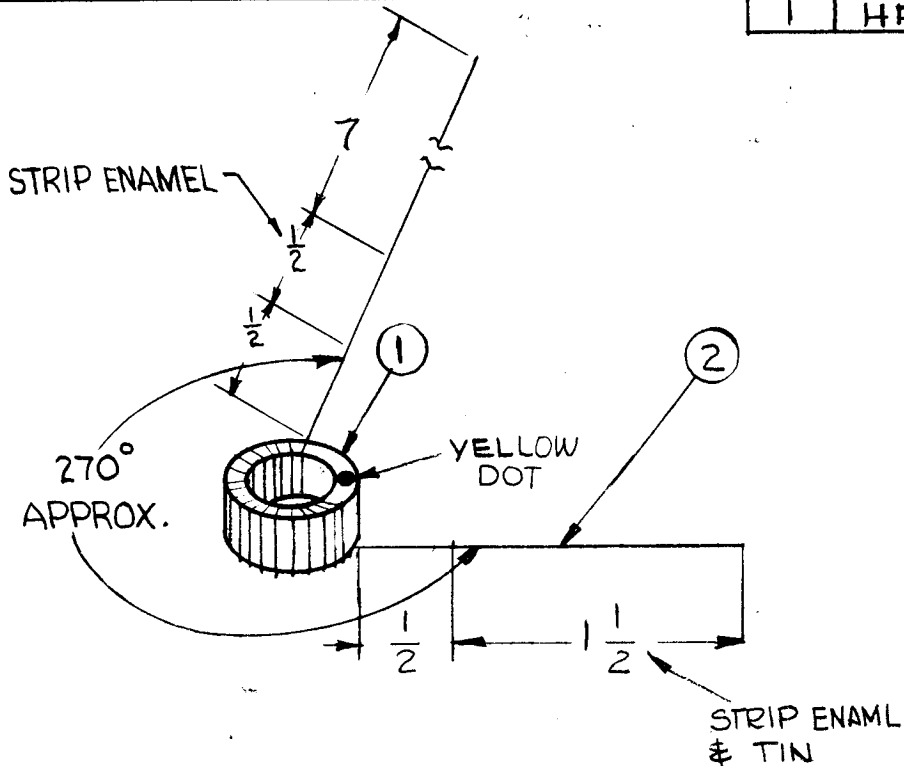


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REQ. PER UNIT	USED ON		
	MODEL	ASS'Y. NO.	DATE
1	HFR-1A	A 3502	2-25-64
1	HFR-2	A 3502	

A 3501 B



- PROCEDURE -

- 1 - WIND 11 TURNS EVENLY SPACED OVER A 270° ANGLE, WIND TURNS IN THE DIRECTION SHOWN.
- 2 - PUSH TURNS TOGETHER OR SPREAD APART AS NEEDED TO MEET INDUCTANCE SHOWN IN TEST SPECS.
- 3 - BAKE FOR 1/2 HOUR AT 215°F TO REMOVE MOISTURE.
- 4 - COLOR CODE COIL WITH YELLOW ENAMEL DOT.
- 5 - COAT COIL & CORE WITH GL102 Q-MAX AND BAKE FOR 1/2 HOUR AT 215°F.

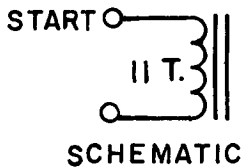
\* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

- TEST SPECIFICATIONS -

INDUCTANCE = 0.59  $\mu$ h  $\pm$  0.03  $\mu$ h WITH COIL CLAMPED INTO Q-METER 1/2" AWAY FROM TERMINALS, WITH FINISH END OF COIL TO LOW SIDE.  
 Q = 185 MIN. AT 20 MC.  
 OPER. FREQ. RANGE = 13.75 - 17.75  
 C dist. = 0.4  $\mu$ mf (REF ONLY)

- SYMBOL USED -

L1042A



X 3	GL 102	Q-MAX	
X 2	WI 141-22-9	MAGNETWIRE, SINGLE #22	
1 1	CI 127-1	CORE, TOROID	

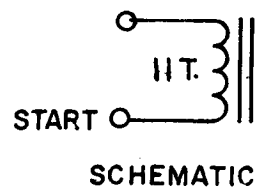
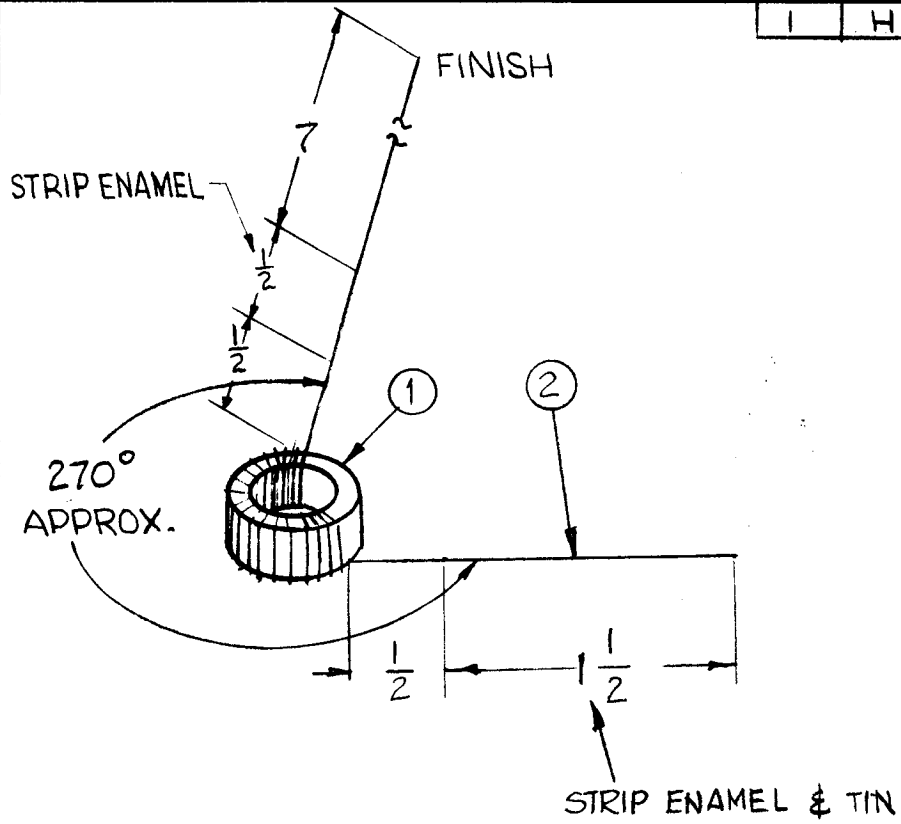
B	COLOR CODE ADDED	4-10-67	18095	G.D.L.			
A	NOTE ADDED	1-12-67	17575	RME	G.D.L.		
Q	ORIGINAL RELEASE FOR PRODUCTION	8-13-64	Q				
X	EXPERIMENTAL RELEASE	3-26-64					
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ON FRAC. $\pm$ 1/64 DEC. $\pm$ .005 ANGLES $\pm$ 1/2°		SCALE: DO NOT SCALE MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES					

REQ. ITEM	PART NO.	ANGER	DESCRIPTION	SYMBOL
			THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
			COIL, RE, ASS'Y	
			BAND # 6 OSC.	
		G.D.L.	@	RDC
		ANGER		
				A 3501 B

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REQ. PER UNIT	USED ON		
	MODEL	ASS'Y. NO.	DATE
1	HFR-1A	A 3504	2-25-64
1	HFR-2	A 3504	

A 3503 B



- PROCEDURE -
1. WIND 11 TURNS EVENLY SPACED OVER A 270° ANGLE, WIND TURNS IN THE DIRECTION SHOWN.
  2. PUSH TURNS TOGETHER OR SPREAD APART AS NEEDED TO MEET INDUCTANCE SHOWN IN TEST SPECS.
  3. BAKE FOR 1/2 HOUR AT 215°F TO REMOVE MOISTURE.
  4. COAT COIL & CORE WITH GL-102 Q-MAX AND BAKE FOR 1/2 HOUR AT 215°F.

TEST SPECIFICATIONS

INDUCTANCE = 0.615  $\mu$ h  $\pm$  0.015  $\mu$ h WITH COIL CLAMPED INTO Q-METER 1/2" AWAY FROM TERMINALS WITH FINISH END OF COIL TO LOW SIDE.

Q = 185 MIN. AT 25 MC

OPERATING FREQ. RANGE = 17.75 - 25.75 MC.

C<sub>dist.</sub> = 0.4  $\mu$ mf (REF. ONLY)

SYMBOL USED  
L1047A

\* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

REQ.	ITEM	PART NO.	ANGER	DESCRIPTION	SYMBOL
X	3	GL 102		Q-MAX	
X	2	WI 141-22-9		MAGNET WIRE, SINGLE #22	
1	1	CI 127-1		CORE, TOROID	
MATERIAL			THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK		
STOCK SIZE			COIL, RF, ASS'Y BAND # 7 OSC.		
TYPE & TEMPER			G.D.L.	@	RL
HEAT TREAT. SPEC.			DRAWN	CHECKED	FINAL APPROVAL
FINISH & SPEC. NO.			ELEC. DES. APP.	MECH. DES. APP.	A 3503 B

SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
B	NOTE ADDED	1-12-67	17575	RME	G.D.L.	<i>[Signature]</i>
A	Q SPEC. WAS 200 MIN.	2/27/65	14729	FLY.	G.D.L.	<i>[Signature]</i>
Q	ORIGINAL RELEASE FOR PRODUCTION	8-13-64				
X	EXPERIMENTAL RELEASE	3-26-64				

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES ON  
FRAC.  $\pm$  1/64 DEC.  $\pm$  .005 ANGLES  $\pm$  1/2°

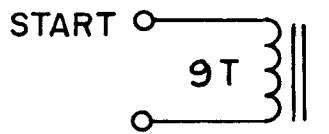
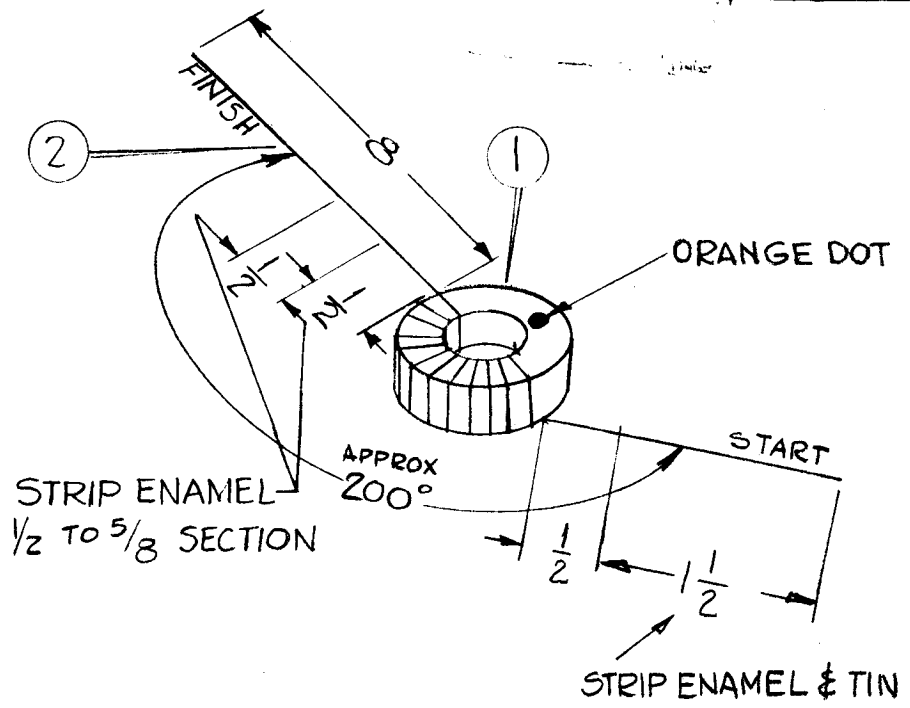
SCALE: DO NOT SCALE

MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION.  
REMOVE ALL BURRS AND SHARP EDGES

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REQ. PER UNIT	USED ON		
	MODEL	ASS'Y. NO.	DATE
1	HFR-1A	A 3506	2-25-64
1	HFR-2	A 3506	

A 3505 C



SCHEMATIC

WINDING PROCEDURE

1. WIND 9 TURNS EVENLY SPACED OVER A 200° ANGLE. WIND TURNS IN THE DIRECTION SHOWN.
2. PUSH TURNS TOGETHER OR SPREAD APART AS NEEDED TO MEET IND. SHOWN IN TEST SPECS.
- 3- BAKE FOR 1/2 HOUR AT 215° F. TO REMOVE MOISTURE.
- 4- COLOR CODE COIL WITH ORANGE ENAMEL DOT.
5. COAT COIL & CORE WITH GL-102 (ITEM 3) AND BAKE FOR 1/2 HOUR @ 215° F.

\* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

TEST SPECIFICATIONS

INDUCTANCE = 0.46  $\mu$ h  $\pm$  .01  $\mu$ h  
 WITH COIL CLAMPED INTO Q METER  
 1/2" AWAY FROM TERMINALS WITH FINISH END TO LOW SIDE.

Cdist = 0.4  $\mu$ uf (REF ONLY) Q = 185 MIN AT 25 MC  
 OPER. FREQ. RANGE = 25.75 - 33.75 MC

SYMBOL USED  
L1052 A

X	3	GL 102	Q-MAX		
X	2	WI 141-22-9	MAGNET WIRE, SINGLE #22		
1	1	CI 127-1	CORE, TOROID		
REQ.	ITEM	PART NO.	ANGER	DESCRIPTION	SYMBOL
				THE TECHNICAL MATERIEL CORP.	
				MAMARONECK, NEW YORK	
				COIL, RF, ASSEMBLY	
				BAND # 8 OSC.	
			G.D.L.	@	RDL
TYPE & TEMPER	HEAT TREAT. SPEC.	DRAWN	CHECKED	FINAL APPROVAL	
		J. Anger		A 3505 C	
FINISH & SPEC. NO.		ELEC. DES. APP.	MECH. DES. APP.		

C	COLOR CODE ADDED	4-10-67	18095	G.D.L.		
B	NOTE ADDED	1-12-67	17575	RME	G.D.L.	
A	Q'SPEC. WAS 200 MIN.	8/27/65	14729	R.V.	G.D.L.	
Q	ORIGINAL RELEASE FOR PRODUCTION	8/13/64				
X	EXPERIMENTAL RELEASE	3-26-64				
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.

UNLESS OTHERWISE SPECIFIED:  
 DIMENSIONS ARE IN INCHES  
 TOLERANCES ON  
 FRAC.  $\pm$  1/64 DEC.  $\pm$  .005 ANGLES  $\pm$  1/2°

SCALE: DO NOT SCALE  
 MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION.  
 REM VE ALL BURRS AND SHARP EDGES







REQ. PER UNIT	USED ON			A3512	A
	MODEL	ASS'Y. NO.	DATE		
	1	LPP-4	10/28/64		

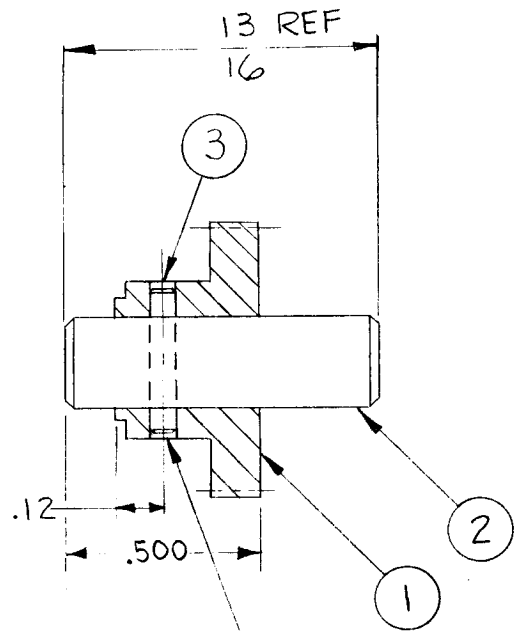
SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY
	4	A3510	4
		A3511	9
		MS3628 to A3509	2
		MS3629 to A3509	2
		MS3631	9
	5	TK'S	4
	9	A3510	4
		A3511	9
		MS3631	9
	10	MS3628 to A3509	2
		MS3629 to A3509	2
	11	TK'S	4

14	12	46100	APPARATUS, BLANK
4	11	SCBP0832BN5	SCREW, MACHINE
4	10	SCBP0632BN7	SCREW, MACHINE
22	9	SCBP0632BN5	SCREW, MACHINE
1	8	MS3631	COVER, BOTTOM
1	7	MS3629	PLATE, SIDE, LEFT
1	6	MS3628	PLATE, SIDE, RIGHT
4	5	LWE08MRN	WASHER, LOCK, EXTERNAL
26	4	LWE06MRN	WASHER, LOCK, EXTERNAL
1	3	A3511	COVER ASSY, TOP
1	2	A3510	PLATE ASSY, REAR
1	1	A3509	PANEL ASSY, FRONT

REQ. ITEM	PART NO.	STURMER	DESCRIPTION	SYMBOL
		THE TECHNICAL MATERIEL CORP. MAMARONECK. NEW YORK		
A		ITEM 14 ADDED		
Ø		ORIGINAL RELEASE FOR PRODUCTION		
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES	SCALE		
DECIMALS	FRACTIONS	CODE		
.X ± .05	± 1/64			
.XX ± .01	ANGLES			
.XXX ± .005	± 0° 30'			
TOLERANCES				
FINISH & SPEC. NO.		ELEC. DES. APP.	MECH. DES. APP.	A3512
				A

REQ. PER UNIT	USED ON		
	MODEL	ASS'Y. NO.	DATE
1	HFR-2	A 3548	3-5-64
1	HFR-2	A 3533	

A 3516 B



DR(.062-.065) DIA THRU # PIN WITH ITEM # 3

1	3	PN 59-062-6	PIN, SPRING		
1	2	PM1051RF0.812	SHAFT		
1	1	GR 205-15	GEAR		
REQ. ITEM	PART NO.		T. KRUY	DESCRIPTION	SYMBOL
— # —			THE TECHNICAL MATERIEL CORP.		
STOCK SIZE			MAMARONECK. NEW YORK		
— # —			GEAR ASSY		
MATERIAL			(TURRET)		
— # —		— # —	Drawn	@ 3-5-64	Final Approval
TYPE & TEMPER		HEAT TREAT. SPEC.	DRAWN	CHECKED	FINAL APPROVAL
— # —			T. Kruey		
FINISH & SPEC. NO.			ELEC. DES. APP.	MECH. DES. APP.	A 3516 B

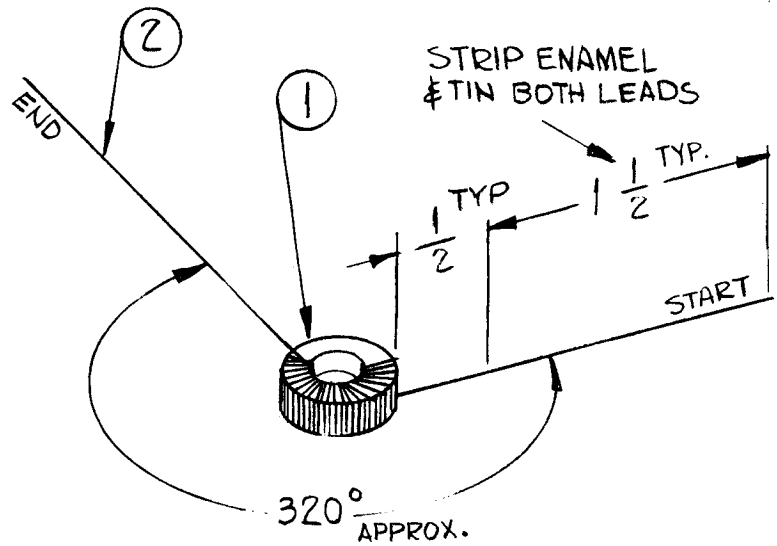
B	IT. 2 WAS PM1051-RF-.812	12-31-64	13149	J.L.	@	J.L.
A	ITEM 1 WAS GR 205-6	8/12/64	12831	J.L.	@	J.L.
Ø	ORIGINAL RELEASE FOR PRODUCTION	8/13/64	#	J.L.	@	J.L.
X	EXP. RELEASE	3/5/64	#	J.L.	@	J.L.
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE NONE				
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005	TOLERANCES	FRACTIONS ± 1/64 ANGLES ± 0° 30'	CODE A			



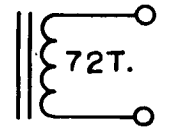
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REQ. PER UNIT	USED ON		
	MODEL	ASS'Y. NO.	DATE
3	HFR-1A	A 3520	3-6-64
3	HFR-2	A 3520	3-6-64

A 3518 A



SCHEMATIC



— PROCEDURE —

- 1-WIND APPROX. 72 TURNS CLOSE WOUND IN THE DIRECTION SHOWN,
- 2-REMOVE OR ADD TURNS TO MEET INDUCTANCE SHOWN IN TEST SPEC.
- 3-BAKE FOR 1/2 HOUR AT 215° F.
- 4-COAT COIL & CORE WITH GL-102 (Q-MAX) BAKE FOR 1/2 HOUR AT 215° F

\* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

ELECTRICAL SPECIFICATIONS

L=21.15  $\mu$ h  $\pm$  0.55  $\mu$ h  
 Q-160 MIN. AT 2.5 MC.  
 Cdist. = 1.0  $\mu$ f (FOR REF. ONLY)

SYMBOL USED

L1004, L1006 & 1008

X	3	GL 102	Q-MAX
X	2	WI 141-30-9	MAGNET WIRE, SINGLE #30
1	1	CI 127-1	CORE, TOROID

SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
A	NOTE ADDED	1-12-67	17575	RME	G.P.L.	<i>[Signature]</i>
Q	ORIGINAL RELEASE FOR PRODUCTION	8-13-64	Q	<i>[Signature]</i>		
X	EXPERIMENTAL RELEASE	3-26-64		<i>[Signature]</i>		

REQ.	ITEM	PART NO.	ANGLER	DESCRIPTION	SYMBOL
				THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
				CL 335 ASSY	
				COIL, RF, TOROID BAND#1.-23ARF	
			G.D.L.	@	<i>[Signature]</i>
			DRAWN	CHECKED	FINAL APPROVAL
			<i>[Signature]</i>		
			ELEC. DES. APP.	MECH. DES. APP.	

A 3518 A

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REQ. PER UNIT

MODEL

USED ON

ASSY. NO.

DATE

1

HFR-1A

A 3520

3-6-64

A. 3519

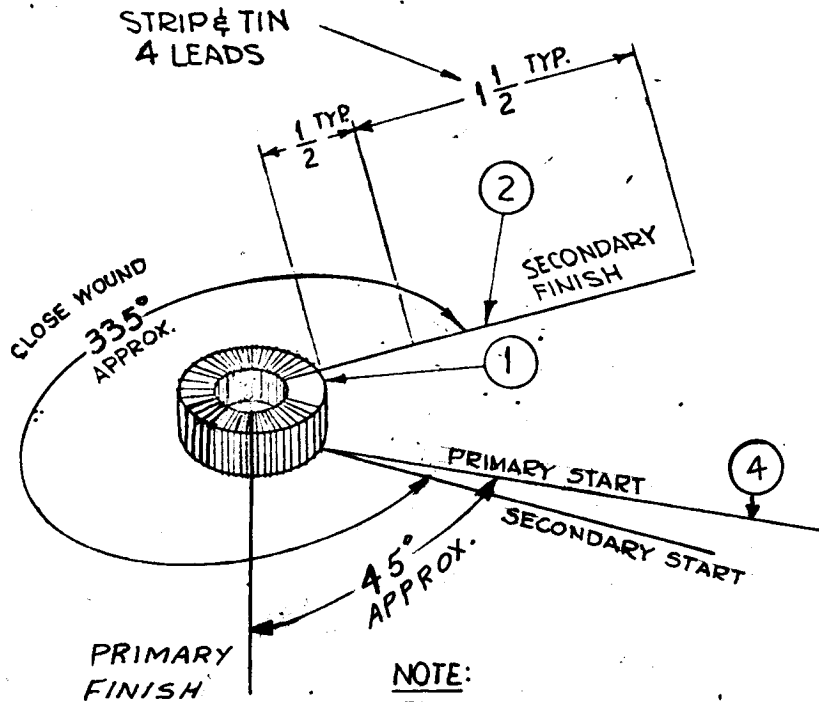
B

1

HFR-2

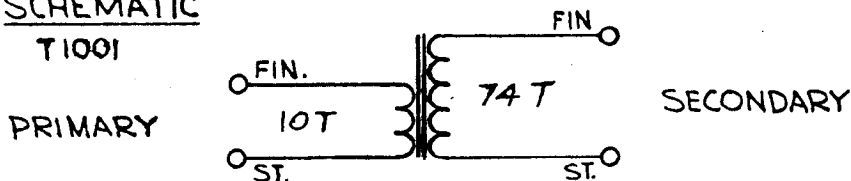
A 3520

3-6-64



NOTE:  
PRIMARY TO BE WOUND OVER (ON TOP OF) SECONDARY WINDING.

SCHMATIC  
T1001



- WINDING PROCEDURE —
1. WIND SECONDARY APPROX. 74 TURNS EQUALLY SPACED OVER THE ANGLE  $\frac{1}{2}$  IN THE DIRECTION SHOWN.
  2. REMOVE OR ADD TURNS TO MEET INDUCTANCE.
  3. STAKE LEADS SECURELY WITH Q-MAX.
  4. WIND PRIMARY 10 TURNS EQUALLY SPACED OVER THE ANGLE  $\frac{1}{2}$  IN THE DIRECTION SHOWN.
  5. STAKE LEADS SECURELY WITH Q-MAX.
  6. BAKE FOR 1/2 HR. AT 215° F TO REMOVE MOISTURE.
  7. COAT COIL & CORE WITH Q-MAX & BAKE 1/2 HR. AT 215° F.

— ELECTRICAL SPECS —

SECONDARY  $L = 21.2 \mu h \pm 0.6 \mu h$   
 $Q = 130 \text{ MIN AT } 2.5 \text{ MC}$   
 $C_{\text{dist.}} = 1.0 \mu f. \text{ (FOR REF. ONLY)}$

\* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

X	4	WI 141-30-5	MAGNET WIRE, SINGLE #30
X	3	GL 102	Q-MAX
X	2	WI 141-30-9	MAGNET WIRE, SINGLE #30
1	1	CI 127-1	CORE, TOROID

B	NOTE ADDED	1-12-67	17575	RME	G.D.L	M
A	IT. 4 ADDED PLOT & SPECS. REVISED	10/2/65	14936	M.L.	JL	Jr
Q	ORIGINAL RELEASE FOR PRODUCTION	8-24-64	Q	Jaw		
X	EXPERIMENTA RELEASE	3-26-64		Jaw		
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.

REQ.	ITEM	PART NO.	DESCRIPTION	SYMBOL
			THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
			TZ 175 ASSEMBLY	
			TRANSFORMER, ANTENNA BAND*1, FREQ. 2-3 MC	
			G.D.L	@
			Jaw	
			A 3519	B

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES ON  
FRAC.  $\pm 1/64$  DEC.  $\pm .005$  ANGLES  $\pm 1/2^\circ$

SCALE: DO NOT SCALE  
MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

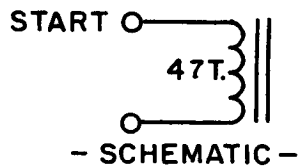
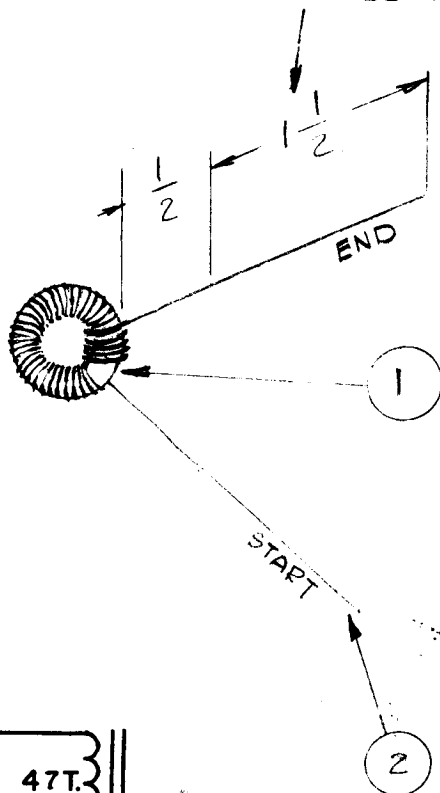
TYPE & TEMPER	HEATTREAT. SPEC.	DRAWN	CHECKED	FINAL APPROVAL
		Jaw		
FINISH & SPEC. NO.	ELEC. DES. APP.	MECH. DES. APP.		

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REQ. PER UNIT	USED ON		
	MODEL	ASSY. NO.	DATE
3	HFR-1A	A 3523	3-6-64
3	HFR-2	A 3523	3-6-64

A 3521 C

STRIP ENAMEL & TIN BOTH LEADS



— PROCEDURE —

- 1- APPROX. 47T. CLOSE WOUND IN THE DIRECTION SHOWN
- 2- REMOVE OR ADD TURNS TO MEET INDUCTANCE SHOWN IN TEST SPECS.
- 3- BAKE FOR 1/2 HR. AT 215° F TO REMOVE MOISTURE
- 4- COAT COIL & CORE WITH GL-102 Q MAX. AND BAKE FOR 1/2 HR. AT 215° F.

\* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

~ TEST SPECIFICATIONS ~

L = 8.0  $\mu$ h  $\pm$  0.2  $\mu$ h  
 Q = 190 MIN. AT 3.5 MC.  
 Cd<sub>dist</sub> = 1.0 mmf. (FOR REF ONLY)

~ SYMBOL USED ~

L1016, L1018 & L1020

X	3	GL 102	Q-MAX
X	2	WI 141-25-9	MAGNET WIRE, SINGLE #25
1	1	CI 127-1	CORE, TOROID

SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
C	NOTE ADDED	1-12-67	17575	RME	GDL	<i>[Signature]</i>
B	TEST SPECS. "Q" 190 WAS 200	5-27-66	16306	LPH	<i>[Signature]</i>	

UNLESS OTHERWISE SPECIFIED:  
 DIMENSIONS ARE IN INCHES  
 TOLERANCES ON  
 FRAC.  $\pm$  1/64 DEC.  $\pm$  .005 ANGLES  $\pm$  1/2°

SCALE: DO NOT SCALE

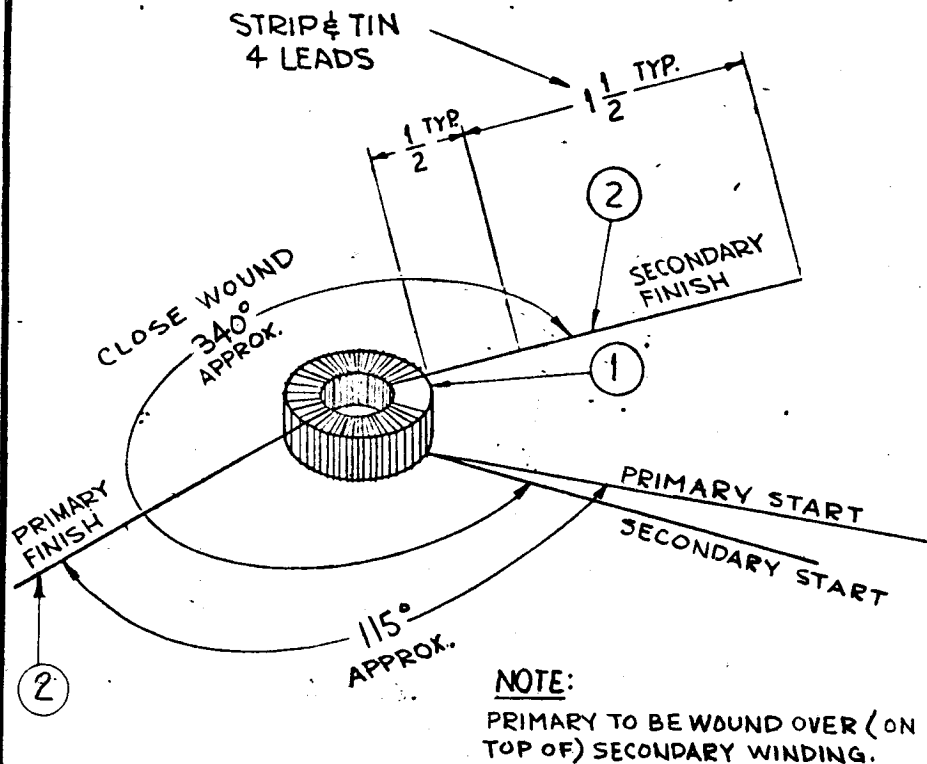
MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

REQ.	ITEM	PART NO.	ANGER	DESCRIPTION	SYMBOL
				THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
				CL 336 ASSY	
				COIL, RF, TOROID BAND #2. (2,3,4 RF)	
			G.D.L.	@	<i>[Signature]</i>
			FINISH & SPEC. NO.	ELEC. DES. APP.	MECH. DES. APP.
				<i>[Signature]</i>	
				A 3521	C

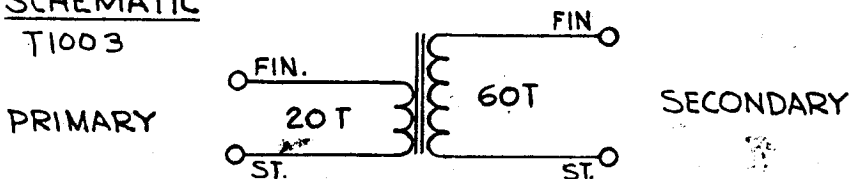
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REQ. PER UNIT	USED ON		
	MODEL	ASS'Y. NO.	DATE
1	HFR-1A	A 3523	3-6-64
1	HFR-2	A 3523	3-6-64

A 3522 B



SCHEMATIC  
T1003



WINDING PROCEDURE

1. WIND SECONDARY APPROX. 60 TURNS EQUALLY SPACED OVER THE ANGLE  $\phi$  IN THE DIRECTION SHOWN.
2. REMOVE OR ADD TURNS TO MEET INDUCTANCE.
3. STAKE LEADS SECURELY WITH Q-MAX
4. WIND PRIMARY 20 TURNS EQUALLY SPACED OVER THE ANGLE  $\phi$  IN THE DIRECTION SHOWN.
5. STAKE LEADS SECURELY WITH Q-MAX.
6. BAKE FOR 1/2 HR. AT 215°F TO REMOVE MOISTURE.
7. COAT COIL & CORE WITH Q-MAX & BAKE 1/2 HR. AT 215°F.

\* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

ELECTRICAL SPECS

SECONDARY L = 13.9  $\mu$ h  $\pm$  0.25  $\mu$ h.  
Q = 160 MIN. AT 25 MC  
Cdist. = 1.7  $\mu$ uf. (FOR REF ONLY)

PRIMARY L = 2.7  $\mu$ h  $\pm$  0.13  $\mu$ h  
Q = 50 MIN AT 5 MC  
Cdist = 5.7  $\mu$ uf (FOR REF ONLY)

X	3	GL 102	Q-MAX
X	2	WI 141-20-9	MAGNET WIRE, SINGLE #28
1	1	CI 127-1	CORE, TOROID

B	NOTE ADDED	1-12-67	17575	RME	C.D.L	
A	IT. 2 P/N WAS WI 141-28	1-22-65	13337	LZ	@	
Q	ORIGINAL RELEASE FOR PRODUCTION	8-13-64				
X	EXPERIMENTAL RELEASE	3-26-64				
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.

REQ.	ITEM	PART NO.	DESCRIPTION	SYMBOL
			THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
			TZ 176 ASSEMBLY	
			TRANSFORMER, ANTENNA BAND 2, FREQ. 3-4 MC.	
			G.D.L	@
			DRAWN	CHECKED
			FINAL APPROVAL	
			ELEC. DES. APP.	MECH. DES. APP.

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES N  
FRAC.  $\pm$  1/64 DEC.  $\pm$  .005 ANGLES  $\pm$  1/2°

SCALE: DO NOT SCALE  
MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

A 3522 B



THE CONTENTS OF THIS DRAWING ARE THE EXCLUSIVE PROPERTY OF THE TECHNICAL MATERIEL CORP. ITS UNAUTHORIZED USE OR REPRODUCTION IN WHOLE OR IN PART IS STRICTLY FORBIDDEN.

REQ. PER UNIT

USED ON

MODEL

ASS'Y. NO.

DATE

1  
1

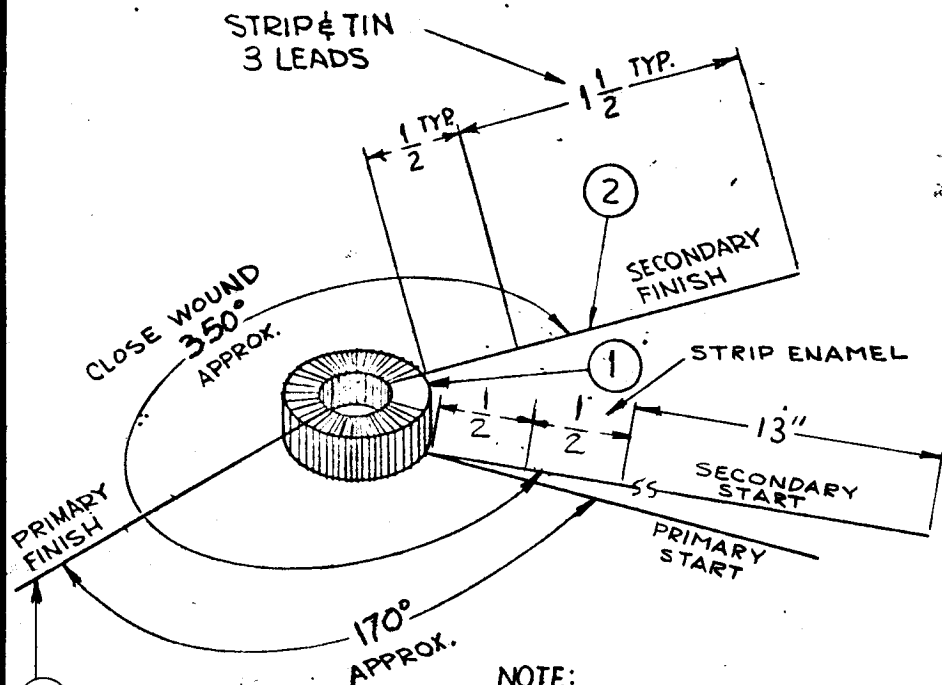
HFR-1A  
HFR-2

A 3526  
A 3526

3-9-64  
3-9-64

A 3525

B

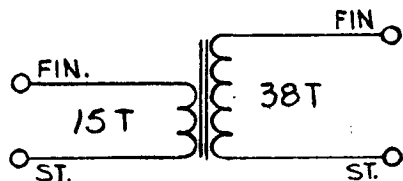


NOTE:  
PRIMARY TO BE WOUND OVER  
(ON TOP OF) SECONDARY WINDING.

SCHMATIC

T1004

PRIMARY



SECONDARY

- ~ WINDING PROCEDURE ~
1. WIND SECONDARY APPROX. 38 TURNS EQUALLY SPACED OVER THE ANGLE  $\phi$  IN THE DIRECTION SHOWN.
  2. REMOVE OR ADD TURNS TO MEET INDUCTANCE.
  3. STAKE LEADS SECURELY WITH Q-MAX.
  4. WIND PRIMARY 15 TURNS EQUALLY SPACED OVER THE ANGLE  $\phi$  IN THE DIRECTION SHOWN.
  5. STAKE LEADS SECURELY WITH Q-MAX.
  6. BAKE FOR 1/2 HR. AT 215° F TO REMOVE MOISTURE.
  7. COAT COIL & CORE WITH Q-MAX & BAKE 1/2 HR. AT 215° F.
- \* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

~ ELECTRICAL SPECS ~

SECONDARY  $L = 6.07 \mu h \pm 0.15 \mu h$ .  
WITH COIL CLAMPED INTO Q-METER 1/2" AWAY FROM TERMINALS,  
WITH START. END OF COIL TO LOW SIDE.

Q = 210 MIN. AT 7.0 MC

C DISTRIB. = 1.6  $\mu mf$  (FOR REF. ONLY)

PRIMARY

$L = 1.36 \mu h \pm 0.07 \mu h$

C DISTRIB. = 6.7  $\mu mf$  (FOR REF. ONLY)

Q = 60 MIN. AT 7.0 MC

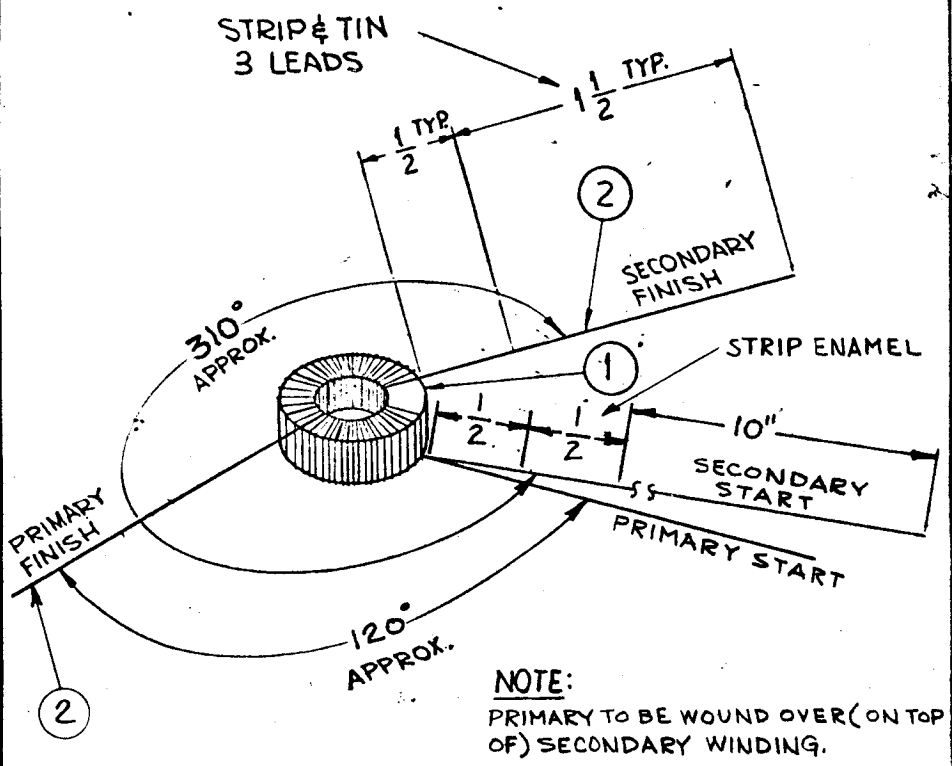
X	3	GL 102	Q-MAX
X	2	WI 14-24-9	MAGNET WIRE, SINGLE # 24
1	1	CI 127-1	CORE, TOROID

B	NOTE ADDED	11/2-67	17575	RME	G.D.L.		REQ.	ITEM	PART NO.	DESCRIPTION	SYMB L	
A	SEC "Q" WAS 215, PRI "Q" WAS 65	11/21-66	17299	RME	G.D.L.					THE TECHNICAL MATERIEL CORP.		
Q	ORIGINAL RELEASE FOR PRODUCTION	8/13-64								MAMARONECK, NEW YORK		
X	EXPERIMENTAL RELEASE	3-26-64								TZ 177 ASSY		
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.				TRANSFORMER, ANTENNA BAN#3, FREQ 4-6 MC		
UNLESS OTHERWISE SPECIFIED:		SCALE: DO NOT SCALE										
DIMENSIONS ARE IN INCHES		MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES										
TOLERANCES ON												
FRAC. $\pm 1/64$ DEC. $\pm .005$ ANGLES $\pm 1/2^\circ$												
							TYPE & TEMPER	HEAT TREAT. SPEC.	DRAWN	CHECKED	FINAL APPROVAL	
							FINISH & SPEC. NO.		ELEC. DES. APP.	MECH. DES. APP.	A 3525 B	

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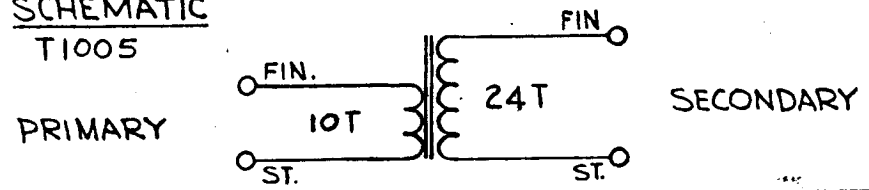
REQ. PER UNIT	USED ON		
	MODEL	ASS'Y. NO.	DATE
1	HFR-1A	A 3532	3-10-64
1	HFR-2	A 3532	3-10-64

A 3530 A



NOTE:  
PRIMARY TO BE WOUND OVER (ON TOP OF) SECONDARY WINDING.

SCHMATIC T1005



- WINDING PROCEDURE -
1. WIND SECONDARY APPROX. 24 TURNS EQUALLY SPACED OVER THE ANGLE  $\frac{1}{2}$  IN THE DIRECTION SHOWN.
  2. REMOVE OR ADD TURNS TO MEET INDUCTANCE.
  3. STAKE LEADS SECURELY WITH Q-MAX
  4. WIND PRIMARY 10 TURNS EQUALLY SPACED OVER THE ANGLE  $\frac{1}{2}$  IN THE DIRECTION SHOWN.
  5. STAKE LEADS SECURELY WITH Q-MAX.
  6. BAKE FOR 1/2 HR. AT 215° F TO REMOVE MOISTURE.
  7. COAT COIL & CORE WITH Q-MAX & BAKE 1/2 HR. AT 215° F.
- \* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.
- ELECTRICAL SPECS —

SECONDARY  $L = 2.64 \mu h \pm 0.07 \mu h$ .  
WITH COIL CLAMPED INTO Q-METER 1/2" AWAY FROM TERMINALS, WITH START END OF COIL TO LOW SIDE.  
 $Q = 200$  MIN. AT 7.9 MC  
 $C_{dist.} = 0.8 \mu mf$  (FOR REF ONLY)

PRIMARY  $L = 0.77 \mu h \pm 0.04 \mu h$   
 $Q = 85$  MIN AT 10 MC  
 $C_{dist.} = 2.1 \mu mf$  (FOR REF ONLY)

X	3	GL 102	Q-MAX
X	2	WI 141-24-9	MAGNET WIRE, SINGLE #24
1	1	CI 127-1	CORE, TOROID

SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
A	NOTE ADDED	1-12-67	17575	RME	G.D.L.	<i>[Signature]</i>
Q	ORIGINAL RELEASE FOR PRODUCTION	8-13-64	Q	<i>[Signature]</i>		
X	EXPERIMENTAL RELEASE	3-26-64		<i>[Signature]</i>		

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES ON  
FRAC.  $\pm 1/64$  DEC.  $\pm .005$  ANGLES  $\pm 1/2^\circ$

SCALE: DO NOT SCALE

MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

REQ.	ITEM	PART NO.	DESCRIPTION	SYMBOL
			THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
			TZ 178 ASSY	
			TRANSFORMER, ANTENNA, BAND #4, FREQ. 6-8 MC	
			G.D.L.	@
			<i>[Signature]</i>	<i>[Signature]</i>
			TYPE & TEMPER	HEATTREAT. SPEC.
			FINISH & SPEC. NO.	ELEC. DES. APP.
			DRAWN	CHECKED
			MECH. DES. APP.	

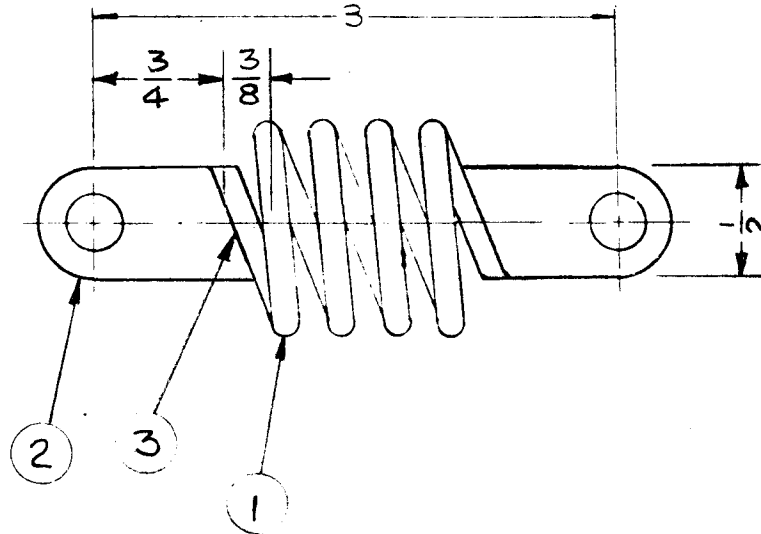
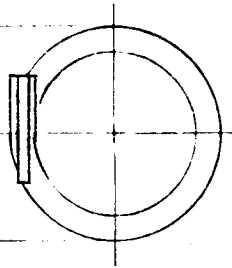
A 3530 A





REQ. PER UNIT	USED ON			A-3535	B
	MODEL	ASS'Y. NO.	DATE		
	GPT-20K(14)		12-2-63		

1.10 APPROX.



SPECIFICATIONS.

IND. ~ .82  $\mu$ h  $\pm 10\%$

Q ~ 210  $\pm 10\%$

AT 25 MC

NOTE

S-827 - SAND BLASTING  
BEFORE PLATING

X	3	BS-101-1	SOLDER, SILVER
2	2	MS-4013	STRAP, CONNECTOR
13/4	1	TU-100-3N	TUBING, COPPER 3/16 O.

SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.	REQ. ITEM	PART NO.	F. BUDETTI	DESCRIPTION	SYMBOL	
B	ITEM 3 WAS BS-101	3-7-67	17985	L.A.K.	<i>[Signature]</i>	<i>[Signature]</i>				THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK		
A	COMPLETELY REVISED	9-16-64	12339	AB	<i>[Signature]</i>	<i>[Signature]</i>		STOCK SIZE			CL-326 ASSEMBLY	
O	ORIGINAL RELEASE FOR PRODUCTION	3-3-64		AM								
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE		1=1					SRG	<i>[Signature]</i>	<i>[Signature]</i>	
TOLERANCES		FRACTIONS		CODE		SEE NOTE		TYPE & TEMPER. HEAT TREAT. SPEC.		FINAL APPROVAL		
.X $\pm$ .05 .XX $\pm$ .01 .XXX $\pm$ .005		$\pm 1/64$ ANGLES $\pm 0^\circ 30'$		A				S827 - SAND BLAST S245 - SILVER PLATE		A-3535 B		
								FINISH & SPEC. NO.		ELEC. DES. APP. MECH. DES. APP.		

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REQ. PER UNIT

USED ON

MODEL

ASS'Y. NO.

DATE

1

HFR-1A

A 3538

3-12-64

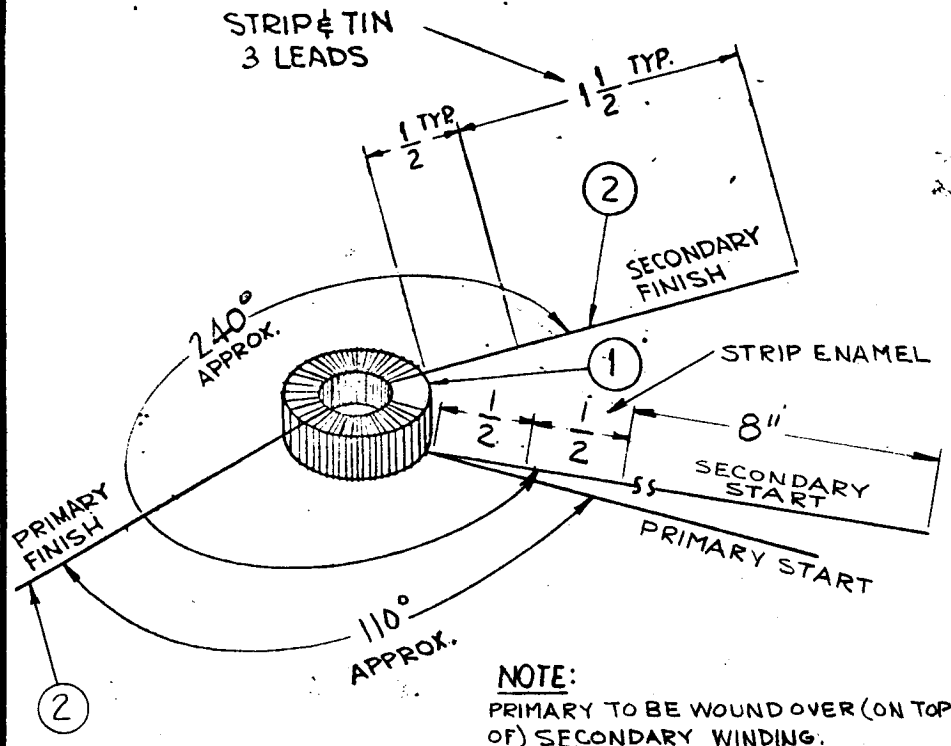
1

HFR-2

A 3538

3-12-64

A 3536 B

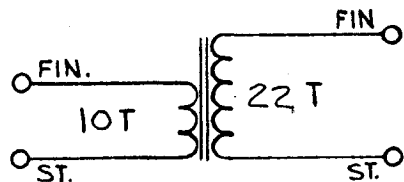


NOTE:  
PRIMARY TO BE WOUND OVER (ON TOP OF) SECONDARY WINDING.

SCHEMATIC

T1006

PRIMARY



SECONDARY

PRIMARY

$L = 0.79 \mu h \pm .04 \mu h$

$Q = 75 \text{ MIN. AT } 9.5 \text{ MC}$

$C_{dist} = 2 \mu f \text{ (FOR REF. ONLY)}$

- ~ WINDING PROCEDURE ~
1. WIND SECONDARY APPROX. 22 TURNS EQUALLY SPACED OVER THE ANGLE  $\phi$  IN THE DIRECTION SHOWN.
  2. REMOVE OR ADD TURNS TO MEET INDUCTANCE.
  3. STAKE LEADS SECURELY WITH Q-MAX
  4. WIND PRIMARY 10 TURNS EQUALLY SPACED OVER THE ANGLE  $\phi$  IN THE DIRECTION SHOWN.
  5. STAKE LEADS SECURELY WITH Q-MAX.
  6. BAKE FOR 1/2 HR. AT 215°F TO REMOVE MOISTURE.
  7. COAT COIL & CORE WITH Q-MAX & BAKE 1/2 HR. AT 215°F.
- \* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.  
ELECTRICAL SPECS

SECONDARY  $L = 2.32 \mu h \pm 0.05 \mu h$ .  
WITH COIL CLAMPED INTO Q-METER 1/2" AWAY FROM TERMINALS,  
WITH START END OF COIL TO LOW SIDE

$Q = 180 \text{ MIN AT } 7.9 \text{ MC}$

$C_{dist} = 0.8 \mu f \text{ (FOR REF. ONLY)}$

X	3	GL 102	Q-MAX
X	2	WJ 141-24-9	MAGNET WIRE, SINGLE # 24
1	1	CI 127-1	CORE, TOROID

B	ON PRIM. ELEC. SPECS. Q=75 WAS Q=85	4-10-67	18095	G.D.L.		
A	NOTE ADDED	1-12-67	17575	RME	G.D.L.	
Ø	ORIGINAL RELEASE FOR PRODUCTION	8-3-64				
X	EXPERIMENTAL RELEASE	3-30-64				
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.

REQ. ITEM	PART NO.	DESCRIPTION	SYMBOL
		THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
		TZ 179 ASSEMBLY	
		TRANSFORMER, ANTENNA BAND 5, FREQ 8-12 MC	
		G.D.L.	@
		DRIVEN	CHECKED
		FINISH & SPEC. NO.	ELEC. DES. APP.
			MECH. DES. APP.

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES ON  
FRAC.  $\pm 1/64$  DEC.  $\pm .005$  ANGLES  $\pm 1/2^\circ$

SCALE: DO NOT SCALE  
MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES

TYPE & TEMPER HEAT TREAT. SPEC. DRAWN CHECKED FINAL APPROVAL

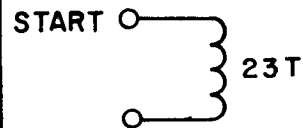
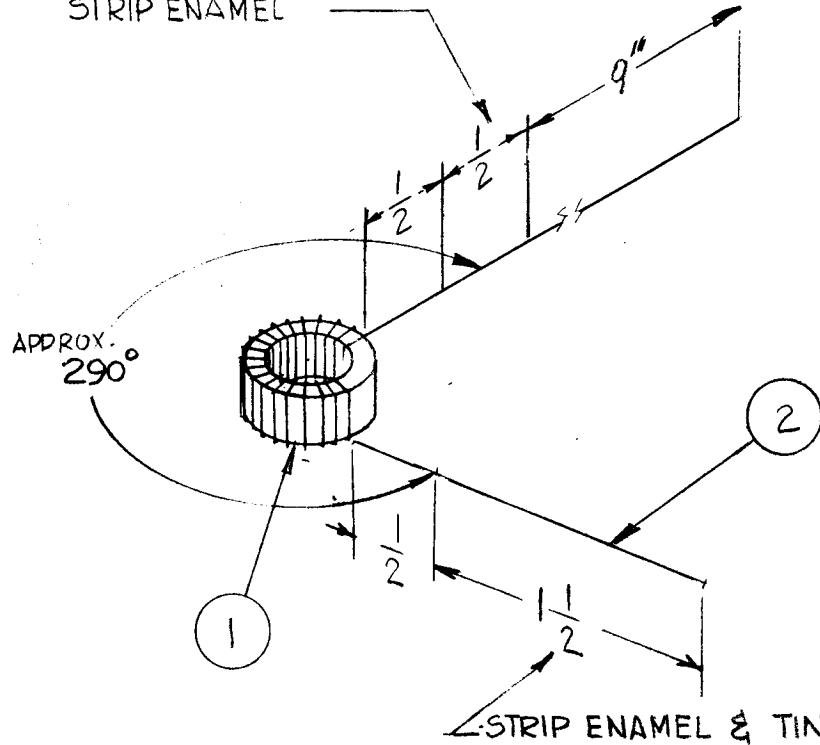
FINISH & SPEC. NO. ELEC. DES. APP. MECH. DES. APP. A 3536 B

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REQ. PER UNIT	USED ON		
	MODEL	ASS'Y. NO.	DATE
3	HFR-1A	A 3538	3-12-64
3	HFR-2	A 3538	3-12-64

A 3537 A

STRIP ENAMEL



SCHEMATIC

— SYMBOL USED —  
L 1034A, L1035A L1036A

— PROCEDURE —

- 1 - WIND 23 TURNS EVENLY SPACED OVER A 290° ANGLE. WIND TURNS IN THE DIRECTION SHOWN
- 2 - PUSH TURNS TOGETHER OR REMOVE TURN AS NEEDED TO MEET INDUCTANCE SHOWN IN TEST SPECS.
- 3 - BAKE FOR 1/2 HR. AT 215°F. TO REMOVE MOISTURE.
- 4 - COAT COIL & CORE WITH GL-102 Q-MAX AND BAKE FOR 1/2 HR. AT 215°F.

\* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

— TEST SPECIFICATIONS —

$L = 2.18 \mu h \pm 0.06 \mu h$   
WITH COIL CLAMPED INTO Q METER 1/2" AWAY FROM TERMINALS WITH FINISH END OF COIL TO LOW SIDE.  
 $Q = 220 \text{ MIN @ } 10 \text{ MC}$   
 $C_{\text{dist.}} = 0.6 \mu f$  (FOR REF. ONLY)  
OPER. FREQ. RANGE 8-12 MC

X	3	GL 102	Q-MAX
X	2	WI 141-24-9	MAGNET WIRE, SINGLE #24
1	1	CI 127-1	CORE, TOROID

SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
A	NOTE ADDED	1-12-67	17575	RME	G.D.L	<i>[Signature]</i>
Q	ORIGINAL RELEASE FOR PRODUCTION	8-13-66	Q	<i>[Signature]</i>		
X	EXPERIMENTAL RELEASE					

REQ.	ITEM	PART NO.	DESCRIPTION	SYMBOL
			THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
			COIL, RF, ASS'Y	
			BAND #5 - 2, 3, 4 RF.	
			G.D.L	<i>[Signature]</i>
			TYPE & TEMPER	HEATTREAT. SPEC.
			FINISH & SPEC. NO.	ELEC. DES. APP. MECH. DES. APP.
			<i>[Signature]</i>	A 3537 A

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES ON  
FRAC.  $\pm 1/64$  DEC.  $\pm .005$  ANGLES  $\pm 1/2^\circ$

SCALE: DO NOT SCALE  
MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION.  
REMOVE ALL BURRS AND SHARP EDGES

SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY	REQ. PER UNIT	USED ON			A3539	Ø
					MODEL	ASS'Y. NO.	DATE		
				1	LFSA-1/A3544	A3545	3/26/65		

DS451-453	2		
DS454	3		
	4	HA102-7BN	4
M451	7		
	9	A3054-2	2
	10	NP621	4
S452	11		
XDS452,453	12		
XDS451	13		
XDS454	14		
J480	15		

1	15	UG657*/U	CONN, RECP -BNC
1	14	TS156	LAMPHOLDER
1	13	TS106-3	LIGHT, IND -GRN-POWER
2	12	TS106-1	LIGHT, IND -RED -BAT, SYNCALARM
1	11	ST22N	SW, TOGGLE
4	10	SFB0256SN3	SCR, TAP., THD CTG
2	9	SCBP0632BN8	SCR, MACH
1	8	NP621	PLATE, IDENT
1	7	MR180	METER, IND
1	6	LD1421/MS3608	PNL, FRONT
2	5	HA102-7BN	HDL, BOW
4	4	CU139-2B	FRL, HDL
1	3	BI111-1	LAMP, GLOW
3	2	BI101-1819	LAMP, INCAND
1	1	A3054-2	BEZEL ASSY

								REQ.	ITEM	PART NO.	POSE	DESCRIPTION	SYMBOL							
											<b>THE TECHNICAL MATERIEL CORP. MAMARONECK. NEW YORK</b>									
											STOCK SIZE									
											PANEL ASSEMBLY, FRONT									
											MATERIAL									
											ENG COORD	<i>L. Gabril</i> 6-23-65	<i>W. H. Key</i> 6/24/65 FINAL APPROVAL							
											TYPE & TEMPER	HEAT TREAT. SPEC.			DRAWN	CHECKED				
											FINISH & SPEC. NO.		ELEC. DES. APP.	MECH. DES. APP.	A3539	Ø				
											UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES					SCALE				
											DECIMALS .X ± .05 .XX ± .01 .XXX ± .005		TOLERANCES		FRACTIONS ± 1/64 ANGLES ± 0° 30'		CODE			



SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY
-----------	----------	---------------	-----

	2	FS102-1	12
	4	FS102-1	12
	5	FS102-1	12

REQ. PER UNIT	USED ON			A3541	Ø
	MODEL	ASS'Y. NO.	DATE		
1	LFSA-1/A3544	A3545	3/25/65		

12	5	SCFP0348BN4	SCR, MACH
12	4	NTH0348BN6	NUT, PLN, HEX
1	3	MS3603	PL, SD, RIGHT
12	2	LWS03MRN	WASH., LK, EXT
6	1	FS102-1	LOCKSPRING

REQ.	ITEM	PART NO.	DESCRIPTION	SYMBOL
			<i>POSE</i>	
			<b>THE TECHNICAL MATERIEL CORP.</b>	
			<b>MAMARONECK. NEW YORK</b>	
			STOCK SIZE	
			PLATE ASSEMBLY, RIGHT SIDE	
			MATERIAL	
			ENG COORD	
			DRAWN	
			CHECKED	
			FINAL APPROVAL	
			A3541	Ø
			ELEC. DES. APP.	
			MECH. DES. APP.	

UNLESS OTHERWISE SPECIFIED		SCALE	
DIMENSIONS ARE IN INCHES AND INCLUDE			
CHEMICALLY APPLIED OR PLATED FINISHES			
DECIMALS	FRACTIONS	CODE	
.X ± .05	± 1/64		
.XX ± .01	ANGLES		
.XXX ± .005	± 0° 30'		

Ø	ORIGINAL RELEASE FOR PRODUCTION	6/24/65					
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.	

SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY	REQ. PER UNIT	USED ON			A3542	Ø
					MODEL	ASS'Y. NO.	DATE		
				1	LFSA-1/A3544	A3545	3/29/65		

J471,473,475 2  
J477,479

5	MS3602	3
6	FS102-1	26
7	FS102-1	26
8	MS3602	3
9	MS3602	3
10	FS102-1	26
11	JJ211	5

5	11	TE111-2	TERM. , LUG-3/8D
26	10	SCFP0348BN4	SCR, MACH
3	9	SCBP0632BN4	SCR, MACH
3	8	NTH0632BN8	NUT, PLN, HEX
26	7	NTH0348BN6	NUT, PLN, HEX
26	6	LWS03MRN	WASH. , LK, SPLIT
3	5	LWE06MRN	WASH. , LK, EXT
1	4	LD1420/MS3602	BRKT, MTG, CONN
1	3	LD1418/MS3600	CHAS, FRONT
5	2	JJ211	CONN, RECP, RF
13	1	FS102-1	LOCKSPRING

REQ.	ITEM	PART NO.	POSE	DESCRIPTION	SYMBOL			
			<b>THE TECHNICAL MATERIEL CORP.</b> MAMARONECK. NEW YORK					
			STOCK SIZE					
			CHASSIS ASSEMBLY, FRONT					
			MATERIAL					
			3-29-65	<i>L. Gable</i>	<i>M. P. King 6/24/65</i>			
			ENG COORD	6-24-65				
			TYPE & TEMPER	HEAT TREAT. SPEC.	DRAWN	CHECKED	FINAL APPROVAL	
							A3542	Ø
			FINISH & SPEC. NO.		ELEC. DES. APP.	MECH. DES. APP.		

SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY	USED ON					
				REQ. PER UNIT	MODEL	ASS'Y. NO.	DATE		
				1	LFSA-1/A3544	A3545	3/29/65	A3543	∅
C451-454	1								
XF451-454	2								
F451	3								
F454	4								
F452,453	5								
	8	MS3102	8	4	25	TE111-2	TERM., LUG		
	9	TM100-2	4		24	WL103-1	BRD, WIRE, FLAT		
	10	FS102	26	5	23	UG625*/U	CONN, RECP -BNC		
J451	11			1	22	TM100-2	TERM., BD, BARR		
J456	12			4	21	TE113-120	TERM., LUG		
	13	FS102	26	1	20	ST22K	SW, TOGGLE		
	14	MS3102	8	26	19	SCFP0348BN4	SCR, MACH		
	15	TM100-2	4	4	18	SCBP0632BN7	SCR, MACH		
	16	TM100-2	1	8	17	SCBP0440BN5	SCR, MACH		
	17	MS3102	8	1	16	PX337-2	INS., TERM. BD		
	18	TM100-2	4	4	15	NTH0632BN8	NUT, PLN, HEX		
	19	FS102	26	8	14	NTH0440BN8	NUT, PLN, HEX		
S451	20			26	13	NTH0348BN6	NUT, PLN, HEX		
	21	J451	2	1	12	MS3102A14S2P	CONN, RECP, ML-BAT		
		J456	2	1	11	MS3102A14S1P	CONN, RECP, ML-AC		
E451	22			26	10	LWS03MRN	WASH., LK, SPLIT		
J452-455	23			4	9	LWE06MRN	WASH., LK, EXT		
J481				8	8	LWE04MRN	WASH., LK, EXT		
	25	UG625*/U	4	13	7	FS102-1	LOCKSPRING		
				1	6	LD1419/MS3601	CHAS, REAR		
				2	5	FU102-1	FUSE, CTG, 1A		
				1	4	FU102-.125	FUSE, CTG, 1/8A		
				1	3	FU102-.500	FUSE, CTG, 1/2A		
				4	2	FH103	FUSEHOLDER		
				4	1	CC100-14	CAP., FXD, CER		

REQ.	ITEM	PART NO.	POSE	DESCRIPTION	SYMBOL
				<b>THE TECHNICAL MATERIEL CORP.</b>	
				MAMARONECK. NEW YORK	
				CHASSIS ASSEMBLY, REAR	
				MATERIAL	
				3-29-65	2. Gable
				ENG COORD	6-24-65
				DRAWN	FINAL APPROVAL
				A3543	
				ELEC. DES. APP.	MECH. DES. APP.



SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY	REQ. PER UNIT	USED ON			A3544	Ø
					MODEL	ASSY. NO.	DATE		
				1	LFS-1/A3544	A3545	3/29/65		
J457-469	7	CA874	1						
	8	JJ293	26						
	9								
	10	A3540 to A3542	4						
		A3540 to A3543	2						
		A3541 to A3542	4						
		A3541 to A3543	2						
		CU102(CA874)	1	1	25	A3542	CHAS ASSY,FR		
		JJ293-15S	26	13	24	TE113-120	TERM.,LUG-NO.4		
				16	23	SCFP0440BN5	SCR,MACH		
	11	MS3613	3	26	22	SCBP0440BN8	SCR,MACH		
	12	JJ308(CA874)	10	4	21	SCBP1032BN6	SCR,MACH		
	15	JJ308(CA874)	10	3	20	SCBP0632BN7	SCR,MACH		
	16	A3540 to A3542	4	5	19	SCBP0440BN5	SCR,MACH		
		A3541 to A3542	4	10	18	SCBP0256BN5	SCR,MACH		
		CU102(CA874)	1	3	17	NTH0632BN8	NUT,PLN,HEX		
		JJ293	26	35	16	NTH0440BN8	NUT,PLN,HEX		
	17	MS3613	3	10	15	NTH0256BN4	NUT,PLN,HEX		
	18	JJ308(CA874)	10	1	14	MS3613	BRKT,SUPPORT		
	19	A3540 to A3543	2	5	13	MP123-6NB	KNOB		
		A3541 to A3543	2	10	12	LWS02MRN	WASH.,LK,SPLIT		
		CU102(CA874)	1	3	11	LWE06MRN	WASH.,LK,EXT		
	20	MS3613	3	39	10	LWE04MRN	WASH.,LK,EXT		
	21	A3539	4	13	9	JJ293-15SFE	CONN,RECP,FML,PC		
	22	JJ293	26	26	8	FW04HBN	WASH.,FLAT		
	23	A3540 to A3542	4	1	7	EY102-4	GROM,RUB.,5/16ID		
		A3540 to A3543	4		6	<b>DELETED</b>			
		A3541 to A3542	4	1	5	CA874	WRG HARN,BRCHD		
		A3541 to A3543	4	1	4	A3543	CHAS ASSY,REAR		
	24	JJ293	13	1	3	A3541	PL ASSY,R SD		
				1	2	A3540	PL ASSY,L SD		
				1	1	A3539	PNL ASSY,FR		

REQ.	ITEM	PART NO.	POSE	DESCRIPTION	SYMBOL
<b>THE TECHNICAL MATERIEL CORP.</b>					
MAMARONECK. NEW YORK					
LFS-1 SUB ASSEMBLY					
STOCK SIZE					
MATERIAL					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES			SCALE	ENG COORD 3-29-65	2. gabul 6-24-65 A. H. Ray 6/24/65
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005			TOLERANCES	TYPE & TEMPER	HEAT TREAT. SPEC.
FRACTIONS ± 1/64 ANGLES ± 0° 30'			CODE	DRAWN	CHECKED
				FINAL APPROVAL	
				A3544	
				ELEC. DES. APP.	MECH. DES. APP.
				Ø	

SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY	REQ. PER UNIT	USED ON			A3545	Ø
					MODEL	ASS'Y. NO.	DATE		
				1	LFSA-1	LFSA-1	3/29/65		
DS351-1	11								
DS351-2									
DS351-3									
DS351-4									
DS351-5									
W451-454	12								
AT451	13								
	14	TS157	10						
	15	AX433	4						
		DL100	1	5	21	SCBP0632BN5	SCR, MACH		
	16	For AX495	5	10	20	SCBP0440BN6	SCR, MACH		
	19	DL100	1	1	19	NTH0632BN8	NUT, PLN, HEX		
	20	TS157	10	1	18	MS3403	COV, TOP		
	21	AX433	4	1	17	MS3402	COV, BOT		
		DL100	1	5	16	MP123-6NB	KNOB		
				5	15	LWE06MRN	WASH., LK, EXT		
				10	14	LWE04MRN	WASH., LK, EXT		
				1	13	DL100-16	DUMMY LOAD, ELEC		
				4	12	CA480-68-3.50	CBL ASSY, RF		
				5	11	BI109-2	IND, DIG. DISPLAY		
				5	10	AX495	FIL ASSY, SPECTRUM		
				1	9	AX475	PHASE DET MODL		
				1	8	AX474	MINUS MIXER MODL		
				4	7	AX473	1/10 MODL		
				5	6	AX472	PLUS MIXER MODL		
				1	5	AX471	SPECTRUM GEN MODL		
				1	4	AX470	GEN MODL, 1-8-10 MC		
				1	3	AX433	PWR SUPPLY		
				1	2	A3544	LFSA-1 SUBASSY		
				1	1	A3304-4	TEST CARD ASSY-SEE NOTE		

NOTE 1. A3304-4 TEST CARD ASSEMBLY TO BE SUPPLIED AS A LOOSE ITEM WHEN THE LFSA-1 IS SOLD AS A SINGLE UNIT.

REQ.	ITEM	PART NO.	POSE	DESCRIPTION	SYMBOL
				<b>THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK</b>	
STOCK SIZE				LFSA-1 FINAL ASSEMBLY	
MATERIAL					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES			SCALE	ENG COORD	<i>L. Gabriel</i> <i>6-29-65</i>
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005			TOLERANCES	DRAWN	<i>M. J. Ryan</i> <i>6/24/65</i>
FRACTIONS ± 1/64 ANGLES ± 0° 30'			CODE	CHECKED	FINAL APPROVAL
			FINISH & SPEC. NO.	ELEC. DES. APP.	MECH. DES. APP.
				A3545	Ø







SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY	REQ. PER UNIT	USED ON			A3553	Ø
					MODEL	ASS'Y. NO.	DATE		
				1	MAF-1/AX466		10/9/64		

5	MS3621	2
6	A3379	3

3	6	SCBP0632BN6	SCREW, MACHINE
2	5	SCBP0632BN4	SCREW, MACHINE
1	4	MS3621	COVER
2	3	MP123-5FB	KNOB
1	2	A3406	CHASSIS ASSEMBLY, MAIN
1	1	A3379	PANEL ASSEMBLY, FRONT

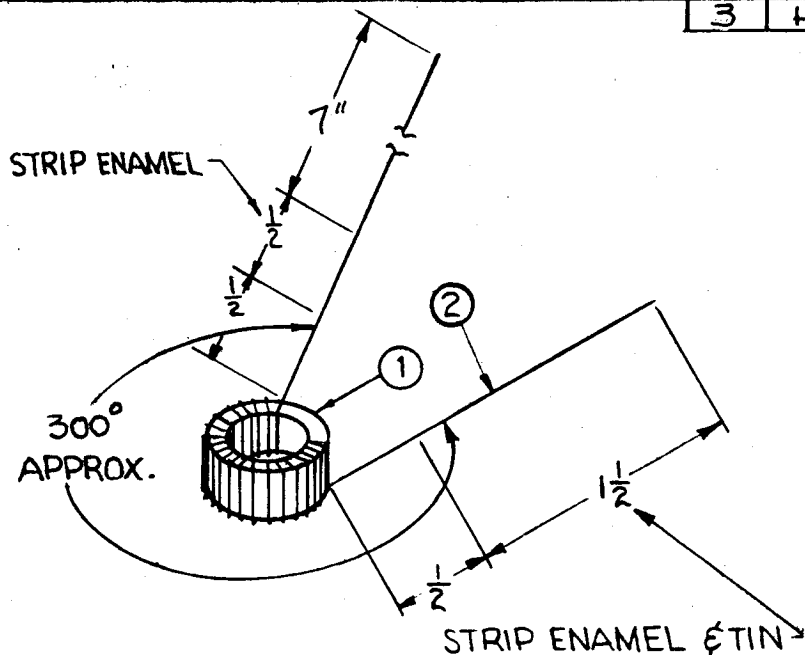
								REQ. ITEM	PART NO.	DESCRIPTION	SYMBOL	
										THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK		
										AX466 FINAL ASSEMBLY		
Ø	ORIGINAL RELEASE FOR PRODUCTION	10-12-64	Ø	RF								
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE						ENG COORD	<i>L. Goble</i> 10-10-64	<i>RAL</i>		
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005	TOLERANCES	FRACTIONS ± 1/64 ANGLES ± 0° 30'	CODE					TYPE & TEMPER	HEAT TREAT. SPEC.	DRAWN	CHECKED	FINAL APPROVAL
										<i>AKW</i>		A3553
								FINISH & SPEC. NO.	ELEC. DES. APP.	MECH. DES. APP.	Ø	



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REQ. PER UNIT	USED ON		
	MODEL	ASS'Y. NO.	DATE
3	HFR-1A	A 3556	3-20-64
3	HFR-2	A 3556	3-20-64

A 3555 A



- ~ PROCEDURE ~
- 1- WIND 11 TURNS EVENLY SPACED OVER A 300° ANGLE, WIND TURNS IN THE DIRECTION SHOWN.
  - 2- PUSH TURNS TOGETHER OR SPREAD APART AS NEEDED TO MEET INDUCTANCE SHOWN IN TEST SPECS.
  - 3- BAKE FOR 1/2 HOUR AT 215°F TO REMOVE MOISTURE
  - 4- COAT COIL & CORE WITH GL-102 Q-MAX AND BAKE FOR 1/2 HOUR AT 215°F.

TEST SPECIFICATIONS

INDUCTANCE = .62  $\mu$ h  $\pm$  0.02  $\mu$ h WITH COIL CLAMPED INTO Q-METER 1/2" AWAY FROM TERMINALS, WITH FINISH END OF COIL TO LOW SIDE.

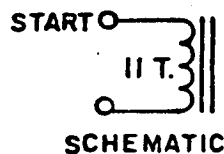
Q = 190 MIN. AT 20 MC.

OPER. FREQ. RANGE = 16-24 MC.

C<sub>dist.</sub> = 0.54  $\mu$ f (REF ONLY).

SYMBOL USED

L1044A, L1045A, L1046A.



\* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

X	3	GL 102	Q-MAX
X	2	WI 141-22-9	MAGNET WIRE, SINGLE #22
1	1	CI 127-1	CORE, TOROID

SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
A	NOTE ADDED	1-12-67	17575	RME	G.D.L.	<i>MR</i>
Q	ORIGINAL RELEASE FOR PRODUCTION	8-13-64	Q	<i>Ym</i>		
X	EXPERIMENTAL RELEASE	3-30-64		<i>Delux</i>		

REQ. ITEM	PART NO.	ANGER	DESCRIPTION	SYMB L
<del>X</del>	<del>---</del>		THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
<del>X</del>	<del>---</del>		COIL, RF, ASS'Y BAND #7- 2, 3, 4 RF	
<del>X</del>	<del>---</del>			
<del>X</del>	<del>---</del>	G.D.L.	<i>@</i>	<i>RC</i>
<del>X</del>	<del>---</del>	FINISH & SPEC. NO.	DRAWN	CHECKED
			<i>Janger</i>	
			ELEC. DES. APP.	MECH. DES. APP.

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES ON  
FRAC.  $\pm$  1/64 DEC.  $\pm$  .005 ANGLES  $\pm$  1/2°  
SCALE:  
MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION.  
REMOVE ALL BURRS AND SHARP EDGES

A 3555 A



				USED ON									
				REQ. PER UNIT	MODEL	ASS'Y. NO.	DATE						
				1	VLRA-1	A3366	12/31/64			A3560			
SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY										
	5	FS102	2										
	6	FS102	4										
	7	FS102	4										
				4	7	SCFP0348BN4	SCREW, MACHINE						
				4	6	NTH0348BN6	NUT, PLAIN, HEXAGON						
				2	5	LWS03MRN	WASHER, LOCK, SPLIT						
				1	4	LD1482/MS3727	BRACKET, MOUNTING						
				2	3	FS102-1	LOCKSPRING						
				2	2	A3304-4	PC BOARD, FINAL ASSEMBLY						
				1	1	A3303-4	PC BOARD, FINAL ASSEMBLY						
				REQ.	ITEM	PART NO.	DESCRIPTION	SYMBOL					
							POSE						
							<b>THE TECHNICAL MATERIEL CORP.</b> MAMARONECK, NEW YORK						
							STOCK SIZE						
								TEST CARD ASSEMBLY					
Ø	ORIGINAL RELEASE FOR PRODUCTION	1-19-65	Ø	27	K								
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.	MATERIAL						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE						1238-64	R. Gabriel	FR			
								ENG COORD	1-19-65				
								TYPE & TEMPER	HEAT TREAT. SPEC.	DRAWN	CHECKED	FINAL APPROVAL	
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005		FRACTIONS ± 1/64 ANGLES ± 0° 30'		TOLERANCES		CODE						A3560	Ø
								FINISH & SPEC. NO.	ELEC. DES. APP.	MECH. DES. APP.			





SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY	REQ. PER UNIT	USED ON			A3564	Ø
					MODEL	ASS'Y. NO.	DATE		
				1	MFP-1	A3563	10/13/64		
DS7002	1								
DS7001	2								
	3	HA102	4						
XF7001	4								
DS7003									
R7017									
XF7002									
DS7004									
R7018									
XF7003									
DS7005									
R7019									
F7003	5								
F7002	6								
F7001	7								
F7002	8								
	12	HA102	4	1	15	TS154-3			LIGHT, INDICATOR, AMBER
	13	NP102	4	1	14	TS153-1			LIGHT, INDICATOR, RED
XDS7002	14			4	13	SFB0256SN3			SCREW, TAP., THREAD CUTTING
XDS7001	15			4	12	SCFP1032BN8			SCREW, MACHINE
				1	11	NP102-64			PLATE, IDENT, COMMERCIAL
				1	10	LD1448/MS3694			PANEL, FRONT
				2	9	HA102-13BN			HANDLE, BOW
				1	8	FU102-6.25			FUSE, CARTRIDGE, 6-1/4 A, 115V ONLY
				1	7	FU102-.5			FUSE, CARTRIDGE, 1/2 A
				1	6	FU102-3			FUSE, CARTRIDGE, 3A, 230V ONLY
				1	5	FU102-.1			FUSE, CARTRIDGE, 1/10 A
				3	4	FH104-2			FUSEHOLDER, INDICATOR
				4	3	CU139-2B			FERRULE, HANDLE
				1	2	BI111-1			LAMP, GLOW
				1	1	BI110-8			LAMP, INCANDESCENT

REQ.	ITEM	PART NO.	A.ALT.		DESCRIPTION	SYMBOL
<b>THE TECHNICAL MATERIEL CORP.</b> MAMARONECK, NEW YORK						
STOCK SIZE						
PANEL ASSEMBLY, FRONT						
MATERIAL						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES			SCALE		ENG COORD	
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005			FRACTIONS ± 1/64 ANGLES ± 0° 30'		10-23-64 L. Gabel <i>[Signature]</i>	
TOLERANCES			CODE		DRAWN <i>[Signature]</i>	
					CHECKED	
					FINAL APPROVAL	
					A3564	
					Ø	
FINISH & SPEC. NO.					ELEC. DES. APP. MECH. DES. APP.	

SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY	REQ. PER UNIT	USED ON			A3565	Ø
					MODEL	ASS'Y. NO.	DATE		
				1	MFP-1	A3565	10/9/64		

T7003	4	FS102	6
	6	TF240	1
	7	FS102	6
	8	TF240 WIRING	8
	9	FS102	6
	10	MS2642 & TF240 (REAR)	2
	11		
	12	TF240 WIRING	8

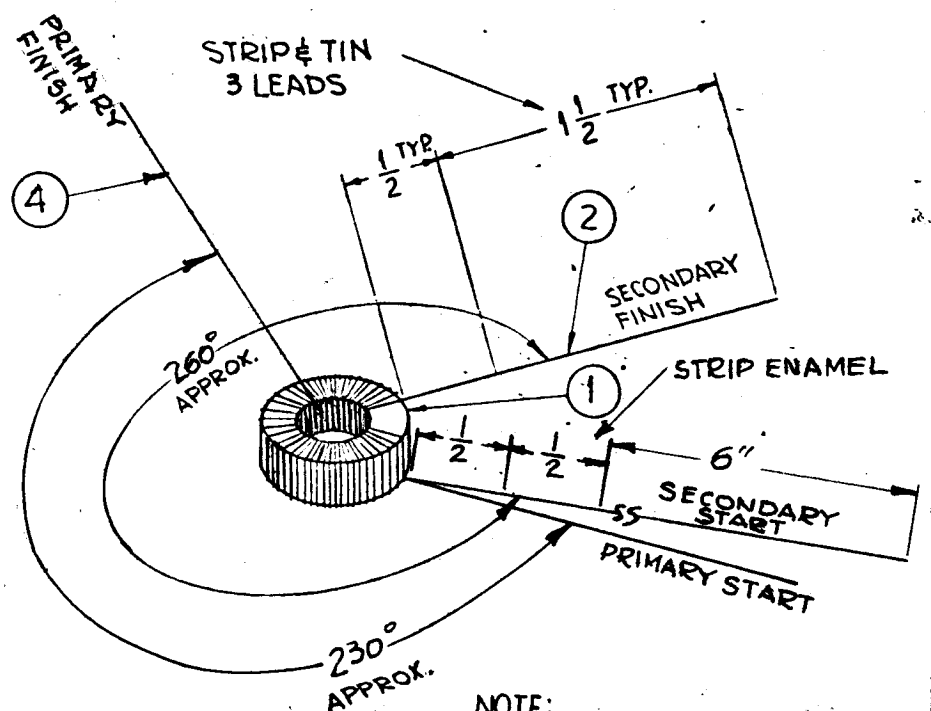
8	12	WL100-4	WIRE ,ELECTRICAL ,BUSS ,SZ 16
1	11	TF240	XFMR ,POWER ,SD/SU
2	10	SCFP2520BN9	SCREW ,MACHINE
6	9	SCFP0348BN5	SCREW ,MACHINE
8	8	PX104-1-053	INSULATION SLEEVING ,SZ 16
6	7	NTH0348BN6	NUT ,PLAIN ,HEX
1	6	MS2742	PLATE ,SHIM ,XFMR
1	5	MS2683	CHASSIS ,WRAPAROUND
6	4	LWS03MRN	WASHER ,LOCK ,SPLIT
3	3	FS102-1	LOCKSPRING
1	2	EY102-5	GROMMET ,RUBBER ,5/16 D
1		BS100	SOLDER ,TIN ALLOY

								REQ.	ITEM	PART NO.	DESCRIPTION	SYMBOL
											THE TECHNICAL MATERIEL CORP. MAMARONECK. NEW YORK	
											CHASSIS ASSEMBLY, WRAPAROUND	
Ø	ORIGINAL RELEASE FOR PRODUCTION		10-12-64	Ø	9-8							
SYM	DESCRIPTION		DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.	MATERIAL				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES			SCALE						ENG COORD	L. Gabel 10-10-64	RAC	
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005		FRACTIONS ± 1/64 ANGLES ± 0° 30'		TOLERANCES		CODE		TYPE & TEMPER	HEAT TREAT. SPEC.	DRAWN	CHECKED	FINAL APPROVAL
										TKA		A3565
								FINISH & SPEC. NO.		ELEC. DES. APP.	MECH. DES. APP.	Ø

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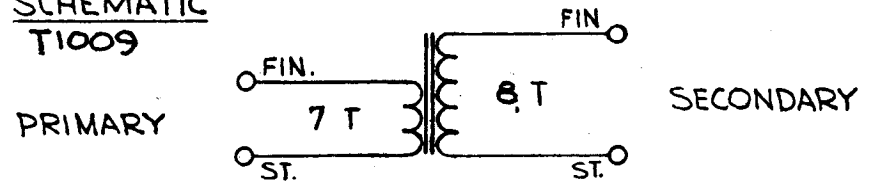
REQ. PER UNIT	USED ON		
	MODEL	ASSY. NO.	DATE
1	HFR-1A	A 3568	3-23-64
1	HFR-2	A 3568	3-23-64

A 3566 A



NOTE:  
PRIMARY & SECONDARY TO BE WOUND IN PARALLEL TO FORM A SINGLE LAYER

SCHEMATIC T1009



- ~ WINDING PROCEDURE ~
1. WIND SECONDARY 8 TURNS EQUALLY SPACED OVER THE ANGLE  $\frac{1}{2}$  IN THE DIRECTION SHOWN.
  2. PUSH TURNS TOGETHER OR SPREAD APART AS NEEDED TO MEET INDUCTANCE SHOWN IN TEST SPECS.
  3. STAKE LEADS SECURELY WITH Q-MAX.
  4. WIND PRIMARY 7 TURNS EQUALLY SPACED OVER THE ANGLE  $\frac{1}{2}$  IN THE DIRECTION SHOWN.
  5. STAKE LEADS SECURELY WITH Q-MAX.
  6. BAKE FOR 1/2 HR. AT 215°F TO REMOVE MOISTURE.
  7. COAT COIL & CORE WITH Q-MAX & BAKE 1/2 HR. AT 215°F.
- \* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

— ELECTRICAL SPECS —

SECONDARY  $L = 0.32 \mu h \pm 0.01 \mu h$ .  
WITH COIL CLAMPED INTO Q-METER 1/2" AWAY FROM TERMINALS, WITH START END OF COIL TO LOW SIDE.  
 $Q = 150 \text{ MIN. AT } 25 \text{ MC}$   
 $C_{\text{dist.}} = 0.8 \mu f \text{ (FOR REF. ONLY)}$

PRIMARY  $L = 0.294 \mu h \pm 0.015 \mu h$   
 $Q = 125 \text{ MIN AT } 25 \text{ MC}$   
 $C_{\text{dist.}} = 0.7 \mu f \text{ (FOR REF ONLY)}$

X	4	WI 141-24-9	WIRE MAGNET, SINGLE # 24
X	3	GL 102	Q-MAX
X	2	WI 141-20-9	WIRE MAGNET, SINGLE # 20
1	1	CI 127-1	CORE, TOROID

A	NOTE ADDED	1-12-67	17575	RME	CDL	<i>MM</i>
Q	ORIGINAL RELEASE FOR PRODUCTION	8-13-64	Q	<i>Ben</i>		
X	EXPERIMENTAL RELEASE	3-30-64		<i>Ben</i>		
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ON FRAC. $\pm 1/64$ DEC. $\pm .005$ ANGLES $\pm 1/2^\circ$		SCALE: DO NOT SCALE				
		MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES				

REQ.	ITEM	PART NO.	DESCRIPTION	SYMBOL
			THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
			TZ 182 ASSEMBLY	
			TRANS. ANT. BAND #8 FREQ 24-32 MC.	
			G.D.L. @ <i>RDC</i>	
			DRAWN CHECKED FINAL APPROVAL	
			<i>Kanger</i>	
			ELEC. DES. APP. MECH. DES. APP.	
			A 3566	A

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REQ. PER UNIT

USED ON

MODEL

ASS'Y. NO.

DATE

2

HFR-1A

A 3568

3-23-64

A 3567

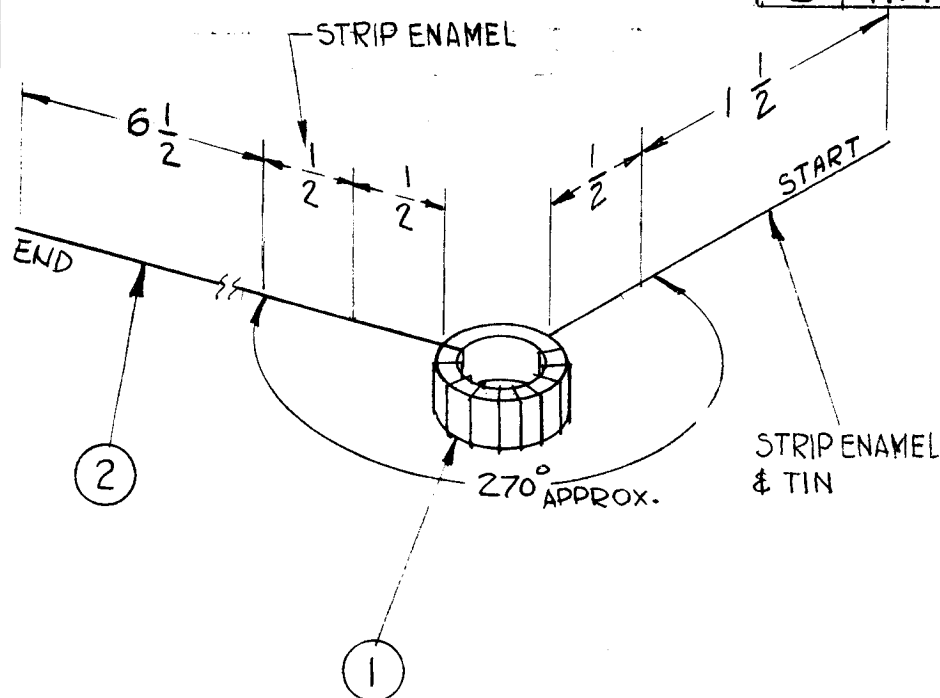
A

2

HFR-2

A 3568

3-23-64



— PROCEDURE —

- 1-WIND 9 TURNS EVENLY SPACED OVER 270° ANGLE. WIND TURNS IN DIRECTION SHOWN.
- 2-PUSH TURNS TOGETHER OR SPREAD APART AS NEEDED TO MEET INDUCTANCE SHOWN IN TEST SPECS.
- 3-BAKE FOR 1/2 HR. AT 215°F TO REMOVE MOISTURE.
- 4-COAT COIL & CORE WITH GL-102 Q-MAX AND BAKE FOR 1/2 HR. AT 215°F

\* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

— TEST SPECIFICATIONS —

L = 0.447uh ± 0.015uh

WITH COIL CLAMPED INTO Q. METER 1/2" AWAY FROM TERMINALS, WITH FINISH END OF COIL TO LOW SIDE.

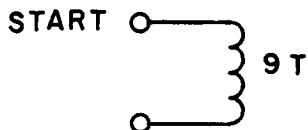
Q = 180MIN. AT 24 MC.

C<sub>dist</sub> = 0.9 μuf (FOR REF. ONLY)

OPERA FREQ. RANGE : 24-32 MC

— SYMBOL USED —

L1049 A, L1050 A



SCHEMATIC

X	3	GL 102	Q-MAX
X	2	WI 141-20-9	WIRE MAGNET, SINGLE #20
1	1	CI 127-1	CORE, TOROID

A	NOTE ADDED	11-2-67	17575	RME	G.D.L.	
Q	ORIGINAL RELEASE FOR PRODUCTION	8-13-64				
X	EXPERIMENTAL RELEASE	3-30-64				
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.

REQ.	ITEM	PART NO.	DESCRIPTION	SYMBOL
			THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
			COIL, RF, ASSY	
			BAND #8, 2, 3 RF	
			G.D.L.	
			DRAWN	
			CHECKED	
			FINAL APPROVAL	
				A 3567
				A

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES ON  
FRAC. ± 1/64 DEC. ± .05 ANGLES ± 1/2°

SCALE: DO NOT SCALE  
MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION.  
REMOVE ALL BURRS AND SHARP EDGES

THE CONTENTS OF THIS DRAWING ARE THE EXCLUSIVE PROPERTY OF THE TECHNICAL MATERIEL CORP. ITS UNAUTHORIZED USE OR REPRODUCTION IN WHOLE OR IN PART IS STRICTLY FORBIDDEN.

REQ. PER UNIT

USED ON

MODEL

DATE

1

HFR-1A

3-20-64

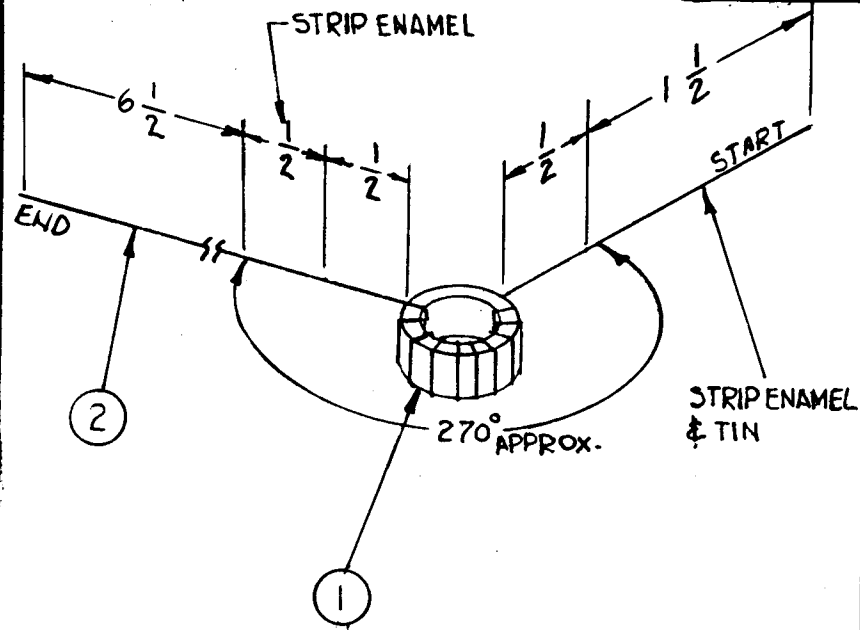
A 3570

△

1

HFR-2

3-20-64



PROCEDURE

1. WIND 9 TURNS EVENLY SPACED OVER A 270° ANGLE. WIND TURNS IN DIRECTION SHOWN.
2. PUSH TURNS TOGETHER OR SPREAD APART AS NEEDED TO MEET INDUCTANCE SHOWN IN TEST SPECS.
3. BAKE FOR 1/2 HR. AT 215°F TO REMOVE MOISTURE
4. COAT COIL & CORE WITH GL-102 Q-MAX AND BAKE FOR 1/2HR. AT 215°F.

TEST SPECIFICATIONS

\* NOTE: USE TMC COIL STANDARDS FOR TEST REFERENCE.

L= 0.385µh + 0.015µh

WITH COIL CLAMPED INTO Q.METER 1/2" AWAY FROM TERMINALS, WITH FINISH END OF COIL TO LOW SIDE.

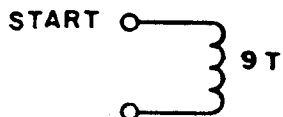
Q= 180 MIN. AT 24 MC.

C Dist=0.9 mmf (FOR REF. ONLY)  
OPER. FREQ. RANGE: 24-32MC

SYMBOL USED

L1051A

X	3	GL 102	Q-MAX
X	2	WI 141-20-9	WIRE MAGNET, SINGLE #20
1	1	CI 127-1	CORE, TOROID



SCHEMATIC

A	NOTE ADDED	1-12-64	17575	RME	G.D.L.	
Q	ORIGINAL RELEASE FOR PRODUCTION	8-13-64				
X	EXPERIMENTAL RELEASE	3-30-64				
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ON FRAC. ± 1/64 DEC. ± .005 ANGLES ± 1/2°		SCALE: DO NOT SCALE				
		MAXIMUM ALLOWABLE TOLERANCES HAVE BEEN DETERMINED AND ANY DEVIATIONS WILL BE CAUSE FOR REJECTION. REMOVE ALL BURRS AND SHARP EDGES				

REQ. ITEM	PART NO.	DESCRIPTION	SYMBOL
		THE TECHNICAL MATERIEL CORP. MANARONECK. NEW YORK	
		COIL, RF, ASS'Y	
		BAND #8, 4RF.	
		G.D.L.	@
		TYPE & TEMPER	HEAT TREAT. SPEC.
		FINISH & SPEC. NO.	
		DRAWN	CHECKED
		ELEC DES. APP.	MECH. DES. APP.
		FINAL APPROVAL	
		A 3570	△



REQ. PER UNIT	USED ON			A3571	Ø
	MODEL	ASS'Y. NO.	DATE		
	1	CSS-2	A3575		

SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY
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DS901,902	1									
DS903	2	HA102-7	4							
	3	FOR RA110	1							
	6	FOR SW107	1							
M901	7									
R952	9									
	10	HA102-7	4							
	11	NP622	4							
S903	12									
S902	13									
S901	14									
	15	UG657*/U	3							
XDS902,903	16									
XDS901	17									
J906,907,908	18									
	3	18	UG657*/U							CONNECTOR, RECEPTACLE -BNC
	1	17	TS106-3							LIGHT, INDICATOR-GREEN
	2	16	TS106-1							LIGHT, INDICATOR-RED
	3	15	TE111-2							TERMINAL, LUG, 3/8D
	1	14	SW107							SWITCH, ROTARY
	1	13	ST12D							SWITCH, TOGGLE-SPDT
	1	12	ST12A							SWITCH, TOGGLE-SPST
	4	11	SFB0256SN3							SCREW, TAPPED, THREAD CUTTING
	4	10	SCFP1032BN8							SCREW, MACHINE
	1	9	RA110-1							RESISTOR, VARIABLE-COMPOSITION
	1	8	NP622							PLATE, IDENTIFICATION
	1	7	MR177							METER, ARB SCALE
	1	6	MP123-5FB							KNOB
	1	5	LD1442/MS3708							PANEL, FRONT
	2	4	HA102-7BN							HANDLE, BOW
	1	3	DI102-1							DIAL, CONTROL
	4	2	CU139-2B							FERRULE, HANDLE
	3	1	BI101-1819							LAMP, INCAND

REQ.	ITEM	PART NO.	POSE	DESCRIPTION	SYMBOL	
				THE TECHNICAL MATERIEL CORP. MAMARONECK. NEW YORK		
		STOCK SIZE		PANEL ASSEMBLY, FRONT		
Ø		ORIGINAL RELEASE FOR PRODUCTION	1-19-65	Ø	92. 16	
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE				
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005		FRACTIONS ± 1/64 ANGLES ± 0° 30'		CODE		
TOLERANCES				FINISH & SPEC. NO.		
				DRAWN		CHECKED
				ELEC. DES. APP.		MECH. DES. APP.
						A3571
						Ø

	REQ. PER UNIT	USED ON			A3572	Ø
		MODEL	ASS'Y. NO.	DATE		
		1	CSS-2	A3575		

SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY
-----------	----------	---------------	-----

2	FS102-1	12
4	FS102-1	12
5	FS102-1	12
6	TK113	4

4	6	SCFP1032BN7	SCREW, MACHINE
12	5	SCFP0348BN4	SCREW, MACHINE
12	4	NTH0348BN6	NUT, PLAIN, HEXAGON
1	3	MS3709	PLATE, SIDE, LEFT
12	2	LWS03MRN	WASHER, LOCK, SPLIT
6	1	FS102-1	LOCKSPRING

REQ.	ITEM	PART NO.	POSE	DESCRIPTION	SYMBOL	
				THE TECHNICAL MATERIEL CORP. MAMARONECK. NEW YORK		
		STOCK SIZE		PLATE ASSEMBLY, LEFT SIDE		
Ø		ORIGINAL RELEASE FOR PRODUCTION	1-19-65	Ø	JK	
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE				
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005	TOLERANCES	FRACTIONS ± 1/64 ANGLES ± 0° 30'	CODE			
				12-31-64	ENG COORD	L. Gabriel 1-19-65
		TYPE & TEMPER	HEAT TREAT. SPEC.	DRAWN	CHECKED	FINAL APPROVAL
						A3572
		FINISH & SPEC. NO.	ELEC. DES. APP.	MECH. DES. APP.		Ø

	REQ. PER UNIT	USED ON			A3573	Ø
		MODEL	ASSY. NO.	DATE		
		1	CSS-2	A3575		

SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY
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2	FS102	12
4	FS102	12
5	FS102	12
6	TK113	4

4	6	SCFP1032BN7	SCREW, MACHINE
12	5	SCFP0348BN4	SCREW, MACHINE
12	4	NTH0348BN6	NUT, PLAIN, HEXAGON
1	3	MS3710	PLATE, SIDE, RIGHT
12	2	LWS03MRN	WASHER, LOCK, SPLIT
6	1	FS102-1	LOCKSPRING

REQ.	ITEM	PART NO.	POSE	DESCRIPTION	SYMBOL					
				THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK						
		STOCK SIZE		PLATE ASSEMBLY, RIGHT SIDE						
Ø		ORIGINAL RELEASE FOR PRODUCTION	1-19-65	<i>JL</i>						
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.	MATERIAL			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE		TYPE & TEMPER		HEAT TREAT. SPEC.	DRAWN	CHECKED	FINAL APPROVAL	
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005	TOLERANCES	FRACTIONS ± 1/64 ANGLES ± 0° 30'	CODE	1-5-65		ENG COORD	<i>L. Gabel</i>	<i>1-19-65</i>	<i>RJF</i>	
				FINISH & SPEC. NO.		ELEC. DES. APP.	MECH. DES. APP.	A3573		Ø

	REQ. PER UNIT	USED ON			A3575	Ø
		MODEL	ASS'Y. NO.	DATE		
		1	CSS-2	1/5/65		

SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY
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W902	7		
	8	A3983	2
	9	A3572	5
		A3573	5
	12	A3572	3
		A3573	3
	13	A3983	2
	14	A3572	2
		A3573	2
	15	A3571	4
	16	A3572	3
		A3573	3

SEE NOTE 1

NOTE 1. ALL ITEMS REFERENCED TO THIS NOTE SHALL BE PROCURED AND USED ONLY WHEN THE CSS-2 IS USED WITH THE FOLLOWING SYSTEMS;  
LRRRA-1

SEE NOTE 1  
SEE NOTE 1  
SEE NOTE 1

6	16	SCFP0632BN5	SCREW, MACHINE
4	15	SCBP1032BN7	SCREW, MACHINE
4	14	SCBP0632BN5	SCREW, MACHINE
2	13	SCBP0440BN4	SCREW, MACHINE
6	12	NTH0632BN8	NUT, PLAIN, HEXAGON
1	11	MS3707	COVER, BOTTOM
1	10	MS3706	COVER, TOP
10	9	LWE06MRN	WASHER, LOCK, EXTERNAL
2	8	LWE04MRN	WASHER, LOCK, EXTERNAL
1	7	CA480-3-6	CABLE ASSEMBLY, RF
	6	BS100	SOLDER, TIN ALLOY
1	5	A3983	ATTENUATOR, FIXED
1	4	A3574	CHASSIS ASSEMBLY, MAIN
1	3	A3573	PLATE ASSEMBLY, RIGHT SIDE
1	2	A3572	PLATE ASSEMBLY, LEFT SIDE
1	1	A3571	PANEL ASSEMBLY, FRONT

REQ.	ITEM	PART NO.	POSE	DESCRIPTION	SYMBOL		
				THE TECHNICAL MATERIEL CORP. MAMARONECK. NEW YORK			
		STOCK SIZE		CSS-2 FINAL ASSEMBLY			
Ø		ORIGINAL RELEASE FOR PRODUCTION	1-19-65	Ø	92 16		
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.	MATERIAL
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE					1-5-65 ENG COORD
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005		FRACTIONS ± 1/64 ANGLES ± 0° 30'	CODE				2. Gobul 1-19-65 RJC
TOLERANCES							TYPE & TEMPER
							HEAT TREAT. SPEC.
							DRAWN
							CHECKED
							FINAL APPROVAL
							FINISH & SPEC. NO.
							ELEC. DES. APP.
							MECH. DES. APP.
							A3575
							Ø



	REQ. PER UNIT	USED ON			A3584	Ø
		MODEL	ASS'Y. NO.	DATE		
		1	LFSA-1/AX495	AX495		

SYMBOL(S)	ITEM NO.	USED TO MOUNT	QTY
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C360 thru 1  
C369

1 2 LD1417/PX835 BOARD, MOUNTING, CAPACITOR  
10 1 CV112-1 CAPACITOR, VARIABLE, CERAMIC

REQ.	ITEM	PART NO.	DESCRIPTION			SYMBOL	
			POSE				
STOCK SIZE			THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK				
			CAPACITOR BOARD ASSEMBLY				
Ø			1.19.65	Ø	RF	KB	
SYM	DESCRIPTION		DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES			SCALE				
DECIMALS		FRACTIONS		CODE			
.X ± .05		± 1/64					
.XX ± .01		ANGLES					
.XXX ± .005		± 0° 30'					
TOLERANCES							
TYPE & TEMPER		HEAT TREAT. SPEC.		DRAWN		CHECKED	FINAL APPROVAL
				1-5-65		Z. Gabel	RDC
				ENG COORD		1-12-65	
FINISH & SPEC. NO.		ELEC. DES. APP.		MECH. DES. APP.		A3584	Ø









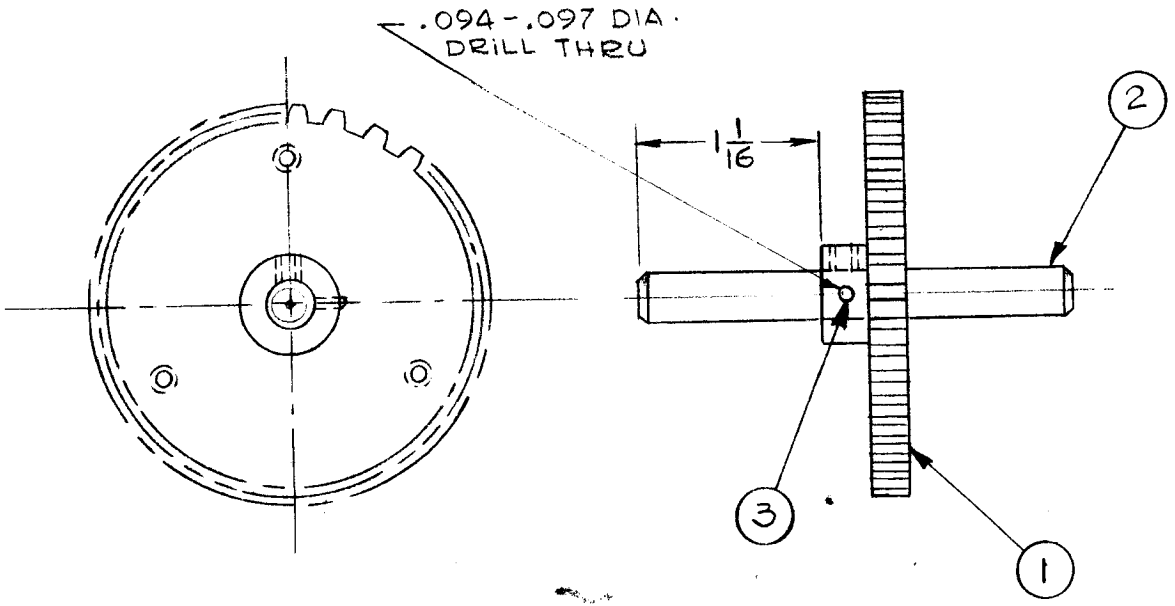






REQ. PER UNIT	USED ON		
	MODEL	ASS'Y. NO.	DATE
1	CHG-1		3-31-64
1	CHG-2		
1	CHG-2A		

A 3591



REQ. ITEM	PART NO.	DESCRIPTION	SYMBOL
1	3	PN52-094-8	PIN, ROLL
1	2	PM69R2.250B	SHAFT
1	1	GR-159	GEAR, DETENT

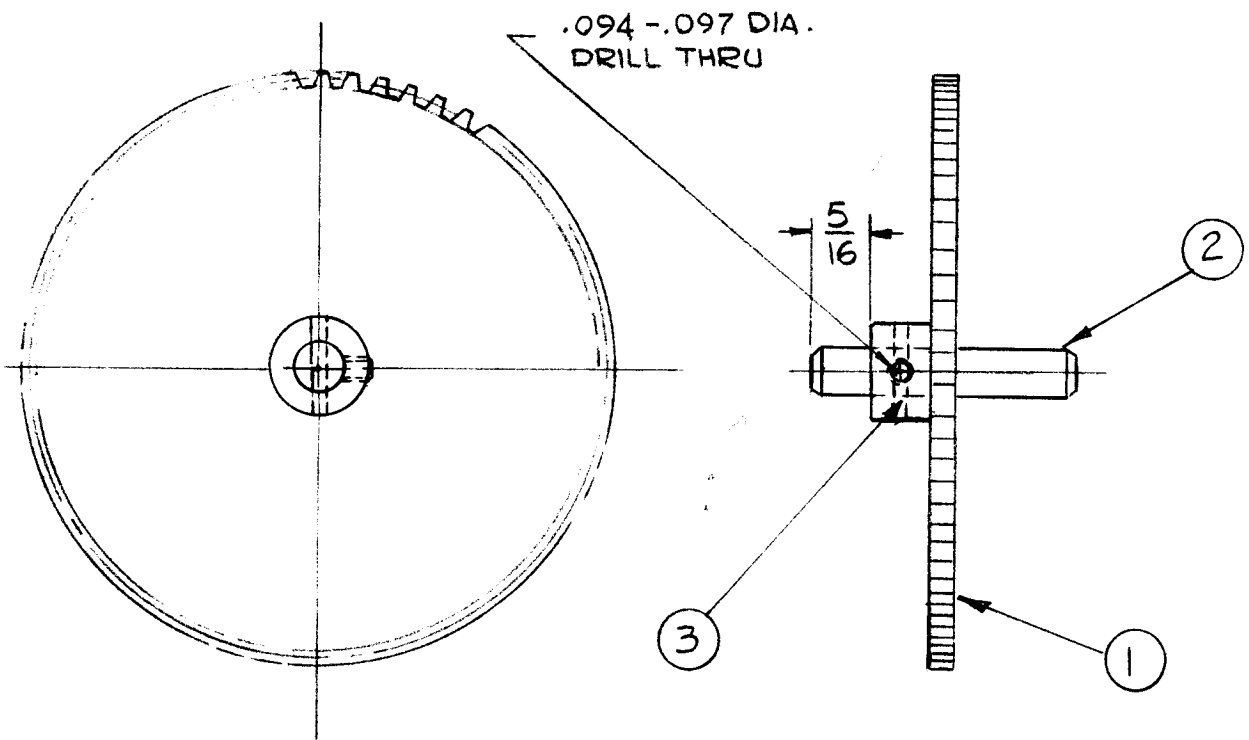
//		THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
//		DETENT GEAR ASS'Y	
//		G.D.L.	<i>[Signature]</i> 11/14/65
TYPE & TEMPER	HEAT TREAT. SPEC.	DRAWN	CHECKED
//		FINAL APPROVAL	
FINISH & SPEC. NO.		ELEC. DES. APP.	MECH. DES. APP.

Ø	ORIGINAL RELEASE	11-16-65	Ø			
X1	ITEM 3 WAS PN 114-4	11-15-65	X1	G.D.L.	<i>[Signature]</i>	
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE		1:1		
DECIMALS	TOLERANCES	FRACTIONS	CODE			
.X ± .05 .XX ± .01 .XXX ± .005		± 1/64 ANGLES ± 0° 30'				

M/L-28

STOCK NO. 10

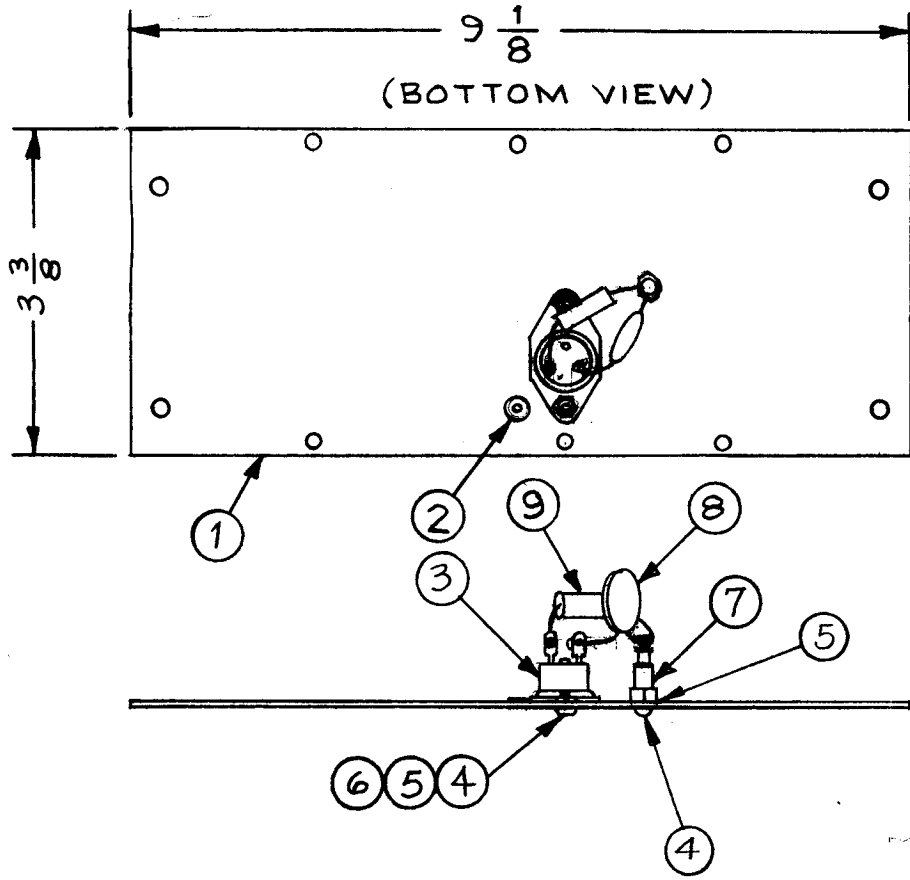
REQ. PER UNIT	USED ON			A 3595 A
	MODEL	ASS'Y. NO.	DATE	
1	CHG-2A		4-9-64	



1	3	PN 52-094-B	PIN, ROLL	
1	2	PM69IRF1,375B	SHAFT	
1	1	GR-202	GEAR, IDLER	
REQ. ITEM		PART NO.	DESCRIPTION	SYMBOL
			KRUY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES			THE TECHNICAL MATERIEL CORP. MAMARONECK. NEW YORK	
SCALE 1:1			GEAR, IDLER, ASS'Y	
TYPE & TEMPER			G.D.L	11/10/65
HEAT TREAT. SPEC.			DRAWN	CHECKED
FINISH & SPEC. NO.			ELEC. DES. APP.	MECH. DES. APP.

A	172 WAS '1.37BN	2.1.67	17763	lftw	JCS
Ø	ORIGINAL RELEASE	11-16-65	Ø		
X1	ITEM 3 WAS PN 114-4	11-15-65	X1	GDL	JCS
SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE 1:1			
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005	TOLERANCES	FRACTIONS ± 1/64 ANGLES ± 0° 30'	CODE		

REQ. PER UNIT	USED ON			A-3596	A
	MODEL	ASS'Y. NO.	DATE		
1	HFR-1	KIT-184	4-13-64		



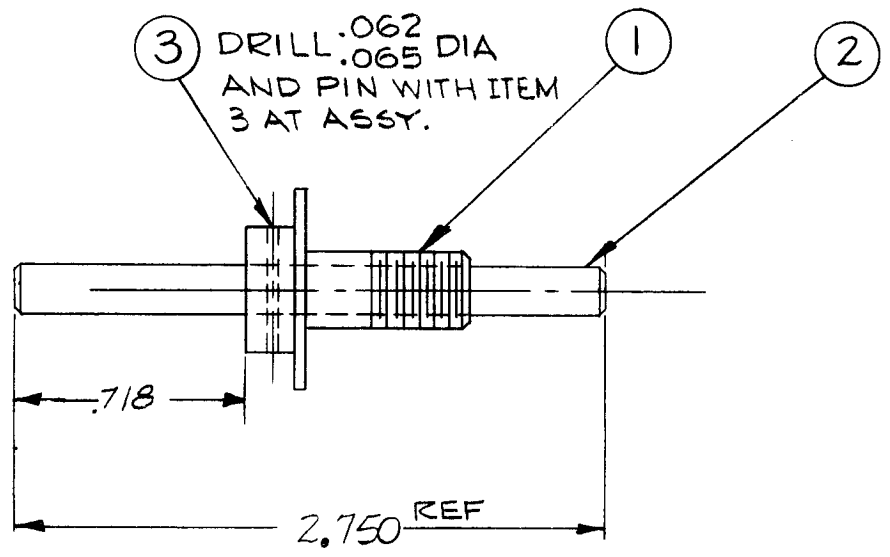
1	9	RC32GF101K	RESISTOR, FIXED, COMP.
1	8	CC-100-28	CAPACITOR, FIXED, CERAMIC, DISC
1	7	TE-102-2	TERMINAL, TURRET
2	6	NTH0440BN8	NUT, HEX
3	5	LWE04MRN	WASHER, LOCK
3	4	SCBP0440BN3	SCREW, MACHINE
1	3	SS-108	SWITCH, SENSITIVE
1	2	BB-117-1	BEARING, NYLON
1	1	MS-3742	COVER, INNER OVEN

SYM	DESCRIPTION	DATE	CH. NO.	DRAFTS	CHECKER	ENG. APP.
A	PICT. CLARIFIED (ITEM 4 & 5)	6/23/64	11632	A.M.	<i>[Signature]</i>	<i>[Signature]</i>
O	ORIGINAL RELEASE FOR PRODUCTION	4-24-64	O	A.M.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE 1:2				
DECIMALS .X ± .05 .XX ± .01 XXX ± .005	TOLERANCES	FRACTIONS ± 1/64 ANGLES ± .02	CODE			

REQ. ITEM	PART NO.	DESCRIPTION	SYMBOL
STOCK SIZE		THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK	
MATERIAL		THERMO SWITCH & INNER OVEN COVER ASS'Y	
TYPE & TEMPER	HEAT TREAT. SPEC.	DRAWN	CHECKED
		M. TANTILLO 4-13-64	<i>[Signature]</i>
		FINAL APPROVAL	
		A-3596 A	

REQ. PER UNIT	USED ON		
	MODEL	ASSY. NO.	DATE
1	HFR-2	A3624	4-13-64
1	HFRR-2	A3625	

A 3598 A



NOTE :  
SLIP CLUTCH ITEM 1 SHOWN WITHOUT SPRING, NUTS & WASHERS FOR CLARITY.

							1	3	PN59-062-7	PIN, SPRING			
A	DIM-12 & 1203 DELETED DIM .718 ADDED	11/5/65	15/01	D.V.	JCB	2	1	2	PM 1051-RF-2.750	SHAFT, STRAIGHT (.2497 DIA)			
Ø	ORIGINAL RELEASE FOR PRODUCTION	9-11-64	Ø	9R			1	1	PO 310	CLUTCH, FRICTION			
X <sub>1</sub>	MODEL HFRR-2 ADD. ITEM 1 WAS CLUTCH FRICTION ITEM 2 WAS SHAFT, PRECISION	9/10/64		P.L.			REQ. ITEM	PART NO.		DESCRIPTION	SYMBOL		
X	EXP. RELEASE	4-13-64	#	ED			STOCK SIZE		THE TECHNICAL MATERIEL CORP. MAMARONECK, NEW YORK				
							MATERIAL		SLIP CLUTCH ASSY				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE CHEMICALLY APPLIED OR PLATED FINISHES		SCALE		1/1			TYPE & TEMPER		HEAT TREAT. SPEC.		DRAWN	CHECKED	FINAL APPROVAL
DECIMALS .X ± .05 .XX ± .01 .XXX ± .005		FRACTIONS ± 1/64 ANGLES ± 0° 30'		TOLERANCES		CODE		FINISH & SPEC. NO.		ELEC. DES. APP.	MECH. DES. APP.	A 3598 A	
										T. Kany	A 3598	A	