

Triton 88 Sparepart/Upgrade kits

**How to install
VME kit additional 4 slots
in
Triton 88
Compact**

Kit D308-193300

Document D450-000133 Version 1.0

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Parts list

The following parts are included in the D308-193300 kit:

Part number	Description	Quantity
not assigned	4-slot VME adapter card crate w/Basic I/O Ad.	1
D322-060026	Plugrail blind	1
D321-518146	Screw M4x16 DIN 7985 Pan Poz	2
D321-518769	Washer 4.3 DIN 6798 a zn star	2
D322-060007	Cover rail	1
D321-518728	Screw M4x10 DIN 965 poz c.sunk	2
D450-000133	Document "How to mount VME kit additional 4-slot"	1
D450-000110	Paper in plastic pocket "Installation Quality Report"	1
D450-000010	Sheet of paper, marked "System Integration Record"	1

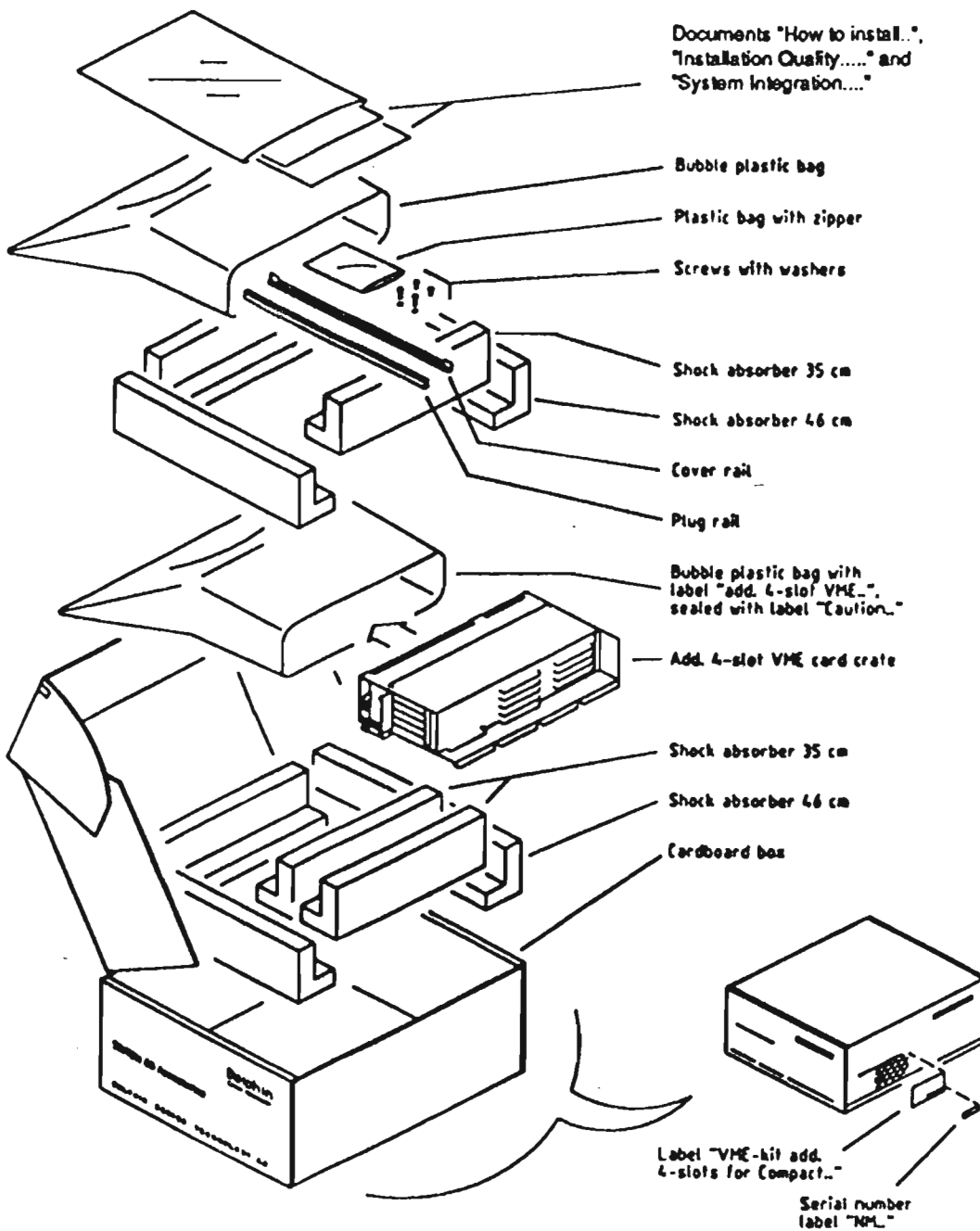
You will need the following tools and test equipment:

Part number	Description	Quantity
	Screwdriver pozidrive number 2	1

Prerequisites

To install this VME kit you must have:

- a TRITON 88 Compact where slots five through 11 in the rear card crate are or can be made free
- a TRITON 88 CPU with part number D310-350510, D310-350520, D310-350530 or D310-350540 and with ECO level JA, HA, DA and FA respectively or with a later ECO level (e.g. A CPU with part number D310-350520 must have ECO level HA or later) .
- a *Basic Software Package for Uniline 88* D200-000101 version 3.2 or later.
- No Ethernet III cards (part number D310-324232) with ECO level earlier than JD (e.g. ECO level HD is not acceptable)



Upgrade procedure

1. Determine if you have software version 3.2 or later. You determine this by giving the command `swconf -v`. The number following directly after "Basic Software Package" must be 3.2 or higher

```
console login: root-  
Dolphin UNIX System V/88 Release 3.2 Version 3.2/x.xx M88100  
# swconf -v  
Basic Software Package 3.2 triton88 4.xx
```

2. If you have Dolphin UNIX System V/88 Release 3.2 Version 3.1 or earlier, install:

part number D200-000101 "Basic SW Package for UniLine88, version 3.2 " or later

as described in the documents "Release notes 3.2"

3. Make a safe shutdown of the system. (Refer to "D450-000113 Triton Specific System Administration") The following will make a complete shutdown of the system in 2 minutes, but may not be safe if any applications are running on your computer:

```
# shutdown -q120 -i5-  
Do you want to continue? (y or n): y-
```

4. Wait for the messages:

```
The system is down  
CP>
```

WARNING

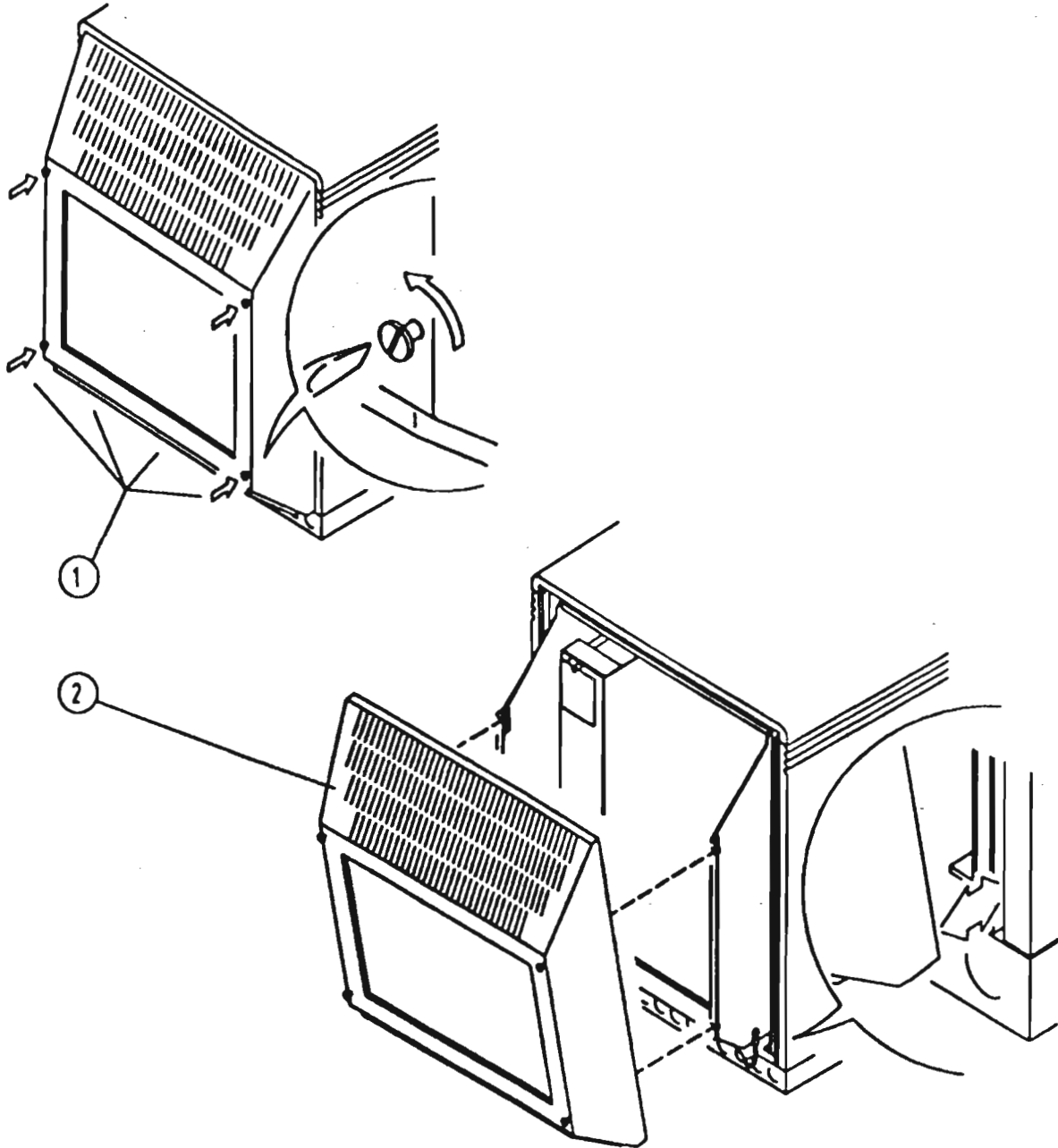
The cabinet may contain exposed leads with 220 Volts ac at current levels which may cause death on contact

WARNING

The cabinet may contain exposed leads with low voltage at high energy levels which can cause severe burns when shorted

5. Set the key switch on the computer operator panel to the OFF position.
6. Pull out the mains power cable from the wall outlet.

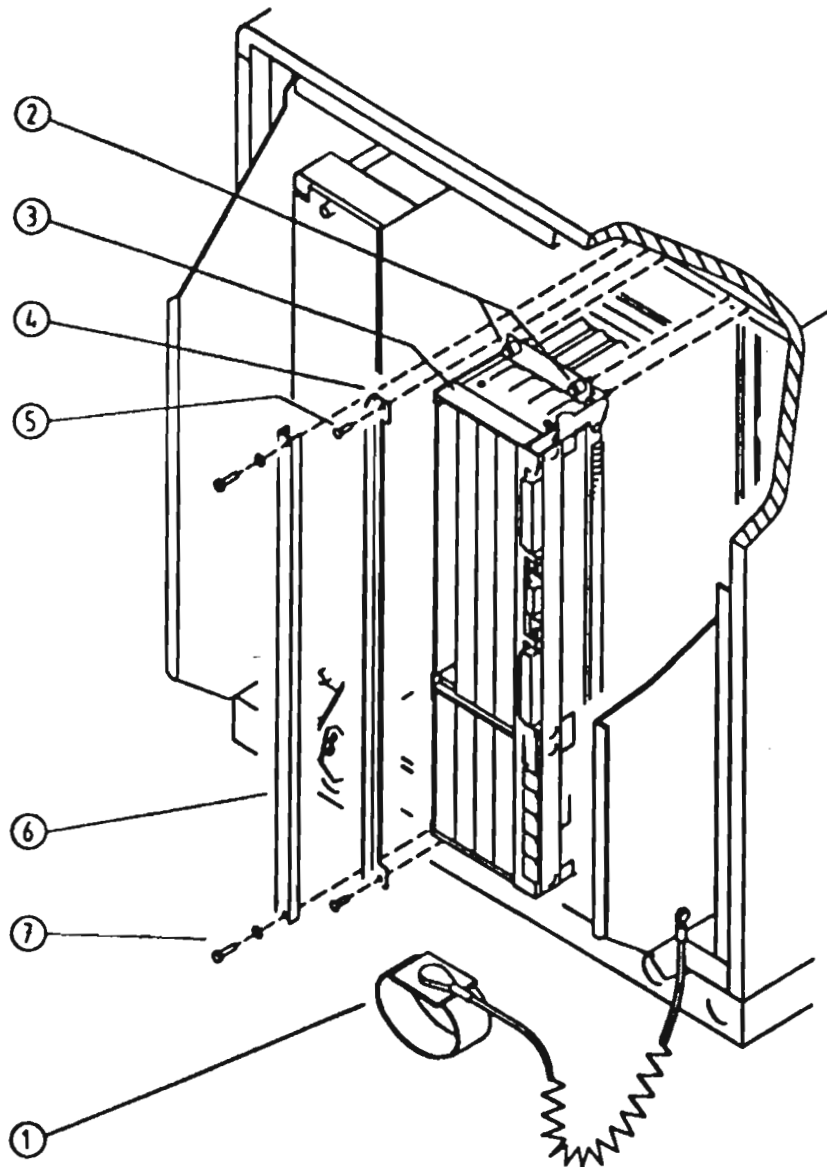
7. Loosen the four 1/4-turn screws (1) and remove rear panel (2)
8. Update the SIR form (found on the inside of the computer rear panel) with the new VME adapter type and serial number.
9. Correct the software version entry on the SIR form



10. Attach the wrist strap (1) to your wrist to avoid damage to the Basic I/O adapter and the integrated circuits (ICs)
11. Move any main card/plug cards, such as Ethernet/Ethernet plugcard, in slots 5 through 11 to other slots. You may move the CPU from slot 2 to slot 6 to make room. Do not use slot 3 while the CPU is in slot 2.
12. Using 6 screws (2), mount the assembly in the rear of the computer so the Basic I/O Adapter ends up in the slot in the rear corresponding to slot 5 in the front of the computer.

Slot one in the rear is the right most slot when seen from the rear. The switches and jumpers are factory preset for this use. The settings are explained in Appendix A and B

13. Mount the cover rail (4) with two 4x10 mm sunc screws (5)
14. Mount the Plug rail (6) with two 4x16 mm screws and washers (7)



15. Set the switch on the power supply to the ON position
16. Set the key on the operator panel to the ON position
17. Press the MAINT button on the cabinet operator panel
18. Wait for the message on the console:

CP>

19. Test the assembly by typing the underlined part of the following on the console terminal keyboard:

```
CP>mf-c↵
Automatic reconfiguration performed This may take up to 1 minute
mf-c>cold↵
mf-c>exit↵
CP>88000↵
88000>test-monitor↵
Base address for 88K local memory:      0
First address outside local memory: 2000000
<MULTI-88K> a↵
<MULTI-88K> i↵
<MULTI-88K> g↵
CPU 00: CPU number 0 running !
tts↵
Include SONIC loopback test (/N)?y↵

Give slot number (dec 1-15): 5↵
```

20. Wait a few seconds for the following to appear on the console terminal screen:

```
BIOA register test OK
SONIC loopback test OK
VME interrupt test OK Count=1 On some terminals this line reads: OKE
interrupt test Count=1
```

21. Type the underlined part of the following on the console terminal keyboard:

```
a↵
<MULTI-88K>exit↵
88000>exit↵
CP>
```

22. Press the RESET button on the cabinet operator panel and wait for the message on the console:

The system is ready.

23. Set the key on the operator panel to the ON LOCK position

The example below was run on a prerelease of version 3.0 on a specific date and machine so do not be alerted by differences from those reasons. However, if the lines in bold: "CP:Master....." and "The system is ready" do not appear on your screen, the upgrade was probably not successful. If you skipped the MF-C command in the test you will get this message "WARNING.....Configuration has changed, automatic reconfiguration done". This informs you that the reconfiguration has been done automatically

NCP: Self test in progress - Firmware version: E30 - August 15, 1989
CP: Self boot in progress, version: 1.32 January 8, 1990
CP: Control Processor 4.61, November 6, 1990, system boot started

CP: 88K selftests in progress
CP: 88K selftests OK
CP: Additional Basic IO Adapter found
CP: Loading UNIX image /stand/unix
CP: Loading I/O controllers
CP: UNIX started
System V NFS Release 3.2/V3
Copyright 1986,1987,1988 Lachman Associates, Inc. (LAI). All Rights Reserved.

Dolphin UNIX System V/88 Release 3.2 M88100 Version 3.0snapII

CPUs = 1
Real mem = 16777216
Avail mem = 11722752
Buffers = 224

Enter <CR> to stop in single user mode during system boot.
Default boot sequence continuing...
The system is coming up. Please wait.
mount -f S51K /dev/vdi/vdi001 /usr
mount -f S51K /dev/vdi/vdi249 /usr/nd/sybase
mount: warning: <-> mounted as </usr/nd/sybase>
Expreserve notification performed.
M88K SYSTEM CONFIGURATION:

Memory size: 16 Megabytes
Process accounting started.
Error logging started.
Print services started.
Line printer scheduler started.
Transport Provider daemon started.

ifde_0: xmt: missing carrier (please check the ethernet cable!)
Syslog daemon started.
Internet services provided.
Default gateway: 255.255.255.255
Stream Error logging started.
The domainname has not been set.
NFS Startup:
NFS Startup complete.
The system is ready.

Console Login: root

Dolphin UNIX System V/88 Release 3.2 Version 3.0snapII M88100
unix6

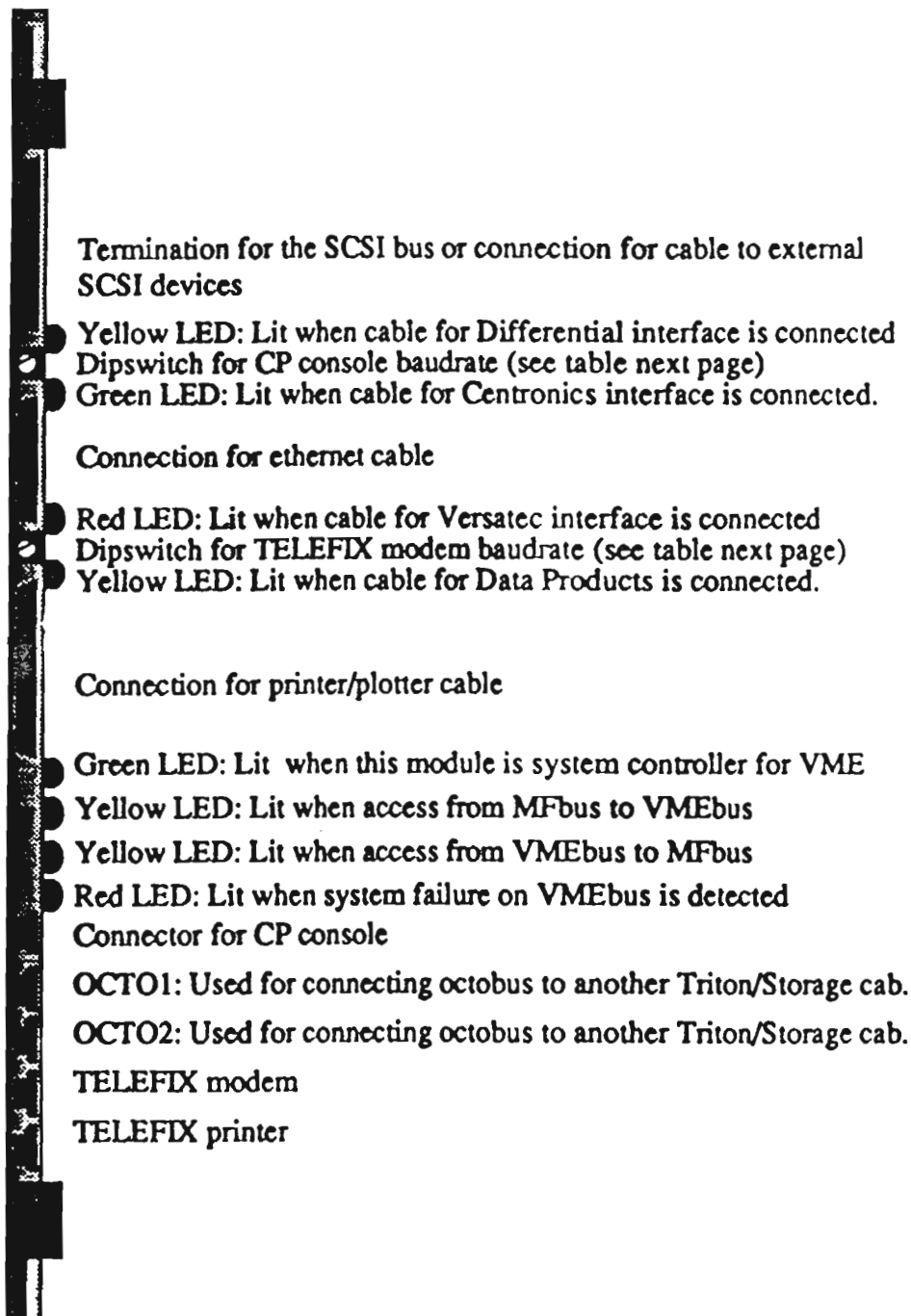
Copyright (c) 1988 AT&T
Copyright (c) 1985 Motorola, Inc.
Copyright (c) 1988 UniSoft Corporation
Copyright (c) 1990 Dolphin Server Technology a.s
All Rights Reserved

Login last used: Fri Nov 9 15:03:51 1990
TERM = vt100

24. Mount the cabinet rear panel.
25. Send one copy of the SIR form to
Support department
Dolphin Server Technology A s
P.O.BOX 52, Bogerud
N 0621 Oslo 6
Norway

Appendix A Basic I/O adapter

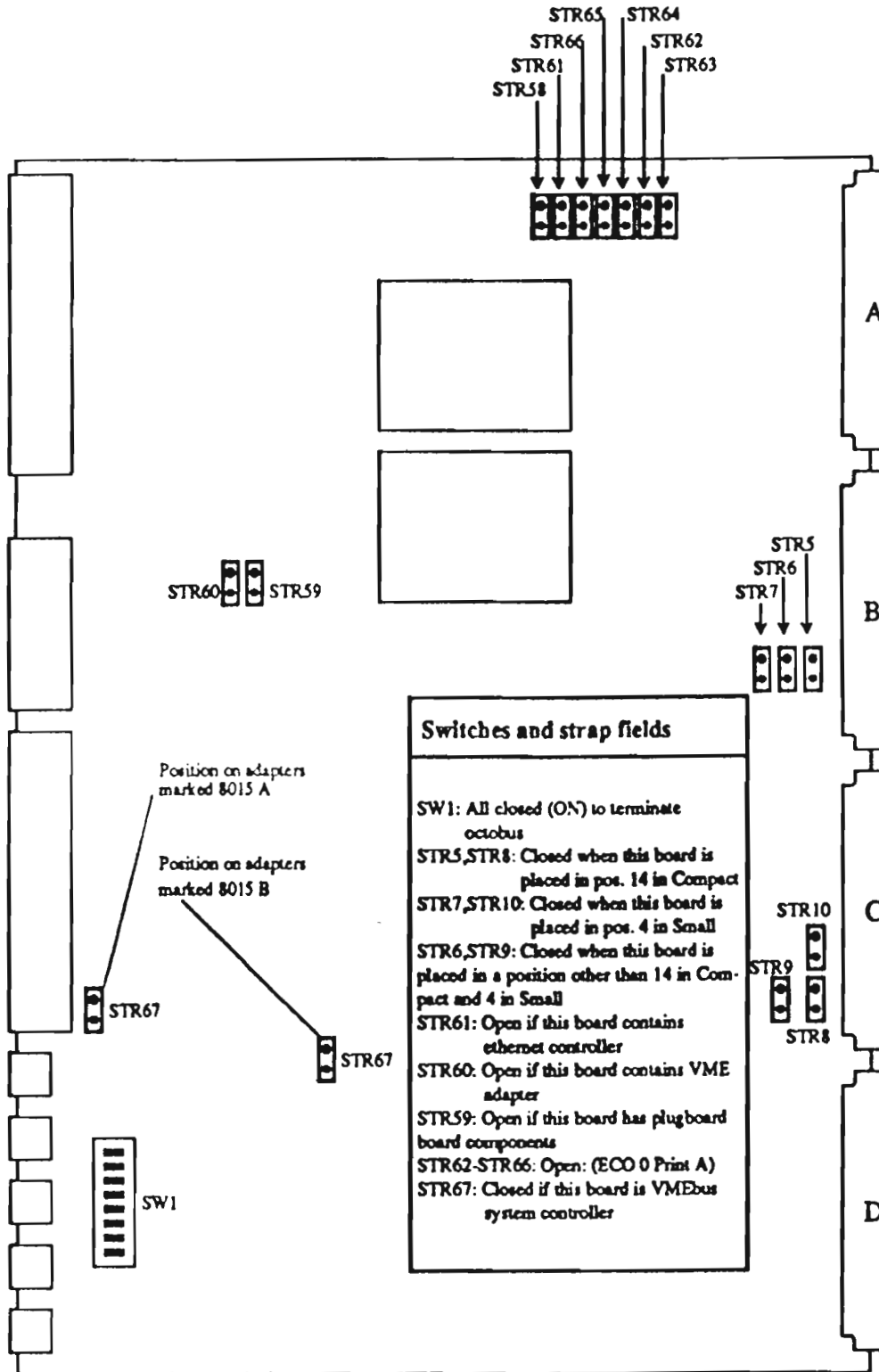
Switches, Indicators and connectors



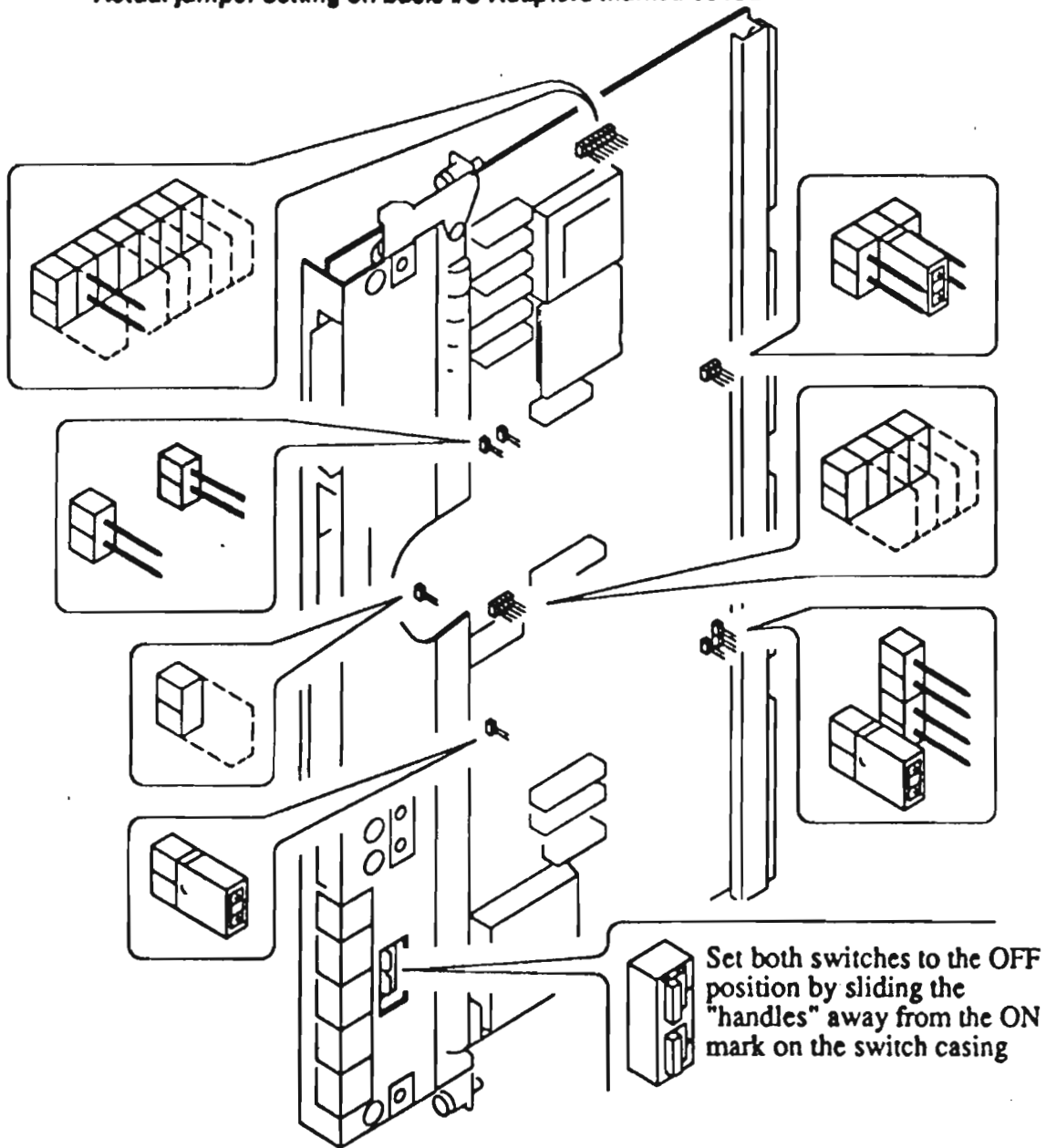
CP console and TELEFIX modem baudrate setting

Baud rate setting on Basic I/O adapters	
0 =	50 baud
1 =	75 "
2 =	110 "
3 =	134.5 "
4 =	150 "
5 =	300 "
6 =	600 "
7 =	1200 "
8 =	1800 "
9 =	2000 "
A =	2400 "
B =	3600 "
C =	4800 "
D =	7200 "
E =	9600 "
F =	19200 "

Jumper locations and general setting



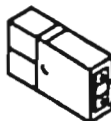
Actual jumper setting on basic I/O Adapters marked 8015B



Set both switches to the OFF position by sliding the "handles" away from the ON mark on the switch casing



No jumper or jumper attached to one pin (stored jumper)



Jumper must connect the two pins electrically



Jumpers set during board production or revision, setting may vary

The *Installation Quality Report*, IQR, should be filled in by the vendor installation responsible person.
Please return this form when the *Uniline88* is properly installed.

How to use the IQR:

-Site Information (always fill in this part):

Identification:

Installed by: Name, initials, of vendor installation person.
Date of installation: Date when system is installed at end customer site.
System serial number: The Dolphin system serial number. (2 letters and 5 digits).

Customer identification:

Company name: Full name of company and department where the system is installed.

No problems found: Put a mark here if everything is OK. Nothing to complain about

Before doing this be sure that:

- There is no missing parts. (See manual: *Read This First*).
- No damage to the system or parts of it. Check the indicators (See manual *Read This First*)
- The system is working satisfactorily.
- The customer has nothing to complain about the initial installation.

-Problem description (If you can not mark *No Problems Found*, this part should be filled in):

Receiving inspection:

Physical damage.

Missing Items.

Describe what parts were missing (See manual: *Read This First* for a list of parts).

Any Problems:

Describe what is wrong with the delivery. (See manual: *Read This First* for a list of parts).

Please return this form to:

Dolphin Server Technology A/S
Attn.: Support dept.,
Olav Helseths vei 6, P.O. box 53, Bogerud, N 0621 Oslo 6, Norway.

We manufacture a high quality product. We invite your suggestions for further improving our product and serving your needs. It is through the valuable input of our customers that we can continue to enhance our products.

NOTE: To ensure full warranty this form has to be filled in by the vendor installation responsible and returned to Dolphin as soon as the system has been installed.

Please return to:

Dolphin Server Technology A/S

Attn.: Support dept.,

Olav Helseths vei 6, P.O. box 53, Bogerud, N 0621 Oslo 6, Norway.

Site Information:

Identification

Installed by:

Date of installation:

System serial number:

Customer identification

Company name:

No problems found:

Problem description:

Receiving inspection:

Any physical damage
(visual inspection)

Impact exceeded G level
(see Impact indicator)

Tipped over
(see Tip indic.)

Missing items (cables, documentation):

Any Problems:

System Integration Record for Upgrade Kit

Document part number D450-000134. Revision 1.0

Kit data:

Description	Serial No./Date	Part No.	ECO	Location
VME... kit additional 4 slots	NM01107	D308-1933a	.....



Test equipment type/version/serial numbers:

Test description	Test hardware	Test software
Assembly: D460-000206 version: 1.0	Computer.... Serial No: 1134 CPU.... Serial No: N00095	Basic SW package version: 3.2 Maintenance package version: 3.2
Final test: D460-000206 version: 1.0	CPU selftest Version No: 50.134 Serial No:	..... version:..... version:.....

Equipment data:

Item -Description	Serial No./Date	Part No.	ECO	Location
1. Basic I/O Adapter	NM01107	D310-358015	B.A.	.....
2. Card crate, 2-slot VME	D322-040009	.....	.....
3. Card crate, 4-slot VME	RN09030	D322-040002	-	.....
4. Carrier, disk/Exabyte	D310-350342	.....	.....
5. Carrier, streamer	D310-358019	.....	.....
6. CMMU ¹ 17/20/25 Mhz	D365-5132.... ²	.....	.....
7. CMMU ¹ 17/20/25 Mhz	D365-5132.... ²	.....	.....
8. CMMU ¹ 17/20/25 Mhz	D365-5132.... ²	.....	.....
9. CMMU ¹ 17/20/25 Mhz	D365-5132.... ²	.....	.....
10. Control processor	D310-324275	.....	.....
11. CPU ¹ 17/20/25 Mhz	D365-5132.... ³	.....	.....
12. DC502-1	D340-512050	.....	.....
13. DC502-1 UPS	D340-512055	.....	.....
14. DC505-1	D340-512051	.....	.....
15. DC505-1 UPS	D340-512052	.....	.....
16. Disk drive 1 Gb SCSI 5.25" SE	N/A	.....	.....
17. Disk drive 310 Mb SCSI 5.25" SE	D380-525066	.....	.....
18. Disk drive 630 Mb SCSI 5.25" SE	D380-525084	.....	.....
19. Exabyte drive 2Gb SCSI 5.25" SE	D383-528055	.....	.....

¹Do not fill in for Hypermodules

²The last two digits in the part numbers for 16MHz, 20MHz and 25MHz versions are 98, 79 and 86 respectively

³The last two digits in the part numbers for 16MHz, 20MHz and 25MHz versions are 97, 78 and 85 respectively

Olaf Helsets vei 6
P.O.Box 52, Bogerud
N-0621 Oslo 6, Norway
Tel.: +47 2 62 70 00
Telefax: +47 2 62 73 13
E-mail: mktg@dolphin.uucp
Bank: 5003.05.13905

Item -Description	Serial No./Date	Part No.	ECO	Location
20. Hypermodule 2P/128 25MHz	D365-513290	.....	.....
21. Hypermodule 4P/128 25MHz	D365-513291	.....	.....
22. LAN processor	D310-324232	.....	.....
23. Memory, 8 Mb, error correcting	D308-191800	.....	.....
24. Memory, 64 Mb, error correcting	D308-191801	.....	.....
25. PFTCON	D310-350227	.....	.....
26. TRITON 88 CPU-Mk I multi 25	D310-350530	.....	.....
27. TRITON 88 CPU-Mk I single 17/2	D310-350540	.....	.....
28. TRITON 88 CPU-Mk I single 20/2	D310-350510	.....	.....
29. TRITON 88 CPU-Mk I Single 25/4	D310-350520	.....	.....
30. TRITON 88 CPU-Mk I Single 33/2	D310-350540	.....	.....
31. TRITON Compact backwiring	D310-358022	.....	.....
32. TRITON Small backwiring	D310-358021	.....	.....
33. TRITON Storage backwiring	D310-324819	.....	.....
34. SCSI processor	D310-324247	.....	.....
35. Storage cabinet	D315-191001	.....	.....
36. Streamer drive 155Mb SCSI 5.25" SE	D383-528054	.....	.....
37. VME BW 2-slot	D310-358016	.....	.....
38. VME BW 4-slot	NFD1030	D310-358017	P1045	.....
39. VME P2 connection	D310-358020	.....	.....
40.
41.
42.
43.
44.

Legend:

BW - Backwiring
CMMU - Cache and Memory Management Unit
CPU - Central Processing Unit
DC502 - Power supply type code
ECO - Engineering Change Order
Gb - Gigabyte
I/O - Input/Output
LAN - Local Area Network
Mb - Megabyte

Mk - Mark
N/A - Not Assigned
No. - Number
PCB - Printed Circuit Board
PFTCON - Power, Fan, Temperature Control
SCSI - Small Computer Systems Interface
SE - Single Ended
SW - Soft Ware
UPS - Uninterruptible Power Supply
VME - Hardware standard (here: card crate)

Final verification data:

Start time date,	Finish time date,	Logfile	Test	Sign
27/6	28/6	.....	04608007206	
.....