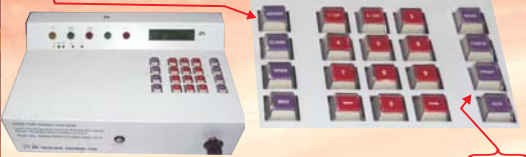


## Introduction

This pamphlet covers the technical requirements and system features of LC gate control equipment using wired/ wireless data communication with private number exchange & voice logging facilities for use over Indian Railways and is issued under IRS specification no. STT/SPN/TC/049/2003.

## Functions of different keys of the ASM's Equipment

- ADVISE** Press for train information to gate.
- CLOSE** Press for instruct the gate man to close the gate.
- OPEN** Press for instruct the gate man to open the gate.
- MSG** To instruct gateman not to open gate and check battery volt, relay status and cancel previous message.



Press for sending data to concerned gate.

**SEND**

Press to configure the setting of equipment.

**CONFIG**

Press for printing of event logged.

**PRINT**

Press to mute the audio message.

**ACK**

## Functions of different keys of the Gateman's Equipment

- CLOSE** Press after closing the gate.
- PROB** Press for sending problematic message to ASM.
- OPEN** Press for opening the gate.
- MSG** Press to check battery volt, relay status and cancel previous message.

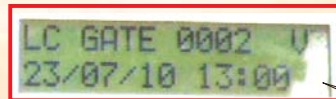


Press for sending data to ASM.

**CONFIG** Press to configure the setting of equipment.

**PRINT** Press for printing of event logged.

**ACK** Press to mute the audio message.



**LCD display** For sending / receiving data about train as (Train no., Private no., Activity, gate no., Up and Dn. and time)

## Test functions of different LEDs at ASM's Panel

**ACK LED**  
Glow on SM sends information to gate and get OFF on gate receives.

**CLOSE/OPEN LED**  
Glow on receiving gate closing/opening message

**RADIO MODE LED**  
Glow on data transmission through wireless.



**PTT LED**  
Glow on voice communication via radio

**PROBLEM LED**  
Glow on receiving problematic information from gate.

## Test functions of different LEDs at Gatemen's Panel

**ACK LED**  
Glow on gate sends information to ASM & get OFF on ASM receives message..

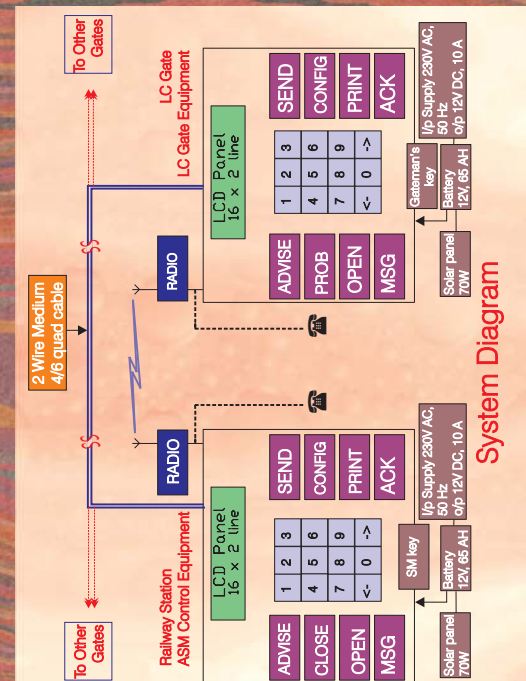
**CLOSE LED**  
Glow on gate sends information after closing gate/ ASM receives message/ gateman receives gate closing instructions from ASM.



**RADIO MODE LED**  
Glow on data transmission through wireless.

**PTT LED**  
Glow on voice communication via radio

**OPEN LED**  
Glow on ASM permits gateman to open the gate / gateman presses open button.



## Installation

Connect earth on Earthing port, adpoter supply on 12V port, DC supply of battery on battery port/ solar supply on solar port, line 2/wire/4 wire on 2w/4w port, printer on printer port as shown in the figure.



## Disclaimer

It is clarified that information given in this pamphlet does not supersede any existing provision laid down in "Signal Engineering Manual". Railway Board publications and RDSO publications. This document is not statutory and instructions given in it are for the purpose of guidance only. If at any point contradiction is observed, then SEM, Railway Board and RDSO guidelines or Zonal Rly. instructions shall be followed

## Test equipment

1. Digital multimeter
2. Common toolkit box
3. Lab Radio test system

## Schedule Maintenance and testing

Weekly schedule should be followed except on failure/ complaint basis.

## Installation material/ equipments

ASM unit, Gate unit, Quad cable, power cable, RJ217 coaxial cable, Omni directional stacked dipole, out door antenna/ indoor antenna battery set 12V, 65 AH with solar panel 70W, 19.2V or through power cable, telephone instrument, 80 column dot matrix printer etc.

## Print out format of event logged data

SN	DATE	TIME	MODE	FROM	GATE	PVTN	ACTIVITY
000	21/9/2010	11:33	LINE	GATE	23B	-	Gate open request
001	21/9/2010	11:34	LINE	STN	23B	56	Close for 2138

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**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS**

# WIRE & WIRELESS COMMUNICATION LEVEL CROSSING GATE EQUIPMENT

**CAMTECH/S/PROJ/10-11/PAM-LCG/SP-9**  
August 2010

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