

# Roger™ design-integrated receivers

(02)

Product information and technical data



roger

Roger design-integrated receivers bring industry-leading speech-in-noise performance to Phonak hearing instrument users who have a moderately-severe to profound hearing loss. These discrete devices slightly extend the sleek contours of a Phonak hearing instrument. Simply use this guide to choose the correct Roger receiver for the Phonak hearing instrument in question.

For more information visit [www.phonakpro.com](http://www.phonakpro.com)

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# What is Roger

Roger is the new digital standard that bridges the understanding gap, in noise and over distance, by wirelessly transmitting the speaker's voice directly to the listener.

## Key features

### Additional adaptive gain

Roger receivers automatically adjust the output gain according to the surrounding noise level to maintain intelligibility in noisy environments. The noise level is measured by the Roger microphone and sent to the Roger receiver along with the audio signal.

### Effective stand-by mode

Roger receivers automatically enter stand-by mode if the connected microphone is turned off or moves out of range. In stand-by mode power usage is reduced to increase the battery's life.

### Check

This feature allows the user to quickly read receiver data and to check a receiver's functionality via Roger Touchscreen Mic or Roger inspiro.

### Link quality measurement

The average wireless link quality can be checked via the Check feature. This gives the wearer of the Roger microphone information about the reception quality of the signal being transmitted.

### EasyGain

This enables the adjustment of a receiver's default output gain via Roger Touchscreen Mic or Roger inspiro.

## Phonak hearing instrument compatibility



Roger™ 19	Roger™ 18	Roger™ 16	Roger™ 15	Roger™ 13	Roger™ 11	Roger™ 10
Phonak Naída™ V-UP	Phonak Audéo™ V-13	Phonak Bolero™ Q-P	Phonak Sky™ Q-RIC	Phonak Ambra microP	Phonak Sky™ Q-SP	Phonak Sky™ Q-UP
Phonak Sky™ V-UP	Phonak Bolero™ V-P	Phonak Bolero™ Q-SP	Phonak Sky™ Q-M13	Phonak Ambra SP	Phonak Naída™ Q-SP	Phonak Naída™ Q-UP
	Phonak Bolero™ V-SP		Phonak Naída™ Q-RIC	Phonak Solana microP	Phonak Naída™ S SP	Phonak Naída™ S UP
	Phonak Naída™ V-RIC		Phonak Naída™ S CRT	Phonak Solana SP	Phonak Naída™ SP	Phonak Naída™ UP
	Phonak Naída™ V-SP		Phonak Bolero™ Q-M13	Phonak Cassia microP		
	Phonak Sky™ V-RIC		Phonak Ambra M H20	Phonak Cassia SP		
	Phonak Sky™ V-P		Phonak Solana M H20	Phonak Dalia microP		
	Phonak Sky™ V-SP		Phonak Dalia M H20	Phonak Dalia SP		
			Phonak Cassia M H20			
			Phonak Nios S H20			

Note: to check the compatibility of new Phonak hearing instruments visit [www.phonakpro.com](http://www.phonakpro.com)

## Options

	Roger™ 19	Roger™ 18	Roger™ 16	Roger™ 15	Roger™ 13	Roger™ 11	Roger™ 10
Battery protection latch			•	•	•	•	•
Tamperproof housing kit for babies and toddlers (0-36 month)	•	•		•		•	•

# Housing colors



Roger™ 19   Roger™ 18   Roger™ 16   Roger™ 15   Roger™ 13   Roger™ 11   Roger™ 10

		Roger™ 19	Roger™ 18	Roger™ 16	Roger™ 15	Roger™ 13	Roger™ 11	Roger™ 10
P1	Sand Beige	•	•	•	•		•	•
P2	Amber Beige	•	•	•	•		•	•
P3	Sandalwood	•	•	•	•		•	•
P4	Chestnut	•	•	•	•		•	•
P5	Champagne	•	•	•	•		•	•
P6	Silver Gray	•	•	•	•		•	•
P7	Graphite Gray	•	•	•	•		•	•
P8	Velvet Black	•	•	•	•		•	•
P9	Ruby	•	•	•	•		•	•
Q1	Petrol	•	•	•	•		•	•
01	Beige	•	•	•	•	•	•	•
03	Dark Brown						•	•
04	Light Gray						•	•
06	Black				•	•	•	•
23	Gray						•	•
33	Light Pink				•	•	•	•
34	Light Blue				•	•	•	•
35	Taupe				•		•	•
50	Chestnut Brown						•	•
F3	Sterling				•			
F7	Mocha Taupe					•		
E5	Chocolate				•	•		
E6	Cliff				•			
E8	Mid Gray				•			
E9	Glacier				•	•		
F0	Dark Cliff Gray					•		
70	Palladium Black					•		
G1	Mid Cloud Gray					•		
G3	Ocean Blue					•		
G4	Olive Green					•		
G5	Chili Red					•		
Q2	Electric Green	•	•	•	•		•	•
Q3	Caribbean Pirate	•	•	•	•		•	•
Q4	Dragon Orange				•		•	•
Q5	Vanity Pink				•		•	•
Q6	Blue Lagoon Transparent				•		•	•
Q7	Royal Purple Transparent				•		•	•
13	Pure Transparent			•	•		•	•
T3	Precious Pink	•	•		•		•	•
XN/T7	Alpine White	•	•					
37	Blue Transparent			•	•		•	•
38	Purple Transparent			•	•		•	•
M6	Lava Red	•	•					
M7	Blue Ocean	•	•					
M8	Majesty Purple	•	•					

## General data

Type:	Roger receiver Operates with Roger microphones
Operating conditions:	The product has been designed for trouble-free operation without restrictions when used as intended, unless otherwise stated in the user guide 0°C to +60°Celsius / +32°F to +140°Fahrenheit and relative humidity <95% (non condensing)
Transport and storage conditions:	-20°C to +60°Celsius / -4°F to +140°Fahrenheit and relative humidity of 90% for a long period of time

## Roger characteristics

Frequency:	2.4 GHz ISM Band
Transmission delay:	< 20 ms
Antenna:	Built-in ear level antenna
Backlink RF power:	0.02 mW

## Power management

Power supply:	Supplied by the HI battery
Voltage range:	1.0 to 1.5V
Current drain*:	Active mode: 2.7 mA for $V_{BAT} = 1.2 V$ Stand-by: 0.5 mA for $V_{BAT} = 1.2 V$

## Audio characteristics

Audio bandwidth:	100 Hz – 7.2 kHz
Distortion:	< 2% for $f_{mod} = 1 \text{ kHz}$
Audio signal output:	-54 dBV (transmitter in compression, $f_{mod} = 1 \text{ kHz}$ , Surrounding noise level < 58 dB SPL) @ EasyGain = 0dB
Additional adaptive audio gain:	Up to 20 dB
EasyGain range:	-8 dB to +8 dB

## Standards

Radiocom:	EN 300 440 FCC part 15.249
EMC:	EN 60601-1-2, EN 301 489 FCC part 15b
Water Resistant:	IP68 <sup>1</sup> for Roger™ 19, Roger™ 18, Roger™ 15, Roger™ 11 and Roger™ 10

## Size and Weight



	Roger™ 19	Roger™ 18	Roger™ 16	Roger™ 15	Roger™ 13	Roger™ 11	Roger™ 10
Height (connected to HI):	8.5 mm / 0.335 inch	8.1 mm / 0.319 inch	8.4 mm / 0.330 inch	8.5 mm / 0.335 inch	11 mm / 0.433 inch	8 mm / 0.315 inch	20 mm / 0.787 inch
Length:	14 mm / 0.551 inch	12.4 mm / 0.488 inch	11.8 mm / 0.465 inch	12.4 mm / 0.488 inch	11 mm / 0.433 inch	12 mm / 0.472 inch	15 mm / 0.591 inch
Width:	7.5 mm / 0.295 inch	7.6 mm / 0.299 inch	7.2 mm / 0.283 inch	8 mm / 0.315 inch	9 mm / 0.354 inch	9 mm / 0.354 inch	9 mm / 0.354 inch
Weight:	0.9 g / 0.0022 lb	0.9 g / 0.0022 lb	0.9 g / 0.0022 lb	0.9 g / 0.0022 lb	1.1 g / 0.0022 lb	1.0 g / 0.0022 lb	1.1 g / 0.0022 lb

<sup>1</sup>IP68 indicates that when connected to a compatible hearing instrument the Roger receiver was not damaged beyond repair after 8 hours in a dust chamber, nor after being immersed in 1 meter (3 feet) of water for 30 minutes as defined by IEC60529.

\* Valid for receivers with serial number higher than 1419NYD289. Receivers with lower serial number drain 3.3 mA mode in active and 700 uA in sleep mode.