

# VIDEO ENHANCER

**T**HE enhancer amplifies the high frequencies of a video signal, resulting in a sharper picture. It may be inserted between, say, the video recorder output and the SCART input of a television receiver.

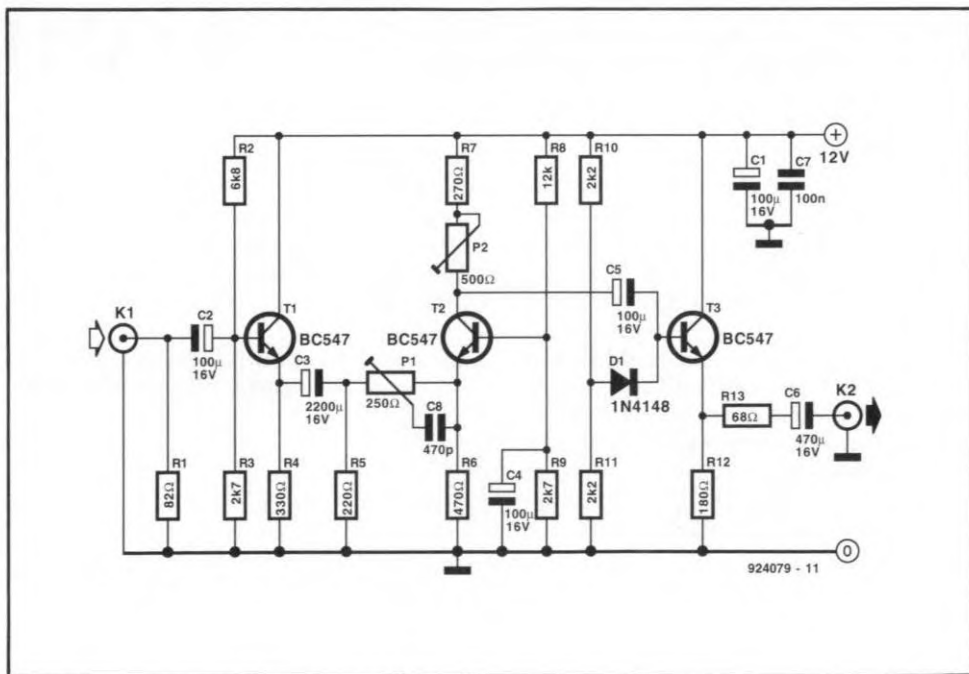
The simple design is based on only three transistors. The first,  $T_1$ , is a buffer. Resistor  $R_1$  ensures that the input impedance is of the order of 75  $\Omega$ . The signal is then applied to amplifier  $T_2$ , whose gain is determined by the setting of  $P_2$ .

The frequency characteristic of the signal at the base of  $T_2$  is shaped by  $P_1$ ,  $R_6$ , and  $C_6$ , and is, therefore, to a certain extent under the control of the user (by  $P_1$ ).

Buffer T<sub>3</sub> provides sufficient current for correctly driving most 75  $\Omega$  loads.

Preset P<sub>2</sub> must be set to give an output voltage of 1 V<sub>pp</sub> (terminated output; for an open-circuit output, the level should be 2 V<sub>pp</sub>).

The enhancer draws a current of about 50 mA. Note that the 12 V



supply should be regulated.  
(J. Bodewes – 924079)

Mains (power line) voltages are not listed in the articles. It is assumed that our readers know what voltage is standard in their part of the world.

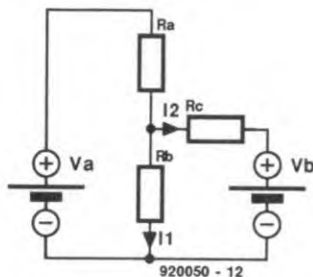
Readers in countries that use 60 Hz supplies, should note that our circuits are usually designed for 50 Hz. This will not normally cause problems, although if the mains frequency is used for synchronization, some modification may be required.

The international letter symbol 'U' is used for frequency instead of the ambiguous 'V'. The letter V is reserved for 'volts'.

## CORRECTIONS

### Plant warmer (June 1992)

Resistor  $R_c$  was omitted from Fig. 2. The correct diagram is shown below.



### Inductance-capacitance meter (March 1992)

The value of  $R_{16}$  and  $R_{17}$  should be  $39 \Omega$ , not  $30 \Omega$  as shown in the parts list.

### 8751 Emulator (March 1992)

The features list in the first column on page 53 should read:

- download, modify, and upload 8751 programs without having to erase and program an 8751.
- put breakpoints in programs.
- display register and memory contents.
- ...
- etc.

### FM tuner – Part 3 (May 1992)

In the PSU parts list on page 54,  $R_{301}$  should be  $150 \Omega$ , 1%, not  $150 \text{ k}\Omega$ , 1%.

### Video enhancer (July 1992)

Preset  $P_2$  is best adjusted for a signal level of  $2 \text{ V}_{pp}$  at the collector of  $T_2$ . Output transistor  $T_3$  may run fairly hot: this is normal.

The third paragraph of the text on page 73 should read: The frequency characteristic of the signal at the base of  $T_3$  is shaped by  $P_1$ ,  $R_6$  and  $C_8$ , and is, therefore, to a certain extent under the control of the user (with  $P_1$ ).

### Mark 2 QTC 80/40 loop antenna (July 1992)

The frequency '3800 kHz' mentioned twice under **2. 40-metre band** (page 90) should have read '7300 kHz'.

### Audible fluid level indicator (July 1992)

Owing to a printing error, the diagram in this article is incorrect. The right diagram is shown below.

