

## FM SPECIFICATION DATA

Group Sight-Seeing Tours • Factory and Plant Tours • College Campus Tours • Museum Tours  
• Cruise Ships • Special Events • Employee Training

# TGS PRO 738

## Personal PA® Tour Guide System

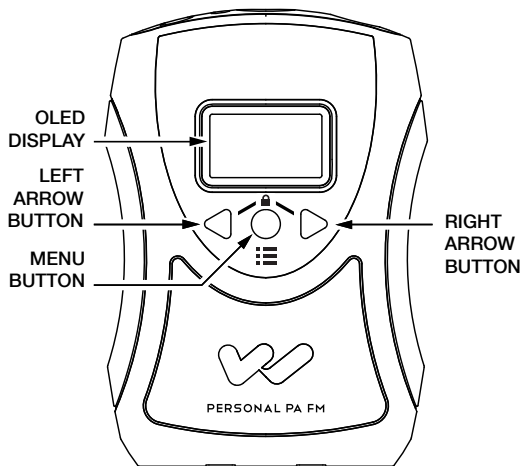
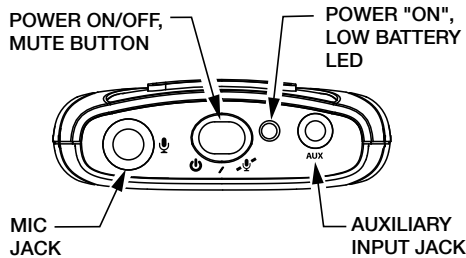
The Personal PA® Tour Guide System, model TGS PRO 738, helps tour group members with hearing difficulties overcome background noise and distance from the guide. Use it in factories, museums, power plants—anywhere hearing assistance is needed. System includes one (1) T46 transmitter with MIC 100 microphone, ten (10) PPA R38 receivers, batteries and system carry case. System operates on 72-76 MHz bandwidth for hearing assistance.



TGS PRO 738

# Personal PA<sup>®</sup> Tour Guide System

## PPA T46 Transmitter



<b>Dimensions:</b>	4.1" L x 2.8" W x 1.1" D (104 mm x 71 mm x 28 mm)
<b>Weight:</b>	2.6 oz (74 g), no batteries
<b>Color:</b>	Black/Silver
<b>Enclosure Material:</b>	Shatter-resistant PC/ABS plastic with textured scratch-resistant aluminum faceplate
<b>Battery Type options:</b>	Two (2) AA 1.5 V non-rechargeable Alkaline batteries (BAT 001-2), 75 mA nominal current drain, up to 30 hours battery life Two (2) AA 1.5 V NiMH rechargeable batteries (BAT 026-2), 75 mA nominal current drain, up to 20 hours battery life per charge, recharges in 14–16 hours, uses CHG 3502 or CHG 3512 Charger
<b>Operating Frequencies:</b>	Selectable, 17 channels, 72.1 – 75.9 MHz*. Switchable 8 or 17 Channel Mode. (8-channel mode setting corresponds with PPA R35-8 receiver channels)
<b>Stability:</b>	± .005%, frequency synthesized, crystal reference, PLL
<b>Modulation:</b>	Wide-band FM, 75 kHz peak, 75 μS pre-emphasis
<b>RF Output:</b>	80 mV/m at 3 m (max. allowed by FCC rules)
<b>Frequency Response:</b>	180 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 plug
<b>External Display:</b>	OLED for status and menu information. Status: Ch/Freq, Mic Audio Level, Auxiliary Input Audio Level, Battery Status, Mic Mute, Channel Lock, Dual-Preset mode. Menu: Ch/Freq display mode select, Volume, Aux Input, Compression, 17 or 8-channel mode, screen time out, screen brightness, restore default settings
<b>External Controls:</b>	Momentary push button: push and hold 3 seconds for power On/Off, push and release for microphone mute On/Off. "Up", "Down" and "Menu" buttons for accessing and changing transmitter settings. Battery type switch (Alkaline or NiMH) located behind the battery compartment door
<b>External Indicators:</b>	Power LED - Green, flashes when battery is low
<b>Mic Input:</b>	3.5 mm mono jack with electret mic bias, adjustable gain with 25 dB range
<b>Aux Input:</b>	2.5 mm stereo jack, adjustable gain with 60 dB range
<b>Audio Compression:</b>	1:1 (off) or 2:1 (on) selectable in menu
<b>Compatible Receivers:</b>	PFM R31, PFM R32, PFM R33, PFM R36, PPA R35, PPA R37, PPA R35-8, PPA R1600,
<b>Approvals/Directives:</b>	FCC, Industry Canada, RoHS, WEEE
<b>Warranty:</b>	Lifetime PLUS Limited Warranty, 90 Days on most accessories.

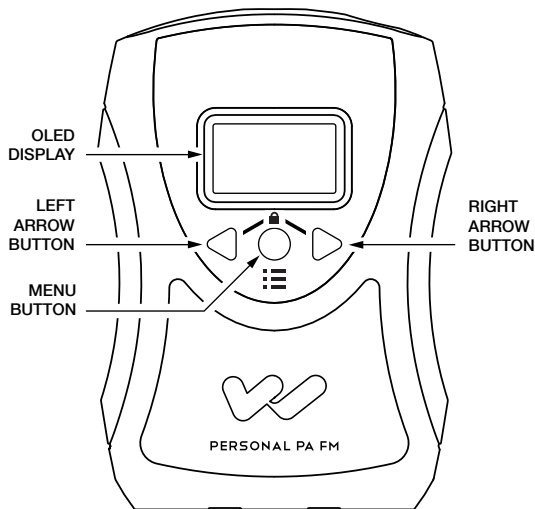
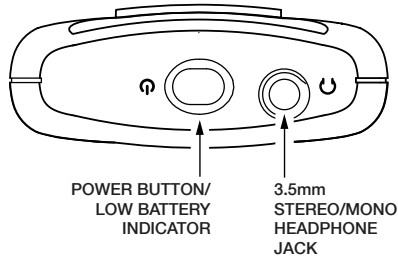
**NOTE: FCC REGULATIONS, SECTION 15.21, REQUIRES THE USER TO COMPLY WITH THE RULES OF TRANSMITTER OPERATION. ANY CHANGES OR MODIFICATIONS MADE BY THE USER NOT EXPRESSLY APPROVED FOR COMPLIANCE MAY RESULT IN THE LOSS OF ALL PRIVILEGES AND AUTHORITY TO OPERATE THE EQUIPMENT**

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

# Personal PA<sup>®</sup> Tour Guide System

## PPA R38 Receiver

The newest addition to the Personal PA FM line - the stylish, new PPA SelectView™ FM receiver has a high-res OLED screen providing a quick view of receiver status and immediate access to all user settings. The highlight: on-screen channel selection with easy access to 17 pre-set, wideband frequencies (72-76 MHz). Other features include rechargeability, digital tuning, digital squelch and battery-saving sleep and auto-off modes.



<b>Dimensions:</b>	4.1" x 2.85" x 1.38" (104 x 72 x 35mm)
<b>Weight:</b>	4.6oz (130g) with batteries. 2.6oz (73g) without batteries
<b>Color:</b>	Black/Silver. Black ABS Plastic case with Aluminum faceplate.
<b>Battery Type:</b>	(2) AA Alkaline or (2) AA NiMH Rechargeable
<b>Battery Life:</b>	(2) AA non-rechargeable alkaline batteries (BAT 001-2), approx. 50 hrs (2) AA rechargeable NiMH batteries (BAT 026-2), 1500mAh, approx. 32 hrs
<b>Current Consumption:</b>	47mA nominal at 2.4VDC
<b>Operating Temp. Range:</b>	32° – 122°F (0° to 50°C)
<b>Channels:</b>	17 Wideband, accessed via menu
<b>Operating Frequencies:</b>	72.1, 72.2, 72.3, 72.4, 72.5, 72.6, 72.7, 72.8, 72.9, 74.7, 75.3, 75.4, 75.5, 75.6, 75.7, 75.8, 75.9 MHz*
<b>FM Deviation:</b>	75 kHz
<b>De-Emphasis:</b>	75 µS
<b>Display Screen:</b>	1" OLED
<b>Power Indication:</b>	Power button, backlit green. Good battery strength - glows solid. Low battery - slow flashes. Error - fast flashes with 1 sec delay.
<b>Sensitivity:</b>	2 µV at 12 dB Sinad with squelch defeated
<b>Input Overload:</b>	100 mV
<b>Frequency Response:</b>	200 Hz – 15 kHz, ±3dB
<b>Modulation:</b>	FM, +/- 75 kHz peak deviation
<b>Signal-to-Noise Ratio:</b>	Minimum 65 dB @ 1.0V
<b>Receive Antenna:</b>	Integral with earphone/headphone cord
<b>Audio Output:</b>	35 mW max at 16 Ω
<b>Headphone Connector:</b>	3.5 mm stereo jack, mono output for stereo or mono earphones, headphones, or neckloops
<b>Power Save - Display Off/ Sleep Mode/Auto-Off:</b>	<b>Display Off:</b> 5, 30, or 60 seconds of no button pushes (adjustable in menu) <b>Sleep Mode:</b> 6 mins of no RF signal or button pushes; wakes up with RF Signal or any button push <b>Auto Off:</b> 2 hours of no RF signal or button pushes
<b>Soft Audio Turn-On:</b>	Upon Power ON or Channel Change, mutes audio, then ramps up 1 numeric step per 1/10th second until set volume is reached
<b>Approvals:</b>	FCC, Industry Canada, RoHS, WEEE
<b>Warranty:</b>	Lifetime PLUS Limited Warranty, 90 Days on most accessories.

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

**THIS DEVICE COMPLIES TO "RSS-GEN ISSUE 2 JUNE 2007" FOR INDUSTRY CANADA AND FCC PART 15.105(B) FOR THE UNITED STATES.**

**OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION OF THE DEVICE.**

**THIS DEVICE COMPLIES WITH ICES-003 CLASS B. TEST DATA IS AVAILABLE FROM THE MANUFACTURER ON REQUEST.**

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

# Personal PA<sup>®</sup> Tour Guide System

## Architectural/Engineering Specifications

### PPA T46 Transmitter:

The PPA T46 is a wide-band body-pack transmitter and shall operate on 17 selectable frequencies between 72MHz and 76MHz. It shall operate for up to 30 hrs with two AA Alkaline batteries and be housed in a black plastic enclosure. It shall have battery recharge ability utilizing Williams Sound drop-in chargers.

The T46 shall have a 3.5 mm microphone jack and a 2.5 mm auxiliary audio input jack. The microphone cord will serve as the transmitting antenna. It shall have three buttons on the front to access channel select, master and aux gain, compression on/off, channel lock and screen adjustments. There shall be an OLED screen on the front of the T46 displaying current operating status and menu information.

The T46 shall have the ability to operate in dual channel mode whereby the user can switch between two different transmitting channels, each with its own set-up parameters.

There shall be a power switch which also serves as a microphone mute control on the top bezel of the transmitter.

The T46 shall have wide band modulation at 75 KHz peak with a frequency response of 200 Hz to 16 KHz.

The PPA T46 shall be covered under a limited lifetime parts and labor warranty.

This transmitter shall be the Williams Sound model PPA T46.

### PPA R38 Receiver:

The receiver shall be encased in black, PC/ABS impact-resistant plastic with a hinged battery door. The receiver shall be a body-pack style and include a detachable belt-clip for hands-free operation. The receiver shall have a 3.5mm stereo jack to accommodate stereo or mono low impedance earphones, headphones and neckloops. The receiver shall have a power button that is backlit indicating power is on. The receiver shall receive 17 preset wideband channels between 72-76MHz. Channel selection shall be made in the menu. The receiver shall have channel-lock capability.

The receiver shall have a slide switch inside the battery compartment to select disposable Alkaline or NiMH rechargeable battery operation. It shall have charger contacts on the bottom of the receiver for use with Williams Sound drop-in chargers CHG 3512 and CHG 3502. The receiver shall operate up to 50 hours with two disposable AA Alkaline batteries (BAT 001-2) and up to 32 hours with two AA NiMH rechargeable batteries (BAT 026-2).

The receiver shall provide a maximum output of 35mW at 16 $\Omega$  with an earbud type earphone. The systems audio frequency response shall be 200Hz to 15kHz  $\pm$  3dB and the signal to noise ratio shall be 65dB min. The receiver sensitivity shall be 2 $\mu$ V or better at 12dB Sinad with squelch defeated. The receiver shall accept up to  $\pm$ 75kHz FM deviation and have a 75  $\mu$ S de-emphasis time constant.

The receiver shall have FCC, Industry Canada approvals and be compliant with RoHS and WEEE regulations. The receiver shall be covered by a Lifetime PLUS Limited Warranty, 90 Days on most accessories.

This receiver shall be the Williams Sound model PPA R38.

# Touchboards

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