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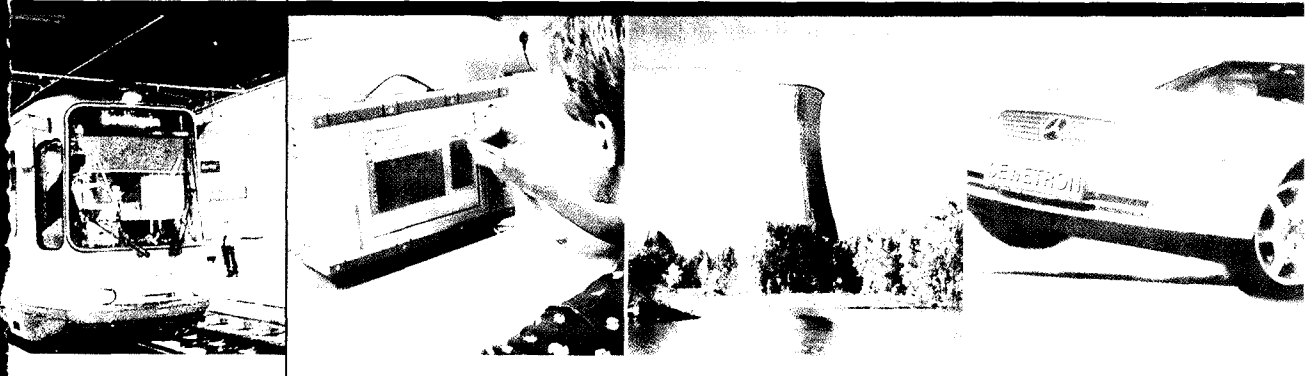
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Find the *Dewetron DEWE-3010* at our website: *Click HERE*

MANUAL

DEWE-3010-IPC

Technical Reference Manual



DEWETRON

Technical Reference Manual

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Printing version 1.3.6 / April 18, 2000

Technical Reference Manual

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Printing History:

Version 1.3.6
Released April 18, 2000

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Notice

Safety symbols in the manual:



Indicates hazardous voltages.

WARNING Calls attention to a procedure, practice, or condition that could cause bodily injury or death.

CAUTION Calls attention to a procedure, practice, or condition that could possibly cause damage to equipment or permanent loss of data.

The following general safety precautions must be observed during all phases of operation, service, and repair of this product. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the product. DEWETRON Elektronische Messgeraete Ges.m.b.H. assumes no liability for the customer's failure to comply with these requirements.

Safety instructions for all DEWETRON systems

- The DEWETRON data acquisition systems may only be installed by experts.
- Read your manual before operating the system.
- Observe local laws when using the instrument.
- Ground the equipment: For Safety Class 1 equipment (equipment having a protective earth terminal), an non interruptible safety earth ground must be provided from the mains power source to the product input wiring terminals or supplied power cable.
- DO NOT operate the product in an explosive atmosphere or in the presence of flammable gases or fumes.
- DO NOT operate damaged equipment: Whenever it is possible that the safety protection features built into this product have been impaired, either through physical damage, excessive moisture, or any other reason, REMOVE POWER and do not use the product until safe operation can be verified by service-trained personnel. If necessary, return the product to a DEWETRON sales and service office for service and repair to ensure that safety features are maintained.
- Keep away from live circuits: Operating personnel must not remove equipment covers or shields. Procedures involving the removal of covers or shields are for use by service-trained personnel only. Under certain conditions, dangerous voltages may exist even with the equipment switched off. To avoid dangerous electrical shock, DO NOT perform procedures involving cover or shield removal unless you are qualified to do so.
- No modifications are allowed at the instrument. The fuse in the power module has to be replaced by the same type. For continued protection against fire, replace the line fuse(s) only with fuse(s) of the same voltage and current rating and type. DO NOT use repaired fuses or short-circuited fuse holder labels and print on the power module may not be removed.
- DO NOT service or adjust alone. Do not attempt internal service or adjustment unless another person, capable of rendering first aid and resuscitation, is present.
- DO NOT substitute parts or modify equipment: Because of the danger of introducing additional hazards, do not install substitute parts or perform any unauthorized modification to the product. Return the product to a DEWETRON sales and service office for service and repair to ensure that safety features are maintained.
- Before opening the instrument (experts only) or exchanging the fuse in the power module disconnect power!
- Don't touch internal wiring!
- Don't use higher supply voltage than specified!
- Use only original plugs and cables for harnessing.
- Install filler-panels in unused slots.
- The power-cable and -connector serve as Power-Breaker. The cable must not exceed 10 feet, disconnect function must be possible without tools.
- Safety of the operator and the unit depend on following these rules.

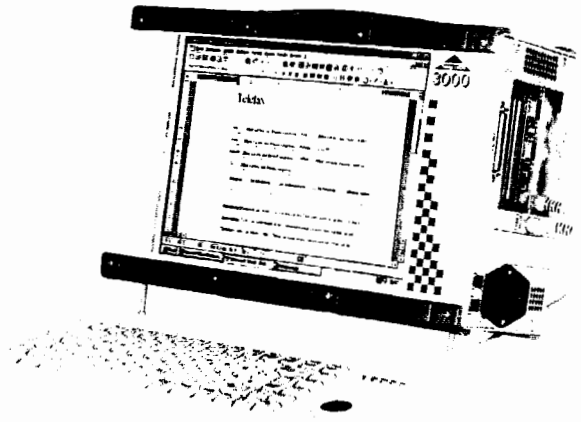
General System Information

DEWE-2010 and DEWE-3010 systems

- The system BIOS is protected by password. Any change in the BIOS may cause a system crash. When the system is booting, do not press ESC-button on keyboard. This may clear the BIOS settings and cause system faults.
- Any change in the file structure as deleting or adding files or directories might cause a system crash.
- Before installing software updates contact DEWETRON or your local distributor. Use only software packages which are released by DEWETRON. Further informations are also available in the internet (http://www.dewetron.com).
- After power off the system wait at least 10 seconds before switching the system on again. Otherwise the system may not boot correct. This prolongs also the life of all system components

DEWE-3010 IPC

- Portable industrial PC
- 2 PCI slots full length and height



System specifications

Power supply:	■ AC power supply ACE-716A (for details see 1.1 on next page)
	❑ DC power supply NET-202 + Accu (for details see 1.2 on next page)
Operating temperature:	0 °C to 50 °C (standard)
Storage temperature:	-20 °C to +60 °C
Humidity (operating):	10 % to 80 %, non condensing 5 % to 95 %, rel. humidity
Vibration:	MIL-STD 810C 514.2 procedure X
5 Hz - 200 Hz - 5 Hz:	12 min, 84 min per axis
5 Hz - 7 Hz:	1 in. displacement
7 Hz - 92 Hz:	2.5 g
92 Hz - 110 Hz:	0.0058 in. displacement
110 Hz - 200 Hz:	3.5 g
Shock:	MIL-STD 810C
High intensity:	100 g 6 ms, operating, procedure IV
Crash safety:	60 g 6 ms, operating, procedure III
Basic design:	30 g 11 ms, operating, procedure I
Physical characteristics:	
Size (W x D x H):	14.6 x 10.2 x 6.7 in. (372 x 258 x 170 mm)
Weight:	typ. 12 lbs (6 kg), depending on configuration

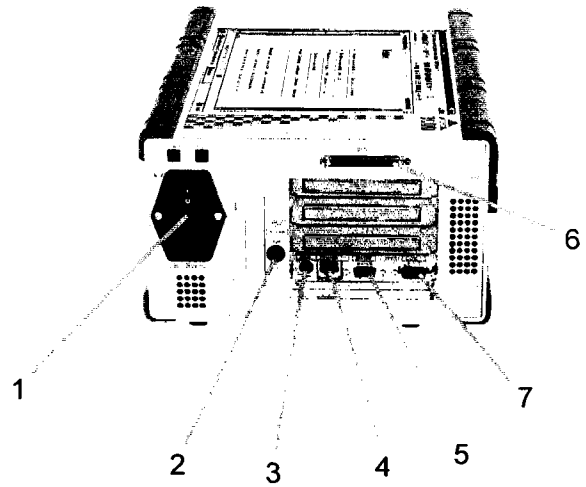
Access to PCI Slots





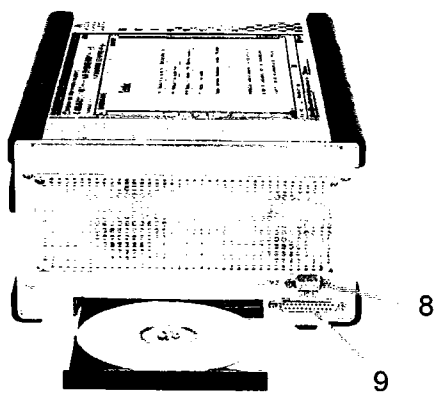
To open the DEWE-3010 IPC remove the 8 big screws and the cover.

Connectors



Connector overview:

1. Power supply connector
2. PS/2 mouse connector
3. PS/2 keyboard connector
4. Ethernet RJ45 connector
5. VGA connector
6. Ultra Wide SCSI controller interface (option)
7. RS-232 connector (COM1)
8. RS-232 connector (COM2)
9. LPT Printer interface connector



Note: The location of the connectors might vary from system to system and depends on system configuration

1. Power supply connector

1.1 AC power supply

Input:

Input range:	85 .. 135 VAC and 180 .. 265 VAC (auto selecting)
Input frequency:	47 .. 440 Hz
Max. input current:	5 A (115 VAC) or 3 A (230 VAC)

Output:

Output power:	150 W
Output voltages:	+5 V (max. 25 A) +12 V (max. 10 A) -5 V (max. 1 A) -12 V (max. 1 A)

The maximum load is 150 W, otherwise power supply can be damaged.

The system fuse is located between connector and power switch. If the system doesn't work after switching on, disconnect the power cord and check the fuse.

1.2 DC power supply

Input:

DC and battery input:	10 to 32 VDC
Max. input current:	3.5 A (230 VAC), startup peak up to 25 A
Input power:	160 W
Input voltage priority:	1. DC voltage 2. Battery

Battery type:	NiCd, 24 VDC, 600 mAh

Output:

Output power:	160 W
Output voltages:	+5 V (max. 20 A) +12 V (max. 5 A) -5 V (max. 0.3 A) -12 V (max. 0.4 A)

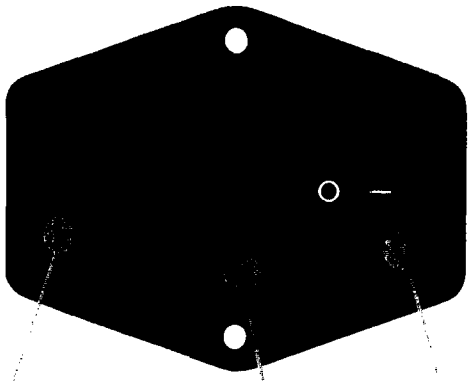
The maximum load is 160 W, otherwise the power supply can be damaged.

Power LED:

dim green:	DC connected to system, system powered off
bright green:	DC connected to system, system powered on
orange:	system powered on, working via accu
red:	starts 30 sec. before accu is getting low together with beep signal

1. Power supply connector (cont.)

AC power supply connector

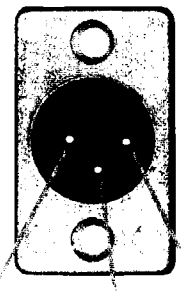


AC connector

Power on / off

Fuse (250 V / 1 A T
110 V / 3.15 A T)

DC power supply connector



1: +Vcc

2: GND

3: Not connected

2. PS/2 mouse connector

The mouse / trackball connector is used to connect the trackball embedded in the keyboard or an external PS/2 mouse. The connector meets standard PS/2 pin assignment.

3. PS/2 keyboard connector

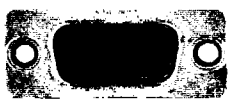
The keyboard connector is used to connect PS/2 keyboard to DEWE-3010 IPC system. The connector meets standard PS/2 pin assignment.

4. Ethernet connector

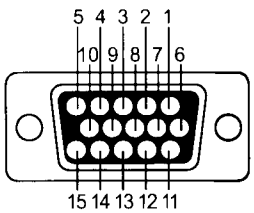
The DEWE-3010 system supports 10baseT Ethernet with standard RJ45 connector.

5. VGA connector

The VGA connector offers the possibility to connect an external CRT to the system.



15 pin mini SUB-D connector



Schematic

Pin assignment
1: Red video
2: Green video / Sync on green
3: Blue video
4: -
5: -
6: Red video ground
7: Green video ground
8: Blue video ground
9: -
10: Ground
11: Ground
12: Data line
13: H-Sync / HV-Sync
14: V-Sync
15: Clock line

6. Ultra wide SCSI controller interface (option)

The Ultra-Wide-SCSI interface connector is located on the right side of the DEWE-3010 IPC. External SCSI devices, i.e. CD-Writer, can be connected with appropriate cables.



68 pin HD-SUB-D connector

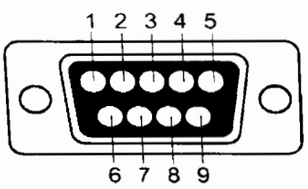
7. RS-232 interface connector (COM1)

8. RS-232 interface connector (COM2)

The two RS-232 interface connectors (male) are located on the left and right side of the DEWE-3010 IPC. They are configured as standard RS-232 interface COM 1 and COM 2 and can be used for mouse or other peripheral units.



9 pin SUB-D connector (male)



Schematic

Pin assignment

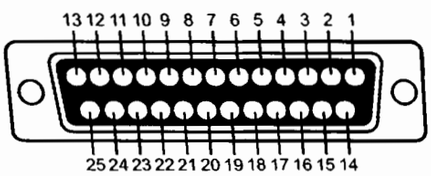
1: DCD (Data Carrier Detector)
2: RD (Received Data)
3: TD (Transmitted Data)
4: DTR (Data Terminal Ready)
5: GND (Ground)
6: DSR (Data Set Ready)
7: RTS (Request To Send)
8: CTS (Clear To Send)
9: RI (Ring Indicator)

9. LPT printer interface connector

The printer interface connector (female) is located on the left side of the DEWE-3010 IPC. It is configured as standard LPT interface.



25 pin SUB-D connector (female)



Schematic

Pin assignment

1:	Strobe	14:	Auto FD
2:	Data 1	15:	Error
3:	Data 2	16:	Init
4:	Data 3	17:	Select In
5:	Data 4	18:	GND
6:	Data 5	19:	GND
7:	Data 6	20:	GND
8:	Data 7	21:	GND
9:	Data 8	22:	GND
10:	ACK	23:	GND
11:	Busy	24:	GND
12:	PE	25:	GND
13:	Select		

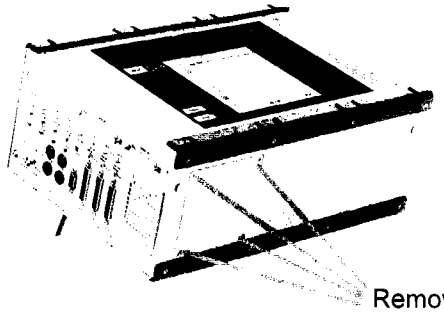
Instructions for battery exchange

The following part is only valid for systems with DC power supply

Battery exchange has to be done by qualified persons only!

Power down system and disconnect from power supply. Remove four screws from bottom of the DEWE-3010 system to get access to the battery. Exchange battery and close battery compartment again with the four screws.

Do not touch any internal wiring expect of the battery connection cable!

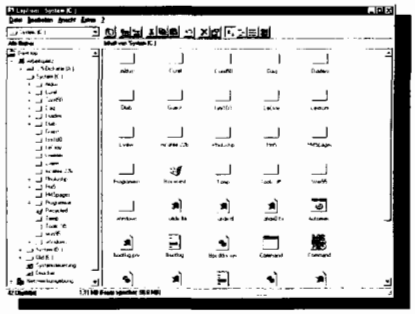


Remove this 4 screws for battery access

System performance

Motherboard:	see attached manual
Processor:	■ Pentium III 1000 MHz ❑ Intel Celeron 1100 MHz
System Memory:	
Memory type:	■ 168 pin DIMM (PC133) ❑ 168 pin DIMM (PC100)
Number of modules:	■ 1 ❑ 2 ❑ 3 ❑ 4
Size per module:	❑ 64 MB ❑ 128 MB ■ 256 MB ❑ 512 MB
Harddisk:	
Interface:	E-IDE
Capacity:	❑ 10 GB ■ 20 GB ❑ 60 GB
Floppy Disk Drive:	■ 3.5" / 1.44 MB
CD-ROM:	24x
Network connection:	❑ 10BaseT Ethernet (RJ45) ■ 10/100BaseT Ethernet (RJ45)

Display / Graphic interface



Display:

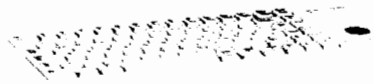
Size:	12.1"
Resolution:	800 x 600 pixel
Touchscreen:	❑ yes ■ no

Graphic interface:

Bus system:	PCI
Video memory:	2 MB
CRT simultaneous:	yes

Keyboard

Keyboard:	83 / 84 keys
Interface:	PS/2
Trackball Interface:	PS/2



Declaration of conformity

Following products are in conformity with EN50081 (Generic emission standard for light and heavy industry) and EN50082 (Generic emission standard for light and heavy industry):

DEWE-2000 / DEWE-2010

DEWE-3000 / DEWE-3010

DEWE-BOOK

DEWE-RACK

DEWE-DAQ modules

Note: enhanced EMC specifications are achieved when using DC power supply input.

Manufacturer: **DEWETRON** Elektronische Messgeraete Ges.m.b.H.
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Graz, Feb. 5th, 1998

Ing. Herbert Wernigg
Managing director

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