

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

**ORGANIZATIONAL MAINTENANCE REPAIR PARTS
AND SPECIAL TOOLS LISTS
CRYSTAL IMPEDANCE METERS TS-683/TSM (FSN 6625-247-7347),
TS-683A/TSM (FSN 6625-669-0089), AND TS-683B/TSM (FSN 6625-892-5162)**

Headquarters, Department of the Army, Washington, D.C.
14 March 1975

Current as of December 1974

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*This manual supersedes TM 11-6625-456-20P, 17 December 1963.

SECTION I

INTRODUCTION

1-1. Scope

This manual lists repair parts and special tools required for the performance of organizational maintenance of the TS-683 TSM, TS-683A TSM, TS-683B TSM. The PCCN for the equipment is GTEAFA for all models.

1-2. General

This repair parts and special tools list is divided into the following sections:

a. Prescribed Load Allowance (PLA) - Section II. Not applicable.

b. Repair Parts List - Section III. A list of repair parts authorized for the performance of maintenance at the organizational level. This repair parts list is arranged in alphabetical order.

c. Special Tools, Test and Support Equipment - Section IV. Not applicable.

d. Index - Federal Stock Number and Reference Number Cross-Reference to Figure and Item Number - Section V. A list, in ascending numerical sequence, of all Federal stock numbers appearing in the listings, followed by a list, in alphanumeric sequence, of all reference numbers appearing in the listings. Federal stock number and reference numbers are cross-referenced to each illustration figure and item number or reference designation appearance.

1-3. Explanation of Columns

The following provides an explanation of columns in the tabular lists -

a. Source, Maintenance, and Recoverability Codes (SMR).

(1) *Source code.* Indicates the manner of acquiring support items for maintenance, repair, or overhaul of end items. Source codes are -

<i>Code</i>	<i>Explanation</i>
PA -	Item procured and stocked for anticipated or known usage.
PB -	Item procured and stocked for insurance purposes because essentiality dictates that a minimum quantity be available in the supply systems.
PC -	Item procured and stocked and which otherwise would be coded PA except that it is deteriorative in nature.
PD -	Support item, excluding support equipment, procured for initial issue or outfitting and stocked only for subsequent or additional

<i>Code</i>	<i>Explanation</i>
	initial issues or outfittings. Not subject to automatic replenishment.
PE -	Support equipment procured and stocked for initial issue or outfitting to specified maintenance repair activities.
PF -	Support equipment which will not be stocked but which will be centrally procured on demand.
PG -	Item procured and stocked to provide for sustained support for the life of the equipment. It is applied to an item peculiar to the equipment which because of probable discontinuance or shutdown of production facilities would prove uneconomical to reproduce at a later time.
KD -	An item of depot overhaul repair kit and not purchased separately. Depot kit defined as a kit that provides items required at the time of overhaul or repair.
KF -	An item of a maintenance kit and not purchased separately. Maintenance kit defined as a kit that provides an item that can be replaced at organizational or direct support or general support levels of maintenance.
KB -	Item included in both a depot overhaul repair kit and a maintenance kit.
MO -	Item to be manufactured or fabricated at organizational level.
MF -	Item to be manufactured or fabricated at direct support maintenance level.
MH -	Item to be manufactured or fabricated at general support maintenance level.
MD -	Item to be manufactured or fabricated at depot maintenance level.
AO -	Item to be assembled at organizational level.
AF -	Item to be assembled at direct support maintenance level.
AH -	Item to be assembled at general support maintenance level.
AD -	Item to be assembled at depot maintenance level.
XA -	Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly.
XB -	Item is not procured or stocked if not available through salvage, requisition.
XC -	Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturer's part number.

<i>Code</i>	<i>Explanation</i>
XD —	Support items can be requisitioned with justification.

NOTE

Cannibalization or salvage may be used as a source of supply for any items source coded above except those coded XA and aircraft support items as restricted by AR 700-42.

(2) *Maintenance code.* Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code Format as follows —

(a) *Use (third position).* The maintenance code entered in the third position indicates the lowest maintenance level authorized to remove, replace, and use the support item. The maintenance code entered in the third position indicates one of the following levels of maintenance.

<i>Code</i>	<i>Application/Explanation</i>
O —	Support item is removed, replaced, used at the organizational level of maintenance.

NOTE

A code "C" may be used in this position to denote crew or operator maintenance performed within organizational maintenance.

F —	Support item is removed, replaced, used at the direct support maintenance level.
H —	Support item is removed, replaced, used at the general support maintenance.
D —	Support items that are removed, replaced, used at depot only.

(b) *Repair (fourth position).* The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). When a maintenance code is not used a dash (-) sign is entered. For multi-service equipment systems or when a code is entered, this position will contain one of the following maintenance codes as assigned by the service(s) that require the code —

<i>Code</i>	<i>Application/Explanation</i>
O —	The lowest maintenance level capable of complete repair of the support item is the organizational level.
F —	The lowest maintenance level capable of complete repair of the support item is direct support.
H —	The lowest maintenance level capable of complete repair of the support item is

<i>Code</i>	<i>Application/Explanation</i>
	general support.
D —	The lowest maintenance level capable of complete repair of the support item is the depot level.
L —	Repair restricted to designated Specialized Repair Activity.
Z —	Non-repairable. No repair is authorized.
B —	No repair is authorized. The item may be reconditioned by adjusting, lubricating, etc., at the user level. No parts or special tools are procured for the maintenance of this item.

(3) *Recoverability code.* Recoverability codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the uniform SMR Code Format as follows —

<i>Code</i>	<i>Explanation</i>
Z —	Nonrepairable item. When unserviceable, condemn and dispose at the level indicated in the first digit of the maintenance code.
O —	Repairable item. When uneconomically repairable, condemn and dispose at organizational level.
F —	Repairable item. When uneconomically repairable, condemn and dispose at the direct support level.
H —	Repairable item. When uneconomically repairable, condemn and dispose at the general support level.
D —	Repairable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.
L —	Repairable item. Repair, condemnation, and disposal not authorized below depot/Specialized Repair Activity level.
A —	Item requires special handling or condemnation procedures because of specific reasons (i.e., precious metal content, high dollar value, critical material or hazardous material).

b. *Federal Stock Number.* Indicates the Federal stock number assigned to the item.

NOTE

For requisitioning purposes, the Federal stock number must be converted to the National stock number by adding "-00-" after the Federal stock classification (FSC) code (first four digits). For example, FSN 6625-553-0142 converts to NSN 6625-00-553-0142.

c. Description. Indicates the Federal item name and a minimum description required to identify the item. The last line indicates the reference number followed by the applicable Federal Supply Code for Manufacturer (FSCM) in parentheses. The FSCM is used as an element in item identification to designate manufacturer or distributor or Government agency, etc., and is identified in SB 708-42.

d. Unit of Measure (UM). Indicates the standard or basic quantity by which the listed item is used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation; e.g., ea, in, pr, etc., and is the basis used to indicate quantities and allowances in subsequent columns. When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

e. Quantity Incorporated in Unit. This column indicates the quantity of the item used in the equipment. Subsequent appearances of the same item in the same assembly are indicated by the letters "REF".

f. 15-Day Organizational Maintenance Allowance.

(1) The repair parts indicated by an asterisk in the allowance column represent those authorized for use at the organizational category, and will be requisitioned on an "as required" basis, until stockage is based on demand in accordance with AR 710-2.

(2) Major Army commanders are authorized to approve reduction in the range of support items authorized for use in units within their commands. Recommendations for increase in range of items authorized for use will be forwarded to Commander, US Army Electronics Command, ATTN: AMSEL-MA-CRA, Fort Monmouth, N.J., 07703. Any changes approved will be reflected in a revision to the RPSTL.

(3) Allowance quantities are indicated in the special tools list section for special tools, TMDE, and other equipment.

g. Illustration. This column is divided as follows:

(1) *Figure number.* Not applicable.

(2) *Item number.* Indicates the item number or reference designation used to reference the item.

1-4. Special Information

a. Usable on codes are included in column 3. Uncoded items are applicable to all models. Identification of the usable on codes used in this publication are —

<i>Code</i>	<i>Used on</i>
BA2	TS-683/TSM
BA3	TS-683A/TSM
BA4	TS-683B/TSM

b. The following publication pertains to the equipment and its components:

TM 11-2652 Crystal Impedance Meters TS-683
TSM and TS-683A/TSM and TS-
683B/TSM.

1-5. Location of Repair Parts

a. This manual contains one cross-reference index (sec V) to be used to locate a repair part when either the Federal stock number or reference number (manufacturer's part number) is known. The first column in the index is prepared in numerical or alphanumeric sequence in ascending order. The reference numbers (manufacturer's part numbers) are listed immediately following the last listed Federal stock number in the index of Federal stock numbers.

l. When the Federal stock number or reference number is known, follow the procedures given in (1) and (2) below.

(1) Refer to the index of Federal stock numbers (sec V) and locate the Federal stock number or reference number. The FSN and reference number are cross-referenced to the applicable figure and item number or reference designation.

(2) Refer to the repair parts list (sec III) and locate the figure number (col 7a) and item number or reference designation (col 7b) as noted in the FSN index.

c. When the figure and item number or reference designation are known, scrutinize columns 7a and 7b of the repair parts list (sec III) until the item is located.

d. When the FSN, reference number, figure number, item number and reference designation are not known, scrutinize column 3 of the repair parts list (sec III), which is arranged in alphabetical order.

1-6. Abbreviations

Not applicable

1-7. Reporting of Equipment Publication

Improvements

The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications and Blank Forms) and forwarded direct to Commander, US Army Electronics Command, ATTN: AMSEL-MA-CRA, Fort Monmouth, N.J., 07703.

(Next printed page is 6)

SECTION 111

SMR CODE	FEDERAL STOCK NUMBER	DESCRIPTION REFERENCE NUMBER & MFR CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY. INC IN UNIT	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALW				(7) ILLUSTRATION	
						(a)	(b)	(c)	(d)	(a)	(b)
						1-5	6-20	21-50	51-100	FIGURE NO	ITEM NO.
PAJZZ	5935-892-9310	ADAPTER, CRYSTAL SOCKET NO-REF-DESIG..... MX3020TSM (80058)		EA	1	*	*	*	*		
PAJZZ	6625-643-1648	ADAPTER, TEST ARI USED AS AN ANTI-RESONANCE.. ADAPTER SC097809 (80063)		EA	1	*	*	*	*		AR)
PAQZZ	6625-500-4506	ADAPTER, TEST VR2 CONNECTS TO ITEM TO BE..... TESTED BY INTEGRAL CONNECTOR SC097813 (80063)		EA	1	*	*	*	*		VR2
PAQZZ	5935-537-4064	CRYSTAL SOCKET ADAPTER NO-REF-DESIG..... UG683U (80058)		EA	1	*	*	*	*		
PAQZZ	5960-503-4880	ELECTRON TUBE V4..... DA2WA (81349)		EA	1	*	*	*	*		V4
PACZZ	5920-280-4465	FUSE CARTRIDGE F1..... F02A250VIAS (81349)		EA	1	*	*	*	*		F1
PAQZZ	6625-239-9845	HOLDER, RESISTOR E11 PLUG TYPE, INCL..... RC20GF100J RESISTOR SC097795GRPI (80063)		EA	1	*	*	*	*		E11
PAQZZ	59J5-309-5517	HOLDER, RESISTOR E12 PLUG TYPE, INCL..... RC20GF220J RESISTOR SC097795GRPI1 (80063)		EA	1	*	*	*	*		E12
XDCZZ		HOLDER, RESISTOR E13 PLUG TYPE, INCL..... RC20GF300J RESISTOR SC097795GRPI11 (80063)		EA	1	*	*	*	*		E13
XDCZZ		HOLDER, RESISTOR E14 PLUG TYPE, INCL 40 OHMS. PORM2PCT, 1/2 W RESISTOR SC097795GRPIV (80063)		EA	1	*	*	*	*		E14
PAQZZ	59J5-594-1088	HOLDER, RESISTOR E15 PLUG TYPE, INCL..... RC20GF510J RESISTOR SC097795GRPV (80063)		EA	1	*	*	*	*		E15
PAQZZ	59J5-092-8731	HOLDER, RESISTOR E16 PLUG TYPE, INCL 60 OHM.. PORM5PCT, 1/2 W RESISTOR SC097795GRPVI (80063)		EA	1	*	*	*	*		E16
PAQZZ	6625-239-9847	HOLDER, RESISTOR E17 PLUG TYPE, INCL..... RC20GF680J RESISTOR SC097795GRPVI1 (80063)		EA	1	*	*	*	*		E17
PAQZZ	59J5-391-0815	HOLDER, RESISTOR E18 PLUG TYPE, INCL..... RC20GF820J RESISTOR SC097795GRPVI11 (80063)		EA	1	*	*	*	*		E18
XDCZZ		HOLDER, RESISTOR E19 PLUG TYPE, INCL..... RC20GF910J RESISTOR HA4655 (49673)		EA	1	*	*	*	*		E19
XDCZZ		HOLDER, RESISTOR E20 PLUG TYPE, INCL..... RC20GF101J RESISTOR SC097795GRPX (80063)	BA2, BA3	EA	1	*	*	*	*		E20
PAQZZ	59J5-239-9846	HOLDER, RESISTOR E21 PLUG TYPE, INCL..... RC20GF121J RESISTOR HA4657 (49673)		EA	1	*	*	*	*		E21
PAQZZ	59J5-299-1514	HOLDER, RESISTOR E22 PLUG TYPE, INCL..... RC20GF151J RESISTOR HA4658 (49673)	BA2, BA3	EA	1	*	*	*	*		E22
XDCZZ		KNOB, BAR, POINTER 01..... SC883247 (80063)		EA	2	*	*	*	*		01
XDCZZ		KNOB, BAR, POINTER 02..... SC883247 (80063)		EA	REF	*	*	*	*		02
PACZZ	5355-17J-45J0	KNOB, ROUND 05..... SC879791 (80063)		EA	3	*	*	*	*		05
PACZZ	5355-170-4530	KNOB, ROUND 06..... SC879791 (80063)		EA	REF	*	*	*	*		06
PACZZ	5355-170-4530	KNOB, ROUND 07..... SC879791 (80063)		EA	REF	*	*	*	*		07
PACZZ	5355-667-5908	KNOB, ROUND 03 FOR 1/4 IN SHAFT KNSIDPTKNSP6 (24655)		EA	2	*	*	*	*		03
PACZZ	5355-667-5908	KNOB, ROUND 04 FOR 1/4 IN SHAFT KNSIDPTKNSP6 (24655)		EA	REF	*	*	*	*		04
PACZZ	624J-057-2887	LAMP, INCANDESCENT E1 6-8 V, 0.25 AMP, MIN.. BAYONET BASE, LM-27 44 (94399)		EA	1	*	*	*	*		E1

SECTION V

INDEX - FEDERAL STOCK NUMBER AND REFERENCE NUMBER
CROSS-REFERENCE TO FIGURE AND ITEM NUMBER

STOCK NUMBER	FIGURE NO.	ITEM NO.	STOCK NUMBER	FIGURE NO.	ITEM NO.
5355-170-4530		5			
5355-170-4530		6	5905-391-0815		E18
5355-170-4530					
5355-667-5908		3	5905-594-1088		E15
5355-667-5908		4	5920-280-4465		F1
			5935-537-4064		
			5935-892-9310		
5905-092-8731		E16	4960-503-4880		V4
			6240-057-2887		
5905-239-9846		E21	6625-239-9845		E11
5905-299-1514		E22	6625-239-9847		E17
5905-309-5517		E12	6625-500-4506		VR2
			6625-643-1648		AR1

REFERENCE NO.	MFR CODE	FIG. NO.	ITEM NO.	REFERENCE NO.	MFR CODE	FIG. NO.	ITEM NO.
F02A25 JV IAS	81349		F1	SCC97795GRP I I	80063		E12
HA4655	49673		EL9	SCD97795GRP I	80063		E11
HA4657	49673		E21	SCD97795GRP I I I	80063		E13
HA4658	49673		E22	SCD97795GRP I V	80063		E14
KNSIDPTKNSP6	24655		03	SCD97795GRP V	80063		E15
KNSIDPTKNSP6	24455		04	SCD97795GRP V I	80063		E16
MX302UTSM	80058			SCD97795GRP V I I	80063		E17
GA2WA	81349		V4	SCD97795GRP V I I I	80063		180
SC879791	80063		05	SCD97795GRP X	80363		E20
SC879791	80063		06	SCD97809	80063		AR1
SCA79791	80063		07	SCD97813	80063		VR2
SC883247	800163		02	UG683U	80058		
SC883247	80063		01	44	91399		E1

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ARADCOM Rgn (2)	SAAD (30)
OS Maj Comd (4)	TOAD (14)
LOGCOMDS (3)	ATAD (10)
MICOM (2)	USA Dep (2)
TECOM (2)	Sig Sec USA Dep (2)
USATC Inf (2)	Sig Dep (2)
USACC (4)	SigFLDMS (1)
MDW (1)	USAERDAA (1)
Armies (2)	USAERDAW (1)
Corps (2)	MAAG (1)
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USASESS (5)	(1 copy each unit)
USAAAS (2)	11-16
USAFAS (2)	11-97
USAARMS (2)	11-98
USAIS (2)	11-117
USAES (2)	11-500(AA-AC)
USAINTC (3)	29-134
WRAMC (1)	29-136

NG: None

USAR: None

For explanation of abbreviations used, see AR 310.50

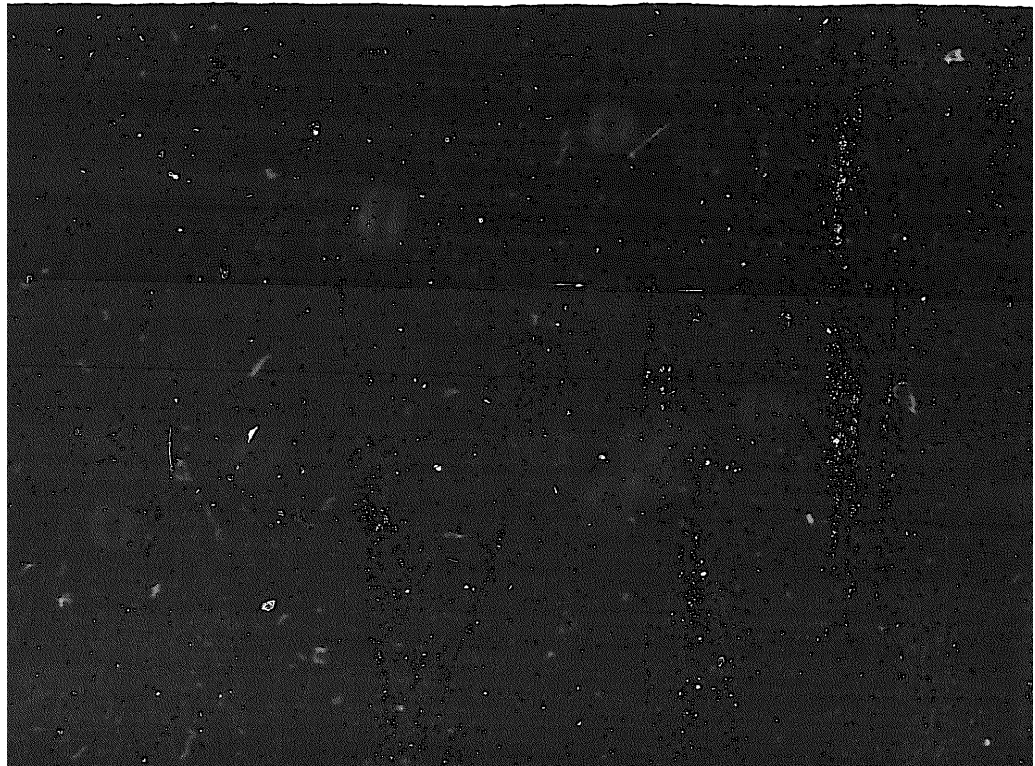
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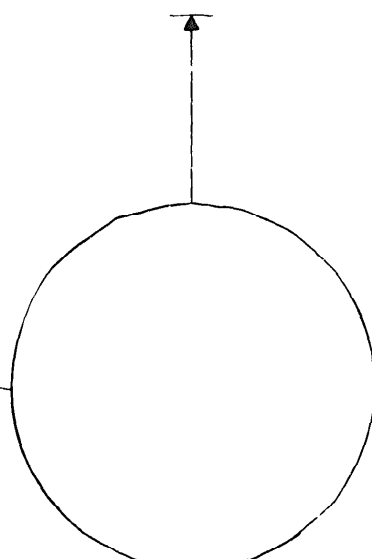
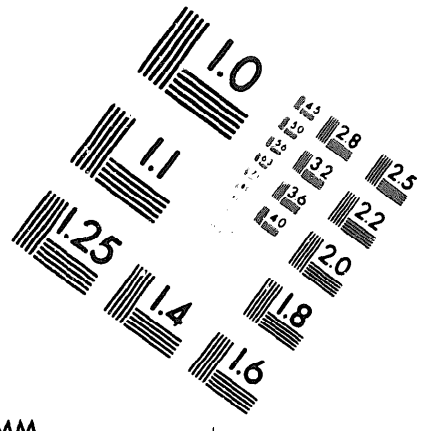
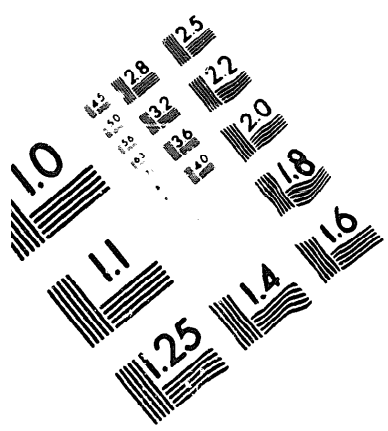
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DEPARTMENT OF THE ARMY

MICROFORM
TEST TARGET



10 mm (e= 81 mm)

ABCDEFGHIJKLMN O P Q R S T U V W X Y Z 1 2 3 4 5 6 7 8 9 0
a b c d e f g h i j k l m n o p q r s t u v w x y z \$ % & / ' 1/2 1/4 3/4 — = + x & @ *

1.5 mm (e= 1.09 mm)

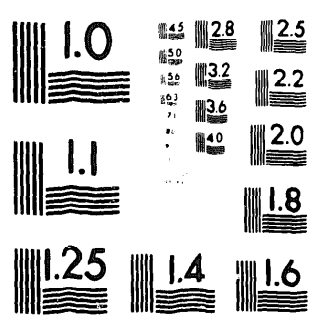
ABCDEFGHIJKLMN O P Q R S T U V W X Y Z 1 2 3 4 5 6 7 8 9 0
a b c d e f g h i j k l m n o p q r s t u v w x y z \$ % & / ' 1/2 1/4 3/4 — = + x & @ *

2.0 mm (e= 1.37 mm)

ABCDEFGHIJKLMN O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0 \$ % & / ' 1/2 1/4 3/4 — = + x & @ *

2.5 mm (e= 1.77 mm)

ABCDEFGHIJKLMN O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0 \$ % & / ' 1/2 1/4 3/4 — = + x & @ *



10 mm (e= 81 mm)

ABCDEFGHIJKLMN O P Q R S T U V W X Y Z 1 2 3 4 5 6 7 8 9 0
a b c d e f g h i j k l m n o p q r s t u v w x y z \$ % & / ' 1/2 1/4 3/4 — = + x & @ *

1.5 mm (e= 1.09 mm)

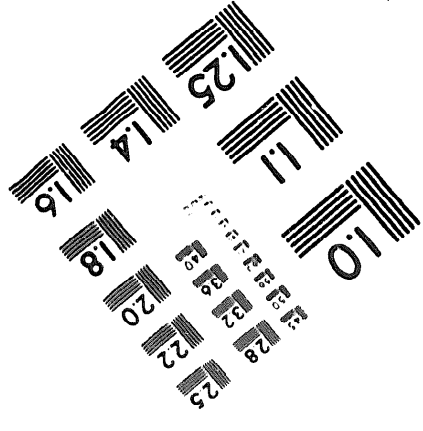
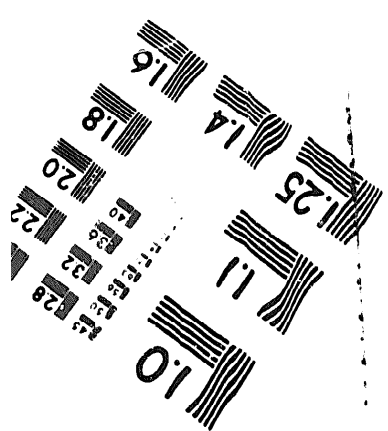
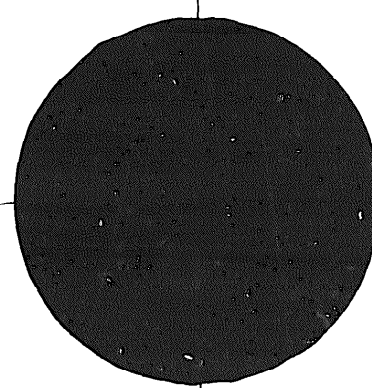
ABCDEFGHIJKLMN O P Q R S T U V W X Y Z 1 2 3 4 5 6 7 8 9 0
a b c d e f g h i j k l m n o p q r s t u v w x y z \$ % & / ' 1/2 1/4 3/4 — = + x & @ *

2.0 mm (e= 1.37 mm)

ABCDEFGHIJKLMN O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0 \$ % & / ' 1/2 1/4 3/4 — = + x & @ *

2.5 mm (e= 1.77 mm)

ABCDEFGHIJKLMN O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0 \$ % & / ' 1/2 1/4 3/4 — = + x & @ *



250 MM