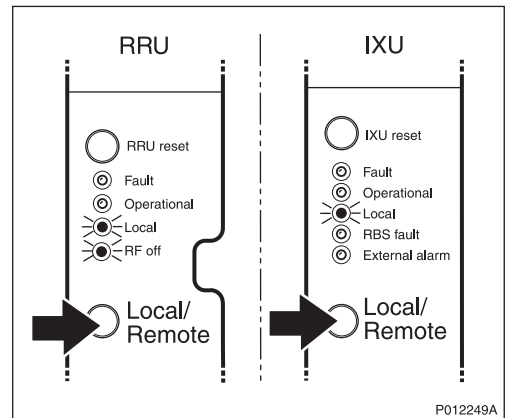


Taking the RBS Out of Operation

Note: If the PIB is mounted in an extension cabinet, only that cabinet needs to be taken out of operation.

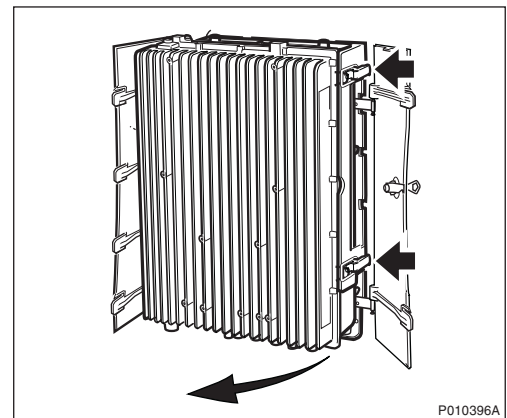
1. Open the sunshields.
2. Contact the OMC operator to obtain permission to temporarily take cells out of service. Wait until the RF off indicator shows a constant light.
3. Press the Local/Remote button on the IXU to set the RBS to local mode. If it is an extension cabinet, press the Local/Remote button on the RRU to set the unit to local mode.



4. Switch off the AC power and DC power outside the cabinet.

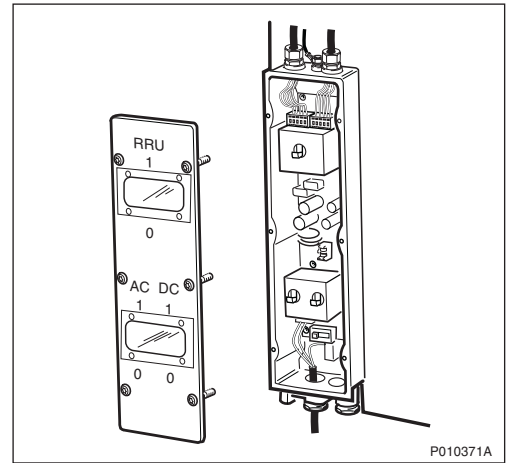
Replacing the PIB

5. Open the two clasps and pull the RRU to the left to gain access to the power switches.

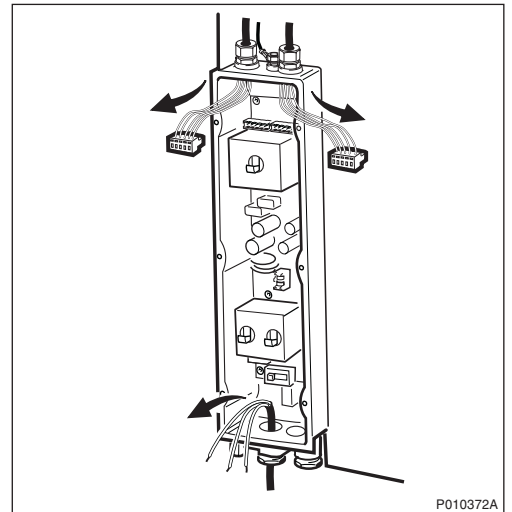


6. Switch off the AC and DC switches on the MBU.

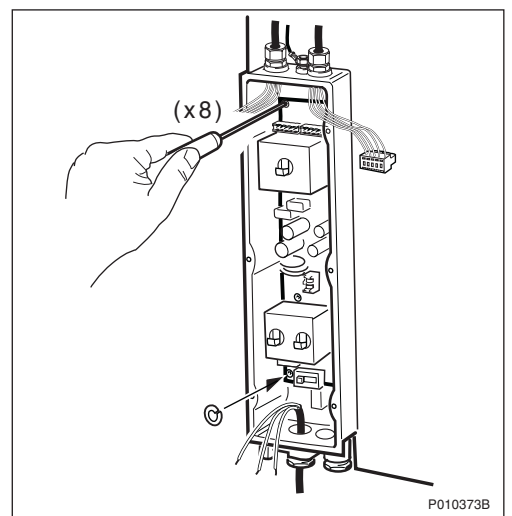
7. Remove the MBU cover.



8. Disconnect the upper AC/DC cables and the applicable power cable at the bottom.



9. Remove the PIB after loosening the securing screws.



Note: Be careful not to drop the washer attached behind the lower left screw when loosening it.

10. Insert the new PIB and secure it.
11. Ensure that the ground selector switch is in the correct position.

Note: Remember to insert the washer behind the lower left screw.

12. Reconnect the upper AC/DC cables.
13. Reconnect the applicable AC/DC cable at the bottom.
14. Reconnect the protection earth cable.
15. Refit the cover.
16. Switch on the AC and DC switches.
17. Close the RRU.

Putting the RBS into Operation

18. Switch on the AC power and DC power outside the cabinet.
19. Inform the OMC operator that the applicable TRXs are to be put into service.
20. Press the Local/Remote button on the IXU to set the units to remote mode. If it is an extension cabinet, press the Local/Remote button on the RRU to set the unit to remote mode. Wait until the RF off indicator on the RRU interface panel goes off and the Operational indicator lights up.
21. Close the sunshields.

Handling Replaced Units

The PIB should be returned to Ericsson for repair with a repair delivery note, LZF 084 84 (Blue Tag) attached. Include a clear description of the fault found. See *Section 10.6 Returning Hardware on page 255* for instructions on completing a repair delivery note.

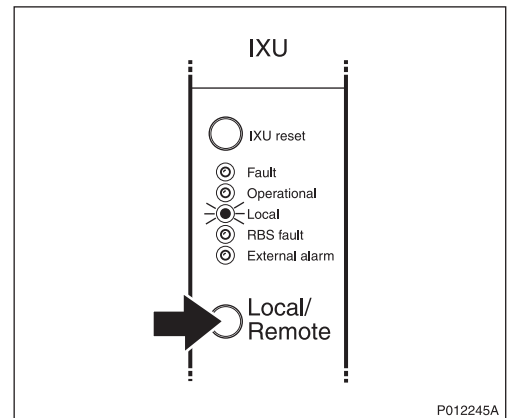
10.5.7 Replacing a PSTU

This section describes how to replace a faulty Packet-Switched Termination Unit (PSTU).

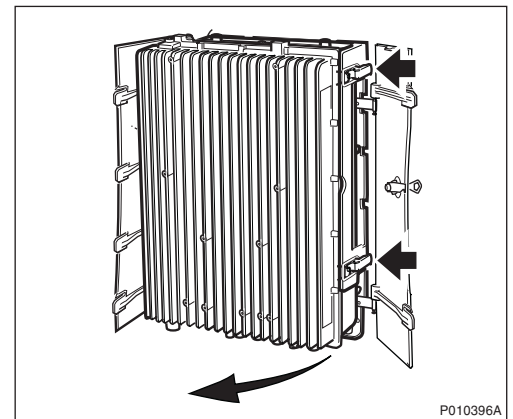
Note: The PSTU parameter settings must be available before starting this procedure.

Taking the RBS Out of Operation

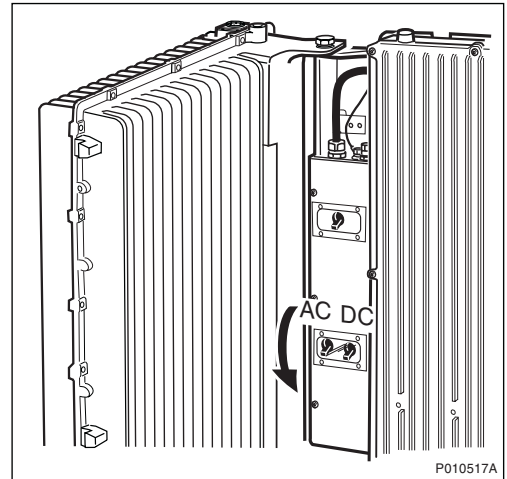
1. Open the sunshields.
2. Contact the OMC operator to obtain permission to take cells out of service temporarily. Wait until the RF off indicator on all RRU interface panels shows a constant light.
3. Press the Local/Remote button on the IXU to set the RBS to local mode. Wait until the local indicator on the IXU shows a constant light.



4. Open the two clasps and pull the RRU to the left to gain access to the power switches.

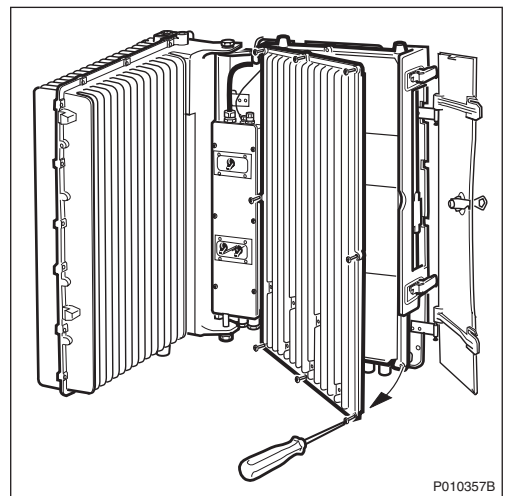


5. Switch off the AC power and DC power.



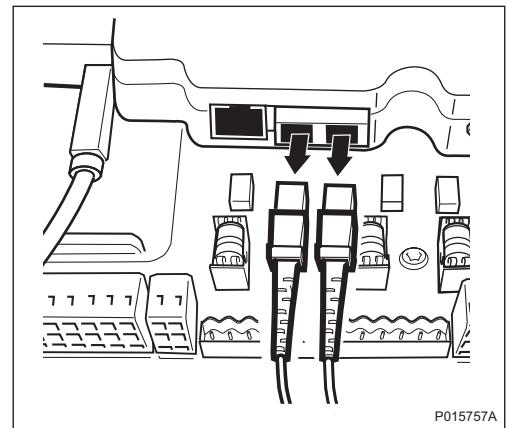
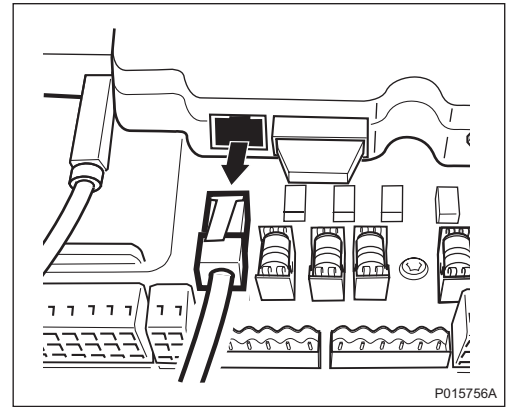
Replacing the PSTU

6. Open the IXU cover.



7. Remove the Ethernet cable connectors from the PSTU.

The optical connectors must be protected with connection covers.



8. Loosen the four screws and remove the PSTU. See figure below.

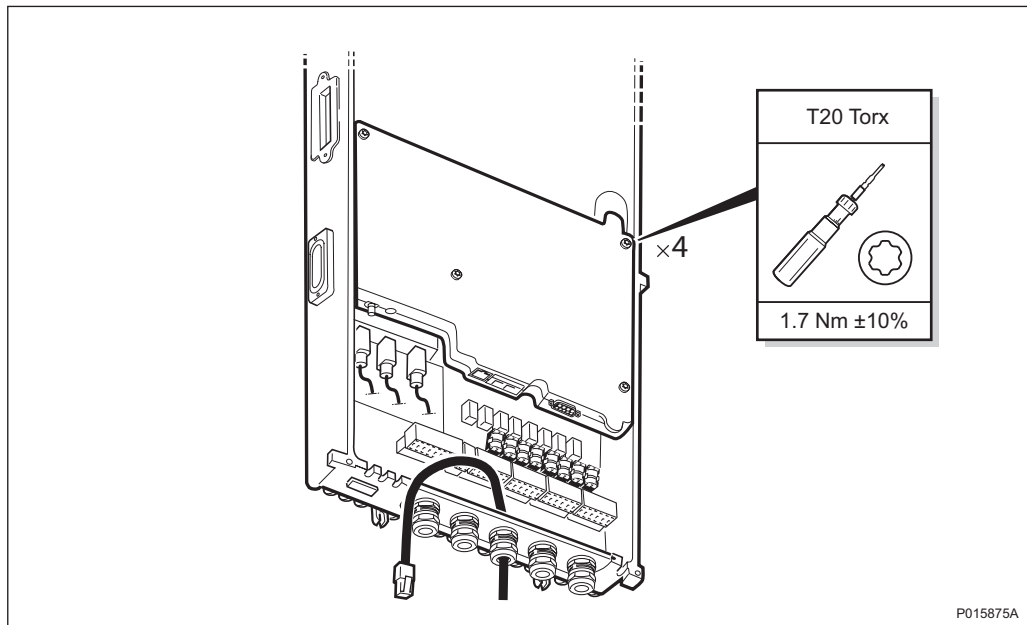


Figure 86 PSTU Removal

9. Put back the new PSTU. Tighten the screws to 1.7 Nm.

Note: Do not connect the Ethernet cable connectors to the PSTU yet. If the PSTU contains a configuration from previous use, then connecting the Ethernet cables can generate conflicting IP traffic.

10. Switch on the AC power and DC power.
11. Put the PSTU into remote operation. See *chapter PSTU Startup*.

Putting the RBS into Operation

12. Inform the OMC operator that the PSTU configuration can be completed from the OSS.
13. Inform the OMC operator that the relevant cells can be put back into service.
14. Press the Local/Remote button on the IXU to set the RBS to remote mode. Wait until the RF off indicator on the RRU interface panel goes off and the Operational indicator comes on.
15. Close the sunshields, if applicable.

Handling Replaced Units

The PSTU should be returned to Ericsson for repair with a repair delivery note, LZF 084 84 (Blue Tag) attached. Include a clear description of the fault found. See *Section 10.6 Returning Hardware on page 255* for instructions on completing a repair delivery note.

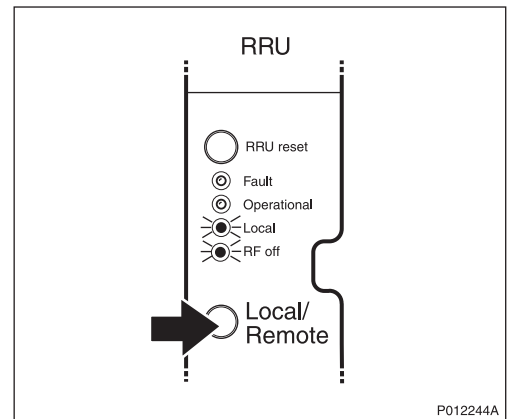
10.5.8 Replacing an RRU

This section describes how to replace a faulty RRU.

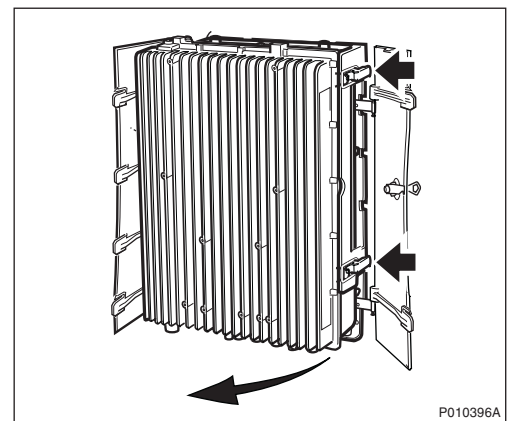
Note: Do not touch the RBS when any indicators are double-flashing. See *Section 10.4.1 Double-Flash Indication of Function Changes on page 194*.

Taking the RRU out of Service

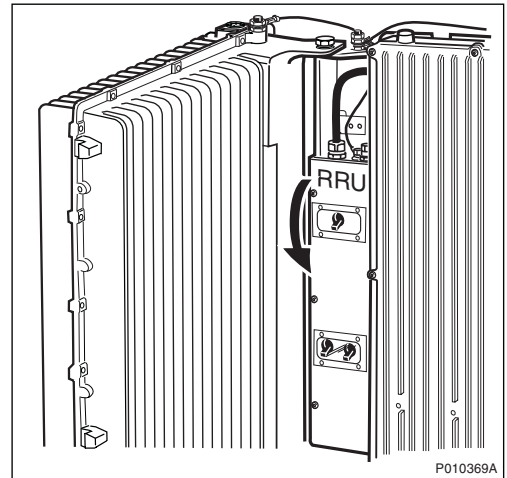
1. Open the sunshields.
2. Contact the OMC operator to obtain permission to temporarily take the TRXs connected to the RRU out of service. Wait until the RF off indicator shows a constant light.
3. Press the Local/Remote button on the RRU to set the unit to local mode. Wait until the Local indicator on the RRU shows a constant light.



4. Open the two clasps and pull the RRU to the left to gain access to the power switches.



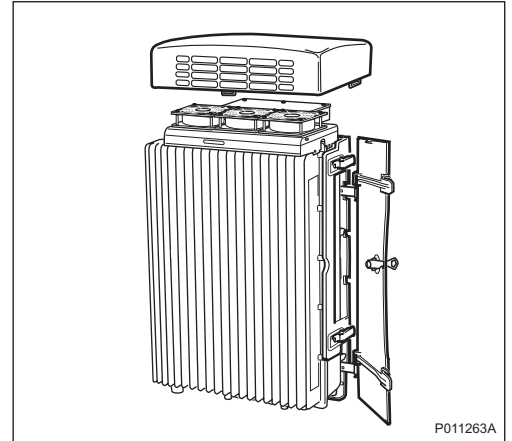
5. Switch off the RRU power.



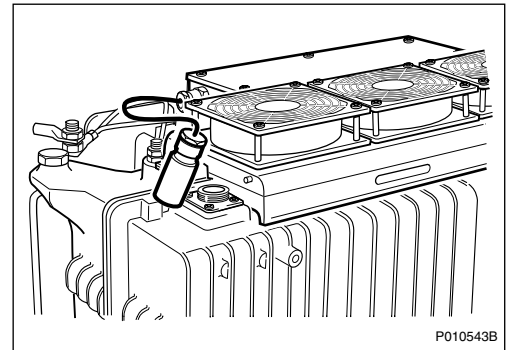
6. Remove the upper sunshield and, if applicable, any optional units installed on the RRU.

Removing the Fan Unit (if Present)

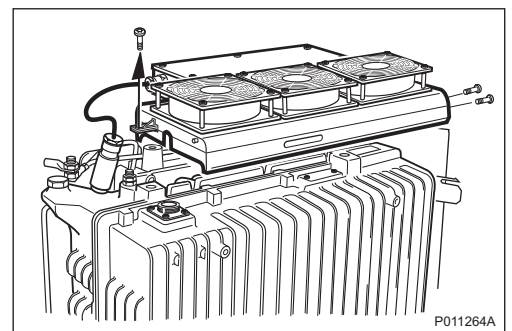
1. Remove the fan unit cover



2. Disconnect the fan power cable from the RRU.



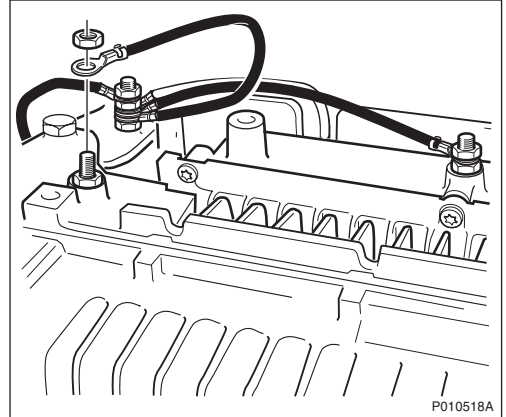
3. Loosen the three screws and remove the fan unit.



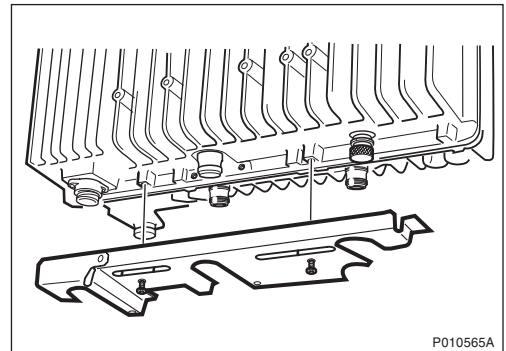
Removing the Earth Cable and Protection Cover

1. Disconnect the RRU earth cable.

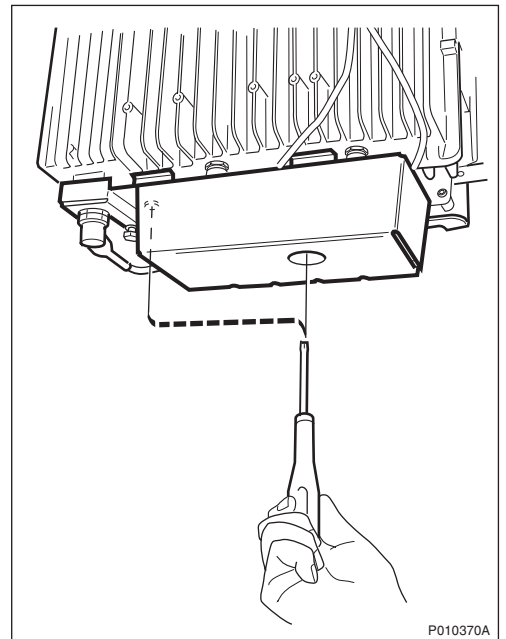
Note: This can only be done on an RBS without an omni antenna installed.



2. Remove the protection cover (if present).



3. Remove the MCB protection cover (if present) under the RRU.



Removing the Sector Antenna or Omni Antenna (if Present)

1. If a sector antenna is used then disconnect the antenna cables from the RRU. See figure below.

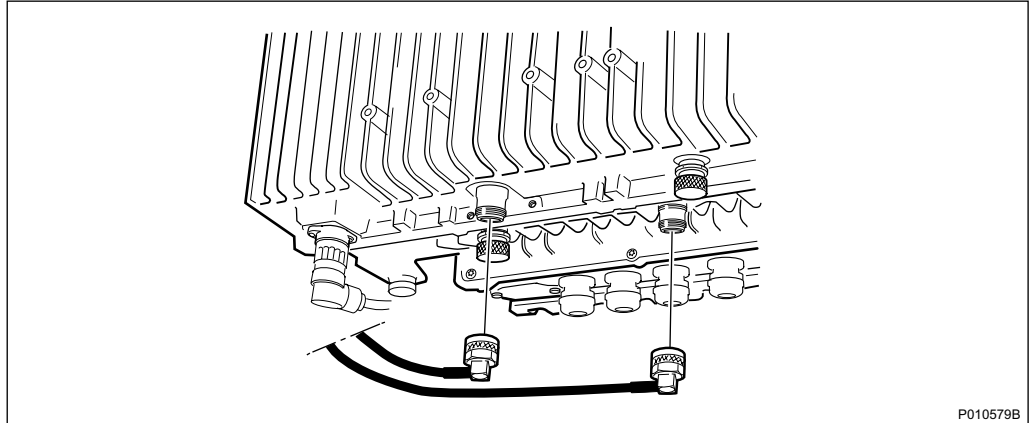


Figure 87 Sector Antenna Cable Disconnection

2. Loosen the four screws and remove the sector antenna. See figure below.

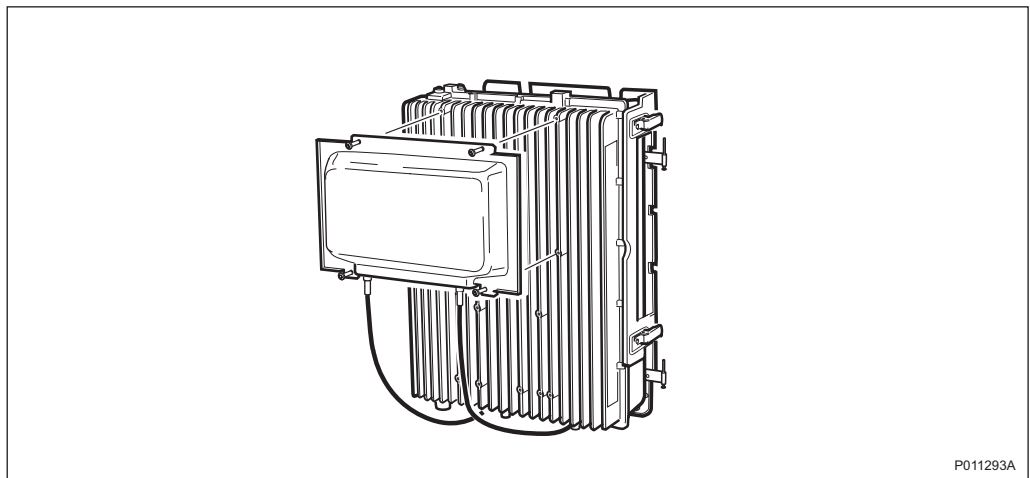


Figure 88 Sector Antenna Removal

3. If an omni antenna is used then disconnect the antenna cables from the RRU. See figure below.

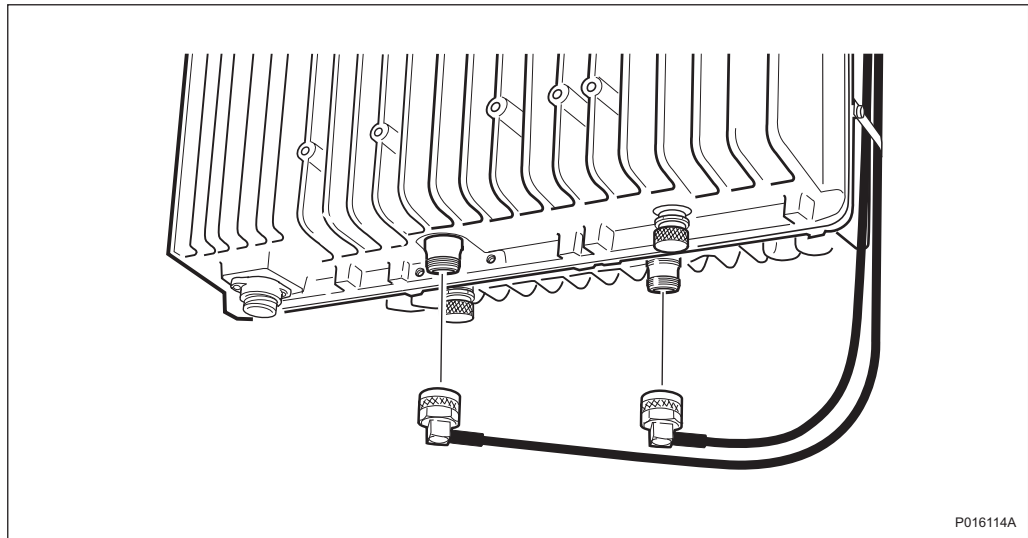


Figure 89 Omni Antenna Cable Disconnection

4. Remove the omni antenna including the antenna bracket on top of the RRU. See figure below.

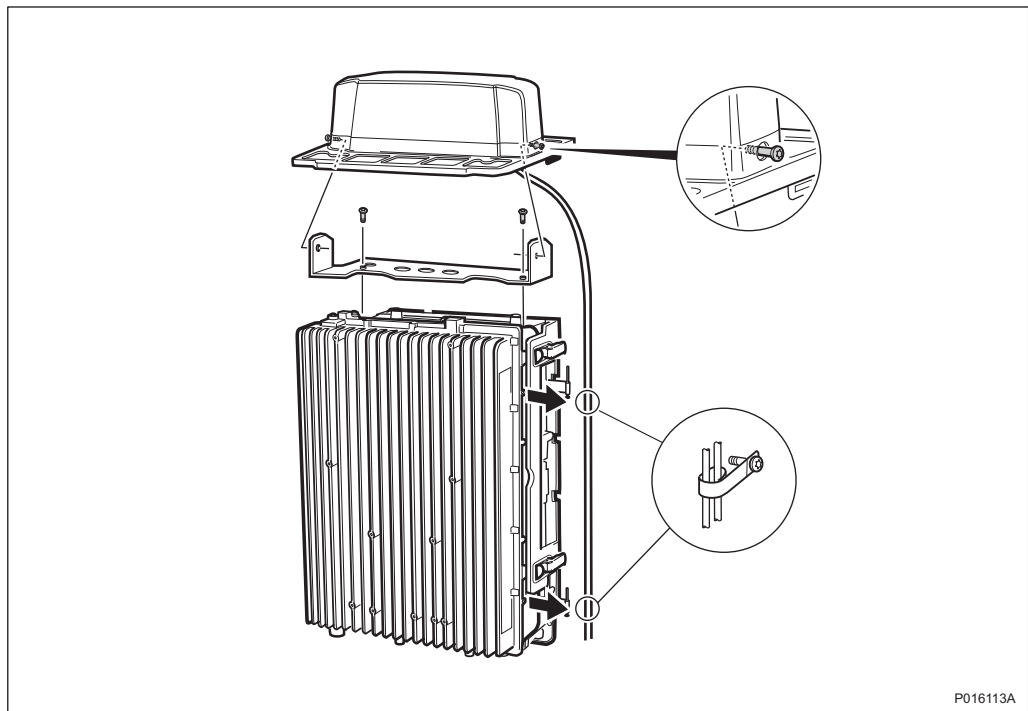
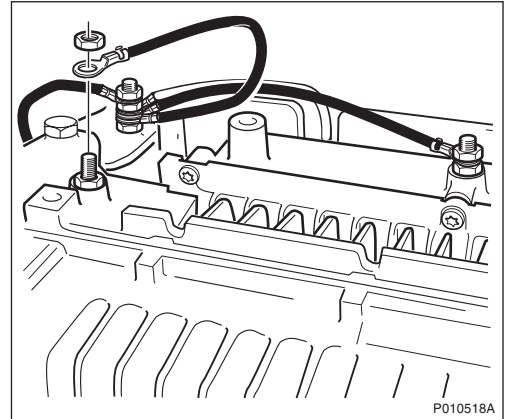


Figure 90 Omni Antenna Removal

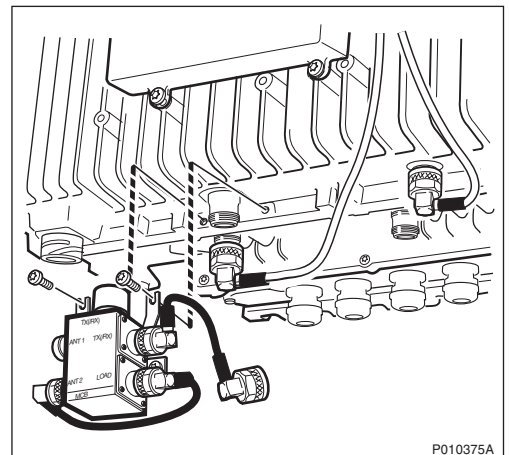
5. Disconnect the RRU earth cable (if present).



Removing the MCB (if Present)

1. Remove the MCB cable connected to the RRU and the cables connected to the antennas.

Loosen the two screws and remove the MCB.

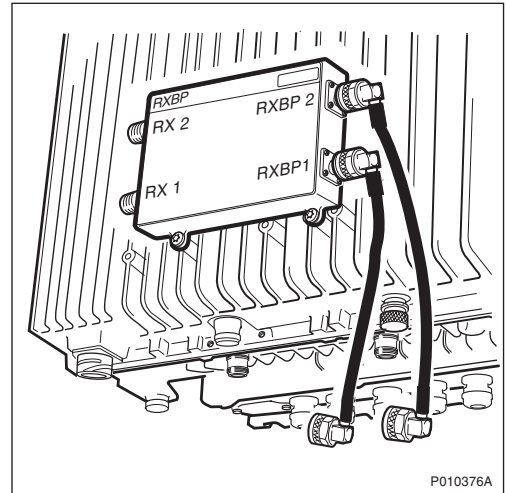


Note: The figure shows an example of an MCB configuration.

Removing the RXBP (if Present)

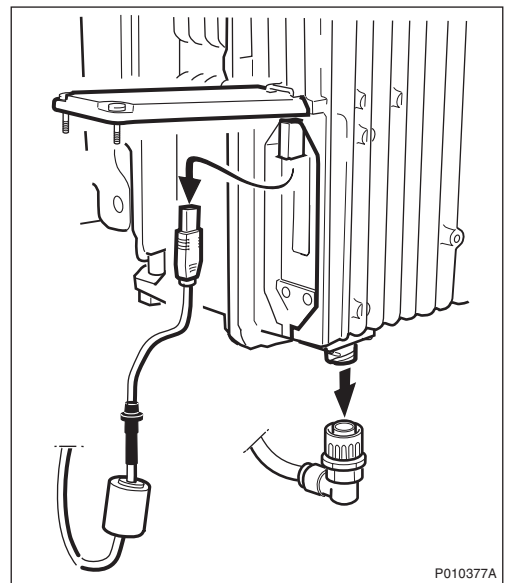
1. Remove the RXBP cables from the RRU.

Loosen the screws and remove the RXBP.



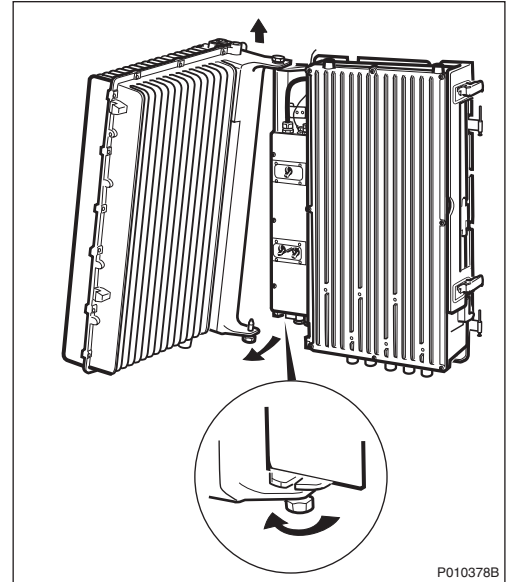
Removing the Y-Link Cable

1. Disconnect the Y-link cable and the power cable from the RRU.



Replacing the RRU

1. Loosen the screw under the RRU and unhook the RRU.



2. Hang the new RRU onto the upper hinge. Position the lower hinge and tighten the screw.

Connecting the Cables and Optional Units

1. Connect the earth cable, power cable, and Y-link cable.
2. Install the RXBP (if present) and connect all cables.
3. Install the MCB (if present) and connect all cables.
4. Install the sector antenna or the omni antenna including the omni antenna bracket (if present).
5. Connect all antenna cables.
6. Put back the protection cover under the RRU (if present).
7. Put back the MCB protection cover (if present).

Putting the RRU into Service

1. Switch on the RRU power and close the RRU.
2. Install the fan unit (if present).
3. Put back the sunshield.
4. Inform the OMC operator that the TRXs connected to the RRU are to be put into service.

5. Press the Local/Remote button on the RRU to set the unit to remote mode. Wait until the RF off indicator on the RRU interface panel goes off and the Operational indicator shows a constant light.
6. Close the sunshields.

Handling Replaced Units

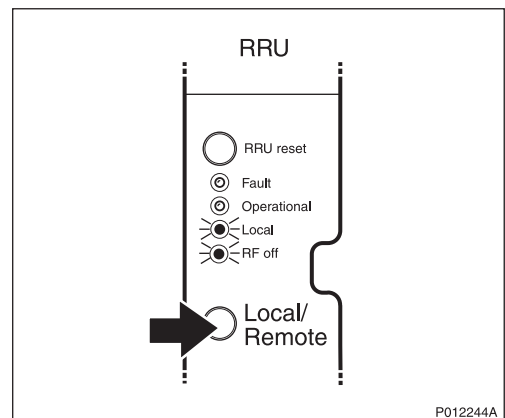
The RRU should be returned to Ericsson for repair with a repair delivery note, LZF 084 84 (Blue Tag) attached. Include a clear description of the fault found. See *Section 10.6 Returning Hardware on page 255* for instructions on completing a repair delivery note.

10.5.9 Replacing an RXBP

This section describes how to replace a faulty RXBP.

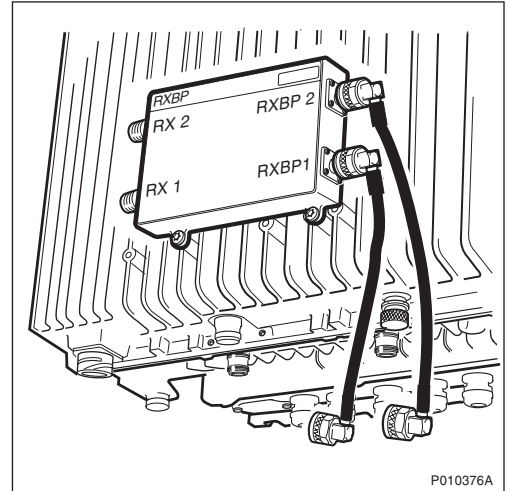
Taking the RRU out of Service

1. Open the sunshields.
2. Contact the OMC operator to obtain permission to temporarily take the TRXs connected to the RRU out of service. Wait until the RF off indicator shows a constant light.
3. Press the Local/Remote button on the RRU to set the unit to local mode. Wait until the local indicator on the RRU shows a constant light.



Replacing the RXBP

4. Remove all cables connected to the RXBP and remove it after loosening the screws securing it.



5. Mount the new RXBP and connect all cables.

Putting the RRU into Service

6. Inform the OMC operator that the TRXs connected to the RRU are to be put into service.
7. Press the Local/Remote button on the RRU to set the unit to remote mode. Wait until the RF off indicator on the RRU interface panel goes off and the Operational indicator lights up.
8. Close the sunshields.

Handling Replaced Units

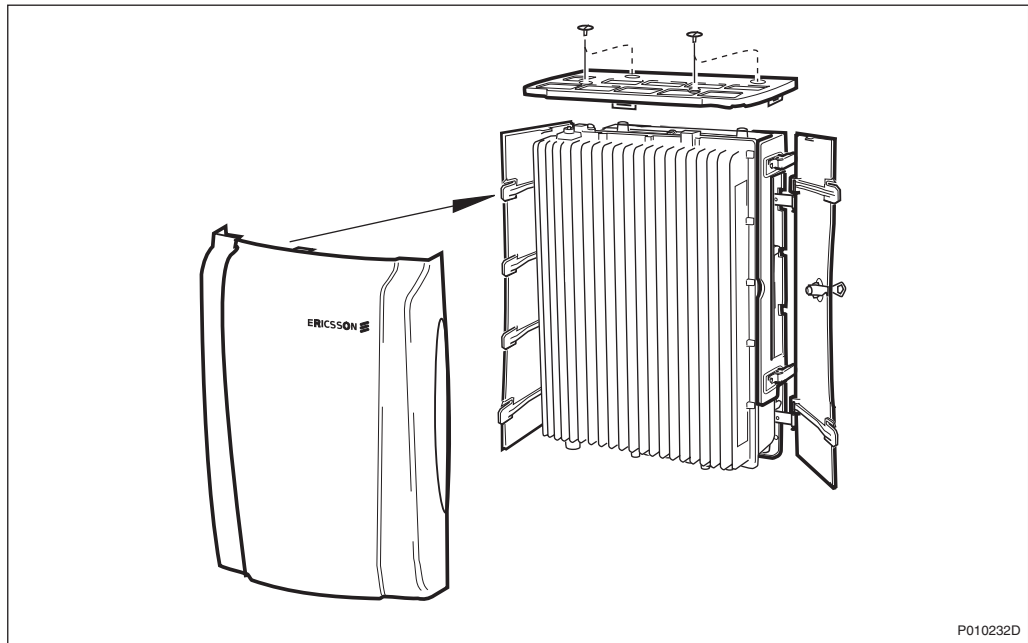
The RXBP should be returned to Ericsson for repair with a repair delivery note, LZF 084 84 (Blue Tag) attached. Include a clear description of the fault found. See *Section 10.6 Returning Hardware on page 255* for instructions on completing a repair delivery note.

10.5.10 Replacing a Sunshield

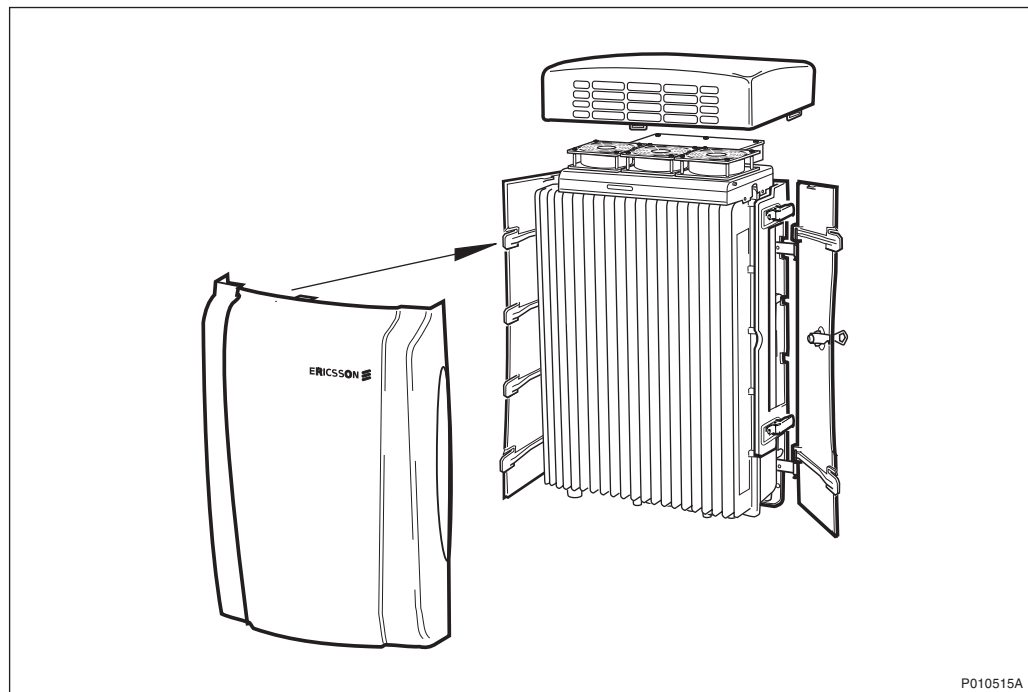
This section describes how to replace a faulty sunshield.

Note: Ericsson does not recommend removing the left and front sunshields.

1. Remove the faulty sunshield.
2. If a fan unit is not used, then install the top sunshield and fasten two screws to the RRU. If there is no RRU, then fasten the screws to the IXU instead, *see figure below*.



3. If a fan unit is used, then install the fan unit cover on top of the RRU, see figure below.



4. Attach the front sunshield to the left sunshield.
5. Close the front sunshield and attach it to the top shield (fan unit cover) and to the right sunshield.
6. Lock the shield.

Handling Replaced Units

The sunshield should be returned to Ericsson for repair with a repair delivery note, LZF 084 84 (Blue Tag) attached. Include a clear description of the fault found. See *Section 10.6 Returning Hardware on page 255* for instructions on completing a repair delivery note.

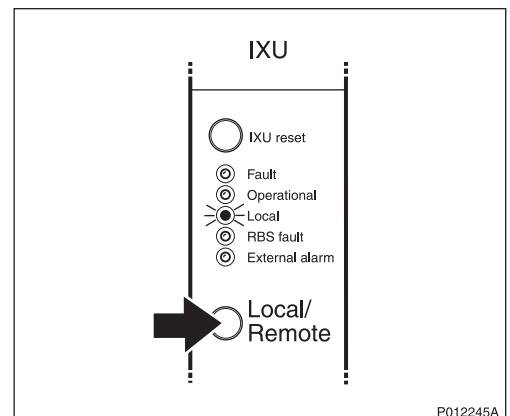
10.5.11 Replacing a TIM

This section describes how to replace a faulty TIM.

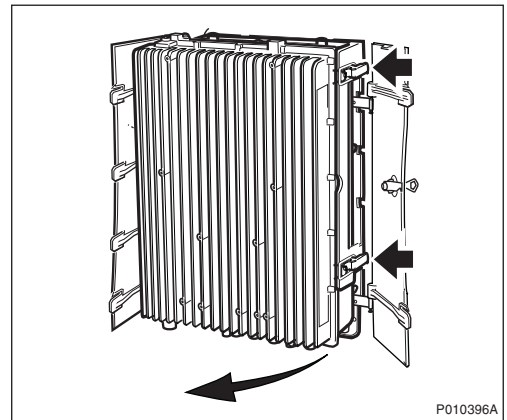
Note: For an RBS equipped with an IXU with revision state R5A or higher, the TIM is integrated with the IXU and it is necessary to replace the IXU. See *Section 10.5.4 Replacing an IXU on page 219*.

Taking the RBS Out of Operation

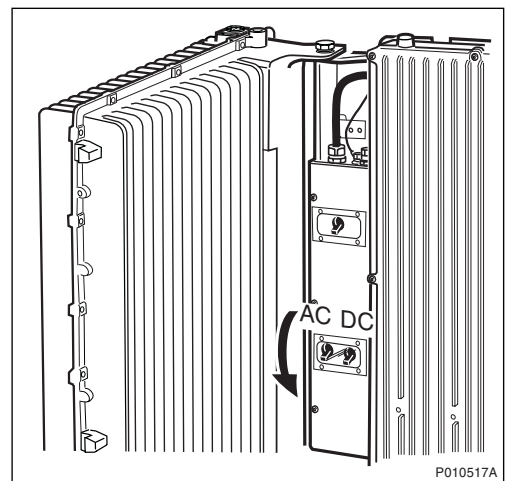
1. Open the sunshields.
2. Contact the OMC operator to obtain permission to temporarily take cells out of service. Wait until the RF off indicator on all RRU interface panels shows a constant light.
3. Press the Local/Remote button on the IXU to set the RBS to local mode. Wait until the Local indicator on the IXU shows a constant light.



4. Open the two clasps and pull the RRU to the left to gain access to the power switches.

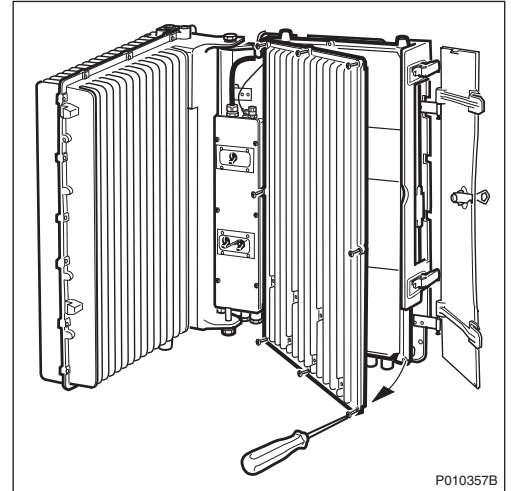


5. Switch off the AC power and DC power.

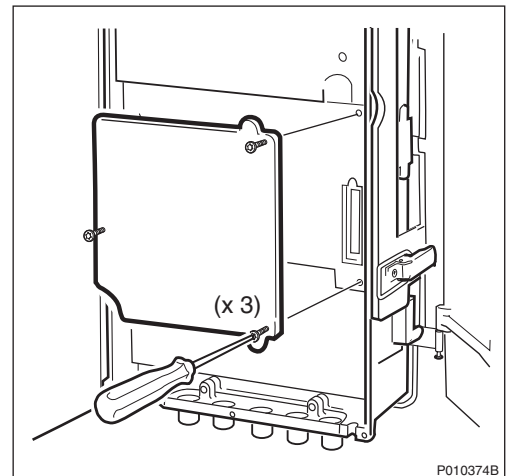


Replacing the TIM

6. Open the IXU cover.



7. Loosen the three screws and remove the faulty TIM.



8. Install the new TIM and tighten the screws to 1.7 Nm.
9. Set the impedance switch positions on the TIM in accordance with the installed transmission cables.
10. Close the IXU cover and fasten the screws.

Putting the RBS into Operation

11. Switch on the AC power and DC power.
12. Close the RRU.
13. Inform the OMC operator that the applicable cells are to be put into service.

14. Press the Local/Remote button on the IXU to set the RBS to remote mode. Wait until the RF off indicator on the RRU interface panel goes off and the Operational indicator shows a constant light.
15. Close the sunshields.

Handling Replaced Units

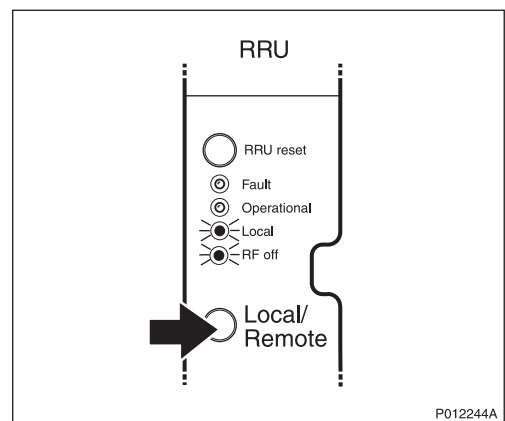
The TIM should be returned to Ericsson for repair with a repair delivery note, LZF 084 84 (Blue Tag) attached. Include a clear description of the fault found. See *Section 10.6 Returning Hardware on page 255* for instructions on completing a repair delivery note.

10.5.12 Replacing a Y-Link Cable

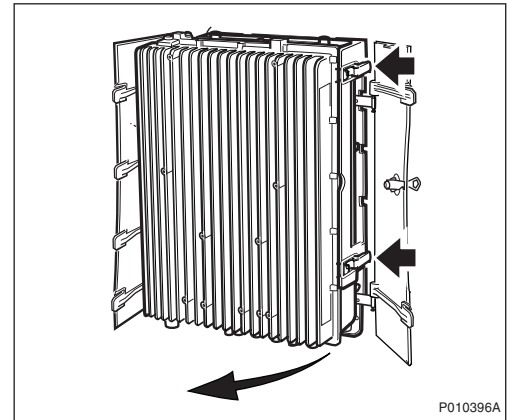
This section describes how to replace a faulty Y-link cable.

Taking the RRU out of Service

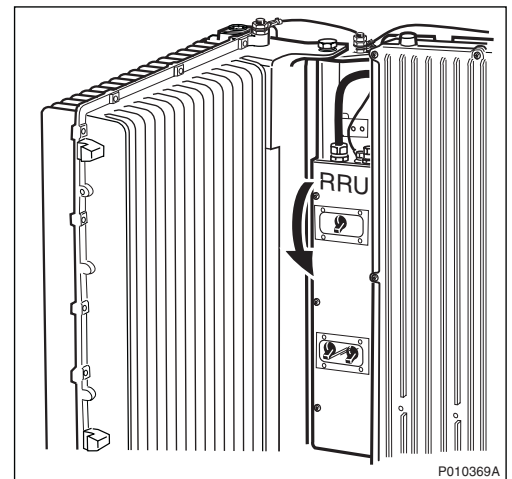
1. Open the sunshields.
2. Contact the OMC operator to obtain permission to take the TRXs connected to the RRU out of service temporarily. Wait until the RF off indicator shows a constant light.
3. Press the Local/Remote button on the RRU to set the unit to local mode. Wait until the local indicator on the RRU shows a constant light.



4. Open the two clasps and pull the RRU to the left to gain access to the power switches.

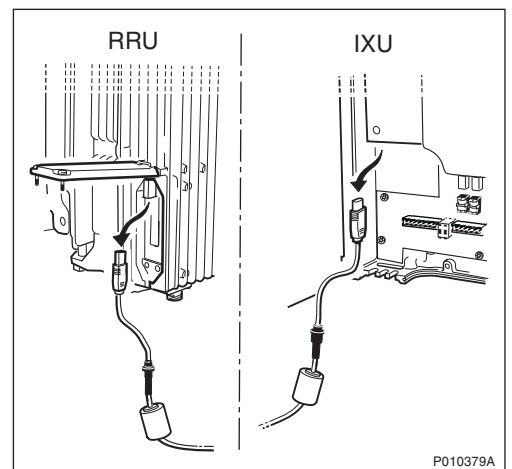


5. Switch off the RRU power.



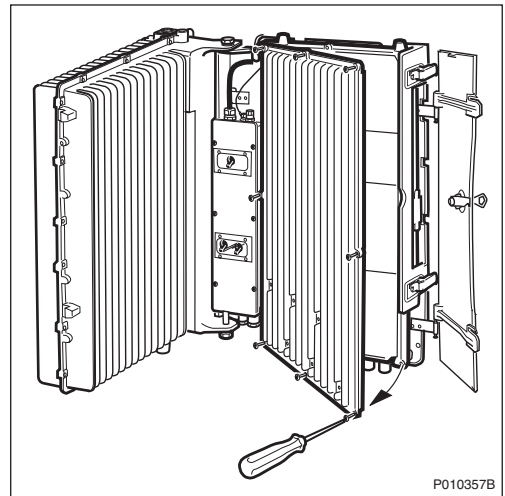
Replacing the Y-Link Cable

6. Remove the faulty Y-link cable from the RRU by opening the Y-link cover and disconnecting it.



7. Connect the new Y-link cable to the RRU and close the cover.

8. Open the IXU cover and remove the faulty Y-link cable from the IXU.



9. Connect the new Y-link cable to the IXU and close the cover.
10. Switch on the RRU power and close the RRU.

Putting the RRU into Service

11. Inform the OMC operator that the RRU is to be put into service.
12. Press the Local/Remote button on the RRU to set the unit to remote mode. Wait until the RF off indicator on the RRU interface panel goes off and the Operational indicator lights up.
13. Close the sunshields.

10.5.13 Performing Concluding Routines

This section describes the routines to be completed before leaving the site.

Sorting and Recycling

Note: Ericsson strongly advises that when cleaning up after maintenance work on the RBS cabinet, the personnel performing maintenance pay particular attention to the environment. Recycle all waste materials that can be recycled and sort waste so that it can be disposed of according to local regulations.

Table 69 *Objects to be Recycled or Disposed of After Cabinet Maintenance*

Item	Sort or recycle?
Cable insulation from crimping, brazing or welding	Sorted with plastics
Packing chips	
Foam	
Polystyrene	
Bubble plastic	
Cable tie clippings	
Paper and wood	Paper recycling
Waste metal from cable ladders	Recycled or sorted as metals.
Pieces of cable	
Nuts, bolts, washers and screws	

Note: All packing material should be recycled, and shock absorbers disposed of, in accordance with local recycling regulations.

Updating Site Installation Documentation

1. Check the Site Installation Documentation for deviations from the installation.
2. Update the documents with the changes that apply.
3. Send to the person responsible for Site Installation Engineering.

Checking the RBS Indicators

This section describes how to check that the RBS indicators show the correct status, when the RBS is connected to the BSC and is fully operational. The check must be performed before leaving the site.

Check that the RBS indicators have the status shown in the tables below:

Table 70 *RRU Indicators After Maintenance*

RRU Indicator	State
Fault	Off
Operational	On
Local	Off
RF off	Off
AC power on	On ⁽¹⁾

RRU Indicator	State
DC power on	On ⁽¹⁾
RRU temp.	Off

(1) Depending on power system configuration.

Table 71 IXU Indicators After Maintenance

IXU Indicator	State
Fault	Off
Operational	On
Local	Off
RBS fault	Off
External alarm	Off
AC power on	On ⁽¹⁾
DC power on	On ⁽¹⁾
IXU temp.	Off
Transmission OK	On ⁽²⁾

(1) Depending on power system configuration.

(2) A, B, C and/or D, depending on transmission configuration.

Table 72 PSTU Indicators After Maintenance

PSTU Indicator	State
Fault	Off
Operational	On
Synchronized	On
10/100Base-T	On ⁽¹⁾
100Base-LX10	On ⁽²⁾
Transmission OK	Off ⁽³⁾

(1) When traffic is active on the electrical Ethernet link.

(2) When traffic is active on the optical Ethernet link.

(3) For ports A–D

Performing Final Checks

This section describes the checklist to be filled in after the maintenance has been completed.

The following checklist is not mandatory, but it is strongly recommended. Local procedures and safety regulation must be evaluated and included in this checklist.

Table 73 Checklist

Check the following:	OK
1. The indicators on the RRU, IXU and PSTU, if used, are in the approved status.	
2. The test equipment has been disconnected from the RBS	
3. The RBS cabinet and the mounting base are free from foreign objects.	
4. All cabinets and cables are free of damage.	
5. All EMC sealants and cable penetrations are intact.	
6. Top and bottom of cabinet are free of obstructions (for airflow).	
7. The cabinet has been locked, and the screws have been tightened.	
8. All tools have been accounted for.	
9. All paperwork has been completed.	

10.6 Returning Hardware

10.6.1 Repair Delivery Note, Blue Tag

When a faulty unit is returned, it must be accompanied by a repair delivery note. When the note has been completed it must be attached to the faulty unit with a string, before sending it for repair. Tape must only be used to attach the note to the sides of the unit.

Note: Do not tape a repair delivery note on the front panel as it is hard to remove and causes extra work at the Ericsson repair centre.

The repair delivery note LZF 084 84 can be ordered from First Line Support. An example of a completed repair delivery note is shown below.

ERICSSON		REPAIR DELIVERY NOTE	
1) Prepared Eric Ericsson		2) Telephone No. +46 8 757 3285	
3) Failure date (yyyy-mm-dd) 1999-08-16		4) Failure Suspected <input type="checkbox"/> Verified <input checked="" type="checkbox"/>	
5) Country code SE	6) Exchange code	7) State code H W S	8) Consecutive No.
9) Cellsite No.		10) Sector No.	
11) Product No. KRC 123 456/1		12) R-state R1A	
13) Channel No.		14) Software application LZY 213 938/1 R7/1	
15) Function description		16) Fault code SO TRXC RU0, SO TRXC I1A10	
17) Factory code A5304AQ41B	18) Serial No. 9714	19) Manufact. (year, week)	
20) Description of fault Fault indicated 2 hours after power on outdoor temp 40° C		21) Superior product No. RBS 2102	
22) R-state	23) Serial No.		
24) Sender MMO/EDD/EDDERER	25) Receiver		
26) Remarks/special instructions Installed 1998-10-15, logfiles on paper included		27) Reference No.	
28) Received		29) Date (yyyy-mm-dd)	

LZF 084 84/ IEN R1 A

Instructions on reverse side

The following fields are mandatory. Use block letters.

- 1 Prepared Service technician's name
- 2 Telephone Service technician's telephone number
- 3 Failure date
- 4 Failure Mark with an X if failure is Suspected or Verified
- 5 Country code Two letter country code
- 7 State code Hardware (HW) status when failure occurred:
S = Unit in service when failure occurred (Repair)
T = New unit failed during installation or test (Claim)
R = Repaired unit failed during installation or test (Claim or Repair)
- 11 Product No. Faulty unit
- 12 R-state Faulty unit
- 14 Software application RBS load, product number and R-state
- 16 Fault code Check OMT or work order
- 18 Serial No. Faulty unit
- 19 Manufact. (year week) Observations and external factors
- 20 Description of fault
- 21 Superior product No. RBS type
- 24 Sender Customer, Company, Corporate ID
- 26 Remarks/special instructions Information about installation date, logfiles and modification requirements

P005537C

Figure 91 Example of Completed Repair Delivery Note (Blue Tag)

The above explanations to the Repair delivery note are also given on its reverse side.

10.6.2 Cleaning the Units

To ensure that repair personnel is not unnecessarily exposed to contamination risks, all outdoor units must be cleaned before returned to the repair centre.

A label must be attached to the cleaned unit. The label must specify the cleaning method used and the name of the person who performed the cleaning, including phone number or other contact details.

It is the customer's responsibility to ensure that products are cleaned and labelled according to instructions from Ericsson.

Products received without a proper label or that are not cleaned from, for example, bird dropping, soil, or soot, are subject to being returned without being repaired.

Cleaning Procedure

When cleaning the unit always follow the instructions from the supplier of the cleaning product, for example, use of gloves and ventilation requirements.

Note: Do not use a wire brush, degreasing agents, chlorinated solvents, or chlorinated hydrocarbons when cleaning the unit.

1. Protect the RBS unit by sealing connectors, covers, hatches, and cable glands according to the figures below. Use tape or rubber dust covers to seal all openings on the unit.
2. Clean the unit from heavy dirt using a non-abrasive brush or a sponge and normal consumer cleaning products. High-pressure steam can be used.
3. Let the Virkon disinfectant bag dissolve in water.
4. Use a sponge and the Virkon solution and rub the unit clean.
5. Wipe the unit dry and remove all tape and covers used to protect the openings of the unit.
6. Apply the disinfection label SVB 154 589/1 on the unit according to the figures below.
7. Apply the disinfection label SVB 154 589/1 on the packing box.

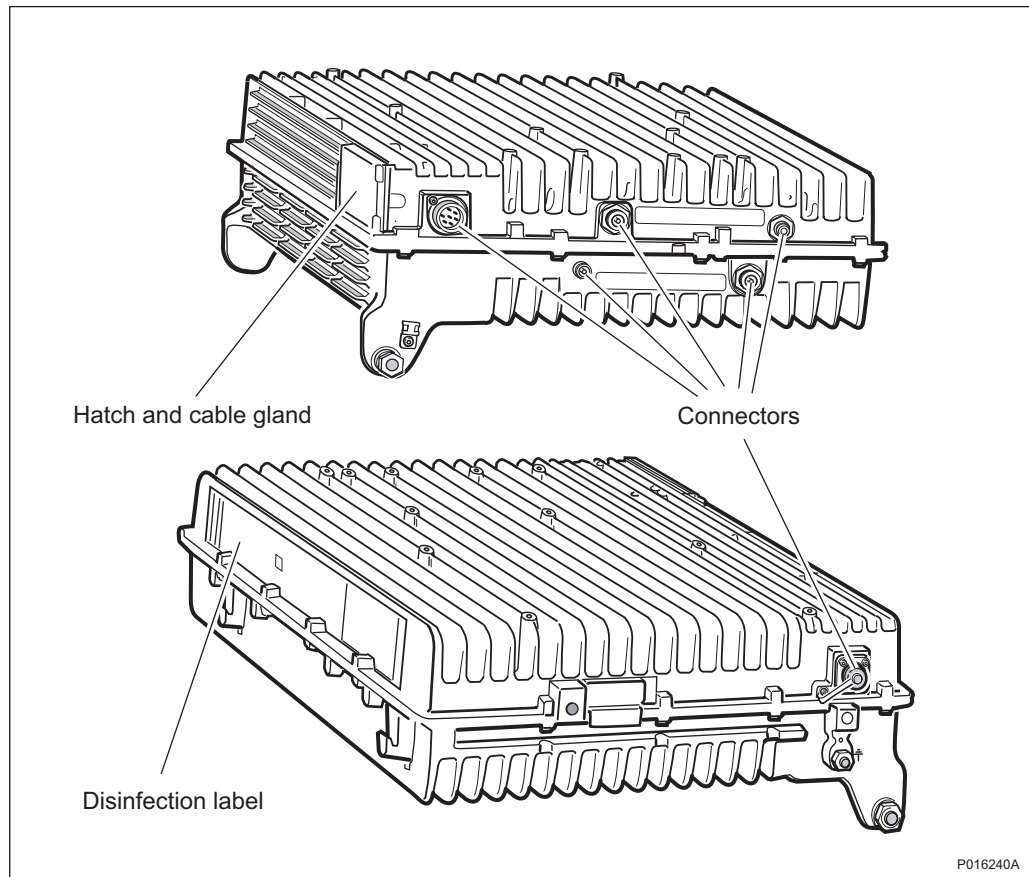


Figure 92 RRU Protection Before Cleaning

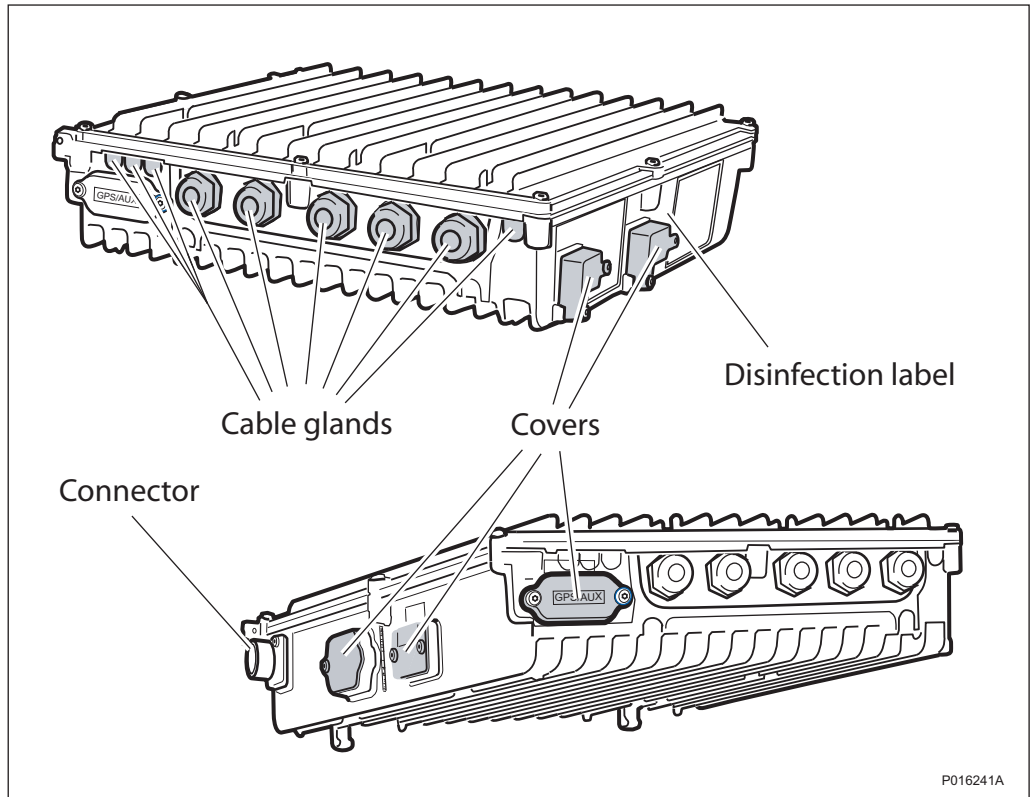


Figure 93 IXU Protection Before Cleaning

11 Reconfiguring the RBS for IP Transmission

11.1 Introduction

This chapter describes how to reconfigure the RBS 2308 for IP Transmission. Installing a Packet-Switched Termination Unit (PSTU) enables the RBS to carry traffic over an Internet Protocol (IP) network.

When an RBS 2308 is configured with a PSTU for IP-based transmission, a maximum of four Transceivers (TRX) can be used.

Reconfiguration can be done either in-house or on-site.

Note that the instructions in this chapter include information about the optical Ethernet interface that is not supported in the first software release.

11.1.1 Target Groups

This chapter is for the following groups:

- RBS installation personnel
- Site test and integration personnel

11.2 Preconditions

Before starting the reconfiguration, ensure that the following conditions are met:

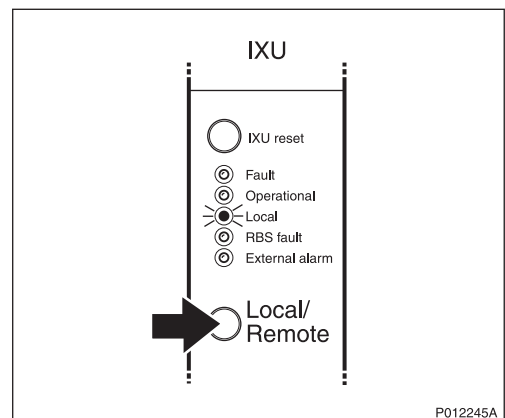
- The chapters *Personal Health and Safety Information* and *System Safety Information* have been read
- Tools for RBS maintenance are available (see chapter Tools and Instruments, section Equipment for Maintenance in RBS 2308 and RBS 2309 User's Guide)
- *Site Installation Documentation* is available
- The BTS software supporting IP-based transmission is stored in both memory locations of the RBS

11.3 Reconfiguration Procedure

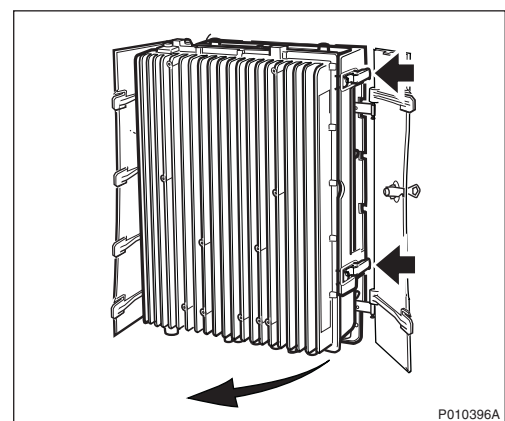
This section describes the order in which the reconfiguration is performed.

11.3.1 Taking the RBS Out of Operation

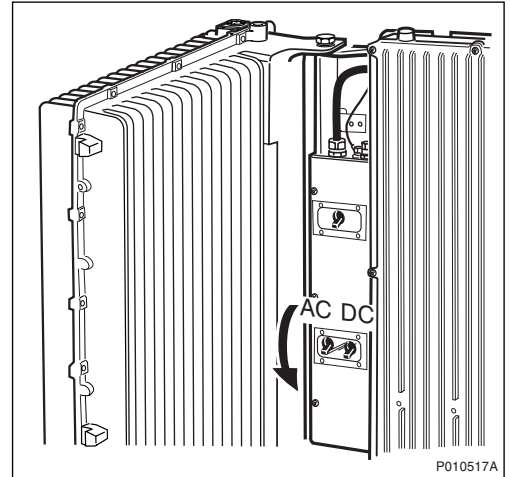
1. Open the sunshields.
2. Contact the Operation and Maintenance Centre (OMC) operator to obtain permission to take cells out of service. Wait until the RF off indicator on all Remote Radio Unit (RRU) interface panels shows a constant light.
3. Press the Local/Remote button on the Interface and Switching Unit (IXU) to set the RBS to local mode. Wait until the local indicator on the IXU shows a constant light.



4. Open the two clasps and pull the RRU to the left to gain access to the power switches.



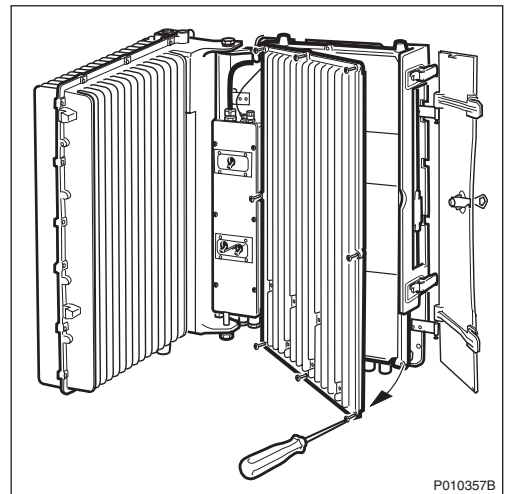
5. Switch off the AC power and DC power.



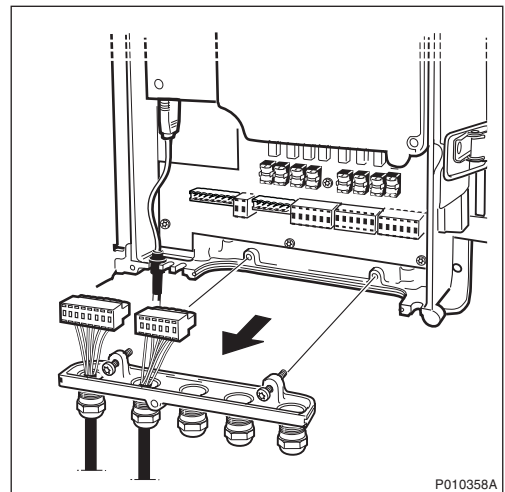
11.3.2 Removing the TIM

Note: This section is applicable only for RBSs equipped with an IXU with revision state lower than R5A. For IXUs with revision state R5A or higher, the TIM is integrated in the IXU and cannot be removed.

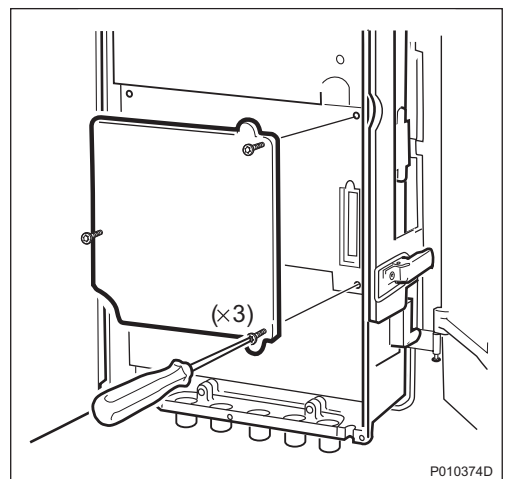
1. Open the IXU cover.



2. Remove the connection frame and all cables from the Interface Board (IFB).



3. Loosen the three screws and remove the TIM.



11.3.3 Unpacking the PSTU

Unpack the PSTU and its accompanying installation parts on-site. To avoid damage, do not unpack the equipment elsewhere and then transport it to the site.



Caution!

Stop! This product contains components sensitive to ESD. Use an approved ESD wrist strap, connected to the product grounding point, to avoid damaging these components.

To prevent components being damaged by electrostatic discharges during unpacking, avoid contact with the connectors of the PSTU.

Ensure that the correct equipment has been delivered. If it is damaged, then immediately inform the supervisor or the transport company.

11.3.4 Installing the PSTU

1. Connect the PSTU to the IXU connector and fasten the four screws. See figure below.

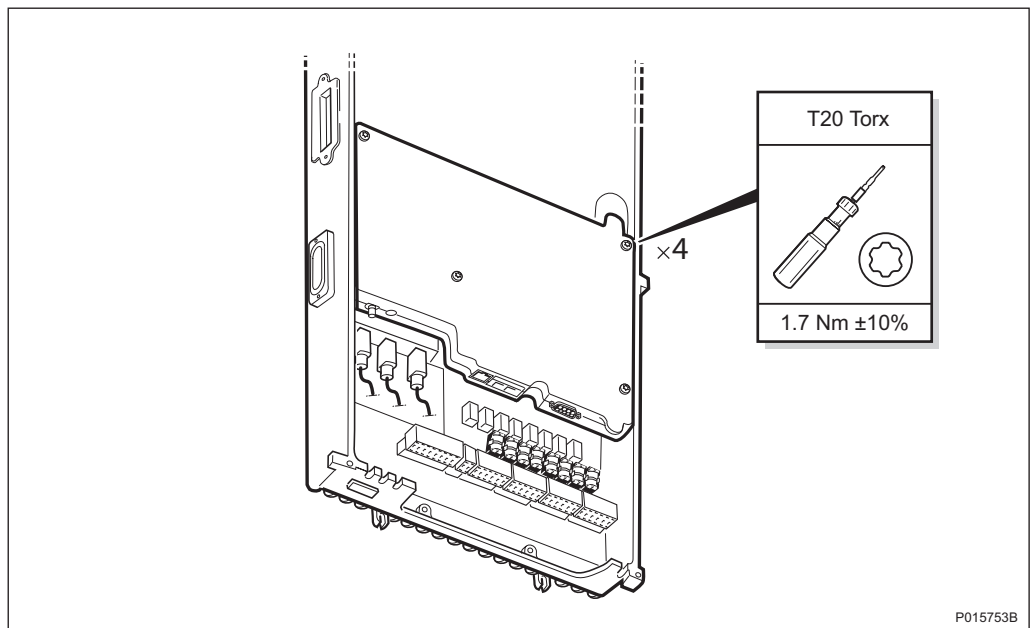


Figure 94 PSTU Installation

11.3.5 Routing Transmission Cables

1. To make room for the transmission cable, remove the termination blocks for ports A–D on the IFB. The termination blocks are not used with a PSTU. See figure below.

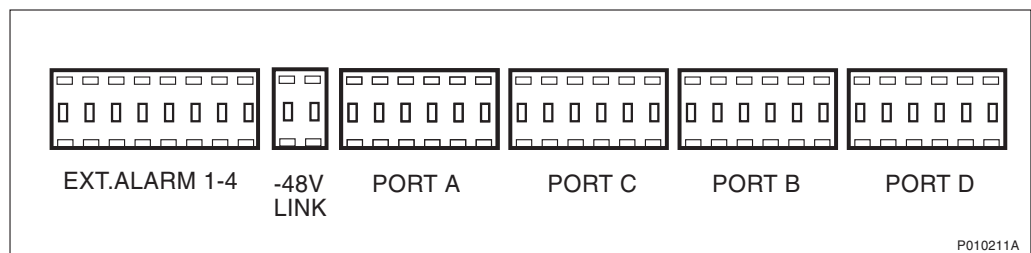


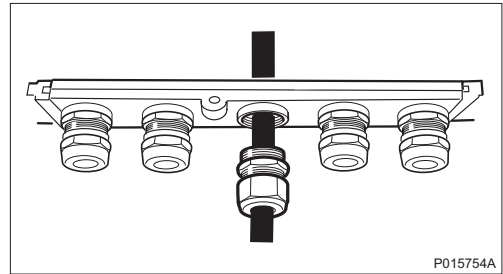
Figure 95 IFB Termination Blocks

Note: Do not connect the Ethernet cable connectors to the PSTU yet. If the PSTU contains a configuration from previous use, then connecting the Ethernet cables can generate conflicting IP traffic.

2. Reinstall the connection frame.

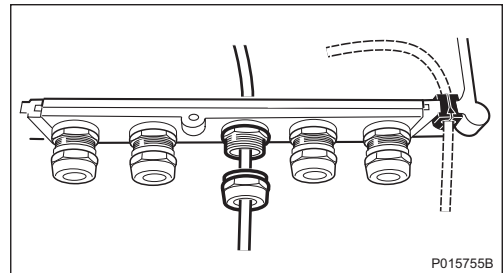
3. Optical Ethernet:

Pass the optical Ethernet cable through the most suitable cable inlet, so that about 20 mm of the cable sleeve protrudes into the PSTU, and tighten the cable gland.



Electrical Ethernet:

- For cables with factory-fitted connectors: remove the split rubber grommet from the slot to the right of the cable inlets, choose a cable of suitable diameter from the parts supplied with the PSTU, attach the seal to the cable and press it back into the slot.
- For cables without factory-fitted connectors: pass the cable through the most suitable cable inlet and tighten the cable gland.



4. Seal any unused cable inlets.

Note: Do not connect the Ethernet cable connectors to the PSTU yet. If the PSTU contains a configuration from previous use, then connecting the Ethernet cables can generate conflicting IP traffic.

11.3.6 Changing IDB Parameters

To change Installation Database (IDB) parameters, first switch on the AC power and DC power to the RBS.

Connecting the OMT

1. Remove the lid from the OMT port on the IXU.
2. Connect the OMT cable from the PC serial port to the OMT port on the right-hand side of the IXU. If an extended OMT cable is connected to the OMT port, then connect the OMT cable to the end of the extended OMT cable.

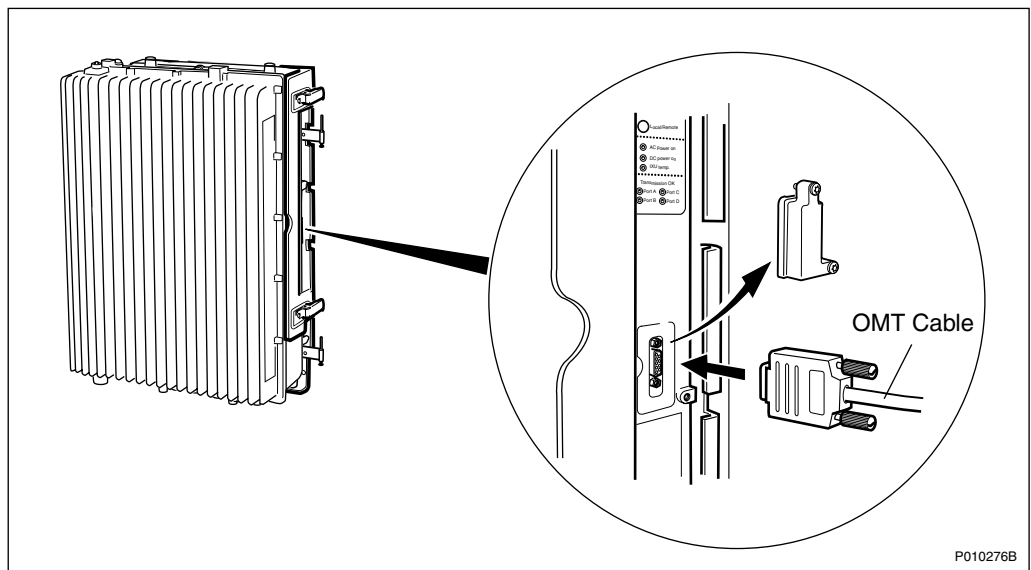


Figure 96 OMT Connection

3. Start the OMT.

Reading and Saving the Existing IDB

1. On the **RBS 2000** menu, click **Connect** to connect the OMT logically to the RBS.
2. On the **Configuration** menu, click **Read IDB**.
3. On the **Configuration** menu, click **Save IDB As...** and save the IDB as a backup copy in a suitable file folder.

Modifying the IDB

1. On the **RBS 2000** menu, click **Disconnect** to disconnect the OMT logically from the RBS (if not already done).
2. On the **Configuration** menu, click **Create IDB** to open the Create IDB window.
3. In the Create IDB window, select Current IDB as the default values.
4. In the Create IDB window, select IP as the transmission interface and click **OK**.

5. In the Final Configuration Selection window, confirm that the cabinet and antenna sector parameters are correct and click **OK**.
6. In the OMT dialog box asking Do you want to reuse data in the previous configuration?, click **Yes**.
7. In the Reuse Site Specific Data window, select All Parameter and click **OK**.

Note that transmission parameters are not highlighted because IP is selected as the transmission interface.

8. In the OMT dialog box asking Do you want to overwrite the IDB data in the OMT?, click **Yes**.
9. On the **Configuration** menu, click **Save IDB As...** and save the new IDB in a suitable file folder.

Installing the New IDB

Note: The RBS must be in local mode to accept a new or modified IDB.

Note: Do not touch the RBS when any indicators are double-flashing. See *Section Double-Flash Indication of Function Changes in Chapter Maintenance in RBS 2308 and RBS 2309 User's Guide*.

1. On the **RBS 2000** menu, click **Connect** to connect the OMT logically to the RBS.
2. On the **Configuration** menu, click **Install IDB**.

If the OMT detects inconsistencies between the RBS HW and the IDB, then the differences are displayed in a window. However, the IDB in the RBS can still be overwritten if an RBS/IDB inconsistency has been detected. The IXU and RRUs remain in local mode after the IDB has been installed.

The RBS will perform an automatic reset after the IDB has been installed.

3. In the OMT dialogue box asking "Do you want to overwrite the IDB data in the RBS?", click **Yes**.
4. On the **Configuration** menu, click **Site Specific Data** and **Display** to open the `site_specific_data.txt` window. Check that the parameters have been correctly defined.

11.3.7 Putting the PSTU Into Remote Operation

To put the PSTU into remote operation, see *chapter PSTU Startup* in the *RBS 2308 and RBS 2309 User's Guide*.

11.3.8 Setting the RBS to Remote Mode

1. Inform the OMC operator that the PSTU configuration can be completed from the Operations Support System (OSS).
2. Press the Local/Remote button on the IXU to set the RBS to remote mode. Wait until the RF off indicator on the RRU interface panel goes off and the Operational indicator comes on.
3. Close the sunshields.
4. Coordinate the RBS integration with the OMC operator. To integrate the RBS, see *chapter RBS Site Integration* in the *RBS 2308 and RBS 2309 User's Guide*.

12 Glossary

This glossary lists terms and abbreviations used in documentation for RBS 2000 cabinets. It includes some terms and abbreviations needed for cross-reference purposes.

Terms and Abbreviations

An arrow ⇒ is used to indicate a reference to another entry in the list.

1-P	One-pair connection with echo cancellation (= two wires).
2-P	Two-pair connection with echo cancellation (= four wires).
2WRD	2-Way Receiver Diversity
4WRD	4-Way Receiver Diversity
A/D	Analog-to-Digital
AAU	Active Antenna Unit
Abis	GSM interface standard defining attributes of the communication between the BSC and BTS.
AC	Alternating Current
ACB	Alarm Collection Board
ACCU	AC Connection Unit
ACCU-CU	ACCU Connection Unit
ACCU-DU	ACCU Distribution Unit
ADM	Auxiliary Distribution Module
AFS	AMR Full-Rate Speech
AGCH	Access Grant Channel
AGW	Abis Gateway
AHR	AMR Half-Rate Speech
air conditioner	Version of the climate unit (active cooler).

AIS	Alarm Indication Signal
ALBO	Automatic Line Build-Out
ALNA	Antenna Low-Noise Amplifier
ALPU	Antenna Lightning Protection Unit
AMR	Adaptive Multi-Rate
AO	Application Object
ARAE	Antenna-Related Auxiliary Equipment
ARFCN	Absolute Radio Frequency Channel Number
ARP	Antenna Reference Point
ARU	Active Replaceable Unit
ASD	Acceleration Spectral Density
ASIC	Application-Specific Integrated Circuit
ASU	Antenna-Sharing Unit
AT	Alphanumeric Terminal
AT	Available Time
ATRU	Adaptive Transceiver Unit
ATSR	Air Time Slot Resource
AU	Antenna Unit
AWG	American Wire Gauge
BALUN	Balance and unbalance transformer
batt	Battery
BB	Battery Box
BBS	Battery Backup System
BCCH	Broadcast Control Channel Downlink-only broadcast channel for broadcasting general information at a base station on a base-station basis.
BCS	Block Check Sequence

BDM	Battery Distribution Module IDM with a battery and local processor.
BEP	Bit Error Probability
BER	Bit Error Rate
BFF	Bit Fault Frequency
BFI	Bad Frame Indication
BFU	Battery Fuse Unit
BI	Base Interval
bias injector	Unit that injects DC power for the TMA into the coaxial cable and isolates such power from the RF signal to the CDU.
Bm	Full-rate traffic channel.
BPC	Basic Physical Channel Air interface transport vehicle formed by repeating one time slot on one or more RF channels.
BS	Base Station
BSC	Base Station Controller GSM network node for controlling one or more BTSs.
BSCSim	Base Station Controller Simulator
BSIC	Base Transceiver Station Identity Code
BSP	BTS Synchronization Protocol
BSS	Base Station System GSM network logical unit consisting of one BSC and one or more BTSs.
BTS	Base Transceiver Station GSM network unit operating on a set of radio frequency channels in one cell.
BUFIN	Number of buffer slips detected at an RX interface.
burst	Portion of digital information (physical contents) that is transferred during one time slot.

cabinet	Physical housing of a base station.
cascading	Connection of several cabinets by a PCM cable; similar to serial connection.
CBCH	Cell Broadcast Channel Downlink-only channel used by the GSM-defined SMSCB function.
CCCH	Common Control Channel Channel combining the following common control channels: <ul style="list-style-type: none"> • AGCH Access Grant Channel • PCH Paging Channel • RACH Random Access Channel
CCH	Control Channel
CCU	Climate Control Unit
CDU	Combining and Distribution Unit
CE	Communauté Européenne: European Community (EC)
cell	Area of radio coverage identified by the GSM network by means of the cell identity.
CEU	Coverage Extension Unit
CF	Central Functions
channel	Virtual connection consisting of physical and logical channels between the BSS and MS during a call in progress. ⇒ logical channel ⇒ physical channel
channel combination	Physical channel on an air interface carrying a defined set of logical channels.
CHGR	Channel Group Group of dedicated logical channels to a specific MS.
CLI	Command Line Interface
CLU	Climate Unit

CM	Control Module [for TMA]										
CMCN	Central Main CPU Node										
CMD	Digital Radio Communication Tester										
CME 20	Cellular Mobile Europe <ul style="list-style-type: none"> • CME 20 Ericsson digital land mobile telecommunication system based on the GSM standards • CME 201 Ericsson GSM system consisting of Ericsson equipment only 										
CMRU	Central Main Replaceable Unit <p>A DXU- or IXU-equipped RBS is physically connected to the BSC through a single CMRU. An RBS without a DXU or IXU is regarded as a CMRU.</p> <table> <tr> <td>Macro</td> <td>CMRU = DXU</td> </tr> <tr> <td>Micro</td> <td>CMRU = entire RBS</td> </tr> <tr> <td>RBS 2308</td> <td>CMRU = IXU</td> </tr> <tr> <td>RBS 2309</td> <td>CMRU = IXU</td> </tr> <tr> <td>RBS 2109</td> <td>CMRU = IXU</td> </tr> </table>	Macro	CMRU = DXU	Micro	CMRU = entire RBS	RBS 2308	CMRU = IXU	RBS 2309	CMRU = IXU	RBS 2109	CMRU = IXU
Macro	CMRU = DXU										
Micro	CMRU = entire RBS										
RBS 2308	CMRU = IXU										
RBS 2309	CMRU = IXU										
RBS 2109	CMRU = IXU										
CMS 40	Cellular Mobile System <p>Ericsson digital land mobile telecommunication system based on the Joint Technical Committee (JTC) specification for PCS 1900.</p>										
CNU	Combining Network Unit										
compr	Compressor										
CON	LAPD concentrator, used to reduce the number of physical links between the BSC and BTS.										
config	Configuration										
co-siting	Operating radio equipment from more than one mobile telephone system and/or frequency on the same site, using shared equipment.										
CPI	Communication and Power Interface <p>Customer Product Information</p>										

CPU	Central Processing Unit
CRC	Cyclic Redundancy Check
CRCE	CRC errors from far end.
CS	Coding Scheme
CSA	Canadian Standards Association
CSES	Consecutive Severely Errored Second
CSU	Channel Service Unit
CTS	Clear to Send
CU	Combining Unit [RU in CDU-D]
CUR	Channel Utilization Ratio
CUT	Channel Utilization Threshold
CV	Code Violation
CXU	Configuration Switch Unit
D/A	Digital-to-Analog
dB	Decibel
dBm	Decibels per Milliwatt
DB	Database
DC	Direct Current
DCC	Digital Cross-Connector
DCCH	Dedicated Control Channel [for signalling data]
DCCU	DC Connection Unit
DCD	Data Carrier Detect
ddTMA	Dual-Duplex Tower-Mounted Amplifier
DF	Distribution Frame
	Disturbance Frequency
DF-OVP	Distribution Frame Overvoltage Protection
DFU	Distribution and Fuse Unit

DIP	Digital Path Function used to supervise connected PCM lines.
DM	Degraded Minute Distribution Module
DMCN	Distributed Main CPU Node
DMRU	Distributed Main Replaceable Unit Main RU subordinated to the CMRU.
downlink	System-to-MS signalling direction.
DP	Digital Path Distribution Panel
DPX	Duplexer
DRU	Double Radio Unit
DS1	Digital Signal level 1 [1544 kbps]
DSP	Digital Signal Processor
DSR	Data Set Ready
DT	Data Transcript
DTE	Data Terminal Equipment
DTF	Distance to Fault
dTMA	Duplex TMA
DTR	Data Terminal Ready
dTRU	Double Transceiver Unit
DU	Distribution Unit [RU in CDU-D]
DUT	Device under Test
DX	Direct Exchange Duplex
DXB	Distribution Switch Board
DXC	Digital Cross-Connector

DXU	Distribution Switch Unit
DXX	Digital Cross-Connect
E1	2 Mbps transmission link.
EACU	External Alarm Connection Unit
EBB	External Battery Backup
EC1	External Condition Map Class 1
EC2	External Condition Map Class 2
ECU	Energy Control Unit
EDGE	Enhanced Data Rate for Global Evolution
EDGE dTRU	EDGE Double Transceiver Unit ⇒ EDGE
EDT	Electrical Down-Tilt
EdTRU	EDGE Double Transceiver Unit
EEPROM	Electrically Erasable Programmable Read-Only Memory
E-GSM	Extended GSM
EIRP	Effective Isotropic Radiated Power
EMC	Electromagnetic Compatibility
EMF	Electromagnetic Field Electromotive Force
EMI	Electromagnetic Interference
EN	European Norm
ENV	Environmental
EOC	Embedded Operations Channel
EPC	Environmental and Power Control
ES	Errored Second
ESB	External Synchronization Bus
ESD	Electrostatic Discharge

ESF	Extended Superframe Format
ESO	Ericsson Support Office
ETS	European Telecommunications Standard
ETSI	European Telecommunications Standards Institute
EXT	External
FACCH	Fast Associated Control Channel Main signalling channel in association with a TCH.
FCC	Federal Communications Commission
FCCH	Frequency Correction Channel
FCOMB	Filter Combiner
FCU	Fan Control Unit
FDL	Facility Data Link
FDU	Feeder Duplexer Unit
FER	Frame Erasure Ratio
FIU	Fan Interface Unit
FPS	Framing Pattern Sequence
FS	Frame Synchronization Function Specification
FSC	Field Support Centre
FSW	Frame Synchronization Word
FU	Filter Unit [RU in CDU-D]
FUd	Filter Unit with Duplexer [RU in CDU-D]
FXU	Future Expansion Unit
G01	MO model for RBS 200.
G12	MO model for RBS 2000.
G.703	Physical/electrical characteristics of hierarchical digital interfaces, as defined by the ITU.

G.704	Synchronous frame structures used at 1544, 6312, 2048, 8448, and 44 736 kbps, as defined by the ITU.
GPRS	General Packet Radio Services
GPS	Global Positioning System
GPS-OVP	GPS Overvoltage Protection
GPSS	GPS-based Synchronization Source
GS	General Specification
GSL	GPRS Signalling Link
GSM	Global System for Mobile Communications International standard for a TDMA digital mobile communications system. GSM was originally an abbreviation for Group Special Mobile, a European mobile telecommunications interest group established in 1982.
GSM 800	Generic 800 MHz GSM system.
GSM 900	Generic 900 MHz GSM system.
GSM 1800	Generic 1800 MHz GSM system.
GSM 1900	Generic 1900 MHz GSM system.
HCE	HDSL Central Equipment
HCOMB	Hybrid Combiner
HCU	Hybrid Combiner Unit
HDLC	High-Level Data Link Control
HDSL	High Bit Rate Digital Subscriber Line
heat exchanger	Version of the climate unit.
HEU	Heat Exchanger Unit
HISC	Highway Splitter Combiner
HLIN	High-Level In
HLOUT	High-Level Out
HMS	Heat Management System

HPT	High-Power Terminator
HTU	HDSL Terminating Unit
hum	Humidity
HW	Hardware
HWU	Hardware Unit
	Functional unit in an RBS; consists of one or more SEs and is either active (has a processor) or passive (has no processor).
I1A	Class 1A internal fault map.
I1B	Class 1B internal fault map.
I2A	Class 2A internal fault map.
IA	Immediate Assignment
IC	Integrated Circuit
ICMI	Initial Codec Mode Indicator
ICMP	Internet Message Control Protocol
ICP	IS Connection Point
ID	Identity
IDB	Installation Database
IDM	Internal Distribution Module
IEC	International Electrotechnical Commission
IF box	Interface box
IFB	Interface Board
I-frame	Information field frame
IMSI	International Mobile Subscriber Identity
INIT	Initial
INT	Internal
IOG	Input/Output Group
IOM	Internal Operation and Maintenance bus

IP	Internet Protocol
IR	Infrared
IS	Interface Switch
ITU	International Telecommunication Union
IWD	Interwork Description
IXU	Interface and Switching Unit
JTC	Joint Technical Committee
kbps	Kilobits per Second
LAN	Local Area Network
LAPD	Link-Access Procedures on D-Channel
	LAPD is the data link layer (layer 2) protocol used for communication between the BSC and BTS on the Abis interface.
	Abis layer 2 is sometimes used as a synonym for LAPD.
LBO	Line Build-Out
LED	Light-Emitting Diode
LLB	Line Loopback
Lm	Half-rate traffic channel.
LNA	Low-Noise Amplifier
local bus	Offers communication between a CMRU (DXU) and DMRUs (TRU and ECU).
local mode	An RU in local mode is not communicating with the BSC.
local/remote switch	Switch used to set RUs to local or remote mode.
LOF	Loss of Frame
logical channel	Represents a specified portion of the information-carrying capacity of a physical channel.
	GSM defines two main categories of logical channels:
	<ul style="list-style-type: none"> • TCH – for speech or user data traffic

- CCH – for control signalling

⇒ physical channel ⇒ channel combination

logical RU	Can be referred to but is not a single physical unit.
LOS	Loss of Signal
LVD	Low Voltage Directive
LSB	Least Significant Bit
LVF	Low Voltage Filter
MAC	Media Access Control
MADT	Mean Accumulated Downtime
magazine	Reserved space in a cabinet that can hold one or more RUs.
main RU	Contains one or more processors, to which software can be downloaded from the BSC. Main RUs are either central (CMRU) or distributed (DMRU) and may or may not have direct signalling links to the BSC.
MBU	Mounting Base Unit
Mbps	Megabits per Second
MCB	Multicasting Box
MCPA	Multicarrier Power Amplifier
ME	Managed Entity
MHS	Modification Handling System Ericsson trouble report database.
Mini-Link	Ericsson microwave transmission system.
MMI	Man–Machine Interface
MO	Managed Object
MR	Measurement Receiver
MRT	Mean Repair Time
MS	Mobile Station
MSB	Most Significant Bit

MSC	Mobile Services Switching Centre GSM network unit for switching, routing, and controlling calls to and from the PSTN and other networks.
MSTP	Mobile Station Test Point
MTBF	Mean Time Between Failures
MTBCF	Mean Time Between Critical Failures
MTU	Maximum Transmission Unit
multidrop	Two or more RBSs connected in a chain to the same transmission system. All the relevant time slots are dropped out by each RBS (also sometimes called cascading).
N terminal	Neutral terminal [AC power]
n/a	Not applicable
NCS	National Colour System
NE	Network Element
NEBS	Network Equipment Building System
NMS	Ericsson Network Management System in DXX
nominal power	Power level defined while configuring the transceiver.
NRO	Network Rollout
NTP	Network Time Protocol
NTU	Network Terminating Unit
OCVXO	Oven-Controlled Voltage-Controlled Crystal Oscillator
OL/UL	Overlaid/Underlaid
O&M	Operation and Maintenance Activities such as configuration, channel use (frequency bands), cell planning, system supervision, hardware and software maintenance, subscriber administration, and so on.
OMC	Operation and Maintenance Centre
OML	Operation and Maintenance Link

	Layer 2 communication link for operation and maintenance services on Abis.
OMT	Operation and Maintenance Terminal PC application for RBS O&M.
operation	The normal everyday fully functional running of an RBS.
OPI	Operational Instructions
OSS	Operations Support System
OTU	Outdoor Terminating Unit
OVP	Overvoltage Protection
OXU	Space for optional expansion.
PA	Power Amplifier
PAM	Power Amplifier Module
passive RU	RU with a very low level of intelligence and independent of the processor system.
PBA	Printed Board Assembly
PBC	Power and Battery Cabinet
PC	Personal Computer
PCB	Printed Circuit Board
PCH	Paging Channel Downlink-only CCCH subchannel for system paging MSs. ⇒ CCCH
PCM	Pulse-Code Modulation
PCU	Packet Control Unit
PDCH	Packet Data Channel
PE terminal	Protective Earth terminal [AC power]
PFWD	Power Forward
P-GSM	Primary GSM

PGW	Packet Gateway
physical channel	Air interface physical channel that carries one or more logical channels. It uses a combination of frequency and TDMA and is defined as a sequence of radio frequency channels and time slots. ⇒ TDMA frame ⇒ logical channel
PIB	Power Interface Board
PIN	Personal Identification Number
PLB	Payload Loopback
PLMN	Public Land Mobile Network Network established and operated by an administration or one or more licensed operators to provide land mobile communication services to the public and communication possibilities for mobile users. Interworking with a fixed network is required for communication between fixed and mobile users.
PM	Performance Management
PPE	Personal Protective Equipment
PREFL	Power Reflected
PSA	Power Supply Adapter
PSTN	Public Switched Telephone Network
PSTU	Packet-Switched Termination Unit
PSU	Power Supply Unit
PSU-AC	PSU that converts AC to DC.
PSU-AC+24	PSU that converts AC to +24 V DC.
PSU-AC-48	PSU that converts AC to -48 V DC.
PSU-DC	PSU that converts DC to DC.
PSU-DC+24	PSU that converts DC to +24 V DC.
PSU-DC-48	PSU that converts DC to -48 V DC.
PWU	Power Unit
RACH	Random-Access Channel

	Uplink-only CCCH subchannel for MS requests to allocate dedicated channels.
	⇒ CCCH
RAI	Remote Alarm Indication
RAM	Random-Access Memory
RBER	Radio Bit Error Ratio
RBS	Radio Base Station
	All equipment forming one or more Ericsson base stations.
	⇒ BTS
RCB	Residual Current Breaker
RD	Receive Data
remote mode	When an RU is in RU remote mode, a link is established between the BSC and CMRU.
RF	Radio Frequency
RFCH	Radio Frequency Channel
	Radio frequency carrier with associated bandwidth.
RFTL	Radio Frequency Test Loop
RI	Ring Indicator
RL	Return Loss
RLC	Radio Link Control
	Repair Logistic Centre
RLC/MAC block	Block containing a MAC header and an RLC data or RLC/MAC control block, as defined in 3GPP:44.060.
RLCFP	Radio Control Cell Configuration, Print
RO	Remote Operation
ROHS	EU directive 2002/95/EC (dated 030127) on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
ROMT/IP	Remote OMT over IP

RRU	Remote Radio Unit
RSL	Radio Signalling Link
R-state	Release state
RS-232	American standard for term/MODEM interconnection.
rTMA	Receiver TMA
RTN	Return
RTS	Request to Send
RU	Replaceable Unit
	Consists of one or more HWUs and can be replaced by another RU of the same type. The smallest unit that can be handled on-site.
RX	Receiver
RX1	Receiver Antenna Branch 1
RX2	Receiver Antenna Branch 2
RXA	Receiver Antenna Branch A
RXB	Receiver Antenna Branch B
RXBP	Receiver Bandpass Filter
RXD	Received Data
	Receiver Divider
RXDA	Receiver Divider Amplifier
RXDP	Receiver Distribution Plane
RXLEV	Measure of received signal strength.
RX splitter	Splits and distributes RX signals.
RXQUAL	Measure of received signal quality.
SACCH	Slow Associated Control Channel
SAP	Service Access Point
SCC	Site Cell Configuration
SCH	Synchronization Channel

SCU	Switching and Combining Unit
SDCCH	Stand-Alone Dedicated Control Channel Main dedicated signalling channel on the air interface, used mainly for call locating and establishment.
SE	Supervised Entity
SEC	Site Extension Configuration
SELV	Separated Extra-Low Voltage
SES	Severely Errored Second
SF	Slip Frequency
SID	Silence Descriptor Site Installation Documentation
SIG	Signalling
SIM	Subscriber Identity Module
SMS	Short Message Service Enables point-to-point short messages of up to 160 alphanumeric characters to be sent to or from MSs.
SMSCB	Short Message Service Cell Broadcast
SNMP	Simple Network Management Protocol
SO	Service Object
SPB	Software Power Boost
SPD	Surge Protection Device
SS	Swedish Standard
SSH	Secure Shell
SSI	Signal Strength Imbalance
SSL	Secure Sockets Layer
sTRU	Single Transceiver Unit
sub-RU	A sub-RU is always connected to a superior main RU. This connection is used, for example, to retrieve the RU identity. A sub-RU does not normally have a processor.

Note that an RU with a processor, which cannot be loaded, is classified as a sub-RU.

SVS	System Voltage Sensor
SW	Software
SWR	Standing Wave Ratio
SYNC	Synchronous
T1	1544 kbps PCM link (G.703 transmission standard)
TA	Timing Advance
	Signal sent by the BTS to an MS, where it is used to advance transmission timing to the BTS to compensate for propagation delay.
TC	Transaction Capabilities
TCB	Transceiver Control Board
TCH	Traffic Channel
	Traffic channels carry either encoded speech or user data.
TCH/F	Full-Rate Traffic Channel
TCH/H	Half-Rate Traffic Channel
TCC	Transmission Coherent Combining
TCH SIG	Traffic Channel Signalling
TD	Transmit Data
TDMA	Time-Division Multiple Access
	Multiplexing of several channels in a common frequency band. Each channel is assigned a certain time division (time slot).
TDMA frame	GSM air interface time frame consisting of eight time slots.
TEI	Terminal Endpoint Identifier
	An identification code carried by an LAPD frame as a terminal connection endpoint within an SAP.
TEMS	Test Mobile Station

TF	Timing Function
TG	Transceiver Group
TIM	Transmission Interface Module
timing bus	Carries air-timing information from the timing unit in the DXU to the TRUs.
TLS	Terrestrial Link Supervision
TM	Time Measurement
	Transport Module
	Non-RBS equipment belonging to the transport network.
TMA	Tower-Mounted Amplifier
TMA-CM	Tower-Mounted Amplifier Control Module
TMCB	Timing Module Connection Board
TN	Time Slot Number
TN O&M	Transport Network Operation and Maintenance
TRA	Transcoder Rate Adapter
TRAU	Transcoder Rate Adapter Unit
	Transcodes speech information and adapts data information rates in the BSC.
TRS	Transceiver System
TRU	Transceiver Unit
TRX	Transceiver
	Combined transmitter and receiver.
TRXC	Transceiver Controller
TS	Time Server
	Time Slot
	A 0.577 ms period (TDMA frame subunit) corresponding to 156.25 raw bits of information. The eight time slots of each TDMA frame are numbered 0–7.
	⇒ burst

TT	Total Time
TU	Timing Unit
TX	Transmitter
TXA	Transmitter Antenna A
TXB	Transmitter Antenna B
TXBP	Transmitter Bandpass Filter
TXD	Transmitted Data
TXU	Radio Transmitter Unit
UAS	Unavailable Seconds
UAST	Unavailable State supervision
UL	Underwriter Laboratories
uplink	MS-to-system signalling direction.
UPS	Uninterrupted Power Supply
UTC	Coordinated Universal Time
VCO	Voltage-Controlled Oscillator
VSWR	Voltage Standing Wave Ratio
	RF signal measurement representing the quotient between transmitted and reflected voltage.
X bus	Carries transmit air data frames between transceivers.
Y link	Interface between a DXU and each DSP system in a core-based TRU.