



भारत सरकार-रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन
लखनऊ- 226011
e-mail: dse1rdso@gmail.com
Telephone : 0522-2465713

Government of India - Ministry of Railways
Research, Designs & Standards Organization,
LUCKNOW - 226011
Telex: 0535-2424 RDSO-IN
Fax: 91-0522-2452581



No. EL/2.2.9/10

Date: 01.12.2016

All Chief Electrical Engineers,

**SPECIAL MAINTENANCE INSTRUCTION NO. RDSO/2016/EL/SMI/0302 (REV.'0'),
Dated 01.12.2016**

1.0 Title:

Special Maintenance Instruction for time setting in ESMON fitted in conventional & 3- phase Electric Locomotives.

2.0 Brief History:

It has been observed during investigation of failures & also reported by Railways that there is difference in the time recorded in ESMON within same loco. Further; it is observed that there is large drift in set time being observed in shed within couple of months. Owing to time difference in various systems; it becomes difficult to link the happening of events with real time. Therefore, procedures for time setting in ESMON fitted in conventional & 3-phase Electric Locomotives is stipulated in this Special Maintenance Instruction.

3.0 Object:

To define procedure for time setting in ESMON fitted in conventional & 3- phase Electric Locomotives to avoid mismatch in recorded time & date with in same loco.

4.0 Procedure to be adopted for time setting:

- (i) There shall be one clock in each shed/workshop & its time shall be synchronized with control room clock every day in accordance to clause 4.01 of GR-1976 which is reproduced below for ready reference.

"GR 4.01: Standard time

The working of trains between stations shall be regulated by the standard time prescribed by the Government of India, which shall be transmitted daily to all the principal stations of the Railway at 16.00 hours in the manner prescribed."

This clock in shed shall be the reference clock for time setting of various equipments. Alternatively, a GPS clock may be installed in shop floor at a location preferably where time setting of equipments are under taken of every Loco shed & EMU/MEMU car shed as reference clock for time setting of ESMON.

- (ii) The time & date setting shall be done in shed taking the clock in shed as reference clock which has been set in accordance to Para (i) above. The time setting activity shall be covered under Maintenance Schedule of locomotives. It shall be ensured that time setting have been done before turning out of loco from shed after every schedule maintenance.

Handwritten signature
01/12/16

(iii) **Procedure for time setting in ESMON:**

- The time setting can be done by using keyboard & the internal configuration switch (accessible only after opening of the door of ESMON) inside the door. To set the time, the door shall be open & speed shall be zero.
- Once the door is open with Master key,
- Press the configuration switch inside the door for at least 3 seconds.
- Configuration mode will appear on LCD screen.
- The time parameter which has to be set can be selected by using the DISPLAY key in the keyboard. When TIME parameter is displayed, the new value of time parameter can be entered using the keys 0-9 on keyboard.
- After setting the time, press ENTER key to accept the new value of time. If incorrect value is entered; press CANCEL key & repeat the process for making new entry.
- After setting the time parameter, close the front door & lock it.
- The OEMs manual may also be referred for time setting if required.

5.0 Application to the Class of Locomotives:

All Electric Locomotives & EMUs/MEMUs

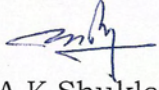
6.0 Agency of Implementation:

All Electric Loco Sheds , car sheds & loco workshops.

7.0 Periodicity of Implementation:

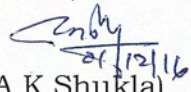
During schedule inspection/overhaul.

Encl: Nil


(A.K.Shukla)
for Director General Std./Elect.

Copy to: As per standard Mailing List No.EL-M-4.2.3-19(latest revision)

Encl: Nil


(A.K.Shukla)
for Director General Std./Elect.