FILTER TURRET

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A. TECHNICAL DATA

Filter complement:

1) Colour disc: 1 x transparent glass 100% transmission
1 x Tiffen 85 (sunlight)
1 x Tiffen 85 + pol (sunlight + strong reflections)
1 x Tiffen 83 (cloudy daylight)

2) Grey disc : 1 x transparent glass 100% passage
1 x Tiffen ND 0.6 = 25% (2 lens stops)
1 x Tiffen ND 1.5 = 3% (5 lens stops)
1 x 0% (lens cap)

Drive:

Motor drive, remote control facility by means of selector switch

B. CIRCUIT DESCRIPTION

With the filter revolver the colour filters or grey filters or a combination of these are inserted between the lens and the prism. In this way the colour temperature of the illumination can to some extent be adapted to the illumination to which the camera is adjusted.
The grey filters are used when the aperture of the lens is minimal and the illumination level is too high (outside recording), to filter light strongly without affecting the colour tempeture. The grey filter may also be used to change over from a small aperture e.g. F/16 to a larger aperture e.g. F/4.
The depth of focus then changes considerably which may be desired to achieve certain effects.
The filter discs are driven by a separate motor; the grey filter disc by M1, the colour filter disc by M2. Switching on and off of the motors is effected via relays controlled by transistors.
The control signal for the transistors is obtained from two bridge circuits.
The bridge circuits consists of 4 resistors with a switch.
The switches on the left of the diagram are located in the control rack (CCU), the switches on the right of the diagram are coupled to the drive motors.
The circuit diagram represents the situation with the switches set to position -6 V. Between the bottom and top of GR1 there will be a voltage difference, TS1 and TS2 are cut off and relay RE1 is not energised.
When the switch on the CCU is set to position -3 V, the diode bridge is no longer balanced and therefore supplies an output voltage. TS1 and TS2 become conductive and energised RE1.
The motor is switched on and the switch coupled to this motor is also driven. When the switch is at -3 V, the motor is no longer energised. At this point the motor is mechanically stopped. Because the motor is only switched on and off and the polarity is not reversed, it will always have the same rotating direction. Filters R9-C5 and R10-C6 suppress sparks at the relay contacts.

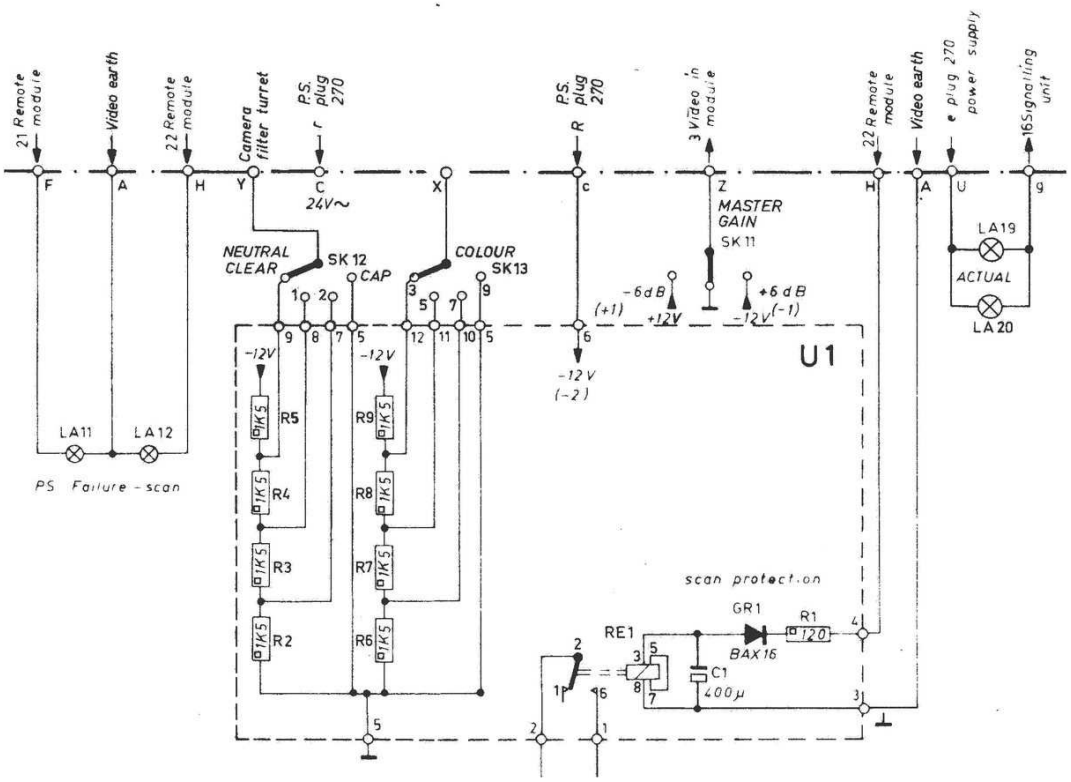
SPARE PARTS

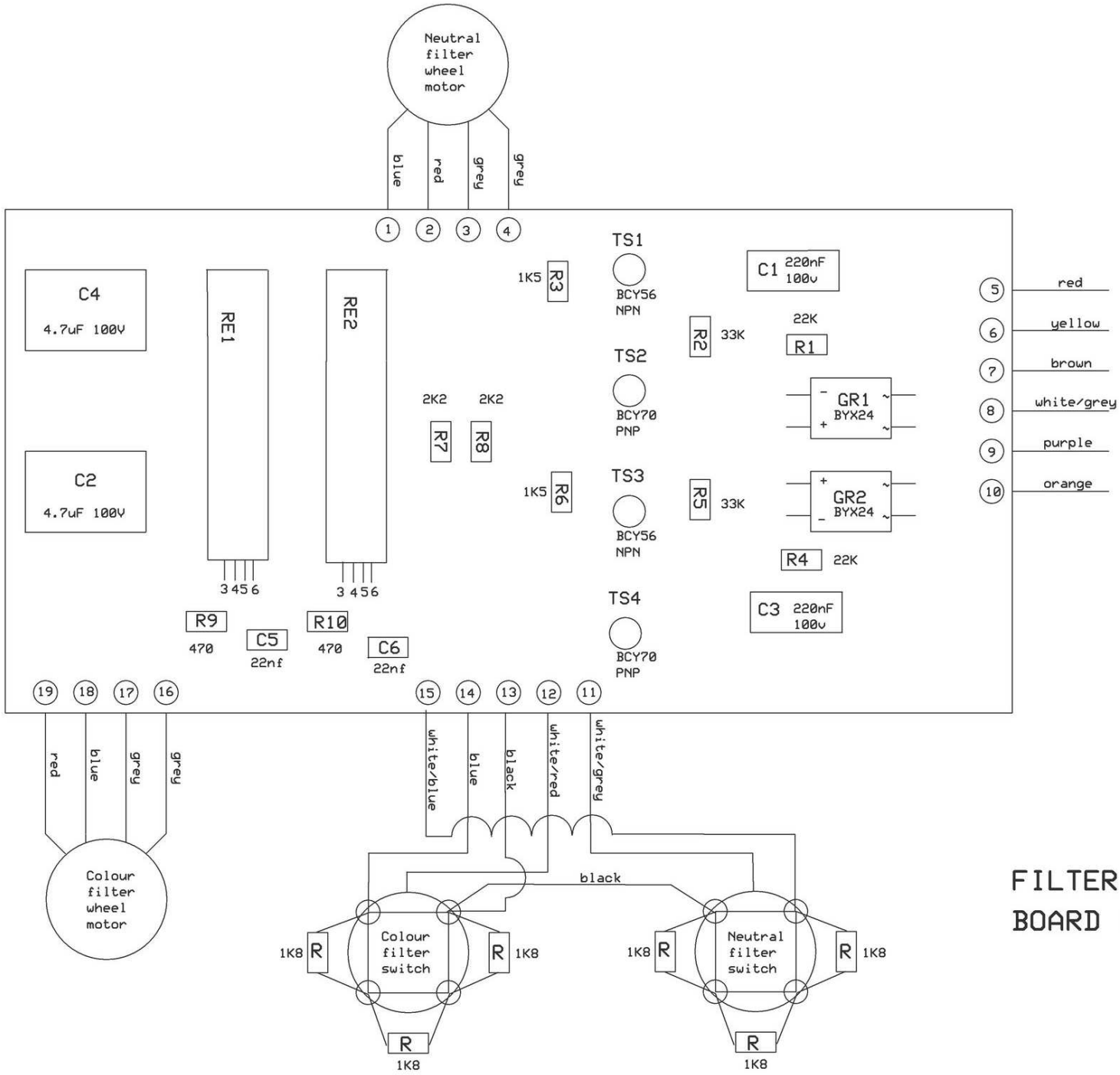
1. Mechanical

	Switch SK1-SK2	4822 273 30185
	Fixing screw for filter wheel	4822 502 10942
	Fixing nut for switch	4822 505 10422

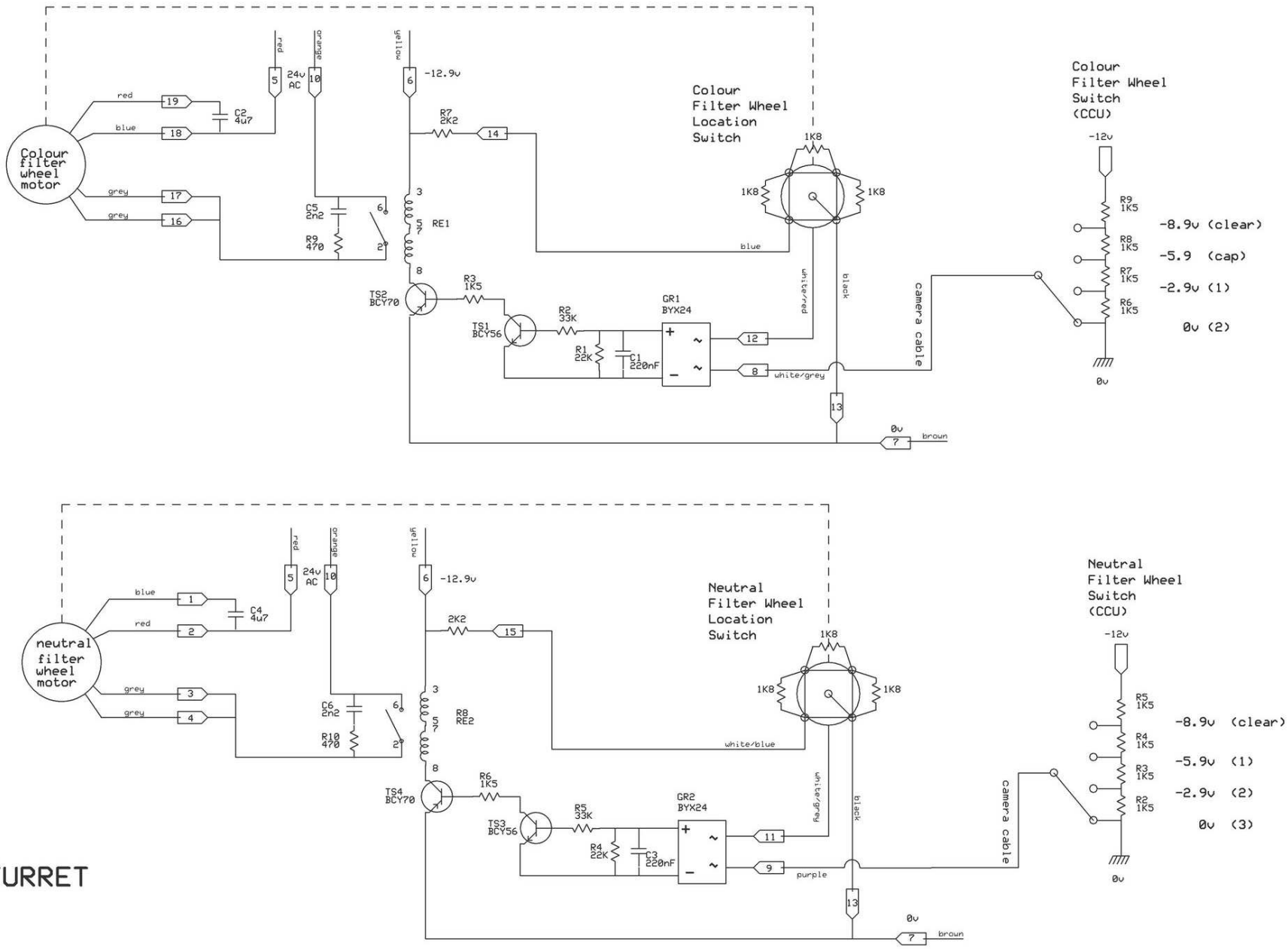
2. Electrical

Item Pos.	Description		Code number
C1 - C3	0,22 µF - 100 V.	Capacitor	4822 121 40232
C2 - C4	4,7 µF - 100 V.	Capacitor	4822 121 40224
GR1 - GR2	BYX 24	Rectifier	4822 130 30349
Ts1 - Ts3	BCY 56	Transistor	4822 130 40325
Ts2 - Ts4	BCY 70	Transistor	4822 130 40324
Re1 - Re2	Relay		4822 280 20028
M1	Motor		4822 361 60094
M2	Motor		4822 361 60095





FILTER TURRET BOARD LAYOUT



LDK3
FILTER TURRET
CIRCUIT