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# Sony TR-610

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## Sony TR-610: A Technical Milestone in Portable Radio Design

### Overview

Introduced in November 1958, the Sony TR-610 marked a turning point in consumer electronics. Marketed as a “vertical shirt-pocket transistor radio,” it combined compact engineering, elegant industrial design, and reliable performance. With over 436,000 units sold, the TR-610 became a benchmark for portable radio design and helped establish Sony as a global innovator.

### Technical Specifications

#### FeatureSpecification

##### Type

Superheterodyne AM receiver

##### Transistors

6 (2T73, 2T76 x2, 2T65 x3, 1T23)

##### Intermediate Frequency (IF)

455 kHz

##### Audio Stages

2 AF stages

##### Wave Bands

Medium Wave (MW) only

##### Speaker

2.25" Permanent Magnet Dynamic (moving coil)

##### Power Supply

9V dry batteries

##### Power Output

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Approx. 0.1 W

#### Dimensions

63 × 106 × 25 mm (2.5 × 4.2 × 1 inch)

#### Weight

0.3 kg (10.6 oz)

#### Materials

Plastic cabinet with metal grille

#### Colors Available

Red, ivory, black, green (green being rare)

#### Circuit Design

The TR-610 uses a superheterodyne architecture, which was standard for AM radios of the time. Its six-transistor configuration includes:

RF amplifier for signal sensitivity

Mixer and oscillator for frequency conversion

IF amplifier for selectivity

Detector and audio amplifier for output clarity

The use of Germanium transistors (common in the 1950s) allowed for low power consumption and compact design.

#### Industrial Design

Sony's TR-610 was celebrated not only for its electronics but also for its ergonomic and aesthetic qualities:

Slim, contoured cabinet that fit comfortably in the hand

Minimalist grille design with gold metal finish

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Three-way wire handle for portability

Color variants that appealed to different markets

Its design was so influential that dozens of competing models mimicked its layout in the following years.

#### Historical Impact

The TR-610 was the first Japanese transistor radio to achieve major success in the U.S. market, paving the way for Sony's expansion abroad. It also marked a shift from tube-based radios to solid-state consumer electronics, setting the stage for future portable devices.

#### Common Issues and Restoration Notes

Collectors often report:

Broken antenna coil wires

Corroded battery terminals

Speaker degradation

Restoration typically involves:

Rewiring the antenna coil

Cleaning contacts

Replacing capacitors and speaker cone if necessary

#### Conclusion

The Sony TR-610 is more than a vintage gadget—it's a technological and cultural artifact. Its compact engineering, elegant design, and market success make it a landmark in the history of portable electronics. For collectors and historians alike, it remains a symbol of postwar innovation and the rise of Japanese consumer technology.