INTERFACE PDP-8E

Products : Teletype 30 Series.
Category : TG
Kit No.  : MKT/ITF/01
Modification: Interface to connect PDP-8E (PDP-11, PDP-15) to Teletype model 33 ASR with UCC6.

1. GENERAL

This modification provides the possibility to connect computer PDP-8E (PDP-11, PDP-15) to Teletype model 33 ASR with UCC6.
This concerns connection of the input/output circuit and external control of the Teletype reader in on-line mode.
The Teletype model 33 ASR is equipped with call control unit UCC6.

2. DOCUMENTATION REQUIRED

For standard wiring information: see Teletype diagram set WDP 0316.

3. THEORY OF OPERATION (see figure MKT/ITF/01/1)

The Teletype 33 ASR has been wired for full-duplex operation and 20 mA input current SMD.
Connection of a 14 VDC voltage between pt. 2 and pt. 9 of circuit card GEA 018-2A causes operation of relay RLA. Operation of relay RLA closes contact A and if "Reader on/off control" is in the on-position and the local/line switch is in the line-position, the reader trip magnet is operated and in consequence the reader is switched on.
In the local/situation contact A has no influence, because it is shortened by the local/line switch. In this case there is no question of external reader-control.
The input- and output-circuits of Teletype 33 ASR are connected to the PDP-computer via Molex-connector J2/P2 directly.

Notes:
- pin nrs. 1, 3 and 4 of circuit card GEA 018-2A are used to operate relay A by means of other voltages
- suppression-filters are mounted over contacts L1-2 and L1-2 of the local/line switch
- this modification may be used without any changes in combination with the modifications MKT/RDS/01 reader step and MKT/RCA/01 reader control automatic
- Teletype keyboard must be wired for 8th bit always mark. In some cases a non-parity Altmode keyboard (UK 800) is necessary (arrangement with customer).

4. MODIFICATION KIT CONTENTS

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GEA 018-2A</td>
<td>circuit card, including wiring</td>
</tr>
<tr>
<td>2</td>
<td>153631 TTY (or eq.)</td>
<td>suppression-filter</td>
</tr>
<tr>
<td>1</td>
<td>34070 Amp (or 35115 Amp)</td>
<td>wire-connector</td>
</tr>
<tr>
<td>1</td>
<td>182540 TTY</td>
<td>interface cable, 6 wire, 4 m length with mounted:</td>
</tr>
<tr>
<td>1</td>
<td>1-480460-0 Amp</td>
<td>Molex-connector, 15 pins, marked&quot;2&quot;, connector AMP male N-lock</td>
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</table>

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5. INSTALLATION (see figures MKT/ITF/01/1 and 01/3)

5.1 Disconnect the mains supply.
5.2 Remove the Teletype cover.
5.3 Wire Teletype 33 ASR for full-duplex operation (see Teletype diagram set WDP 0316, sheet 1180 SD-B4).
5.4 Wire Teletype 33 ASR for 20 mA input-current SMD (see Teletype diagram set WDP 0316, sheet 1180 SD-B1).
5.5 Mount circuit card GEA 018-2A to call control unit UCC6 (see figure MKT/ITF/01/3).
5.6 Remove blue wire from pin 3 of connector P4 in the UCC6.
5.7 Connect this blue wire to the blue wire of circuit card GEA 018-2A pt. 6, by means of the Amp wire-connector.
5.8 Connect blue/white wire of circuit card GEA 018-2A pt. 7 to L2 of the UCC6 local/line switch.
5.9 Connect white wire of circuit card GEA 018-2A pt. 8 to L1 of the UCC6 local/line switch.
5.10 Connect following wiring of circuit card GEA 018-2A to connector P2 of the UCC6:
   circuit card GEA 018-2A pt. 1 to connector P2 pin 2
   " " " pt. 2 " " " pin 9
   " " " pt. 3 " " " pin 13
   " " " pt. 4 " " " pin 14
   " " " pt. 9 " " " pin 15
   " " " pt. 13 " " " pin 12
5.11 Mount the suppression-filters over contacts L1-2 and 1-2 of the local/line switch.
5.12 Connect the interface cable to connector P2 of the UCC6.
5.13 Modify Teletype keyboard for 8th bit always mark (see Teletype diagram set WDP 0316, sheet 9334 WD).
   If a non-parity Altmode keyboard is asked for, the existing keyboard must be replaced by keyboard UK 800.
5.14 Replace the Teletype cover.

6. ADJUSTMENTS

None.

7. TEST

Simulate the signals, as provided by the computer usually, according to following diagram:
COMPONENTS LAY OUT CIRCUIT CARD GEA 018-2A

C1 - 220μF 16V
D1 - BYX 36
D2 - 1N914
R1 - 1kΩ 5.5W
R2 - 390Ω 1W
RLA - NATIONAL RH 12V
Z1 - 1N963A 1/3W

INTERFACE PDP 8E (PDP 11, PDP 15)

Datum          Wijz          Par.  Opm.                  Tek.nr.
09/08/74        T.R.          

MKT/ITF/01/2
TTY CALL CONTROL UNIT UCC 6

LOCAL/LINE SWITCH - SMD-CARD

ON HAND IN UCC 6 ALREADY

MOUNTING CIRCUIT CARD GEA 018-2A TO CALL CONTROL UNIT UCC 6

INTERFACE PDP 8E (PDP 11, PDP 15)

Datum
Wijk
Par
Opm
Tek. nr.
09/08/74
T.R.

MKT/ITF/01/3