

ADDRESSABLE DATA BRIDGE AND CONTROL CIRCUIT SD-1G245-01 OPERATION AND MAINTENANCE

1. GENERAL

1.01 This section contains those operations and maintenance items that can be performed at the bridge. Overall testing and line-up of the bridge is the responsibility of the 19A or 21A testboard and the associated testing and patching jack panel SD-1C232-01. See Section 666-201-503 for the 19A testboard and 666-400-503 for the 21A testboard.

1.02 Maintenance of the bridge will require coordination with the testboard attendant due to the physical location of the bridge and the testing and patching jack panel. See Section 314-550-101 for a general description of the addressable data bridge.

1.03 Precaution must be taken in performing all tests to avoid denying or adversely affecting service. Local instructions should be followed with reference to notifying the customer before performing tests.

2. APPARATUS

2.01 One KS-14510, L5 VOM or equivalent.

2.02 Two KS-16887, L1 wedges.

2.03 One KS-6854 screwdriver.

3. MAINTENANCE

3.01 Before performing any tests, verify that -16 to -20 volts dc is present at the junction

of resistor R13, diode CR3, and ground. This measurement can be made on the upper right rear of the addressable data bridge.

3.02 Table A contains a list of the more common troubles, probable causes, and corrective actions. The column titled "Request Retest and Observe" contains the relays that will operate when the 19A or 21A attendant performs the test that revealed the trouble indicated in Table A.

3.03 Variable designations, shown as "HI()", etc, correspond to the designation of the port being tested, eg, port A would be indicated by HIA, etc.

3.04 Adjustment of transmission levels will be required during initial line-up as well as periodic routine testing or maintenance. The frequency shift oscillator output is adjusted by variable resistor R-20. Transmit and receive levels are adjusted with 227C or 227D amplifiers, AR1 through AR5. The testboard attendant will request that these adjustments be made while observing the test equipment associated with the testboard.

3.05 All testing on the addressable data bridge will be on an out-of-service basis. Specific relays will have to be wedged operated, as directed by the testboard attendant, in order for him to perform the various tests on the addressable data bridge. When the required tests are completed, remove all wedges, replace all relay covers, and inform the testboard attendant the bridge is prepared to be returned to service.

TABLE A

REPORTED TROUBLE	PROBABLE CAUSE	CORRECTIVE ACTION	REQUEST RETEST AND OBSERVE
Inadequate or no output to input transmission	Defective AR1 amplifier	Adjust or replace AR1 amplifier	K () * relay operated
Inadequate or no input to output transmission	Defective AR2-AR5 amplifier	Adjust or replace defective amplifier	Dedicated access KE relay released Switched access KE relay operated
Cannot transfer to switched access on input port.	Defective card in TT receiver or TTD relay	Replace card using Section 201-821-301 or repair or replace relay	TTD relay operates IME relay operates KE relay operates
Output port () * cannot take control of output to input path	Double wink detector defective or limiter detector defective	Replace DWD on output port () circuit pack B-22 or circuit pack B-21	HI () relay operates twice; K () relay operates and locks
Output port () takes control but control center does not receive visual signal	Frequency shift OSC not generating 460-Hz control tone	Replace FSO () circuit pack B-21	HI () relay operates twice; K () relay operates and locks
Bridge does not time out	Defective D3 timer	Replace D3 timer	LO () relay releases HI () relay releases TO relay operates
Bridge times out when control tone is audible	Defective detector circuit pack	Replace B-25	TO relay released LO () operated if 390 Hz on line; HI () operated if 460 Hz on line

* () designates port A, B, C, or D; eg, testing port A would be HI(A), etc.