Addendum #3 to
GPT-10K Maintenance
Manual (IN-316)

MODIFICATION OF

POWER-INPUT CIRCUITS

Power-input circuits of the GPT-10K transmitter have been modified to accept high-voltage or low-voltage, 50 or 60, cps input power.

When the items listed below are incorporated in text, the GPT-10K instruction manual (IN-316) will apply as written.

1. Because Elapsed Time Meter M700 located on the relay panel is a 60 cps device, it is only 83-1/3% accurate when the transmitter is operated on 50 cps power. In order to calculate the correct elapsed time for 50 cps power, multiply the time indicated on meter M7601 by 6/5.

2. Page 1-1. Table 1-1.

   Change entry for high voltage rectifier to read:

   High Voltage Rectifier AX-103
   or
   High Voltage Rectifier, Model HVRC-2

3. Page 1-2.

   Change to read:

   (5) 10-kw High Voltage Rectifier. - The 10-kw high voltage rectifier, slide-mounted below the main power panel, provides +7500 vdc for the plate of the 10-kw PA tube. The unit also provides half-wave rectification for the 3200-volt section of the main power supply. Either a gaseous-tube unit (High Voltage Rectifier AX-103) or a solid-state unit (High Voltage Rectifier, Model HVRC-2) is supplied. Heavy

insulated button connectors at the rear of the unit provide quick disconnection for drawer removal.

4. Page 1-3. TECHNICAL CHARACTERISTICS (Cont'd)

Change to read:

Primary power requirements (including exciter)	3-phase, 195-240/ 390-480v, 50-60 cps, 50/25 amperes/phase

5. Tables 1-2 (ELECTRON TUBE COMPLEMENT), 1-3 (DIODE COMPLEMENT), and 1-4 (FUSE COMPLEMENT) on page 1-3 should be changed as indicated below:

a. Table 1-2.
Add asterisk (*) adjacent V600-V605

b. Table 1-4.
Add asterisk (*) adjacent F600-F605

c. Table 1-3.
Add:

REFERENCE SYMBOL	TYPE
*CR1501, CR1502, CR1503	DD117

d. Add footnote on bottom of page 1-3.

*Tubes V600-V605 and Fuses F600-F605 are part of High Voltage Rectifier AX-103. Diode assemblies CR1501-CR1503 are part of High Voltage Rectifier, Model HVRC-2.

6. Page 2-0. 2-1. OVERALL BLOCK DIAGRAM ANALYSIS

The third paragraph should be changed to read:

The 10-kw high voltage rectifier functions together with Main Power Panel AX-504 and Main Power Supply AX-138 to produce high d-c voltages required by the 1-kw IPA and 10-kw PA.

7. Page 2-1.

Remove page 2-1 of the manual and replace with page 2-1 provided with this addendum.

8. Page 2-18.

The title of paragraph 2-10 should be changed to read:

10-KW HIGH VOLTAGE RECTIFIER AND MAIN POWER SUPPLY.

9. Page 2-18. a. POWER INPUT CIRCUITS.

The first and second sub-paragraphs should be changed to read:

Three-phase a-c power enters the main frame of the transmitter via auto transformer T802. The output of T802 (230 vac) is routed to MAIN POWER circuit breaker CB1000. Phase-2 and phase-3 voltages from T802 are routed to the auxiliary frame. Both of these power distribution lines have pi-type r-f filters.

In the auxiliary frame, AUXILIARY FRAME MAIN POWER circuit breaker CB3000 applies the 230-volt output of T802 to a step-down transformer. In synthesized transmitters, an auto transformer T3002 is supplied; in non-synthesized transmitters, a regulating transformer T3000 is supplied. The output of the step-down transformer (115 vac) is routed to the exciter units. This 115 vac power is also routed to Front Fan B3000 via FRONT FAN fuse F3000. Capacitor C3018 is used for starting the fan motor.

10. Page 2-20. b. HIGH VOLTAGE RECTIFIER CIRCUIT.

The first and second sub-paragraphs should be changed to read:

The 10-kw high voltage rectifier contains a 3-phase bridge circuit that provides +7500 vdc output. Either a gaseous-tube or solid-state rectifier is supplied. (Refer to applicable equipment manual.)

The high-voltage rectifier also provides half-wave rectification for the 3200-volt circuit. This output is taken from the neutral terminal of transformer T800. Three-phase high voltage input to the high-voltage rectifier is via terminals E1004, E1005, and E1006. Output from the rectifier is via terminals E1001 and E1007. When a gaseous-tube rectifier is used, filament primary voltage is routed via terminals E1002 and E1003.

11. Page 2-21.

The following note should be added to figure 2-12.

NOTE

For the schematic diagram of the solid-state rectifier, refer to the HVRC-2 instruction manual.

12. Page 3-12. Table 3-4.

The "NOTE" contained in table 3-4 (page 3-12) should be changed to read:

NOTE

Make the following short-circuit tests on High-Voltage Rectifier AX-103 only. For troubleshooting information pertaining to the solid-state power supply, refer to the HVRC-2 instruction manual.

13. Page 3-23. Paragraph 3-8 (HIGH VOLTAGE RECTIFIER AX-103 AND MAIN POWER SUPPLY)

The following note should be added to paragraph 3-8:

NOTE

Troubleshooting information pertaining to the solid-state power supply is contained in the HVRC-2 manual.