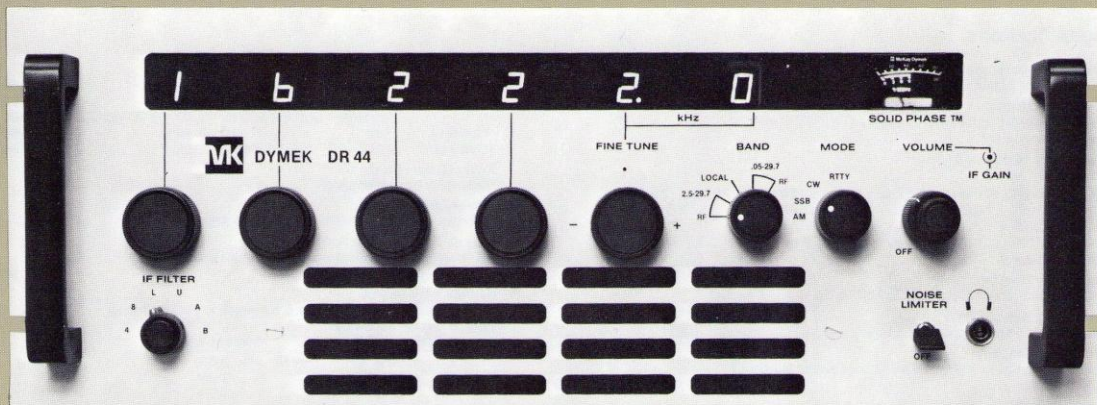


## DR 44 Professional Receiver



[www.radiopharos.it](http://www.radiopharos.it)

McKay Dymek's DR 44 fills the need for a low priced military, industrial and maritime communications receiver.

The DR 44 is suitable for either backup or main receiver applications.

Cost effective design makes multiple units practical for fail-safe operation.

Ease of maintenance and low down times are insured through the use of standard plug in Integrated Circuits.

The DR 44 is built to commercial standards, but is fully adequate for many military and governmental communications link, surveillance or monitoring requirements.

**MK McKay Dymek**

**Your HF Headquarters**

# DR 44 Professional Receiver

## Features

- The DR 44 fills the need for a high quality modestly priced receiver with professional performance and specifications.
- Class D AM envelope detection is used giving much lower distortion levels than the conventional AM diode detector
- A unique automatically adjusting threshold noise limiter provides greatly enhanced reception of CW RTTY and SSB signals during conditions of extreme impulse noise interference.
- Crystal filters in first and second IF amplifiers mechanical filters in third IF

- A high level RF front end, using CATV RF power transistors and a double balanced diode ring mixer provides freedom from inter modulation interference and overload, while eliminating the need for a manually adjusted antenna pre-selector in many installations.
- Quartz crystal phase locked loop digital synthesis tuning provides excellent frequency accuracy stability and ease of tuning.
- Independent selection of reception mode and IF filter
- Performance and specifications unmatched under \$3000.

## Specifications

### Frequency Coverage:

50 kHz to 29.7 MHz, continuous

### Reception Modes:

AM, Upper Sideband, Lower Sideband, CW, RTTY (with external converter)

### Sensitivity 10 dB (S+N)/N

RF Bandwidth	100 kHz	200 kHz	400 kHz	20 MHz	20 MHz	29.7 MHz
4 kHz AM*	10 uV	3 uV	1.0 uV			1.5 uV
2.2 kHz SSB	2 uV	1.0 uV	.5 uV			.75 uV
400 Hz CW	1 uV	.5 uV	.25 uV			.35 uV

\*30% Modulation

### Frequency Readout:

6 Digit Red .5 inch (1.2 cm) LED to 100 Hz

### Frequency Selection:

10, 1 1 .005 MHz steps 5 kHz Fine Tune

### Frequency Stability

at constant ambient of 25°C in any 8 hour period after ½ hour warm up

± 40 Hz

### Image Rejection:

70 dB

### RF Blocking

Desired signal 60 dB above 1 uV with blocking signal removed 20 kHz and its amplitude adjusted to reduce desired signal by 3 dB

100 dB to 1 uV

### Cross Modulation

Desired signal at 60 dB above 1 uV with undesired signal removed 20 kHz and its amplitude adjusted for cross modulation products 30 dB lower than desired signal

65 dB to 1 uV

### Intermodulation

Level of 2 undesired signals 30 kHz from the desired signal to produce the equivalent audio output as desired signal 30 dB above 1 uV

65 dB to 1 uV

### RF Bandwidth:

4 kHz	4 kHz -6 dB	10 kHz -60 dB
8 kHz	8 kHz -6 dB	28 kHz -60 dB
LSB or USB	300 to 2500 Hz -3 dB	-700 Hz, +3800 Hz -60 dB
(Optional) CW	375 Hz -3 dB	3.5 kHz -60 dB
(Optional) RTTY	1200 Hz -3 dB	8.0 kHz -60 dB

### Audio Notch Filter:

5000 Hz greater than 25 dB

### Noise Limiter:

Automatic threshold peak limiters for AM/SSB-CW-RTTY

### Hum and Noise Below Full Output

AM, 1 MHz, 1 m V antenna input, 8 kHz bandwidth, 90% 1 kHz modulation

55 dB

### Harmonic Distortion

at tuner output, AM, 1 MHz, 1 kHz modulation, 1 m V antenna input, 8 kHz RF bandwidth

Percent Modulation	Percent T.H.D.
50%	0.6%
80%	1.0%
90%	1.5%

### Audio Output:

2 watts at 4 ohms, 1 Vrms at 5000 ohms, internal monitor speaker with external speaker connectors

### Power Required:

110-120/220-240 VAC, 50-60 Hz Switch Selectable 30 watts

### Dimensions:

19" (48 cm) wide x 7" (18 cm) high x 15" (37 cm) deep

### Net Weight: Shipping Weight

16 lbs. (7.3 Kg) 22 lbs. (10 Kg)

### Circuit Complement:

56 Integrated Circuits, 31 FETs, 20 Transistors, 66 Diodes

### Available Options

DP 4044 RF Preselector

600 Ohm 0 dBm Balanced Audio Output

400 Hz Bandwidth CW Mechanical Filter

1200 Hz Bandwidth RTTY Mechanical Filter

### Antenna Reradiation:

-45 dBm maximum (without preselector)

### Ambient Operating Temperature:

0 to +50 C

### Input Impedance:

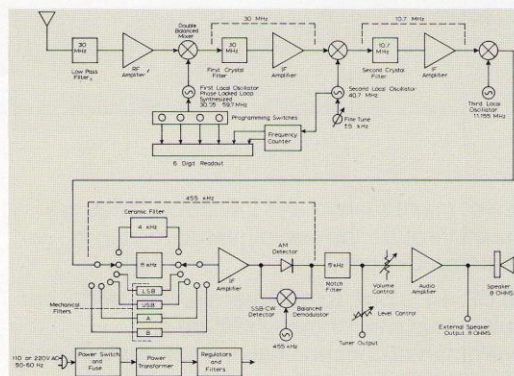
50 ohms nominal

### BFO Crystal Controlled:

SSB 0 Hz Offset

CW 800 Hz Offset

RTTY 2000 Hz Offset (others available)



Note: Specifications and design subject to possible modification without notice. Copyright © 1975 McKay Dymek Co. Printed in U.S.A. Limited warranty 1 year parts and labor

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