14" MDU 1441 MONOCHROME MONITOR UNIT

This monitor is manufactured by **PHILIPS** and is available in several models that can be identified by the label on the rear of the monitor.

- **25-314/P** Model with fixed 220V voltage.
- **25-314/P-Y** Model for distribution in Northern Europe, North America and Canada.

CHARACTERISTICS

Monochrome analogous monitor, compatible VGA

- Screen dimensions: 14"
  Horizontal dimension: 240 mm +/- 4 mm
  Vertical dimension: 180 mm +/- 4 mm
- Input voltage: 110 - 120 V a.c. (-15% +10%) Model 25-314/P-Y
  220 - 240 V a.c. (-15% +10%) Model 25-314/P
  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
- Displayed resolutions: 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) on the casing.

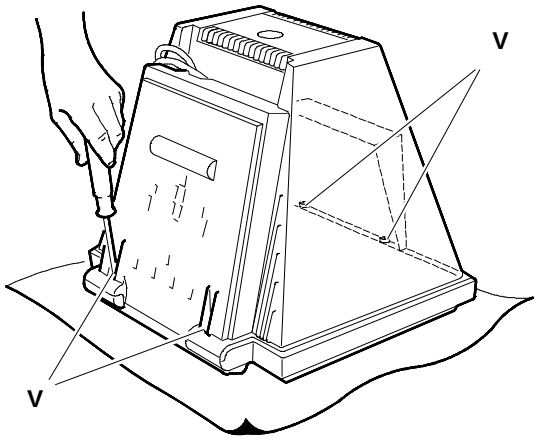

Fig. 6-1 Position of video casing screws

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

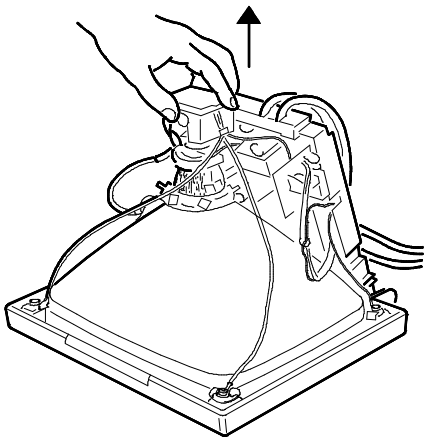

Fig. 6-2 Video pre-amplifier board removal

ADJUSTING THE MONITOR

PHILIPS MONITOR 25-314/P

Motherboard adjusting points

ADJUSTING THE VERTICAL SYNCHRONISM

- System Test: *CROSS HATCH WITH CIRCLE AT CENTRE OF SCREEN*.
- Adjust R422 to have a stable picture.

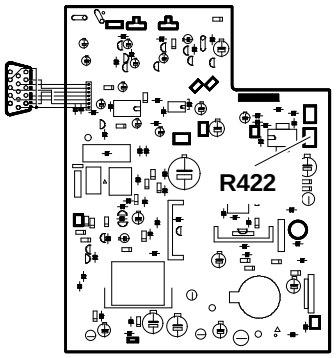

Fig. 6-3 Vertical synchronism adjustment

PREADJUSTING THE BRIGHTNESS

- System Test: *CHECK LINEARITY*.
- Set the brightness control (L) to maximum.
- Set the contrast control (C) to minimum.
- Adjust R541 until the trace line is not visible.

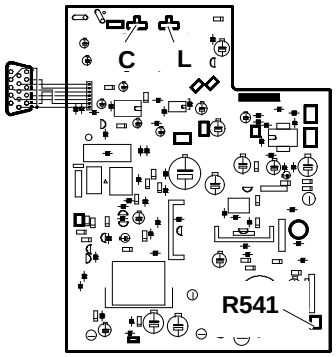

Fig. 6-4 Brightness pre-adjustment

ADJUSTING THE VERTICAL LINEARITY

- System Test: *CHECK LINEARITY.*
- Adjust R430 to obtain a uniform height of all characters in a text over the entire screen.

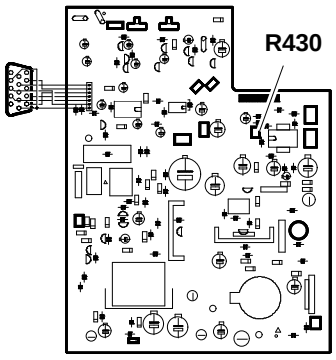

Fig. 6-5 Vertical linearity pre-adjustment

ADJUSTING THE HORIZONTAL WIDTH

- System Test: *CROSS HATCH WITH CIRCLE AT THE CENTRE OF THE SCREEN.*
- Adjust L531 to obtain a horizontal width of 232 mm measured on the screen.

ADJUSTING THE HORIZONTAL CENTERING

- System Test: *CROSS HATCH WITH CIRCLE AT THE CENTRE OF THE SCREEN.*
- Adjust R509 until the picture is horizontally centered.

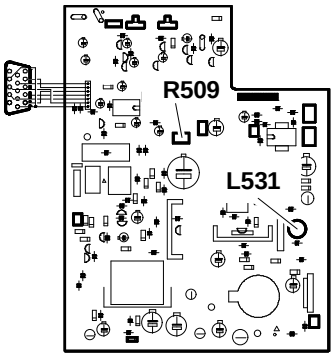

Fig. 6-6 - Horizontal width adjustment
- Horizontal centering adjustment

ADJUSTING THE VERTICAL WIDTH

- System Test: *640 BY 480 GRAPHICS*.
- Adjust R425 to obtain a vertical width (480 lines) with a height of 170 mm.
- System Test: *640 BY 350 GRAPHICS*.
- Adjust R410 to obtain a vertical width (350 lines) with a height of 170 mm.
- System Test: *640 BY 400 GRAPHICS*.
- Adjust R409 to obtain the vertical width (400 lines) with a height of 170 mm.

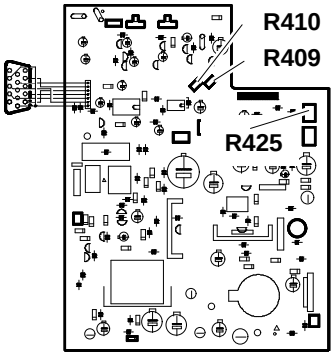

Fig. 6-7 Vertical width adjustment

Monitor preamplifier board adjusting points

ADJUSTING THE FOCUS

- System Test: *CHECK LINEARITY*.
- Adjust R714 on the preamplifier board to obtain the best picture focussing.

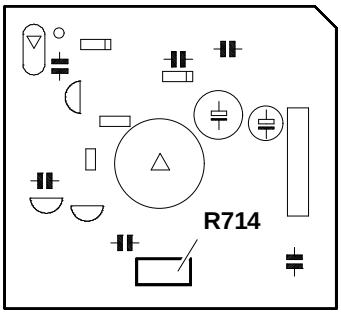

Fig. 6-8 Focus adjustment on video pre-amplifier board

CRT adjusting 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 to centre the picture on the screen, as shown in the figure.

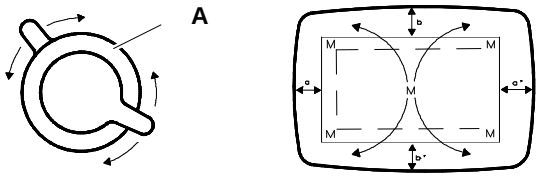

Fig. 6-9 Picture centering on the screen

6

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.

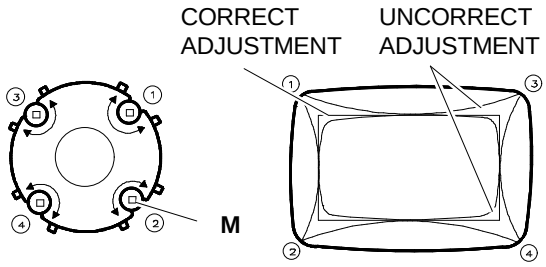

Fig. 6-10 Geometric distortion adjustment

PHILIPS MONITOR 25-314/P-Y

This monitor is manufactured by **PHILIPS** and is identified by **25- 314/Y-P** written on the rear of the monitor. This monitor is identical to 25-314/P previously described, the only difference being its distribution markets which are North America, Northern Europe and Canada.

■