

# HACKER RADIO



GEOFFREY DIXON-NUTTALL  
&  
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G D N Publications,  
Longmeadow, Miles Lane,  
Cobham, Surrey. KT11 2EA

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ISBN 0 9522197 0 0

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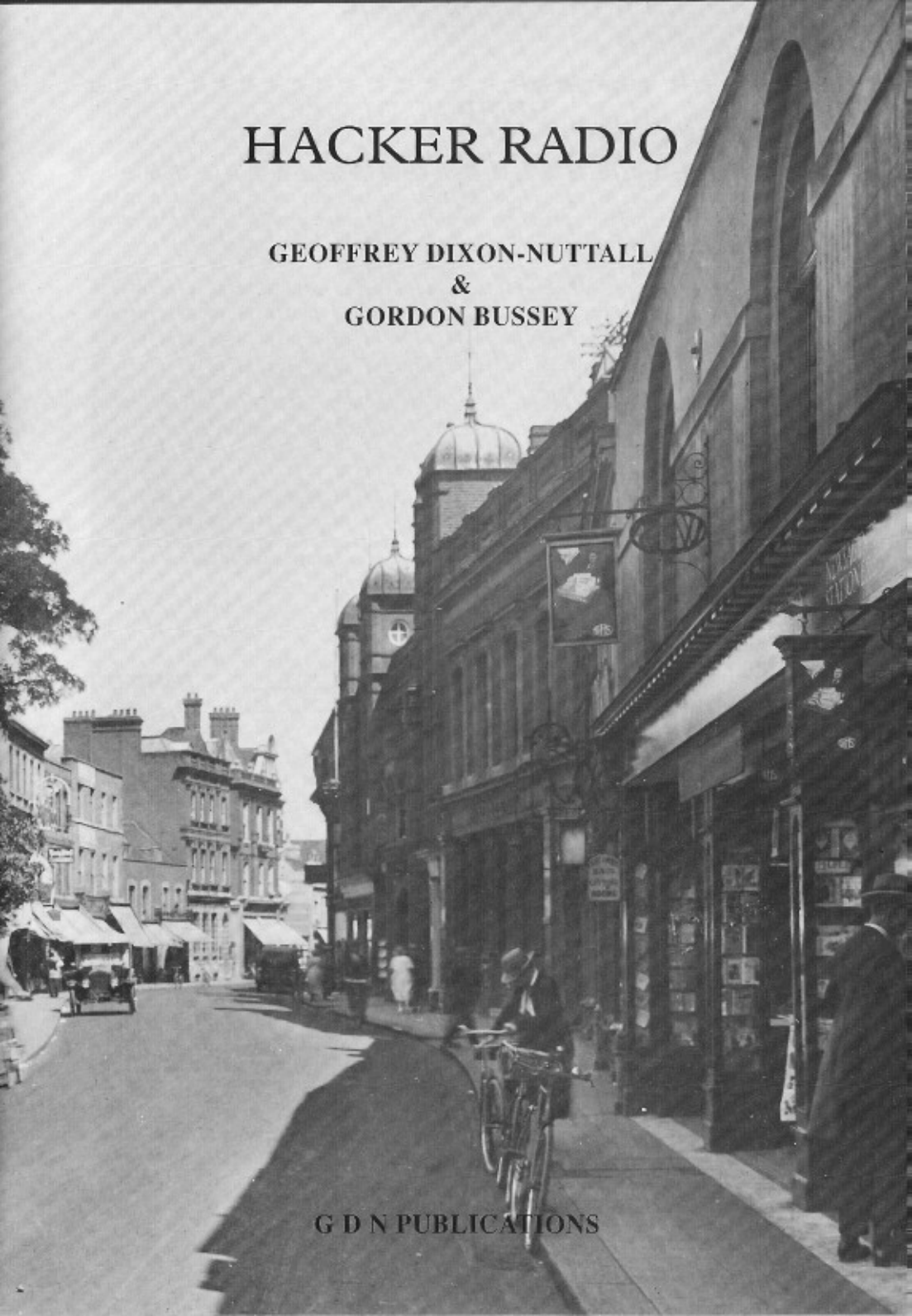
Cover design consultant Dick Laing  
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Reproduced and printed in the UK by  
The Andress Printing Company Limited,  
91-93 Waddon New Road,  
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G D N PUBLICATIONS



## PREFACE.

This book originally started as an idea for writing an article for the "Bulletin" of the British Vintage Wireless Society, but as we got more interested in the story of the Hackers the material grew until it became obvious that a different treatment was called for.

The name of Dynatron will be well-known to older readers, but it seemed to be a good idea to put the story on record before it faded from memory altogether, and also to sort out the much misunderstood relationship between Dynatron, Hacker, and Roberts Radio.

We also felt that the courage of the Hacker brothers deserved some sort of memorial, as they worked through the most exciting half-century of the British radio industry.

Here then is the history of the Hacker brothers. We have also included a list of the Dynatron and Hacker Radio models, which should prove useful to collectors. We hope that this book will stimulate interest in these excellent products.

## ACKNOWLEDGEMENTS

We would like to express our thanks to Mr Ian Robertson for his very generous help. He read the manuscript and made very valuable suggestions. The typescript was also read by the Rev Colin MacGregor. We are extremely grateful to them both for their enthusiasm and encouragement. Among others who have helped and advised with this production are Mr Andrew Emmerson, Mr Eric Hanson, Mr Dennis Knight and photographer Mr Richard Williams.

We are indebted to *Electronics World*, successor to *Wireless World*, *Electronic & Radio Trading* and the *Maidenhead Advertiser*, also to the Francis Frith collection for the photograph of Maidenhead.

We must record our gratitude to the Hacker family and in particular to Mrs Bindy Hacker, wife of Arthur Hacker, for the generosity and enthusiasm with which she responded to our considerable calls upon her time.

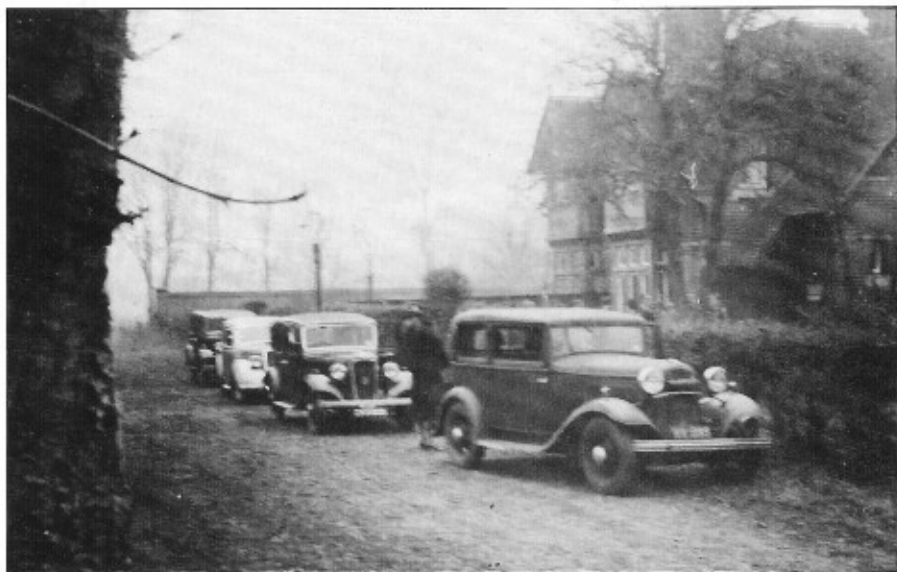
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*Illustration on previous page:*

High Street, Maidenhead, c1927



Ron and Arthur Hacker with their fiancées in 1944



"Little Gables", Ray Lea Road. Taken at the time of Arthur's wedding in 1945



Dynatron U31 radiogram, 1928

# HACKER RADIO

Dynatron was the trade name used by the Maidenhead firm of H.Hacker & Sons for their wireless products. The two brothers, Ron born in 1908 and Arthur in 1910, lived in the town where their father, Mr.H.Hacker, was manager of a shop owned by Baylis, a Reading grocery firm. Both "R.H." and "A.G." were educated at Maidenhead Grammar School where they soon developed a mutual and intense interest in wireless.

Ron left school in 1925 at the age of 17 to undertake an engineering course, but by the time he had completed it Arthur was already in business. In 1927, while both brothers were still minors and thus not legally entitled to become directors of a company, the firm of "H.Hacker & Sons" was founded by using their father's name and with his support and financial assistance. The name "Dynatron" seems to have been contrived from "dyne" (force) and "electron"; thus conveying "the power of electronics".

The Hacker brothers remained in double harness throughout their working lives during which they developed and lost two quite separate companies, each of which was in turn noted for the uncompromising technical quality of its products. During this period of just over 50 years, 1927 to 1978, embracing the war years, their story mirrors the growth and collapse of the British radio manufacturing industry.

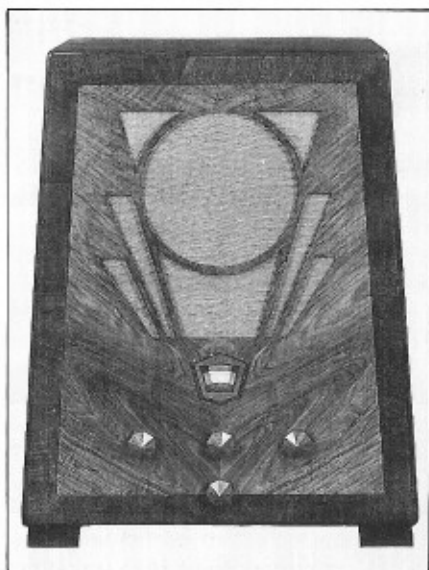
The firm began operations in a single room above the grocery shop in

Maidenhead High Street. Here the brothers developed their skills the hard way, by reading avidly every scrap of technical information they could find and by experimenting patiently until they had assured themselves that they had obtained the best results from the finest components and materials available. The first fruits of this intensive industry appeared in 1928 with the Dynatron U53 radiogram and its smaller, slightly cheaper, companion the U31.

At this time two particular problems confronted the radio industry. One arose from the spread throughout Europe of competing high-power transmitters, necessitating a selective receiver to separate adjoining signals. By the most careful design, construction and alignment, a T.R.F. (Tuned Radio Frequency) receiver could ensure consistent first class quality of reproduction. This is what Dynatron offered to a discerning section of the public. An alternative circuit, also giving adequate selectivity, was the superhet, but this, while simpler to make was compromised in the eyes of the brothers by a tendency to a loss of the higher audible frequencies and the danger of introducing unwanted whistles. Only after ten years of development, in 1937, did they feel able to offer a superhet circuit of sufficient quality, although the principle had been used for some years in their short wave converters.

Their reliance on the T.R.F. circuit was paralleled only by Philips among





Dynatron "Ambassador" 32AC, 1932

the larger manufacturers with their "Superinductance" receivers, where even more elaborate circuitry was incorporated to give consistent performance over the whole broadcast band.

The other difficulty arose with the spread of public mains electricity supplies. Both D.C. and A.C. were used, and at a variety of voltages and frequencies. To overcome this difficulty, the U53 was provided with a choice of separate power supply chassis which, on plugging into the main chassis, automatically made all the necessary rearrangements to the wiring. The one basic receiver was thus made suitable for use on most public supplies. The concept must have been successful for the same receiver was still on sale as late as



Stand at Radiolympia, 1932



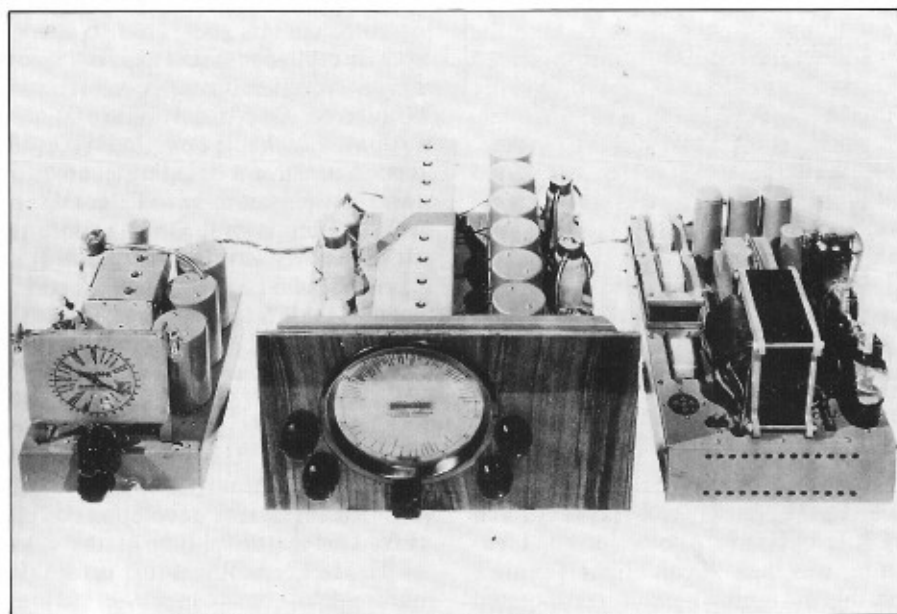
1932. The "unit construction" technique was continued in later models, as we shall see.

In 1929 Mr.H.Hacker set up in the grocery business on his own account, partnered by Donovan, the third son. The business opened in 38 Queen Street, under the name of "Harry Hacker", and the family moved within Maidenhead to Ray Lea Road. This road has now been re-developed, but then every house had a large garden. In the grounds of "Little Gables" the first Dynatron factory was built. Originally it measured 50 by 25 feet, but it was extended several times. In 1936 the name of the Company was changed to "Dynatron Radio".

As a small firm, Dynatron had to offer something different in order to

command a market. This the Hackers did by refusing to compromise on the technical quality of their products, even though this striving after perfection and the continued development costs resulted in high prices. Dynatron customers would not in any case have bought anything cheap or inferior. Unlike almost all other British manufacturers of the time, the Hacker brothers were not afraid to use in their sets additional valve stages where these could in any way enhance the quality of reproduction.

In 1934 most manufacturers prided themselves on their economical 3 or 4 valve sets, but one Dynatron product had as many as 17 valves. However, they were averse to using valves with two or more sections combined in one envelope. A bro-



"Ether Emperor" E136 chassis, 1935: (L to R) SW4, T66, and LF56

chure for one of their 1938 models stated "no multiple valves are used". Perhaps it was felt that the individual sections would have to be used under less than optimum conditions. They also rigorously checked all their products, the same brochure informing the reader that the set is "Tested by highly skilled engineers under actual working conditions. (No girls are used in any operation)". At this time most manufacturers employed large numbers of women on low wages.

There was also a willingness to incorporate any proven device designed to assist the user in securing consistently the best quality of reception. Band-pass tuning to enhance selectivity was available from an early date as well as A.V.C. (automatic volume control), to counter night time fading and blasting by strong stations. There was also variable selectivity, to allow the user under favourable conditions to choose to receive the whole frequency spectrum radiated from a transmitter or, by narrowing the bandwidth, to eliminate the interference from a neighbouring one. Noise suppressors, tunable, calibrated whistle filters, all these and other features figured in the specification of their more advanced receivers.

Complexity of switching, often avoided by other manufacturers, was never shirked by the Hackers in their search for quality. Even when a satisfactory superhet had been developed, it was fitted with a variable bandwidth control. The widest, highest quality setting of this control converted the receiver to their traditional T.R.F. circuitry. Another original feature was their "Searchlight Tuning". In this the tuning pointer incorporated a neon tube, which lit up the name on

the dial when the station was correctly tuned in. This system eliminated mis-tuning by the user, a frequent cause of poor quality, but it made station-finding difficult as the dial had no other lighting. In later versions a bulb attached to the pointer brightened up when the correct tuning point was reached.

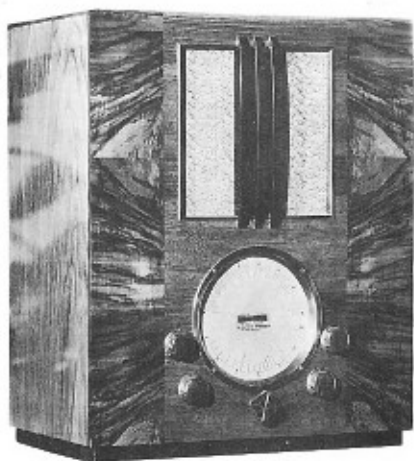
In order to keep costs down, and yet offer a wide range of receivers with different facilities and in different price brackets, Dynatron commonly developed receivers from a few basic units. For instance two tuners offering different facilities along with two amplifiers of different outputs could be paired to offer four different sets. The addition of a short-wave converter (a frequency changer using the main receiver tuned to 600 kc/s as an I.F. amplifier) gave eight possible combinations. Any of these could be equipped with a suitable turntable or autochanger, and fitted to a console or table cabinet. Thus sets spanning a considerable price range could be offered. One disadvantage of this system was that a complete receiver tended to have a daunting number of controls, particularly as these were usually unmarked. Only as late as 1936 was the confusion reduced by providing the knobs with labelled escutcheons. It has been suggested that Dynatron could have benefitted from the services of a good marketing adviser to attend to details, so that the outward appearance of the product would match the undoubted quality of the interior.

Two important developments occurred in the unfolding of the story of the Hacker brothers just before the outbreak of war in 1939 which brought to an end the world in which

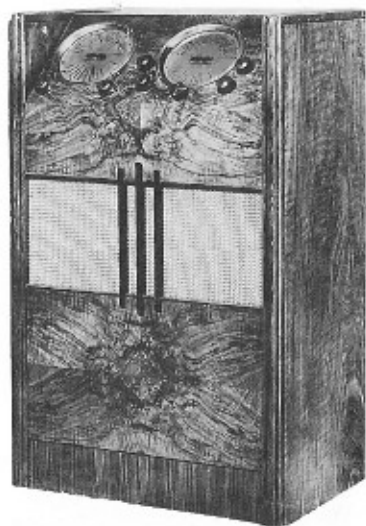
they were operating. By 1938 the development of television was arousing widespread public interest, and Dynatron responded "in conjunction with the Baird Television Co." with the "Ether Emperor", a combined television and radiogram using no fewer than 35 valves and retailing at 165 guineas. This set was also featured in 1939 along with the "Falcon", a more modest production of their own costing 69 guineas. The Falcon circuit was a single-sideband superhet with a bandwidth of 3 Mc/s. It used 23 valves and the picture was displayed on a 12" tube. The design must have been successful, for a very similar set was revived in the immediate post-war years.

Just a little earlier, in 1937, a change of some significance came with the formation of a company, separate from Dynatron and named "The Keates-Hacker Co. Ltd.". This seems to have been intended to challenge the successful penetration of the British luxury market by the American "Scott" company, whose range of high quality, sophisticated and well finished products was imported by Keates & Co. The directors of the new company, listed in the "Wireless World" for October 1st. 1937 were the two Hacker brothers along with J.A. Wilen-Finn and J. Monck-Mason. The address was 91-93 Bishopsgate, and the telegraphic address was "Blastpipes"!

Keates-Hacker offered receivers provided with quality cabinets selected by the customer and arranged to accommodate a specially chromed and finished version of the top Dynatron chassis. The "Searchlight" tuning was retained and supplemented by the currently fashionable "Magic



Dynatron "Matador" M63 in dark walnut, 1935. Note the unmarked knobs



Dynatron "Vulcan" V93, 1936. Note the off-centre dials

Eye" tuning indicator. A second "Eye" warned the user of overloading in the output stage. The tunable whistle-filter was claimed to be exclusive although it seems to have been the standard Dynatron item. The complete chassis cost £152 and for reproducing gramophone records it was teamed with an astonishing, and at £110 costly, "Capehart" automatic record changer capable of playing both sides of up to 20 records of mixed sizes. Originally it was intended to provide a five year guarantee and a spare set of valves, but in the event this seems not to have been carried out. Dynatron chassis normally carried a two-year guarantee, as compared with the industry standard of six months!

The Keates-Hacker brochure was written in a style quite different from the usual quiet tone favoured by the Hacker brothers. It also contains a curiosity which was spotted by an enthusiast. The caption to one of the photographs states "another radio-gramophone installation designed for H.R.H. Prince Otto von Bismarck in rose and blue mirrored glass". But this cabinet is also featured in the contemporary Scott catalogue with the doors open, and it clearly shows a Scott chassis and not a Keates-Hacker. The caption is correct, as far as it goes!

At the 1939 Radio Show two stands were taken, one for each company. The Dynatron stand carried the expected selection of multi-valve receivers and radiograms as well as the television models, whilst the Keates-Hacker stand showed the prototype of their latest production, called somewhat confusingly the "Dynatron Commander". This chassis had 25 valves, and offered the choice of



"Daily Sketch" September 3rd 1937

superhet or T.R.F. reception. In addition it became a double superhet on short waves; this was claimed to be the first time this had been offered. It cost £165. The early closure of the Show and the deteriorating international situation meant that no more was heard of this monster. The Keates-Hacker company did not die completely, however, though for a time it

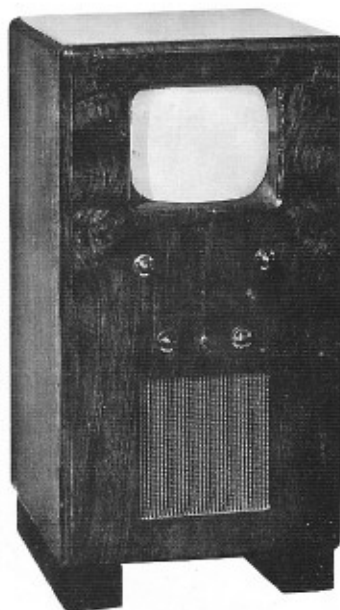


Keates-Hacker radiogram with Dynatron chassis, 1939. The cabinet had a very elaborate finish in red lacquer and off white

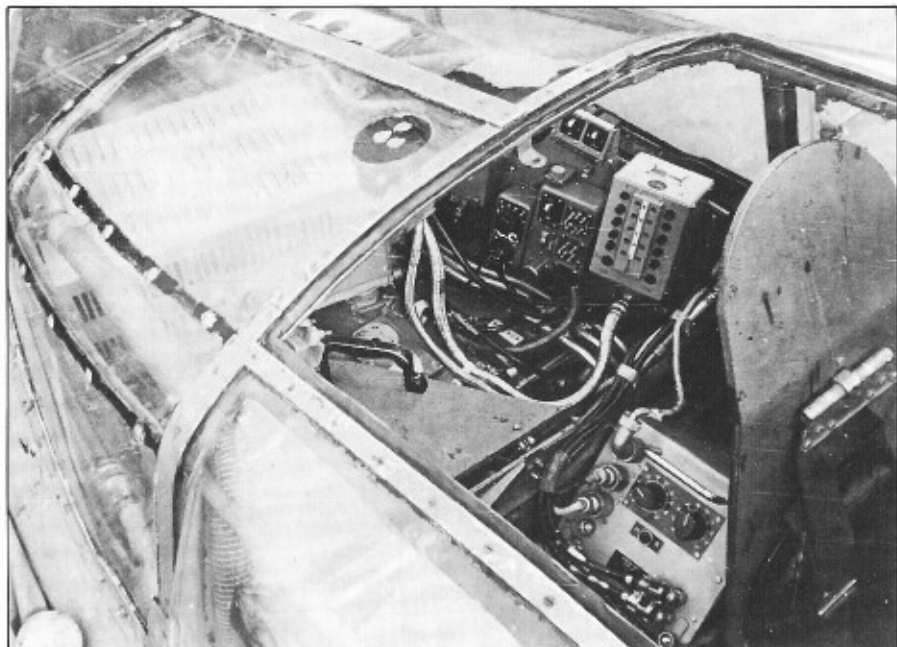
became moribund. The Hacker brothers bought out the other two directors and changed the name to "Hacker Radio Ltd." in September 1941. It had to wait until 1959 before being revived.

As a final fling, one specially made radiogram was delivered in 1940. It was apparently "faced all over in peach tinted mirror" and included a clock and a recording cutter. Price: £400. They went out with a bang!

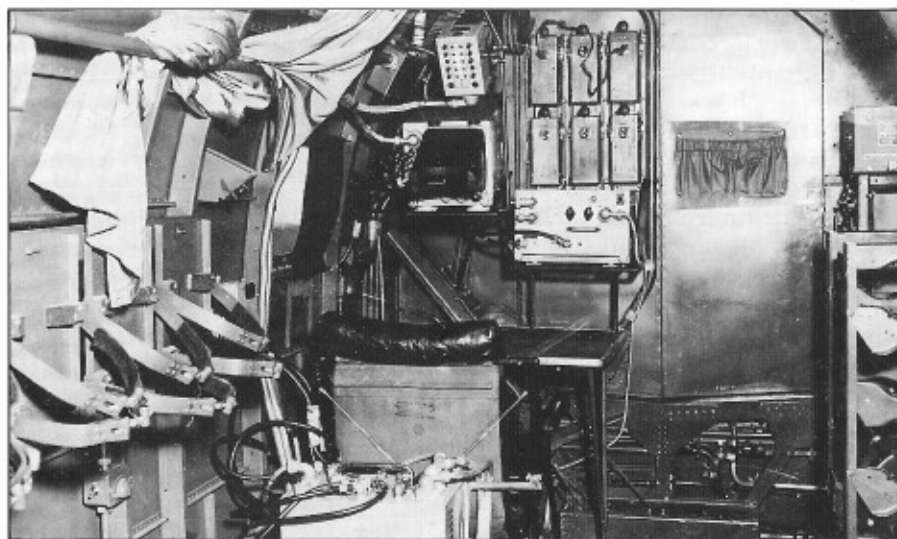
The outbreak of war brought new demands to the radio industry and the Hacker brothers offered the Dynatron company for service on a non-profit making basis. They must have continued with their assiduous study of all published material relating to wireless matters, for when "R.H." explained to the Ministry of Aircraft Production what he knew about radar,



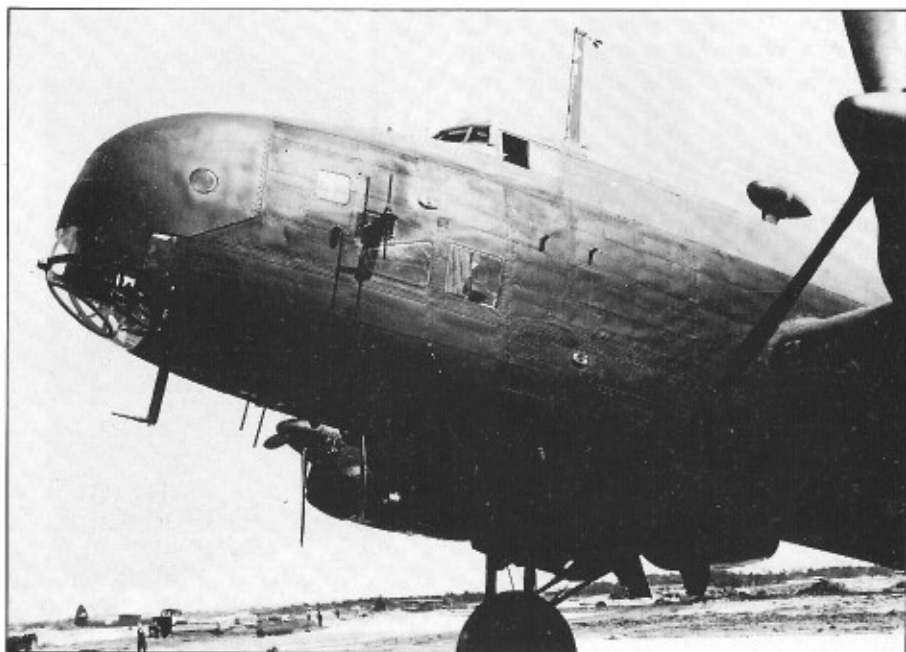
Dynatron "Falcon" TV23, 1939



"Rebecca" radar, built by Dynatron during World War II, fitted in a "Mosquito" aircraft



Installation of "Rebecca" in "Ventura" aircraft



"Halifax" bomber, showing "Rebecca" aerials

he was told "you know too much about it, you must come in".

The company was small, with about 70 employees, and proved to be very flexible by switching readily from building luxury radiograms to developing top-secret apparatus, including the pre-production models of the R.A.F. airborne guidance systems, "Gee", "Rebecca", and "Oboe". The number of employees rose rapidly to 160 and they worked an average 57 hour week to speed the work. The company continued to operate from the Ray Lea Road works, but also used a requisitioned factory on the local Cordwallis estate. Eventually 15,000 square feet of factory space was used in four buildings, one of which had its roof taken off by a fly-

ing bomb late in the war. A number of outside concerns was also used as sub-contractors, one of these being Roberts Radio. As a recognition of the wartime activities of his Company, "R.H." was awarded the M.B.E.. This was much against his will, as he felt that the Award should be shared with his brother, among others, but he was informed that this was not possible.

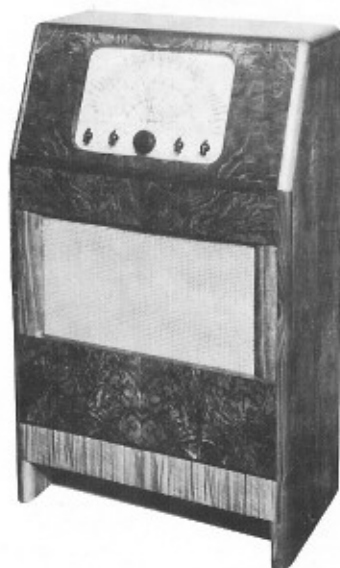
The post-war world, with its austerities and constant shortages of materials, was a very different market from that before the war. Recovery by Dynatron was hesitant and they never again reached the same heights of complexity or opulence. They did revert to their traditional superior quality, however, and were able to utilise some of the advanced technology



they had pioneered in their war-work. They also branched out into research work in avionics and nucleonics for Farnborough and Harwell, the bases for Government research projects in aircraft and nuclear physics. The relative closeness of both these sites to Maidenhead, about 20 miles, must have been of benefit to Dynatron. This burgeoning of activity required more space and in 1947 a suitable area of land was purchased, with room for all activities on the same site, but the company lacked capital to develop it.

At first Dynatron was content to revive some of the pre-war designs, the "Merlin" console radio for one and the "Falcon" television for another. The "Merlin", which came out smartly in June 1946, received glowing reviews in the press, but the price was now £115. The first new radiogram was delayed until August and when the "Ether Conqueror", again a superhet, eventually appeared it was to be almost the last completely new design, the brochure stressing that it would be modified and brought up to date as necessary. One success was when Dynatron was given the contract to supply radiograms to 80 of the British Embassies overseas. They were also happy to supply Marconi Marine with chassis in rack form.

Finance, however, remained a problem, and when in 1954 an offer to take over the company was received from Ekco (E.K.Cole of Southend-on-Sea), it was accepted. Ekco assumed control in 1955, at which time Dynatron employed 150 workers, and built the long awaited new factory at St. Peter's Road in neighbouring Furze Platt. The Hacker brothers were retained as joint Managing Directors and for some time the new arrange-



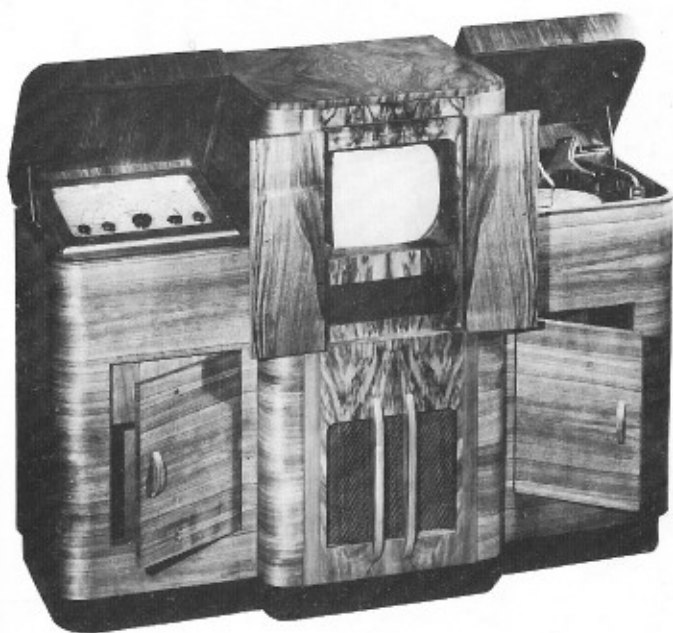
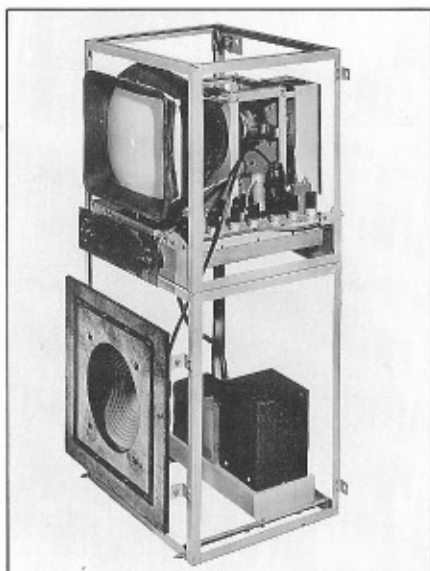
Dynatron "Merlin" B129, 1946

ment worked well enough, the company prospered, and the number of employees rose to 250 by 1959.

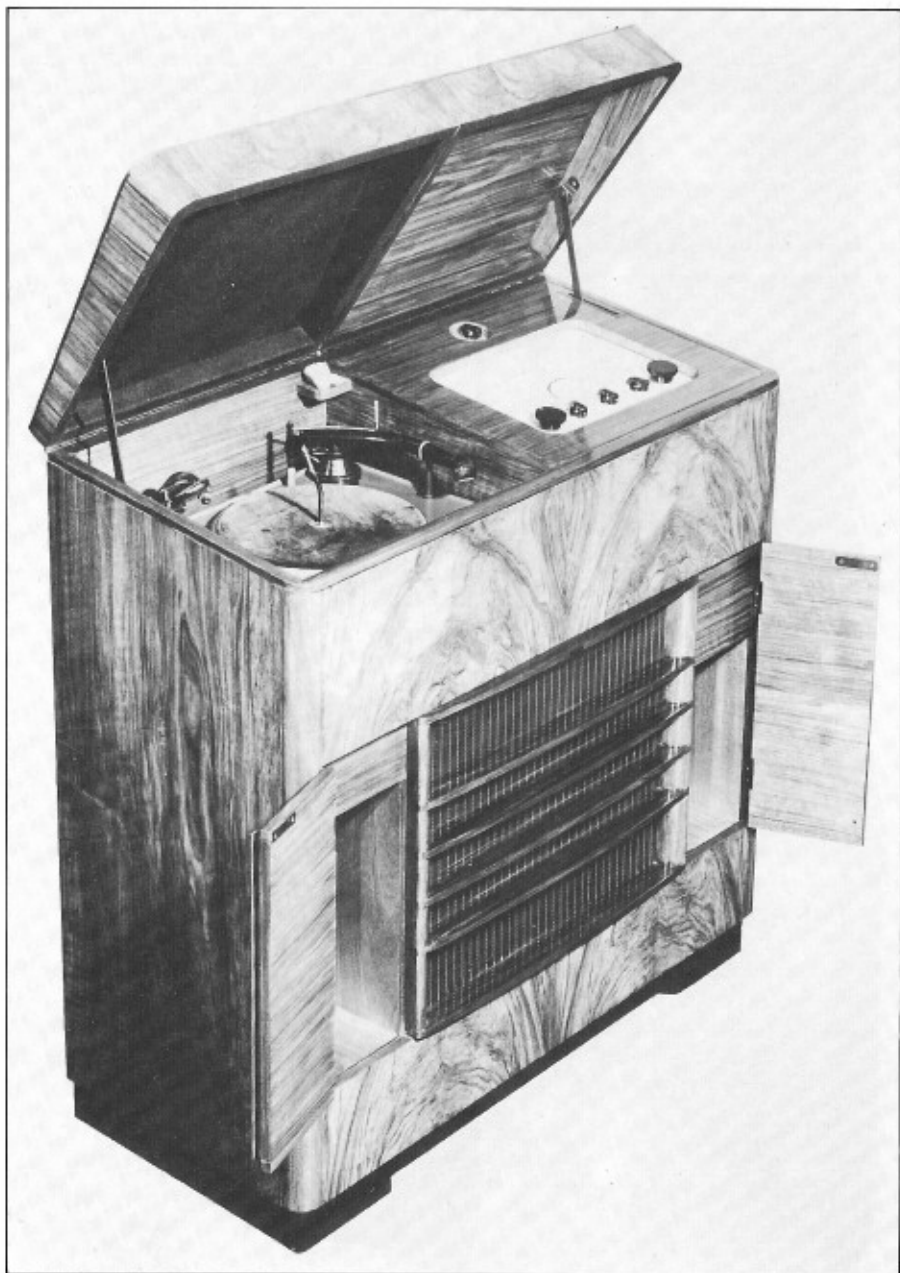
The Hackers were not entirely happy working in the group and in September 1959, just after production started of the all transistor "Nomad" portable, they decided to part company with Ekco and set about building a second company of their own. Very soon Ekco merged with Pye, in December 1960, and Pye, in its turn, was absorbed by Philips in 1967. During these manoeuvres Dynatron was moved from Maidenhead to Kings Lynn, but Philips had little interest in the company they had acquired by accident and in 1981 they sold it to Roberts Radio, up till then the Hackers' fierce competitors.



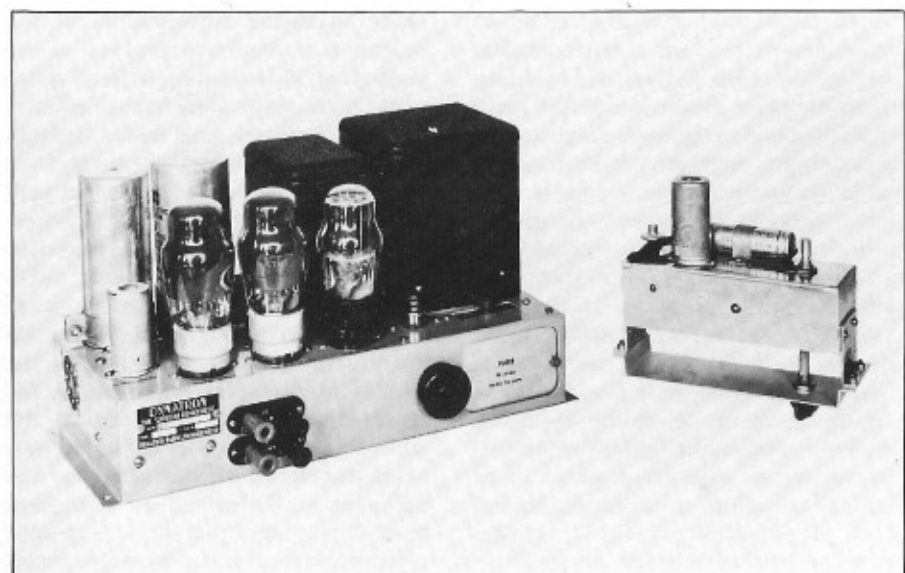
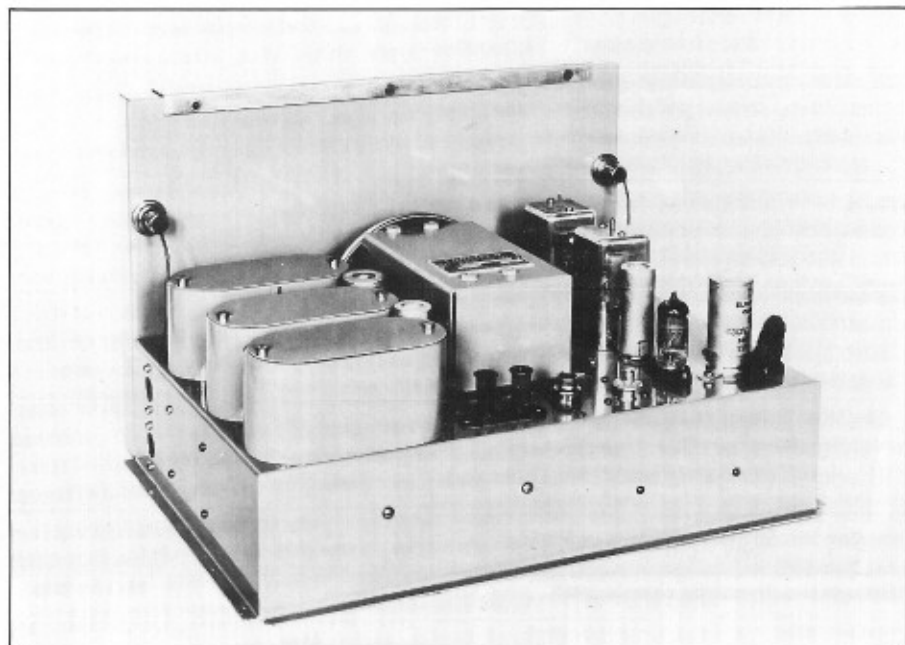
Dynatron "Falcon" TV21, 1948



Dynatron "Ether  
Sovereign" K329  
television and  
radiogram  
receiver, 1948



Dynatron "Princess", c1950. *Opposite:* (top) "Princess" tuner chassis T57, (lower) amplifier chassis LF44a



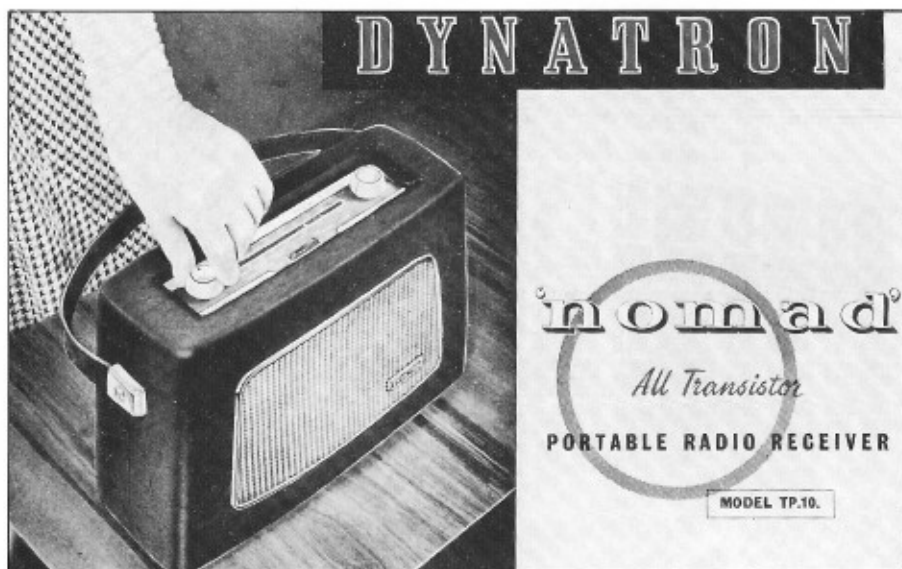


Girls wiring Dynatron chassis, 1958

Meanwhile the Hacker brothers energetically set about re-establishing their own business. They revived the Hacker Radio Co., moribund since 1941, and acquired a factory at Cox Green, again in Maidenhead. In order to avoid conflict with the Dynatron company, they started producing a distinctive line of better quality transistor radios. In this they were aided by the experience gained in the nucleonic and avionic industry, and in the design of the Dynatron Nomad.

Work started in January 1960, some of the staff following them from Dynatron. Their first model, called appropriately the "Herald", appeared in April, and was highly successful. Turnover in the first year was £60,000, and for some time doubled each year, yielding healthy profits. Gradually through the sixties the

workforce increased to some 350 and the product range enlarged to include radiograms and hi-fi equipment. Once again the factory became too cramped and new premises were started at Thame, some fifteen miles away. But again there was difficulty in raising money, and this was exacerbated by the miners' strike and the consequent three-day week. There was a ray of light during this otherwise dark period when the firm was granted the Royal Warrant in 1973, as manufacturers of radio receivers to H.M. the Queen. Arthur Hacker's son John, who had been employed by the firm for some time, was made a Director in 1975, the same year as the simmering financial crisis came to a head. In December an offer for the company by a Mr. McGhee was reluctantly accepted; the main firm was restructured and a subsidiary com-



Leaflet of 1959

pany, T.R.C., was put into voluntary liquidation. The Hacker brothers were retained as consultants.

A second Royal Warrant was granted in 1976, as manufacturers of radio receivers and audio equipment to H.M. Queen Elizabeth the Queen Mother, but in the same year a burglary took place, involving the catastrophic loss of £50,000.

The new management insisted on cost-cutting, not at all to the liking of the Hackers, for whom the best had barely been good enough. Even these economy measures proved insufficient and in May 1977 the firm's bankers called in a Receiver. He offered the assets for sale through a new company, Caballion, which in turn was purchased by Pullmaflex, a company making seating for cars. The company reformed under the title of "Hacker Sound", the Hacker brothers

remaining as consultants and John Hacker becoming Technical Director. Even this reorganization was not enough to secure the future of the company and it, in turn, was bought out by Motoradio who moved the plant to Bournemouth. John Hacker went there, briefly, before severing his connection; the firm did not survive long, as it perished in an accidental fire. The Hacker brothers had had enough; they retired just before the move to Bournemouth.

Arthur Hacker, who in his spare time had been an active worker for Rotary, died in 1981. Ron, who had a wide field of interests in archaeology and also served for many years as Chairman of the Cookham Dean District Committee of the Council for the Preservation of Rural England, died in 1984.

Together "R.H." and "A.G." had



The Cox Green factory, c1963

turned their boyhood passion for wireless into practical form and forged a famous manufacturing company from their enthusiasms; together they had worked for the defence of their country in time of war; together they had constructed a second company when they had to relinquish the first; together they left the field, after what must have been a heartbreaking period of decline.

In their "Dynatron" receivers they had, together, engineered magnifi-

cent machines. Only small numbers of any one model could have been sold and most of the early sets seem to have disappeared, victims probably of wartime shortages of spares and post-war austerity. There are, however, plenty of "Heralds" and "Sovereigns" still in use and giving every indication of continuing indefinitely.

We hope this little book will provide a memorial to all their skills, hard work and enthusiasm.

#### Sources

##### Unpublished:

Personal and business documents in the possession of the Hacker family  
*Historical notes written in 1945, 1951, and 1981*

##### Published:

*Company brochures 1932 to 1977*  
*Electronics World (successor to Wireless World)*  
*Electrical & Radio Trading*  
*Maidenhead Advertiser*



# DYNATRON MODELS

The year given is the year of manufacture. For example the new sets shown at the 1936 Radio Show would have been called 1937 models, but they are listed here as 1936. The number of valves includes rectifiers.

## 1927-1931

U53, 2 R.F., 6valve	£77-82*
U31, 1 R.F., 4valve	£60-70*

\* Prices vary according to cabinet finish

## 1932\*

"Ether King" EK46, 2 R.F., push-pull, 2 speakers	69gns**
"Ambassador" 32AC (table), 4valve, also 32DC and B41 (Battery)	(all) 19gns***
"Ether Lord" RG32 (as 32AC)	£35
"Ether Prince" EP46, 2 R.F., 4 valve. AC/DC	48gns
U53 (see last year)	57gns (now)

\* All sets with "Ether" names are radiograms. As the same names were re-used, the model numbers are quoted as well

\*\* Autochanger 10 gns extra

\*\*\* Later 18 gns

## 1933\*

"Ambassador" (see last year)	(all) 15gns (now)
"Commodore" U42 (table), 2 R.F., AC/DC	18gns
"Ether Lord" EL42	30gns
"Ether Lord" EL42U, AC/DC	33gns
"Ether Prince" EP46 (see last year)	39gns (now)
"Ether King" EK46 (see last year)	59gns (now)
"Ether Emperor" E1012, 3 R.F., (all bandpass), "Special detector circuit", noise suppressor, S.W. converter, (so superhet on S.W. 18-50M), amplified and delayed A.V.C., 12 watts	105gns

\* All sets have "Ferrocart" coils

## 1934\*

"Ambassador" continued (see 1932-33)	(all) 13gns
"Ether King" K106, 3 R.F., 10 valves	75gns
"Ether Knight" NA 52 (AC) or NU 52 (AC/DC), 2 R.F.	32gns

"Matador" AC52B (AC) or U52 (AC/DC), (table), 4 valves	19gns
"Ether Emperor" E1712, 3 R.F., 17 v., 12 watts	130gns
Short wave converter SW3 in cabinet, 3 valves	13gns
* "Searchlight tuning" introduced (Patent No.442158), & variable selectivity	

## 1935

"Toreador" TD63 (table), AC63	15½gns
"All Wave Toreador" TA83, AC63 + SW4	26gns
"Dictator" (tropicalised version of "Toreador")	P.O.A.
"Matador" M63 (table), T34 + LF33	20gns*
"All wave Matador" MA83, T34 + LF33 + SW4	30gns
"Ether Challenger" C63, AC63	25gns**
"Ether Knight" N63, T34 + LF33	33gns**
"Ether Prince" P86, T34 + LF56	45gns**
"Ether King" K116, T66 + LF56 (2 speakers)	74gns
"Ether Emperor" E136, T66 + LF56 + SW4 (3 speakers and a tweeter)	from 120gns
* In dark walnut 21gns	
** Autochanger 8gns extra	

The cheapest chassis was the AC.63, which was similar to the previous "Ambassador". The T34 tuner was similar to the previous "Matador", and the T66 seems to be the same as the previous TRF66 as used in the "Emperor". Two L.F. amplifiers were offered, both surprisingly being single ended. LF.33 had three valves, including an output pentode. LF.56 had five valves, the output being from "a large triode". The short wave converter, SW4. now had two valves, pentode and triode-hexode.

## 1936\*

"Victor" V64 (table), AC64	15gns
"Valkyrie" V84, AC64 + SW5	26gns
"Viking" V73 (console), T54 + LF23	27gns
"Vulcan" V93 (console), T34 + LF23 + SW5	36gns
"Ether Knight" N73, (as "Viking")	36gns**
"Ether Prince" P117, T54 + LF67	36gns**
"Ether King" K147, T86 + LF67	80gns**
"Ether Empress" E167, T86 + LF67 + SW5	120gns
* The name of the firm was changed to "Dynatron Radio"	
** Autochange 8gns extra	

All 1936 models used special coils, known as "Z" type. These were wound on plastic formers with a square iron dust core. The cheapest chassis, AC64, now had 2 R.F. stages, variable selectivity, A.V.C., and triode output. There were

two R.F. chassis, two audio amplifiers, and a new short wave converter:

T54 (5 valves), Improved version of T34  
T86 (8 valves), Improved version of T66  
LF23 (2 valves), triode output. 3 watts  
LF67 (6 valves), p-p triodes, 7 watts. Tunable whistle filter  
SW5, similar to SW4, but different band coverage

## 1937

"Ether Knight" K88, T86 + LF28	43gns
"Ether Prince" K128, T1014 + LF28	58gns
"Condor" B128, as K128, but console	50gns
"Albatross" B88, as K88, but console	35gns
"Ether Empress" E1715, T1014 + LF715, 17 valves, 15 tuned circuits	155gns*
* Separate Voigt speaker	(Or with built-in speaker, 115gns)

In 1937 there were two new tuner chassis, T1014 and T86. The latter had simpler A.V.C. and saved a couple of valves (this tuner is not the same as the 1936 T86.) Both these were superhets which became T.R.F. in the "wide band" position. They had five bands, going down to 6.5 metres. The LF28 amplifier gave 8 watts (single ended), and the LF715 gave 15 watts (p-p).

## 1938

"Ether Prince" K148, T1114 + LF38	65gns
"Ether Knight" K108, T710 + LF38	43gns
"Albatross" B108 (console), T710 + LF38	38gns
"Ether Duke" K88D, T55 + LF38	39gns
"Eagle" B88C (console), T55 + LF38	30gns
"Eagle" B88TC (table), T55 + LF38	23gns
"Condor" B148 (console), T1114 + LF38	50gns
"Ether Empress" E1815, T1114 + LF715	155gns
"Ether Emperor" E3515, as E1815 + TV	165gns

Three tuners and one audio amplifier were improved versions of the 1937 models:

T1114 (11 valves), 14 tuned circuits  
T710 (7 valves), 10 tuned circuits  
T55 (5 valves), 4 tuned circuits (not 5!). Similar to T54  
LF38 (3 valves), 8 watts  
LF715 (see last year)

"Condor III" 208 (console), T1214 + LF818	85gns
"Ether Marquis" M128, T79 + LF58	48gns
"Ether Monarch" M358, T79 + LF58 + TV	130gns
"Merlin" B129 (console), T79 + LF58	40gns
"Falcon" TV23 (console television)	69gns
"Ether Empress" E2018, T1214 + LF818	115gns
"Ether Emperor" E4518, T1214 + LF818 + TV	175gns
All tuner and audio amplifier chassis were new for 1939:	
T1214 (12 valves), superhet or T.R.F.	
T79 (7 valves), superhet	
LF58 (5 valves), 8 watts	
LF818 (8 valves), 18 watts	

#### Summary of post war models:

The "Merlin" B.119 was revived. This now used the same chassis as the "Ether Conqueror" which was almost their last chassis, although it went on being modified, up to Mark V. The most drastic of these alterations was the change to miniature valves (fifteen of them). The "Princess" was a "short" version with one I.F. stage and less output (nine valves). The "Ether Marshal" had preset tuning for Home, Light, and Third, a grounded grid R.F. stage on Short waves, bandspread, and an idea resurrected from the Keates-Hacker in the shape of an overload indicator on the output stage.

Like most other makers, Dynatron produced a projection TV in 1950, called the "Eagle". Like most of the others, this soon disappeared! An excellent FM adaptor was made in 1954 to bring the sets up to date. It was rightly assumed that owners would keep their Dynatrons when F.M. came in, rather than buy new models. One of the last models produced before the Hackers left to start Hacker Radio was a transistor portable, the "Nomad".

#### Their post-war chassis were:

"Ether Conqueror" Tuner T69 (6 valves + "Magic Eye")

Audio amplifier LF59 (5 valves), 9 watts

Later versions had three extra valves in the tuner and one more in the audio amplifier. They were then re-numbered:

Tuner T99 (9 valves + "Magic Eye")

Audio amplifier LF612 (6 valves), 12 watts

"Princess" Tuner T57 (5 valves)

Audio amplifier LF44a (4 valves), 4 watts

# HACKER RADIO MODELS\*

1960

RP10 Herald

1961

Rambler (record player)

Talisman (Radiogram)

RV20 Mayflower (Radio: V.H.F. only)

1962

GP15 Cavalier (Record Player)

RP17A Mini-Herald

1963

RG16 Crusader (Radiogram)

1964

RP30 Herald II

RP31SW Short Wave Herald

RP18 Sovereign

RP17A Sovereign II

1965

Constellation (Radiogram)

GP19 (Battery Rambler)

RG16 Serenade

AL16

1966

RP32 Marine Herald

RP33 Autocrat

RG50 Constellation

1967

RP35 Herald III

RP34 Democrat

RP36 Helmsman

GP42 Gondolier

RG200/300 series

\* List not complete

1968

RP25

AL42

RP38 Hunter

Shelf Audio

1969

V.H.F. Herald

RG200A

1970

GP45

1972

RP71 Harrier

RP73 Autocrat II

RP25B Sovereign II

1973

RP74 Black Knight

RP38A Hunter

RP72 Sovereign III

RP75 Super Sovereign

1974

Centurion

GAR500A (hi-fi)

1975

RP76FM

1976 (Hacker Sound)

RP70 Ranger

RP77 Sovereign

RP78 Aviemore

RP79 Consort

RPC1 Sovereign

(Radio Cassette)

RP80 Portable Stereo

MC600A Music Centre

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