

Marconi Self-tuning (MST) Test Set Type H 4500

The H 4500 Test Set provides a simple and rapid means of testing the transistorized servo-control circuits used in Marconi Self-Tuning h.f. transmitters. The servo-control circuits take the form of plug-in book units housing printed-wiring boards. Comprehensive metering arrangements in the transmitter itself can be used to identify a faulty book unit which can then be removed and checked on the Test Set. Meanwhile the transmitter can remain in service, either switched to 'manual tuning' or with a spare book unit plugged-in in place of the faulty one.

Using the test set, a technician with no detailed knowledge of the servo-control circuits can easily and quickly locate any fault in a book unit and check the unit after it has been repaired.

The test set is self-contained and operates quite independently of the transmitter from a 200–250 V a.c. mains supply. The maximum power consumption is 120 W.

Description

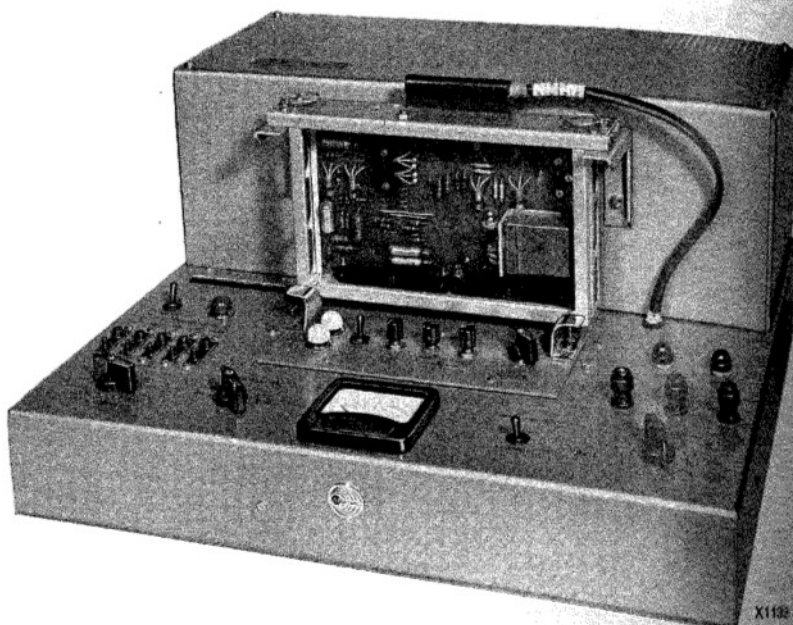
The test set comprises a test unit which houses all the power supplies and some of the switching circuits, and a number of modules which provide the specialized switching circuits required for the different book units to be tested. A storage case is supplied to accommodate the modules when not in use.

To test a book unit, the appropriate module is selected from the case and placed in the test unit. When in position, the module lies flush with the surface of the unit and becomes an integral part of it for the tests.

Special switches and variable controls are on the face of the module together with a socket for fitting a book unit. The book unit is held in such a position that all parts are accessible for inspection, measurement and repair. A plug is placed in the monitoring socket of the book unit to complete the test circuits.

By the operation of switches on the test unit, each check point is selected in turn and the appropriate test is set up. The result of the test is shown on the meter and compared with the reading for a correctly functioning circuit. The method of setting-up each test and interpreting the results is clearly explained in the equipment hand-book.

Eleven check points are provided, but when routine tests of the book units are made, only three or four are used and, if the results are within the specification, the unit is in correct working order.



The test unit incorporates a sensitive, transistorized amplifier feeding a meter to measure a.c. and d.c. (positive and negative) voltages in the range 10 mV to 320 V. The metering circuits are connected to a monitoring plug which plugs into the book unit being tested. A test lead, terminating in crocodile clips, is available for measuring voltages not provided by the monitoring socket.

Versions of the H 4500

The H 4500 is available in the following editions for different types of MST transmitter:

Edition—02 for Transmitter Type H 1200.

Edition—03 for Transmitter Type H 1103.

The editions differ only in the selection of modules provided.

Dimensions:

Test Unit

Height	10.5 in.	(27 cm)
Width	20.5 in.	(52 cm)
Depth	19 in.	(48 cm)

Module Case

Height	7 in.	(18 cm)
Width	20.5 in.	(52 cm)
Depth	20 in.	(51 cm)

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