

TYPE N2 CARRIER TELEPHONE SYSTEM
TRANSMITTING AND RECEIVING GROUP UNITS
SWITCHING

The substitution of an alternate transmitting or receiving group unit for a working transmitting or receiving group unit may be done, without interruption to service on the system, by the use of a switching circuit. This substitution facilitates the maintenance of the N2 carrier system. To replace a group unit, the N2 switching set is connected to one of the switching jacks on the line terminating unit. A connection is also made to the alarm unit to supply power to the switching set and to the alternate group unit which is plugged into the switching set. A control is provided for adjusting the gain of the alternate unit to match that of the working unit. A key in the switching set provides means for switching back and forth between the regular and alternate group units. Caution should be exercised in following the operational procedures to avoid errors and thus prevent excessive hits on the system.

APPARATUS:

- 1 — Group Unit (same type as unit to be switched)
- 1 — N2 Switching Set (J99272U)
- 1 — 2J Repeater Test Set (J94002J)
- 7 — Equalizers, 364A through G
- 2 — 1W13A Cords equipped with P-36A918 cord tips (used to connect 2J test set to group outputs on N2 switching set)

STEP	PROCEDURE	
	<i>Switching Transmitting Group</i>	<i>Switching Receiving Group</i>
1	Determine the type of unit to be switched, H1 GRP XMTR or LO GRP XMTR.	Determine the type of unit to be switched, H1 GRP RCVR or LO GRP RCVR.
2	Remove the Y wiring by removing the strap across resistor R18 to increase the gain of the alternate group unit.	Wire for Y option which replaces the thermistor with R28 to increase the gain of the alternate group unit.
3	Plug the same code of 364-type equalizer in the alternate unit as is in the regular unit. Secure the equalizer in place by means of the locking screw.	Plug the same code of 364-type equalizer in the alternate unit as is in the regular unit. Secure the equalizer in place by means of the locking screw. Set the SLOPE control on the alternate group unit to the same position as on the regular unit.
4	Plug the alternate unit into the N2 switching set.	Plug the alternate unit into the N2 switching set.
5	Check that the switching key on the N2 set is in REG position.	Check that the switching key on the N2 set is in REG position.

STEP	PROCEDURE	
	<i>Switching Transmitting Group</i>	<i>Switching Receiving Group</i>
6	Connect the switching set cord to the TEST PWR jack of the alarm unit on the terminal bay.	Connect the switching set cord to the TEST PWR jack of the alarm unit on the terminal bay.
7	Remove one shorting plug from either XMTR jack J1 or J2 on the line terminating unit, and connect the switching set cord to the vacated jack. Remove the other shorting plug from J1 or J2.	Remove one shorting plug from either RCVR jack J3 or J4 on the line terminating unit, and connect the switching set cord to the vacated jack. Remove the other shorting plug from J3 or J4.
8	Using the 1W13A cords, connect the DBM jacks of the 2J test set to the REG OUT jacks of the N2 switching set, and measure the total power output of the regular group unit.	
9	Remove the test cords from the REG OUT jacks and connect to the ALT OUT jacks; measure the total power output of the alternate group unit. Adjust the GAIN control on the N2 switching set to make the output power of the alternate unit equal to the regular unit output power.	
10	Operate the switching key to the ALT position, and remove the regular unit from its mounting.	
11	Place a good spare group unit of the same type in the terminal mounting after checking that the 364-type equalizer is the same as the one in the unit being replaced and that the unit has the proper X wiring for a transmitting group unit, or that the thermistor is wired in place of R28 for a receiving group unit. Also check that the locking screw is in place to secure the equalizer. If the unit is a receiving group unit, check that the SLOPE adjustment is set correctly.	
12	With a 2J test set measure the total power output as in Steps 8 and 9, and equalize the power levels by means of the GAIN control on the N2 switching set. If the unit is a receiving group unit, first allow time for regulation to its nominal output (10 to 20 minutes). The ALT OUT power adjustment should be made slowly and carefully because the alternate unit is now in the system.	
13	Operate the switching key to the REG position, and replace one shorting plug in the vacant switching jack on the line terminating unit.	
14	Remove the switching set cord from the switching jack on the line terminating unit and replace it with the other shorting plug.	
15	Disconnect the switching set cord from the TEST PWR jack on the alarm unit, and remove the alternate group unit from the N2 switching set.	