

Christmas 2006  
Issue No. 104

# Radio Bygones

£3.75  
ISSN 0956-974X

## Eddystone Radio And The Queen Mary



Louis Varney, G5RV & TVI

Buffing Up The Bakelite

Cooling Radio Station And The London To New York  
Radio Telephone Service

# Restoring A Novelty Brazilian Radio

by *Carlos Alberto Fazano*

Over the years, radios have been built into all sorts of cases. Considering that even the most jaded collector is amused by the seemingly endless styles of radio, during a visit to a second-hand bookstore my eye was caught by a peculiar wooden frame displayed in the store's pictures showcase. At first I thought it was just a picture provided with a kind of small night lamp, the ones generally used in child's bedroom, because an electrical cord protruded from its back.

Detailed inspection was impossible as the picture was protected by the showcase. I asked for the help of one of the store assistants who told me that it was a typical novelty radio of the early sixties. Certainly it was neither a classic crystal nor a breadboard set of the golden days of radio but, considering its price, as well as its peculiarities as a novelty radio, led me to purchase it.

## The Picture Radio

A more accurate inspection in my workshop revealed a small, damaged paper name plate on the back panel showing the name of the manufacturer: – Novidades Radio Artísticas Ltda – and an interesting warning – reprodução proibida – meaning respectively: Radio Arts Novelties Ltd – copying prohibited.

The picture radio consists basically of a wide wooden frame like a cabinet, the electrical chassis and the oil



*The picture radio*

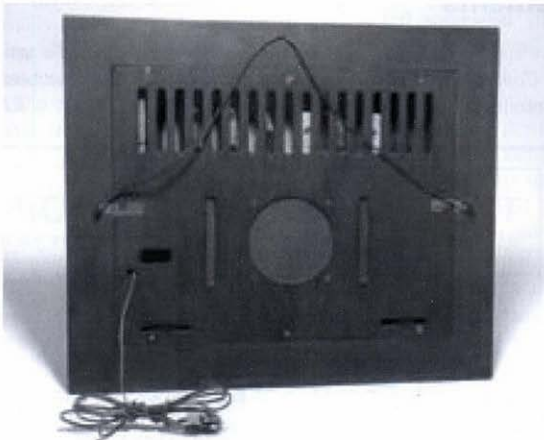
painting. The cabinet frame measures 49x41x10cm (width, length and depth).

As in many cabinets built in the early fifties and sixties, its frame is made in hardwood with accurate mitre joints, with carved details finished in a dark brown stain and lacquer combination that produces an elegant look. A wood panel, fixed with eight 3mm screws on the back of the cabinet, serves as baffle with a central hole covered by a grille where a four-inch loudspeaker is fixed. The panel has ventilation slots and also slots for the combined disc type volume/on-off control and the tuning dial in the lower left and right corners (see photo).

By removing the eight screws the back panel can be removed revealing a square wooden sub-assembly to which the radio chassis is fixed. The sub-assembly is used to accommodate a planar wound loop antenna. The ganged tuning capacitor and the combined volume/on-off potentiometer are mounted in an inner wood base that also supports the oil painting.

## AC/DC

The AC/DC receivers, introduced in the mid-thirties, made possible a drastic drop in price and the dream of 'a radio in every room in the house' became a reality. This is an AC/DC set running off 117V with everything, including



*The back of the picture radio showing the loudspeaker grille and volume and tuning controls*

the aerial, enclosed in the wooden cabinet for safety reasons. The circuit is the basic 'All American Five' tuning 550 to 1600kHz and employing miniature valves: 12BE6 RF amplifier, 12BA6 IF amplifier, 12AV6 detector, 50C5 audio amplifier and 35W4 rectifier.

The loudspeaker was made by the well known Brazilian manufacturer Bravox and the picture – a basic landscape – was certainly not painted by Rembrandt or Renoir.



## Restoration

By studying the valve complement I estimate that the picture radio was manufactured in the late fifties. But, in spite of its age, the set was not in a bad shape. As in any restoration appearance and electrical performance were considered. The radio was carefully disassembled on the work bench. Restoration started by checking all the passive components and defective ones were replaced accordingly. The power cord was cleaned with a detergent solution to remove the accumulated greasy dirt; the cord connections in the male plug were checked and re-made. Unfortunately, all the valves except the 35W4 rectifier were burnt and had to be replaced by a new pre-tested set from the author's own inventory.

The electro-mechanical parts such as volume/on-off control and valve sockets were checked and treated with contact cleaner. Valve-socket contact tension was restored by applying pressure with a dentist's pick. Besides a thin layer of dust, the loudspeaker and its output transformer were in a good condition. The dust accumulated on the loudspeaker paper cone was cleaned carefully with a soft brush and its rusted four fixing screw, bolts and washers were replaced by new ones.

To allow restoration of the radio cabinet, the oil painting, as well as the square wooden sub-assembly was removed. With a brush and a portable vacuum cleaner the dust accumulated inside the cabinet was removed. During the dust removal special care was taken to avoid damaging the flat wound loop antenna.

The wooden frame was first treated with silicone foam spray to remove any kind of dirt accumulated on its surface. This type of cleaning agent was chosen because its chemical formula does not produce any harmful action on several types of surface materials, including lacquered ones. A wood polish was applied on the surface of the cabinet and, after air-drying, it was carefully polished with a dry lint-free cloth.

The two plastic disc-type knobs were washed with a mild detergent solution. After washing, the tuning knob's worn out engraved lines were re-filled with a white lacquer wipe.

In view of the delicate characteristics of the oil painting the dust accumulated on its surface was removed by using the combined cleaning action of the extra-soft bristle and airburst of a lens brush.

As this is an AC/DC set it was connected for testing through an isolation transformer. Following the replacement of the valves and a few passive components the set came to life. The only extra change needed was to the noisy volume control which required a second cleaning.

## Conclusion

Having been a collector for many years, I still find it a pleasure to be able to research and restore a nice artifact. The picture radio is now proudly displayed in my living room and, with its eye-catching design, the 'spouse effect' was easily overcome!

**RB**

## Acknowledgement

My sincere thanks to Jairo Casoy for his support and advice regarding the preparation of the photographs used in this article.



*The chassis housing the miniature valves*