

DATA SET 205A  
TRANSMITTER-RECEIVER  
USED IN PRIVATE SERVICE SYSTEMS  
SWITCHING SYSTEM NO. 307  
INSTALLATION AND CONNECTIONS

1. GENERAL

1.01 Issue 1 of this section received limited distribution. It is being reissued to make corrections.

2. INSTALLATION

Caution: The weight of this set is 56 pounds.

- 2.01 A data set 205A is to be installed in each of the telephone equipment cabinets (J1G016) designated No. 1, HSASR, and FACSIMILE.
- 2.02 Secure the data set in the space at the bottom of the right-side mounting frame in the cabinet designated No. 1.
- 2.03 Secure the data set at the bottom of the left-side mounting frame in the cabinet designated HSASR.
- 2.04 Secure the data set at the bottom of the left-side mounting frame in the cabinet designated FACSIMILE.
- Note: Because of confined working space, a screwdriver type screwdriver will be required to start the mounting screws of the data set 205A.
- 2.05 The cabinets will come prewired. At the time of installation, plug the appropriate connectors to the CUSTOMER A and CUSTOMER B interface connectors. Plug the connector cord from the data unit 4A1 into the 4-WIRE interface connector. Plug the telephone line facility connector cord into the TELEPHONE LINE interface connector.

Caution: A hazardous voltage may be present if the CUSTOMER A plug is removed and a strap has not been placed between E1 and E2. To avoid the possibility of a shock, disconnect the ac power cord of the data set 205A and place the strap between E1 and E2 before removing the CUSTOMER A plug. When CUSTOMER A plug is reconnected, remove strap before connecting the ac power cord of the data set.

- 2.07 The LINE and TEST key must be in the LINE position and shall be locked in this position during data transmission.
- 2.08 Interface connector designations are as follows:
- CUSTOMER A - 15 Pin, KS-19087, L1
  - CUSTOMER B - 25 Pin, KS-19087, L2
  - 4-WIRE - 25 Pin, KS-19088, L2
  - 2-WIRE - 25 Pin, KS-19088, L2
  - TELEPHONE LINE - 25 Pin, KS-19088, L2
  - Line Cord (from 4A1) - 25 Pin, KS-19087, L2

3. CONNECTIONS

- 3.01 Table A gives the options available for 4-wire operation. The necessary options will be shown on the service order.

TABLE A  
OPTIONS AVAILABLE FOR 4-WIRE OPERATION

Options	Level (dbm)	Loss (db)	Strap Terminals	Card Reference
Internal XMTR Timing Customer Supplied XMTR Timing			3 to 4* No Strap	019
Carrier Controlled by RS Lead Continuous Carrier			No Strap* 1 to 2	019
Transmitter Output Level	0 -3 -6 -9		1 to 4* 1 to 3 1 to 2 No Strap	044
Receiver Input Level	-23 to +5 -28 to 0 -33 to -5 -38 to -10	15 10 5 0	4 to 5* 3 to 5 2 to 5 1 to 5	017

\* Factory Wiring.

3.02 Table B gives the leads, designations, and pin positions for the connections between the line facilities, the TELEPHONE LINE connector on the data unit 4A1, and the 4-WIRE connector.

TABLE B  
CONNECTIONS FOR TELEPHONE LINE, 4A1, AND  
4-WIRE CONNECTORS

TELEPHONE LINE	Designation on 4A1	Pin on 4-WIRE Connector
T - 9	Receive Line (T) - Slate-White	9
R - 10	Receive Line (R) - White-Slate	10
T1 - 7	Transmit Line (T1) - Brown-White	7
R1 - 8	Transmit Line (R1) - White-Brown	8
	Signal Ground - Green-Black	23
	Interlock - Red-Orange	25
		1-14 (Strap)
		2-15 (Strap)
		3-16 (Strap)
		4-17 (Strap)
		5-18 (Strap)
		6-19 (Strap)
		12-13 (Strap)
		20-21 (Strap)
		22-24 (Strap)

- 3.03 Table C gives the pin positions and designations for the leads of the CUSTOMER A interface connector.

TABLE C  
CONNECTIONS FOR CUSTOMER A INTERFACE LEADS

Pin Position	Designation
1	Frame Ground (FG)
2 } 9 }	Send Data (SD) Signal Ground (SG)
3 } 10 }	Receive Data (RD) Signal Ground (SG)
13 } 6 }	Serial Clock Receive (SCR) Signal Ground (SG)
15 } 8 }	Serial Clock Transmit (SCT) Signal Ground (SG)
7 } 14 }	Signal Ground (SG) Clock Rate Select (SCX2)
12 } 5 }	Data Set Ready (DSR) Data Set Ready X2 (DSRX2)

- 3.04 Table D gives the pin positions and designations for the leads of the CUSTOMER B interface connector.

TABLE D  
CONNECTIONS FOR CUSTOMER B INTERFACE LEADS

Pin Position	Designation
1	Frame Ground (FG)
2	Send Data (SD)
3	Receive Data (RD)
4	Request-to-Send (RS)
5	Clear-to-Send (CS)
6	Data Set Ready (DSR)
7	Signal Ground (SG)
8	Carrier ON-OFF (COO)
9	+18 (681-Ohm Series Resistance)
10	-18 (681-Ohm Series Resistance)
13	Data Set Ready X2 (DSRX2)
14	Clock Rate Select (SCX2)
15	Serial Clock Transmit (SCT)
16 (For testing purposes only)	Dibit Clock Transmit (DTI)
17	Serial Clock Receive (SCR)
18	Confirm (CON)
23	Data Speed Select (SS)
24	Serial Clock Transmit External (SCTE)
25	Remote Test (RMT)

- 3.05 Test data set 205A as prescribed in Section 592-017-500.