JRC HF GENERAL COVERAGE COMMUNICATIONS RECEIVER

NRD-525

- General Coverage of MF/HF
- VHF/UHF Reception (Option)
- Large Memory Capacity of 200 Channels
- Computer Control (Option)

JRC Japan Radio Co., Ltd.

A High-Class, General Coverage Receiver V

The NRD-525 Communications Receiver is now offered by JRC to change your shack into a new universe. The traditional radio technology unique to JRC is combined with the most advanced digital technology to develop the sophisticated communications receiver with a PLL frequency synthesizer and a microprocessor.

FEATURES

○ Wide Frequency Range

The NRD-525 can receive a wide range of frequencies covering the MF/HF/VHF/UHF bands. Its general coverage is from 90kHz to 34MHz. With an optional plug-in VHF/UHF converter, the receiver can operate in the ranges of 34 – 60MHz, 114 – 174MHz and 423 – 456MHz, ensuring its use for various applications.

○ Large Memory Capacity

The receiver incorporates a CMOS-RAM backed by a lithium battery. This memory has a large capacity of 200 channels, each channel storing data on frequency, mode, bandwidth, AGC, and ATT.

○ Scan Reception

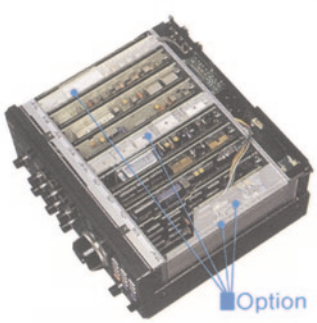
If a start channel and an end channel are assigned, all the channels between both are scanned. The scan speed and the automatic stop level can be adjusted.

○ Sweep Reception

If a start frequency and an end frequency are assigned, all the frequencies between both are swept. The sweep speed and

○ Teletype Reception

With an optional plug-in RTTY demodulator, th
tion in conjunction with a printer for personal
interface).



○ Electronic Tuning

The receiver employs the auto
professional receivers. This syste
capacitor diodes which is contro
tuning improves antenna matchin

○ Direct Access Tuning

Any frequency can be selected r
from the ten-key pad speedily.

○ Wide Dynamic Range

The use of a gate-grounded, pus
circuit ensures a wide dynamic rang

With Expandability Looking to the Future.

The new receiver is also designed for expandability to meet today's needs for compatibility with teletype reception and personal computers. You will find satisfaction in its cost performance and easy-to-operate design.

Actual size

Front panel

1. POWER/TIMER ON-OFF switch
2. AF GAIN control
3. TUNING control (This control also works as RIT control when characters "RIT" are on.)
4. UP switch
5. LOCK switch
6. DOWN switch
7. RF GAIN control
8. BFO control
9. TONE control
10. NOTCH control (It also works as P LEVEL (pause level) control during scan or sweep reception).
11. SQUELCH control
12. PBS (pass band shift) (It also works as the SPEED control during scan or sweep reception.)
13. PHONES jack
14. RECORD jack
15. NB LEVEL (noise blanker level) control
16. RIT switch
17. DIMMER switch
18. MONI (monitor) switch
19. CLOCK/TIMER switch
20. SCAN switch
21. SWEEP switch
22. RUN switch
23. ATT (attenuator) switch
24. AGC control
25. Vacuum Fluorescent Display (VFD)
26. BANDWIDTH switch
27. MODE switch
28. Numerical keys
29. FREQ (frequency) switch
30. CHANNEL switch
31. CLR (clear) switch
32. MHz switch
33. ENT/kHz switch
34. MEMO (memory) switch

nd the automatic stop level can be adjusted.

the receiver can be used for teletype recep-
nal computers (compatible with Centronics

utomatic tuning system developed for JRC
stem consists of a double tuning circuit with
trolled by a microprocessor. The electronic
ning, selectivity and other characteristics.

d not only by the main tuning control, but also

push-pull FET mixer and an electronic tuning
ange to improve multiple signal characteristics.

○ Clock/Timer

The receiver incorporates two clocks which can be used for local time and UTC (GMT). They can also be used as timers to control any associated equipment such as a tape recorder.

○ Interface with PC

A personal computer can be connected to this receiver through RS-232C interface (option). Under the PC control, the receiver can be operated as a programmable receiver by entering frequency, mode, bandwidth, time and other data into a program.

○ Fully Solid-State, Modular Design

The receiver is manufactured by the newest automated production technology, employing chip components throughout, in order to assure uniform quality and cost reduction. Its completely modular design with plug-in PC boards ensures high reliability and serviceability.

SPECIFICATIONS

Receiving frequency range 0.09 – 34MHz
34 – 60MHz (*1)
114 – 174MHz (*1)
423 – 456MHz (*1)

Receiving mode RTTY, CW, SSB(USB/LSB)
AM, FM, FAX

Channel memory 200 channels

Receiving system Double superheterodyne
1st IF 70.45399 – 70.453MHz
2nd IF 455kHz

Sensitivity

MODE / FREQUENCY	RTTY, FAX CW, SSB	AM	FM
0.09 – 1.6MHz	5.0μV	15μV	
1.6 – 34MHz	0.5μV	2μV	0.7μV
34 – 60MHz	1.0μV	3μV	1.5μV (*1.)
114 – 174MHz	1.0μV	3μV	1.5μV (*1.)
425 – 445MHz	1.0μV	3μV	1.5μV (*1.)

S/N = 10dB, AF output = 100mW, bandwidth = INTER
modulation = 400Hz, 30% (in AM)
NQL = 20dB (in FM)
antenna impedance = 50Ω

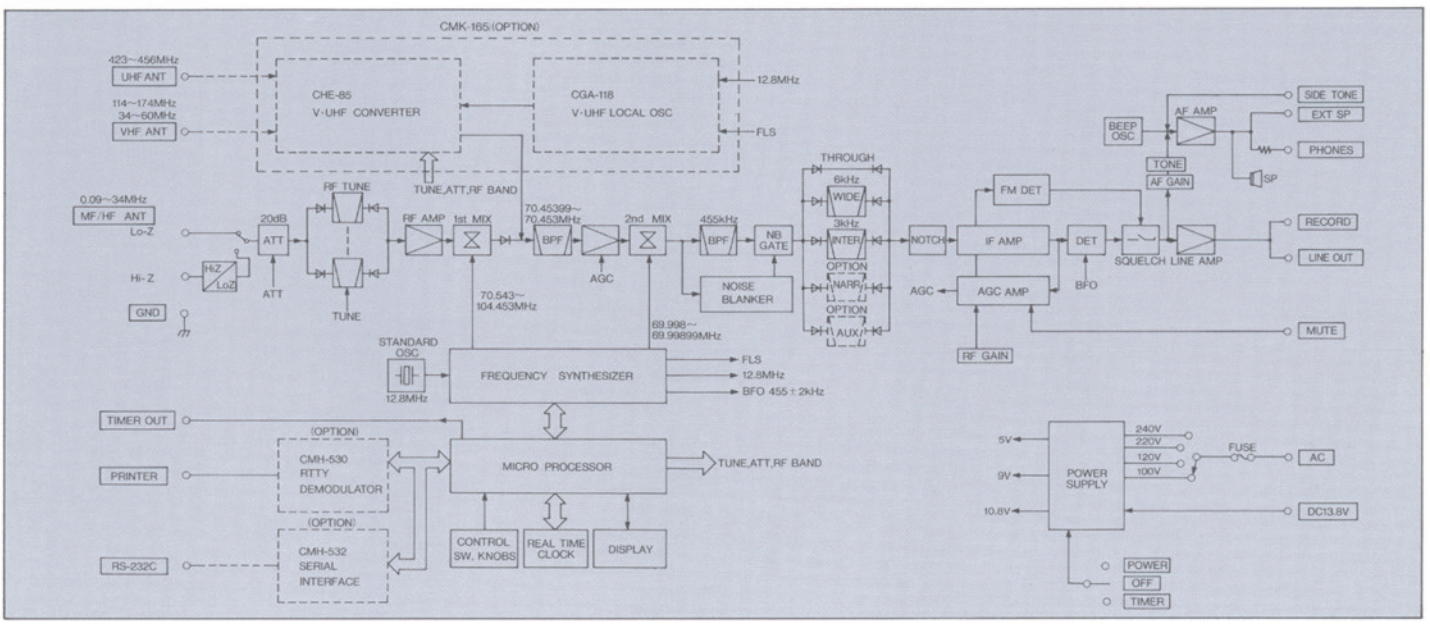
Selectivity

Attenuation / Bandwidth	6dB	60dB
AUX	12kHz or more	— (*2.)
WIDE	4 kHz or more	10kHz or less
INTER	2 kHz or more	6 kHz or less
NARR	1 kHz or more	3 kHz or less (*3.)
FM	12kHz or more	—

Image frequency rejection 70dB or more
Intermediate frequency rejection 70dB or more
Frequency stability ±3 PPM
Dynamic range 100dB or more (500Hz in IF band)
PBS variation range ±1kHz or more
Notch attenuation –30dB or more
BFO variation range 455kHz ± 2kHz or more
RIT variation range ±5kHz or more
Nominal antenna impedance 0.09 – 34MHz
50Ω (Lo-Z terminal)
600Ω (Hi-Z terminal)
34 – 60MHz
50Ω (VHF terminal)(*1)
114 – 174MHz
50Ω (VHF terminal)(*1)
423 – 456MHz
50Ω (UHF terminal)(*1)

AF output Speaker: 0.5W or more (at 4Ω load and 10% distortion)
Line/Recording: 1mW or more (at 600Ω load and 10% distortion)
Antenna input attenuation Approx. 20dB for HF
Approx. 10dB for VHF/UHF (*1)
AGC characteristic Output variation is 10dB or less for antenna input variation of 3μV to 100mV.
Power supply 100/120/220/240VAC ±10%, max. 35VA
12 – 16VDC (13.8V, standard), max. 25W
Auxiliary circuits Noise blanker, S-meter, side-tone input, mute input, transmission monitor, squelch, dimmer, tone control, clock, timer, IF notch filter, pass band shift
Dimensions 330(W) × 130(H) × 280(D) (excluding projected parts)
Weight Approx. 8.5 kg

NOTES:
**1: With option mounted.*
**2: With an optional IF filter (e.g. CFL-231) mounted, the band width for 6dB is 0.3kHz.*
**3: With the CFL-233 optional IF filter.*



Options

1	V-UHF CONVERTER	CMK-165
2	RTTY DEMODULATOR	CMH-530
3	PRINTER CABLE	6ZCJD00139
4	RS-232C INTERFACE	CMH-532
5	RS-232C CABLE	6ZCJD00140
6	IF FILTER (0.3kHz)	CFL-231
7	IF FILTER (0.5kHz)	CFL-232
8	IF FILTER (1.0kHz)	CFL-233
9	IF FILTER (1.8kHz)	CFL-218A
10	SPEAKER	NVA-88
11	HEADPHONE	ST-3

Rear Panel

35 MF/HF ANT Lo-Z (low impedance) connector
36 ANT switch
37 MF/HF ANT Hi-Z (high impedance) terminal, GND (grounding) term
38 LINE OUT (line output) jack
39 EXT SP (external speaker) jack
40 SIDE TONE jack
41 MUTE jack
42 DC OUT (DC output) jack
43 TIMER OUT (timer output) terminal
44 PRINTER connector
45 Jack for RTTY indicator
46 DC power connector
47 Connector for RS-232C
48 AC power connector
49 AC fuse, voltage selector
50 VHF ANT connector(option)
51 UHF ANT connector(option)

※ *Specifcations subject to change without notice.*

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