

Shortwave 101: How to Listen to World Radio

Introduction

Now that you own a shortwave radio, no doubt you'll want to hear international broadcasts right away. If you're new to shortwave, please take some time to learn the basics outlined in this guide. To successfully listen to shortwave stations, you must understand the concept of shortwave bands.

If you're an experienced shortwave listener, you'll know what bands are and how to use them. But if you're new to shortwave, you'll need to learn about bands first. After that, you will have excellent success and enjoy hours of listening pleasure.

What are Bands?

The most important concept to learn right away is that of shortwave bands. If you have ever listened to AM or FM radio, then you already know what a band is. The AM band is the frequency range stretching from 530 to 1710 kilohertz; the FM band is 88 to 108 megahertz. A band is simply a frequency range where stations are located. When you look for stations in these "bands", you simply tune around with your tuning buttons (or the tuning knob on an analog radio) until you find a station that you can receive clearly. Shortwave is very similar in concept except that there are multiple shortwave bands named 25 meters, 31 meters, 49 meters, etc. (these are abbreviated as 25m, 31m and 49m respectively).

Just like with AM and FM radio, simply dial into a shortwave band and tune around for stations. For example, the 19 meter shortwave band encompasses the frequency range of 15100 to 15600 kilohertz. A helpful analogy may be to think of a shortwave band like a street with a full range of individual addresses on it. The 19 meter band could be called "19 Meter Street". Like any street, "19 Meter Street" has a range of addresses that represent individual house numbers such as 15100, 15105, 15110, etc. In this case, a

house number is actually a frequency, so by visiting a house you are going to a specific frequency or radio station. In the chart below is a list of the shortwave bands used for international shortwave broadcasts and their corresponding frequency ranges. Some radios show frequency in megahertz and some in kilohertz (abbreviated as MHz and KHz respectively), so both are shown on the chart. On some shortwave radios, frequencies will look like 15100 KHz, 15105 KHz or 15110 KHz, whereas on other radios they might look like 15.1 MHz, 15.105 MHz or 15.11 MHz. To determine which frequency designation your radio has for shortwave, look at your radio's tuning scale, digital display, or owner's manual.

The exact frequency ranges for shortwave bands may vary from one radio model to another. This is completely normal and due to design differences among manufacturers and their radio models. On some radios, bands are clearly marked while on others they are not marked at all. If it is not apparent how to find and get into a band on your radio, consult the owner's manual, the Grundig website, or contact Grundig Customer Support who can show you how this is done for your model.

Shortwave Band Chart

BAND	MEGAHERTZ (MHz)	KILOHERTZ (KHz)
120 m	2.300-2.500 MHz	2300- 2500 KHz
90 m	3.20-3.40 MHz	3200- 3400 KHz
75 m	3.90-4.00 MHz	3900- 4000 KHz
60 m	4.750-5.060 MHz	4750- 5060 KHz
49 m	5.950-6.20 MHz	5950- 6200 KHz
41 m	7.10-7.60 MHz	7100- 7600 KHz
31 m	9.20-9.90 MHz	9500- 9900 KHz
25 m	11.600-12.200 MHz	11600-12100 KHz
22 m	13.570-13.870 MHz	13570-13870 KHz
19 m	15.10-15.80 MHz	15100-15800 KHz
16 m	17.480-17.90 MHz	17480-17900 KHz
13 m	21.450-21.850 MHz	21450-21850 KHz
11 m	25.60-26.10 MHz	25600-26100 KHz

Day and Night Bands

Because shortwave signals depend on such factors as the sun, the ionosphere, and interaction with the earth itself, signals cannot be heard on all bands throughout the day. Some bands are best during the daylight hours, and some are best at night. In general, the bands with frequencies below 13 MHz (13000 KHz) are better at night and the bands with frequencies above 13 MHz (13000 KHz) are best during the day. Shown in the next sections are charts that list the characteristics of the major shortwave bands. Follow these guidelines for best listening results. Generally speaking, the best time for listening to shortwave, when signals are strongest and clearest, is the time around sunrise and sunset. Usually there's a two-hour window for optimal listening, but it may extend up to three or four hours. To determine what's best for you, experiment with different combinations of time and frequency.

Daytime Listening

Shortwave listening is generally at its poorest during the daylight hours from 10 A.M. to 3 P.M. The major reason for this is that broadcasters are not transmitting to your region at this time, assuming that people are either at work or at school and unable to listen during the day. If you want to try daytime listening, use the guidelines in this chart. Typically, daytime shortwave tends to be poor in most parts of the world, but experiment to hear what it's like in your area.

DAY BANDS	CHARACTERISTICS
13m	Results vary but worth trying. Sometimes extremely good around sunrise and sunset.
16m	Similar to 19m.
19m	The best overall daytime band. May also be good at night in summer months. Sometimes extremely good around sun rise and sunset. Sometimes good at night in the summer.
22m	Similar to 19m.
25m	Best around sunrise and sunset. May be good mid-day in some areas.
31m	Similar to 25m.

Nighttime Listening

Shortwave listening is at its best in the evening because broadcasters are deliberately transmitting to your region. These bands may be particularly good around sunset and sunrise.

NIGHT BANDS	CHARACTERISTICS
25m	Similar to 31m.
31m	Good all night everywhere. Often extremely good at sunrise and sunset. Good results often start about an hour before sunset.
49m	The best overall night band.
41m	Similar to 49m. Good all night worldwide.

Shortwave Directories

We recommend the use of a comprehensive shortwave directory with your radio, especially if you want to hear specific countries or figure the exact programming you are listening to. Directories usually alphabetically list the countries broadcasting on shortwave, programming, broadcast times, programming languages, target areas, and the frequencies used. The recommended shortwave directory is **Passport to World Band Radio**, which is available in major bookstores, at major online book retailers, and directly at www.passband.com. It lists English language broadcasts in the chapter "Worldwide Broadcasts in English," and other language broadcasts in the chapter "Voices from Home." In "The Blue Pages" chapter, a comprehensive frequency-by-frequency listing, can help you figure out what country you are listening to. Listed here is the contact information to find this directory as well as others:

Passport to World Band Radio

International Broadcasting Services, Ltd., Box 300
Penn's Park, Pennsylvania 18943
(215) 598-9018
www.passband.com

Monitoring Times

Grove Enterprises
7540 Hwy 64 West
Brasstown, NC 28902
(704) 837-9200
www.monitoringtimes.com

Popular Communications

CQ Communications
76 North Broadway
Hicksville, NY 11801
(516) 681-2922
www.popular-communications.com

Customer Support

For additional help about your Grundig radio or shortwave radio, please contact us:

United States: 1-800-872-2228 (M-F 9am-4pm PST)
Canada: 1-800-637-1648
Worldwide: 650-903-3866
e-mail: customersvc@grundigradio.com
Internet: www.grundigradio.com

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