J68386G AND J68386H TRANSMITTER-RECEIVER BAYS
TURNON AND TURNOFF PROCEDURES
TD-3 MICROWAVE RADIO

This section contains the procedures for removal and restoration of service for a radio channel and removal and application of dc power for a repeater station bay, main station transmitter, and main station receiver.

This section is reissued to add Charts 3 and 5 pertaining to removal and application of dc power for a repeater station bay and main station transmitter equipped with 660( ) integrated circuit [660( ) IC] RF amplifiers.

Since this is a general revision, arrows ordinarily used to emphasize the more significant changes, have been omitted.

CHART **PAGE**

CHART 1

SERVICE PROTECTION AND ALARM PROCEDURES

This procedure is used to remove a bay from service and return it to service. These are suggested procedures and are not intended to substitute for established local practice unless so desired. In some cases, the whole bay need not be removed from service. In a main station, the transmitter and receiver section may be removed independently. For hot standby/space diversity switching, the service must be forced to either the regular or standby bay. Refer to Section 411-600-500 for the procedure to operate the SWITCH CONTROL panel.

STEP	PROCEDURE
	A. Removal From Service
1	Obtain a release from the proper control office and have the service transferred to another channel.
2	In coordination with the alarm center, set the alarm panel ALM PWR circuit breaker to the OFF position on the radio bay that is to be removed from service.
3	Depress the ACO pushbutton.
	Requirement: The ABS lamp on the alarm panel will be lighted and an alarm will be extended to the alarm center. (The alarm center attendant will scan the alarm and receive a positive identification of the bay originating the alarm.)
	Note: No further alarms will be originated from the bay until the ALM PWR circuit breaker is turned on again.
	B. Placing Into Service
4	Set the ALM PWR circuit breaker to the ON position.
5	Verify that no alarms are being transmitted to the alarm center.
	If the alarm center is receiving any alarms, clear the trouble condition using locally established procedures for the alarm received.
6	In coordination with the control office, restore the regular service to the bay under test.

CHART 2

REMOVAL AND APPLICATION OF DC POWER FOR A REPEATER STATION BAY EQUIPPED WITH TWT AMPLIFIER

Note 1: If equipped for hot standby/space diversity operation, the RCVR PWR circuit breaker in the standby bay also controls the −24 volts to the RF switch. If the RCVR PWR switch in the standby bay is turned off, the RF switch will no longer switch but it will maintain the RF connection established before the standby RCVR PWR switch is turned off.

Note 2: For hot standby/space diversity switching, the IF switch is powered from both the regular and standby bays. The IF switch will continue to operate if the RCVR PWR switch in one of the bays is turned off.

STEP	PROCEDURE
	A. Turnoff Procedure
1	Set the RCVR PWR switch on the bay to the OFF position.
2	Set the INPUT-HELIX-ANODE switch on the TWT power supply to the OFF position.
	Danger: To avoid a radiation hazard, verify that open waveguides are suitably terminated before proceeding with the turnon procedure.
	B. Turnon Procedure
3	Set the INPUT-HELIX-ANODE switch on the TWT power supply to the ON position.
	Requirement: The TWT WARM-UP lamp will be lighted for approximately three minutes and then extinguish.
4	Set the RCVR PWR switch on the bay to the ON position after the WARM-UP lamp extinguishes.

CHART 3

REMOVAL AND APPLICATION OF DC POWER FOR A REPEATER STATION BAY EQUIPPED WITH 660( ) IC RF AMPLIFIER

Note 1: If equipped for hot standby/space diversity operation, the RCVR PWR circuit breaker in the standby bay also controls the −24 volts to the RF switch. If the RCVR PWR switch in the standby bay

CHART 3 (Contd)

is turned off, the RF switch will no longer switch but it will maintain the RF connection established before the standby RCVR PWR switch is turned off.

Note 2: For hot standby/space diversity switching, the IF switch is powered from both the regular and standby bays. The IF switch will continue to operate if the RCVR PWR switch in one of the bays is turned off.

STEP	PROCEDURE
	A. Turnoff Procedure
1	Set the RCVR PWR switch on the bay to the OFF position
2	Disconnect the multipin cable connected to the 660( ) IC RF power amplifier.
	Danger: To avoid a radiation hazard, verify that open waveguides are suitably terminated before proceeding with the turnon procedure.
	B. Turnon Procedure
3	Reconnect the multipin connector to the 660( ) IC RF power amplifier and allow a 5-minute warm-up time before proceeding to the next step.
4	Set the RCVR PWR switch on the bay to the ON position.

CHART 4

REMOVAL AND APPLICATION OF DC POWER FOR A MAIN STATION TRANSMITTER EQUIPPED WITH TWT AMPLIFIER

Note 1: In a main station bay, the power for the transmitter and receiver sections is controlled by separate circuit breakers. This feature enables a main station bay to be operated as a receive-or-transmit-only bay while the other section is turned off or is under test.

Note 2: If equipped for hot standby/space diversity operation, the TRMTR PWR circuit breaker in the standby bay also controls the −24 volts to the RF switch. If the TRMTR PWR switch in the standby bay is turned off, the RF switch will no longer switch but it will maintain the RF connection established before the standby TRMTR PWR switch is turned off.

CHART 4 (Contd)

STEP	PROCEDURE
	A. Turnoff Procedure
1	Set the TRMTR PWR switch on the bay to the OFF position.
2	Set the INPUT-HELIX-ANODE switch on the TWT power supply to the OFF position.
	Danger: To avoid a radiation hazard, verify that open waveguides are suitably terminated before proceeding with the turnon procedure.
	B. Turnon Procedure
3	Set the INPUT-HELIX-ANODE switch on the TWT power supply to the ON position.
	Requirement: The TWT WARM-UP lamp will be lighted for approximately three minutes and then extinguish.
4	Set the RCVR PWR switch on the bay to the ON position after the WARM-UP lamp extinguishes.

CHART 5

REMOVAL AND APPLICATION OF DC POWER FOR A MAIN STATION TRANSMITTER EQUIPPED WITH 660( ) IC RF AMPLIFIER

Note 1: In a main station bay, the power for the transmitter and receiver sections is controlled by separate circuit breakers. This feature enables a main station bay to be operated as a receive-or-transmit-only bay while the other section is turned off or is under test.

Note 2: If equipped for hot standby/space diversity operation, the TRMTR PWR circuit breaker in the standby bay also controls the −24 volts to the RF switch. If the TRMTR PWR switch in the standby bay is turned off, the RF switch will no longer switch but it will maintain the RF connection established before the standby TRMTR PWR switch is turned off.

CHART 5 (Contd)

STEP	PROCEDURE
	A. Turnoff Procedure
1	Set the TRMTR PWR switch on the bay to the OFF position.
2	Disconnect the multipin cable connected to the 660( ) IC RF power amplifier.
	Danger: To avoid a radiation hazard, verify that open waveguides are suitably terminated before proceeding with the turnon procedure.
	B. Turnon Procedure
3	Reconnect the multipin connector to the 660( ) IC RF power amplifier and allow a 5-minute warm-up time before proceeding to the next step.
4	Set the TRMTR PWR switch on the bay to the ON position.

CHART 6

REMOVAL AND APPLICATION OF DC POWER FOR A MAIN STATION RECEIVER

STEP	PROCEDURE
	A. Turnoff Procedure
1	Set the RCVR PWR switch on the bay to the OFF position
	Note: For hot standby/space diversity switching, the IF switch is powered by both the regular and standby receivers. The IF switch will continue to operate if one of the receivers is turned off.
	B. Turnon Procedure
2	Set the RCVR PWR switch on the bay to the ON position.