

# Hearing Helper™ Personal FM Receiver • Model PFM R31



## Description:

Maximize a student's ability to listen with the Personal FM R31 receiver from Williams Sound. The PFM R31 will ensure that everyone in the classroom can hear the speaker's message clearly and easily. Each receiver has a range of up to 150 feet, and will operate up to 80 continuous hours. Versatile 3.5 mm jack allows for a variety of earphone and headphone options, or, equip it with a neckloop to make it compatible with most telecoil-equipped hearing aids.

The PFM R31 features a sensitive environmental microphone which gives the listener more flexibility on what they want to hear. By turning on the environmental mic, they can listen to a nearby classmate speak more clearly.

## Applications:

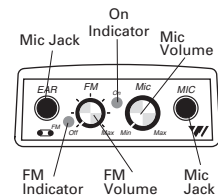
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## PFM R31 FM Receiver:

Dimensions:	3-5/8" L x 2-3/8" W x 7/8" H (92.1 mm x 60.3 mm x 22.2 mm)
Weight:	4.6 oz (130 g) with batteries
Color:	Royal blue, shatter-resistant polypropylene
Battery Type:	Two (2) AA 1.5 V non-rechargeable Alkaline batteries (BAT 001), 14 mA nom. current drain, 80 hours approx. life (OR) Two (2) AA 1.5 V NiMH rechargeable batteries (BAT 026), 14 mA nominal current drain, 50 hours per charge approx., recharges in 14–16 hours, uses CHG 200 Charger
Operating Freq's:	Pre-tuned, field-tuneable, 72 MHz - 76 MHz. Pre-set channels are E (72.9 MHz) and G (75.7 MHz).
FM Deviation:	Wide-band, 75 kHz, 75 µs de-emphasis
AFC Range:	± 120 kHz
Sensitivity:	4 µV at 12 dB Sinad with squelch defeated, squelches at 10 µV for min. 50 dB S/N ratio
Freq Response:	100 to 10 kHz, + 3 dB
Signal-to-Noise Ratio:	50 dB at 10 µV
Receive Antenna:	Integral with earphone cord
Audio Output:	35 mW, max. at 16 Ω
Output Connector:	3.5 mm mono phone jack
Squelch:	Set to turn off audio under weak or no signal condition
Carrier Detect Ind:	Red LED, turns on in the presence of a carrier
Controls:	
Volume:	Rotary, On/Off/Volume
Tone:	3-way slide switch; Lo: flat response (20 Hz), Mid: -3 dB at 235 Hz, Hi: -3 dB at 730 Hz
Channel:	2-way slide switch; Ch 1 = 72.9 MHz, Ch 2 = 75.7 MHz
Indicators:	On/Off and FM
Mic Connector:	3.5 mm mono phone jack, supplies positive DC for Williams Sound electret mics
Microphone:	Plug mount electret, omnidirectional, with windscreen, 3.5 mm mono phone plug (MIC 014)
Mic Volume:	Rotary control
Note:	Specifications are electrical performance
Approvals:	FCC, WEEE
Warranty:	5 years, parts and labor*

\*90 days on accessories.

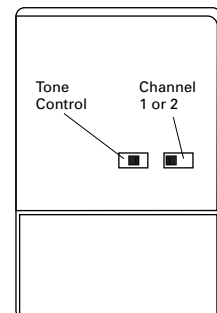
**NOTE: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE!**



**R31 Top**



**R31 Front**



**R31 Back**

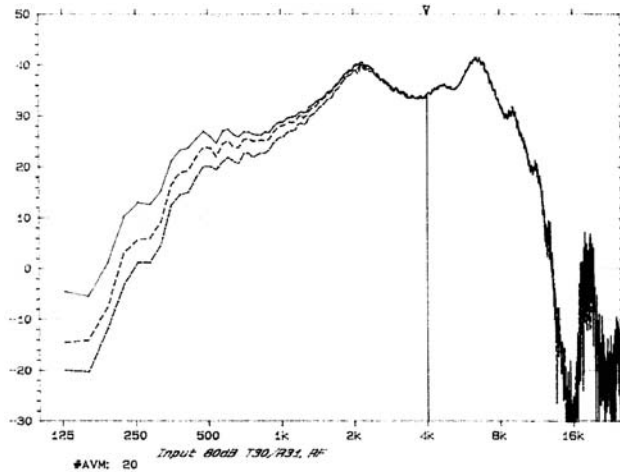
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## Acoustic Specifications:

### ANSI 2.44 Test



### FM Response (PFM R31)

Input:	80 dB random noise		
Device:	KEMAR mannequin with BTK 3550 tester		
Y:	80.0 dB 80 db	Main Y:	34.1 dB
X:	100 Hz + 8 OCT LOG	Main X:	4 kHz

### ANSI S3.22-1987 Test

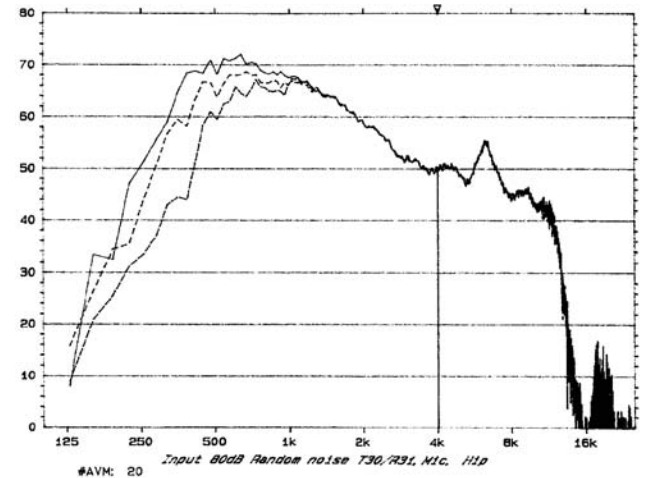
#### FM Response (PFM R31)

##### Minimum Low Cut (Tone Set to Low)

Max. SSPL90:	135.8 dB at 500 Hz
HF Avg. SSPL90:	127.1 dB
HF Avg. Full On Gain:	37.7 dB at 60 dB in
Reference Test Gain:	38.1 dB
Response Limit:	80.1 dB
	F1=200 Hz, F2=8 kHz
Total Harmonic Dist:	3.6 % at 500 Hz
	3.9 % at 800 Hz
	2.2 % at 1600 Hz

##### Medium Low Cut (Tone Set to Mid)

Max. SSPL90:	135.5 dB at 600 Hz
HF Avg. SSPL90:	127.1 dB
HF Avg. Full On Gain:	36.8 dB at 60 dB in
Reference Test Gain:	37.3 dB
Response Limit:	79.4 dB
	F1=200 Hz, F2=8 kHz
Total Harmonic Dist:	3.4 % at 500 Hz
	3.4 % at 800 Hz
	2.2 % at 1600 Hz



### Environmental Mic Response (PFM R31)

Input:	80 dB random noise		
Device:	KEMAR mannequin with BTK 3550 tester		
Y:	80.0 dB 80 db	Main Y:	50.2 dB
X:	100 Hz + 8 OCT LOG	Main X:	4 kHz

##### Maximum Low Cut (Tone Set to Hi)

Max. SSPL90:	133.5 dB at 1000 Hz
HF Avg. SSPL90:	127.0 dB
HF Avg. Full On Gain:	35.4 dB at 60 dB in
Reference Test Gain:	35.8 dB
Response Limit:	78.01 dB
	F1=200 Hz, F2=8 kHz
Total Harmonic Dist:	1.1 % at 500 Hz
	2.7 % at 800 Hz
	2.1 % at 1600 Hz

### Environmental Mic Response (PFM R31)

#### No Tone Modification

Max. SSPL90:	134.8 dB at 500 Hz
HF Avg. SSPL90:	126.4 dB
HF Avg. Full On Gain:	40.9 dB at 60 dB in
Reference Test Gain:	40.8 dB
Response Limit:	81.1 dB
	F1=200 Hz, F2=8 kHz
Total Harmonic Dist:	1.1 % at 500 Hz
	1.1 % at 800 Hz
	0.3 % at 1600 Hz

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## Bid Specs:

Not Currently Available

## Contact:

### United States

Williams Sound Corp.  
10321 W. 70th Street  
Eden Prairie, MN 55344-3446  
Ph: 800-328-6190 or 952-943-2252  
Fax: 952-943-2174  
Email: [info@williamssound.com](mailto:info@williamssound.com)  
Web: [www.williamssound.com](http://www.williamssound.com)

### Canada

Thorvin Electronics  
2861 Sherwood Heights Dr. Units 36-37  
Oakville, ON L6J-7K1 Canada  
Ph: 800-323-6634 or 905-829-3040  
Fax: 905-829-4196  
Web: [www.thorvinelectronics.com](http://www.thorvinelectronics.com)

### Asia, Australia, Latin America, Middle East, South Africa

International Sales Department  
Williams Sound Corp.  
10321 W. 70th Street  
Eden Prairie, MN 55344 USA  
Phone: +1 952 224 7791 or +1 651 493 2578  
Fax: +1 952 943 2174  
Email: [info@williamssound.com](mailto:info@williamssound.com)  
Web: [www.williamssound.com](http://www.williamssound.com)

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