The 5655 is a television camera tube recommended for studio use. It is similar to type 2P23 but differs in that its photocathode has practically no infrared response, its resolution is somewhat better, its signal-to-noise ratio has been improved about twice, and its response to half tones is more natural. It does not, however, cover as wide a light range as the 2P23.

**DATA**

**General:**

Heater, for Unipotential Cathode:
- Voltage (AC or DC) .................. 6.3±10% Volts
- Current ......................... 0.6 Ampere

Direct Inter-electrode Capacitance:
- Anode to All Other Electrodes .......... 20 µf

Photocathode Response .................. See accompanying curve

Image Size (4 x 3 aspect ratio) ........ 1.6" Diagonal

Focusing Method ...................... Magnetic

Deflection Method ..................... Magnetic

Overall Length ...................... 15-1/4" ± 1/4"

Greatest Diameter of Bulb .......... 3" ± 1/16"

Shoulder Base ..................... Keyed Jumbo Annular 7-Pin

End Base ......................... Small-Shell Diheptal 14-Pin

Mounting Position: Never in a vertical position with the diheptal-base end up nor in any other position where the axis of the tube with base up makes an angle of less than 20° with the vertical through the center of the base.

Minimum Deflecting-Coil Inside Diameter ........ 2-1/8"

Deflecting-Coil Length .............. 5"

Focusing-Coil Length ............... 10"

Alignment-Coil Length .............. 15/16"

Photocathode Distance Inside End of Focusing Coil ........ 1/2"

**Maximum Ratings, Absolute Values:**

PHOTOCATHODE VOLTAGE .................. -550 max. Volts

PHOTOCATHODE ILLUMINATION ............. 50 max. Foot-Candles

AMBIENT TEMPERATURE .................. 50 max. °C

GRID-No.6 VOLTAGE .................. -550 max. Volts

TARGET VOLTAGE:
- Positive Value .................. 50 max. Volts
- Negative Value ................. 50 max. Volts

GRID-No.5 VOLTAGE .................. 150 max. Volts

GRID-No.4 VOLTAGE .................. 300 max. Volts

GRID-No.3 VOLTAGE .................. 400 max. Volts

GRID-No.2 & DYNODE-No.1 VOLTAGE .... 350 max. Volts
GRID-No.1 VOLTAGE:
- Negative Bias Value ................. 125 max. Volts
- Positive Bias Value .................. 0 max. Volts

PEAK HEATER-CATHODE VOLTAGE:
- Heater negative with respect to cathode .... 125 max. Volts
- Heater positive with respect to cathode ... 10 max. Volts

ANODE-SUPPLY VOLTAGE # ............. 1500 max. Volts

VOLTAGE PER MULTIPLIER STAGE ........ 350 max. Volts

ANODE CURRENT ....................... 100 max. Microamp.

Typical Operation:
- Photocathode Voltage (Image Focus). ....... -300 to -500 Volts
- Grid-No. 6 Voltage (Accelerator) —
  80% of photocathode voltage ......... -240 to -400 Volts
- Target Voltage © ..................... 0 Volts
- Grid-No. 5 Voltage (Decelerator) oo .. 0 to 100 Volts
- Grid-No. 4 Voltage (Beam Focus) ....... 160 to 240 Volts
- Grid-No. 3 Voltage ## ................. 225 to 330 Volts
- Grid-No. 2 & Dynode-No. 1 Voltage .... 300 Volts
- Grid-No. 1 Voltage (For Picture Cutoff) .. -35 to -90 Volts
- Dynode-No. 2 Voltage ................. 600 Volts
- Dynode-No. 3 Voltage .................. 800 Volts
- Dynode-No. 4 Voltage ................. 1000 Volts
- Dynode-No. 5 Voltage ................. 1200 Volts
- Anode Voltage ....................... 1250 Volts
- Target Temperature Range ......... 35 to 45 °C

Ratio of Peak-to-Peak Highlight Video Signal
- Current to RMS Noise Current (Approx.) .... 70
- Minimum Peak-to-Peak Blanking Voltage .... 10 Volts
- Field Strength at Center of Focusing Coil .. 75 Gausses

Focusing-Coil Current (Approx., for coil
  listed below) .... 75 Ma

Deflecting-Coil Current (Approx., for assembly
  listed below):
  Horizontal (Peak to Peak) .......... 625 Ma
  Vertical (Peak to Peak) .......... 290 Ma

Alignment-Coil Current (Approx., for coil
  listed below) ........ 0 to 30 Ma

Components:
- Deflecting-Coil Assembly ............ RCA Type No.201D75
- Focusing-Coil Assembly ............. RCA Type No.202D75
- Alignment-Coil Assembly .......... RCA Type No.204D75

# Ratio of dynode voltages is shown under Typical Operation.
© Adjustable within ±3 volts of indicated value with blanking voltage off.
oo Taps at 0, 30, 60, and 90 volts are recommended. Set at voltage giving
  most uniform resolution over entire picture area.
## Adjust to give the most uniformly shaded picture near maximum signal.
SOCKET CONNECTIONS

Bottom View

DIRECTION OF LIGHT: PERPENDICULAR TO LARGE END OF TUBE

SMALL-SHELL DIHEPTAL 14-PIN BASE

Pin 1: Heater
Pin 2: Grid No.4
Pin 3: Grid No.3
Pin 4: Internal Connection—Do Not Use
Pin 5: Dynode No.2
Pin 6: Dynode No.4
Pin 7: Anode
Pin 8: Dynode No.5
Pin 9: Dynode No.3
Pin 10: Dynode No.1
Pin 11: Internal Connection—Do Not Use
Pin 12: Grid No.1
Pin 13: Cathode
Pin 14: Heater

KEYED JUMBO ANNULAR 7-PIN BASE

Pin 1: Grid No.6
Pin 2: Photocathode
Pin 3: Internal Connection—Do Not Use
Pin 4: Internal Connection—Do Not Use
Pin 5: Grid No.5
Pin 6: Target
Pin 7: Internal Connection—Do Not Use

DETAIL OF BOTTOM VIEW OF KEYED JUMBO ANNULAR BASE

CROSS-HATCHED AREA IS FLAT

1.315″ R.M.N.
1.185″ R.M.X.

.275″ MAX. (NOTE 1)

SEE NOTE 2 1/2″ MIN.

NOTE 1: Measured at distance of 1/32″ below bottom of annular base.

NOTE 2: Dotted area is flat or extends toward diheptal-base end of tube by 0.060″ max.