Disk Drive Replacement (DDR) for ABB Robotics S3-system

New, faster version available from jan 2011

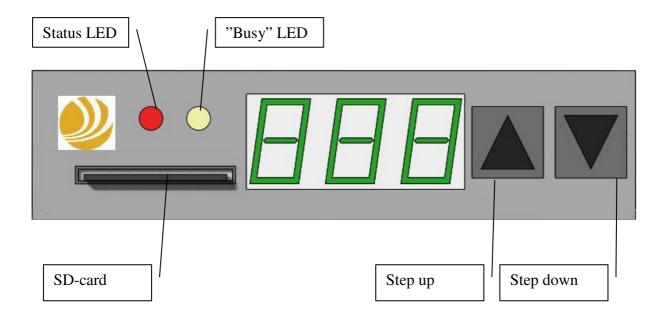## Replaces all* old floppy drives!

<u>Description</u>

The DDR is assembled in the same place as the old floppy disk drive and uses a SD-card to save data (capacity 200 "diskettes").
The active disk is indicated on the display. Disk change is made by the up/down buttons and is done in approx. 5 seconds.
Tip: Change to disk 200 – press both buttons at the same time.

Status LED   "Busy" LED

SD-card   Step up   Step down

Status LED: Green indicates normal status, red indicates an error on the SD-card/DDR.
Yellow LED: Indicates busy/not available.

The SD-card alone cannot be read by any PC, because there is no file system present.
The 200 disks are NOT formatted, each disk has to be formatted before use. Use the menus
"finger" → "disk" → "init" to format each disk separately.
To make backups to PC use "Swerob DDR PC Software" DDR Backup" that can be
downloaded from swerob.com
Backup files on PC are not possible to edit.
Print-out list of used disks can be created from saved backup to for an overview of the disks
used. Useful to have at your robot system!

PC system requirements: Windows XP, Windows Vista, Windows 7 or older with a SD-card
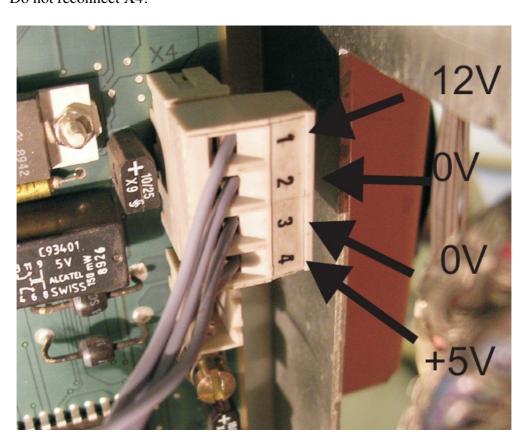reader and .net 1.1 installed.

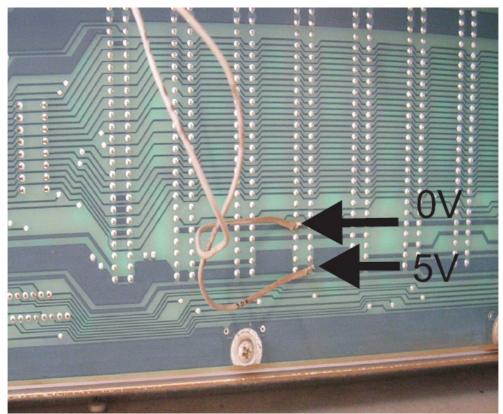# Modification if DSQC202/215 boards is present

Systems with DSQC 230 computer boards work correctly with no modifications. Jump to
chapter "Installation".

M87-M90A systems with DSQC 202/215 computer boards, requires modification before
installation. When the modification is properly done, the green LED lights continuously on
floppy unit front.

Modification:

1. Disconnect connector X4 on DSQC215 (Picture 1)
2. Move wires from X4.3 and X4.4 and solder in them to backplane DSQC218 at X2.
   5V=A32, 0V=C28 (Picture 2).
   Do not reconnect X4!

Picture 2

Transferring of programs/parameters to SD-card

Alternative 1, with switch cable 900060 (see also separate document)

1. Move the switch into floppy mode, and load (from FS) the block or parameters from the floppy disk you want to copy to the robot system.
2. Alternate the switch to DDR mode. Save to selected DDR "disk"

   Repeat step 1 and 2 to copy more program blocks to the DDR.

Alternative 2, with manual interchange between DDR and floppy unit:

1. Load the saved block you want to transfer to DDR from your original disk to the system. Do not power the system off.
2. Disconnect the floppy ribbon cable.
3. Connect only 5V power cable to the DDR and wait until yellow LED is turned off.
4. Connect the ribbon cable to the DDR. If the yellow LED lights up, the ribbon cable is incorrectly socketed. Turn the contact to the other direction.
5. Save block and parameters to the selected, formatted disk.

If more disks/blocks have to be transferred, repeat step 1-5.
It is not necessary to power off/on system during this procedure!

Installation:

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

1. Remove the old 3,5"floppydrive, and mount the DDR. Connect **only** 5V-power cord and wait until the yellow LED lights out (approx. 5sec).
2. Connect the ribbon cable. If the yellow LED lights up, the ribbon cable is incorrectly socketed. Turn the contact to the other direction..

Technical specification

Part number	900052
Interface	34 pin floppy interface
Capacity	200 x 720 kb (DD-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 S3 Industrial Robot System M87 – M93A
Warranty	One-year Limited
Supported SD FLASH cards	SDHC card, Swerob art.nr 900061
Switch cable (optional)	900060

*The DDR is available for ABB:s robot systems: S2, S3, S4, S4C, S4C+ with DSQC540 computer board.