

**ARMY TM 11-5815-206-34
AIR FORCE TO 31W4-2PGC1-62**

DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL

TELETYPEWRITER SETS

AN/PGC-1 (NSN 5815-00-198-5963)

AN/PGC-3 (NSN 5815-01-012-8773)

AND

TELETYPEWRITERS

TT-4A/TG (NSN 5815-00-198-4438) TT-4B/TG (NSN 5815-00-198-4438)

TT-4C/TG (NSN 5815-00-198-4438) TT-335/TG (NSN 5815-00-878-8449)

TT-537/G (NSN 5815-00-926-7378) TT-698/TG (NSN 5815-01-008-9628)

TT-698A/TG (NSN 5815-01-008-9628) TT-698B/TG (NSN 5815-01-008-9628)

TT-722/TG AND TT-722A/TG

(NSN 5815-01-017-9172)

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AND THE AIR FORCE

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**DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL
TELETYPEWRITER SETS AN/PGC-1 (NSN 5815-00-198-5963),
AN/PGC-3 (NSN 5815-00-012-8773),
AND TELETYPEWRITERS TT-4A/TG, TT-4B/TG, TT-4C/TG
(NSN 5815-00-198-4438),
TT-335/TG (NSN 5815-00-878-8449), TT-537/G
(NSN 5815-00-926-7378), TT-698/TG,
TT-698A/TG, TT-698B/TG (NSN 5815-01-008-9628),
TT-722/TG AND TT-722A/TG
(NSN 5815-01-017-9172)**

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CHAPTER 1

INTRODUCTION

1-1. Scope

a. This manual covers direct support, general support, and maintenance of Teletypewriter TT-4A/TG, TT-4B/TG, TT-4C/TG, TT-335/TG, TT-537/G, TT-698/TG, TT-698A/TG, TT-698B/TG, TT-722/TG and TT-722A/TG. It describes detailed functions of the set and includes instructions for lubrication, troubleshooting, part replacement, adjustment, and testing the equipment. It also lists tools, materials and test equipment required for these echelons of maintenance.

b. Official nomenclature followed by (*) is used to indicate all models of the equipment item covered in this manual. Thus, Teletypewriter TT-4(*)/TG represents Teletypewriters TT-4A/TG and TT-4B/TG, TT-4C/TG, and Case CY-694(*)/PGC-1 represents Cases CY-694/PCG-1 and Cy-694A/PGC-1. The complete instructions for this equipment include the information in this manual and the information in TM 11-5815-206-12.

c. Teletypewriters modified for low level signaling operation have nomenclature changes as follows:

High level signaling		Low level signaling
TT-4A/FG	becomes	TT-698/TG
TT-4B/FG	becomes	TT-698A/TG
TT-4C/FG	becomes	TT-698B/TG

- High level teletypewriters operate with line currents of 20 or 60 milliamperes.
- Low level teletypewriters operate with line currents of 100 micro-amperes or less.
- Although the TT-698(*)/TG low level teletypewriters use polar signal transmission, neutral keying of the selector magnet is maintained.

1-2. Indexes of Publications

a. *DA Pam 310-4*. Refer to the latest issue of DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. *DA Pam 310-7*. Refer to DA Pam 310-7 to determine whether there are modification work orders (MWO's) pertaining to the equipment.

1-3. Forms and Records

a. *Reports of Maintenance and Unsatisfactory Equipment*. Maintenance forms, records, and reports which are to be used by maintenance personnel at all maintenance levels are listed in and prescribed by TM 38-750 (Army). Air Force

personnel will use AFM 66-1 for maintenance reporting and TO-00-35D54 for unsatisfactory equipment reporting. Navy personnel will report maintenance performed utilizing the Maintenance Data Collection Subsystem (MDCS) in accordance with OPNAVINST 4790.2, Vol 3 and unsatisfactory material/conditions (UR submissions) in accordance with OPNAVINST 4790.2, Vol 2, chapter 17.

b. *Report of Packaging and Handling Deficiencies*. Fill out and forward DD Form 6 (Packaging Improvement Report) as prescribed in AR 700-58/NAVSUPINST 4030.29/AFR 71-13/MCO P4030.29A, and DSAR 4145.8.

c. *Discrepancy in Shipment Report (DISREP) (SF361)*. Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33A/AFR 75-18/MCO P4610.19B, and DSAR 4500.15.

Figure 1-1. DA Form 2028-2 (TEST) – Sample.

(Located in back of manual.)

1-3.1 Reporting Equipment Improvement Recommendations (EIR)

a. *Army*. EIR's will be prepared using DA Form 2407, Maintenance Request. Instructions for preparing EIR's are provided in TM 38-750, the Army Maintenance Management System. EIR's should be mailed direct to Commander, US Army Electronics Command, ATTN: DRSEL-MA-Q, Fort Monmouth, New Jersey 07703. A reply will be furnished direct to you.

b. *Air Force*. Air Force personnel are encouraged to submit EIR's in accordance with AFM 900-4.

1-3.2. Administrative Storage

For procedures; forms and records, and inspections required during administrative storage of this equipment, refer to TM 740-90-1.

1-3.3. Destruction of Army Electronic Materiel

Demolition and destruction of electronic equipment will be under the direction of the commander and in accordance with TM 750-244-2.

1-4. Differences in Models

Internal differences in models which affect field maintenance are described in the table below. Differences that affect operator's and organizational maintenance of the equipment are covered in TM 11-5815-206-12.

Item	Teletypewriters					
	TT-4A / TG *TT-698 / TG	TT-4B / TG *TT-698A / TG **TT-722/TG	TT-4B / TG, Order No. 19330-Philis-69 **TT-722/TG	TT-4C / TG *TT-698B / TG **TT-722A/TG	TT-335 / TG	TT-337 / G
Transmitter filter (Not applicable to TT-698(*)/TG)	Two-path filter (Fig. 2-65)	Three-path transmitter filter (fig. 2-66).	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.
Noise Suppressor (TT-698(*)/TG only)	Two-path filter (replaces transmitter filter)	Same as TT-698/TG		Same as TT-698/TG		
Transmitter Contacts	Mechanical Switch	Same as TT-4A/TG		Same as TT-4A/TG	Same as TT-4A/TG	Same as TT-4A/TG
Transmitter Module (TT-698(*)/TG only)	Installed in Low Level units send circuit to pro- duce 6V polar signals.	Same as TT-698/TG		Same as TT-698/TG	Not Used	Not Used
Receiver Module (TT-698(*)/TG only)	Installed in Low Level units receive circuit to accept 6V polar signals.	Same as TT-698/TG		Same as TT-698/TG	Not Used	Not Used
TD Clutch/Selector Mag- net Driver Module (TT-698(*)/TG only)	Installed in low level units receive circuit to drive the selector magnet.	Same as TT-698/TG		Same as TT-698/TG	Not Used	Not Used
30VDC Power Supply (TT-698(*)/TG only)	Installed in low level units to supply DC power to modules.	Same as TT-698/TG		Same as TT-698/TG	Not Used	Not Used
Shaft bearing mounts	Screws and washers used to hold bearings in main frame assembly (fig. 3-67).	Bearing caps used to hold bearings in main frame assembly (fig. 3-68).	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.
Friction Clutches	Include solid friction- adjusting collar (B, fig. 2-11).	Included split friction- adjusting collar (A, fig. 2-11).	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.
Carriage-feed and car- riage-return blocking lever adjustment.	Adjusting stud used to adjust carriage-feed and carriage-return blocking levers (fig. 2-41).	Carriage-return blocking adjusting collar and carriage-feed blocking adjusting plate used to adjust carriage-feed and carriage-return blocking levers (fig. 2-40).	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.
Transfer-lever-spring post.	Nonadjustable.	Eccentric spring post ad- justable (fig. 3-115).	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.
Code-ring cage assembly.	Does not include adjust- able function stop-bar fulcrums or code-ring locking-bail mechanism (fig. 3-56).	Includes adjustable func- tion stop-bar fulcrums and code-ring locking- bail mechanism (fig. 3-56).	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.
Method of holding Y-levers in selected position.	Friction plates used (fig. 3-40).	Y-lever detents and springs used (fig. 3-41).	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.
Device for stabilizing re- lationship of Y-lever pivot stud and Y-lever eccentric stop.	Not included.	Eccentric tie, stud brack- et, and spacer used (fig. 3-41).	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.	Same as TT-4B/TG.

Footnote at 'as end of table