INSTRUCTION MANUAL

REMOTE CONVERGENCE INDICATOR
MODEL SME 2540

SENSORS & MEASUREMENTS ENTERPRISES
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Instruction Manual
of
REMOTE CONVERGENCE INDICATOR

Items: Anchor,
Upper pipe assembly ,
Lower pipe assembly,
Cover pipe,
Adjustment long screw,
Lock nut,
Sensor holding nut assembly,
Extension pipe with socket ,
Displacement sensor.

1. Installation Procedure

1.1 Drill 40 mm dia hole up to 300-350mm.height in the roof where the R.C.I. is to be installed.
1.2 Fix the upper pipe assembly with anchor in the roof hole with the help of quick setting cement.
1.3 Hold the upper pipe assembly till the anchor gets properly rigid & dry.
1.4 Keeping the vertical alignment of upper pipe assembly the lower pipe assembly anchor should also be grouted similar to upper pipe assembly.
1.5 Hold this lower pipe assembly till the anchor gets properly rigid and dry.
1.6 Maintain the gap between lower & upper pipe assembly for mounting the setting / installation rod supplied with consignment. Alternatively maintain the gap as per the following detail for fixing the displacement sensor.

Length of sensor (depends upon range)

a. For 100 mm. range 370 + 70 = 440 mm.

b. For 150 mm. range 470 + 120 = 590 mm.

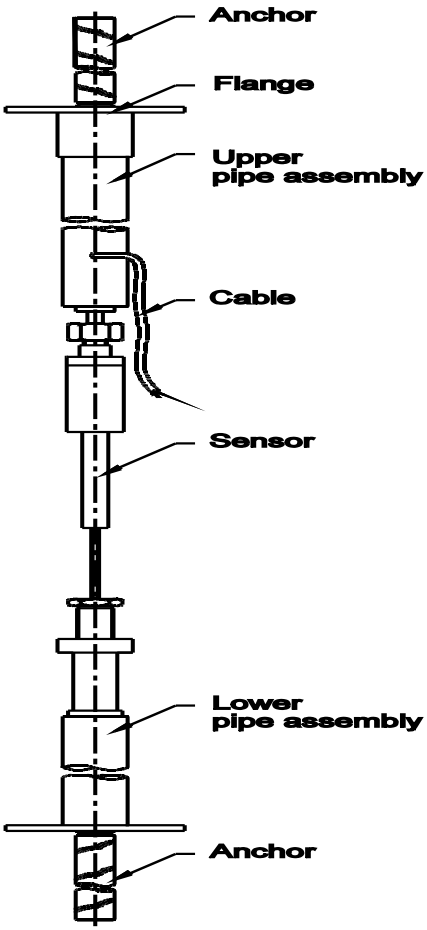
2. Fixing of sensor

2.1 Remove the setting rod from upper & lower pipe assembly.
2.2 Take out the sensor cable from cable nut of upper pipe assembly as shown in the figure.
2.3 Tight the cable nut properly with the sensor.
2.4 Loose the adjustable long screw and keep its position at 50% of its range.
2.5 Take out the sensor rod by pulling it down word and attach it with the adjustable long screw. Move the long screw clockwise so that sensor rod gets tight in this long screw. Extra precaution to be taken to avoid any movement of sensor rod otherwise sensor may get damaged.
2.6 Tight the chuck nut properly so that long screw cannot be rotated.

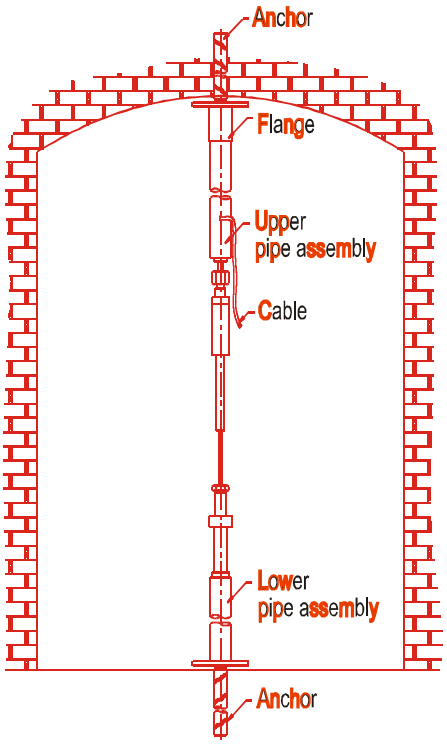
2.7 Loose the three hax screw from cover pipe and slide the cover assembly over The sensor and tight all three screws to avoid any direct disturbance for the precise sensor.

2.8 Note down this frequency (I value) for programming the readout unit model SME 2460- P and program the readout unit.

2.9 Take the data of this RCI after programming and note down the reading which should be close to 0.00 mm.
2.10 Now the proper installation of R.C.I. is over and data can be taken regularly.



General Diagram of RCI:



Installation figure in the underground mine

NOTE:- If you have any difficulty/ problem, please contact factory at Lucknow by fax, phone or Email.

Installation Procedure for Convergence Indicator With Vibrating Wire Displacement Sensor

Before installation of RCI please go through the item description as given below with the installation figure.

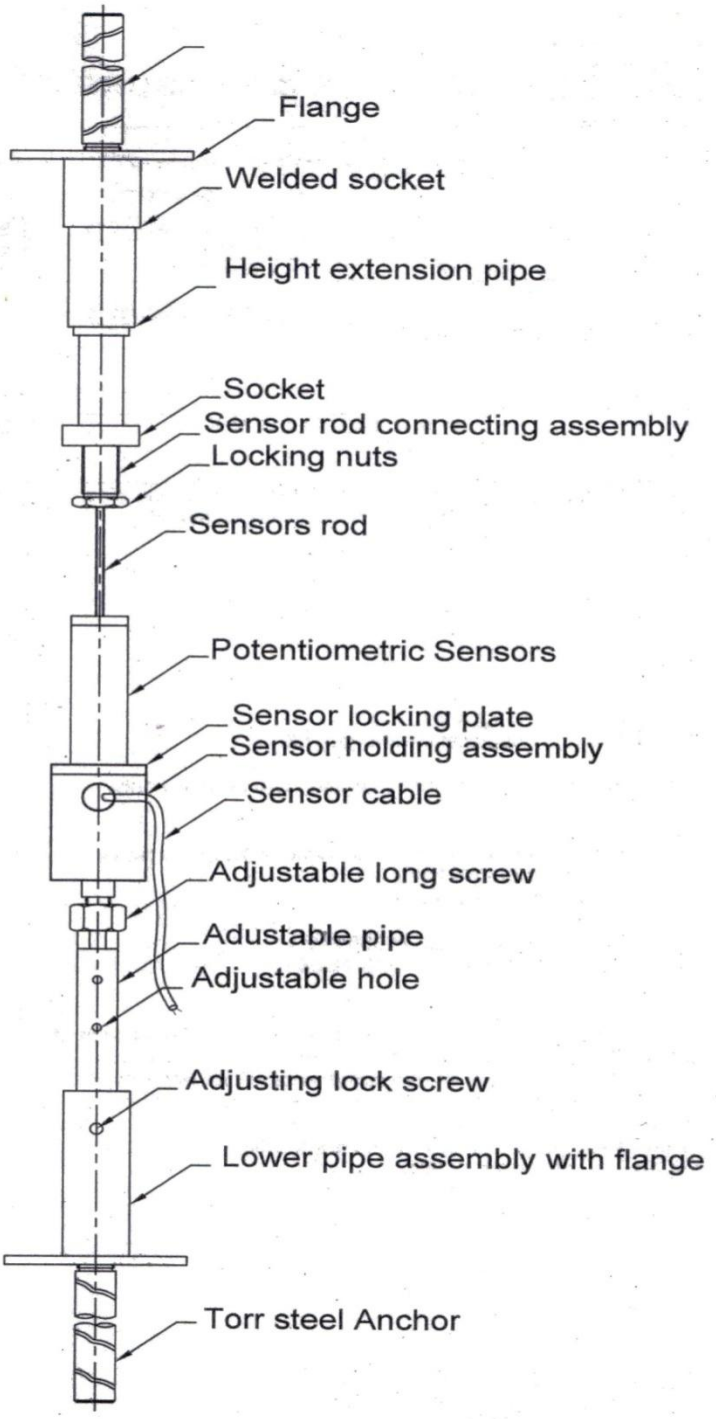
keeping sensor holding nut outside the pipe. Fix adjustment stud on lower pipe keeping small threaded hole outward and adjust required gap for sensor.

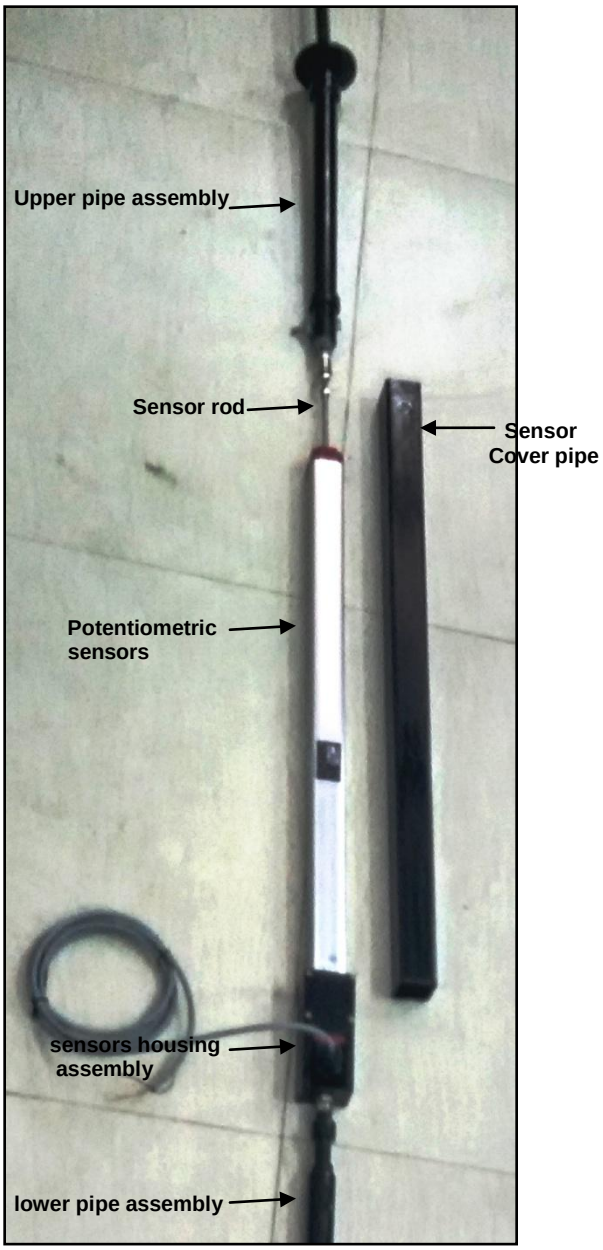
Always first fix sensor displacement rod with adjustment stud .Now pass the sensor cable through nut provided on upper pipe and then take it out through hole provided on upper pipe.

Now holding the sensor firmly pull it straight upward and fix it with upper pipe assembly by rotating nut clockwise. **(Note :- Never rotate sensor otherwise it will definately get damaged .)**

Don't rotate adjustable stud once the sensor is fixed with upper nut. Once sensor installation is complete, measure present frequency of sensor and feed in programme. It will measure initial data on zero level. Now if any convergence takes place, it can directly be measured in mm or as required in programming.

Installation figure of potentiometric Remote Convergence Indicator





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