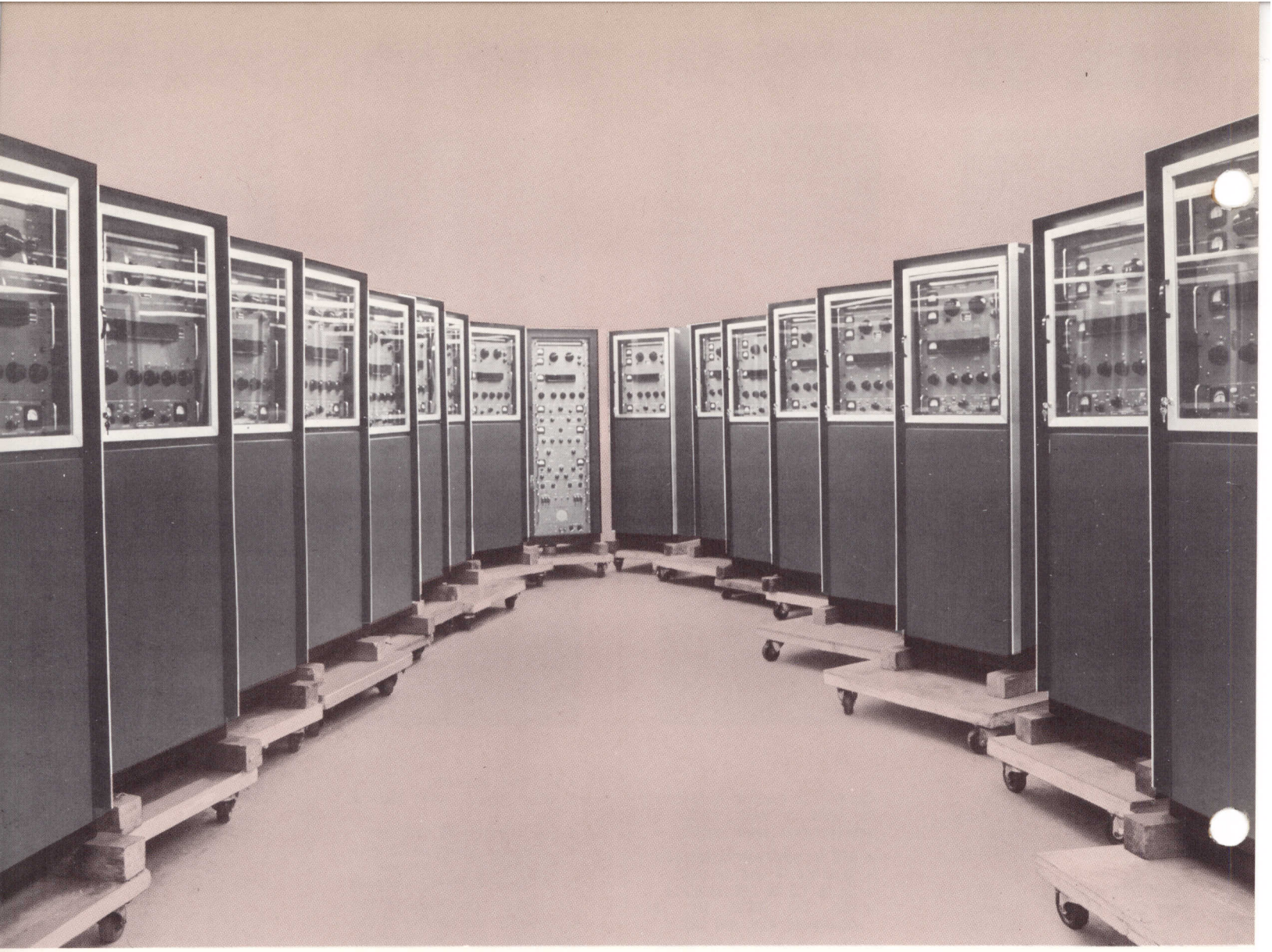


# THE MODULAR DDR-5 FAMILY OF RECEIVERS

Within this series of service-accepted modular receivers, you will find combinations that provide the following capabilities:

AN/FRR-60(v)

- **2-32 mcs coverage, continuous or fixed tuning**
- **1 part $10^8$ stability**
- **100 cycle tuning**
- **Direct reading frequency**
- **Better than 1 microvolt sensitivity**
- **Noise figure 6 db or better.**
- **150 db dynamic range**
- **CW, AM, AME, SSB, ISB, FSK, FAX, Pulse and Phase reception**
- **Four channel ISB†**
- **On DCA approved list**
- **High speed remote control by means of the Techni-MatiC* tuning system.**

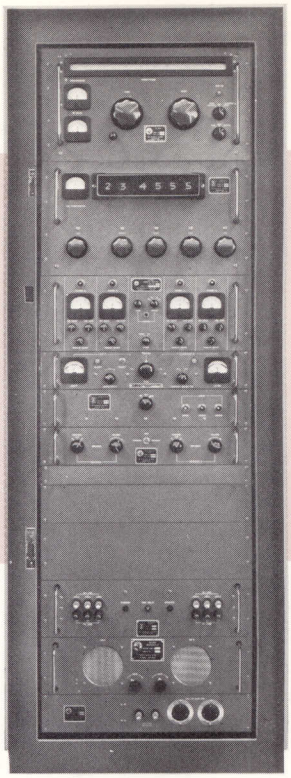
The independent AGC system (MSG()-1) featured in many of the DDR-5 Series receivers provides.

- Commercial quality telephone and telegraph circuits
- Four independent 3 kc voice channels demultiplexed at the IF level
- Each voice channel with its own AGC produces usable uniform audio outputs

†For more information on the Four Channel Independent AGC System, please request BULLETIN 4004A.

*Trademark applied for.

# DDR-52



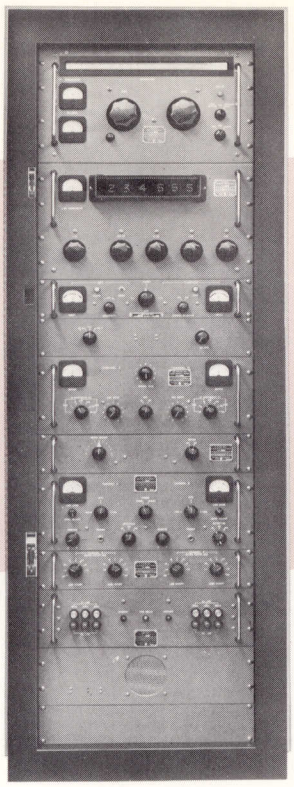
- Four channel ISB reception
- 60 db AGC action within each demultiplexed IF channel
- AFC for pilot carrier reception

Model DDR-52 couples a continuous tuned sensitive RF amplifier, a high stability synthesizer and 4 channel independent AGC to provide a receiver capable of meeting the exacting requirements of multiplexed ISB reception.

The independent AGC action with each demultiplexed IF channel provides uniform output from all four 3 kc voice channels. By this means, the power level of the transmitted signal can be adjusted to emphasize the more important 3 kc channels without requiring constant attention to the audio output level of the receiver.

Size: 69″ h × 24¼″ w × 30″ d.
Weight: 750 lbs.
Power Consumption: 1100 watts.

# DDR-5B



**The DDR-5B receiver is designed to fulfill a wide variety of exact-receiver requirements.**

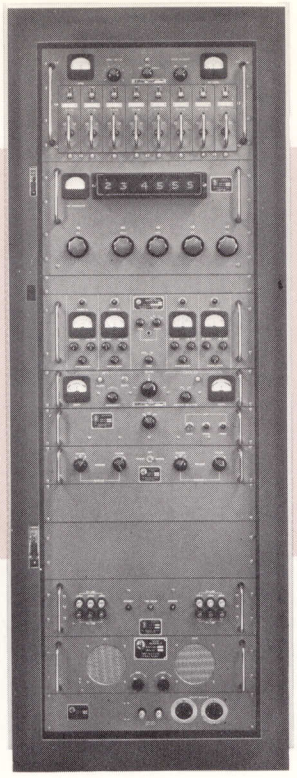
- AFC for pilot carrier reception
- Separate IF and AF units
- Up to 7.5 kc ISB reception
- SSB, CW, MCW, AM, AM equivalent, FSK and FAX

A wide selection of IF filters, both symmetrical and sideband, as well as IF and audio filters, provide a receiver ideally suited to cope with almost any type of signal.

Demultiplexing of ISB signals can be accomplished at the audio level by means of Model RMX-2, Dual Demultiplexer.

Size: 69″ h × 24¼″ w × 30″ d
Weight: 650 lbs.
Power Consumption: 750 watts

# DDR-501

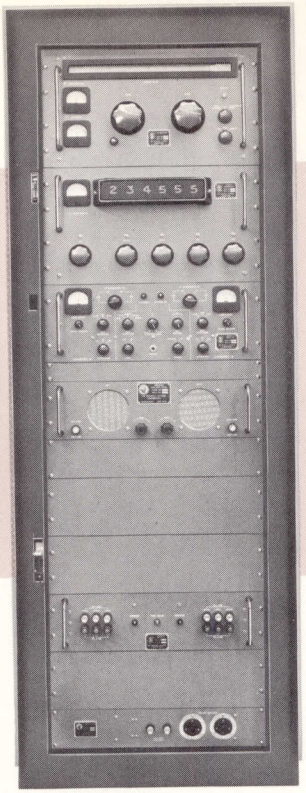


- 8 preset channels.
- Noise figure better than 4 db
- Four channel ISB reception
- 60 db AGC action within each demultiplexed IF channel
- AFC for pilot carrier reception

The extreme sensitivity of the RF amplifier, the stability of the synthesizer and the independent AGC action within each of the four independent demultiplexed IF channels provides uniform audio output levels to terminal equipment. This feature frees the operator from constant attention to the receiver.

Size: 69″ h × 24¼″ w × 30″ d
Weight: 700 lbs.
Power Consumption: 1150 watts

# DDR-551

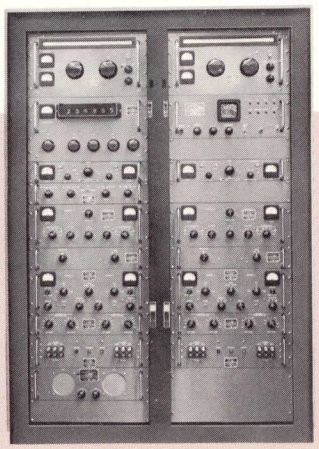


- SSB, ISB, AM, AME, FSK, FAX, MCW, Pulse & Phase modes for
  - Point-to-Point
  - Ground-to-Air
  - Shore-to-Ship
- Continuous tuned 100 cycle steps
- 1 part $10^8$ stability
- Illuminated digital frequency display
- 150 db dynamic range
- 1 microvolt for 15 db $\frac{S+N}{N}$

The input dynamic range of this receiver has been carefully correlated with optimum sensitivity, image rejection, unwanted radiation, cross-talk, spurious response and stability to accept a wide variation of input voltage without degrading the receiver's technical characteristics. All of the modules within this receiver have been approved for service use. This receiver meets or exceeds MIL-SPEC for temperature, humidity and radiated or conducted interference.

# DDR-5A

- CW, AM, AM equivalent, SSB, ISB, FSK and FAX modes
- AFC for pilot carrier reception
- Separate IF and AF units
- IF notch filters
- Audio filters



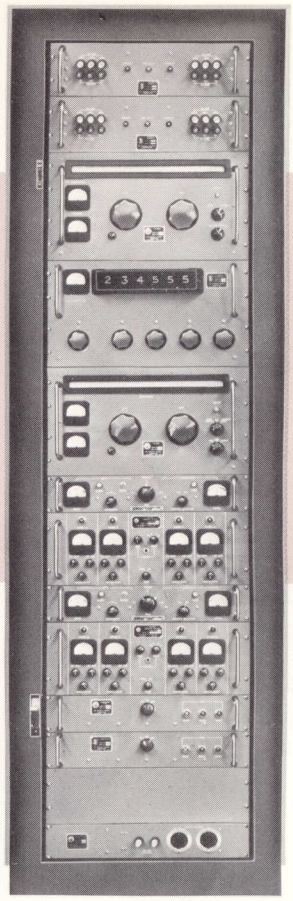
**This first of the DDR-5 Series has been field proven on critical military communications circuits. Since the installation of these receivers, circuit outages have been drastically reduced.**

Space diversity reception of sideband and conventional modes is made possible by a wide selection of symmetrical and sideband IF filters.

Scope presentation of the IF signals as well as tunable IF notch and audio filters provides the versatility required to cope with varied circuit requirements.

Size: 69″ h × 47″ w × 30″ d.
Weight: 1100 lbs.
Power Consumption: 1500 watts

# DDR-51



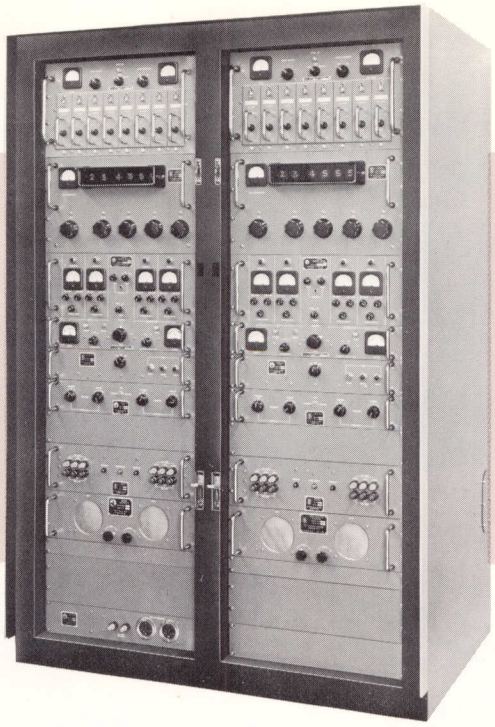
**This receiver ideally replaces and upgrades the AN/FRR-41.**

- **Four channel ISB reception**
- **60 db AGC action within each demultiplexed IF channel**
- **CW, SSB, ISB diversity reception**
- **AFC for pilot carrier reception**

This highly stable diversity communications receiver correlates the extreme front end sensitivity and low noise figure of the HFR-1, the high stability of the HFS-1, and the versatility of the four channel IF demultiplexer to provide diversity reception of multiplexed signals. 60 db of independent AGC within each IF channel provides uniform and constant telephone quality audio output from associated audio channels.

Size: 83″ h × 24¼″ w × 30″ d
Weight: 1100 lbs.
Power Consumption: 2000 watts.

# DDR-502

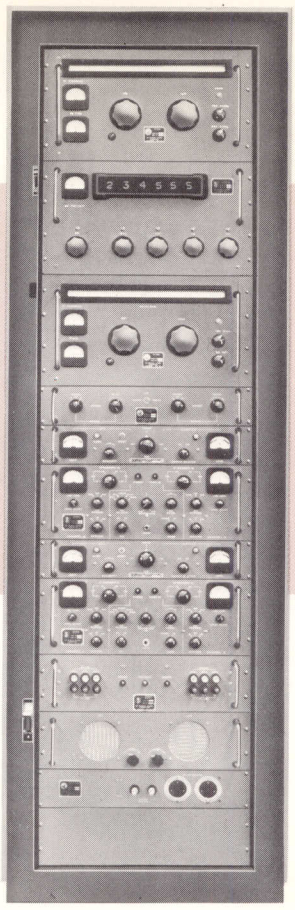


- **8 preset channels**
- **Noise figure better than 4 db.**
- **Four channel ISB reception.**
- **60 db AGC action within each demultiplexed IF channel**
- **AFC for pilot carrier reception**

This receiver, in a dual cabinet, provides space diversity, frequency diversity, or each section of the receiver can be used as an independent receiver with the stability provided by the included synthesizer. Four channel independent AGC reception provides 60 db of AGC action within each IF channel, giving telephone quality audio output at a constant and usable level.

Size: 69″ h × 47″ w × 30″ d.
Weight: 1300 lbs.
Power Consumption: 2200 watts.

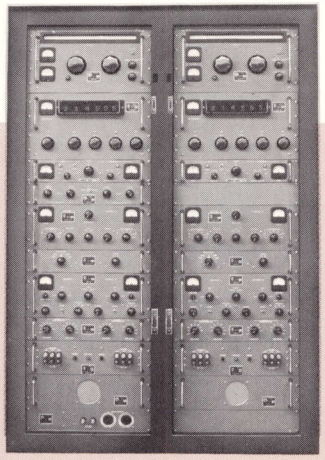
# DDR-50



- **CW, AM, AME, SSB, ISB, FSK, FAX, Pulse and Phase**
- **AFC for pilot carrier reception**
- **Combined IF and AF units**
- **Up to 7.5 kc for ISB reception**

This receiver combines, in one cabinet, space diversity reception capabilities with high sensitivity RF amplifiers providing continuous coverage from 2 to 32 mcs. Front panel selectable IF filters and the included AFC capability enable this receiver to cope with modern communication requirements.

Size: 83″ h × 24¼″ w × 30″ d.
Weight: 1100 lbs.
Power Consumption: 1500 watts.

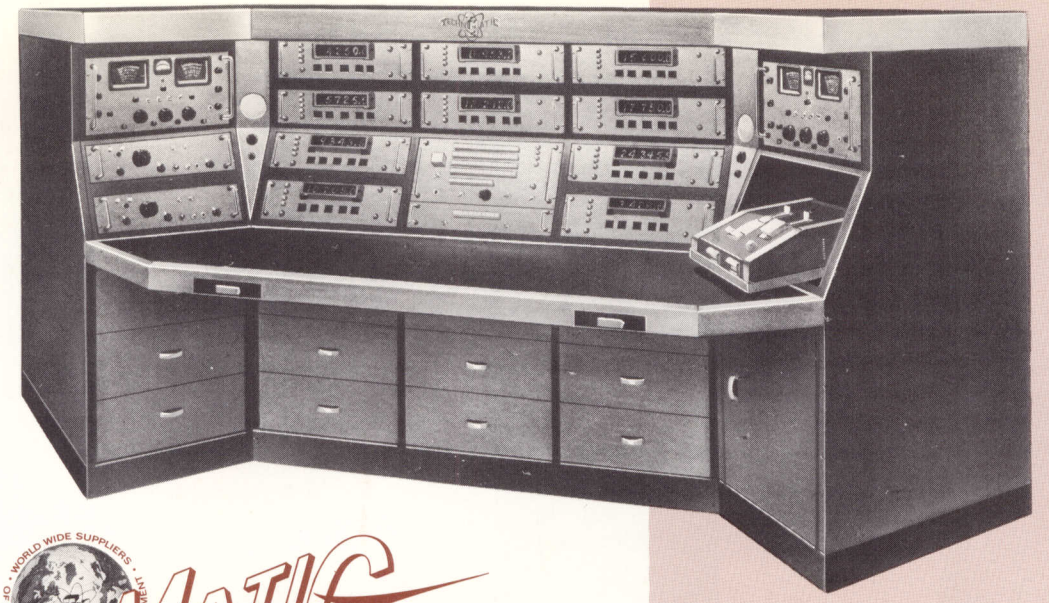


- **CW, AM, AM equivalent, SSB, ISB, FSK and FAX modes**
- **AFC for pilot carrier reception**
- **Separate IF and AF units**
- **IF notch filters**
- **Audio filters**

Size: 69″ h × 47″ w × 30″ d.
Weight: 1150 lbs.
Power Consumption: 1500 watts.

# DDR-5C

This receiver incorporates all of the features of the DDR-5A but has the added advantage of being able to operate in space and frequency diversity as well as operating either section of the receiver on entirely separate circuits. This receiver has been used on critical military circuits and has been instrumental in reducing circuit outage time beyond design specifications.



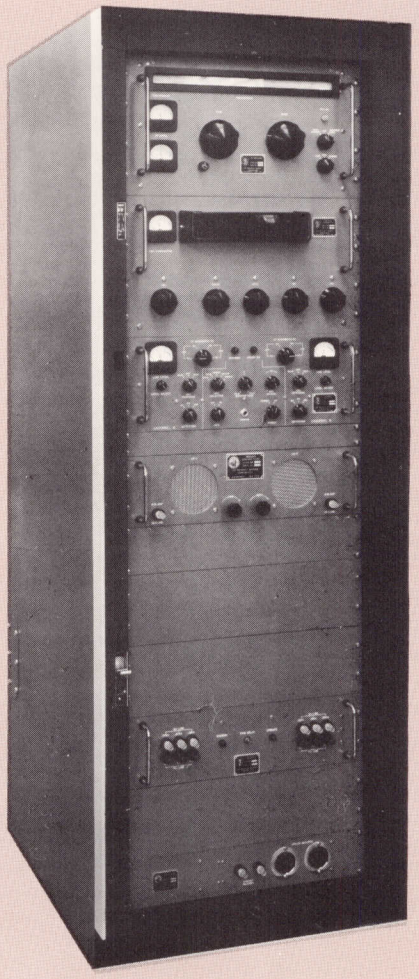
TECHNIMATIC

# TUNING

## THE WORLD-WIDE SYSTEM OF REMOTE CONTROLLED COMMUNICATIONS

This console permits an operator to tune both transmitters and receivers remotely to frequencies and various modes of operation on an automatic and pre-programmed basis by means of pre-cut tapes, cards, memory systems or manual selection and provides a readback of information to the operator showing him that the selected tuning functions have, in fact, been performed.

The system is unique in that manual override is provided at the remote site; however, any change in the positioning of the controls at the remote site would automatically be indicated on the remote controller's console. Tuning functions of transmitters and receivers, including the selection of frequency, audio and RF levels, sideband selection are controlled at this console. Readback indication of the frequency to which the remote units have been tuned to is presented by 1″ illuminated digital display at the operator's console. Other tuning functions are displayed on illuminated indicators.



**ALL THE MODULAR FAMILY OF**

## DDR-5 RECEIVERS

**SHOWN ON THE PRECEDING PAGES CAN BE FACTORY OR FIELD EQUIPPED FOR REMOTE CONTROL**