

Chapter 3 - Installation of the DDCTool

The DDCTool is designed to run under the Microsoft Windows 3.x operating environment on IBM-compatible PCs.

Hardware Configuration

A minimum configuration is suggested to ensure reasonable performance. This configuration includes:

- A 286 based CPU with at least 4 Mbytes of RAM memory
- A hard disk with at least 2 Mbyte free space. The DDCTool needs more space for saving graphic displays (approximately 250 to 500 kBytes per graph) and other data.
- A VGA monitor
- A two- or three button mouse (not necessary but makes use of the program much easier)
- A hard copy output device (printer) if you wish to have printouts
- Either SNAT 606 CMT (code 61010793), SNAT 608 CMT (code 61155848) or PCMCIA and optic cable
- In multiple configuration one or more distribution boards YPC111A or YPC115A

Software Configuration

The DDCTool program runs in the Windows 3.x environment.

Installing the DDCTool Hardware

Both SNAT 606 CMT and SNAT 608 CMT boards are referred to here as the DDCTool board. Combination of SNAT 621 PCA and SNAT 622 CMT is referred to as the PCMCIA. Installation of the DDCTool board and the PCMCIA are different from each other so they both have different installation instructions described below.

WARNING

ABB Industry Oy cannot guarantee that the DDCTool board and the PCMCIA will work in every PC. ABB Industry Oy assumes no responsibility for any indirect damages that may occur in connection with the use of the DDCTool board or the PCMCIA.

Installing the DDCTool Board

The DDCTool board is an option board for PC-AT compatible PCs. It is connected to a PC-AT option board socket (ISA-bus) inside the PC.

Before you install the DDCTool board into your PC you must select the correct *interrupt number* and *I/O address range*. You must use such settings that do not conflict with other device settings within your PC.

The interrupt number is selected by one jumper on S1 pins **1-2...7-8**. Four settings are possible. You should select a free interrupt line that is not used by some other device. If you change the default interrupt setting (**5-6**) then you must write down the interrupt number you selected. It is needed when you start to use the DDCTool program (see *Appendix 1* and Chapter *Installing the DDCTool Software*).

SNAT 606 CMT uses I/O address range **600H...701H**. If you have other option boards which use these I/O addresses, you should try to reconfigure them because *SNAT 606 CMT* can only use these I/O addresses.

S1		
12	11	ADDR600
10	9	ADDR200
8	7	IRQ7
6	5	IRQ5
4	3	IRQ4
2	1	IRQ3

Figure 3 - 1. Jumpers of SNAT 606 CMT on S1.

On *SNAT 608 CMT*, the beginning of the I/O address range is selected by one jumper on S1 pins **9-10...19-20**. Six settings are possible. The board reserves eight I/O addresses from the beginning of the selected I/O address range. If you change the default I/O address range setting (**19-20**) then you must write down the I/O address you selected. It is needed when you start to use the DDCTool program (see *Appendix 1* and Chapter *Installing the DDCTool Software*)

S1		
20	19	ADDR3E0
18	17	ADDR390
16	15	ADDR320
14	13	ADDR2F0
12	11	ADDR280
10	9	ADDR210
8	7	IRQ7
6	5	IRQ5
4	3	IRQ4
2	1	IRQ3

Figure 3 - 2. Jumpers of SNAT 608 CMT on S1.

When you have selected the correct settings of the S1 jumpers, you can install the DDCTool board into your PC. Follow carefully the instructions in your PC manual for installation of option boards.

If you do not know how to install option boards into your PC, consult a service technician.

Unplug the power cord of the PC. Open the cover of the PC. Insert the DDCTool board into a vacant bus slot (ISA-bus) of the PC. Close the cover of the PC.

Installing the cable between the DDCTool board and the DDC

The DDCTool package contains a plastic fibre optic cable which is connected between the DDCTool board and the target system (for example SNAT 601/609 TAI in ACV 700 or SDCS-COM-1 in DC drive).

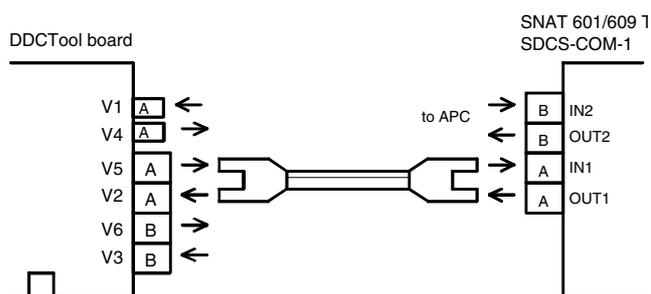


Figure 3 - 3. Connection between the DDCTool board and the target system.

Channel A is used for the DDCTool communication. For channel A there are two types of connectors, V2 and V5 for plastic fibre cable and V1 and V4 for glass fibre cable.

On SNAT 601/609 TAI connectors V10 (IN1) and V11 (OUT1) are used. On SDCS-COM-1 connectors V1 (IN1) and V2 (OUT1) are used.

Make sure that light transmitters are connected to light receivers (do not connect a receiver to another receiver!).

Glass fibre cable is not included in the DDCTool package. It has to be ordered separately. When a glass fibre cable is used, an optical distributor YPC115A is required between the DDCTool board and the target system (see *Figures 3 - 6* and *3 - 7*).

***Connecting
the DDCTool
board to
multiple DDCs***

In the case of only one DDC, a direct connection between the DDCTool board and the DDC is sufficient.

If there are several DDCs and only one PC, YPC111A optical distributors can be used between the DDCTool board and the DDCs. YPC111A has one connection for the DDCTool board and four connections for the DDCs or lower level optical distributors. When using the YPC111A board and plastic fibre cable, the maximum length between the boards is 20 metres.

If the lengths between the DDCTool boards are over 20 metres the YPC115A board and glass fibre cable should be used. The maximum length in this case is 1000 metres.

Optical distributors can be connected to a tree or chain form. The height of the tree / length of the chain depends on the number of DDCs in the system (max number of DDCs is 249).

Optical distributors use +24 V auxiliary power.