

# PFA Products Release Notes for V5.0.0

PFA 020

PFA 120

PFA 030

PFA 130

PFA 230

PFA 660

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# 1. Safety/Operational Notices

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## **SAFETY WARNINGS in PFA V5.0.0 System Manual:**

When installing units in a rack, always ensure that the rack remains stable and safe. It must be loaded in accordance with the instructions of the rack manufacturer. Ensure the rack does not become unstable due to uneven or top heavy loading. ....29

A suitable earth ground point can normally be found in the mains power centre feeding the installation. Check carefully that the earthing wire is of sufficient cross-sectional area, and that it cannot be disconnected accidentally. ....29

The product has to be earthed in compliance with "ETSI ETS 300 253. Equipment Engineering (EE); Earthing and bonding of telecommunication equipment in telecommunication centres; January 1995". (Note - for AC units the safety earth will be provided by the mains lead). ....29

It is important that all earthing wiring is carried out with the shortest possible wire lengths. ....30

Splices in earthing wire must be permanently made by bolting or crimping the wires together. Connectors that can be disconnected without tools are NOT allowed in the ground wire.....30

The power feed cables must be protected at source; e.g. by a suitable fuse or circuit breaker. ....32

This equipment is designed to permit connection between the earthed conductor if the DC supply and the earthing conductor at the equipment. ....32

The fuse/breaker should not exceed 6A capacity. For compliance with UL requirements the circuit breaker must be UL listed.....32

Always disconnect mains or DC supply before removing covers. ....55

## **OPERATIONAL WARNINGS in PFA V5.0.0 System Manual:**

Damage to equipment by untrained personnel might render any warranty or maintenance contract invalid.....27

Always power down before removing circuit boards. ....27

Do not remove the top cover from the equipment (except PFA 020/120), only the front cover should be removed for possible board replacement/additions. ....27

Do not attempt to repair or carry out alterations to the equipment yourself other than by replacing the motherboard, PEBs or IRB, and then only if you have received the proper instruction.....27

This equipment is not for connection to an IT power system unless a suitable isolating transformer is used.....27

All serial ports should only be connected to SELV ports as defined in EN 60950/IEC 950. ....27

This equipment is for installation in a "RESTRICTED ACCESS LOCATION" as defined in IEC 950. Only qualified service personnel should have access to the equipment.....27

For safe operation, blanking plates must be fitted to any rear panel port positions which are not fitted with a POP PAK. ....27

The unit is rated to operate at a maximum ambient temperature of 40oC. Ambient temperatures in excess of this may cause the unit to malfunction.....28

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Datum/Date

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Dok. npr/Doc.no.

CBE/ Andy Capstick

06/01/2000

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When being installed into a rack or cabinet, care must be taken to ensure that the ventilation and air flow requirements of the equipment are maintained. The vents on the front underside of the equipment and the exhaust vent at the rear must not be obstructed and the fan must be allowed to vent into free space. ....	29
Failure to adhere to correct earthing procedures will invalidate the CE MARK approval of the unit. ....	29
As part of the PFA 660 power-up sequence, the red rightmost LED (see Figure 3-3) will be lit red briefly. This is normal operation. ....	34
The installation of SIMMS obtained from other sources may cause memory errors. ....	68
To satisfy approval requirements, only Ericsson network cables and POP PAKS detailed in Section 1 can be used. ....	78
In order to satisfy CE Mark approval requirements, all Ericsson network cables have protective ground and screen connected at both ends. ....	87

## 2. Product Description

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### 2.1 Introduction

These release notes are intended to offer the local Ericsson company information concerning the current release of PFA products. The PFA product range for this release is as follows:

#### **PFA 020**

A cost-effective desktop unit supporting up to three serial ports with line speeds of up to 2 Mbps (protocols listed below).

#### **PFA 120**

A cost-effective desktop unit supporting up to 2 serial ports and 1 LAN port to allow access to Ethernet-based LAN protocols (protocols listed below).

#### **PFA 030**

A six-port desktop/rack mount version of the PFA 230 in a smaller enclosure (protocols listed below).

#### **PFA 130**

Provides all the features of the PFA 030 but with a physical LAN1 port allowing access to Ethernet-based LAN protocols.

#### **PFA 230**

Provides all the features of the PFA 130 but includes:

Up to 18 serial ports (protocols listed below)

Up to 2 LAN ports

Integrated Router Board (Ethernet or Token Ring)

Hot-swap Fan

#### **PFA 660**

Up to 18 serial ports (protocols listed below)

Up to 2 LAN ports

1 ATM port (34Mbps E3 or 45Mbps DS3)

Integrated Router Board (Ethernet or Token Ring)

Hot-Swap Fan

AC-AC or DC-DC PSU Redundancy

**Protocol Set**

X.25 switching | SDLC and TCP/IP over X.25/X.75 | X.75(E) | SDLC over LLC2 | Frame Relay switching (FUI/FDI/FNI/FII) | X.25/X.75, TCP/IP or SNA over Frame Relay | SDLC | ISDN | X.28 | TPAD | All major LAN protocols (CISCO technology – PFA 230/660) | ATM AAL-5 with Frame Relay FRF.5 (PFA 660)

**Feature Set**

HVCs/X.25 or FR PVCs/FR sPVCs/SVCs | CUGs | Call Barring | Traffic Priorities | Alarms | Load Control | Switched Access | Dial Back | Online Software Update | Statistics | Traffic/Echo Ports | Port Monitor | RIP | SLIP | TIP | TELNET | Ethernet Bridging | Accounting | SNMP Network Management | HTTP management | Line/Network Testing

### **3. Release Description**

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The V5.0.0 release differs from the V4.0.x releases as follows:

New functionality:

- Frame Relay SVCs/sPVCs (FRF.4 and FRF.10).
- Ericsson FII interface (FRF.10 plus Ericsson proprietary SVC signalling). The interface allows SVCs to be established between trunk Frame Relay FII ports in a mixed PFA and FS 700 core Frame Relay network.
- WWW management. For remote configuration, CPU/memory statistics and performance monitoring.

New hardware:

- G.703 2 Mbps BNC POP PAK (75 Ω).
- CTR12-approved G.703 2 Mbps RJ45 POP PAK (120 Ω).

Enhancements (introduced in V4.0.1 maintenance release):

- Wild-card address matching in Address Modification tables.
- Y2K compliance.
- Semi-permanent routes and gateways.
- POLL parameter in LILPS command can be set to NONE, as well as DISC and SABM.
- The originating "calling" NTN in an X.25 ping can now be configured.
- Calls which do not have a match with a conversion record are now passed through an Address Modification table.

Bug fixes included (reported from previous releases).

## 3.1 Basic Components

This release is for the following products (software not included):

<b>Product</b>	<b>Product Number</b>
<i>PFA 020</i>	<i>BFE 301 544/1 R1B (for AC supply)</i>
<i>PFA 120</i>	<i>BFE 301 544/2 R1B (for AC supply)</i>
<i>PFA 030</i>	<i>BFE 301 539/3 R2B (for AC supply)</i> <i>BFE 301 539/4 R2B (for DC supply)</i>
<i>PFA 130</i>	<i>BFE 301 539/5 R2B (for AC supply)</i> <i>BFE 301 539/6 R2B (for DC supply)</i>
<i>PFA 230</i>	<i>BFE 301 542/3 R1A (for AC supply)</i> <i>BFE 301 542/4 R1A (for DC supply)</i>
<i>PFA 660</i>	<i>BFE 301 546/1 R1A (for AC supply)</i> <i>BFE 301 546/2 R1A (for DC supply)</i>

The PFA products can be ordered from your local Ericsson Regional Logistics Centre.

## 3.2 Numbering Conventions

### 3.2.1 Release Versions

The numbering of release versions in the PFA products is carried out as follows:

X.Y.Z

Where:

- X Version (e.g., 4). This X value would be incremented to indicate a major change in development, e.g. changing from Phase1 to Phase2 of a Product Development.
- Y Revision (e.g., 0). The Y value would be incremented in the event of additional functionality being added to the product.
- Z Error Correction (e.g., 1). The Z value would be incremented if problems existed with the product to indicate a bug-fix release.

### 3.2.2 Software Image Names

The default software image despatched in every PFA product will be shown as "PFA PROM IMAGE" with the UIDIP command.

For **downloadable** software images available from upgrade diskette, the image names are structured as follows:

PRODUCT	PRO-CESSOR TYPE	RELEASE VERSION	REVISION	FILE EXT.	EXAMPLE
PFA 020/120	68020	V500	R23	DOS	2V500R23.DOS
PFA 030/130/ 230	68030	V500	R23	DOS	3V500R23.DOS
PFA 660	i960	V500	R23	DOS	6V500R23.DOS
PFA 660	i960	V400	R7	SAR	6V400R7.SAR

The PFA PROM IMAGE or 6V500R23.DOS file and 6V400R7.SAR must both be present when a PFA 660 is operating with an ATM daughter board.

It is advised that image names should indicate processor type, release version and revision number at all times.

## 3.3 Corrected or Remaining Problems

### 3.3.1 Corrected V4.0.1 Problems

The problem numbers (format CBEan0xxxx where xxxx is the problem number) are shown below.

#### 4.0.1 Description

- 4035 ICMP routes not deleted by IPRPD.
- 4040 Switched access ports for ISDN backup do not work. Previously reported in V3.2.0 as problem number CBEan00282.
- 4036 Occasional fragmentation of memory on all PFAs can cause momentary freezes in protocol operation.
- 4042 The PFA 660 thinks the config needs saving when LILAP is issued. Also occurs with SNMP manager get request on LILAP variables.
- 3996 POP PAKs cannot be live inserted into PFA 660. Fixed by execution of ECD No. 491.1.23 on PFA 660 motherboard (to ROA 219 8186/1 R2A). Contact your local Ericsson company for further details.

### 3.3.2 Remaining Problems

The problem numbers quoted are of the format ERlxaxxxx (for the V5.0.0 column) or CBEanxxxx (for the 4.0.x column) where xxxxx is the problem number shown below, e.g. 03590.

#### 5.0.0 4.0.x Description

- 0070 - The relationship between the maximum frame size parameter (N1) for Frame Relay FP port and the information field size parameter (N201) for Frame Relay PVCs/SPVCs can cause confusion. The N201 value should always be set to be less than N1 (operators should note the size of the Address field associated with N201).
- 0213 - After upgrade, the restore of configurations that have been created in older software versions may cause config errors due to parameter changes between software versions. Workaround: Restore the configuration to a local box via config port to the current config area.
- 0245 - Frame Relay ports produce incorrect SNMP LinkUp trap when deblocked even when no cable is connected.
- 0294 - MP-LCP stack termination problem. An MP bundle can be terminated without previous termination of connected LCPs. This causes an MP error log entry and an LCP config error when entering a UILOP command.
- 0332 - FR sPVC N201 default value of 1600 and LIPPS N1 default value of 261 produce error message when deblocking sPVC. This is because N201 default value is not set correctly. Workaround: Set the N201 value for the sPVC to be 250.
- 0339 - Incorrect routing of SVCs through Frame Relay FUI/FDI ports by partial matching of FR NTNs causes temporary fault condition. Workaround: SVCs should be routed through Frame Relay ROTs associated with a Frame Relay FNI or FII port.
- 0422 04045 PFA 660 local upgrade to V4.0.1 with Win95 and Hyperterminal is not possible at >9600 baud. Workaround1: use 9600 baud or WindowsNT.
- 0456 03576 SNMP community groups are searched in the order they were input. This can cause confusion if matching community strings for GET, SET or RESTRICTED exist in the same community group table.
- 0464 03936 No STATR command for reset of ATM port statistics.

Utfärdad av/Issued by

Datum/Date

Rev

Dok. npr/Doc.no.

CBE/ Andy Capstick

06/01/2000

RB

EN/LZT 103 8308

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0483	03910	X.21/V.11 POP PAK on Frame Relay port sometimes /04029 reports AB with the LIPPP command after both ends are reset at the same time.
0489	03591	No password protection on TELNET ports.
0487	03590	RIP2 Multicast addressing not supported. Workaround: If possible, configure other equipment to use broadcast addresses instead of multicast addresses.
0491	03592	Rate enforcement discards long frames in Frame Relay.
0493	03593	NO CONIND_CFM causes problems for incoming call when NP blocked on V25bis port.
0495	03594	An incoming call with no PID signalling and no call priority set will not be assigned the box default priority.
0497	03595	NTN facilities not checked after a Switched Access Dial Back using NUI.
0499	03596	No logon control to MTP port for network management.
0503	03651	Fan/PSU SNMP traps not sent on power up.
0513	03764	LOCIP parameter in the IPGAP command accepts invalid local IP addresses.
0516	03922	Frame Relay PVCs can be in Conditionally Blocked state (CB) when underlying FP port is Automatically Blocked (AB).
0520	04019	Ctrl.-C does not stop MML output following a IPPIP command. Applies to PFA 660 only.
0534	03604	The PSAGP command does not indicate what USER/ROT is used by async port.
0537	03606	UIPDS command does not work for NALOS parameters.

### ***3.3.3 Problems in TransISDN POP PAK (Version PAN)***

02092	CLI not supported on TransISDN POP PAKs.
02184	TransISDN POP PAK software not remotely downloadable.
02321	128K bonding not available on TransISDN POP PAKs.

## 4. Upgrade Procedures

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Upgrade procedures are fully documented on the appropriate upgrade diskette for V5.0.0.

**NOTE: All upgrades to V5.0.0 from V4.0.0 and before require a new BOOTER file to be installed.**

**PFA 030/130/230, equipped with 481 motherboard, now requires 16Mbytes DRAM (2 x 8Mbytes SIMMs) to operate V5.0.0. Also note that 481 motherboards must have STATUS B4 or C4 or higher (physical inspection of motherboard needed) to operate 16Mbytes DRAM.**

The following diskettes are available from Ericsson Intracom (E-mail: [intracom@terminus.ericsson.se](mailto:intracom@terminus.ericsson.se)):

- PFA 030/130/230 V5.0.0 Upgrade diskette (EN/LZY 208 0450 R10A)
- PFA 660 V5.0.0 Upgrade diskette (EN/LZY 208 0512 R2A)

## 5. Hardware

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### 5.1 Motherboard Maintenance

If any motherboard has to be returned for a hardware upgrade, please send to:

Ericsson Telecommunicatie B.V.  
ESC  
Ericssonstraat 2  
5121 ML Rijen  
Netherlands

### 5.2 Displaying Hardware Status

The hardware status of the delivered PFA product can be displayed by using the NAHSP command. Note that this may not indicate the minimum level of hardware but the hardware ordered according to customer requirements, e.g. a PFA 660 may be ordered with 32 Mbytes packet DRAM instead of 16 Mbytes.

### 5.3 9-pin G.703 DTE POP PAK (75 Ohm) clocking

This unbalanced POP PAK may be supplied to end users instead of a G.703 BNC POP PAK (75  $\Omega$ ); both POP PAKs have identical functionality. The jumpers J1 to J4 must be fitted. The following clocking information should be noted:

- J3 connects the RX-Shield to ground. This connection is optional under the requirements of G.703 and is left to the discretion of the local operating regulations.
- J4 connects the TX-Shield to ground.
- The external clocks synchronisation interface is not implemented on this POP PAK.

Utfärdad av/Issued by

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Dok. nprrr/Doc.no.

CBE/ Andy Capstick

06/01/2000

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EN/LZT 103 8308

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## 6. Approvals

ITEM	ORDER CODE	ST	EN5 5022 Radi ated	EN5 5022 Con duct ed	EN6 1000 -3-2	EN6 1000 -3-3	FCC Part 15	IEC8 01-2	IEC8 01-3	IEC8 01-4	EN6 1000 -4-2	EN6 1000 -4-3	EN6 1000 -4-4	EN6 1000 -4-5	EN6 1000 -4-6	EN6 1000 -4- 11	ETS 300- 132- 2
<b>Chassis Products</b>																	
PFA020/120 AC	BFE 301 544/1/2	R2A	B	B				*	*	*	*	*	*				
PFA030/130 AC	BFE 301 539/3/5	R2B	B	B			A	*	*	*			*				
PFA030/130 DC	BFE 301 539 /4/6	R2B	B					*	*	*			*				
PFA230 AC	BFE 301 542/1/3	R2A	B	B				*	*	*	*	*	*				
PFA230 DC	BFE 301 542/2/4	R2A	B					*	*	*	*	*	*				
PFA660 AC	BFE 301 546/1	R1A	B	B	*	*					*	*	*	*	*	*	*
PFA660 DC	BFE 301 546/2	R1A	B								*	*	*	*	*	*	*
<b>WAN Pop-Paks</b>																	
V.11 DTE	ROA 219 5181/1	R1B	B								*	*	*	*	*	*	
V.11 DCE	ROA 219 5182/1	R1B	B								*	*	*	*	*	*	
V.28 DTE	ROA 219 5183/1	R1C	B								*	*	*	*	*	*	
V.28 DCE	ROA 219 5184/1	R1C	B								*	*	*	*	*	*	
V.35 DTE	ROA 219 5185/1	R2B	B								*	*	*	*	*	*	
V.35 DCE	ROA 219 5186/1	R2B	B								*	*	*	*	*	*	
V.36 DTE	ROA 219 5187/1	R1C	B								*	*	*	*	*	*	
V.36 DCE	ROA 219 5188/1	R1C	B								*	*	*	*	*	*	
G.703 64k	ROA 219 5189/1	R2A	B								*	*	*	*	*	*	
G.703 2M BNC 75 ohm	ROA 219 8198/1	R1A	B								*	*	*	*	*	*	
G.703 2M RJ45 120 ohm	ROA 219 8199/1	R1A	B								*	*	*	*	*	*	
CHANNELISER (master)	ROA 219 8177/1	R2A	B					*	*	*	*	*	*				
CHANNELISER (slave)	ROA 219 8178/1	R2A	B					*	*	*	*	*	*				
<b>ISDN Pop-Paks</b>																	
Single ISDN TA	ROA 219 8157/1	R2A	A					*	*	*							
Dual ISDN TA	ROA 219 8158/1	R2A	A					*	*	*							
<b>Ethernet Pop-Paks</b>																	
10Base-2	ROA 219 5190/1	R1B	A					*	*	*							
10 Base-T	ROA 219 5196/1	R1B	B					*	*	*	*	*	*	*	*	*	
Token Ring			B					*	*	*							
<b>ATM Pop-Paks</b>																	
E3	ROA 219 8184/1	R1A	B								*	*	*				
DS3	ROA 219 8181/1	R1A	B								*	*	*				

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ITEM	ORDER CODE	ST	EN60950	UL1950	CTR2	CTR3	CTR12
<b>Chassis Products</b>							
PFA020/120 AC	BFE 301 544/1/2	R2A	☺				
PFA030/130 AC	BFE 301 539/3/5	R2B	☺				
PFA030/130 DC	BFE 301 539 /4/6	R2B	☺				
PFA230 AC	BFE 301 542/1/3	R2A	☺				
PFA230 DC	BFE 301 542/2/4	R2A	☺				
PFA660 AC	BFE 301 546/1	R1A	☺	☺			
PFA660 DC	BFE 301 546/2	R1A	☺	☺			
<b>WAN Pop-Paks</b>							
V.11 DTE	ROA 219 5181/1	R1B	☺	☺	☺		
V.11 DCE	ROA 219 5182/1	R1B	☺	☺			
V.28 DTE	ROA 219 5183/1	R1C	☺	☺	☺		
V.28 DCE	ROA 219 5184/1	R1C	☺	☺			
V.35 DTE	ROA 219 5185/1	R2B	☺	☺	☺		
V.35 DCE	ROA 219 5186/1	R2B	☺	☺			
V.36 DTE	ROA 219 5187/1	R1C	☺	☺	☺		
V.36 DCE	ROA 219 5188/1	R1C	☺	☺			
G.703 64k	ROA 219 5189/1	R2A	☺	☺			
G.703 2M BNC 75 ohm	ROA 219 8198/1	R1A	☺	☺			
G.703 2M RJ45 120 ohm	ROA 219 8199/1	R1A	☺	☺			☺
CHANNELISER (master)	ROA 219 8177/1	R2A	☺	☺			
CHANNELISER (slave)	ROA 219 8178/1	R2A	☺	☺			
<b>ISDN Pop-Paks</b>							
Single ISDN TA	ROA 219 8157/1	R2A	☺	☺		☺	
Dual ISDN TA	ROA 219 8158/1	R2A	☺	☺		☺	
<b>Ethernet Pop-Paks</b>							
10Base-2	ROA 219 5190/1	R1B	☺	☺			
10 Base-T	ROA 219 5196/1	R1B	☺	☺			
Token Ring			☺	☺			
<b>ATM Pop-Paks</b>							
E3	ROA 219 8184/1	R1A	☺	☺			
DS3	ROA 219 8181/1	R1A	☺	☺			

If a Declaration of Conformity is required please contact either your local Ericsson company or Ericsson Intracom Ltd. at the address specified below.

Ericsson Intracom Ltd.  
 1 Bede Island Road  
 Leicester, LE2 7EU  
 United Kingdom

Tel: +44 (0) 116 254 2400

Fax: +44 (0) 116 204 6111

E-mail: [intracom@terminus.ericsson.se](mailto:intracom@terminus.ericsson.se)

## 7. User Documentation

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The following CD-ROM is required to install, operate and maintain the PFA products.

*PFA Products User Documentation CD-ROM* (EN/LZY 203 12 R4A). Contains User Guide, System Manual plus PFA picture gallery and the PFA datasheets. Archive user documentation also present.

Please order CD-ROM through the usual Ericsson ordering process quoting the product number.

Any errors existing in the user documentation are listed for each publication below.

### 7.1 System Manual Fault Log

p. 32. DC Cabling. The recommended DC cable size for field wiring of the PFA 660 should be a minimum of AWE 14.

### 7.2 User Guide Fault Log

p. 354. The FP parameter in PSROI is used for Frame Relay ports of PROT=FNI or PROT=FII only.

## **8. PFA Product Support**

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All enquiries and requests for support in connection with this product must be directed to the local Ericsson company or distributor.