DATE 4/12/62	TMC SPECIFICATION NO. S-[illegible]	
SHEET 1 OF 8		
16 aa COMPILED	aa CHECKED	TITLE: GPT-10K & 40K UNSYNTHESIZED TO SYNTHESIZED
APPROVED		MODIFICATION KIT (TMC NO. KIT-128)

GPT-10K & 40K UNSYNTHESIZED TO SYNTHESIZED

MODIFICATION KIT

TMC NO. KIT-128

Parts list

SUPERSEDED

KIT-128(1)

S11-4

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 439M

DATE 4/11/62 SHEET 2 OF 8	TMC SPECIFICATION NO. S-666	
COMPILED / CHECKED	TITLE: GPT-10K & GPT-40K UNSYNTHESIZED TO SYNTHESIZED	
APPROVED	MODIFICATION KIT (TMC NO. KIT-128)	

I. EQUIPMENT AFFECTED

A. GPT-10K Transmitter Set Radio (with TIS-3 already on hand)

B. GPT-40K Transmitter Set Radio (with TIS-3 already on hand)

II. PURPOSE

A. To replace existing Exciter with a synthesized Exciter to provide a large number of highly stable frequency controlled outputs. (This KIT is for transmitters which already have a TIS-3 (or Equiv.) on hand).

III. MATERIALS SUPPLIED

ITEM	QUANTITY	TMC PART NO.	DESCRIPTION
1	one	APP-3	Auxilary Power Panel Complete with CA-569-1 AC Cable
2	one	CBE-1	Sideband Exciter
3	one	CHG-2	Frequency Amplifier
4	one	CHL-1	Divider Chain
5	one	CLL-1	Controlled Oscillator
6	one	CMO-1	Controlled Master Oscillator
7	one	CPP-2	Main Power Supply Complete with CA-555-1 AC Cable
8	one	CPP-5	Power Supply (CHG-2) Complete with CA-555-1 AC Cable
9	one	CSS-1A	Frequency Standard Complete with CA-555-1 AC Cable
10	DELETED		
11	one	A-2410	Cable and Center Shield Assembly
12	one	CA-551	Power Cable, Yellow (For CLL-1)
13	one	CA-551	Power Cable, Black (For CHL-1)
14	one	C -506	Wiring Diagram
15	one	ID-27	Installation Details
16	two	IN-258	Instruction Manual, SBG-
17	one	S-796	Installation Procedure
18	one	NP-362-19	Nameplate modification

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DATE 4/11/62 SHEET 3 OF 8	TMC SPECIFICATION NO. S-666	
COMPILED / CHECKED	TITLE: GPT-10K & 40K UNSYNTHESIZED TO SYNTHESIZED	
APPROVED	MODIFICATION KIT (TMC NO. KIT-128)	

ITEM	QUANTITY	TMC PART NO.	DESCRIPTION	
19	one set	TK-105-14S	Track, Stationary Section	FOR CPP-5
20	one set	TK-105-14G	Track, Intermediate Secti n	
21	one	TK-106-18SL	Track, Stationary Section Left	FOR CPP-2
22	one	TK-106-18SR	Track, Stationary Section Right	
23	one	TK-106-18GL	Track, Intermediate Secti n Left	
24	one	TK-106-18GR	Track, Intermediate Section Right	
25	two sets	TK-107-18S	Track, Stationary Section	FOR CHG-2 CMO-1
26	two sets	TK-107-18G	Track, Intermediate Section	
27	four sets	TK-108-18S	Track, Stationary Section	FOR CHL-1 CSS-1A CLL-1 TIS-3
28	four sets	TK-108-18G	Track, Intermediate Sectio	
29	One Bag Containing:			
	A. Two	MS-2482	Bracket, Extention, Rear	Track Mtg. CPP-5
	B. Sixteen	SCHH1032BN8	Screw, Machine	
	C. Sixteen	LWS10MRN	Washer, Lock, Split	
	D. Six	TK-105-NB	Nut, Bar	
30	Two Bags Each Containing			
	A. Two	MS-2458	Bracket, Extention, Rear Track	Track Mtg. CHG-2 CMO-1
	B. Sixteen	SCHH1032BN8	Screw, Machine	
	C. Sixteen	LWS10MRN	Washer, Lock, Split	
	D. Six	TK-107-NB	Nut, Bar	

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DATE 4/11/62 SHEET 4 OF 8	TMC SPECIFICATION NO. S-666	
COMPILED / CHECKED	TITLE: GPT-10K & 40K UNSYNTHESIZED TO SYNTHESIZED	
APPROVED	MODIFICATION KIT (TMC NO. KIT-128)	

ITEM	QUANTITY	TMC PART NO.	DESCRIPTION	
31	One Bag Containing:			
	A. Two	MS-2458	Bracket, Extention, Rear	Track Mtg. CPP-2
	B. Sixteen	SCHH1032BN8	Screw, Machine	
	C. Sixteen	LWS10MRN	Washer, Lock, Split	
	D. Six	TK-106-NB	Nut, Bar	
32	Four Bags Each Containing:			
	A. Two	MS-2457	Bracket, Extention, Rear	Track Mtg. CHL-1 CLL-1 TIS-3 CSS-1A
	B. Sixteen	SCHH1032BN8	Screw, Machine	
	C. Sixteen	LWS10MRN	Washer, Lock, Split	
	D. Six	TK-106-NB	Nut, Bar	
33	One Bag Containing:			
	A. One	A-2048	Attenuator Assembly	
	B. Two	SCBP1032BN8	Screw, Machine	
	C. Two	LWE10MRN	Washer, Lock, External	
	D. Two	NTH1032BN12	Nut, Hexagon	
34	Two Bags Each Containing:			
	A. One	SP-137-1	Spring, Retracting	
	B. One	MS-2470	Bracket, Spring Mtg.	
	C. Two	SCBP1032BN8	Screw, Machine	
	D. Two	SCBP1024BN6	Screw, Machine	
	E. One	SCBP0540BN6	Screw, Machine	
	F. One	LWE06MRN	Washer, Lock, External	
	G. Four	LWE10MRN	Washer, Lock, External	
	H. Two	NTH1032BN12	Nut, Hexag n	

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DATE 4/11/62 SHEET 5 OF 8	TMC SPECIFICATION NO. S-666	
COMPILED / CHECKED	TITLE: GPT-10K & 40K UNSYNTHESIZED TO SYNTHESIZED	
APPROVED	MODIFICATION KIT (TMC NO. KIT-128)	

ITEM	QUANTITY	TMC PART NO.	DESCRIPTION	
35	One Bag Containing:			
	A. One	CU-130-9	Clamp, Cable	
	B. Three	CU-131-5	Clamp, Cable	
	C. Four	SCBP1032BN8	Screw, Machine	
	D. Four	FW10HBN	Washer, Flat	
	E. Four	LWE10MRN	Washer, Lock, External	
	F. Four	NTH1032BN12	Nut, Hexagon	
36	One Bag Containing:			
	A. Twelve	SCBP1032BN10	Screw, Machine	Cable Clamp Mtg.
	B. Twelve	FW10HBN	Washer, Flat	
	C. Twelve	LWE10MRN	Washer, Lock, External	
	D. Twelve	NTH1032BN12	Nut, Hexagon	
	E. One	SCBP0832BN12	Screw, Machine	
	F. One	FW08HBN	Washer, Flat	
	G. One	LWE08MRN	Washer, Lock, External	
	H. One	NTH0832BN10	Nut, Hexagon	
37	One Bag Containing:			
	A. Forty-eight	SCBP1032BN8	Screw, Machine	SBG Units Mtg.
	B. Forty-eight	WA-101-11	Washer, Fiber	
38	One Bag Containing:			
	A. Two	SCBP1032BN12	Screw, Machine	Center Shield Mtg. (A-2410)
	B. Two	FW10HBN	Washer, Flat	
	C. Two	LWE10MRN	Washer, Lock, External	
	D. Two	NTH1032BN12	Nut, Hexagon	

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DATE 4/11/62	TMC SPECIFICATION NO. S-666	
SHEET 6 OF 8		
COMPILED / CHECKED	TITLE: GPT-10K & 40K UNSYNTHESIZED TO SYNTHESIZED	
APPROVED	MODIFICATION KIT (TMC NO. KIT-128)	

ITEM	QUANTITY	TMC PART NO.	DESCRIPTION	
39	One Bag Containing			
	A. Four	SCBP0632BN10	Screw, Machine	Circuit Breaker Mtg.
	B. Four	LWE06MRN	Washer, Lock, External	
40	One Bag Containing			
	A. Two	SCBP0832BN8	Screw, Machine	Cap.& Receptacl Bracket Mtg.
	B. Two	LWE08MRN	Washer, Lock, External	
41	One Bag Containing			AC Strip Connection
	A. Two	NT-121-71B	Wire, Nut	
42	One each	PM-688	Two Part Catch	Handle
43	One each	HA-114-(Dwg.Only)	Drawing	Modification
44	One Bag Containing			Misc. Use
	A. Six each	TMC No. TE-120-2 Lugs		
45	Two each	TMC No. NT-121-71B Wire, Nut		→ Meter Box Modif.
46	One foot	TMC No. MWC16(19)BO Wire		→ Misc. Use

IV. TOOLS REQUIRED

To be provided bythe installing activity

1. Pliers, 6 inch longnose
2. Pliers, 6 inch diagonal cutting
3. Screwdriver, 4 inch
4. Screwdriver, 4 inch Phillips #2
5. Wrench, open end, 3/8 inch - 7/16 inch
6. Wrench, open end, 1/4 inch - 5/16 inch
7. Wrench, crescent 10 inch
8. Portable Drill, 1/4 inch chuck
9. Soldering Iron, 75 watt

V. PROCEDURE (REFERENCE, ID-277, ITEM 15)

1. Remove all power from the unit (GPT-10K or GPT-40K which ever applies).

2. Remove the two vertical trim strips from the auxiliary frame section, also remove the trim strip across the bottom of the transmitter, Fig. 1.

3. Remove all the following units from the transmitter (SLM, FSA, SBE, MCP, VOX, XFK, TTG, SBE Power Supply, APP, also on the rear of the Exciter frame remove the AK-100 and the FSA Power Supply), Fig. 1.

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4. Remove all of the tracks and slide sets from the auxiliary frame, Fig. 2.

5. Remove the connections on terminal E3033 for the Red Transmitter light and then remove the light, Fig. 1.

6. Deleted

7. Remove the bottom plate, Fig. 2, on the AC-plug strips and disconnect the two wires coming from the main cable. Be sure to save the screw for remounting, Fig. 2.

8. Remove the cable coming from the fan and remove the capacitor mounting bracket, Fig. 2.

9. Unsolder the two leads on the fan receptacle from the terminals, A & B, but leave the two leads that connect the capacitor and put the bracket aside for remounting.

10. Unsolder the alarm cable from the feed-thrus #6 and #7 on the center shield, Fig. 2.

11. Unsolder the wires from the ten feed-thrus and disconnect the RF connectors & fanning strip on the rear of the center shield. Completely remove this cable(CA-430) that connects the Aux. Frame center shield to the Main Frame side connectors, Aux. Frame contactor coils, timer, bottom fan, etc., making sure to keep a record of which color wires go to the Timer, contactor, contactor coils, contactor microwsitches, & Fan. This will be necessary for installing new cable in Step 16. The removed cable should be discarded.

12. Remove the main cable from the front section of the Auxiliary frame, Fig. 2; discard.

14. Drill two 3/16" holes in the center partition of the auxiliary frame according to Fig. 4.

15. Mount the attenuator assembly, A-2048, in the drilled holes. (Item 33)

16. Mount the new cable and center shield assembly, A-2410 (Item-11) using the cable clamps supplied and mounted in the approximate positions shown in Fig. 3. Mount the center shield with the two center holes only as the four groups of three holes will be used to mount tracks in later steps. (Use mounting hardware & clamps supplied, items 38,35 & 36) Install the new rear cable, CA-571, hanging from the rear of the new center shield assembly, to the same points that were recorded in Step 11 when the old similar cable was removed.

17. Mount the two cables, CA-551-4 and CA-551-5 as shown in Fig. 3. Also, be sure to mount the cable, CA-551-6 that is part of the cable assembly, A-2410. (Cables Supplied, Items 12 & 13)

18. Remount the circuit breaker on the new center shield, Fig. 2. (Hardware supplied, Item 39)

19. Reconnect, with the wire nuts NT-121-7, the two sets of wires at the bottom of the AC plug strip with one wire from the incoming BX cable, one wire from the AC strip and one wire from the main cable assembly tied together.

TMC SPECIFICATION NO. S-666

COMPILED | CHECKED

TITLE: GPT-10K & 40K UNSYNTHESIZED TO SYNTHESIZED

APPROVED

MODIFICATION KIT (TMC NO. KIT-128)

20. Solder the wires in the new cable to terminals A and B of the receptacle for the fan connection that was removed previously, Fig3(Step8,9) Make sure that the wire from the fuse on the center shield goes to terminal B on the receptacle as marked on the wire label. Remount the bracket,& plug in the Fan Cable. (Hardware Supplied, item 40).

21. Solder the alarm cable to the feed-thrus #6 and #7 on the new center shield, Fig. 3.

22. Resolder the wires to the feed-thrus on the rear of the new center shield in the proper position as marked in step 11 above.

22.1 In Aux. Frame Meter Box, Relocate Ballast Xfmr-(T3001) to Rear of Box, using wire nuts, item 45, supplied.

23. Solder the wires to the proper position of the rear of the meter panel box as indicated by the labels on the wires. ie. Wire marked C3016 is to be soldered to capacitor feed-thru #C3016.

24. Mount the tracks and slide sets in the auxiliary frame as shown in Fig. 4. Hand tighten them only. Also mount the two brackets MS-2470 and springs SP-137-2. (Supplied as items 19 thru 32 & 34).

25. Connect the cables as shown by their labels and using the wiring diagram CK-506 and mount the units not requiring slides in the positions shown in Fig. 4. (ie. The APP-3 and the CBE-1). The APP-3 is mounted in the first and sixth holes from the bottom of the frame and the CBE-1 is mounted with the bottom of the panel 55-3/4" from the bottom hole.

26. Next mount each unit in its tracks and adjust the tracks vertically for proper clearance of the unit below. Start with the bottom units and work up to the top, as per Fig. 4. Be sure to securely tighten the track in the frame after making any adjustments. (Units supplied, items 1 thru 7,9 & 10)

27. As each unit is put in connect the cables to the rear of each unit as per the wiring diagram CK-506 (item 14) and the cable labels.

28. The CPP-5 is mounted individually on the rear of the transmitter and no adjustment need be made when mounting it. (CPP-5, item8)

29. Fasten the units in place with the fiber washers and the screws that are supplied. This step may be done after checking the system. (Supplied as item 37)

30. Replace the trim strips on the bottom of the transmitter and the sides of the auxiliary frame.

31. Mount the modification nameplate, NP-362-19 (item 18) on the relay panel cover in the Main Frame.

32. Turn on the power and refer to the SBG Manual,IN-258,for proper operating instructions. (Manual, item 16)

33. Modify auxiliary frame front door handle as indicated on HA-114-. Dwg. Omit hardware and use PM-688 cam. (Items 42 & 43 supplied)

*NOTE: After a short warm-up, preliminary tests can be made on the system, but for proper frequency stability a 24 hour warm-up is required.

OGILVIE PRESS, INC., BROOKLYN 17, N. Y. STOCK NO. 439M

REVISION SHEET

THE TECHNICAL MATERIEL CORP.
MAMARONECK NEW YORK

S-666

MODEL KT-128 PROJECT NO. _____

DATE	REV.	PAGE	EMN #	DESCRIPTION	CHK.	APP.
8/1/62	A	1	7033	On Sect. III, Chg. item 13 from CA-551-6 to CA-551-4		
				Chg. Desc. from (CMO) to Black (CHL)		
				Add AC cable notes to APP-3, CBP-1, CPP-2, CPP-5,		
				CSS-1A, TIS-3		
				Chg. item 16 Quan. from one to two		
		3		Item 34.E, Chg. form SCBP0549BN6 to SCBP0540BN6		
				Item 34.A, Chg. part No. from SP-137-2 to SP-137-1		
8/31/62	B		77	Incomplete Change - See Rev. C for complete Info		
7/13/63	C	5,6,7	7189	Chgd. Sh. 5,6,7 per. EMN		
12/20/63	D	ALL	10581	Revised ALL Sheets per EMN.		
7/12/66	E	all	16537	Revised per EMN		