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MODIFICATION OF A VMS 80 FOR OPERATION WITH MINIMUM DEPTH REDUCTION (MDR)



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(All with ref. to following circuit diagrams and identification labels:

21525 93002 93261 or 03 93361 or 03 94061 or 04)

### A) Check the PCB VSA 80

Log serial number of VSA 80 located in the main PCB carrier in the lower front frame of the VMS 80. If the identification digits on the PCB read 94001 the PCB has to be exchanged. Before fitting the new PCB remove the plastic black cover and the edge connector cover. Use the covers to return old PCB VSA 80 which protects the unit from electrical damage.

If the five identification digits on the VSA 80 read 94002 a modification to the PCB has to be carried out, as it is mentioned in the next chapter. (With ref. to circuit diagram 21525 94061).

Likewise the same modification to the PCB has to be carried out, if the identification digits on the VSA 80 read 94003. (With ref. to circuit diagram 21525 94004).

# B) Necessary modifications

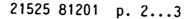
(Advisable to pull all PCB's out of retaining sockets, but leave the cards in the runners).

The modifications are easily executed by yourself. As an expensive exercise the unit could be returned to the factory which takes time.

1. Soldering jobs on the MS 80 (With ref. to circuit diagram 21525 93002).

The following connections have to be made: From RAS 80 pin A 30 to VSA 80 pin A 26 From STO 80 pin A 30 to VSA 80 pin A 30

(From top to bottom of PCB the pin connections count A 1 - A 33, B 1 - B 33).





### 2. Rewire STS 80

(If the five identification digits read 93301

refer to circuit diagram 21525 93361.

Do they read 93302

refer to circuit diagram 21525 93303).

Remove R 14 (15 k0hm) and R 22 (100 k0hm) and replace C 9 (0.1  $\mu F$ ) with a wire link. (C 9 is shorted out).

#### 3. Rewire RAS 80

(If the five identification digits read 93201

refer to circuit diagram 21525 93261.

Do they read 93202

refer to circuit diagram 21525 93203).

Remove resistors R 27 (15 k0hm) and R 34 (100 k0hm) and replace C 14 (0.1  $\mu$ F) with a wire link. (C 14 is shorted out).

#### 4. Rewire VSA 80

Identifications 94002 or 94003

Replace R 163 (118 k0hm) with 53 k0hm 1 %.
Replace R 200 (23.7k0hm) with 11.8 k0hm 1 %.

By all these modifications you'll change circuit-states of the above mentioned devices. In order to guarantee forthcoming optimal service on eventual request, it is necessary that you affix the adequate new identification labels to the modified devices in each case.



### C) Replace STO 80 i.e. SKA

Having completed the rewiring modification in paragraphs A and B and having replaced the STO 80 in the VMS 80 or the SKA in the transfer console the modification is complete.

- a) Loosen Philips screws and lift the SKA unit upwards. Replace module SKA with SKA/MDR and secure unit.
- b) Remove protective plastic covers and exchange STO 80 with STO/MDR. Re-use protective covers when returning the PCB.

### D) The Operation

Switch on the unit and operate as usual. No special realignment necessary if VSA 80 has not been replaced.

If the PCB VSA 80 has been exchanged proceed to line up the VMS 80 according to paragraphs 4.3 and 4.4 of the operating manual.

Additional functions of the MDR unit are explained in the appendix.

## <u>Attention</u>

It is recommended that the soldering iron and the person who carries out the modification is earthed, i.e. CMOS-IC's are very sensitive and could be destroyed.