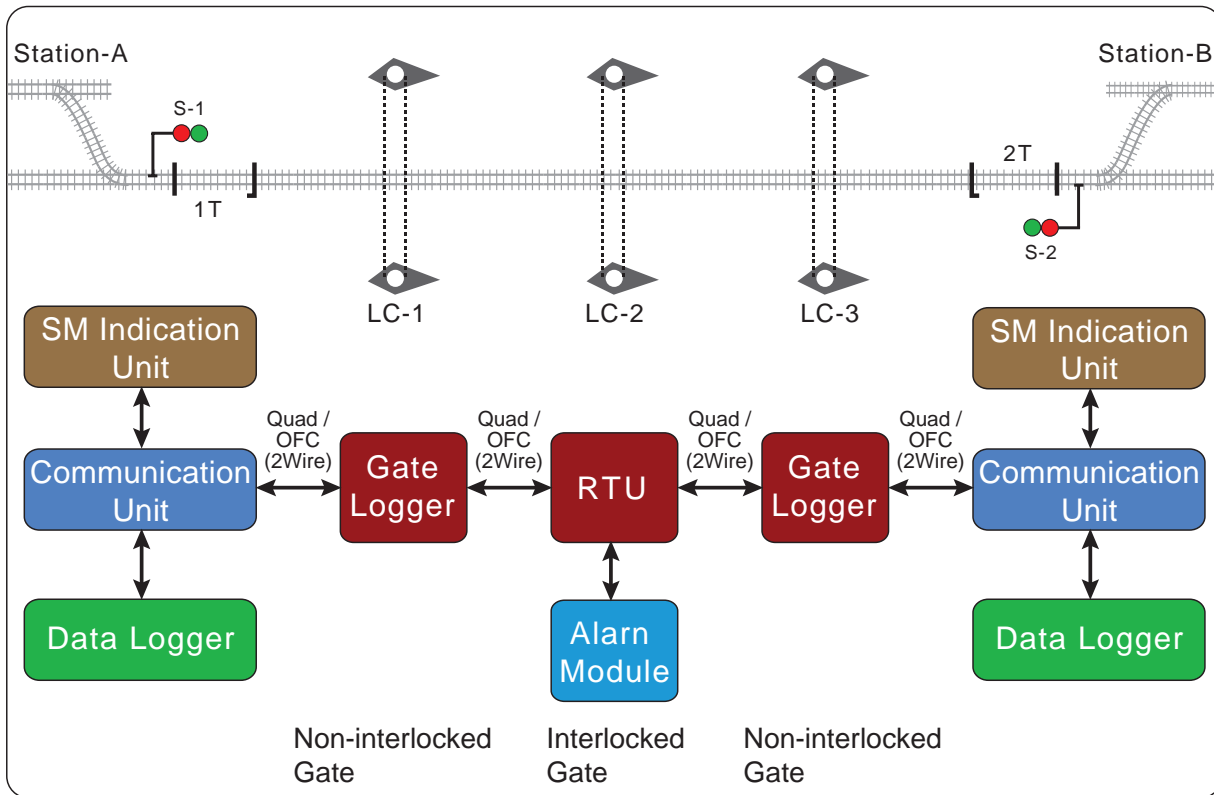
If the gate is closed late, train is delayed and if the gate is closed early, road user is inconvenienced.

PRESENT SYSTEM AND ITS DRAW BACKS

At present warning is provided by detecting the train by axle counter or track circuit when it is about 3 to 5 km from the gate and the same is repeated to the gateman by laying cable.

The main draw backs of the present system are:

- ❖ Extensive cable laying for repeating an information which does not have direct safety implications.
- ❖ Time consuming and costly.
- ❖ Huge maintenance effort as the equipment is distributed in mid-section.



PROPOSED SYSTEM

As per railway board's instructions data loggers are to be provided at all the stations and interlocked LC gates. Both of them are required to be connected by communication cable for transferring the data recorded by data logger at LC gate to the station data logger.

Station data logger detects train entry into the block section through the relays it is monitoring. It generates a command for approach warning as per the logic. This command is sent to the mini-data logger called RTU [Remote Terminal Unit] provided at the LC Gate. An audio-visual alarm unit is connected to the RTU provided at the gate is actuated to call the attention of the gateman.

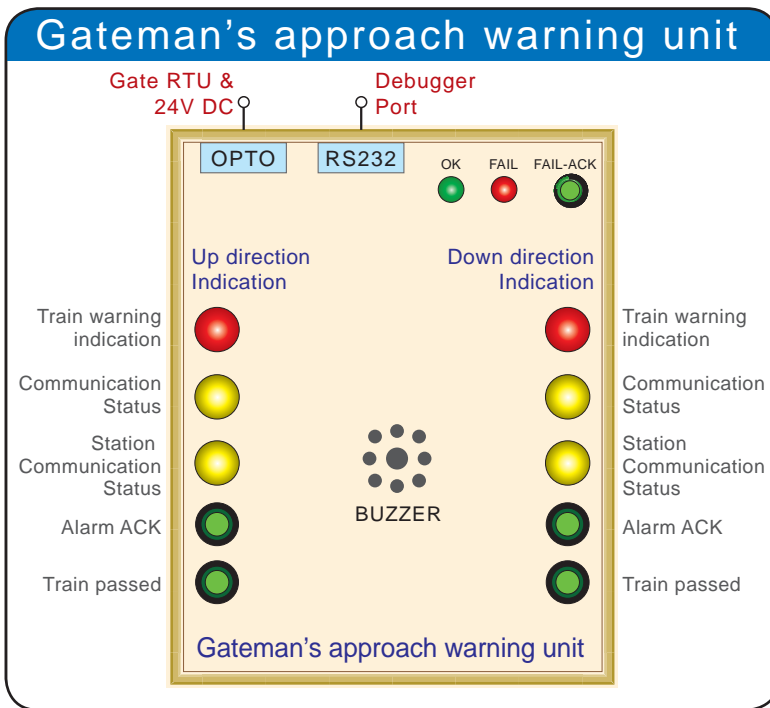
An acknowledgement button is provided on the audio-visual unit to be pressed by the gateman to acknowledge the alarm.

As soon as the train passes LC gate, gateman has to press a button to stop visual warning. Even if the gateman forgets to press the button audio warning appear for the next train.

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BENEFITS OF THE NEW SYSTEM

- ❖ Gateman's response to the approach warning can be measured [time taken to close the gate] and corrective action taken to counsel the gateman if he is erring.
- ❖ Compared to conventional approach warning cost, it costs less than 25%.
- ❖ Practically no separate maintenance efforts required in the field.
- ❖ Station master is provided with gate status indication by which the performance of the gateman can be monitored.



INSTALLATIONS

Sl. No.	Division	Planned	Gates commis-sioned	In pro-gress
1	Rajkot	51	51	0
2	Vijayawada	49	33	16
3	Guntur	5	5	0
4	Baroda	3	0	3
	Total	108	89	19

