

# Contents

## Receivers

A simple superhet receiver for 160 metres .....	2
A simple superhet receiver for 80 and 40 m .....	6
A 'noise tracker' receiver for 144.455 MHz AM .....	11
An LF receiving converter with loop-stick antenna .....	16

## Transmitters

Mark 4 CW transmitter for 3.5 and 7 MHz .....	19
A 5 W transmitter with QSK for 1.8, 3.5 and 7 MHz .....	25
A Class-E AM/CW transmitter for 1.8 MHz .....	30
A Class-E CW transmitter for 1.8 MHz with VFO and QSK .....	36
A 50 W CW transmitter for 600 m (505 - 515 kHz) .....	41
A 50 W CW transmitter for 137 kHz .....	44
A 4-125 linear amplifier for 160 m .....	49
Notes on HF transmitting coils .....	57

## Antennas

Notes on the 'drilled Perspex' method of making low-loss transmitting coils .....	59
A balanced pi coupler for balanced antennas .....	61
144 MHz 3-element yagi (for 'noise-tracker' receiver) .....	14
A loading/tuning coil for 137 kHz antennas .....	66
An active loop-stick antenna for 1.5 - 2.0 MHz .....	70

## Test equipment

Making shunts for ammeters .....	73
A tetrode tester .....	76
A tester for diode and capacitor leakage .....	79
A 50 ohm, 200 W dummy load and power meter .....	82
A combined MF/HF SWR meter and RF ammeter .....	86
A 10 and 100 MHz crystal frequency reference/transfer standard .....	89

## Power supplies

Re-using microwave oven transformers for high voltage power supplies .....	93
Adding an extra winding to toroidal power transformers .....	96
Quieting a switched-mode power supply .....	98

## In the workshop

'Paddyboard' circuit construction .....	100
A 'Paddyboard' substrate for popular 8-pin surface mount components .....	102
A jig for punching small holes in sheet-metal .....	103
How to use taps to make internal screw threads .....	105
A collett for holding square rod in a 3-jaw lathe chuck .....	107
A screw-plate .....	108
Modified wood-working drills for sheet-aluminium .....	109

## Accessories

A VK10D PIC iambic keyer (PIK) made 'paddyboard' style .....	110
An amplitude modulation monitor .....	114

## Appendices

1. List of contents of <i>Radio Projects for the Amateur</i> , Volumes 1, 2 and 3 .....	117
2. Suggested books to read .....	119
3. Symbols used in schematics .....	120