# TECHNICAL DESCRIPTION

SE 1035 Microdisc (MD)

SE 1035 Superdisc (SD)



#### Preface

The SE 1035 SD is the same as a SE 1035 with mini diskette drive. The hardware and software for the drive control, situated in the supplementary module, is exactly the same as in the already known model SE 1041. The difference to the SE 1041 supplementary module is in the drive itself. This is a  $5\ 1/4$  inch Slime-Line drive of the Shugart company, which is treated in detail in this description.

The SE 1035~SD has the same features of efficiency as the SE 1041~with catenating and format control. The supplementary module of the SE 1035~MD is exactly the same in function as the one of the SE 1040~MD.



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#### 1. General

# 1.1 Technical Specification

### Features of Equipment and Efficiency

Printer: see repair instruction SE 1010

Operating program: 56 KB Data memory: 12 KB

Allocation of the memory parity of the data memory

Scratchpad (auxiliary cells): 3.5 KB Effectively usable text memory: 8.5 KB

Text memory is subdivided in

Work memory: 4 KB Phrase memory: 4.5 KB

The phrase memory is splitable into 98 single phrases.

External memory module:

Superdisc

Diskette capacity: (Formatted ≜ 40 tracks/16 sectors)

per diskette: 327.680 Bytes for the user are available max.

per track:

4.096 Bytes 300 KB

per sector:

256 Bytes

Micro disk

Diskette capacity:

per diskette: 8.192 Bytes per page: 4.096 Bytes

Number of tracks: 1 (spirally)



# 2. Dismounting and Mounting

- 2.1 Superdisc supplementary module
  analogous 1041 supplementary module
- 2.2 Microdisc supplementary module
  analogous 1040 MD supplementary module



#### 3. Mini-Floppy-Disk-Unit

# 3.1 Features of efficiency

Diskette capacity:

#### Unformatted

per diskette: 500.000 Bytes per page: 250.000 Bytes

per track: 6.250 Bytes

# Formatted (16 sectors per track)

per diskette: 327.680 Bytes max. 300 KB per diskette are

per page: 163.840 Bytes available for the user

per track: 4.096 Bytes per sector: 256 Bytes

Recording rate: 250 kbits/sec.

#### 3.1.2 Characteristics of the function

Rotation velocity: 300 U/min

Track density: 48 tpi

Recording procedure: MFM

Diskette recommendation: TA mini diskette



### 3.1.3 Physical characteristics

Operation limit values Operation Transport Storing

Environmental temperature 50° - 115°F -40° - 144°F -8° - 117°F

(10° - 46.1°C)(-40° - 62.2°C) (-22.2° - 47.2°C)

Relative air moisture 20 - 80 % 1 - 95 % 1 - 95 %

Required supplying voltage +12V + 10% / 1.2A (max) 0.6A (typ.)

hum voltage max. 100 mV

Required supplying voltage  $+5V \pm 5\% / 0.9A \text{ (max) } 0.6A \text{ (typ.)}$ 

Efficiency capacity: 9.6 W when operating

3.6 W in "stand by" state

Measures: 5.75 inches (146.1mm)

height 1.62 inches (41.1mm)

depth 7.96 inches (202mm)

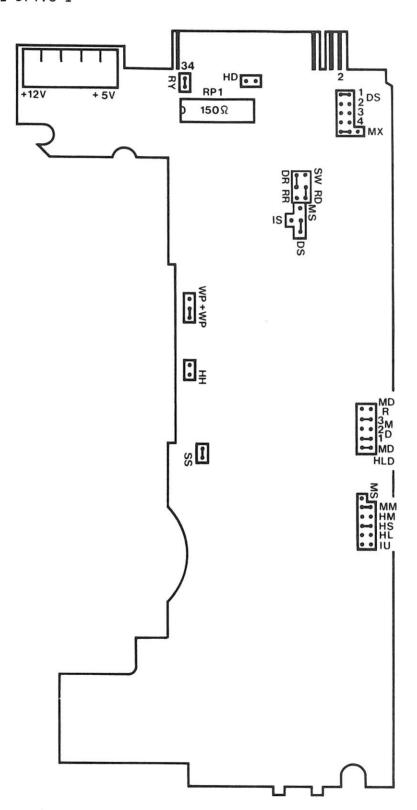
weight 1.5 kg

hum voltage max. 50mV



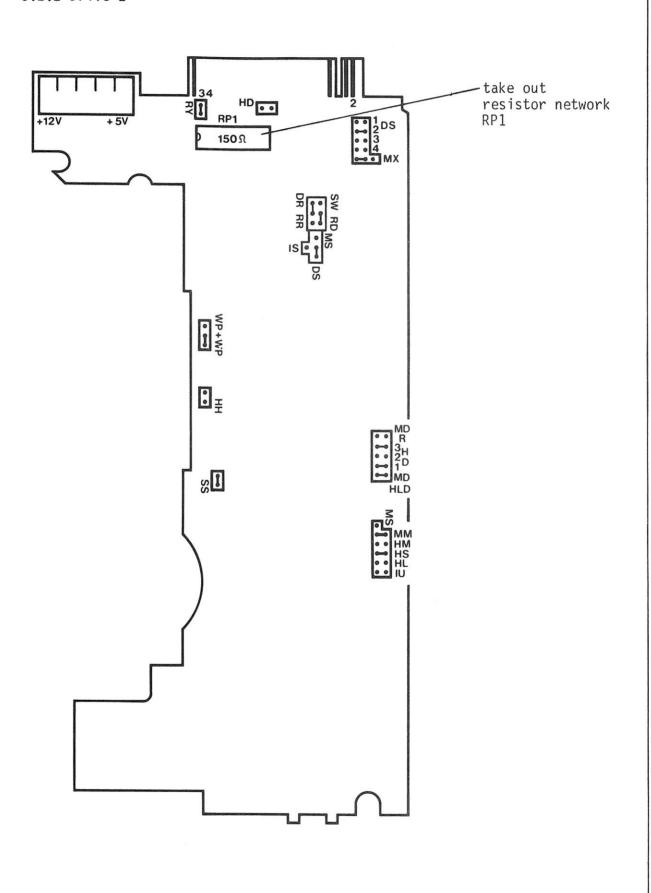
# 3.2 Equippment with jumpers at the Drive

### 3.2.1 Drive 1





### 3.2.2 Drive 2





# 4. Micro Program Equippment

Designation		PCB	Chip Position
		omanie-zwa na	
EDAF 01		EDAA 12	24
EDAF 02		EDAA 12	25
EDAF 03		EDAA 12	26
EDAF 04		EDAA 12	27
EDAF 05		EDAD 16	02
EDAF 06		EDAD 16	04
EDAF 07	LV-DE	EDAD 16	03
EDKF 03	MM boot loader	EDKA 04	11
	only for SD		
EDKF 04	system diskette fo	or SD	
EDKF 09	μP for MD	EDKA 06	04



# 5. Service program

The service program of the Superdisc and Microdisc Machine corresponds to a normal SE 1035.

The "ROM-Test", nowever, must be left out for program-technical reasons.



### 6. Hints for the module exchange

- the Slime-line drive of the SE 1035 SD must be sent completely without front cover and cludgel (incl. cross head screw) to the central module exchange.
- the logic and interface boards of both machines are dispatched completely without program components.
- the controller boards for the micro disc drive as well as for the super disc drive are dispatched with program components.