

FREQUENCY STANDARD - BASIC

MODEL AX620

TITLE

MODEL	USED ON SECTION	QTY
CSS-4A		1
CSS-3B		1

## LIST SECTIONS

- 1.SUPPORTING NOTES
- 2.SUPPORTING LISTS
- 3.ELECTRICAL/MECHANICAL
- 4.SUPP ASSY/REF DWGS
- 5.SPECIFICATIONS
- 6.LOOSE ITEMS
- 7.PARTS PECULIAR

## SHEET NO.

SEE BELOW  
 NONE  
 1-14  
 14  
 15  
 15  
 NONE

## LAST SYMBOLS

COMPILED H.SCHUCKER 12/7/65  
 CHECKED L.GABEL  
 APPROVED O.POSE  
 FNL APPR *L. Gabel*  
 ISS DATE 12-9-65

## MISSING SYMBOLS

NOTE 1. THE FOLLOWING SYMBOL, #, IN THE REMARKS COLUMN INDICATES THAT THE PART NUMBER IMMEDIATELY FOLLOWING IT IS THE TMC PROPRIETARY MANUFACTURING DRAWING FOR THE CORRESPONDING NUMBER IN THE PART NUMBER COLUMN.

NOTE 2. ALL ITEMS REFERENCED TO THIS NOTE SHALL BE USED ONLY FOR 115V OPERATION.

NOTE 3. ALL ITEMS REFERENCED TO THIS NOTE SHALL BE USED ONLY FOR FOR 230V OPERATION.

NOTE 4. R621, 2, 3 NOT SUPPLIED BY TMC.

NOTE 5. NF105-2 OR NF109 MAY BE USED IN PLACE OF NF105-1.

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SHEET 1 OF 15

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
A2352-1	TERM. BD, MACH	A2352-2			1		
A2352-2	TERM. BD, MKG	A2352-3			1		
A2352-3	TERM. BD SUBASSY	A2352-4			1		
BI101-1820	LAMP, INCAND	AX620			2	I601, 602	
BI110-7	LAMP, INCAND	AX620			1	I605	
BS100	SOLDER, TIN ALY	A2352-4 AC122 CA671 CA1185 CA1186 AX620 NF106					
BZ101	BUZZER, 6-28V	AX620			1	DS601	
CC100-16	CAP., FXD, CER	A2352-4 AX620 A2352-4		4 1 1	6	C603, 604, 605, 607 C609 C612	
CC100-28	CAP., FXD, CER	A2352-4 AX620		3 1	4	C601, 602, 606 C610	
CD101-1MW	CD, NYLON, LACING	CA671					
CE51C301G	CAP., FXD, ELECT.	AX620			2	C608, 611	
CF117-2.0	FORM, COIL	AC122 NF106		1 1	2		
CI109-7	CORE, ADJ TUN.	AC122 NF106		1 1	2		

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
CL140-1	COIL, RF, FXD	A2352-4			2	L601, 602	
CM15C471J	CAP., FXD, MICA	NF106			2		
CM20D102J	CAP., FXD, MICA	AC122			1		
CM35C822J	CAP., FXD, MICA	AC122			1		
CU102-2	CLAMP, LOOP	AX620	CA671	1	1		
CU102-4	CLAMP, LOOP	AX620	CA671	2	2		
CU118-7S	RET., ELECN TUBE	AX620	CE51	2	2		
CU133-1	CLIP, SPRING TENS	AX620	2N1224	4	4		
CU139-2B	FRL, HDL	AX620	HA102	4	4		
EY100-1	EYELET, MTL	A1513		2x2	4		
EY102-3	GROM, RUB.	CA671		1	1		
EY102-14	GROM, RUB.	AX620	For MS2829	1	1		
FC102-1XXN	CLIP, ELEC, FRL	AX620	FUSE	2	2		
FH104-3	FUSEHOLDER, IND	AX620			1	XF601, I603, R628	
FH104-13	FUSEHOLDER, IND	AX620			1	XF602, I604, R629	
FP161	SHLD, COIL	A1513		1x2	2		
FS102-1	LOCKSPRING	AX620	For MS2182	4			
			For MS2831	4	8		

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
FS109-3	RING, RETAINING	MS2070		4			
		MS4761		4	8		
FS110-1	STUD, TURNLOCK	MS2070		4			
		MS4761		4	8		
FU102-1	FUSE, CTG, 1A	AX620			3	F601 & 1 SPARE F602	NOTE 2
FU102-1	FUSE, CTG, 1A	AX620			1	F602	NOTE 3
FU102-.500	FUSE, CTG, .5A	AX620			2	F601 & 1 SPARE	NOTE 3
FW06HBN	WASH., FLAT	AX620	CU102-3	1			
			MS2203	2			
			RX105-17	2	5		
GL101-1	ADHESIVE -PLIO	MS2843					
GL103	ADHESIVE -N-CEL	AC122					
		NF106					
GL104-2	INSG VARN, ELEC	AC122					
		NF106					
HA102-2BN	HDL, BOW	AX620			2		
JJ175	CONN, RECP, ML, AC	AX620			1	J605	
JJ325	CONN, RECP, FML, BNC	AX620			3	J601, 602, 604 S602, 603, 604	
LA101	BAND, MARKER, CBL	CA671			5		
LWE04MRN	WASH., LK, EXT	AX620	FC102-1XXN	2			
			TE102-2	2			
			TM100-2	4	8		

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
LWE06MRN	WASH. ,LK,EXT	AX620	A2352-4 AC122 CU118-7S JJ175	4 2 2 2			
			MS2182 MS4805 MS2203 MS2829 MS2831 MS2842 MS2843 NF106 RX105-17 RW111-6 TF221 TF221 and CU102-3 TS101-P01 TS165-P01 VR100-27S10	3 7 2 2 4 2 2 2 2 2 3 1 2 4 2			
LWE08MRN	WASH. ,LK,EXT	AX620	MS4801 TF274	6 4			
LWS02MRN	WASH. ,LK,SPLIT	AX620	CU133 TS147	4 8			
LWS03MRN	WASH. ,LK,SPLIT	AX620	FS102-1	16			
LWS10MRN	WASH. ,LK,SPLIT	AX620	MS4801	4			
MP100-4	KNOB	AX620					
MR142	METER,ARB SCALE	AX620				M601	

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
MS154-1	PL,MTG,TERM.BD	AX620			2		
MS2070	COV,BOT	AX620			1		
MS2182	PL,SD,L	AX620			1		
MS2203	BRKT,MTG,RECT	AX620			2		
MS2829	BRKT,MTG,STD	AX620			1		
MS2830	PL,MTG,STD	LD999			1		
MS2831	PL,SD,R	AX620			1		
MS2842	RET.,FREQ STD	AX620			1		
MS2843	BASE,FREQ STD	AX620			1		
MS4761	COV, TOP	AX620			1		
MS4801	PNL,FR	LD2010			1		
MS4805	PL,REAR	LD2009			1		
MS4806	CHAS,MAIN	LD2018			1		
MWC20/7/U0	WIRE,ELEC,INS	CA671			16		
MWC20/7/U1	WIRE,ELEC,INS	CA671			39		
MWC20/7/U2	WIRE,ELEC,INS	CA671			15		
MWC20/7/U3	WIRE,ELEC,INS	CA671			19		
MWC20/7/U4	WIRE,ELEC,INS	CA671			22		

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
MWC20/7/U6	WIRE,ELEC,INS	CA671			24		
MWC20/7/U8	WIRE,ELEC,INS	CA671			28		
MWC20/7/U91	WIRE,ELEC,INS	CA671			12		
MWC20/7/U92	WIRE,ELEC,INS	CA671			24		
MWC20/7/U93	WIRE,ELEC,INS	CA671			19		
MWC20/7/U95	WIRE,ELEC,INS	CA671			54		
MWC20/7/U98	WIRE,ELEC,INS	CA671			27		
MWC22/7/U0	WIRE,ELEC,INS	CA409-22		3x2	6		
MWC24/7/U0	WIRE,ELEC,INS	CA1186			17		
MWC24/7/U1	WIRE,ELEC,INS	CA1186			10		
MWC24/7/U3	WIRE,ELEC,INS	CA1186			12		
MWC24/7/U8	WIRE,ELEC,INS	CA1185			17		
MWC24/7/U9	WIRE,ELEC,INS	CA1185			18		
MWC24/7/U90	WIRE,ELEC,INS	CA1185			10		
MWC24/7/U98	WIRE,ELEC,INS	CA1185			10		

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
NF105-1	FREQ STD	AX620			1	Z602	NOTE 5
NP102-58	PL, IDENT-COML	AX620			1		
NT129-256-4	NUT, PLN, SPLINE	MS4806			4		
NT129-632-4	NUT, PLN, SPLINE	MS2829		4			
		MS2830		1			
		MS2843		2			
		MS4806		2	9		
NT136-1032-4	NUT, SELF-LKG, SPL	MS2182		3			
		MS2831		3	6		
NTH0256BN6	NUT, PLN, HEX	AX620	CU133	4			
			TS147	8	12		
NTH0348BN6	NUT, PLN, HEX	AX620	FS102-1	16	16		
NTH0440BN6	NUT, PLN, HEX	AX620	FC102-1XXN	2			
			TM100-2	4	6		



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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS	
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT				
NTH0632BN8	NUT, PLN, HEX	AX620	CU118-7S	2				
			JJ175	2				
			MS2182	3				
			MS4805	7				
			MS2831	4				
			RX105-17	2				
			RW111-6	2				
			TF221	3				
			TF221 and CU102-3	1				
			TS101-P01	2				
			TS165-P01	4				
			VR100-27S10	2				34
			NTH0832BN10	NUT, PLN, HEX				AX620
TF274	4	10						
PL218	CONN, PL, ML, AC	CA555		1		P602		
PL176	CONN, PL, FML, AC	CA555		1		P601		
PX104-1-022	INS SLVG-SZ 24	A2352-4		13				
PX104-2-022	INS SLVG-SZ 24	A2352-4		9				
PX104-3-022	INS SLVG-SZ 24	A2352-4		3				
		AX620	WIRING	5	8			
PX104-4-022	INS SLVG-SZ 24	A2352-4		10				

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
PX104-6-022	INS SLVG-SZ 24	A2352-4 AC122 AX620 NF106	WIRING	11 3 5 3	22		
PX104-7-022	INS SLVG-SZ 24	A2352-4 AC122		4 3	7		
PX337-2	INS ,TERM. BD	AX620			1		
PX403	TERM. BD	NF106			1		
PX547	TERM. BD	AC122			1		
RC20GFXXXX	RES ,FXD ,COMP	A2352-4			3	R621,622,623	
RC20GF102K	RES ,FXD ,COMP	A2352-4			3	R605,606,612	
RC20GF103K	RES ,FXD ,COMP	A2352-4			1	R615	
RC20GF181K	RES ,FXD ,COMP	AX620			1	R625	
RC20GF183K	RES ,FXD ,COMP	A2352-4			1	R626	
RC20GF222K	RES ,FXD ,COMP	A2352-4			1	R609	
RC20GF223K	RES ,FXD ,COMP	A2352-4			4	R603,608,610,627	
RC20GF271K	RES ,FXD ,COMP	A2352-4			2	R604,607	
RC20GF470J	RES ,FXD ,COMP	AX620			2	R630,631,632	
RC20GF561K	RES ,FXD ,COMP	A2352-4			2	R601,602	
RC20GF562K	RES ,FXD ,COMP	A2352-4			1	R613	

NOTE 4

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
RC20GF681K	RES,FXD,COMP	A2352-4			1	R611	
RC32GF102K	RES,FXD,COMP	AX620			1	R619	
RC42GF181K	RES,FXD,COMP	AX620			2	R620,624	
RG174/U	CBL,RF	A2352-4 CA671		5 132	137		
RV4NAYSD105A	RES,VAR-COMP	AX620			1	R616	
RV106UX8B252A	RES,VAR-COMP	AX620			1	R617	
RV106UX8B502A	RES,VAR-COMP	AX620			1	R614	
RW111-6	RES,FXD,WW-25W	AX620			1	R618	
RX105-17	RECT,MTL-SE,FW	AX620			1	CR602	
RY123-2	RUB.STRIP-1/16	MS2843			1		
RY123-3	RUB.STRIP-1/16	MS2842			1		
RY123-4	RUB.STRIP-1/16	MS2842			2		
SCBP0256BN3	SCR,MACH	AX620	CU133	4	4		
SCBP0256BN6	SCR,MACH	AX620	TS147	8	8		
SCBP0440BN5	SCR,MACH	AX620	FC102-1XXN TE102-2	2 2	4		
SCBP0440BN10	SCR,MACH	AX620	TM100-2	4	4		
SCBP0632BN4	SCR,MACH	AX620	MS2843	2	2		

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
SCBP0632BN5	SCR, MACH	AX620	A2352-4	4	33		
			AG122	2			
			CU118-7S	2			
			JJ175	2			
			MS4805	7			
			MS2829	2			
			MS2842	2			
			NF106	2			
			RW111-6	2			
			TS101-P01	2			
			TS165-P01	4			
VR100-27S10	2						
SCBP0632BN8	SCR, MACH	AX620	MS2203	2	2		
SCBP0832BN8	SCR, MACH	AX620	MS4801	6	6		
SCFP0348BN5	SCR, MACH	AX620	FS102-1	16	16		
SCFP0632BN5	SCR, MACH	AX620	MS2182	3	7		
			MS2831	4			
SCHH1032BN10	SCR, MACH	AX620	MS4801 and HA102-2BN	4	4		
SM145	BUSH., COIL MTG	AC122		2	4		
			NF106	2			

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
ST22N	SW, TOGGLE -DPDT	AX620			2	S601,605	
TE102-2	TERM., STUD -INS	AX620			2		
TE104-2	TERM., LUG-LKG	AX620			6		
TE104-5	TERM., LUG-LKG	AC122		1			
		NF106		1	2		
TE108-13	NUT, PLN., CLINCH	A2352-3			4		
TE109-3	TERM., STUD	A2352-3			64		
TE111-2	TERM., LUG-3/8D	AX620	J603	1			
			J606	1	2		
TE116-3	TERM., LUG-NO. 10	A2352-4			4		
TE120-2	TERM., LUG-SPADE	CA409-22		1x2	2		
TE129	TERM., LUG-1/2D	AX620	J601	1			
			J602	1			
			J604	1	3		
TE149-144	TERM., LUG-NO.6	AX620			5		
TE153-2	TERM., LUG-RING	AC122			2		
TE156-32945	TERM., LUG, INS	AX620			2		
TE167	BRKT, ANG-THD	A1513		2x2	4		
TE168-4B	TERM., STUD. -FDTHR	PX403		5			
		PX547		4	9		
TE170-2	TERM., LUG-COLLAR	NF106			1		

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PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
TE170-4	TERM. ,LUG-COLLAR	NF106			1		
TF221	REACTOR-.03H	AX620			1	L603	
TF274	XFMR,PWR,SD	AX620			1	T601	
TF228K15	XFMR,PULSE	A2352-4			1	T602	
TM100-2	TERM.BD-BARR	AX620			1	TB601	
TS165-P01	SOC,EL TUBE-OCT	AX620			2	XC608,611	
TS101-P01	SOC,EL TUBE-OCT	AX620			1	XZ602	
TS106-2	LIGHT,IND-CLR	AX620			1	XI601	
TS106-3	LIGHT,IND-GRN	AX620			1	XI602	
TS147	SOC,SCOND DEV	AX620			4	XQ601,602,603,604	
TS153-1	LIGHT,IND-RED	AX620			1	XI605	
UG625*/U	CONN,RECP-BNC	AX620			2	J603,606	
VR100-27S10	SCOND DEV,DIO	AX620			1	CR601	
WA109-1	WASH. ,NM	AX620	TS147	8	8		
WI104-541DSQS	WIRE,ELEC-LITZ	AC122					
		NF106					
WI134-6-12	CBL,PWR,3/C,CLD	CA555			1		
WI140EE20E5	WIRE,ELEC,TEF	CA671			96		
WI140EE20E94	WIRE,ELEC,TEF	CA671			30		
WL100-8	WIRE,ELEC,BUSS	A2352-4		108			
		AC122		4			
		AX620	WIRING	8			
		NF106		5	125		

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		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
1N67	SCOND DEV,DIO	NF106			2		
2N1224	TRANSISTOR	AX620			4	Q601,602,603,604	
SUPP ASSY/REF DWGS							
A1513	CAN ASSY	AC122		1			
		NF106		1	2		
A2352-4	TERM.BD,FNL ASSY	AX620			1		
AC122	XFMR ASSY,IF	AX620			1	T603	#A1893
CA409-22-3.00	LEAD,ELEC	AX620			2		
CA671	WRG HARN,BRCHD	AX620			1		
CA1185	CBL ASSY,SP	AX620			1		
CA1186	WRG HARN,BRCHD	AX620			1		
CK1056	DIAG,SCHEM	AX620			1		
LD999/MS2830	PL,MTG,STD	AX620			1		
LD2009/MS4805	PL,REAR	AX620			1		
LD2010/MS4801	PNL,FR	AX620			1		
LD2018/MS4806	CHAS,MAIN	AX620			1		
NF106	XFMR ASSY,IF	AX620			1	Z601	#A1895

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PART NO.	DESCRIPTION	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
CA555-4	LOOSE ITEMS CBL ASSY,PWR,AC	AX620			1	W601 (P601,602)	



