

**FM SPECIFICATION DATA**

Group Tours • Destination Marketing Organizations • Cruise Ships • Tourism Offices  
• University Tours • Large-Scale Guided Attractions • Museum & Presentation  
Centers • Chambers of Commerce • Factory/Plant Tours

# TGS PRO MULTI

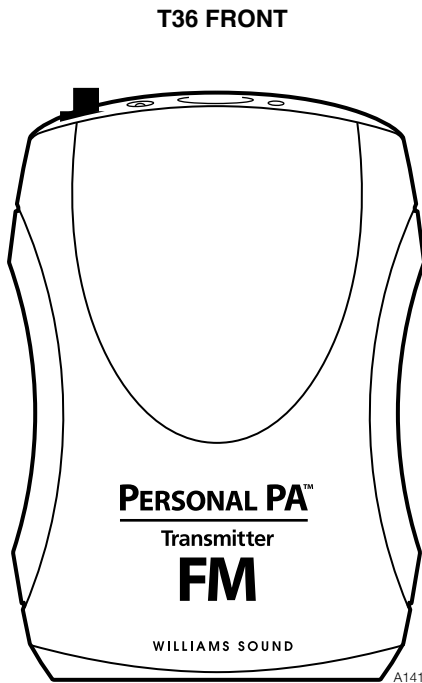
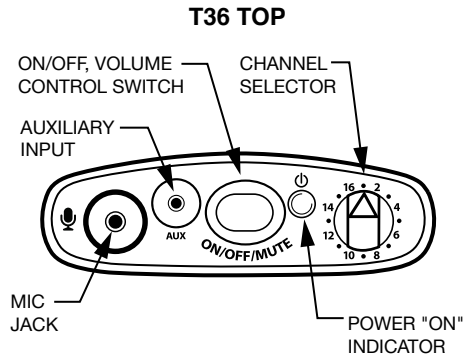
Hearing Helper FM Tour Guide System



The Hearing Helper® FM Tour Guide System, model TGS PRO MULTI, helps tour group members with hearing difficulties overcome background noise and distance from the guide. Use it in factories, museums, power plants—anywhere hearing assistance is needed. The Hearing Helper Tour Guide System features eight selectable operating frequencies on 72-76 MHz. As a result, multiple tour guide systems can operate within the same location, simultaneously, with no crosstalk or interference. System includes one (1) T36 transmitter with MIC 100 microphone, ten (10) R35-8 receivers, batteries and a system carry case.

# Hearing Helper FM Tour Guide System

## PPA T36 FM Transmitter



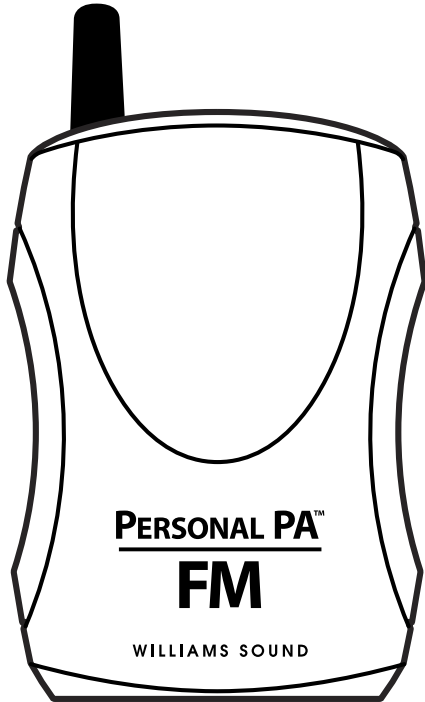
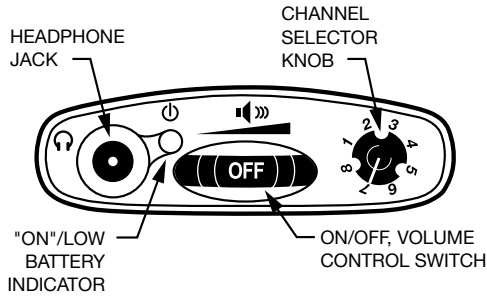
<b>Dimensions:</b>	4.1" L x 2.8" W x 1.1" H (104 mm x 71 mm x 28 mm)
<b>Weight:</b>	2.6 oz (74 g), no batteries
<b>Color:</b>	Black, shatter-resistant PC/ABS plastic
<b>Battery Type:</b>	Two (2) AA 1.5 V non-rechargeable Alkaline batteries (BAT 001), 70 mA nominal current drain, 30 hours approx. life 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
<b>Operating Freq's:</b>	Selectable, 16 channels, 72.1 – 75.9 MHz* (channels 1-8 correspond with R35-8 receiver channels)
<b>Stability:</b>	± .005%, frequency synthesized, crystal reference, PLL
<b>Modulation:</b>	Wide-band FM, 75 kHz pk, 75 µS pre-emphasis
<b>RF Output:</b>	80 mV/m at 3 m (max. allowed by FCC rules)
<b>Freq Response:</b>	200 Hz to 13 kHz, ± 3 dB at 1% max. THD
<b>Signal-to-Noise Ratio:</b>	65 dB (typical) transmitted
<b>Transmit Antenna:</b>	Integral with microphone cord
<b>Microphone:</b>	Electret type, 3.5 mm mono phone plug
<b>External Controls:</b>	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)
<b>Mic Input:</b>	3.5 mm mono phone jack with electret mic bias, internal adjustable gain with 25 dB range
<b>Aux Input:</b>	2.5 mm stereo phone jack, internal adjustable gain with 60 dB range
<b>Audio Compression:</b>	1:1 or 2:1 ratio selected with internal slide switch
<b>Compatible Receivers:</b>	PFM R33, PFM R36, PPA R37, PPA R35-8, PPA R1600
<b>Approvals/Directives:</b>	FCC, Industry Canada, RoHS, WEEE
<b>Warranty:</b>	5 years, parts and labor (90 days on accessories)

**Note: FCC regulations, section 15.21, requires the user to comply with the rules of transmitter operation. Any changes or modifications made by the user not expressly approved for compliance may result in the loss of all privileges and authority to operate the equipment**

**\*DISCLAIMER: FCC RULES LIMIT USE OF THIS EQUIPMENT TO AUDITORY ASSISTANCE**

# Hearing Helper FM Tour Guide System

## PPA R35-8 Receiver



A220

<b>Dimensions:</b>	4.5" H x 2.85" W x 1.2" D (115 mm x 72 mm x 30 mm)
<b>Weight:</b>	4.6 oz (130 g)
<b>Color:</b>	Black
<b>Battery Type:</b>	Two (2) AA non-rechargeable alkaline batteries (BAT 001), approx. 50 hours battery life or Two (2) AA rechargeable NiMH batteries (BAT 026), 1500 mAh, approx 32 hours battery life
<b>Current Consumption:</b>	Nominal 40 mA
<b>Operating Freq:</b>	8 channels: 72.1, 72.3, 72.6, 72.8, 74.7, 75.4, 75.7, or 75.9 MHz*
<b>Intermediate Freq:</b>	10.7 MHz
<b>FM Deviation:</b>	+/- 75 kHz
<b>De-emphasis:</b>	75 uS
<b>LED Indicator:</b>	Power: Red. Low Battery: Flashes
<b>Sensitivity:</b>	2 uV at 12 dB SINAD with squelch defeated
<b>Input Overload:</b>	20 mV
<b>Frequency Response:</b>	40 Hz to 15 kHz +/- 3 dB
<b>Signal to Noise ratio:</b>	60 dB at 100 uV
<b>Receive Antenna:</b>	Integral with earphone/headphone cord
<b>Audio Output:</b>	35 mW, max 16 ohm load
<b>Output Connector:</b>	3.5 mm mono phone jack
<b>Squelch:</b>	Located inside battery door. Factory set for 25 dB S/N. Squelch may be set with JFD-7104-5 from Sprague Goodman or any flat tipped tuning tool with tip size .095 X .016
<b>Notes:</b>	The R35-8 is NOT field tunable. The eight channels have been carefully selected to inhibit inter-modulation interference. Channel frequencies are 72.1, 72.3, 72.6, 72.8, 74.7, 75.4, 75.7, and 75.9 MHz.
<b>Approvals:</b>	FCC, Industry Canada, RoHS, WEEE
<b>Warranty:</b>	Five Years, Parts and Labor. 90 days on cords, earphones, headphones, batteries, and other accessories

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# Hearing Helper FM Tour Guide System

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## Bid Specs

### PPA T36

The PPA 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 black 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 13kHz. The transmitting antenna shall be integrated into the microphone cable.

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

### PPA R35-8

The PPA R35-8 shall be a digitally synthesized eight channel receiver. The receiver shall be encased in a black PC/ABS plastic with a hinged door on the back for battery installation.

The receiver shall be a body-pack type and include a detachable belt-clip for hands-free operation. The receiver shall have a 3.5 mm mono phone jack and accommodate low-impedance mono earphones, headphones and telecoil couplers. The receiver shall have a combination volume control and power on/off rotator dial, an eight position channel select knob and a red power LED on the top bezel. The power LED will flash to indicate low battery. There shall be a slide switch located inside the battery compartment to select between Alkaline or NiMH rechargeable battery operation. There shall be a squelch control located inside the battery door. There shall be drop-in charging contacts on the bottom of the receiver.

The receiver shall be pre-programmed to eight channels between 72 and 76 MHz. The receiver shall operate for up to 32 hours with two 1.5 volt AA NiMH rechargeable batteries and 50 hours on two 1.5 volt AA Alkaline batteries.

The R35-8 shall receive FM signals in the 72-76 MHz audio assistance band with 75  $\mu$ S de-emphasis. The receiver shall provide a maximum output of 35 mW at 16 Ohms with an earbud type earphone. The receiver shall accept a maximum wideband deviation of  $\pm$ 75 kHz. The system's electrical frequency response shall be 40 Hz to 15 KHz  $\pm$  3dB and the signal to noise ratio shall be 60 dB at 100  $\mu$ V. The receiver shall have a sensitivity of 2  $\mu$ V at 12 dB Sinad.

The receiver shall be covered by a five year parts and labor warranty, excluding earphones, headphones, batteries and chargers.

The receiver shall be the Williams Sound model PPA R35-8.

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

#### Domestic Sales

Williams Sound  
10300 Valley View Rd.  
Eden Prairie, MN 55344  
Ph: 800-328-6190 / 952-943-2252  
FAX: 952-943-2174  
Email: [info@williamssound.com](mailto:info@williamssound.com)  
Web: [www.williamssound.com](http://www.williamssound.com)

#### International Sales

International Sales Department  
Williams Sound  
10300 Valley View Rd.  
Eden Prairie, MN 55344 USA  
Phone: +1 952 943 2252  
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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800.843.3544 / [info@williamssound.com](mailto:info@williamssound.com) / [www.williamssound.com](http://www.williamssound.com)