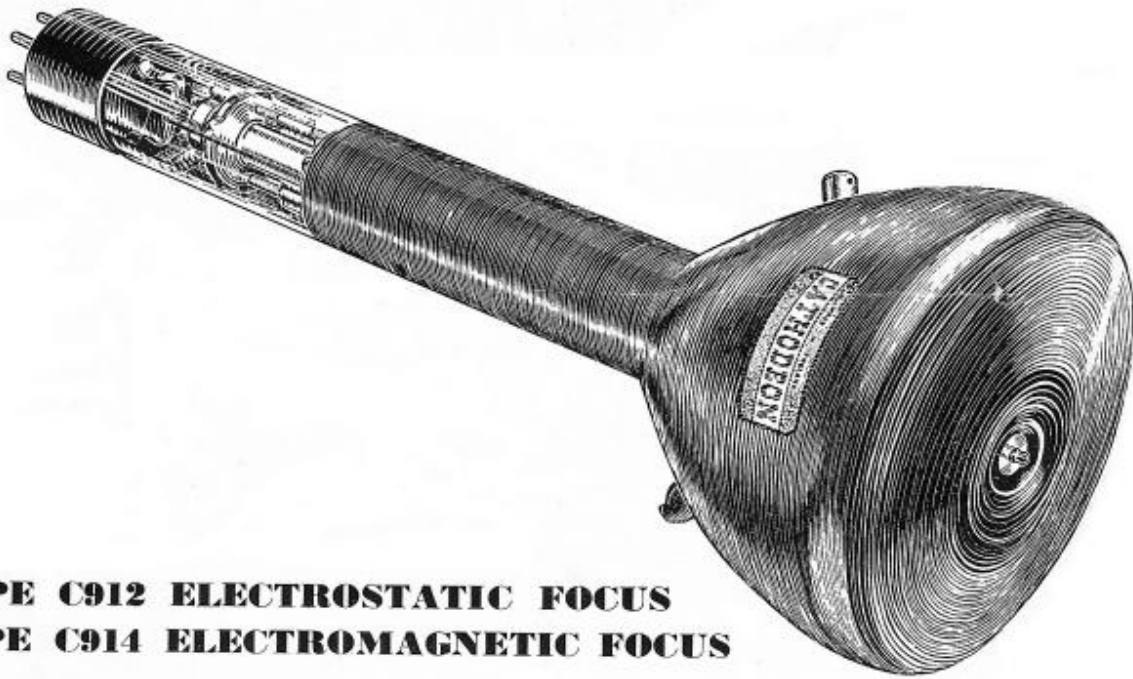


CATHODEON

MONICON

(Registered Trade Mark)

MONOSCOPE SIGNAL GENERATOR TUBES



TYPE C912 ELECTROSTATIC FOCUS
TYPE C914 ELECTROMAGNETIC FOCUS

CATHODEON LTD

MEADOWCROFT LABORATORIES · CHURCH ST. · CAMBRIDGE · ENGLAND

ONE OF THE



GROUP OF COMPANIES

Cathodeon "MONICON"

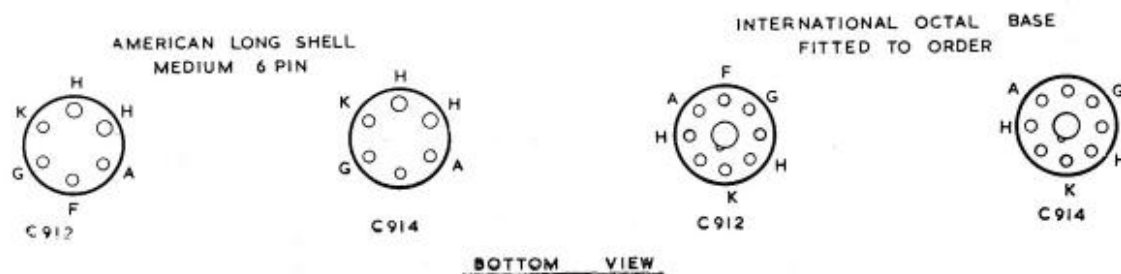
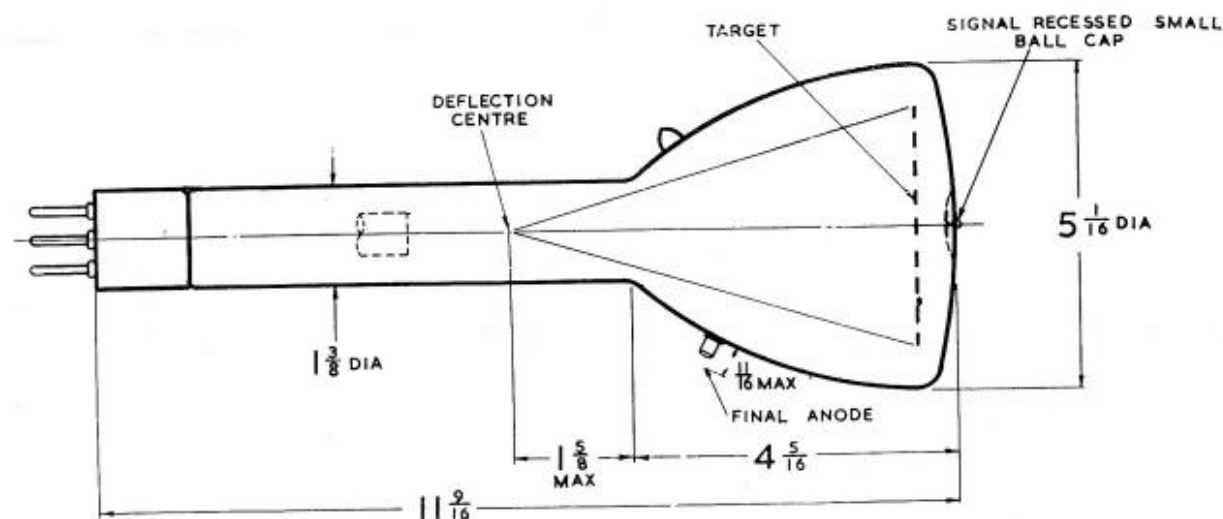
Monoscope Signal Generator Tubes

Types C912 & C914

The monoscope type of tube is well established as a means of generating still picture signals of high quality and great consistency for the testing of television receivers and similar equipment, for origination of caption signals and other uses. The method of pattern production developed by Cathodeon and exclusive to the "MONICON" range of tubes makes it possible to offer a wide range of standard patterns and the ability to prepare tubes having patterns to the user's own requirements.

The addition of these two new types of "MONICON" widens the availability of this feature. The Type C.912 has been designed to be interchangeable with existing types of monoscope of American manufacture and is electrostatically focused, but to complete the range we have added the C.914 which is similar in all respects to the C.912 except that it is intended for electromagnetic focus. This mode of operation offers some advantage in obtaining best resolution from the pattern.

OUTLINE DIAGRAM



Recommended Operating Conditions for both Types of Monicon

HEATER	...	...	...	...	6.3 volts 0.35 amps. approx.
FIRST ANODE (ACCELERATOR)					950 volts
FINAL ANODE	...	...	...		1000 volts
TARGET ELECTRODE	...	...	...		950 volts
CONTROL GRID	...	...	...		15.80 volts negative to Cathode
BEAM CURRENT	...	...	...		0.5—1 micro amps.
SIGNAL CURRENT ⁶	...	...	...		0.4—0.7 micro amps peak to peak
SIGNAL POLARITY ¹	...	...	...		Negative
DEFLECTION ⁴	...	...	...		Electromagnetic
PATTERN ²	...	...	...		Various
CAPS ³	...	...	...		BASE: Long shell medium 6 pin (American)
					TARGET: Recessed small ball
					ANODE: Standard valve cap

HEATER—CATHODE VOLTAGE 60 volts peak negative or positive

Type C.912 only

Focusing	...	Electrostatic
Focus Anode	...	300 volts \pm 20%
Resolution	...	600 lines min.

Type C.914 only

Focusing	...	Electromagnetic
Focus Coil ⁵	...	200 ampere turns
Resolution	...	700 lines min.

Notes:

1. In the interests of interchangeability with tubes of other manufacture we have adopted negative polarity for the outgoing signal i.e. the signal current decreases in amplitude as the white value of the viewed picture increases, but to special order tubes can be supplied with the opposite polarity at a cost of 5% above normal list price.

2. As with the older types of tube we offer a range of standard patterns, details of which are given overleaf. We are also able to prepare special patterns to the users' requirements.

3. To enable these tubes to be interchangeable, the standard base cap adopted is the American Medium 6 pin, but if requested at the time of ordering the tubes can be supplied with International Octal base caps at no extra charge.

4. Standard types of deflection yokes as used on domestic television receivers may be used provided that care is taken to ensure that the picture geometry is good enough for the purpose for which the tubes are to be used.

5. Standard focus coils of the domestic receiver type may be used, but for best resolution permanent magnet focusing devices are not recommended.

6. The R.M.S. or mean values of this current are of little significance as they vary considerably according to the picture content of the target pattern used.

7. It is recommended that the target electrode be earthed through the load resistor and the heater transformer winding should be insulated for a minimum of 1000 volts.

Patterns

A unique feature of the Cathodeon "MONICON" is the wide choice of patterns available. The present range of standard patterns is as follows:

B. A pictorial subject, King's College Chapel, Cambridge. This is a very good demonstration subject, containing a wide range of tone values and much small detail mixed with large areas of even tone.

C. This pattern, frequently radiated by the B.B.C. as Test Card "C", is one devised by the British television industry (BREMA) for equipment testing on British standards (405 lines 25 frames per second). It includes features facilitating the carrying out of many tests and has frequency bars up to 3 Mc/s.

D. This pattern is based on the American R.E.T.M.A. test card and is intended primarily for testing on American television standards (525 lines, 30 frames per second).

F. Devised by Cathodeon and introduced many years ago, this pattern is retained because of its popularity. It is purely a line pattern containing continuously varied definition wedges and is particularly useful when checking for limiting resolution in any television equipment.

G. Based on Test Card "C" this is intended for testing on 525/30 and 625/25 systems. In addition to frequency bars which enable tests up to 5 mc/s to be carried out on both these standards, the pattern includes an additional circle of diameter equal to picture height which facilitates linearity checking.

Deletions from and additions to the above standard range of patterns are made from time to time in accordance with demand, but in addition to these we are able to prepare patterns to the specific requirements of the user. Examples of such special patterns are shown overleaf and we are prepared to supply further details of this service on application.

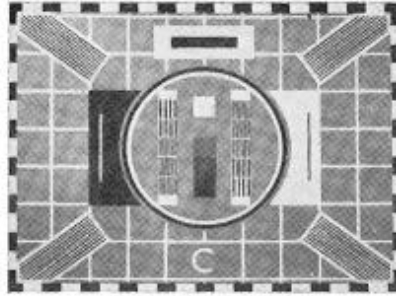
WHEN ORDERING THESE TUBES THE TYPE REQUIRED SHOULD BE IDENTIFIED BY QUOTING THE BASIC TYPE NUMBER AND ADDING THE TARGET LETTER IN THE FORM OF A SUFFIX *E.G.* TUBE TYPE C.914D IS AN ELECTROMAGNETICALLY FOCUSED TUBE INCORPORATING MODIFIED AMERICAN R.E.T.M.A. PATTERN.

CATHODEON

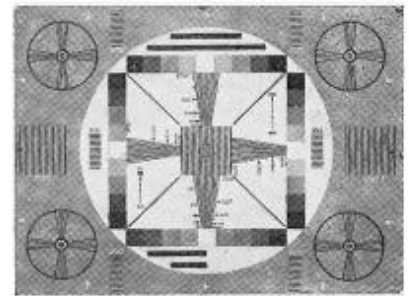
Replaced By
Current
RETMA Pattern



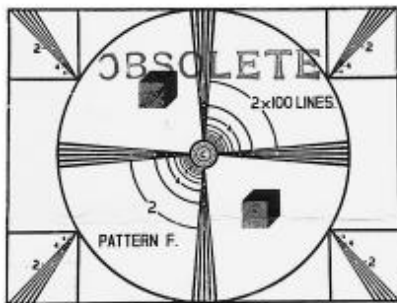
'B' PATTERN



'C' PATTERN

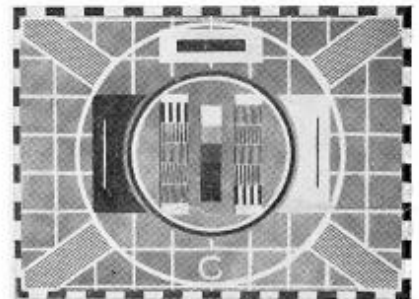


'D' PATTERN



'F' PATTERN

STANDARD PATTERNS



'C' PATTERN



*Normal Service
will be resumed as
soon as possible*



The above examples of special patterns produced to the users' requirements indicate some of the possibilities of this service.

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CATHODEON

other CATHODEON products include

- *PHOTICON television camera tubes*
- *STATICON television camera tubes*
- *hermetic GLASS/METAL seals*
- *aircraft FIRE protection switches*
- *special purpose vacuum relays*
- *special purpose vacuum switches*

**The words "CATHODEON" "PHOTICON" "STATICON"
& "MONICON" are registered trade marks**