

# Motiva™ Personal FM System • Model PFM 360



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## Description:

Maximize a student's ability to listen with the Motiva™ PFM 360 from Williams Sound. Personal FM systems eliminate background noise and other distractions, and ensure that the speaker's message is heard by everyone in the room. It's perfect for classrooms, job training, consultation and more. Portable, no wire, no hassle. Each PFM 360 system has a range of up to 150 feet, and will operate up to 21 hours at one time. Versatile 3.5 mm jack allows for a variety of earphone and headphone options, or equipped with a neckloop and it is compatible with most telecoil-equipped hearing aids. The PFM 360 includes an R36 receiver, which features a sensitive environmental microphone: this 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. The T36 transmitter has an additional auxiliary input feature allowing the user to add another audio source i.e. MP3 or CD player, into the system. This gives the user the ability to mix that auxiliary input with the microphone input.

## Applications:

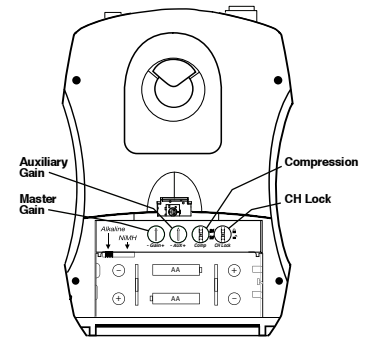
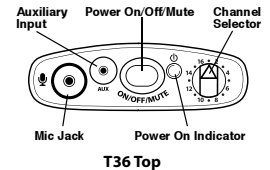
**Classrooms • Job Consultation • Job Training • Tours • Group Meetings**

## PFM T36 FM Transmitter:

Dimensions:	4.1" L x 2.8" W x 1.1" H (104 mm x 71 mm x 28 mm)
Weight:	2.6 oz (74 g), no batteries
Housing Material:	Shatter-resistant PC/ABS plastic
Battery Type:	Two (2) AA 1.5 V non-rechargeable Alkaline batteries (BAT 001), 70 mA nominal current drain, 30 hours approx. life or Two (2) AA 1.5 V NiMH rechargeable batteries (BAT 026), 70 mA nominal current drain, 20 hours per charge approx., recharges in 14-16 hours, uses CHG 3502 or CHG 3512 Charger
Operating Freq's:	Selectable, 16 channels, 72.1 – 75.9 MHz* (channels 1-8 correspond with R35-8 receiver channels)
Stability:	± .005%, frequency synthesized, crystal reference, PLL
Modulation:	Wide-band FM, 75 kHz pk, 75 µS pre-emphasis
RF Output:	80 mV/m at 3 m (max. allowed by FCC rules)
Freq Response:	200 Hz to 13 kHz, ± 3 dB at 1% max. THD
Signal-to-Noise Ratio:	65 dB (typical) transmitted
Transmit Antenna:	Integral with microphone cord
Microphone:	Electret type, 3.5 mm mono phone plug
External Controls:	Momentary push button: push and hold 3 seconds for power On/Off, push and release for microphone mute On/Off; Rotary sixteen channel switch (with internal channel lock switch)
Mic Input:	3.5 mm mono phone jack with electret mic bias, internal adjustable master gain with 25 dB range
Aux Input:	2.5 mm stereo phone jack, internal adjustable gain with 60 dB range
Audio Compression:	1:1 or 2:1 ratio selected with internal slide switch
Compatible Receivers:	PFM R31, PFM R32, PFM R33, PFM R36, PPA R35, PPA R35-8, PPA R1600
Approvals/Directives:	FCC, Industry Canada, RoHS, WEEE
Warranty:	5 years, parts and labor (90 days on accessories)

\*DISCLAIMER: FCC RULES LIMIT USE OF THIS EQUIPMENT TO AUDITORY ASSISTANCE FOR THE HANDICAPPED.

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



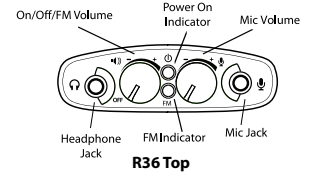
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## PFM R36 FM Receiver:

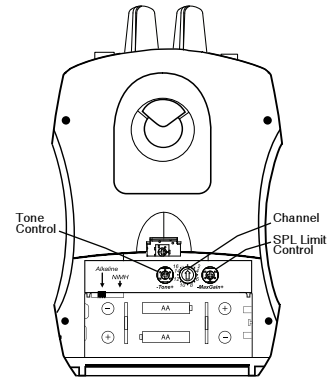
Dimensions:	4.6" L x 2.8" W x 1.1" H (116 mm x 71 mm x 28 mm)
Weight:	3.4 oz (96 g), no batteries
Color:	Titanium and Black
Housing Material:	Shatter-resistant PC/ABS plastic
Battery Type:	Two (2) AA 1.5 V non-rechargeable Alkaline batteries (BAT 001), 70 mA nominal current drain, approximately 21 hours life, or Two (2) AA 1.5 V NiMH rechargeable batteries (BAT 026), 70 mA nominal current drain, approximately 17 hours per charge, recharges in 14–16 hours, uses CHG 3502 or CHG 3512 Charger.
Operating Frequencies:	Selectable, 16 channels, 72.1 – 75.9 MHz*
FM Deviation:	± 75 kHz max synthesized, crystal reference, PLL
Sensitivity:	2.5 µV at 12 dB Sinad with Squelch defeated, Squelch set by user.
Freq Response:	200 Hz to 12 kHz, -3 dB
Signal-to-Noise Ratio:	62 dB at 100 µV
Receive Antenna:	Integral with earphone/headphone cord
External Controls:	FM Volume: rotary control with on/off switch Environmental Mic Volume: Rotary control
Internal Controls:	Tone: Rotary control Channel: 16 position rotary switch Output (SPL) Limit: Rotary control Squelch: rotary control
Indicators:	On/off/low battery and FM LED's
Mic Input:	3.5 mm mono phone jack with electret microphone bias, external adjustable gain with 50 dB range
Audio Output:	Stereo jack produces 30 mW, max at 16 Ohm, can be reduced by internal SPL limit control up to 17 dB
Approvals/Directives:	FCC, Industry Canada, RoHS, WEEE
Warranty:	5 years, parts and labor (90 days on accessories)



R36 Top



R36 Front



R36 Batt Comp / Controls

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## Bid Specs:

The PFM T36 is a wide band body-pack transmitter and shall operate on 16 selectable frequencies between 72MHz and 76MHz. It shall operate for up to 30 hrs with two AA Alkaline batteries and shall be housed in a titanium colored PC/ABS plastic enclosure. The T36 shall have a 3.5 mm microphone jack and a 2.5 mm auxiliary audio input jack. The T36 shall have access to channel select, compression on/off, channel lock, master gain and aux gain inside the battery compartment. There shall be a power switch which also serves as a microphone mute control on the top bezel of the transmitter.

The T36 shall have wide band modulation at 75KHz peak with a frequency response of 200Hz to 16KHz. The transmitting antenna shall be integrated into the 40 inch microphone cable.

The PFM T36 shall be covered under a five year parts and labor warranty. This transmitter shall be the Williams Sound Corp. PFM T36.

The Williams Sound Corp. PFM R36 shall be a wideband 16 channel synthesized FM receiver operating on 72MHz to 76MHz. It shall be housed in a titanium colored PC/ABS plastic enclosure 4.6" x 1.1" x 2.8" and be compatible with the CHG 3502 and CHG3512 chargers.

The R36 shall be powered by two AA batteries and shall run for 21 hours on two alkaline disposable batteries and 17 hours on the Williams Sound Corp. BAT 026 rechargeable batteries.

The R36 shall have the antenna integrated into the headphone cord. The top bezel shall have a 3.5mm stereo jack that can drive both stereo and mono headphones, a rotary on/off volume control, 3.5mm environmental microphone input, a rotary microphone gain control and have a power LED and an FM indication LED.

Inside the battery compartment there shall be a rotary squelch control, rotary tone control, a sixteen position channel selector, an Alkaline or NiMH switch to select for charging operation and an output control which can reduce the maximum output by up to 17dB.

The R36 shall be FCC, Industrie Canada and RoHS compliant and shall have a five year warranty.

This receiver shall be the Williams Sound Corp. PFM R36.

## Contact:

### United States

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Web: [www.thorvinelectronics.com](http://www.thorvinelectronics.com)

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

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Sold by:



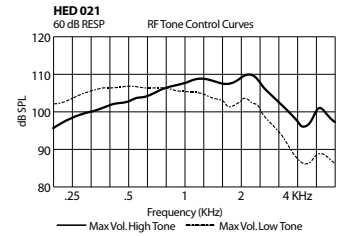
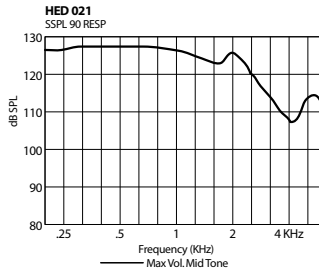
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## Acoustic Specifications: Typical Values (ANSI S3.22-1987)

R36 System Data: (With T36 Transmitter and Mic 090)

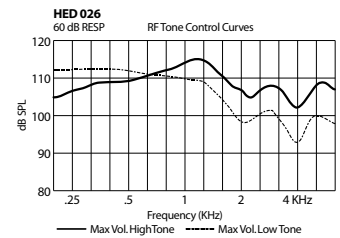
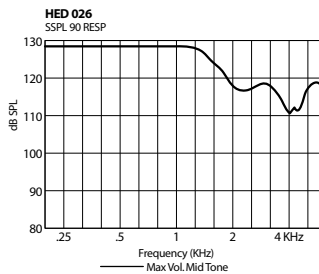
### Lightweight headphone, HED 021: (with 6cc coupler)

Test	Tone High	Tone Mid	Tone Low
SSPL90	127.0dB	128.0dB	129.4dB
HF Ave (SSPL90)	124.2dB	124.2dB	124.2dB
HF Ave full on gain (60 dB)	48.6dB	46.5dB	43.8dB
Ref test gain	47.2dB	46.5dB	43.7dB
% THD: 500 Hz	2.2%	2.0%	1.2%
800 Hz	1.1dB	0.5dB	0.3dB
1600 Hz	0.7dB	0.3dB	0.2dB



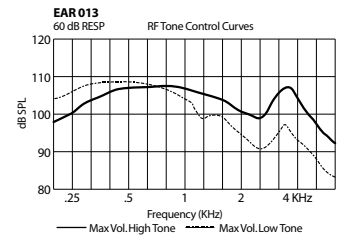
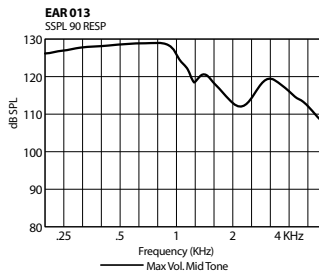
### Wide range headphone, HED 026: (with 6cc coupler)

Test	Tone High	Tone Mid	Tone Low
SSPL90	130.1dB	130.3dB	130.4dB
HF Ave (SSPL90)	124.5dB	124.6dB	124.7dB
HF Ave full on gain (60 dB)	50.3dB	48.5dB	45.5dB
Ref test gain	47.5dB	47.6dB	45.5dB
% THD: 500 Hz	3.4%	2.5%	1.6%
800 Hz	2.2dB	1.3dB	0.6dB
1600 Hz	0.7dB	0.6dB	0.7dB



### Mini earphone single, EAR 013: (with 2cc coupler)

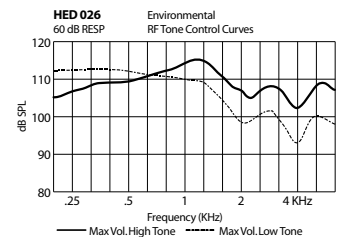
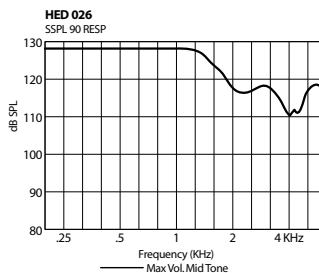
Test	Tone High	Tone Mid	Tone Low
SSPL90	128.1dB	128.8dB	128.9dB
HF Ave (SSPL90)	119.1dB	119.2dB	119.1dB
HF Ave full on gain (60 dB)	42.5dB	40.0dB	37.7dB
Ref test gain	42.1dB	40.0dB	37.6dB
% THD: 500 Hz	1.9%	1.2%	1.1%
800 Hz	1.4dB	0.6dB	0.5dB
1600 Hz	1.3dB	0.4dB	0.4dB



## R36 Environmental Microphone Data: (With Mic 014-R)

### Widerange headphone, HED 026: (with 6cc coupler)

Test	Tone High	Tone Mid	Tone Low
SSPL90	130.6dB	130.6dB	130.6dB
HF Ave (SSPL90)	124.9dB	124.9dB	124.9dB
HF Ave full on gain (60 dB)	51.4dB	49.0dB	46.3dB
Ref test gain	47.9dB	47.9dB	46.3dB
% THD: 500 Hz	1.9%	1.9%	1.8%
800 Hz	0.9dB	0.8dB	0.6dB
1600 Hz	1.4dB	0.9dB	0.6dB



### Mini earphone single, EAR 013: (with 2cc coupler)

Test	Tone High	Tone Mid	Tone Low
SSPL90	128.0dB	128.1dB	128.2dB
HF Ave (SSPL90)	119.0dB	118.9dB	118.8dB
HF Ave full on gain (60 dB)	43.3dB	41.1dB	38.2dB
Ref test gain	42.0dB	41.2dB	38.2dB
% THD: 500 Hz	1.0%	1.0%	1.2%
800 Hz	0.5dB	0.4dB	0.3dB
1600 Hz	1.1dB	0.8dB	0.6dB

