AIR-GROUND VOICE COMMUNICATION SYSTEM

EQUIPMENT DESIGN REQUIREMENTS

COMMON SYSTEMS

1. GENERAL

Scope

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements for the bay, typical bay and cabinet arrangements equipment, and circuits to be used in the engineering, manufacture, and installation of the air-ground voice communication system. Bay layout is for dual-facility trunks and test and patch relay units at direction center; typical bay arrangement is for dual-facility trunks at telephone building-radio site or cabinet arrangements of dual-facility trunks when radio site is on base with direction center. Other cabinet arrangements are for remote-control units, receiver group transfer units, and keying units at radio patch and test location, and receiver location.

1.02 This specification is reissued to add new lists to units J99245L and J99245M, to rate J99245M, List 4 Mfr Disc., and to add J99245AB and J99245AC.

Capacity

1.03 The equipment at the direction center for dual facility consists of twenty-three 2-way trunk circuits, one of which is a spare. The 2-way trunk units are arranged to mount on three 23-inch by 11-foot, 6-inch bulb-angle bays which are to be adjacent to each other in the same line-up. These twenty-two 2-way trunk units will provide means for signaling in both directions over dual-facility voice circuits connecting a direction center to one distant radio site. There may be as many as five or more distant radio sites. Associated with the trunk units are the test and patch relay units. Each bay will be equipped with a test and patch relay unit.

1.04 The equipment at the radio site for dual facility consists of 23 trunk circuits one of which is a spare. The trunk units are arranged to mount in four 23-inch by 9-foot, 0-inch bulb-angle bays which are to be adjacent to each other in the same line-up. When radio site is on base with the direction center, the trunk units are arranged to mount in five 7-foot, 0-inch steel cabinets.

1.05 The remote-control equipment, when required, will consist of 32 remote-control units. The 32 remote-control units are used at the radio patch and test location when the radio receivers are considered to be remotely located and 32 remote-control units will be required in the receiver building. The 32 remote-control units are arranged to mount on one 23-inch by 7-foot 0-inch steel cabinet framework, J99245M.

1.06 The keying units at the radio site will be located at the radio patch and test location in a 23-inch by 7-foot, 0-inch steel cabinet framework, J99245L. The eight keying units are required to make up the 32 keying circuits. Each unit has four keying circuits.

1.07 The receiver group transfer and transfer control unit, J99245K, when required will be at the radio patch and test location and receiver location. This unit shall be mounted in the 23-inch by 7-foot, 0-inch steel cabinet, J99245M, containing the remote-control units.

1.08 The receiver group transfer and transfer control unit, J99245N, when used without the remote-control equipment at the radio patch and test location, shall be mounted in the 23-inch by 7-foot, 0-inch steel cabinet, J99245L, containing the keying units. At the receiver location the unit shall be mounted on a miscellaneous basis.

1.09 When the transfer control unit, J99245AC, is required and receiver remote-control circuits are used, the transfer control unit shall be mounted in the steel cabinet, J99245M, con-

taining the remote-control units. For this application the receiver group transfer and transfer control unit, J99245K, is mounted miscellaneously at the telephone location and in the J99245M cabinet at the receiver location.

1.10 When the transfer control unit, J99245AC, is required for use without remote-control circuits, the transfer control unit shall be mounted in the steel cabinet, J99245L, containing the keying units. For this application the receiver group transfer and transfer control unit, J99245N, is mounted miscellaneously at the telephone and receiver locations.

1.11 The transfer signal simplex unit containing 22 transfer signal simplex circuits and the radio alarm unit consisting of 22 radio alarm circuits will be mounted in the same cabinet containing the keying units.

1.12 The tone sending and receiving unit for alternate line transfer is a 7-1/2 by 23-inch unit to be mounted miscellaneously as required. The unit provides 2100-cycle single-frequency tone for sending and 2100-cycle receiving equipment to be used in conjunction with the No. 112A key equipment for alternate line transfer. It permits transferring a long-haul talking circuit to alternate line facilities under control of either terminal.

Operation

1.13 The equipment at the direction center provides means for simultaneous signaling and talking over either one of a pair of voice circuits by means of a slot technique. Signaling is achieved by use of the 43A1 carrier telegraph equipment. To prevent interference between speech and signaling, band-rejection filters are used. When the director or technician at the direction center operates the push-to-talk button, the potential on the send leg of the 43A1 terminals changes and causes them to shift frequency from 2670 to 2600 cycles per second. This frequency shift is detected at the site and causes the assigned radio transmitter to radiate the carrier. A carrier monitor device at the radio transmitter detects the carrier and sends a signal to the 43A1 terminals at the site trunk circuit causing them to shift frequency from 2500 to 2430 cycles per second. The frequency shift is detected at the direction center 43A1 terminal which causes the channel-busy lamp to light at both the director and technician console. When the assigned radio receiver picks up the carrier, its codan relay operates which causes the codan lamp to light at the director and technician console. This is accomplished in the same manner as the transmitter carrier on indication. When a trouble occurs on one of the two trunks, incoming tone to the direction center is interrupted. This interrupted tone sends a ground signal to the telephone room audible and visual alarm circuit, lights a lamp at the air-ground testboard to indicate which trunk has failed, switches the receiving transmission path from the trunk which has failed to the other trunk. The potential on the "B1" lead of the 43A1 terminal associated with the trunk which has failed is changed from +130 volts to zero. This causes the transmitting oscillator in the 43A1 terminal to be turned off so that outgoing tone to the site is interrupted, forcing a transfer at the site. If the intercept director or technician finds that the quality of transmission is not satisfactory, he may momentarily operate a trouble button at his console to transfer to the other trunk.

1.14 The equipment at the radio site provides means for signaling in both directions over dual-facility voice circuits connecting a direction center to a radio site, and provides for automatic transfer from a trunk in trouble to a second trunk of a dual facility. On receiving a push-to-talk signal the equipment causes the associated radio transmitter to radiate the carrier, and the radio receiver to be muted. It provides a codan signal over the dual-facility circuits to the direction center when either a codan signal is received from the associated radio receiver or a carrier on acknowledgment signal is received from the radio transmitter. When the trouble transfer button at the direction center is operated by the console operator because of unsatisfactory transmission, it forces a transfer of voice and signaling leads from the trunk in use to the second trunk of the pair; it lights a trouble transfer lamp at the air force maintenance panel and actuates the air force audible. When a trunk failure occurs incoming to the site, the equipment lights a failure lamp at the air-ground testboard and returns a signal to the direction center indicating a trunk failure. The equipment lights a lamp at the air-ground testboard indicating which of the two

trunks is in use, and lights the lamps at the air force patch and test panel indicating a push-to-talk signal sent to the transmitter carrier on acknowledgment received from the radio transmitter, and codan signal received from the radio receiver.

1.15 The remote-control equipment at the radio site provides transmission of the dc supervisory signals between the radio patch and test location and radio receivers. The dc signals are used to send a ground indication back whenever the radio receiver codan relay operates from the incoming carrier, and transmit the battery to disable the radio receiver whenever its associated transmitter is turned on.

1.16 The receiver group transfer units at the radio site provide means for transferring the leads between a radio patch and test location and a radio receiver from a regular cable to an alternate cable. One receiver group transfer unit is used when remote-control equipment is not provided and a different unit is used when the remote-control equipment is provided.

1.17 When receiver group transfer and transfer control units are used at the telephone and receiver locations, the transfer control unit J99245AC, at the radio patch and test location controls the transfer of leads between the telephone and receiver locations from a regular to an alternate cable. A lamp at the radio patch and test location indicates the completion of this transfer.

1.18 The cabinet miscellaneous unit at the radio site provides —48 volt signal fuse alarm and test battery with provisions for +130 volt telegraph fuse alarm. The unit will be mounted in the steel cabinet containing the keying units at the radio patch and test location.

1.19 The test and patch relay units at the direction center provide means for transferring the leads on the drop side of a dual-facility trunk circuit to a spare dual-facility trunk, and provide test access to dual-facility trunk circuits.

Description

1.20 The equipment for the air-ground voice communication system are all 23-inch units to be mounted on bulb-angle relay racks or 7-foot cabinets. All the units are surface wired and have individual unit terminal strips except as indicated. Arrangements of the direction center for dual facility, radio site for dual facility, cabinet arrangements at test and patch location, and cabinet arrangement at receiver, test, and patch locations are shown in Fig. 1, 2, 3, and 4, respectively. Arrangement of dual-facility trunks at radio site when radio site is on base with direction center is shown in Fig. 5.

SUBDIVISIONS OF EQUIPMENT AND DETAILED INDEX

WECo J drawings should be ordered by referring to the prefix and base number and requesting the current dash (—) number.

CIRCUIT DRAWING	EQUIPMENT CODE	RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CKT PER UNIT	MTG PLATES PER UNIT
SD-95803-01	J99245E	AT&TCt Std	Remote-control Unit	J99245E( )	1	1
SD-95804-01	J99245G	AT&TCo Std	Trunk Unit	J99245G-( )	1	7-1/2
SD-95805-01, Fig. 1	J99245A	AT&TCo Std	Trunk Unit	J99245A-( )	1	7-1/2
SD-95805-01, Fig. 2	J99245B	AT&TCo Std	Radio Alm Unit	J99245B-( )	22	4
SD-95805-01, Fig. 3	J99245C	AT&TCo Std	Transfer Sig Simplex Unit	J99245C-( )	22	2

CIRCUIT DRAWING	EQUIPMENT CODE	RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CKT PER UNIT	MTG PLATES PER UNIT
SD-95805-01, Fig. 4	J99245R	AT&TCo Std	Keying Unit	J99245R-( )	4	4
SD-95807-01	J99245H	AT&TCo Std	Tone Sending & Rec Unit	J99245H-( )	1	4
SD-1G040-01, Fig. 1	J99245S	AT&TCo Std	Tst & Patch Rel Unit	J99245S-( )	8	2
SD-1G040-01, Fig. 1 & 2	J99245T	AT&TCo Std	Tst & Patch Rel Unit	J99245T-( )	6	2
SD-1G051-01, Fig. 1, 2, 10, 11, & 13	J99245K	AT&TCo Std	Rec Grp Transfer & Transfer Control Unit	J99245K-( )	1	1
SD-1G051-01, Fig. 3, 4, 10, 12, & 13	J99245N	AT&TCo Std	Rec Grp Transfer & Transfer Control Unit	J99245N-( )	1	1
SD-1G051-01, Fig. 11	J99245AC	AT&TCo Std	Transfer Control Unit	J99245AC-( )	1	1
SD-1G054-01, Fig. 1 to 5, & 7	J99245P	AT&TCo Std	Misc Unit	J99245P-( )	1	1
SD-1G054-01, Fig. 3, 4, 5, & 8	J99245AA	AT&TCo Std	Misc Unit	J99245AA-( )	1	1
SD-1G084-01, Fig. 1, 2, 3, 4, & 5	J99245AB	AT&TCo Std	Alternate Route Transfer Unit	J99245AB-( )	1	5
SD-95805-01 SD-1G051-01 SD-1G054-01 SD-1G084-01	J99245L	AT&TCo Std	Alm, Simplex, Keying, Rec Grp Transfer & Transfer Control Eqpt	J99245L-( )		
SD-95803-01 SD-1G051-01	J99245M	AT&TCo Std	Remote-Control, Rec Grp Transfer & Transfer Control Eqpt	J99245M-( )		
SD-95804-01 SD-1G040-01	J99245U	AT&TCo Std	Bay Layout for Dual-facility Trks at Direction Center	J99245U-( )		
SD-95805-01	J99245W	AT&TCo Std	Dual-facility Trk Eqpt	J99245W-( )		
SD-95805-01 SD-1G054-01	J99245Y	AT&TCo Std	Dual-facility Trk, Fuse, & Fuse Alm Eqpt	J99245Y-( )		

2. SUPPLEMENTARY INFORMATION

800-600-000 — List of General Equipment Requirement Sections
801-000-000 — Equipment Design and General Equipment Requirements and Engineering Information — Common Systems
811-012-180 — Direction Center DF Trunk
811-012-181 — Radio Site DF Trunk Performance Requirements
J68647 — AA263.020 — Voice-frequency Amplifier
J70112 — 807-170-160 — Carrier Telegraph Terminal
J98704 — 801-430-151 — Oscillator Panel
X-67471 — Manufacturing Testing Requirements for J99245H-( ) — Tone Sending and Receiving Unit

3. DRAWINGS

For additional drawings forming a part of this specification, see listings under Subdivisions of Equipment and Detailed Index.

Equipment

ED-92934-01 — Typical Bay Equipment Arrangement for Dual-facility Trunks at Radio Site

Wiring and Cabling

ED-92899-( ) — Fusing Arrangements
ED-91210-( ) — Ground Bar Assembly
ED-1G019-( ) — Cabling Plan for Cabinets — J99245L-( ) and J99245M-( )

4. EQUIPMENT

J99245A — AT&TCo Std — Trunk Unit With Slot Signaling for Dual Facility — 23 by 15 Inches High — Surface Wired

Equipment — J99245A-( )

List 1 — Framework, assembly, wiring, and equipment for one DF trunk unit per SD-95805-01, Fig. 1.

J99245B — AT&TCo Std — Radio Alarm Unit — For Dual-Facility Radio Site — Four 2- by 23-inch Mounting Plates — Surface Wired

Equipment — J99245B-( )

List 1 — Framework, assembly, wiring, and equipment for one radio alarm unit per 22 Fig. 2 of SD-95805-01.

J99245C — AT&TCo Std — Transfer Signaling Simplex Unit — For Dual-Facility Radio Site — Two 2- by 23-inch Mounting Plates — Surface Wired

Equipment — J99245C-( )

List 1 — Framework, assembly, wiring, and equipment for one transfer signaling simplex unit per 22 Fig. 3 of SD-95805-01.

J99245E — AT&TCo Std — Remote-Control Unit — For Direction Center or Radio Site — One 2- by 23-inch Mounting Plate — Surface Wired

Equipment — J99245E-( )

List 1 — Assembly, wiring, and equipment for one remote-control unit per SD-95803-01, Fig. 1.
List 2 — Wiring required in addition to list 1 for use at radio patch and test location, "Z" wiring per SD-95803-01, Fig. 1.
List 3 — Equipment and wiring required in addition to list 1 for use at radio receiver location, "Y" wiring per SD-95803-01, Fig. 1.

J99245G — AT&TCo Std — Trunk Unit — For Use With Dual-Facility Direction Center — 23 by 15 Inches High — Surface Wired

Equipment — J99245G-( )

List 1 — Framework, assembly, wiring, and equipment for one trunk unit per SD-95804-01, Fig. 1.

J99245H — AT&TCo Std — Tone Sending and Receiving Unit — For Alternate Line Transfer — 23 by 7-1/2 inches High — Surface Wired

Equipment — J99245H-( )

List 1 — Framework, assembly, wiring, and equipment for one tone sending and re-

ceiving unit per SD-95807-01, Fig. 1 through 5.

J99245K — AT&TCo Std — Receiver Group Transfer and Transfer Control Unit — For Use With Remote-Control Equipment at Radio Patch and Test Location — One 2- by 23-inch Mounting Plate — Surface Wired

Equipment — J99245K-( )

List 1 — Assembly, wiring, and equipment for one receiver group transfer unit per SD-1G051-01, Fig. 1 and 2.

List 2 — Equipment and wiring required in addition to list 1 for one transfer control circuit at the receiver location per SD-1G051-01, Fig. 10.

List 3 — Equipment and wiring required in addition to list 1 for one transfer control circuit at the telephone location per SD-1G051-01, Fig. 12.

List 4 — Equipment and wiring required in addition to list 1 for one transfer control circuit at the transmitter location per SD-1G051-01, Fig. 13.

J99245L — AT&TCo Std — Alarm, Simplex, Keying, Receiving Group Transfer and Transfer Control Equipment Layout in Steel Cabinet

Equipment — J99245L-( )

List 1 — Framework, assembly, common equipment, and local cable for one steel cabinet of equipment for radio patch and test location without group transfer or remote control.

	WIRE	EQUIP	NOTES
Radio Alarm Unit, J99245B,L1	0	1	
Radio Alm Unit, J99245B,L1	0	1	
Transfer Signal Simplex Unit, J99245C,L1	0	1	
Two-Way Trk Ckt Alm Simplex and Keying Ckt, SD-95805-01:			
Radio Alm, Fig. 2	22	0	5.06
Transfer Signal Simplex, Fig. 3	22	0	5.06
Keying Ckt, Fig. 4	32	0	5.06
Cab. Misc. Unit, J99245P,L1	0	1	
Keying Unit, J99245R,L1	0	8	A
Private Service Systems Cab. Misc Ckt, SD-1G054-01, —48V Alm Relay, Fig. 3 & Cab. Test Battery, Fig. 4	1	0	5.06

List 2 — Framework, assembly, common equipment, and local cable for one steel cabinet of equipment for radio patch and test location with group transfer and without remote control.

	WIRE	EQUIP	NOTES
Radio Alm Unit, J99245B,L1	0	1	
Two-Way Trk Ckt Alm Simplex and Keying Ckt, SD-95805-01:			
Radio Alm, Fig. 2	22	0	5.06
Transfer Signal Simplex, Fig. 3	22	0	5.06
Keying Ckt, Fig. 4	32	0	5.06
Transfer Signal Simplex Unit, J99245C,L1	0	1	
Keying Unit, J99245R,L1	0	8	A
Receiver Group Transfer and Transfer Control Unit (Without Remote Control for Receiver), J99245N,L1	0	1	
Receiver Grp Transfer Ckt, SD-1G051-01:			
Transfer Relays for Use Without Receiver Remote Control Ckt, Fig. 3 & 4	1	0	5.06
Cab Misc Unit, J99245P,L1	0	1	
Private Service Systems Cab Misc Ckt, SD-1G054-01, —48V Alm Relay, Fig. 3 and Cab Test Battery, Fig. 4	1	0	5.06

List 3 — Framework, assembly, common equipment, and local cable for one steel cabinet with remote control to receivers.

	WIRE	EQUIP	NOTES
Radio Alm Unit, J99245B, L1	0	1	
Two-Way Trunk Ckt Alm Simplex and Keying Ckts, SD-95805-01:			
Radio Alm, Fig. 2	22	0	5.06

	WIRE	EQUIP	NOTES
Transfer Signal Simplex, Fig. 3	22	0	5.06
Keying Ckt, Fig. 4	32	0	5.06
Transfer Signal Simplex Unit, J99245C,L1	0	1	
Keying Unit, J99245R,L1	0	8	B
Cab. Misc Unit, J99245P, L1 & L2	0	1	
Private Service Systems Cab. Misc Ckt, SD-1G054-01 —48V Alm Relay, Fig. 3, Cab. Test Battery, Fig. 4, & +130V Alm Relay, Fig. 5	1	0	5.06

List 5 — Equipment and wiring required in addition to list 1 or 3 when alternate route transfer is required at radio patch and test panel.

	WIRE	EQUIP	NOTES
Alternate Route Transfer, Unit, J99245AB,L2	0	1	
Alternate Route Transfer Circuit, SD-1G084-01, Fig. 1, 2, 3, 4, & 5	1	0	5.06

List 6 — Equipment and wiring required in addition to list 2 to provide for one transfer control circuit at the transmitter.

	WIRE	EQUIP	NOTES
Receiver Group Transfer & Transfer Control Unit, J99245N,L4	0	1	
Receiver Group Transfer Circuit, SD-1G051-01, Fig. 13	1	0	5.06

List 7 — Equipment and wiring required in addition to list 1 for one transfer control unit without remote-control for use at the transmitter location when the group transfer and transfer control units are at the telephone and receiver locations.

	WIRE	EQUIP	NOTES
Transfer Control Unit, J99245AC,L1	0	1	
Receiver Group Transfer Circuit, SD-1G051-01, Fig. 11	1	0	5.06

Notes

A. When list 1 or 2 is ordered, the keying units, J99245R, should be furnished with "WA" option.

B. When list 3 is ordered, the keying units, J99245R, should be furnished with "WB" option.

J99245M — AT&TCo Std — Remote-Control, Receiver Group Transfer, and Transfer Control Equipment in 7-foot, 0-inch Steel Cabinet

Equipment — J99245M-( )

List 1 — Framework, assembly, common equipment, and local cable for one steel cabinet of equipment for use at radio patch and test location when remote-control circuits are used with receivers without receiver group transfer.

	WIRE	EQUIP	NOTES
Remote-Control Unit, J99245E,L1 and L2	0	32	
Remote-Control Circuit SD-95803-01, Fig. 1	32	0	5.06

List 2 — Framework, assembly, common equipment, and local cable for one steel cabinet of equipment for use at radio patch and test location when remote-control circuits are used with receivers with receiver group transfer.

	WIRE	EQUIP	NOTES
Remote-Control Unit, J99245E,L1 and L2	32	32	
Receiver Group Transfer Unit, J99245K,L1	1	1	

List 3 — Framework, assembly, common equipment, and local cable for one steel cabinet of equipment for use at receiver location when receiver group transfer is not required.

	WIRE	EQUIP	NOTES
Remote-Control Unit, J99245E,L1 and L3	0	32	
Remote-Control Circuit, SD-95803-01, Fig. 1	32	0	5.06

List 5 — Equipment and wiring required in addition to list 2 for one transfer control circuit at the radio patch and test location.

	WIRE	EQUIP	NOTES
Receiver Group Transfer & Transfer Control Unit, J99245K,L4	0	1	
Receiver Group Transfer Circuit, SD-1G051-01, Fig. 13	1	0	5.06

List 6 — Equipment and wiring required in addition to list 1 for one transfer control circuit at the radio patch and test location when the group transfer and control circuits are located at the telephone and receiver locations.

	WIRE	EQUIP	NOTES
Transfer Control Unit, J99245AC,L1	0	1	
Transfer Control Circuit, SD-1G051-01, Fig. 11	1	0	5.06

List 7 — Framework, assembly, common equipment, and local cable for one steel cabinet of equipment for use at the receiver location to provide group transfer and transfer control circuits with remote control when the associated distant group transfer and transfer control circuits are located at the telephone or transmitter locations.

	WIRE	EQUIP	NOTES
Receiver Group Transfer & Transfer Control Unit, J99245K,L1 & L2	0	1	
Receiver Group Transfer & Transfer Control Circuit, SD-1G051-01, Fig. 1, 2, & 10	1	0	5.06
Remote Control Unit, J99245E,L1 & L3	0	32	
Remote Control Circuit, SD-95803-01, Fig. 1	32	0	5.06

List 8 — Equipment and wiring required for a field modification of list 4 to provide group transfer by the operation of a key at the radio patch and test location. The 212B switches shall be replaced by the group transfer and transfer control unit when the associated distant group transfer and transfer control circuits are located at the transmitter location.

	WIRE	EQUIP	NOTES
Receiver Group Transfer & Transfer Control Unit, J99245K,L1 & L2	0	1	
Receiver Group Transfer & Transfer Control Circuit, SD-1G051-01, Fig. 1, 2, & 10	1	0	5.06

J99245N — AT&TCo Std — Receiver Group Transfer and Transfer Control Unit — For Use Without Remote-Control Equipment at Radio Patch and Test Location — One 2- by 23-inch Mounting Plate — Surface Wired

Equipment — J99245N-( )

List 1 — Assembly, wiring, and equipment for one receiver group transfer unit per SD-1G051-01, Fig. 3 and 4.

List 2 — Equipment and wiring required in addition to list 1 for one transfer control circuit at the receiver location per SD-1G051-01, Fig. 10.

List 3 — Equipment and wiring required in addition to list 1 for one transfer control circuit at the telephone location per SD-1G051-01, Fig. 12.

List 4 — Equipment and wiring required in addition to list 1 for one transfer control circuit at the transmitter location per SD-1G051-01, Fig. 13.

J99245P — AT&TCo Std — Miscellaneous Unit for Use at Radio Patch Location — One 2- by 23-inch Mounting Plate

Equipment — J99245P-( )

List 1 — Assembly, wiring, and equipment for one cabinet miscellaneous unit per SD-1G054-01, Fig. 3 and 4 for —48 volt fuse alarm and test battery.

List 2 — Equipment and wiring required in addition to list 1 for +130 volt fuse alarm relay per SD-1G054-01, Fig. 5.

J99245R — AT&TCo Std — Keying Unit for Dual-Facility and Common User

Group Radio Site — Two 2- by 23-inch Mounting Plates — Surface Wired

Equipment — J99245R-( )

List 1 — Assembly, wiring, and equipment for one keying unit per SD-95805-01, four Fig. 4.

J99245S — AT&TCo Std — Test and Patch Relay Unit (At First and Third Bays Associated With a Site) — For Use With Dual-Facility Trunks — Two 2- by 23-inch Mounting Plates — Surface Wired

Equipment — J99245S-( )

List 1 — Assembly, wiring, and equipment for one test and patch relay unit per SD-1G040-01, eight Fig. 1.

J99245T — AT&TCo Std — Test and Patch Relay Unit (At Second Bay Associated With a Site) — For Use With Dual-Facility Trunks — Two 2- by 23-inch Mounting Plates — Surface Wired

Equipment — J99245T-( )

List 1 — Assembly, wiring, and equipment for one test and patch relay unit per SD-1G040-01, six Fig. 1 and one Fig. 2.

J99245U — AT&TCo Std — Bay Layout for Dual-Facility Trunks at Direction Center

Equipment and Local Cable — J99245U-( )

List 1 — Framework and common equipment required to provide for a dual-facility trunk bay arrangement. (See Note A.)

List 2 — Equipment, assembly, and wiring required in addition to list 1 to provide eight dual-facility trunk units and a test and patch relay unit for the first and third bays associated with a site.

	WIRE	EQUIP	NOTES
Trunk Unit, J99245G,L1	0	8	
Two-way Trunk Circuit, SD-95804-01, Fig. 1	8	0	5.06
Test and Patch Relay Unit, J99245S,L1	0	1	
Test and Patch Relay Circuit, SD-1G040-01, Fig. 1	8	0	5.06

List 3 — Equipment, assembly, and wiring required in addition to list 1 to provide seven, including one spare, dual-facility trunk units, and a test and patch relay unit for the second bay associated with a site.

	WIRE	EQUIP	NOTES
Trunk Unit, J99245G,L1	0	7	
Two-way Trunk Circuit, SD-95804-01, Fig. 1	7	0	5.06
Test and Patch Relay Unit, J99245T,L1	0	1	
Test and Patch Relay Circuit, SD-1G040-01:			5.06
Fig. 1	6	0	
Fig. 2	1	0	

Note

A. When the bay is to be used at a tandem point, furnish "Y" wiring. When the bay is used at a direction center, furnish "Z" wiring.

J99245W — AT&TCo Std — Dual-Facility Trunk Equipment in 7-foot 0-inch Cabinet for Use When Radio Site Is on Base With Direction Center

Equipment — J99245W-( )

List 1 — Framework, assembly, and equipment for one 7-foot, 0-inch cabinet for use when radio site is on base with direction center.

	WIRE	EQUIP	NOTES
Dual-Facility Trunk Unit, J99245A,L1	0	5	
Two-way Trunk Circuit, SD-95805-01, Fig. 1	5	0	5.06

J99245Y — AT&TCo Std — Dual-Facility Trunk, Fuse, and Fuse Alarm Equipment in 7-foot, 0-inch Cabinet for Use When Radio Site Is on Base With Direction Center

Equipment — J99245Y-( )

List 1 — Framework, assembly, wiring, and equipment for one 7-foot, 0-inch cabinet for use when radio site is on base with direction center.

	WIRE	EQUIP	NOTES
Dual-Facility Trunk Unit, J99245A,L1	0	3	A
Two-way Trunk Circuit, SD-95805-01, Fig. 1	3	0	5.06
Cabinet Miscellaneous Unit, J99245AA,L1,L2, & L3	0	1	
Cabinet Miscellaneous Circuit, SD-1G054-01:			5.06
Fig. 1,3,4,5,7, & 8	1	0	
Fig. 2	5	0	
Fig. 6	2	0	

Note

A. The shop wiring within the cabinet will consist of all battery leads to the DF trunk units and the fuse alarm lamp leads.

J99245AA — AT&TCo Std — Miscellaneous Unit — One 2- by 23-inch Mounting Plate — Surface Wired

Equipment — J99245AA-( )

List 1 — Assembly, equipment, and wiring for —48 volt fuse alarm and test battery per SD-1G054-01, Fig. 3 and 4.

List 2 — Equipment and wiring required in addition to list 1 to provide —24 volt fuse alarm per SD-1G054-01, Fig. 8.

List 3 — Equipment and wiring required in addition to list 2 to provide +130 volt fuse alarm per SD-1G054-01, Fig. 5.

J99245AB — AT&TCo Std — Alternate Route Transfer Unit for Use at Telephone or Radio Patch and Test Location — 23 by 8-3/16 inches High Surface Wired

Equipment — J99245AB-( )

List 1 — Framework, assembly, wiring, and equipment for one alternate route transfer unit at the telephone building per "Z" wiring, SD-1G084-01, one Fig. 1, 3, 4, and 5 and three Fig. 2.

List 2 — Framework, assembly, wiring, and equipment for one alternate route transfer unit at the radio patch and test location per "Y" wiring, SD-1G084-01, one Fig. 1, 3, 4, and 5, and three Fig. 2.

J99245AC — AT&TCo Std — Transfer Control Unit for Use at Transmitter Location With or Without Remote Control — One 2- by 23-inch Mounting Plate — Surface Wired

Equipment — J99245AC-( )

List 1 — Assembly, equipment, and wiring for one transfer control unit with or without remote control at the transmitter per SD-1G051-01, Fig. 11.

5. GENERAL NOTES

Equipment

5.01 Three bays of dual-facility trunk equipment are required at a direction center to provide facilities for one radio site. The trunk equipment on the bays will be numbered from bottom up, left to right.

5.02 When the two 7-foot, 0-inch steel cabinets at the radio patch and test location are provided, they shall be located adjacent to each other, with the J99245L cabinet to the left of the J99245M cabinet.

5.03 When the radio site is on base with the direction center, one J99245Y and four J99245W cabinets will be required to mount the DF trunk units and fuse equipment. These cabinets should be located adjacent to each other in the same line-up.

5.04 All the J-coded units covered by this specification shall be surface wired except as indicated.

5.05 Local cable wiring for the J99245L cabinet will be No. 24C wire except battery and ground which is to be No. 22C wire. All local cable wiring for the J99245M cabinet and J99245U bay layout will be No. 24C wire. Local cable wiring for the J99245Y cabinet shall be No. 22C wire for all battery leads except filament leads which are to be No. 20 gauge.

5.06 Interconnecting wiring only.

5.07 Code J99245F is unassigned.

List of A&M Only and Mfr Disc. Equipment

EQUIPMENT	RATING	DETAILS LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
J99245D	Mfr Disc.	1	J99245R
J99245J	Mfr Disc.	1	J99245R
J99245L,L4	Mfr Disc.	1	—
J99245M,L4	Mfr Disc.	1	J99245M,L7

The above equipment has been replaced as indicated. Where A&M Only items appear, the issue numbers shown are those of the issue in which the rating was first applied.

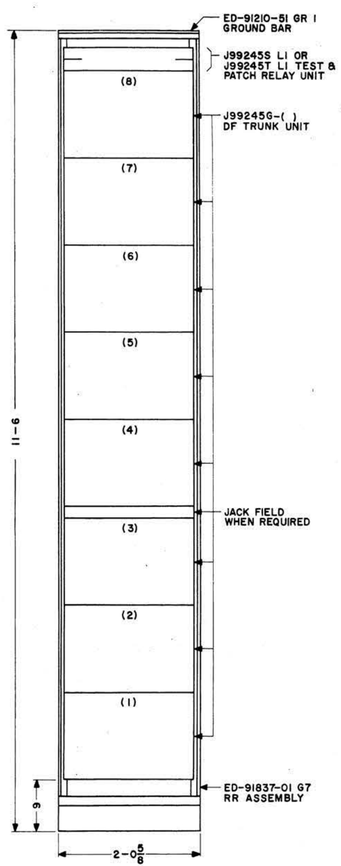


FIG. 1 J99245U-( ) FOR DF TRUNK UNITS AT DIRECTION CENTER

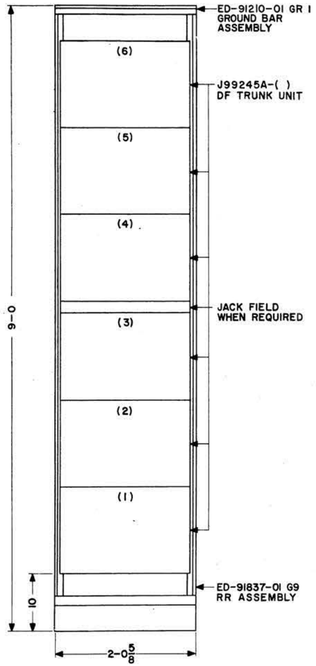


FIG. 2 ED-92934-01 TYPICAL BAY EQUIPMENT ARRANGEMENT OF DF TRUNK UNITS AT RADIO SITE

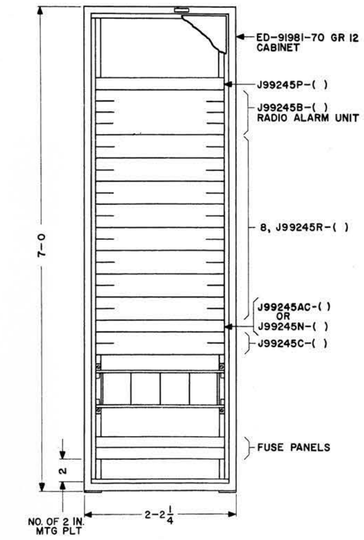


FIG. 3 J99245L-( ) ALARM, SIMPLEX KEYING AND RECEIVER GROUP TRANSFER CABINET AT RADIO PATCH AND TEST LOCATION ON RADIO SITE

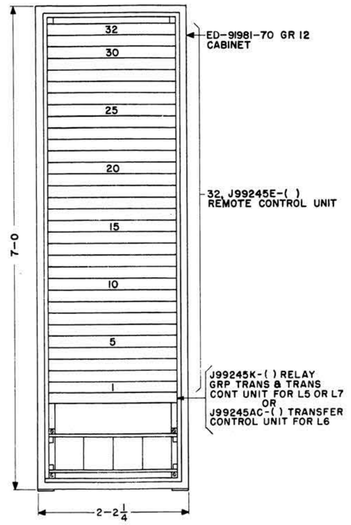
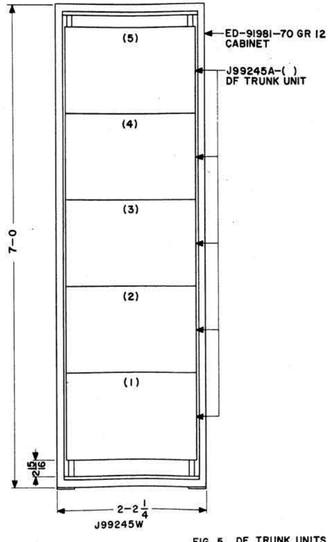


FIG. 4 J99245M-( ) REMOTE CONTROL AND GROUP TRANSFER CABINET AT RADIO PATCH AND TEST LOCATION ON RADIO SITE AND AT RECEIVER LOCATION



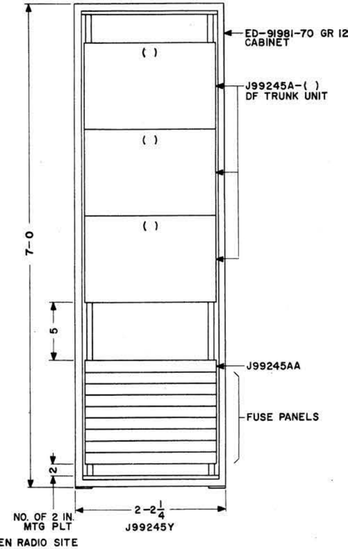


FIG. 5 DF TRUNK UNITS FOR USE WHEN RADIO SITE IS ON BASE WITH DIRECTION CENTER