

TECHNICAL MANUAL
OPERATOR'S, ORGANIZATIONAL, DIRECT
SUPPORT, AND GENERAL SUPPORT
MAINTENANCE MANUAL

TEST SET, INTEGRATED CIRCUIT CARD
AN/USM-371
(Dynatronics Model ICT-102)
(NSN 6625-00-431-8440)

OPERATOR'S, ORGANIZATIONAL, DIRECT
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FOR
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AN/USM-371
(Dynatronics Model ICT-102)
(NSN 6625-00-431-8440)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in back of this manual direct to: Commander, US Army Communications and Electronics Materiel Readiness Command and Fort Monmouth, ATTN: DRSEL-ME-MQ, Fort Monmouth, New Jersey 07703.

In either case, a reply will be furnished direct to you.

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**SECTION 0
GENERAL**

0-1 PRINTED CIRCUIT CARDS TESTED WITH THE AN/USM-371 and AN/USM-371A and ASSOCIATED TECHNICAL BULLETINS.

a. The following printed circuit cards are tested with the Test Set, Integrated Circuit Card AN/USM-371 and AN/USM-371A. Also listed are the associated technical bulletins containing the test set supplementary operating instructions and test programs used for these printed circuit cards.

<u>Printed Circuit Cards</u>	<u>Technical Bulletin</u>
A52602 through A65089	TM 11-6600-252-10-1 (Volume I)
A65093 through A65441	TB 11-6600-252-10-2 (Volume II)
SM-E-546367 through SM-E-546584	TB 11-6600-252-10-3 (Volume III)
SM-E-546587 through SM-E-546840	TB 11-6600-252-10-4 (Volume IV)
11153G1 through 56736G1	TB 11-6600-252-10-5 (Volume V)
PL-1139/G through PL-1158/G, and A-1 (MD-674) through A-33A2 (MD-674)	TB 11-6600-252-10-6 (Volume VI)
200000G1 through 200160G1, and PL-1119/G through PL-1124/G (SN-394)	TB 11-6600-252-10-7 (Volume VII)

b. The repair parts and special tools list technical manual for the AN/USM-371 is TM 11-6625-2577-24P.

NOTE

The technical manual for the Test Set, Integrated Circuit Card AN/USv-371A (Dynatronics Model ICT-103) is TM 11-6625-2594-14.

0-2 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.

0-3 MAINTENANCE FORMS, RECORDS, AND REPORTS.

a. Reports of Maintenance and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750, The Army Maintenance Management System.

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 DLAR 4145.8.

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

0-4 REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR).

If your Test Set, Integrated Circuit Card AN/USM-371 needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Tell us why a procedure is hard to perform. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications and Electronics Materiel Readiness Command and Fort Monmouth, ATTN: DRSEL-ME-MQ, Fort Monmouth, New Jersey 07703. We'll send you a reply.

0-5 DESTRUCTION OF ARMY ELECTRONICS MATERIEL.

Destruction of Army electronics materiel to prevent enemy use shall be in accordance with TM 750-244-2.

SECTION I GENERAL DESCRIPTION

1-1 INTRODUCTION.

Dynatronics model ICT-102 Printed Circuit Card Tester (figure 1-1) provides the capability for dynamically testing virtually any logic card family on a visual GO/NO-GO basis. Punched (Hollerith) card programming for testing of TTL, DTL, RTL and discrete digital logic eliminates elaborate test hook-ups and engineering test analysis by high level engineering personnel. Simple to operate and program, this general purpose card tester is specifically designed for operation by unskilled personnel and programming by maintenance level technicians. No external test equipment is necessary because complete dynamic tests are performed by the Card Tester each time an individual program card is inserted into the card reader. All conditions (signal generation, power distribution, grounding, loading, test rates, etc.) are controlled by the program card and all circuits are fully tested by following a simple set of instructions and observing the GO/NO-GO and INPUT FAULT indicator lamps on the front panel. All front panel operator controls are for analytical purposes only thus, eliminating the possibility of operator error (and possible damage to circuits under test) attributed to improper switch settings. Worst case conditions are easily simulated through the use of programmable power supplies for marginal testing under dynamic conditions. Obsolescence of the card testing capability is eliminated by the inherent flexibility of the Card Tester which may be programmed to accommodate new circuit designs.

Functional checks on analog printed circuit cards are possible with



Figure 1-1. Card8ester, Model ICT-102