# 9.E.C.

## CATHODE RAY TUBES

### 6703A TELEVISION TUBE

#### DESCRIPTION

The G.E.C. type 6703A 12" diameter cathode ray tube is intended for high quality television reception, and is magnetically focussed and deflected. The screen fluorescence is white and the tube is indirectly heated.

The outside of the bulb is partially covered with a conductive coating which can be used in conjunction with the internal coating to form a capacitance sufficiently large to use as the reservoir capacitor in an R.F. or fly-back E.H.T. system.

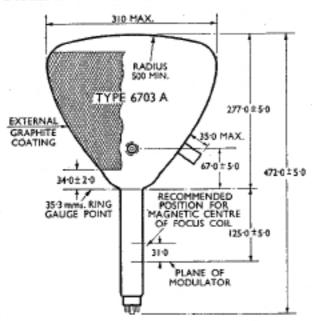
The fluorescent screen is backed with a very thin metallic coating which considerably increases the life of the tube and at the same time gives better picture contrast under normal conditions of use.

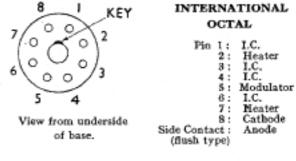
#### RATINGS

| Heater Voltage                        |        |          |     |     |     |       |       |      | 6.3     | volts            |
|---------------------------------------|--------|----------|-----|-----|-----|-------|-------|------|---------|------------------|
| VV to Comment                         |        |          |     |     |     |       |       |      | 0.5     | approx. amp      |
| Heater/Cathode Ve                     | oltage | 3        |     |     |     |       |       |      | 150     | max. volts       |
| A 3 - TT - 14                         |        |          |     |     |     |       | 666   |      | 8000    | max. volts       |
| Amada Waltago                         |        |          |     |     |     | ***   | ***   |      | 6000    | min. volts       |
| Nominal Modulator Voltage for Cut-off |        |          |     |     |     |       | Anode | Volt | age/150 | approx. volts    |
| Modulator Voltage                     |        | ,        |     | 444 |     |       |       |      | - 100   | max. volts       |
| Cathode Current                       |        |          |     |     |     |       |       |      | 100     | $\max$ , $\mu A$ |
| Modulator/Cathode                     | e Res  | istance  |     |     |     |       |       |      | 1.0     | max. megohm      |
| Neck Diameter                         |        |          | 111 |     |     |       |       |      | 35∙0    | max. mm          |
| Neck Diameter                         |        |          |     |     |     |       |       |      | 33.5    | min. mm          |
| Picture Diagonal                      |        |          |     |     | *** | • • • |       |      | 227     | max. mm          |
| Capacitance :                         | :      |          |     |     |     |       |       |      |         |                  |
| Modulator to all o                    | ther e | electrod | es  |     | *** | ****  | ***   |      | 15      | max. pF          |
| MOUNTING P                            | OSIT   | ION      |     |     |     |       |       |      | Any     |                  |

#### DIMENSIONS

#### BASE





I.C. indicates that no external connection should be made to this pin.

All dimensions are in mm.

## **TYPE 6703A**

#### TYPICAL OPERATING CONDITIONS

| Anode Voltage               |      | <br>    | <br> |    | 7000           | volts         |
|-----------------------------|------|---------|------|----|----------------|---------------|
| Modulator Cut-off Voltage   |      | <br>211 | <br> |    | -47            | approx. volts |
| Mean Signal Input to Modula | ator | <br>    | <br> |    | 23             | peak volts    |
| Picture Size                |      | <br>614 | <br> | 26 | $3 \times 196$ | mm            |
| Picture Brightness          |      | <br>    | <br> |    | 10             | e.f.c.        |

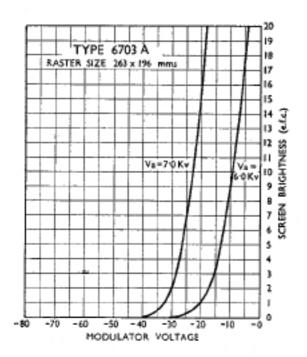
#### PRECAUTIONS IN USE

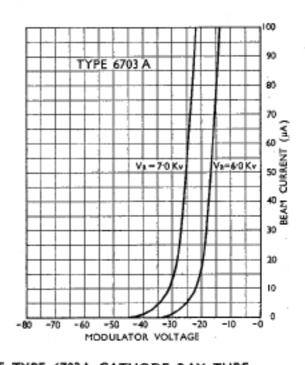
The attention of the user is drawn to the Code of Practice for Use of Cathode Ray Tubes in Equipment, B.S. 1147, 1943, obtainable from the British Standards Institution, 28, Victoria Street, London, S.W. 1. Failure to observe the recommendations contained therein may result in poor performance of, or damage to, both tube and equipment.

If it is not desired to apply modulation to the cathode one side of the heater should be connected direct to cathode.

The tube is designed for use with deflecting coils which position the centre of deflection at 25 mm, approximately from the 35·3 gauge point. It will be appreciated that the possibility of cut off of the picture area is intimately linked with the design of the deflecting coils, and focussing system.

It is desirable to maintain the external graphite coating at chassis potential, as otherwise this may acquire a charge capable of imparting an electric shock to the user and/or causing picture interference.





AVERAGE CHARACTERISTIC CURVES OF TYPE 6703A CATHODE RAY TUBE.