14" DSM 25-314/H MONOCHROME MONITOR UNIT

This monitor is manufactured by **HANTAREX** and is identified by **25-314/H** written on the label on the rear of the monitor.

CHARACTERISTICS

Monochromatic analogous compatible VGA monitor

- Screen dimensions: 14"
  Horizontal dimension: 240 mm +/- 4 mm
  Vertical dimension: 180 mm +/- 4 mm
- Input voltage: 110 V: 110 - 120 V a.c. (-15% +10%)
  220 V: 220 - 240 V a.c. (-15% +10%)
  Network frequency: 50 - 60 Hz: 47 - 63 Hz
- Horizontal synchronism:
  Frequency: 31.469 KHz
  Polarity: Negative or positive
  Level: TTL
- Vertical synchronism:
  Frequency: 60 - 70 Hz
  Polarity: Negative or positive
  Level: TTL
- Monitor input signals:
  Monitor signal: Analog
  Amplitude: 0.7 Vpp (0 - 0.7 Vpp)
  Bandwidth: 25.175 MHz
- Resolutions displayed: 640 x 350 lines by columns
  640 x 400 lines by columns
  640 x 480 lines by columns
- External controls: Brightness
  Contrast

REMOVING THE CASING AND DISASSEMBLY

1. Disconnect the power cable.
2. Remove the 4 screws (V) that secure the casing.

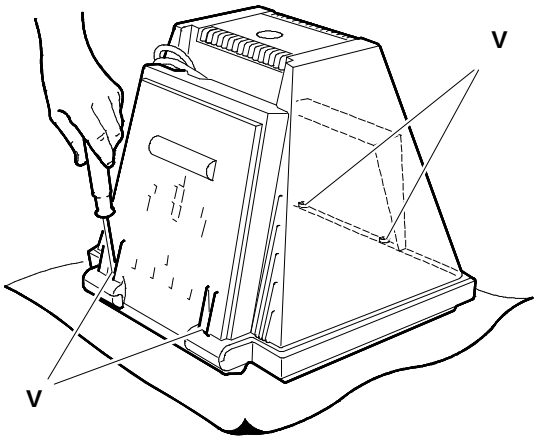

Fig. 5-1 Video casing screws positions

3. To remove the monitor pre-amplifier board: take out the connectors and lift upwards as shown in the figure.

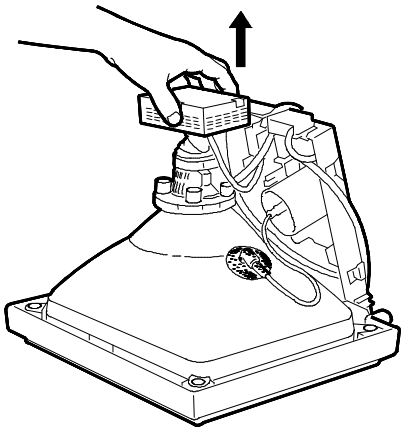

Fig. 5-2 Video amplifier board removal

ADJUSTING THE MONITOR

Motherboard adjustment points

PREADJUSTING THE BRIGHTNESS

- System Test: *CHECK LINEARITY*.
- Set brightness control (L) to maximum.
- Set contrast control (C) to minimum.
- Adjust RV10 so that trace lines are not visible.

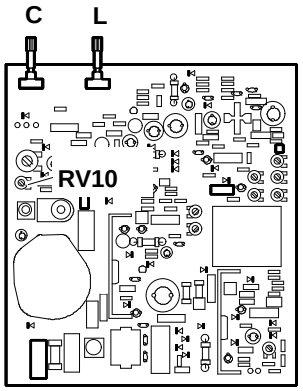

Fig. 5-3 Brightness pre-adjustment

ADJUSTING THE VERTICAL SYNCHRONISM

- System Test: *CROSS HATCH WITH CIRCLE AT CENTRE OF SCREEN*.
- Adjust RV4 to obtain a steady picture.

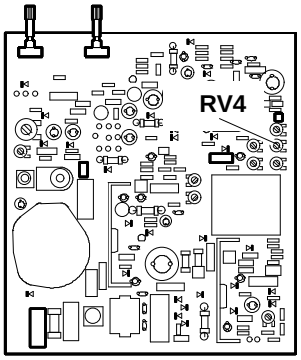

Fig. 5-4 Vertical synchronism adjustment

ADJUSTING THE HORIZONTAL LINEARITY

- System Test: *CHARACTERS SET.*
- Adjust B2 so that the width of the characters in a text is uniform over the entire screen.

ADJUSTING THE VERTICAL LINEARITY

- System Test: *CHECK LINEARITY.*
- Adjust RV6 so that the height of the characters in a text is uniform over the entire screen.

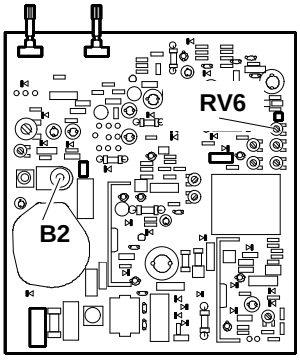

Fig. 5-5 - Horizontal linearity adjustment
- Vertical linearity adjustment

ADJUSTING THE HORIZONTAL WIDTH

- System Test: *CROSS HATCH WITH CIRCLE AT THE CENTRE OF THE SCREEN.*
- Adjust B3 to obtain a horizontal width of 232 mm.

ADJUSTING THE HORIZONTAL CENTERING

- System Test: *CROSS HATCH WITH CIRCLE AT THE CENTRE OF THE SCREEN.*
- Adjust RV8 to centre the picture horizontally.

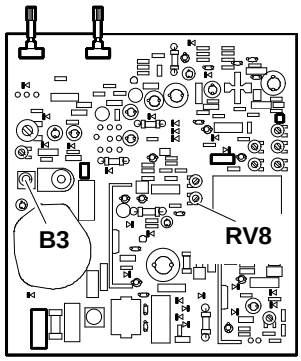

Fig. 5-6 - Horizontal width adjustment
- Horizontal centering adjustment

ADJUSTING THE VERTICAL WIDTH

- System Test: *640 BY 480 GRAPHICS*.
- Adjust RV5 to obtain a vertical width (480 lines) with a height of 170 mm.
- System Test: *640 BY 350 GRAPHICS*.
- Adjust RV2 to obtain a vertical width (350 lines) with a height of 170 mm.
- System Test: *640 BY 400 GRAPHICS*.
- Adjust RV3 to obtain a vertical width (400 lines) with a height of 170 mm.

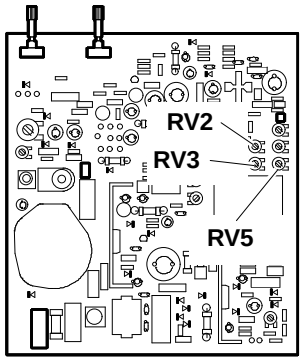

Fig. 5-7 Vertical width adjustment

ADJUSTING THE FOCUS

- System Test: *CHECK LINEARITY*.
- Adjust RV9 to obtain the best focussing of the picture.

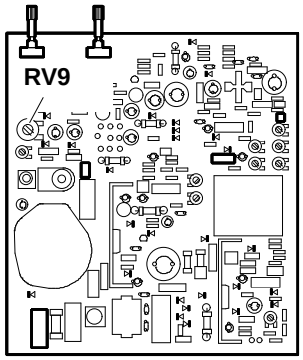

Fig. 5-8 Focus adjustment

CRT adjustment points

ADJUSTING THE DEFLECTION YOKE

- System Test: *CROSS HATCH WITH CIRCLE AT THE CENTRE OF THE SCREEN.*
- Turn the deflection yoke tabs (A) in opposite directions until the picture is centered as shown in the figure.

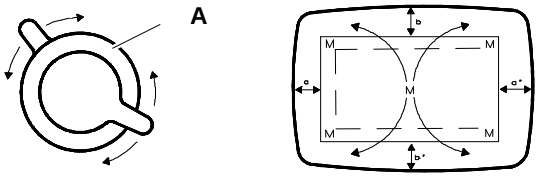

Fig. 5-9 Centering the picture on the screen

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ADJUSTING THE GEOMETRIC DISTORTION

- System Test: *CROSS HATCH WITH CIRCLE AT THE CENTRE OF THE SCREEN.*
- Adjust the distortion correction magnets (M) until the picture on the screen is a rectangle.

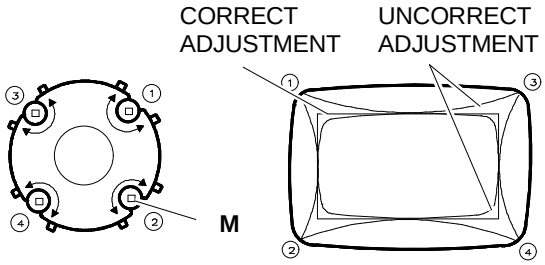

Fig. 5-10 Geometric distortion adjustment

Video pre-amplifier board adjustment points

PREADJUSTING THE CONTRAST

- System Test: *CHECK LINEARITY*.
- Set the brightness control (L) to maximum.
- Set contrast control (C) to minimum.

NOTE: These two adjustments are on the mother board.

- Adjust RV101 until the picture is visible.

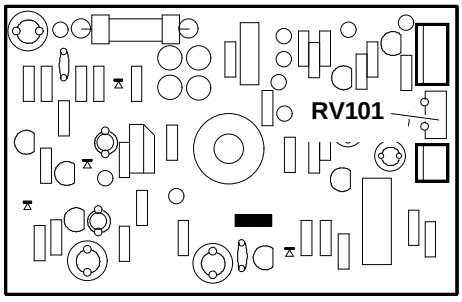

Fig. 5-11 Contrast pre-adjustment

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