

Disk Drive Replacement for ABB Robotics S4-systems

Description of disk drive replacement (DDR)

The DDR is a replacement for old floppy disk drives and uses a flash memory for storage (SD-card), mounted in front. When installed, it will be handled as a normal disk drive, and the active disk is indicated on the display. Use step up/step down keys to change “floppy disk”. The maximum capability of “diskettes” is 200. At power on, disk 001 will always be activated.

Status LED: Green light indicates normal status, red indicates an error on the SD-card/DDR.

Yellow LED: Indicates busy/not available

Important: Do not make any disk operations with the programming unit when yellow LED is active!

Memory handling

DDR uses two memories:

1. The SD-card stores data on 200 ”disks”. Each disk represents an image file.
2. The RAM memory is loaded with data from the SD-card when a DDR-disk is activated with the step buttons, when mounting the SD-card or at power on.

The RAM memory is the working memory. No disk operations can be handled correctly before the RAM is loaded and yellow LED is turned off. When data is stored to the DDR, it will first pass through RAM, and then be written to the SD-card. Remember not to force any operations, always wait until the yellow LED turns off before next step in the menus.

The SD-card has no file system present that automatically will be recognized by any PC, but it can be read and edited using the software “Swerob DDR PC Software”.

Never format the SD-card using a PC!

Installation:

The DDR is easy to exchange, it has the same form factor as a standard floppy unit.

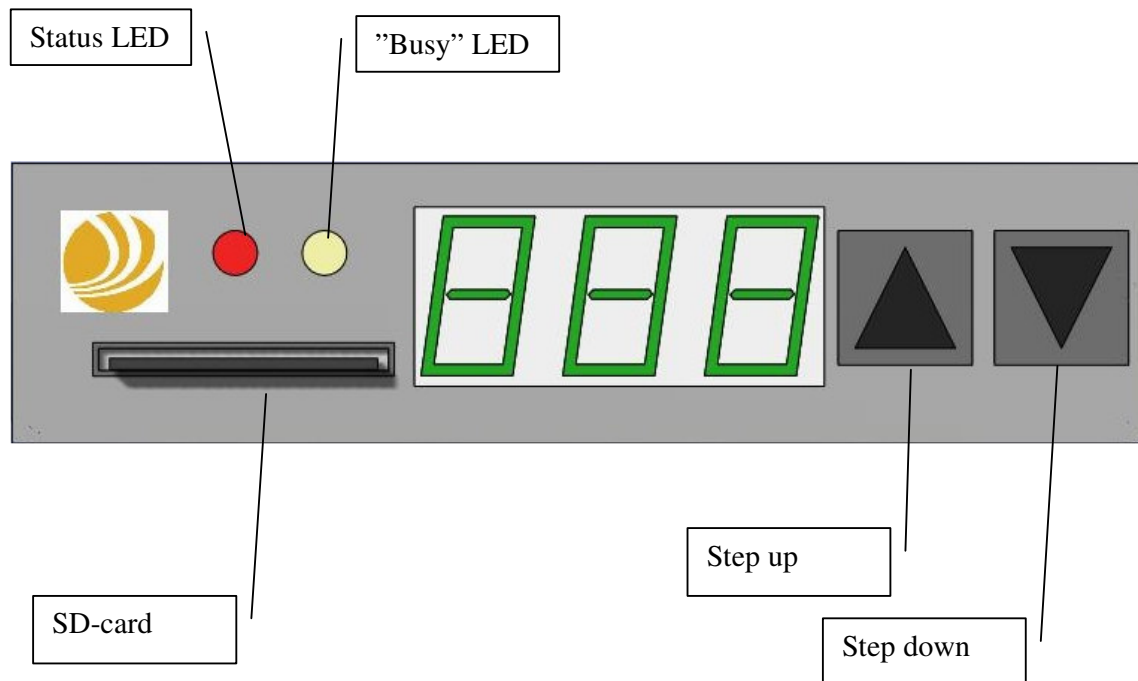
1. Mount the DDR, connect **only** the 5V-power cord and wait until the yellow LED goes out (approx. 20sec).
2. Connect the ribbon cable. If the yellow LED lights up, the ribbon cable is incorrectly socketed. Turn the plug to the other direction.
3. Change disk with up/down buttons, it will take 30 seconds to activate a disk.
Tip: Change to disk 200 – press both buttons at the same time.
4. Save files to the selected DDR “disks”. Disk 100-130 is write protected and cannot save user files.

Backup, restore, editing and transferring files by using a PC:

Backup and editing of the SD-card can be done with a PC and an SD-card reader.
The program "Swerob DDR PC Software" handles operations on the SD-card. Backups are saved in folders, and the "diskettes" are opened explorer style.
It is easy to copy old diskettes (even bootdisks), with the built-in explorer.

The program is provided by Swerob, free of charge with every DDR unit.

Overview



Technical specification

Part number	900053
Interface	34 pin floppy interface
Capacity	200 x 1.44Mb (HD-disk)
Environmental	Operating Temperature 8 C – 50 C
Dimensions	143x103x27mm
Weight	0,5 kg
Power Voltage	DC 4,6 to 5,3 V
Typical current consumption	300mA
System Requirements	ABB S4/S4C Industrial Robot System M94 – M99
Warranty	One-year Limited
Supported SD FLASH cards	1 Gbyte SD card, Swerob art.nr 900054