



RADIO CANTINARE: WHAT ARE THEY?

(by Lello Salvatore - English revision by Robert Davidson)

“Phoney” or “counterfeit” radios, “obscene” radios, even “trash”, or at best, “basement radios”: these are some of the merciless epithets that many Italian collectors use to describe a pseudo category of radios, mainly if not all

transistor, built in Italy in the years from the mid-60s to the mid-70s. These are portable receivers, mostly pocket-sized, made with circuits reduced to the essentials and with economic components of a lower grade, sometimes nearly trash in quality. In those years there were so many Italian firms producing radios. Alongside the great national brands, just to name a few, Autovox, Geloso, Radiomarelli, Radio Var and Voxson, they also operated numerous and small, indeed very small firms (in the typical tradition of the national industry) that assembled or, more likely, they had their radios assembled by third parties in improvised workshops located in basements. It is from here that the expression “*radio cantinare*” draws its origin. The Italian word *cantina* corresponds to the English term, “basement”, and the term *cantine* (from the *cantina*) is widely used in the “Vintage Transistor Radios” group (Giuseppe Ronchini administrator and 1,975 members on 5 August 2018) of the social network Facebook and borrowed from an article that appeared on page 774 of the magazine “Radiopratica”, from September 1970 with the suggestive title “*Cantine a Transistor*” which in English sounds more or less like “Transistor Radios from the basements”. Today in Italy *cantinaro* indicates the maker of poor-quality products and also or the same cheap product.

There are a number of somewhat “legendary” stories about the “*radio cantinare*” in circulation that depict them as being built not only in the basements of houses, but in fact by the members of a family in their own home, or from the inmates of prisons in Milan and its surroundings -- as told to Angelo, two years ago, by a second-hand dealer at the Portobello Market in the Montichiari Fair, in province Brescia, who had a few of these examples on his table. Some other collectors report instead of having seen them sell and proudly declare as their own production, in the second half of the '60s, in one of the basements of the buildings of the Poggioreale district of Naples. And the radios of this kind, according to this story, ended up filling also the stalls of the historic and central Forcella district, still in Naples, where the same, well in sight were sold together with the smuggled cigarettes, the latter opportunely concealed. If difficult, but as we will see, it is not always impossible to trace back to the small maker company, to the parent company (or if you want, to the paternity) of these radios, more simply you can learn about their sale and distribution. Apart from the stalls of Forcella and the markets of other Italian cities or the peddlers on the beaches of our seas, these radios were also sold by mail, through the beautiful and not a few radio and electronic magazines published at that time in Italy.

I still remember the *TOGASHI 6 transistor + 1 diode* as one of the first basement radio receivers, with an invented name and the Japanese sound, proposed by an unknown firm and described in the vintage Italian magazine “Tecnica Pratica” of July 1964 - note the year! This set, presented as a “formidable portable receiver” with a superheterodyne circuit, was sold, to the delight of electronic hobbyists, “in a beautiful assembly kit”, at the modest price of 6,500 Lire, when the price of the corresponding commercial radio sets (those leaving the factory beautiful and ready to work) varied, according to the magazine, between 20,000 and 30,000 Lire. And with the addition of a minimum surcharge, radio receivers like these were supplied, upon request to the same magazine, already assembled and working. In this regard, mention should be made of the “*Nazionale*” displayed in issue 12 of Radiopratica, in December 1968 (cost Lire 6,200 in kit). This model, in a gaudy orange color, was introduced by Angelo in one of his articles published in the issue N° 75 of ARM.

**MADE IN JAPAN?
NO, MADE IN ITALY!**

The first distinctive feature of basement radios is their names: these names were quite often “created” by modifying the names of major European and international brands, thus avoiding any copyright infringement. Angelo's *Nazional*, for example, brings to mind the famous Japanese brand *National* that Matsushita Electric Housewares Manufacturing Works coined in 1927. Similarly, *Togashi* has a certain assonance with *Hitachi*, and it makes one smile to know that many radios were sold in plain sight under the names of Sonic, SO.N.Y., Sonny and Sonyc, in imitation of the name of the electronic Japanese giant SONY. Also, “*Sankjo*” for SANYO, “*Cruting*” and “*Lowel*” for the prestigious German brands GRUNDIG and LOEWE and so on up to names like CRWON'S for CROWN and Onkyo or Udyson, Scot or Vilmar, instead of the national Vimar, etcetera, et cetera. With the basement radios the imaginations of Italian traders unleashed themselves. They also used names of cities and exotic locations such as Tokyo and Kyoto, but also Manhattan, Brooklyn or fantasy names like Kanyo or its anagram Nyako and other names like the Hispanic “*Picadores*”. In addition to the temptingly low prices as well as the curious and, from my point of view, deceptive brand that they brought, it must be said that many of these radios were really nice.

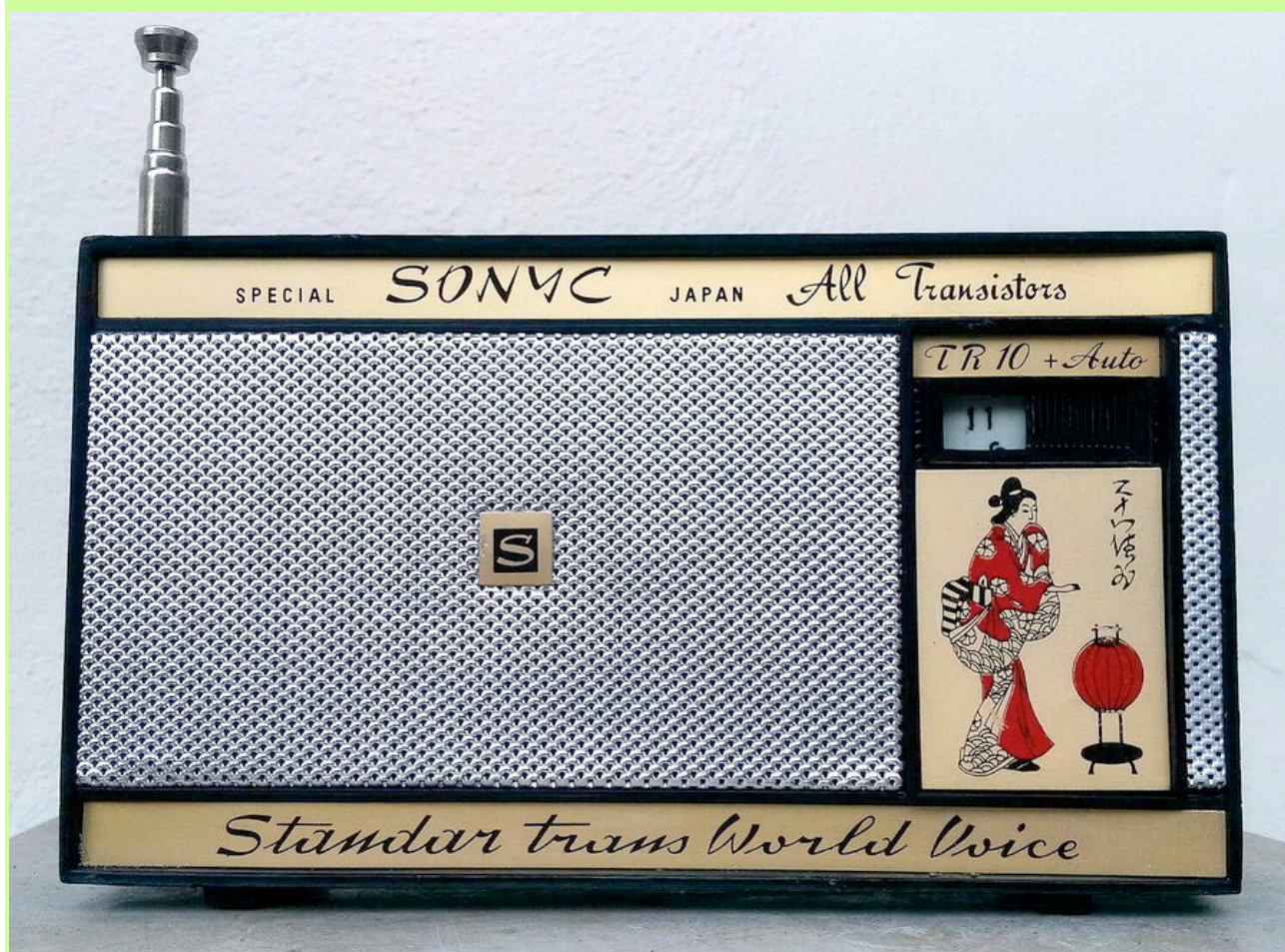


Fig. 1 - Special SONYC mod. TR10+Auto.
(Lello Salvatore Collection)

I'm referring here in particular to those various faux-Japan radio models, which, like the Japanese originals, also were housed in gaudy and oversized plastic cabinets bearing Japanese motifs on the cabinet face to the point that, at first sight, any collector would have traded (and even today would trade) for radios coming from far away Japan. This is the case of the two SPECIAL SONYC JAPAN All Transistors TR10 + Auto radios, which display the central letter "S" on the front aluminium panel, and identical and numerous letterings in the gold trims. In the model shown in

Fig.1, there is printed by serigraphy on the right side, below the tuning dial, a female figure (geisha) wrapped in the traditional Japanese dress, the kimono -- and in the other model there is a torii (**Fig. 2**), a sacred portal, a sort of gigantic perch that in Japan and the Far East is placed at the entrance of a monastery and commonly in a sacred place.



Fig. 2 - Special SONYC mod. TR10+Auto.
(Lello Salvatore Collection)

SPECIAL SONYC TR10 + Auto, but with less lettering and a different look is also the model shown in **Fig. 3**, of my collection but present, in black livery, also in Angelo's collection.



Fig. 3 - Special Sonyc mod. TR10+Auto
(Lello Salvatore Collection)

Here the large metal front plate, around the see-through dial window, features in relief the lettering and the stylized drawing of a small man in the dress of the Far East. And what about the KYOTO (Fig. 4), also with the lettering TR 10 + Auto?



Fig. 4 - KYOTO mod. TR10+Auto.
(Lello Salvatore Collection)

Here, in addition to the central "K", on the small metal plate (2.8x4.4 cm), placed on the left on the front, is drawn a pagoda accompanied by the word Kyoto. Unlike the previous ones, this model, instead of the usual window and numbered dial wheel, has a slide-rule dial, with a sliding index, created with the reverse-painting technique and bearing the names of well-known stations such as Monte Ceneri.



Fig. 5 - Standard mod. TOKYO Broadcastings TRS12 Auto.
(Modesto Govoni Collection)

And, staying in Japan, here are two other "faux-Japanese" pearls with the same words "TOKYO STANDARD BROADCASTINGS", where the one with the drawing of a blue violin key on a white background (above in **Fig. 5**) is the mod. T.R.S.12 AUTO belonging to the Modesto Govoni collection, and the other, the one with the upper left-little brilliant is indicated as T.R.S.10 (below) (**Fig.6**) keeps company with other radios of my collection.



Fig. 6 - Standard mod. TOKYO Broadcastings TRS10.
(Lello Salvatore Collection)

In **Figs. 7 and 8** we can see two more beautiful basement-radios with a Japan-style front side, respectively a Special SANKYO and a CRWON'S, the latter with a reverse-painted tuning dial, while **Fig. 9** shows the BROOKLYN U.S.A. T.R.10.



Fig. 7 - Special SANKYO mod. TR10+AUTO.
(Angelo Franzè Collection)

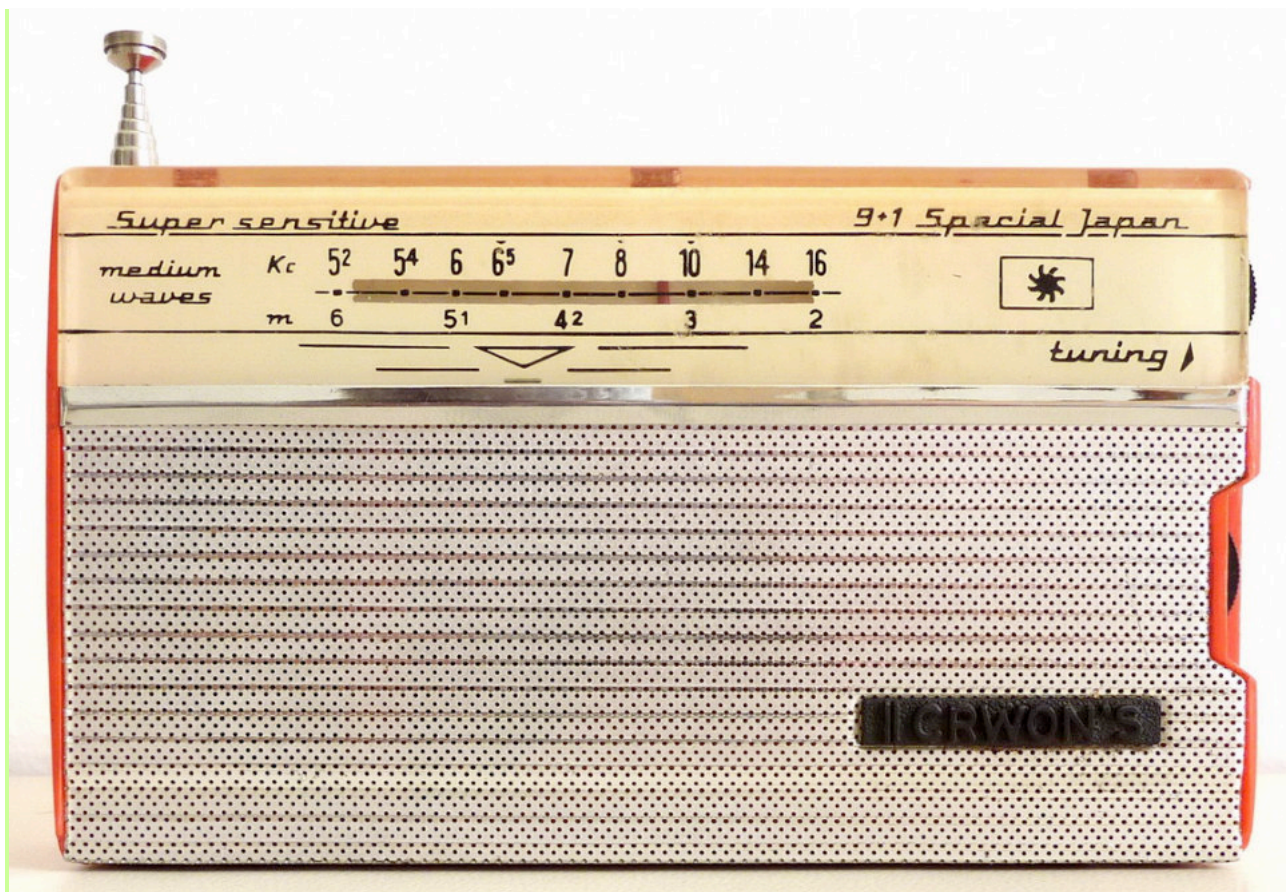


Fig. 8 - CRWON'S mod. 9+1 Special Japan.
(Angelo Franzè Collection)



Fig. 9 - BROOKLYN mod. U.S.A. T.R.10.
(Angelo Franzè Collection)

Concerning these coat or oversized pocket radios, I have the pleasure of sharing a personal anecdote with the readers of this article. A few years ago, in participating as an exhibitor at the Flohmarkt (flea market) that simultaneously take parts with the annual Electronics Fair in the town of Friedrichshafen, on Lake Constance, in the south of Germany, I brought some small radios like these ones and keeping them in view on my stalls, I realized that the same aroused a certain appeal in the collectors of pocket radios, and the first thing they asked me was: - Made in Japan? Obviously with courtesy I answered: - No, made in Italy!

A LOOK INSIDE

Not only were the *cantinare radios* made for radio amateur hobbyists who could delight in assembling them for themselves, but they were also bought by those people who could not spend much and had no great pretensions. All these radios, except for some table models, were equipped with a single frequency band, the Medium Wave or Broadcast band (BC band) and although they were built in the name of economy and simplicity, they did their duty well with performance that was all-in-all satisfactory. It is curious to note how these radios, or at least all those pocketable shown in this article, are not equipped with the useful earphone jack, a small measure that since the beginning of the transistor radio (USA December 1954!) contributed to change people's habits by allowing individual listening to the radio. Instead, almost omnipresent is a small telescopic (rod) antenna that, as known to the technicians, it is superfluous to receive the MW band. and that having no connection to the circuit is put there more as an aesthetic accessory than of practical utility.



Fig. 10 - KANYO mod. TR9 Ty.My.Saky.
(Enrico Bonisolo's Collection)



Fig. 11 - KANYO mod. TR9 Ty.My.Saky.
(Enrico Bonisolo's Collection)

By removing the back panel of any *cantinara*, take for example the model KANYO NIPPON TR9 Ty My Saky (**Fig. 10 and 11**), a "phony *cantinara*" as its owner would say, we note in its interior the use of a printed circuit board fixed to the plastic cabinet with a single screw and equipped with all-Italian parts: from the tuning capacitor (the one most used bearing the CEMS mark but often the Microvar of Cesena) to the audio output transformer, usually of the HP at Bologna; from the oscillator coil to the three intermediate-frequency (IF) transformers with the cylindrical metal can (having a screening function); from passive components, capacitors and resistors including an LESA double switch with an on-off switch+volume potentiometer, to the active ones, of which six in black color case SFT germanium type transistors built by M.I.S.TRA.L. (**Manifattura Intereuropea Semiconduttori TRAnsistori Latina**), 1 diode. The circuit is a conventional superheterodyne circuit, that is, a frequency-conversion circuit, equipped with 6 transistors, one of which in the mixer-oscillator stage, two in the I-F amplifier stages and three in the audio amplifier stages, two of which transistors work in class-B push-pull output circuitry. The only germanium diode in the circuit serves to detect the amplitude modulation signal in the Broadcast band (MW). **Fig. 11** shows the 70 mm diameter loudspeaker, fixed to the cabinet with simple metal clamps that, as is known to the oldest radior-repairers, are difficult to extract without breaking the plastic pins where they are inserted.

The power supply of this set, and of this kind of radios in general, took place with a voltage of 6 volts almost always obtained using two 3 Volt x 2 *torcetta* type batteries connected in serie as those shown in **Fig. 11** that are the original of that time, marked Superpila , series Superoro N. 66 of cat., corresponding to the modern type 2R10: this battery type is today hardly available, if not discontinued. It was very useful to discuss about the basement radios in the group "Radio d'Epoca a Transistor = Vintage Transistor Radios" on Facebook because thanks to Enrico it was discovered that his KANYO mounts the same identical chassis of another radio sold at that time with the brand EFFEPI ALL TRANSISTORS (**Fig. 12 and 13**).

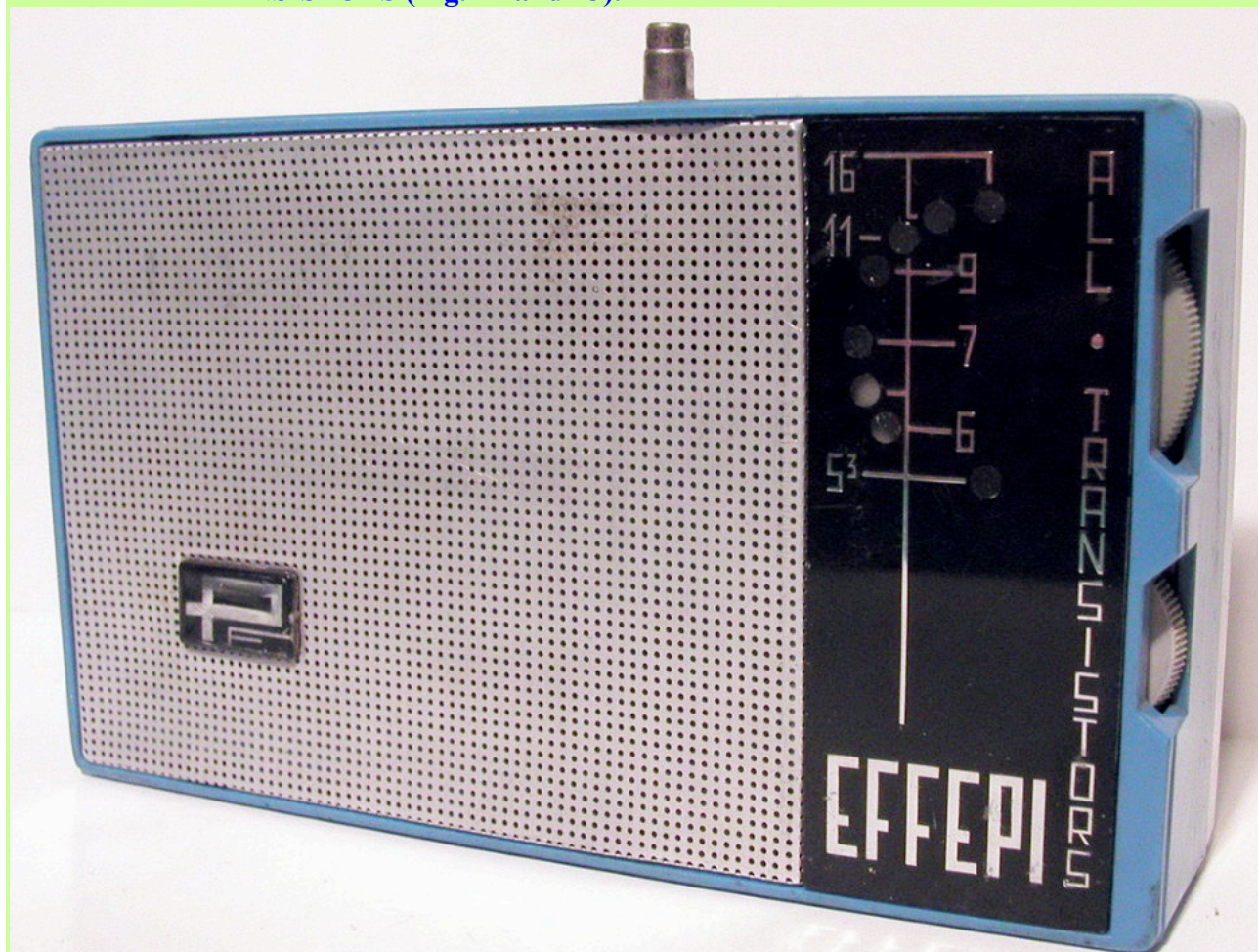


Fig. 12 - EFFEPI mod. All Transistors (FP/6+1).
(Enrico Bonisolo Collection)

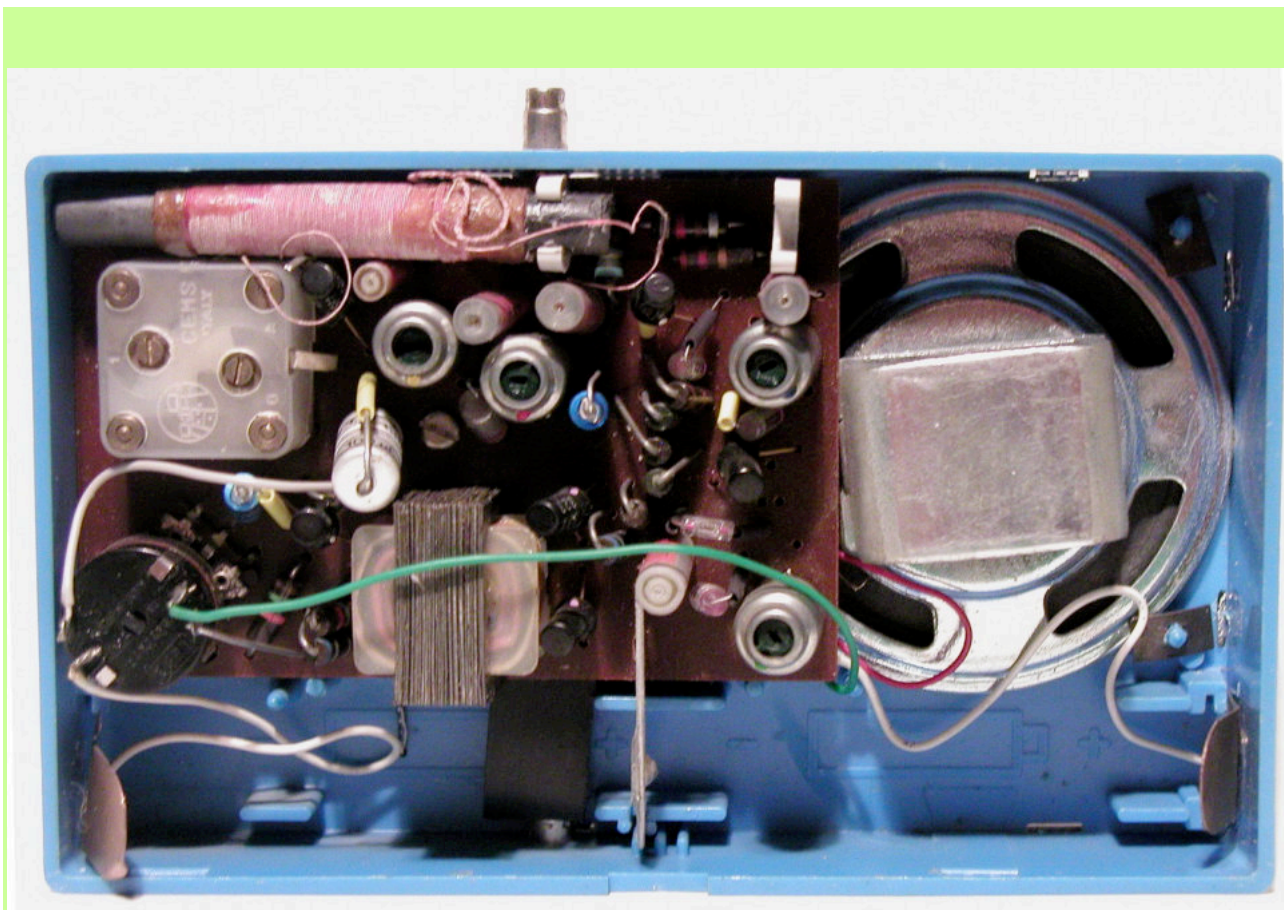


Fig. 13 - Internal view of the EFFEPI mod. All Transistors (FP/6+1).
(Enrico Bonisolo Collection)

Giving a careful look at the chassis of these two models we managed to trace the "authorship" of the maker of these and some other basement radios. The confirmation comes from the identical design of the printed circuit tracks which also bears the same abbreviation **FP/6+1** engraved/printed on the two printed circuit board (**Fig. 14**).



Fig. 14 - Chassis of KANYO, view from the printed circuit side

EFFEPI was for me until that moment, an acronym, a name completely unknown and therefore deserved to know more. It was enough to give a look to the ANIE catalogs (Vol. 13 of the biennial 1968-'69, the one I consulted) and the well-known Radiomuseum.org site to learn from one of the numerous members of this web site, il signor Roberto Gabba, the meaning of this acronym. "F" and "P" are in fact the initials of F. Poma, a gentleman who in the early '50s began his business of selling and servicing electrical and electronic equipment, in particular radio and television sets in via Aselli in Pavia with the name of the firm Poma producing on its own, in the early 60s, radios and televisions with the "PUMA" brands (note the similarity of this brand to the name of the manufacturer!) and "Trans Oceanic". Later, when production was closed in Pavia, some members of the family founded EFFEPI S.a.S. of F. Poma & C. in the new headquarters of via Roma 21 in Villanova d'Ardenghi (PV) producing radio and TV until the 70ies.

Now, finally identified a first manufacturer, designer of these radios or, if we want, according to the definition of *radio cantinare* (statement radios), a customer for their assembly, it can console us to know that, most likely, even our Togashi, proposed in 1964 in assembly kit on Tecnica Pratica, it was conceived and realized by the Pavia company EFFEPI and this because of the chassis that this set employed, almost identical to Enrico's two models. If you want to discover it too, take five minutes and go to the Introni- site at <http://www.introni.it/riviste.html> to see thie article described in detail. The same thing applies to my NYAKO NIPPON T.R.S.10 STANDARD BROADCASTINGS (name obtained making the anagram of KANYO) that you can admire in its splendid blue livery in **Fig.15**.



Fig. 15 - Standard mod. NYAKO TRS10 Broadcasting.
(Lello Salvatore Collection)

Moreover, if we consider that this NYAKO, except for the different antenna, is identical in the chassis, in the form and dimensions of the cabinet measuring 17.5x8.1x3.8 cm and also in the lettering (TRS10 and Standard Broadcastings) to my Tokyo in Fig. 6, we can assume that these two model and why not (?) all the other similar-Japan-sets seen until now, come from EFFEPI.

THE CIRCUITS OF CANTINARE

Next to a few simple basement radio receivers, equipped with a reflex circuit based on the signal reflexion, as is the case of the SPECIAL SONYC TR10 + Auto, black in color externally identical to the green one of Fig. 3 and therefore only shown the internal view (Fig. 16), most of the basement radios that we know, are, like all the other commercial radios produced by major brands, superhet receivers, that is, conventionally made with three transistors in the HF-stages before the detector diode and three transistors in the audio stages.

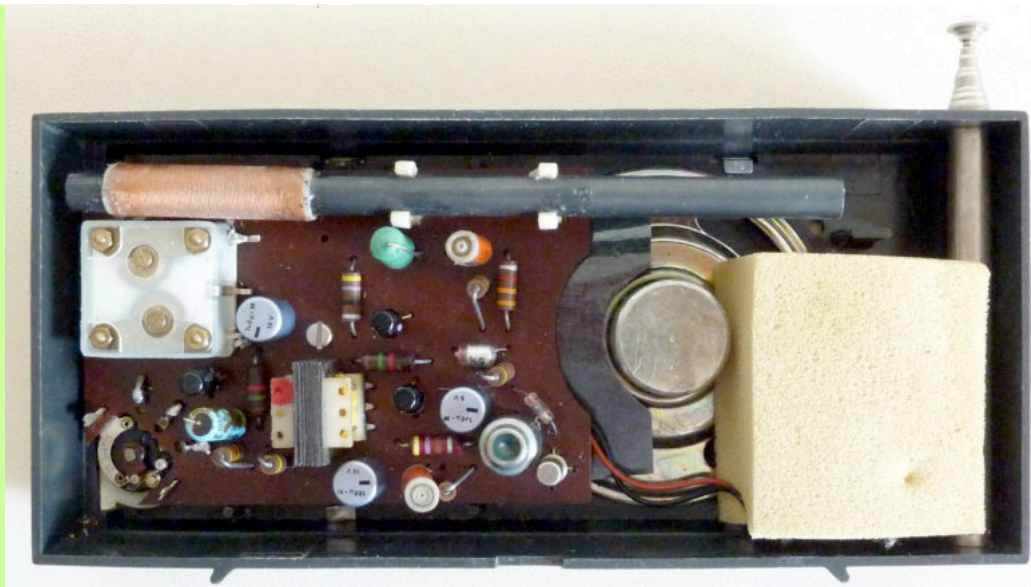


Fig. 16 - Internal view of Sony mod. TR10+Auto.
(Angelo Franzè collection)

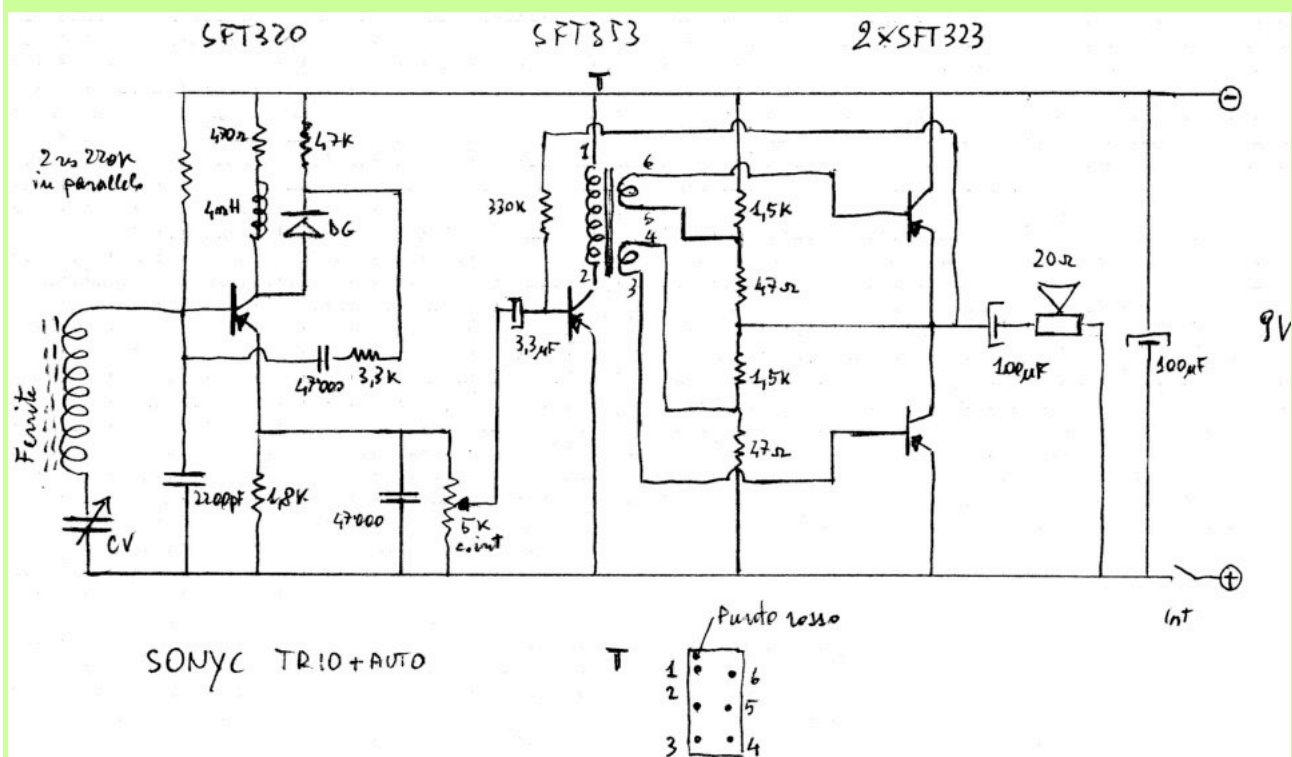
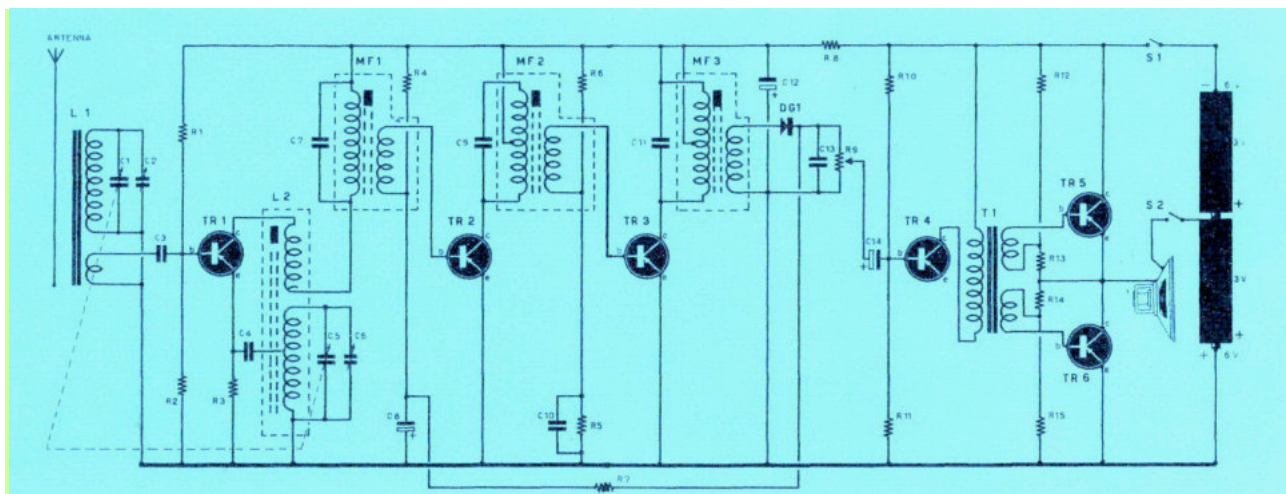


Fig. 17 - The Sony mod. TR10+Auto' schematic extracted by Angelo Franzè.

Fig. 17 shows the schematic of the SPECIAL SONYC TR10 + Auto with the reflex circuit and only four transistor.



**Fig. 18 - Schematic of Togashi, excerpt from the vintage journal
Tecnica Pratica of July 1964.**

Fig. 18 shows instead the schematic of the Togashi which, as seen, is then the one common to several early superhets basement radios like the EFFEPI, the KANYO, the NYAKO and others. Observing this schematic as well the chassis of this receiver, we note the absence of the output transformer in the output stages of the audio amplifier. The only one transformer is the driver transformer with the two secondaries brought out to four leads, instead of three, and the speaker driven directly by the current through the output transistors, each in series with the other. The circuit has a double on-off switch and instead of only one 6 volt battery, it uses two 3 Volt batteries for obtaining a center-tapped battery supply. The voice coil of the loudspeaker is of higher impedance and, as shown in the schematic is always connected between the two transistors. This circuit configuration without the output transformer, is the so called OTL (output transformerless) circuit in the Anglo-Saxons area. The OTL circuit replaced for simplicity, practicality and last but not least, economy, the classic push-pull configuration based on two-transformer audio driver and output circuit. In 1964 also the famous Zenith Radio Corporation of Chicago, always at a pace, if not ahead with the times, to cope with the ruthless Japanese competition, began to use the OTL circuit in output stages of its prestigious models of the Royal series 500, the 500E-1 and 500H-1 (see my article in ARM No. 133). In the basement radios that followed, as for example in the mod. TOKYO STANDARD BROADCASTINGS TRS12 AUTO of Fig. 5, or also in the KING receiver, in the assembly kit presented on Tecnica Pratica of December 1967 (which deserves a look!) and in the reflex of Angelo of Fig.16 and 17, the OTL circuit changes and next to the driver transformer and the two in series output transistors, we don't see more the double on-off switch and the tapped battery supply but in their place there is a single on-off switch and the whole power supply of a 6 Volt battery. Furthermore an high capacity electrolytic capacitor (from 100 μ F up) is used to couple the voice coil of the loudspeaker to the collector of one of the two output transistors and the emitter of the other. This variation of the OTL circuit in the audio output stage is also known, in the Italian technical literature, as single-ended. An example of a commercial radioreceiver of a great national brand that uses this circuit is the Voxson Sportsmann 70, which starting from the serial number 628501 is marked as model 762 S.E. (the acronym S.E. stands for single-ended). The inside of the TOKYO of Fig. 5 is shown in Fig.19 where, in addition to the employ of 5 instead of 6 transistors and a speaker with a plastic cone, are shown some details of the changes made by this other OTL configuration. In the last *radio cantinare* produced (late 60ies/early 70ies) , as in the commercial set of the major brands, the driver transformer was eliminated and the two output transistors are now of opposite polarity, one of the PNP type and the other of the NPN type and the new amplifier circuit is called "transformerless" (TL) or also known as complementary-symmetry amplifier.

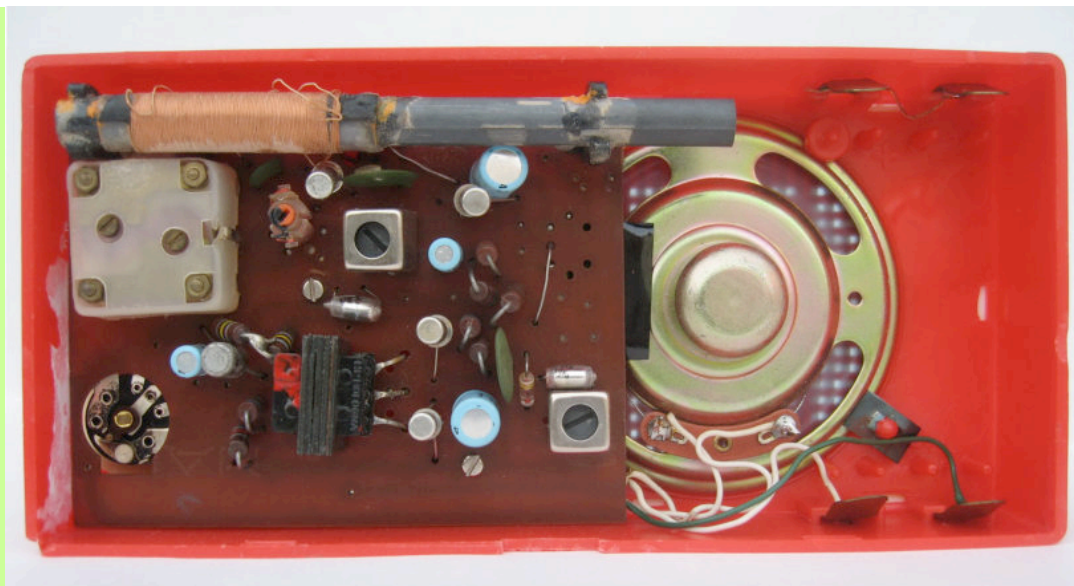


Fig. 19 - Internal view of Standard mod. TOKYO Broadcastings TRS12 Auto.
(Modesto Govoni Collection)

On the chassis of these latter models of *radio cantinare*, we find old germanium transistors along with the newer and better-performing silicon types (with abbreviations BC ... or BF ...), also in number above 6 as well as Japanese, foreign components, beside or in substitution of Italian components (loudspeaker, fixed capacitors, the variable capacitors, and so on). An example comes from the radioreceiver Nazionale by Angelo or from SUPERNAZIONAL, also available in kit and described on Radiopratica of May 1971 (vintage magazines are always helpful!) ... and here we have already arrived in the early '70s!

NOSTALGIA OF THE PAST

As I told Ale, if I could show the many models of Italian "basement" radios, there would not be enough pages in the ARM' s Gallery, not even those of the entire journal (ARM), and I hope to have done something pleasing by introducing in these pages the most beautiful and significant models, at least of pocket size. Also in the catalog "Guida Pratica TRANSISTOR RADIOS" (Edizioni Mosè, November 1999) the cantinare radios have very few representatives: one of these, among the most beautiful, is the S.O.N.Y. International t.9 / 2, visible on page 185. I would like to conclude, however, not before showing you the schematic diagram (**Fig. 20**) of the two SPECIAL SONYC JAPAN All Transistors TR10 + Auto sets of **Fig. 1** and **2** which I very patiently obtained before writing this article and which could be helpful to other collectors.

After all, it was the request for radio schematic diagrams of lesser known brands or sub-brands that led the editorial staff of Radiopratica, in 1970, to publish the article indicated in the introduction from which a name for these radios (*Radio Cantinare*) was given. In my opinion, the schematic diagram also does justice to these radios because it shows that they were not badly constructed, as some detractors of this kind of radios claim. In this schematic it is possible to note, in addition to the presence of the ACG circuit, the use in the output stage of another B push-pull output circuitry to drive the loudspeaker. A 44-ohm loudspeaker having a centertapped winding is used, thereby eliminating the need for an output transformer (which would ordinarily be required for impedance matching).

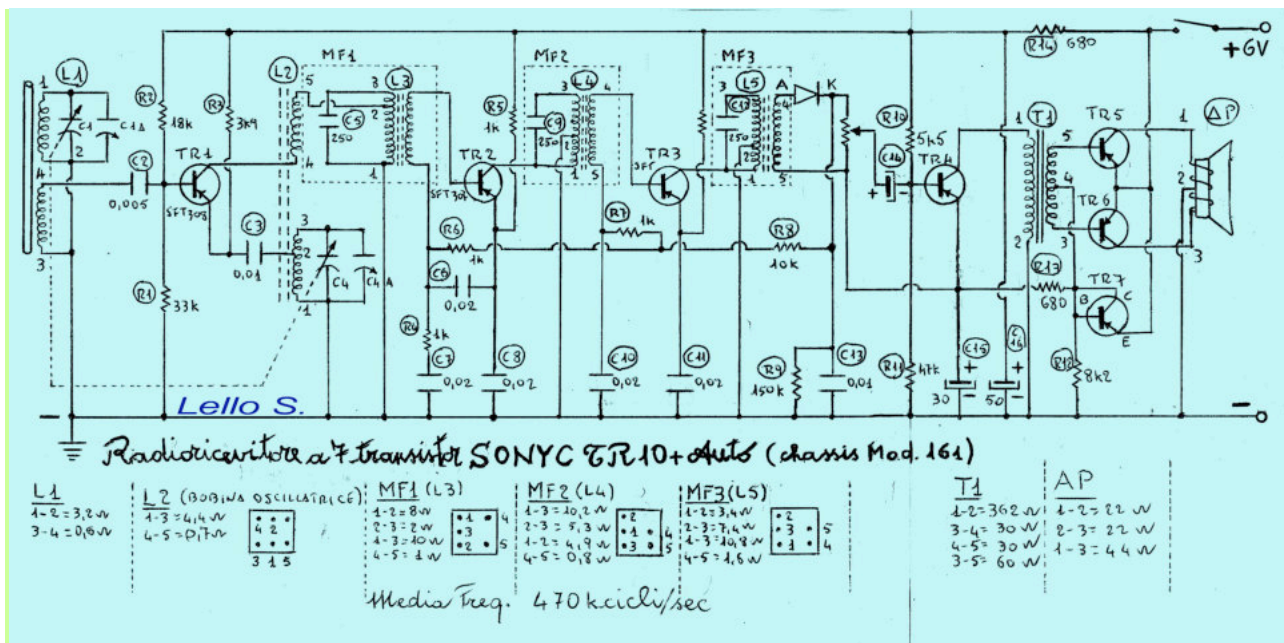


Fig. 20 - Schematic diagram of the Sonyc TR10+Auto extracted by Lello Salvatore.

I remember that this type of output stage was adopted above all in some American radio receivers (RCA, Motorola, etc.) and it is also found in several early Italian Radiomarelli devices such as, for example, in the mod. RD304.

What to say again? When I stop to look at the basement radios (*radio cantinare*) of my collection, I am nostalgic for the past and I get emotional if I think that these radios, in their simplicity, represent a piece of Italy's modern history of my country and that behind them they had a world that we do today find it hard to understand. Also for this reason the *radio cantinare* are fabulous!

THANKSGIVING AND NOTES

I thank the participants of the Facebook group "Radio d'Epoca a Transistor " for their contribution. A special thanks to Enrico Bonisolo from Belgirate (VB) and Modesto Govoni from Remazzo (FE) for have provided photos and info on their devices. A particular thank you to my friend Angelo Franzè of Udine for inspiring me in writing the article, as well as for his suggestions and numerous photos and, of course, to Ale for his courtesy and availability.

A special thanks to Bob for his proofreading work of my translation from Italian into English.

Books and consulted web sites

Apparecchi Radio a Transistor, D.E. Ravalico, Hoepli 1965; cat. ANIE da Vol. 6 (1960-'61) a Vol. 16 (1971-'72); Schemario di Apparecchi a Transistori, Vol. VI, Ed. CELI, marzo 1968; Intron.it, vecchie riviste; Radiomuseum.org

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Lello Salvatore

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http://www.antiqueradio.it/ARM/index.php?page=shop.product_details&flypage=flypage.tpl&product_id=293&category_id=13&option=com_virtuemart&Itemid=62

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To see more unpublished pictures of the Italian basement radios, copy and paste this link into your browser's address bar:

www.abetterpage.com/wt/photos/morecantinare.pdf

(The models are listed below):

TRANSVOX Mod. TR11 (Lello Salvatore's collection)

CRUTING Mod. tr 10 + Auto (Angelo Franzè's collection)

Sonny mod. Tokio TR8 (Enrico Bonisolo's collection)

SilverRtrong mod. RF for USA (Angelo Franzè's collection)

B.C. Standar mod. Tokio TR8 (Angelo Franzè's collection)

SO.M.Y. mod. Seven for USA (Angelo Franzè's collection)

Sonotex mod. Seven Transistors for USA (Modesto Govoni's collection)

SEM Elettrica Milanese mod. Jolly (Modesto Govoni's collection)

HighKit mod. Udison (Angelo Franzè's collection)

Trans Royal mod. ALCE (Modesto Govoni's collection)