

INFRARED SPECIFICATION DATA

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WIR SYS 90 ADV

SoundPlus® Infrared System



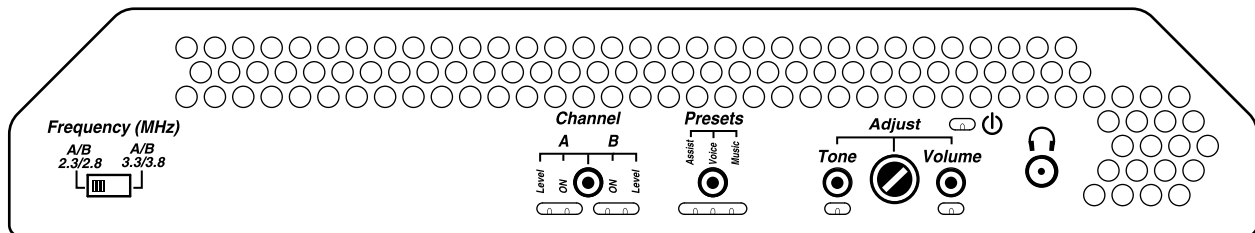
The TX90 two channel IR transmitter combines modulator and emitter technology into a single operating unit, which reduces operating cost and eliminates precious rack space. The TX90 transmitter advances a wide-angle infrared signal that concentrates the IR energy efficiently in the listening area. Operating on the 2.3-3.8 MHz bandwidth, the TX90 is less susceptible to radio and lighting interference. Each TX90 transmitter can cover up to 28,000 sq ft (2,600 sq m) in single-channel operation. The coverage area can be easily increased by connecting additional TX9 emitters. A wall/ceiling omnidirectional mount is included, and stand kits are available for portable operation. Each WIR SYS 90 ADV includes (1) TX90, (5) RX18 receivers, (1) CHG 518 five bay charger.

SoundPlus® Infrared System

WIR TX90 Transmitter

Dimensions, Weight:	11.25" W x 6.25" H x 2.125" D (28.6 cm x 15.9 cm x 5.4 cm), 1.8 lbs (0.8 kg)
Color:	Black with white legends, black acrylic lens
Power Supply:	Wall Transformer, 24 VAC, 50-60 Hz, 35 VA, 3-pin MOLEX Connector North America: TFP 010, UL/CSA Europe: TFP 027-01, 2-pin Schuko plug, CE UK: TFP 027-02, 3-pin UK plug, CE
Power Cable:	NEC Class 2 wiring, two-conductor, 18 ga., 200' (61m) max. length
Modulation:	FM Wideband, +50kHz deviation max., 50uS pre-emphasis
Carrier Frequency:	Channel A: Selectable, 2.3/2.8 MHz, Channel B: Selectable, 3.3/3.8 MHz
Emitter IR Power:	3.5 watts
Coverage Area:	Up to 28,000 sq. ft. (2,600 m ²) in single-channel mode when using the RX22-4 Receiver Up to 11,000 sq. ft. (1,670 m ²) in four-channel mode when using the RX22-4 Receiver Up to 3,063 sq. ft. (929 m ²) in single-channel mode when using the RX18 Receiver (See coverage area diagrams)
Signal-to-Noise Ratio:	>75 dB, +3dB
Frequency Response:	80 to 15,000 Hz, electrical response
Total Harmonic Distortion:	Less than .2%, electrical response at 1kHz
Compression: Music preset 1:	1, Voice preset 1.5:1, Hearing Assist preset 2:1
Auto Carrier Shut-Off:	20 minute timer shuts off carrier when no audio is present

TX90 Bottom View



A222

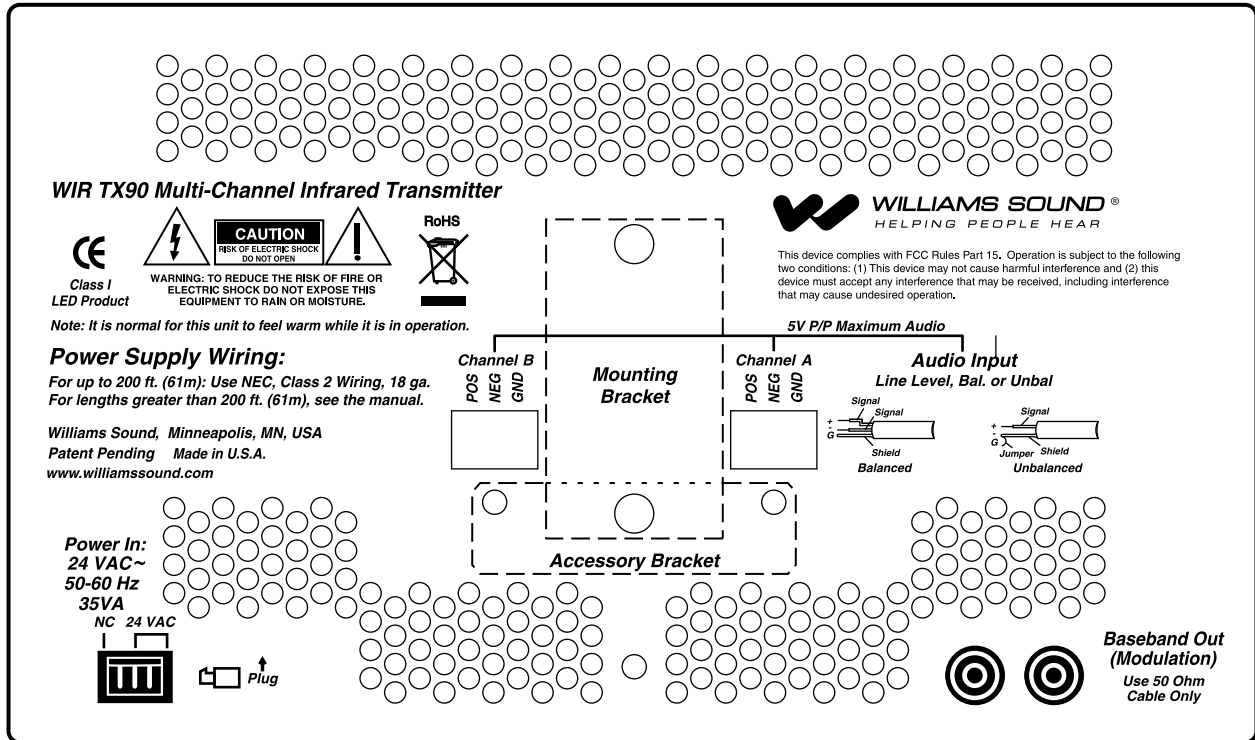
Power Indicator:	Red LED
Audio Volume Level Controls:	CHA and CHB Input Level, press to select, 28 dB adjustable range
Audio Indicators:	CHA and CHB Audio Level, yellow LED, flash
Carrier LEDs:	2 green LED carrier "on" indicators
Phones Output:	3.5mm TRS headphone jack. CH A tip, CH B ring on jack, 32 ohm headphone (min)
Application Preset:	Music, Voice, Hearing Assist. Frequency response; Music: Flat; Voice: Mid-range boost;
Hearing Assist:	High frequency boost
Tone Control:	Press to select, 21 dB adjustable range (1 kHz between low boost/hi-cut and low cut/hi boost).

NOTE: SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE!

***90 days on accessories**

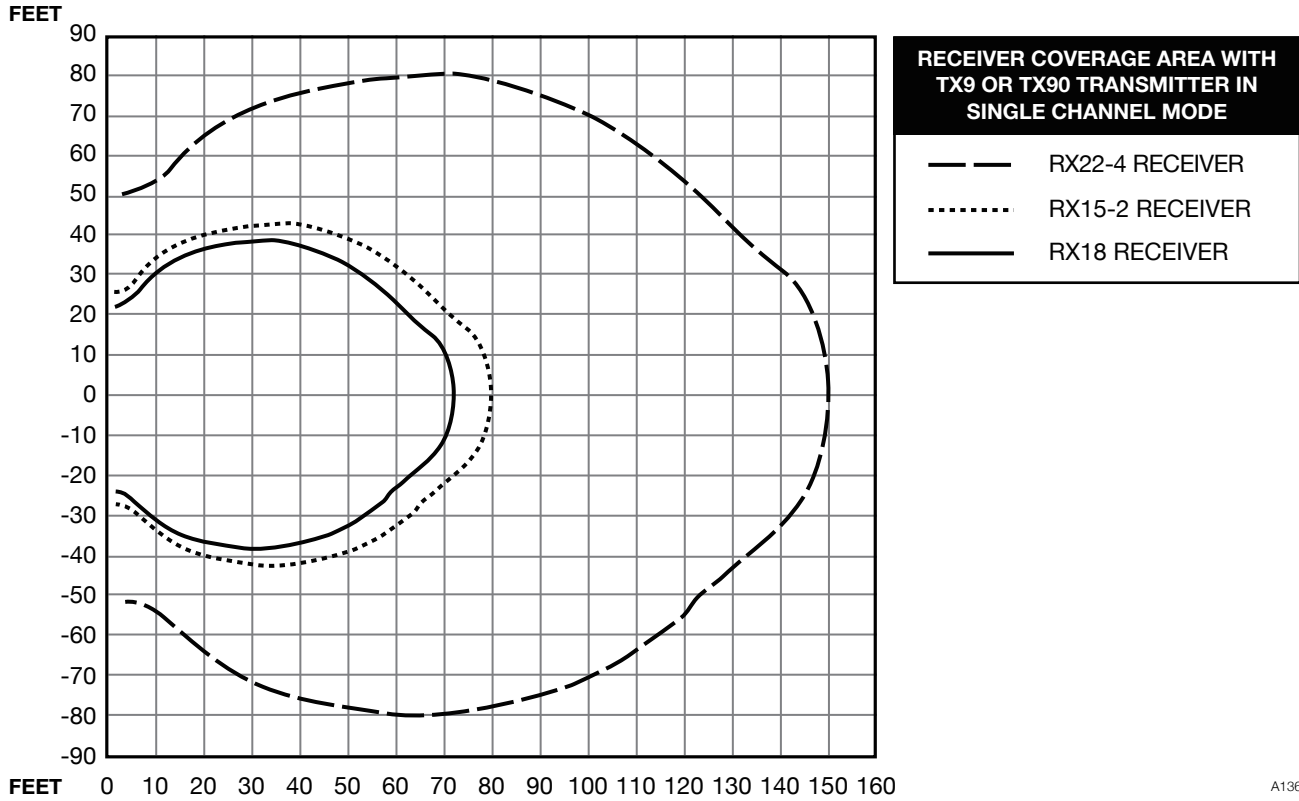
SoundPlus® Infrared System

TX90 Rear View



A221

Power Input:	3-Pin Molex, 24 VAC, 50-60 Hz, 35 VA
Audio Input Connector:	CH A and CH B, 3 wire Phoenix
Input Level:	Balanced or unbalanced, 316 mVRMS (-10dBV) nominal, 5.7k input impedance; max input (over volume range) -21 to +7 dBV.
Baseband Output:	BNC, 50 Ω, for use with TX9 only
Baseband Cable:	RG 58 Coax, BNC connectors, maximum 1000' (300m) length
Operating Requirements:	0-50° C (+32°F to 122°F) ambient temperature, non-condensing, non-corrosive atmosphere
Mounting Kits:	Wall or Ceiling Mount: BKT 024 Omnidirectional mount; Optional: Tripod Stands: SS-11 or SS-6
Warranty:	5 years on transmitter, 90 days on accessories
Approvals:	CE, FCC, RoHS, WEEE
Compatible Receivers:	WIR RX22-4 Four-Channel Receiver WIR RX15-2 Two-Channel Receiver WIR RX18 Two-Channel Receiver
Notes:	Specifications: Single end input, volume & tone controls at mid point, 1 kHz, "Music" Preset



A136

Fig. 3: Receiver Coverage Area with TX90 Transmitter in Single Channel Mode

The coverage area for the TX90 will vary depending on the receiver being used. The diagram above demonstrates the receiver coverage when operating a single TX90 transmitter in single channel mode. Patterns are direct radiation patterns.

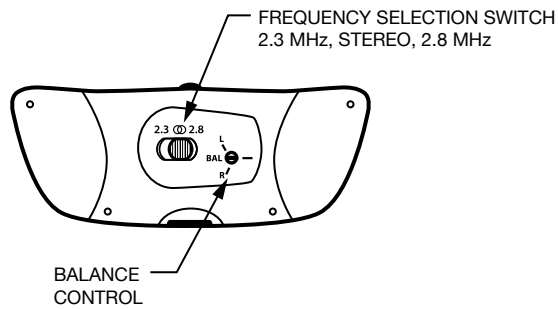
Note: Reflections of the infrared light from walls, ceilings and floors may change these patterns.

SoundPlus® Infrared System

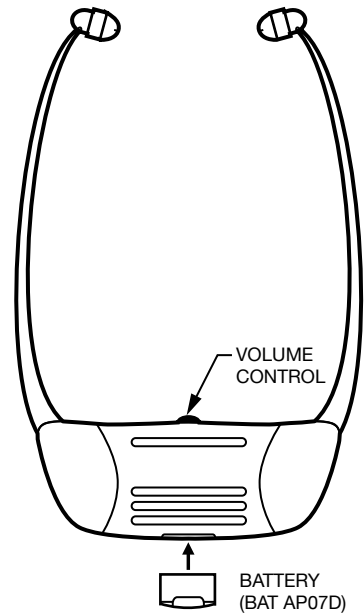
WIR RX18 Receiver

Weight:	2.0 oz (56 g) with battery
Material and Color:	ABS plastic, Black and Grey
Battery Type, Life:	BAT AP07D NiMH Battery Pack, 7 hours
Operating Range:	up to 10,000 sq ft (285 m ²) when used with the TX9 emitter or TX90 transmitter in single-channel mode
Modulation Frequency:	2.3 MHz or 2.8 MHz or stereo
Frequency Response:	200 Hz to 8 kHz, ± 5 dB
Signal to Noise Ratio:	60 dB at 10 m
Controls:	Volume control thumbwheel 3-position selection switch (2.3 MHz, 2.8 MHz, stereo)
Acoustic Output:	120 dB MAX SSPL90 with 2 cc coupler
Compatibility:	Compatible with 2.3 MHz and 2.8 MHz IR transmitters, WIR TX900 and WIR TX925 systems
Battery Charger:	CHG 518
Power Switch:	Built into receiver "arms"
Ear pads:	Uses EAR 240 silicon eartips
Approvals:	CE, RoHS
Warranty:	5 years (90 days on battery)

WIR RX18 Back View



WIR RX18 Front View

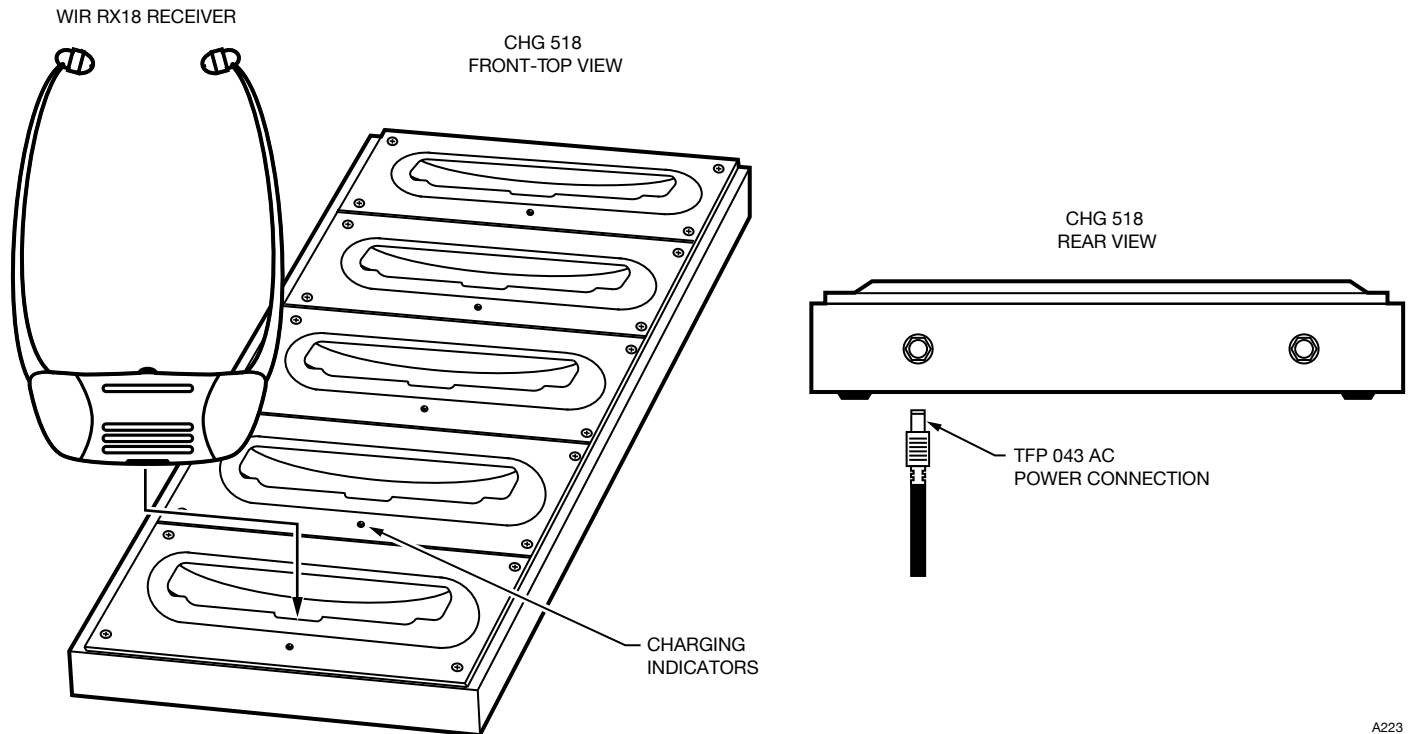


A163

SoundPlus® Infrared System

CHG 518 Multiple Battery Charger:

Dimensions:	12"L x 6.25"W x 1.5"H (30.48 cm x 15.875 cm x 3.81 cm)
Weight:	1.04 lbs (.47 kg) excluding power supply
Color:	Black metal and plastic
Power Supply Input:	120 VAC
Power Supply:	100-240V / 12VDC TFP 043
Unit Capacity:	5 Units
Indicators:	Individual Charging Indicators: Red LEDs
Warranty:	1 year (90 day warranty on cables and power supply)
Approvals:	WEEE, RoHS
Note:	Charging specifications are based on Williams Sound, rechargeable NiMH battery, BAT AP07D



A223

Bid Specs

WIR TX90 Transmitter

The Williams Sound WIR TX90 transmitter shall consist of an all-in-one modulator and emitter operating on switchable carrier frequencies of 2.3/2.8 MHz or 3.3/3.8 MHz. The carrier frequency shall use 50 kHz deviation and 50µs pre-emphasis. The transmitter shall have a range of up to 28,000 ft² (2,600 m²) in single channel mode when using the RX22-4 receiver. The transmitter shall be contained in a metal housing with a durable plastic lens. The transmitter shall be convection cooled without fans. The transmitter shall include an omni-directional mounting bracket for permanent installations. Additional brackets shall be available for different mounting options. The transmitter shall advide two channels of selectable carrier frequencies: CH A 2.3/2.8 MHz or CH B 3.3/3.8 MHz. Two transmitters used in tandem shall advide up 4 simultaneous channels. The transmitter shall have two Phoenix connectors on the back for balanced or unbalanced line input. All controls and indicators shall be accessible on the bottom of the panel of the transmitter. The transmitter shall have three application presets: Music, Hearing Assistance and Voice accessible by thumbscrew adjuster. There shall be a 3.5mm stereo headphone jack for monitoring the advcessed audio before being transmitted. Two BNC (50½) baseband output jacks shall be advided on the back panel for more coverage needs. The TX9 emitter panels must be used with the TX90 transmitter via RG58 coax cable. The transmitter shall be powered by an external 24VAC, 50-60 Hz, 35VA power supply. The power connector shall be a three pin Molex type. Additional emitters shall require individual external power supplies. The transmitter shall be covered by a five-year warranty on parts and labor.

The transmitter shall be the Williams Sound model WIR TX90

WIR RX18 Receiver

The receiver shall be a stetho type with an IR detector lens on the face of the unit. The receiver shall have a rotary-type volume control and the power switch shall be built into the "arms," so that the unit will automatically shut off when not in use. The receiver shall operate for 7 hours per charge with 1 BAT AP07D NiMH battery. The receiver shall be housed in a grey and black ABS plastic case. The receiver shall have a 3-position switch to receive 2.3 MHz, 2.8 MHz or stereo modulated IR signals. The receiver shall advide 112 dB SSPL90 output. The system electrical frequency response shall be 200 Hz to 8 kHz, and the signal-to-noise ratio shall be 60 dB at 10 m. The receiver shall have CE, RoHS, and WEEE apadvval. The receiver shall be covered by a five-year parts and labor warranty, 90 days on the battery.

The receiver shall be the Williams Sound model WIR RX18.

CHG 518 Charger

The CHG 518 shall be a 5 unit drop-in battery charger and shall charge a maximum of 5 BAT AP07D NiMH batteries while they are installed into the Williams Sound WIR RX18 style 3V receivers. The charger shall be enclosed in metal and plastic measuring 12"L x 6.25"W x 1.5"H (30.48 cm x 15.875 cm x 3.81 cm). The unit shall weigh 1.04 lbs (.47 kg) without power supply, 1.6 lbs (.725 kg) shipping weight. Each bay on the charger shall have a red LED indicating charging status. The LEDs shall be on constantly during charging. Receivers can be left in the charger permanently without harm to the batteries. The charger CHG 518 shall be powered by an external power supply (120 VAC input; 12 VDC, 200 mA output) via a CD barrel connector.

The charger shall be the Williams Sound model CHG 518.

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