DR 22C General Coverage Receiver

The DR22 is the product of years of receiver research and development. Many of the latest advances in receiver design are incorporated into the fully solid state DR22.

Today's listening needs are very demanding upon receiver design. High sensitivity is no longer the only requirement. With todays high powered Long, Medium and Short Wave broadcasting transmitters, high level signal rejection on unwanted frequencies is becoming extremely important. The DR22 has been designed with this concept in mind. Not only does the DR22 offer high sensitivity for weak signal reception, but special design, care and expense has been taken to eliminate front end overload caused by powerful stations on adjacent frequencies.

The DR22 is built using a high level front end. A high powered transmitting transistor is used as the RF amplifier. This transistor is followed by a high level double balanced mixer for the first frequency conversion process. Use of a high level first mixer provides overload immunity not found in lesser receiver designs.

Most current communications receiver designs require the operator to adjust a pre-selector or antenna tuning control when the receive frequency is changed. Not so with the DR22. High level front end design allows immediate frequency changing without re-peaking controls at each new setting.

Scanning the International Short Wave Bands is a dream with the DR22. With each click of the 20 position selector switch, another assigned channel is exactly tuned in. Guessing at your received frequency is eliminated. Merely set the four selector switches for the desired readout frequency, and it is automatically and accurately tuned in. All DR22 tuning is fully based on quartz crystals which provide extreme frequency accuracy and freedom from drift as compared to conventional coil and variable capacitor tuning arrangements. Solid state phase locked tuning virtually eliminates dial error, tuning backlash and frequency drift. Short Wave reception has now truly been made care free and accurate. Tuning in Short Wave broadcasts from around the world is as easy as tuning in a channel on your TV set.

With the DR22, the time has finally come when reception of the rest of the world is not only practical, but within the financial reach of the average person.

McKay Dymek. **Your HF Headquarters**

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Features

- Class D AM envelope detection for low distortion even at high modulation percentages
- Receives Long, Medium and Short Wave Bands
- Hi Fi, SWL, Commercial, Industrial and Governmental uses
- Extreme ease of tuning at all frequencies
- Solid State, Phase Locked, Digital Synthesis tuning
- Quartz crystal tuning accuracy at all frequencies
- No mechanical tuning dial error or backlash
- High level RF front end for excellent intermodulation rejection and sensitivity
- Full all wave continuous coverage 50 kHz to 29.7 MHz
- No crystals to buy
- Large LED frequency readout
- Crystal filters in first and second IF amplifiers and ceramic filter in third IF provide outstanding selectivity and intermodulation performance
- Designed for use with Hi Fi systems, or as a self contained receiver
- Receives AM, USB, LSB and CW
- Switch selectable 4 or 8 kHz RF bandwidth
- 5000 Hz audio heterodyne notch filter

Tune these in with the DR22

- International News, Commentary and Music direct from world Capitals. BBC World Service from London, Radio Moscow, Radio Nederland, RSA South Africa, Radio Cuba, Radio Australia, Radio Peking, Radio Japan, Voice of America, and many others.
- U.S. Armed Forces Radio, Sports and Variety Programs
- International Ships at sea
- Overseas Phone calls
- International Aircraft in flight
- Worldwide Amateur Radio Operators
- All Citizen's Band channels
- Government Transmissions
- Standard AM broadcast band for local and domestic reception
- Long wave broadcast band (Europe and Africa)

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
4kHz AM*	10 uV	3 uV	1.0 uV		1.5 uV	
4kHz SSB-CW	5 uV	1.5 uV	.5 uV		.75 uV	

*30% Modulation

Frequency Readout:
~~6 Digit Red .5 inch (1.2 cm) LED to 5 kHz~~ 5 Digit Red .5 inch (1.2 cm) LED to 5 kHz

Frequency Selection:
10, 1 1 .005 MHz steps 5 kHz Fine Tune

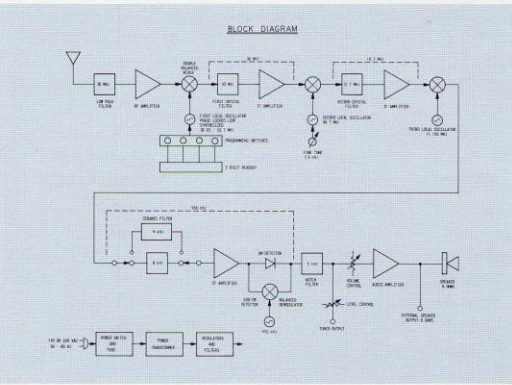
Frequency Stability
at constant ambient of 25° C in any 8 hour period after ½ hour warm up ± 40 Hz

Image Pejection: 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

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 55dB

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

Percent Modulation	
50%	0.6%
80%	1.0%
90%	1.5%

Audio Output:
2 watts at 4 ohms, 1 Vrms at 5000 ohms, internal 4 inch monitor speaker with external speaker connectors

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

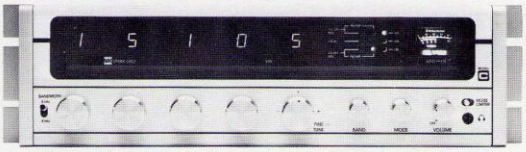
Dimensions:
17.5" (43 cm) wide x 5.1" (13 cm) high x 15" (37 cm) deep

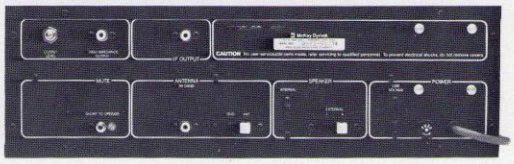
Net Weight:
15 lbs. (6.8 Kg)

Shipping Weight
20 lbs. (9.1 Kg)

Circuit Complement:
43 Integrated Circuits, 16 FETs, 18 Transistors, 54 Diodes

Available Options
DP 40 RF Pre-Selector
600 Ohm 0 dBm Balanced Audio Output
Equipment Rack Mount Hardware





Note: Specifications and design subject to possible modification without notice. Printed in U.S.A.
Limited warranty 1 year parts and labor

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