

## **VHF Transceiver - Circuit Diagrams.**

These are arranged as 2 pages per circuit with overlap.

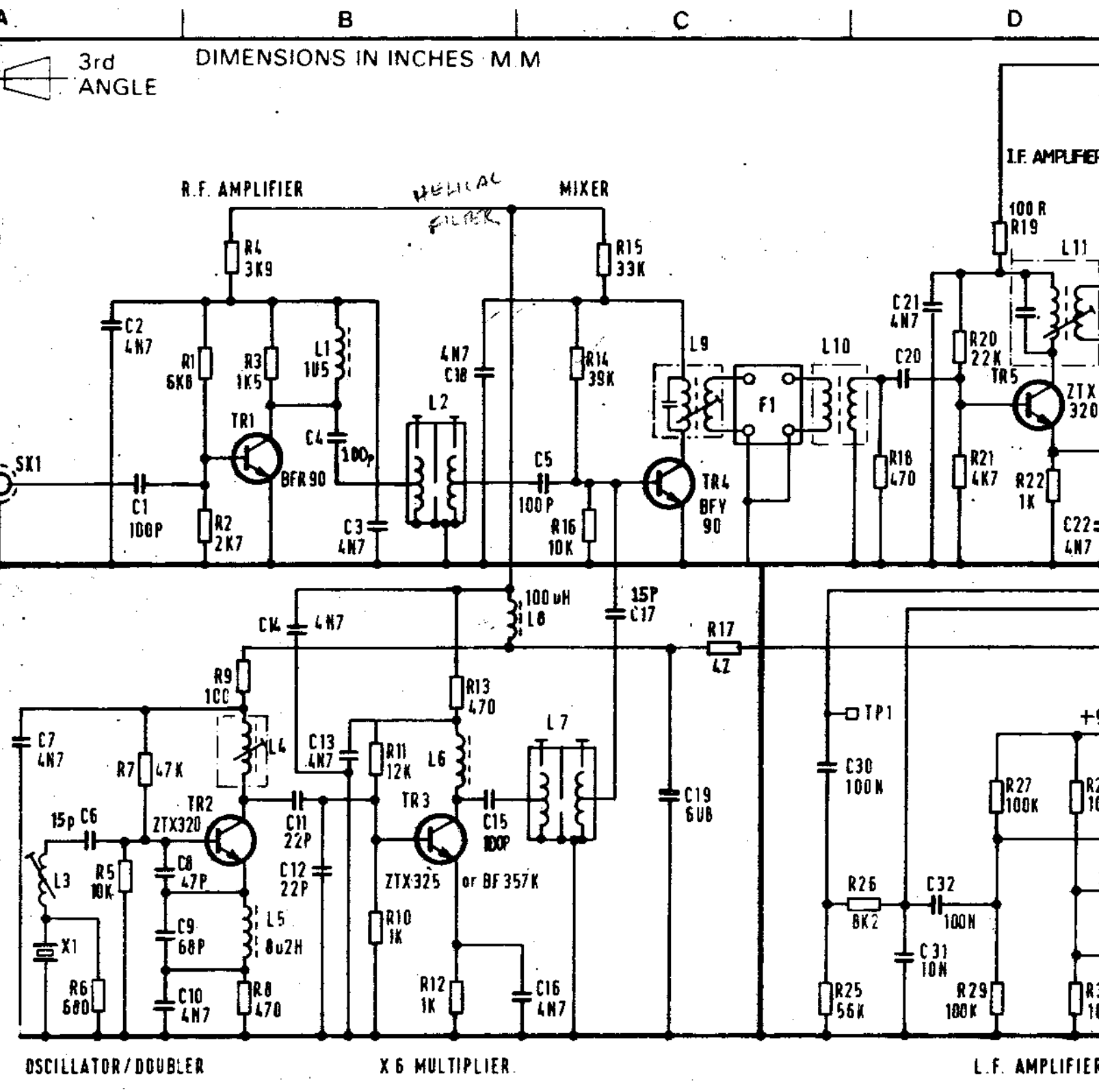
<b>Pp 2-3</b>	<b>Receiver</b>
<b>Pp 4-5</b>	<b>Transmitter Driver</b>
<b>Pp 6-7</b>	<b>Transmitter Power Amplifier</b>
<b>P 8</b>	<b>Specification</b>

These are taken from manufacturer's data and may not represent accurately the equipment offered on account of variations in manufacture and age of equipment.



3rd ANGLE

DIMENSIONS IN INCHES M.M



TOLERANCES	
1 Decimal place	0.10 - 0.4
2 Decimal places	0.010 - 0.25
3 Decimal places	0.005 - 0.13
Unless otherwise stated	

MATERIAL	
TO B S	TO SPEC

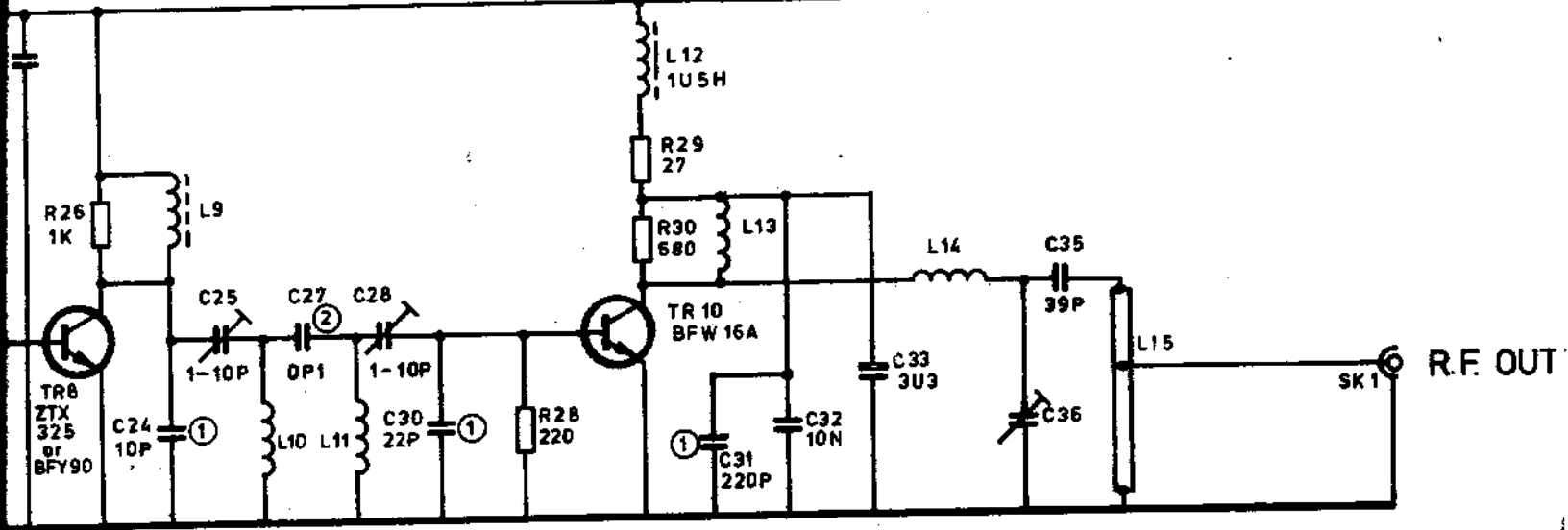
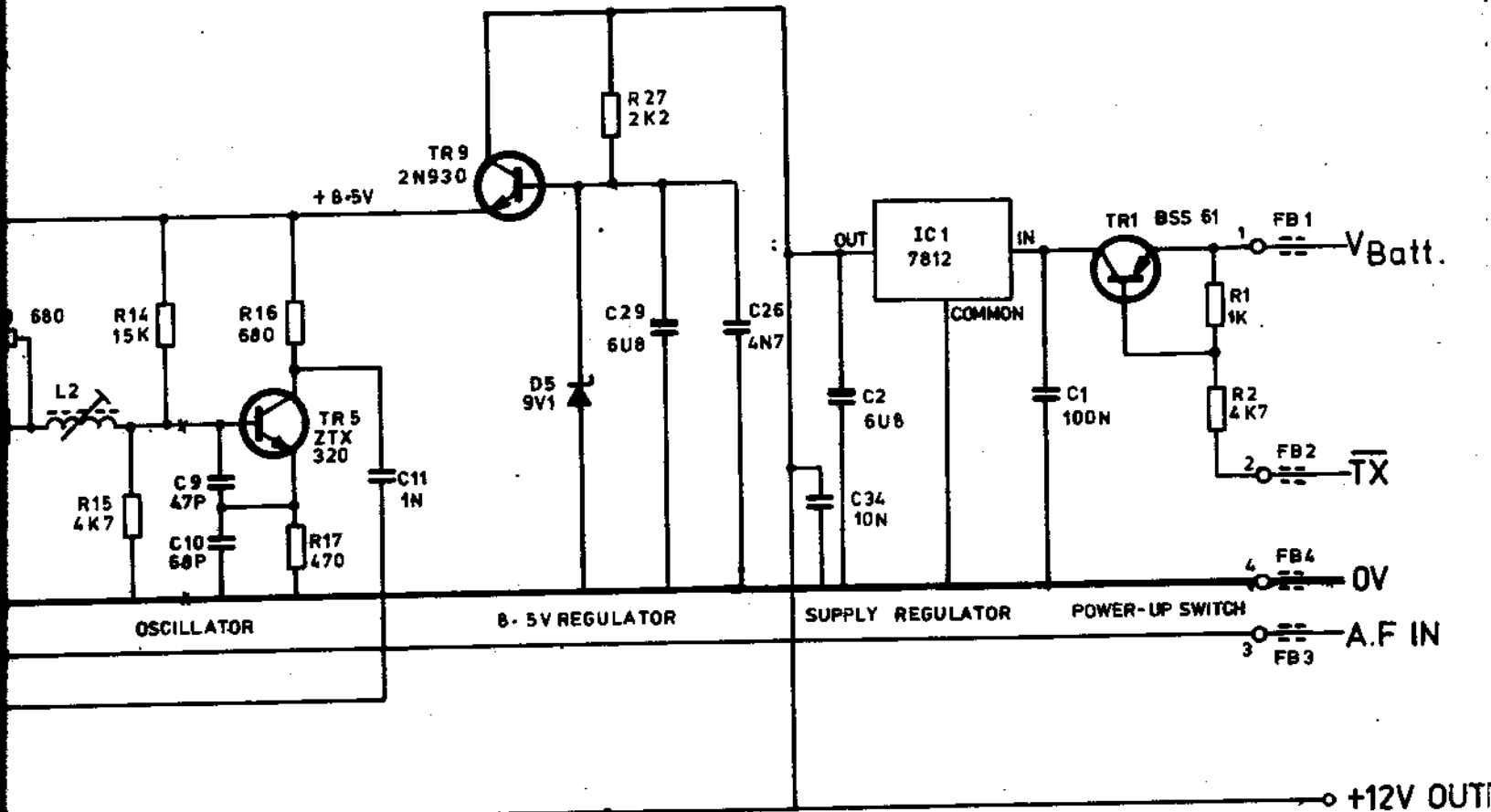
FINISH	
Remove all burrs & sharp edges	

USED ON U.H.F. RAD	
TITLE	RX PCB
	CIRCUIT DIAGR

DO NOT SCALE PRINT.

REF HOLE DIA. INCH +.005 - 0 HOLE DIA. MM +0.13 - 0

ADDITIONAL DATA



NOTES.  
 1. CAPACITORS MARKED ① ARE LEADLESS CERAMIC CHIP TYPE MOUNTED ON UNDERSIDE OF P.C.B.  
 2. CAPACITORS MARKED ② FORMED BY INTER-TRACK CAPACITANCE.

D1	P1016	26-2-6
C	P1011	26 9 6
B		6 6 6
A		10 5
ISS	CHANGE	DATE

burrs & sharp

USED ON. U.H.F RADIO  
 TITLE.  
 CIRCUIT DIAGRAM  
 TX. DRIVER P.C.B.

SONARDYNE LTD.  
 STATION APPROACH FLEET HANTS GU13 8QY TEL (02514) 21731 2800  
 DIVING INSTRUMENTATION LTD. ESTOVER CLOSE  
 ESTOVER. PLYMOUTH. DEVON PL6 7PL TEL (0752) 707935  
 DRG. No. **E3-7504-036**

D

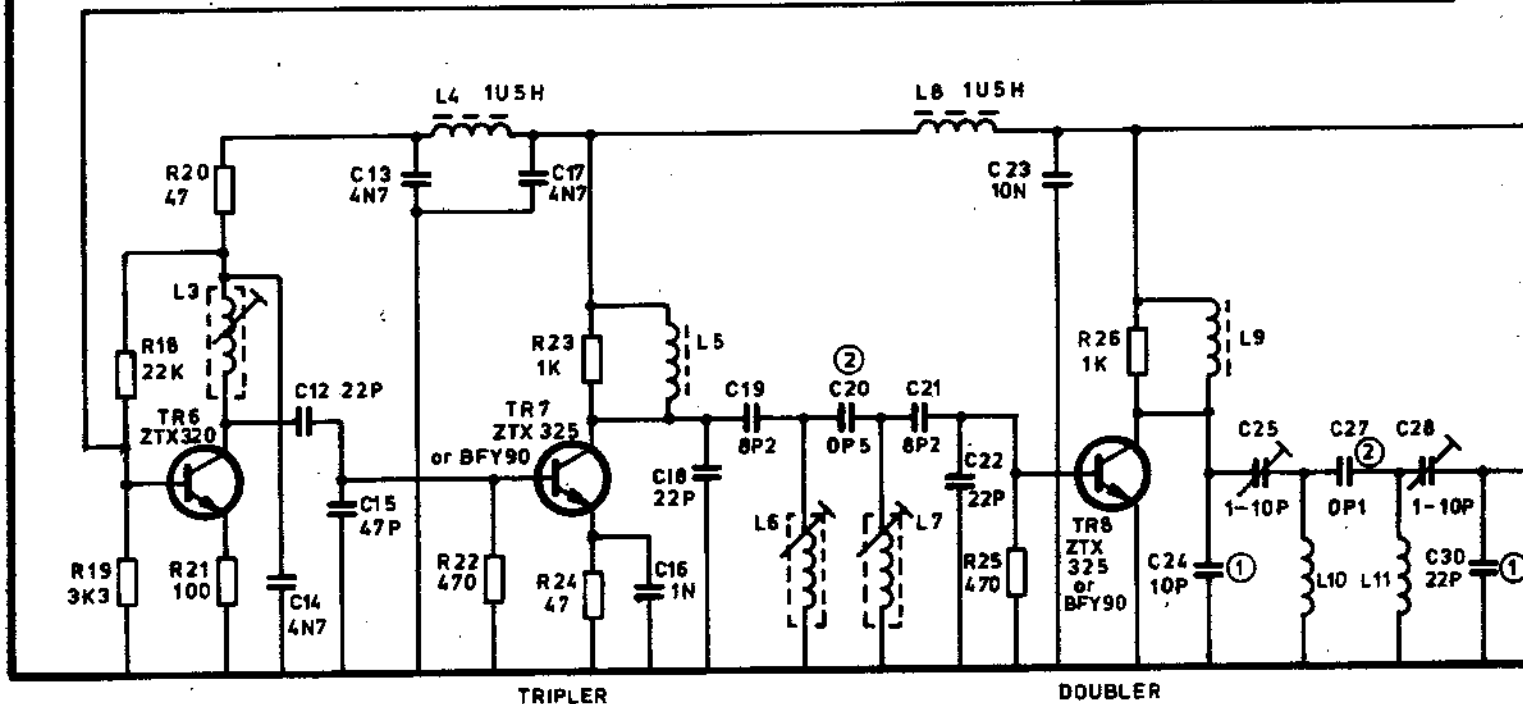
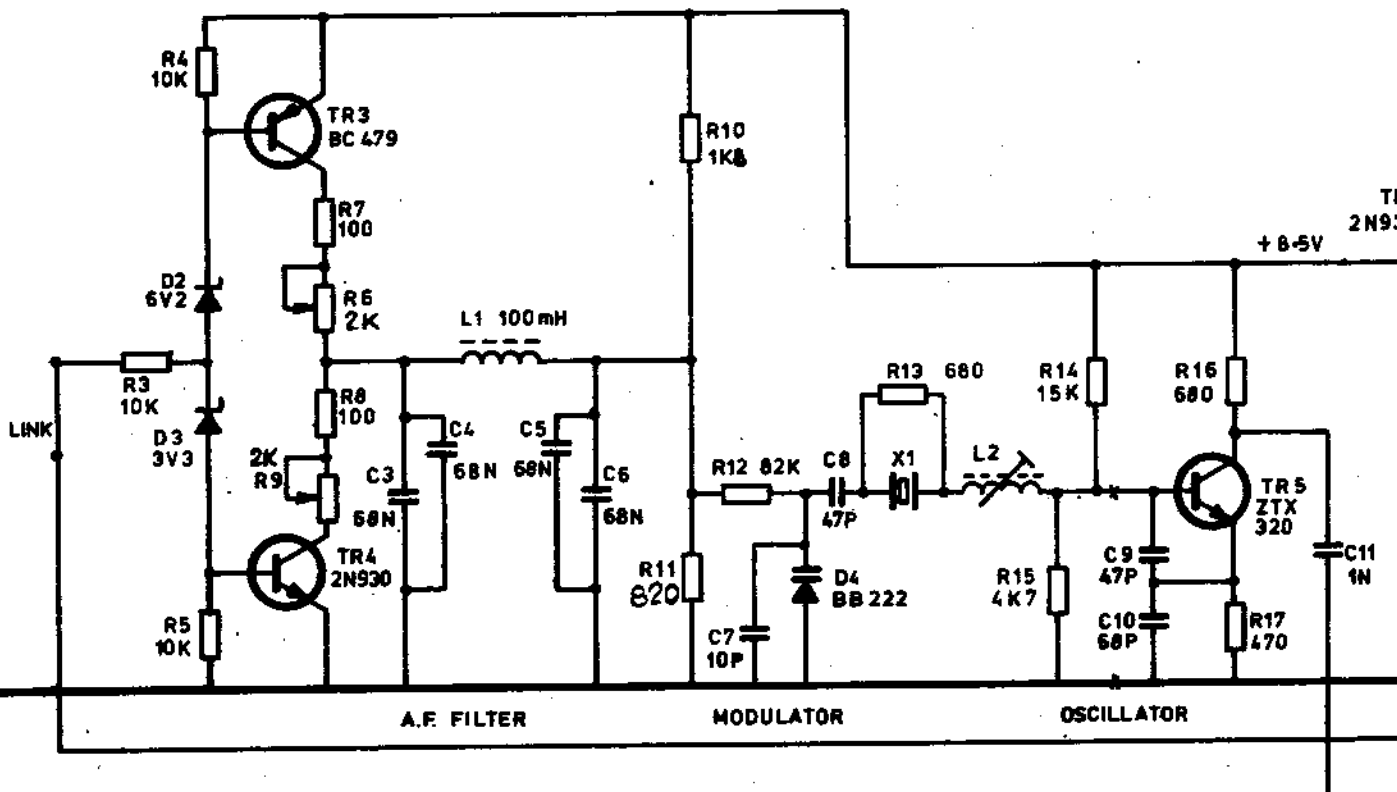
E

F

3rd. ANGLE

DIMENSIONS IN INCHES/M.M.

DO NOT SCALE PRINT.



NOTES.

1. CAPACITORS MARKED (1)
2. CAPACITORS MARKED (2)

TOLERANCES.

	in.	m.m.
1 Decimal place	$\pm 0.16$	$\pm 0.4$
2 Decimal places	$\pm 0.10$	$\pm 0.25$
3 Decimal places	$\pm 0.005$	$\pm 0.13$
Unless otherwise stated		

MATERIAL.

TO B.S.

FINISH.

Remove all burrs & sharp edges.

TO SPEC.

USED ON. U.H.F

TITLE.  
CIRCUIT DIAG  
TX. DRIVER

A

B

C

D

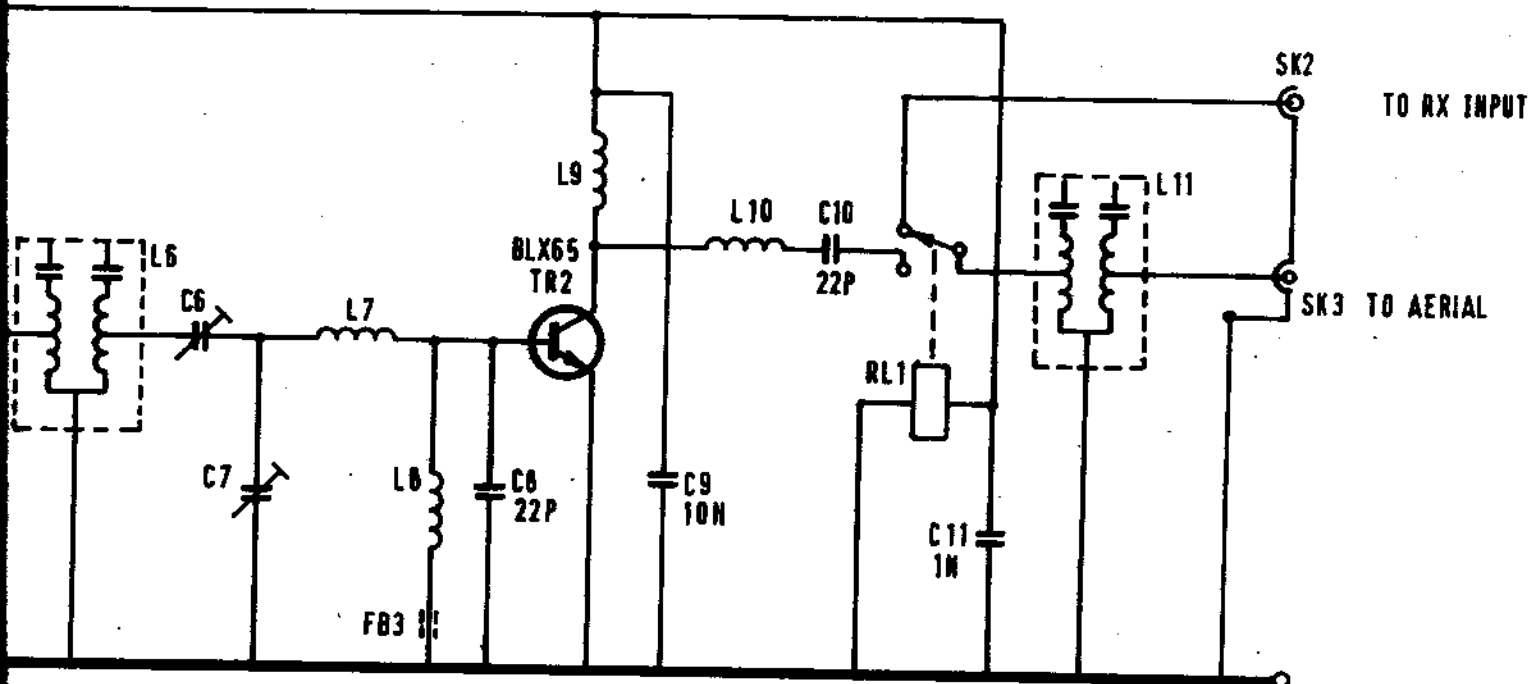
DO NOT SCALE PRINT.

REF

HOLE DIA. INCH  
+ 0.005 - 0

HOLE DIA. M.M.  
+ 0.13 - 0

ADDITIONAL DATA



ARE FITTED WITH HEATSINK.

COAX. CABLE 50Ω (LENGTH 72mm.) ENSURE FREE END IS OPEN CIRCUIT.

10 ARE LEADLESS CERAMIC CHIP TYPE.

B1	28-1-86
A1	16-3-85
A	19 5 83
ISS	CHANGE DATE

USED ON. UHF. RADIO  
TITLE. CIRCUIT DIAGRAM.  
POWER AMPLIFIER BOARD

SONARDYNE LTD.

STATION APPROACH FLEET HANTS GU13 8QY TEL (02514) 21731 28008

DIVING INSTRUMENTATION LTD. ESTOVER CLOSE.  
ESTOVER, PLYMOUTH, DEVON. PL6 7PL TEL. (0752) 707935

DRG.  
No.

E3-7504-037

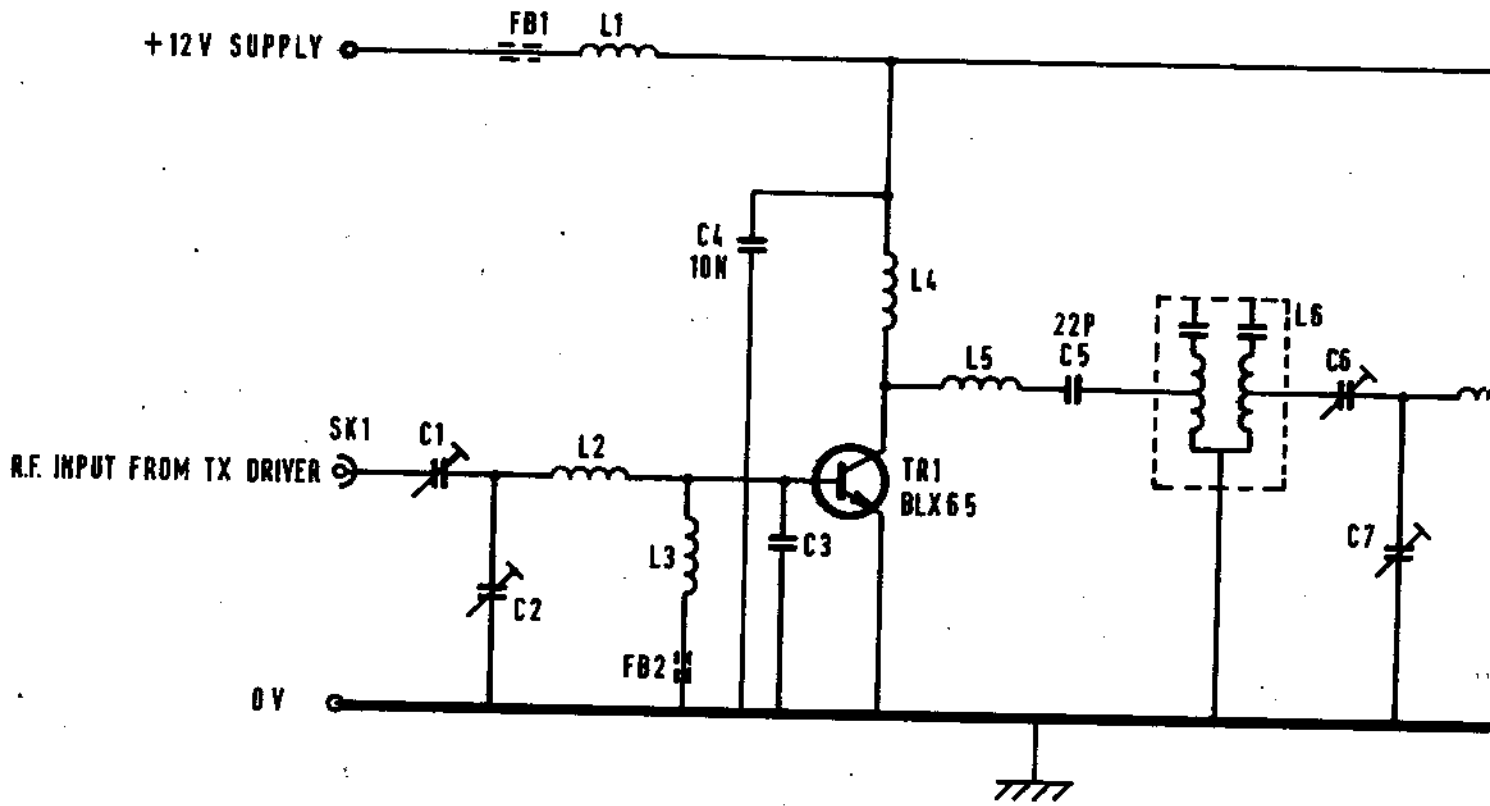
A



3rd.  
ANGLE

DIMENSIONS IN INCHES/M.M.

DO NOT SCALE



- NOTES
- 1 TR1 & TR2 ARE FITTED WITH HEATSINKS
  - 2 Z1 IS COAX. CABLE 50Ω (LENGTH)
  - 3 C3, C5, C8, C10 ARE LEADLESS CERAMIC
  - 4.

SCALE	/	TOLERANCES.	MATERIAL.	FINISH. Remove all burrs & sharp edges.	USED ON. I
DRAWN	829				
CHKD.	829	1 Decimal place ±.016 ± 0.4	TO B.S.	TO SPEC.	TITLE. CIR POWER
APP'D.		2 Decimal places ±.010 ± 0.25			
		3 Decimal places ±.005 ± 0.13			
		Unless otherwise stated			
A		B	C		

## Technical Data

### General Specification

Modulation System	Narrow band frequency modulation
Frequency Range	450-470 MHz
Channel Spacing	25 kHz
Number of Channels	One
Supply Voltage	15-24V
Supply Current	
Receiver	12mA typical
Transmitter	500mA typical depending on RF power output
Operating Temperature Range	-20°C to +60°C
Dimensions	800mm x 100mm dia approx, including antenna
Type Approval	Home Office Spec. MPT 1309

### Receiver

Type	Dual Conversion Superhet
Intermediate Frequencies	10.7MHz and 455kHz
Input Impedance	50 ohms
Frequency Deviation	+/- 2.5kHz peak optimum
Sensitivity	better than .8uV pd for 12dB snad.
Adjacent Channel Rejection	better than -110dB
Spurious Response Rejection	better than -70dB
Audio Response	100 - 3kHz +/- 2dB
Squelch	Optional
Power Up Risetime	less than 20ms

### Transmitter

RF Power Output	1W max continuous (factory preset to 500mW)
Output Impedance	50 ohms
Spurious Emissions	better than -64dB rel. to carrier
Adjacent Channel Power	better than -64dB rel. to carrier
Frequency Stability	+/- 5ppm over full temperature range
Frequency Deviation	+/- 5kHz peak max.
Modulation Response	0-3kHz +/- 2dB
FM Carrier Noise Level	less than -55dB rel. to 3kHz dev. at 1kHz mod.
Power Up Risetime	less than 25ms