

**CODE 104 — FAR-END TRANSMISSION MEASURING
 AND NOISE CHECKING CIRCUIT**

Code 104 provides access to test lines connecting to a far-end transmission measuring and noise checking circuit. Incoming calls routed to these test lines connect to the measuring circuit, one at a time, through a sequence chain circuit as the measuring equipment becomes idle. When test calls arrive from different originating offices at about the same time, they wait on the test lines and are served by the measuring circuit in their proper turn.

Section A728.112 (E40.751) describes the automatic transmission test and control circuit (ATTC). This frame is used in conjunction with the automatic outgoing intertoll trunk test frame (AOIT) in No. 4-type toll switching offices. Automatic transmission loss measurements and noise checks can be made on outgoing and 2-way dial intertoll trunks terminating at distant offices equipped with far-end code 104 test lines.

Explanation of the general methods for making measurements on an automatic or manual basis are included in Section A702.682 (E40.752) which describes the far-end (code 104) and near-end (ATTC) transmission measuring and noise checking circuit. Near-end circuits (ATTCs) are provided in No. 4-type toll switching offices. Far-end equipment is available for any dial-type toll switching office to permit tests from distant offices.

For a manually dialed test, a testboard attendant at the outgoing or originating end of intertoll trunks, dials or key pulses code 104 over the trunk to be measured to reach the far-end equipment. The attendant can then measure the transmission loss of the trunk in each direction and obtain a noise indication from the far end without assistance at the far end of the trunk.

Manually dialed tests require more time to complete than fully automatic tests, and may increase the waiting time on the test lines. If a large number of manually dialed tests are to be made consecutively, the tests should be scheduled to avoid interference to ATTCs.

Note: Code 104 should not be used in testing trunks containing type "M" carrier channels. Any testing power at a level higher than -20 dbm at the input of the "M" channel will cause the limiting action of the terminal equipment to become effective. This will result in erroneous measurements on these channels.

Schematic drawings covering the above test lines are listed below:

SWITCHING OFFICE			
NO. 4 CROSSBAR SD-95699-01	NO. 5 CROSSBAR SD-95702-01	CROSSBAR TANDEM SD-95701-01	STEP-BY-STEP SD-95700-01

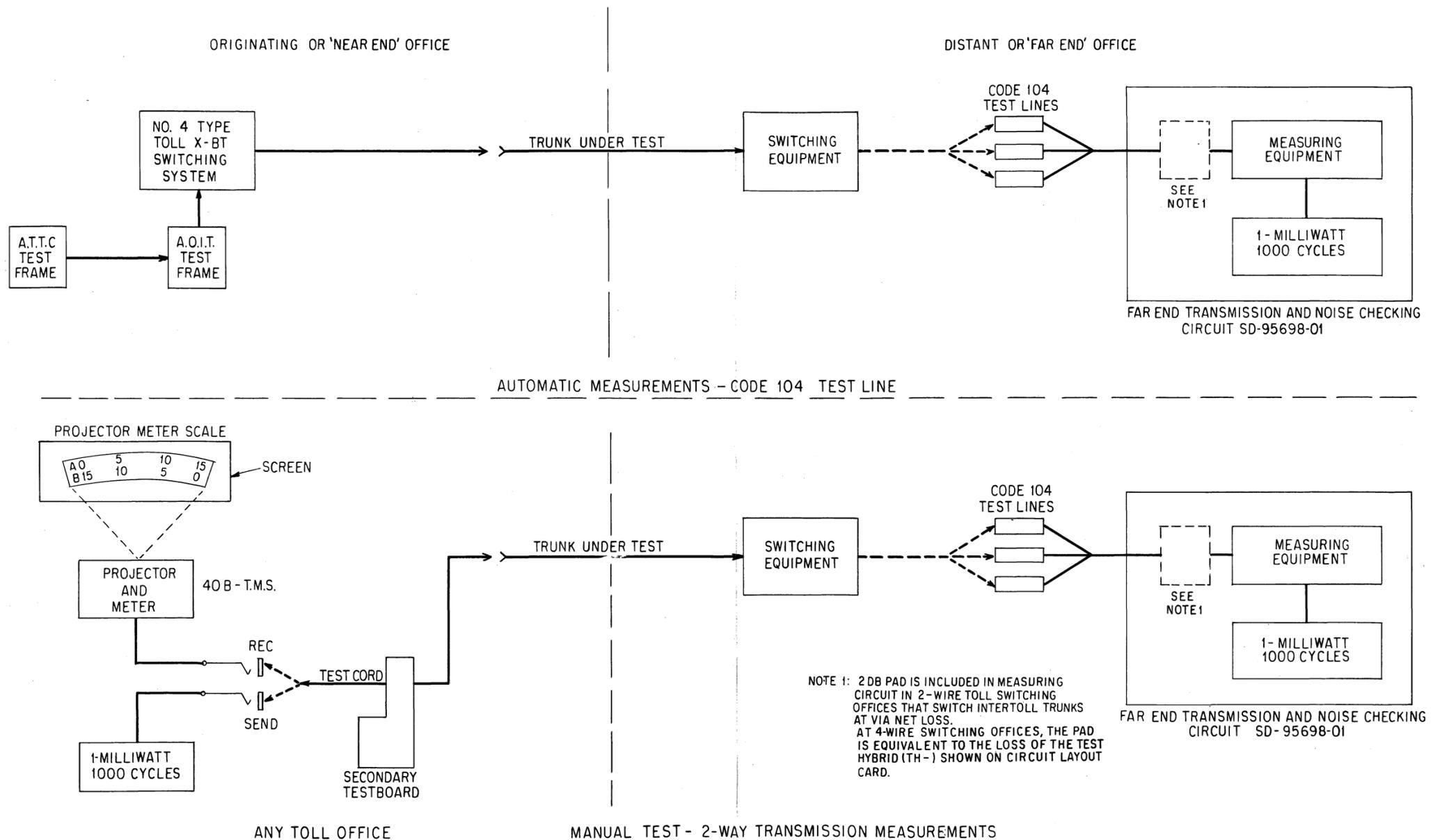


Fig. 1 - Code 104 — Far-end Transmission Measuring and Noise Checking Circuit