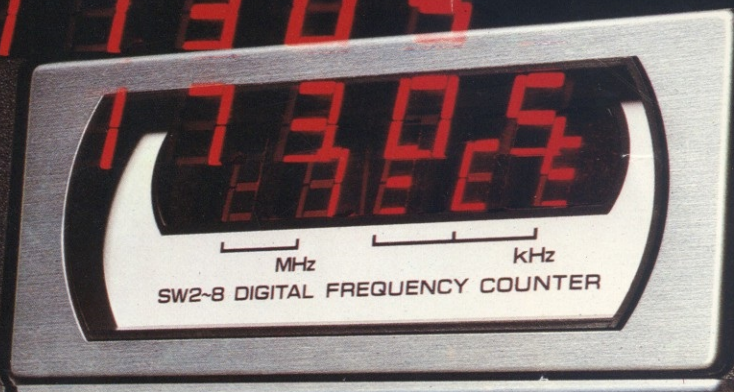
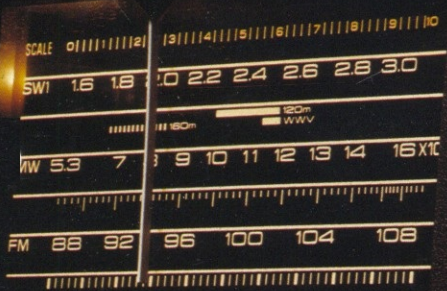


Panasonic

COMMAND Series

World-Wide Radio Receivers
RF-2200/RF-2800/RF-4800

17305
17305
17305



TUNING — SW2-8
PUSH FAST PULL SLOW

SW1/MW/FM

SW2-8 CAL

BANDS: 3~7 SW2, 7~11 SW3, 11~15 SW4, 15~19 SW5, 19~23 SW6, 23~27 SW7, 27 SW8

AM ANL OFF, AM MODE AM

BASS - TONE - TREBLE, BFO PITCH

PREMIX DOUBLE SUPERHETERODYNE
RF-4800
THREE WAY POINT TO POINT

LIGHT OFF, DIGITAL DISPLAY

RF-2200

AC/Battery 8-Band Portable with disc-type frequency readout display



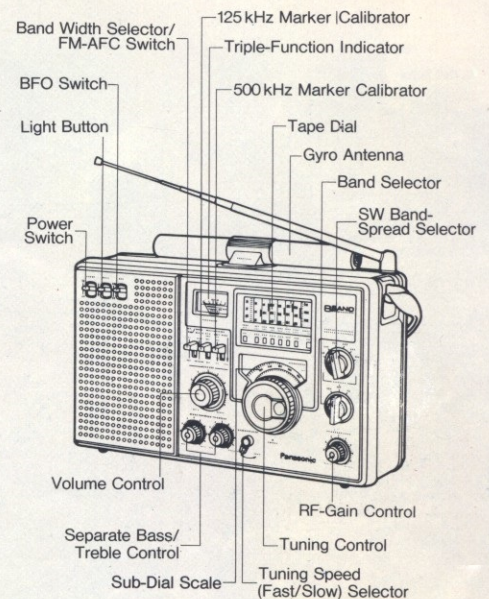
Perfect for the beginning short-wave enthusiast!

- * Double Superheterodyne System for sensitivity and selectivity reduces beats, whistles, and other extraneous sound, and to provide clear reception.
- * Large Tuning Knob with interlocked "SW Spread Dial" subcalibrated at every 10 kHz gives you quick and accurate frequency readout to 10 kHz with one fine tuning control. All-gear drive prevents "backlash."
- * Linear Frequency Tape Tuning with SW bands equally spread covering 4 kHz each for easy frequency reading.
- * Double-Check Crystal Markers at 500 kHz and 125 kHz; 500 kHz marker when pressed oscillates a stable marker signal and by simply zero-beating at 0 or 500 kHz frequency calibration will be provided by audible as well as visual (meter) indication; using both 500 and 125 kHz markers you can further fine tune to within 10 kHz.
- * Fast/Slow Tuning Switch: in slow position dial moves only 250 kHz per rotation.
- * Wide/Narrow Band Width Selector provides you with the optimum selectivity in your area for AM and SW; it

- also operates as Automatic Frequency Control (AFC) in the FM mode.
- * RF Gain Control helps you reach desired sensitivity
- * BFO (beat frequency oscillator) brings you reception of single side band (SSB) and continuous wave (CW) signals.
- * SW frequencies are from 3.9~28 MHz.

RF-2200 also includes:

- * Separate Band Selector Switch for SW
- * Gyro Antenna that rotates 180° for AM reception
- * Telescoping Whip Antenna for clear FM/SW reception
- * Optional Antenna and Antenna Coupler (RD-9820) for increased reception capability
- * Separate Bass and Treble controls
- * 4" PM Dynamic Speaker for rich, clear sound
- * Dial Light
- * Separate power switch
- * Large Volume Control Knob
- * Ext. antenna, earphone/ext. speakers, rec. out, and AC power jacks
- * Comes with 4 Panasonic "D" size batteries, AC power cord, shoulder belt, and earphone



RF-2800

AC/Battery 5-Band Portable with digital frequency display



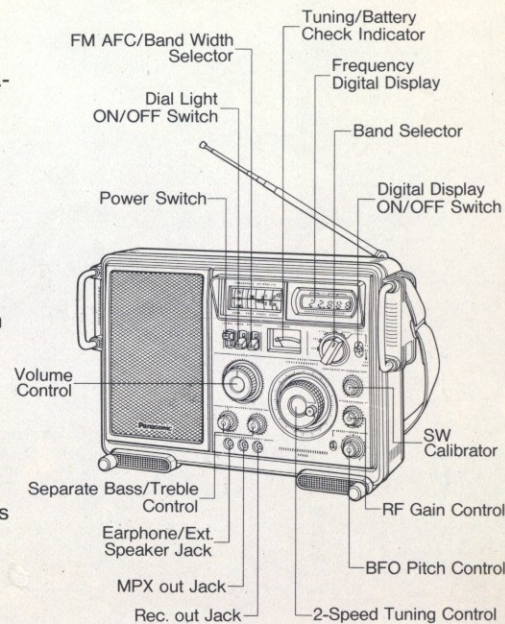
A deluxe portable for the sophisticated short-wave listener

- * 5-Digit Electronic Display (L.E.D.) for precise frequency readings of short-wave bands is made possible with the I²L (integrated injection logic) IC
- * I²L circuitry also helps provide accurate tuning up to 1 Hz and enables standby reception.
- * Double Superheterodyne System for sensitivity and selectivity reduces beats, whistles, and other extraneous sound, and to provide clear reception.
- * Overall selectivity is provided by superheterodyne system, 7 IFTs, and wide/narrow band width selection.
- * Wide/Narrow Band Width Selector provides you with the optimum selectivity in your area for AM and SW; it also operates as Automatic Frequency Control (AFC) in the FM mode.
- * SW frequencies are from 3.2~30 MHz.
- * Tuning knob pushes in for fast tuning, comes out for slow accurate tuning.
- * Conventional dial display gives you quick frequency scanning.
- * Separate SW calibration knob lets you calibrate from an exact frequency such as 10.000 MHz or 15.000 MHz time signals or well-known stations

- * RF Gain Control helps you reach desired sensitivity.
- * BFO Pitch Control is fully variable for upper and lower sideband signals, providing clear reception and demodulation of single side band (SSB) and continuous wave (CW).

RF-2800 also includes:

- * Battery/Tuning Meter
- * Optional Antenna and Antenna Coupler (RD-9820) for increased reception capability is also available
- * Built-in AM antenna and telescoping whip antenna for clear FM/SW reception
- * Separate Bass and Treble controls
- * 4" Dynamic Speaker for rich, clear sound
- * Dial light
- * Dial Hood
- * Separate power switch
- * Large Volume Control Knob
- * Earphone/ext. speaker and rec. out jacks and easy hook-up antenna terminals
- * Comes with 6 Panasonic "D" size batteries, AC power cord, shoulder belt and earphone



RF-4800

AC/Battery 10-Band Communications Receiver with digital frequency display



Ultra-Sophisticated SW Communications Receiver

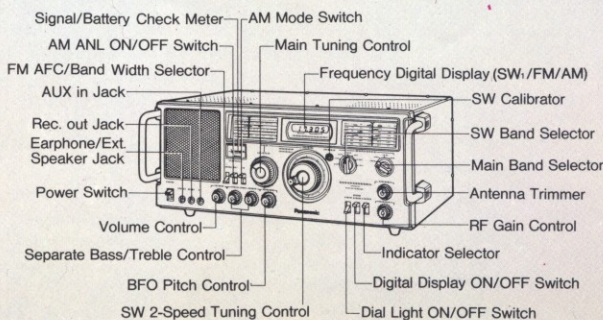
- * 5-Digit Electronic Digital Display (L.E.D.) for precise frequency readings of SW₂~₈ is made possible with the I²L (integrated injection logic) IC.
- * I²L circuitry also helps provide accurate tuning up to 1 kHz and enables standby reception.
- * Double Superheterodyne System includes up-converted premix VFO (variable frequency oscillator), low-frequency-oscillation circuitry and crystal-oscillation circuitry to produce high frequencies with reception stability and selectivity as well as image rejection
- * An input-tuned-type RF amplifier with special 3-gang variable capacitor for tuning each frequency results in frequency linearity and exceptional selectivity and sensitivity
- * FET RF amplifier provides excellent image rejection and cross modulation characteristics as well as sensitivity
- * Wide/Narrow Band Width Selector includes ladder-type ceramic filters for selectivity and reduction of nearby frequency interference.
- * Antenna Trimmer lets you adjust

antenna characteristics by changing the capacitance of the front-end resonance frequency circuitry thus giving the maximum reception possible for your location

RF-4800 also includes:

- * Separate Band Selector Knobs for SW
- * Conventional dial display for quick frequency scanning.
- * Tuning Dial for SW, ~₈ that pushes in for fast tuning, comes out for slow precise tuning
- * SW frequency range gives you full short-wave coverage from 1.6~31 MHz
- * Separate SW Calibration Knob that easily lets you calibrate from exact frequencies such as 10.000 MHz or 15.000 MHz time signals or well-known stations

- * BFO Pitch Control for upper and lower sideband signals (SSB) and continuous wave (CW) reception
- * RF Gain Control for selectivity in crowded signal areas of the SW spectrum
- * Automatic Noise Limiter (ANL) on SW and MW
- * Signal/Battery Check Meter
- * Separate Bass and Treble controls
- * 4" Dynamic speaker
- * Separate switches for AM mode, dial light, digital display, and power
- * Earphone/ext. speaker, rec. out. and aux. jacks and quick hook-up antenna terminals
- * 8 Panasonic "D" size batteries, AC power cord, headphone converter, and earphone



Panasonic Command Series Radios let you listen to what the world has to say...

Panasonic brings short-wave to the world at large with Command Series Radios that are within your price range. Now you can listen to the kind of broadcasts that have thrilled radio enthusiasts for decades. With any of the following Panasonic short-wave radios: RF-2200, RF-2800 portables, or

the RF-4800 communications receiver, you can listen to short-wave broadcasts local FM/AM stations. Each Command Series radio is designed to give you positive results without a hassle. And each provides you with the quality features needed for exceptional performance. Features like:

Advanced Tuning System with L.E.D. Digital Frequency Display

For years short-wave enthusiasts have hoped for a precise and easy tuning system with a digital frequency display. Now it's here at a popular price. RF-2800 and RF-4800 are each equipped with a digital frequency display that allows precision tuning to within 1 kHz on SW bands. The development of the I²L (integrated injection logic) IC helps in providing such precise tuning. And the all-gear drive system gives you tuning without "backlash."

Standby Reception

Because of built-in advanced technology such as the digital frequency display with special I²L integrated circuit and the all-gear system, standby is made possible. Now you can set the dial to listen to transoceanic broadcast before program time and be assured you'll have the pleasure of hearing the entire broadcast from the moment it goes on the air.

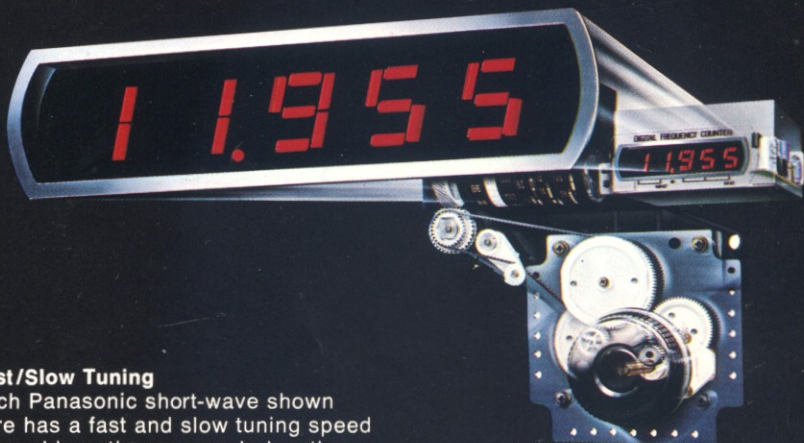
Double Superheterodyne System

To provide you with the kind of sensitivity and selectivity you want from your short-wave radio, Panasonic Command Series radios use a dual conversion superheterodyne receiver system for frequency stabilization. This also helps to reduce secondary as well as primary image interference. And helps to reduce beats and whistles and other extraneous sound, providing extremely clear reception throughout the short-wave spectrum.

SW Calibration System



With the RF-2800 and RF-4800 calibration is performed by setting the dial at 10,000 kHz or 15,000 kHz for time signal transmissions (or any exact frequency known) and using the calibration knob. On these models, precision tuning can be achieved to 1 kHz. The RF-2200 uses Double Check Crystal Markers. One is a 500 kHz marker/calibrator, the other 125 kHz. Used together, you can calibrate and fine tune to within 10 kHz.



Fast/Slow Tuning

Each Panasonic short-wave shown here has a fast and slow tuning speed to provide optimum ease in locating and finding short-wave broadcasts. Slow tuning gives you precise results.

Wide/Narrow Bandwidth Selector

Thanks to a ceramic filter in the intermediate-frequency amplifier stage, selectivity is adjustable in 2 steps so that when reception gets crowded, the band width can be narrowed to reduce interference. On the same button is Automatic Frequency Control (AFC) which helps prevent station drift in the FM mode.

RF-Gain Control

AM and SW sensitivity is continuously variable throughout an approximate range of 45 dB. Useful in reducing overloading from an overly strong signal or in compensating for a weak signal. Also helps supply clear reception in SSB and CW.

BFO and BFO with Pitch Control

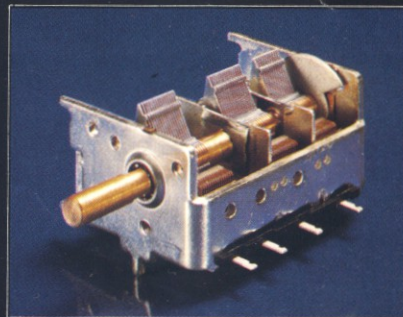


The beat frequency oscillator features exclusive independent detection circuitry which generates a carrier that demodulates SSB (single side band) and CW (continuous wave) signals. SSB includes amateur radio, CB, ship-to-shore and so on, while CW covers Morse communications. Models RF-2800 and RF-4800 have BFO with Pitch Control which is fully variable from upper to lower side band signals for optimum reception and clear demodulation of SSB and CW.

Tuning/Battery Meter

Each comes with a 3-way meter which provides you with the following: it serves as a visual reference to determine the exact point at which calibration is achieved; it works as a tuning meter; it serves as a battery strength meter as well.

3-Gang Variable Capacitor



Model RF-4800 includes an input-tuned-type RF amplifier which has a special 3-gang variable capacitor for tuning of each frequency. The result is frequency linearity and highly improved selectivity and sensitivity.

2-Year Limited Warranty

For two years after purchase, Panasonic will repair or replace parts of the RF-2200, RF-2800, or RF-4800 if purchased and retained in the U.S.A. Customer must bring it to an authorized service center. Warranty does not cover damage in transit or damage from abuse, misuse or commercial use. Proof of purchase must be shown for in-warranty service.

As you can see, there's a lot of short-wave to choose from. So get your fingers ready and let them travel around the globe with one of these Command Series Radios. You can do it with Panasonic.

Technical Specifications

	RF-2200	RF-2800	RF-4800
Frequency Range	FM 88~108 MHz AM 525~1605 kHz SW 3.9~28 MHz SW ₁ 3.9~8 MHz SW ₂ 8~12 MHz SW ₃ 12~16 MHz SW ₄ 16~20 MHz SW ₅ 20~24 MHz SW ₆ 24~28 MHz	FM 88~108 MHz AM 525~1605 kHz SW 3.2~30 MHz SW ₁ 3.2~8 MHz SW ₂ 8~16 MHz SW ₃ 16~30 MHz	FM 88~108 MHz AM 525~1605 kHz SW 1.6~31 MHz SW ₁ 1.6~3 MHz SW ₂ 3~7 MHz SW ₃ 7~11 MHz SW ₄ 11~15 MHz SW ₅ 15~19 MHz SW ₆ 19~23 MHz SW ₇ 23~27 MHz SW ₈ 27~31 MHz
SW Type	Double Superheterodyne	Double Superheterodyne	Double Superheterodyne: SW ₂₋₈ Single Superheterodyne: SW ₁
IF Frequency	2 MHz, 455 kHz	2 MHz, 455 kHz	2 MHz, 455 kHz (SW ₁ ; 455 kHz)
Mode of Operation	AM, CW, SSB	AM, CW, SSB	AM, CW, SSB
Sensitivity (400 MHz, 30% Modulation, 50 mW)	Max. S/N 20 dB SW ₁ 1.0 μ V 22 μ V SW ₂ 1.0 μ V 11 μ V SW ₃ 0.8 μ V 8.0 μ V SW ₄ 1.0 μ V 8.0 μ V SW ₅ 1.5 μ V 7.0 μ V SW ₆ 2.0 μ V 10 μ V	Max. S/N 20 dB SW ₁ 1.0 μ V 16 μ V SW ₂ 1.0 μ V 11 μ V SW ₃ 2.0 μ V 16 μ V	Max. S/N 20 dB SW ₁ 0.6 μ V 3.0 μ V SW ₂ 0.3 μ V 4.0 μ V SW ₃ 0.3 μ V 2.5 μ V SW ₄ 0.6 μ V 3.5 μ V SW ₅ 0.6 μ V 3.5 μ V SW ₆ 1.5 μ V 7 μ V SW ₇ 1.5 μ V 7 μ V SW ₈ 1.5 μ V 7 μ V
Selectivity	Wide \pm 2.5 kHz Narrow \pm 1.7 kHz \pm 15 kHz \pm 10 kHz	Wide \pm 2.5 kHz Narrow \pm 1.7 kHz \pm 15 kHz \pm 9 kHz	Wide \pm 2.5 kHz Narrow \pm 1.7 kHz \pm 15 kHz \pm 6.0 kHz
1st Image Interference Ratio	SW ₁ 30 dB at 8 MHz SW ₂ 30 dB at 12 MHz SW ₃ 25 dB at 16 MHz SW ₄ 30 dB at 20 MHz SW ₅ 20 dB at 24 MHz SW ₆ 20 dB at 28 MHz	SW ₁ 30 dB at 6 MHz SW ₂ 30 dB at 12 MHz SW ₃ 20 dB at 24 MHz	SW ₁ 30 dB at 2.3 MHz SW ₂ 65 dB at 5 MHz SW ₃ 60 dB at 9 MHz SW ₄ 55 dB at 13 MHz SW ₅ 50 dB at 17 MHz SW ₆ 45 dB at 21 MHz SW ₇ 35 dB at 25 MHz SW ₈ 30 dB at 29 MHz
Dial Accuracy	Better than 5 kHz	Better than 1 kHz	Better than 1 kHz
Frequency Stability	Within \pm 2.0 kHz 30 min. after switch on Within \pm 1.0 kHz 30 min. after warm-up	Within \pm 2.0 kHz 30 min. after switch on Within \pm 1.0 kHz 30 min. after warm-up	Within \pm 1 kHz 30 min. after switch on Within \pm 500 Hz 30 min. after warm-up
RF Gain Control	-30 dB	-30 dB	-45 dB
Calibration	Crystal Marker; 125 kHz, 500 kHz	Calibration; Adjustable	Calibration; Adjustable
Antenna	Ext. Ant. (High Imp.) 7-Step Telescopic Ant.	Ext. Ant. (High Imp.) 7-Step Telescopic Ant.	Ext. Ant. (75 Ω)
AM			
IF Frequency	455 kHz	455 kHz	455 kHz
Antenna	Ferrite Core Gyro Ant.	Ferrite Core	Ferrite
Sensitivity	Max. S/N 20 dB 15 μ V/m 80 μ V/m	30 μ V/m 140 μ V/m	18 μ V/m 100 μ V/m
Image Interference Ratio	35 dB at 1 MHz	40 dB at 1 MHz	40 dB at 1 MHz
Selectivity	Wide \pm 2.5 kHz Narrow \pm 1.7 kHz \pm 15 kHz \pm 10 kHz	Wide \pm 2.5 kHz Narrow \pm 1.7 kHz \pm 15 kHz \pm 9 kHz	Wide \pm 2.5 kHz Narrow \pm 1.7 kHz \pm 15 kHz \pm 6.0 kHz
FM			
IF Frequency	10.7 MHz	10.7 MHz	10.7 MHz
Antenna	7-Step Telescopic Ant. Ext. Ant. (75 Ω)	7-Step Telescopic Ant. Ext. Ant. (75 Ω)	Ext. Ant. (75 Ω)
Sensitivity	3 dB Limit. Sens. S/N 30 dB 2.0 μ V 4.5 μ V	2.0 μ V 4.0 μ V	2.0 μ V 4.0 μ V
Image Interference Ratio	33 dB at 106 MHz	33 dB at 106 MHz	33 dB at 106 MHz
Two Signal Selectivity	70 dB (\pm 400 kHz) 35 dB (\pm 200 kHz)	70 dB (\pm 400 kHz) 35 dB (\pm 200 kHz)	70 dB (\pm 400 kHz) 35 dB (\pm 200 kHz)
General			
Speaker	4"	4"	4"
Power Source	AC 120V 60 Hz DC 6V (4 "x"D" size)	AC 120V 60 Hz DC 9V (6 "x"D" size)	AC 120V 60 Hz DC 12V (8 "x"D" size)
Jacks	Ext. Ant., Ext. Sp., Rec. out, AC in	Ext. Ant., Ext. Sp., Rec. out, MPX out, AC in	Ext. Ant. (FM, SW ₂₋₈ , AM, SW ₁) Ext. Sp., Rec. out, AC in, Aux., DC in
Ext. Antenna	FM, AM, SW	FM, AM, SW	FM, AM, SW ₁ , SW ₂₋₈
Dimensions (H x W x D)	7 $\frac{7}{8}$ " x 12 $\frac{5}{16}$ " x 2 $\frac{1}{8}$ "	9 $\frac{1}{8}$ " x 15" x 4 $\frac{3}{8}$ "	7 $\frac{7}{8}$ " x 19" x 13 $\frac{1}{8}$ "
Weight	7 lb. 8 oz. (With Batteries)	8 lb. 10 oz. (With Batteries)	19 lb. 14 oz. (With Batteries)

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