

TELECINE COMMAG AND SEPMAG RECORDING CONTROL PANEL PA6/48

Introduction

The PA6/48 panel forms part of a telecine machine^{1,2} and provides facilities to enable Sepmag and Commag recordings to be made, either separately or simultaneously.

It consists of a standard 19" × 5½" panel which carries a P.P.M. together with monitor-selection switches for P.P.M. and loudspeaker and the push-buttons and keys required to start and stop recording. A sub-panel mounted on the back of the main panel carries the relays associated with the pushbuttons.

General Description

All the operations required are carried out by relays to enable remote recording facilities to be obtained. Two identical circuit configurations are provided; one for Sepmag recording and one for Commag recording. The following description applies to both systems.

So that the system cannot be accidentally placed in the recording mode, thereby erasing a previous recording, two operations are necessary before recording is possible. These operations are:

- (a) Operate a *Record Available* key (this key is of the P.O. self-locking type and so cannot be operated accidentally).
- (b) Press a *Local Record* button.

These operations are still required when the apparatus is remotely controlled.

A *Stop Record* button is pressed to stop recording, whereupon the telecine machine reverts to the reproduce mode.

The bias and erase currents can be measured whilst the machine is stationary by operating the *Record Available* key and keeping the *Local Record* button pressed while taking the measurement. Interlocks are provided to ensure that, when the telecine machine is in the rewind condition, the system cannot be placed in the record mode.

Circuit Description

The circuit diagram is shown in Fig. 1.

Sepmag Operation

Earths are applied to tags 21 and 22 via external interlocks which are located on an associated PA17/508 Automatic Control Relay Panel. The

earth applied to tag 22 energises relay MCF and prepares the panel for operation.

When the *Sepmag Record Available* key K2 is operated:

- (a) —50 volts is applied (via tag 15, a relay contact on the associated UN1/58 Sepmag Relay and Metering Unit and tag 16) to lamp LP2 which is housed in the *Stop Record* button K3.
- (b) The coil of relay SMR is connected to the *Local Sepmag Record* button via normally-closed contacts on the *Sepmag Stop Record* button K3 and relay contact RRC1-2.
- (c) The coil of relay SMR is connected also to the remote *Sepmag Record* button via normally-closed contacts on the *Sepmag Stop Record* button and relay contacts RRC1-1 and MCF-1.

Operation of the local *Sepmag Record* button energises relay SMR. When energised this relay:

- (a) Provides a hold circuit for itself via contacts SMR-1, RRC1-1 and MCF-1.
- (b) Routes an earth via contact SMR-2 to the UN1/58 unit which places the telecine apparatus in the recording mode. When the UN1/58 unit operates, lamp LP2 is extinguished and lamp LP1 is lit.

Commag Operation

The circuit for Commag recording is as detailed above for the Sepmag recording. For Commag operation the associated unit is a Commag Relay and Metering Unit UN1/59.

Remote Operation

When an earth is applied to tag 12 relays RRC1 to RRC5 are energised.

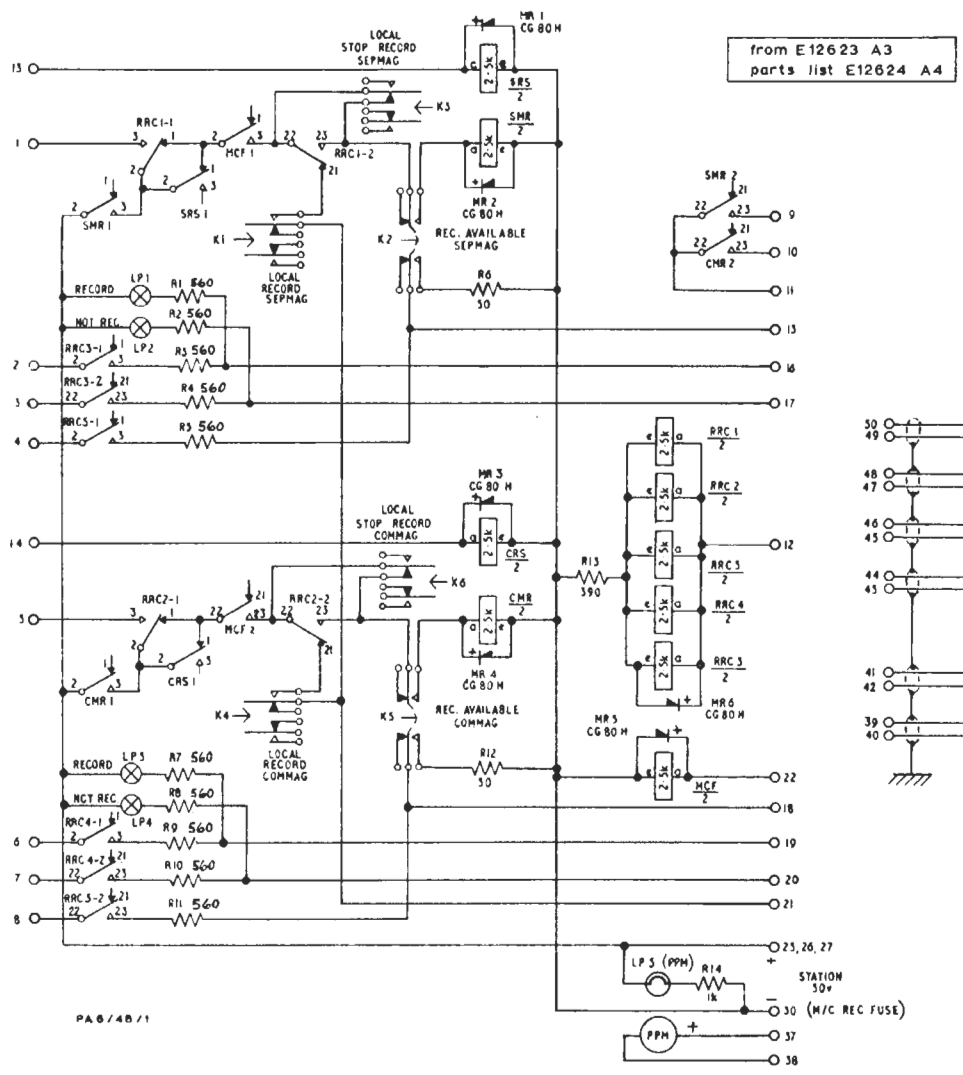
Relay RRC1 transfers control from the local *Sepmag Record* button to the remote *Sepmag Record* button.

Relay RRC2 transfers control from the local *Commag Record* button to the remote *Commag Record* button.

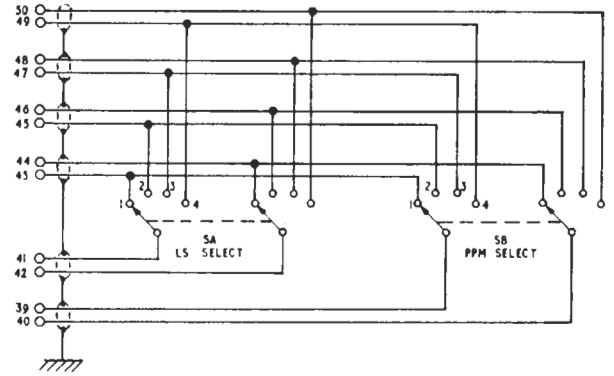
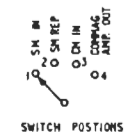
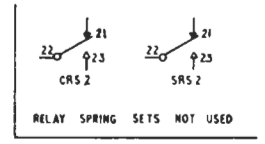
Relay RRC3 provides remote indication of the *Sepmag Record* and *Not Record* conditions.

Relay RRC4 provides remote indication of the *Commag Record* and *Not Record* conditions.

Relay RRC5 provides indications of when the Sepmag and Commag *Record Available* keys have been operated.



from E12623 A3
parts list E12624 A4



NOTE:- ALL RELAYS TYPE 4190GE

Fig. 1 Circuit of the Control Panel PA6/48

PA6/48/1

Remote Stop Record

To stop recording when operating in either of the remote recording modes, the appropriate relay (SRS for Sepmag and CRS for Commag) is operated via tags 13 and 14. The operation of the Sepmag relay SRS de-energises relay SMR. The operation of the Commag relay CRS de-energises relay CMR.

Programme Monitoring Selection

The functions of the monitoring-selection switches SA and SB can be seen from the circuit diagram.

References

1. 16-mm Vidicon Telecine EP6/501 (see Designs Dept. Technical Memorandum 7.133).
2. 16-mm Colour Telecine Equipment EP6/505.

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