

working. A tap on the teletext board would sometimes get the set to start up, but resoldering the power transistors Q01-03 on this board didn't provide a lasting repair.

In desperation I removed the chip transistor Q02 and reconnected it using wires. This enabled the set to work. So did refitting Q02 slightly off the board. The transistor's mounting seemed to have been the cause of the trouble. **R.M.**

Boots CTV1417R

This 14in. portable had a burnt out resistor (R306 – 10 Ω , 0.5W safety) in the supply to the field output stage. But a replacement resistor wasn't all that was required. R234 was unrecognisable (should be 39 Ω , 1W) because its neighbour D212 (12V zener diode) was short-circuit. When I looked for a common cause of all this I found that C609 (47 μ F) in the power supply was low in value and leaky. It lay between two power resistors. I fitted a 105 $^{\circ}$ C type as a replacement, with sleeving on the full length of its leads to keep it away from the heat. **R.M.**

Philips G90AE Chassis

This set produced a strange picture – only part of it could be seen. The sound was OK. There was a pulsing white line at the top of the display, which was rolling and pulled into a contorted triangle with jagged parts at the bottom. Thankfully replacing the TDA2579 timebase generator chip IC7470 restored normal pictures. **R.M.**

Sony KVM1421 (BE2A Chassis)

This set was stuck in standby – the only thing you could watch was the standby light! The power supply was working, and as no obvious fault could be found I ordered a new ST24C02CP memory chip (IC001) from Sony. When this had been fitted all I had to do was to tune in the channels. **R.M.**

Philips 25PT4101 (AA5 AB Chassis)

The LEDs were pulsing: the timing of their flashes gives an indication of the cause of the fault. On this occasion they were flashing on and off for three seconds, which means that there is an EEPROM error. But a new ST24C02A chip made no difference. I then found that the LM317T regulator had no output and replaced it. The set still didn't work, because there was a hairline

crack at pin 1 of the line output transformer.

Service manual 727 20783 for the AA5 AB chassis should have attached to it 727 20875 for the AA5 95.01 colour TV. This supplement is essential. **R.M.**

Loewe Concept 55/63/70

This set, which had been brought into the UK from the Netherlands, was dead. I found that the BD139 line driver transistor T525 was leaky. As a result, the 3.3 Ω safety resistor in the 27V supply was open-circuit. This supply is also protected by R666, an 0.22 Ω safety resistor. **R.M.**

JVC AV25F1

A line across the screen with no sound is what you get when regulators IC521 and IC522 become dry-jointed at the same time. **R.M.**

Samsung CI213R

These 10in. portables seem to be more reliable than the similar Akura type. But this one was intermittently dead. The cause was eventually traced to the mains bridge rectifier going open-circuit. **C.W.**

Hitachi G6P Chassis

I've had quite a few of these sets that would sometimes fail to start because the values of the 82k Ω start-up resistors R902 and R903 had changed. So I now replace them without bothering to check their values. With one set recently however this failed to cure the fault. C905 (4.7 μ F, 160V) was open-circuit. A replacement restored good starting every time. **C.W.**

Nokia 6354

The symptoms with this Nicam set were an intermittent crackle and intermittent loss of sound, both affecting the right-hand channel. Good signals were present at pins 28 and 29 of the DACM chip NA10, but not so good at pin 9 of the TDA2615 audio output chip NA90. I found that the surface-mounted BC858B transistor VA80 was noisy. A replacement cured both faults. **C.W.**

Hitachi CPT2178 (G6P Chassis)

This set didn't start up every time. Sometimes it would come on with a blank raster, and at other times it would come on with a two inch band of dots across the centre of the screen and no picture.

Occasionally it would come on all right. It took me some time to trace the cause of these symptoms. The culprit turned out to be the 2.2 μ F, 50V non-polarised electrolytic capacitor C911 in the power supply. **C.W.**

Nokia 5864 (Monoplug Chassis)

With the HT voltage set correctly, at 109V, the raster just met the edges of the screen. Consequently the customer complained that with some pictures there was lack of width. The cause of the fault was coil LK11, which is in series with the line scan coils. It was quite hot when the set was in operation, and I presume that it had shorted turns.

To set the HT voltage with these receivers you short-circuit test point XF01 to chassis, enter the service mode by pressing Mute, M and TV on the remote control unit, move up and down the service options then use the volume control for adjustment. Measure the HT voltage at point X003. **C.W.**

Grundig CUC4635 Chassis

After replacing the tripler I found that there was no picture. Checks on the I2C bus lines showed that while the clock line pulse level was correct the data line pulse level was low. After some time I found that the cause of the problem was in the Nicam module, where a short was present in the MC144130 chip IC2250. A replacement restored all functions, but the customer was a bit shocked at the cost of the tripler and IC. **C.W.**

Toshiba 2539DB

The customer said that this set was dead. In fact it was tripping very quickly and the standby LED was flashing. Transistor Q841 (2SA1015) in the power supply was faulty. **C.W.**

Ferguson TX100 Chassis

This set took about five minutes to come on – the HT would rise slowly to about 100V. The cause turned out to be the chopper drive coupling capacitor C117 (100 μ F). **C.W.**

Bush 2121

The picture was shifted to the left, with a black margin on the right, slight foldover on the left and a blanked stripe about 1cm from the right-hand edge of the raster. This stripe wriggled like a snake, in sympathy with the video content of the picture. The cause of the trou-