7 Changes of configuration

7.1 Interventions required by system evolution

Evolution of the transmission network may require changes being made to equipment configurations in order to meet new needs. The A7390 equipment has sufficient flexibility to satisfy these scalability requirements. Modifications can be carried out by changing the software configuration with or without modifying the hardware configuration of the equipment, as the case may be. The 7390 LT may itself be subject to changes.

Two intervention modes may be distinguished:

- **remotely** for modifications involving only the **software configuration** of the equipment, carried out using the 7390LT software,
- **on site** for **hardware configuration** modifications, possibly complemented by software configuration modifications.

System evolution interventions, that can be carried out **remotely**, using simply the 7390LT software applications, are as follows:

- alarm filtering for **NT** and alarm filtering for **BS,**
- modification of **service parameters** (name, flow), see § *7.3.3 Modification of service parameters*;
- modification of the **transmit power** level of the RBS, see § *7.3.4 Change of power level (RBS)*;
- modification of the **IP addresses** of the equipment, see § *7.3.5 Changing the IP address of the equipment*;
- modification of the channelling, see § *7.3.6 Change of channelling*;
- modification of the channel **frequency** in the **same sub-band**, see § *7.3.11 Change of frequency in the same sub-band*.
- **equipment upgrading**, see § *7.3.12 Upgrading the equipment*.
- inhibition of IP data traffic on upstream, see § *7.3.7 Inhibition of Dynamic traffic on upstream*.
- desactivation of upstream, see § *7.3.8 Desactivation of upstream*.
- inhibition of automatic time setting, see § *7.3.9 Inhibition of automatic time setting* .
- modification of CES parameter of a TNT board, see § *7.3.9 Inhibition of automatic time setting*.

System evolution requiring modification of the hardware (and possibly software) configuration to be carried out **on site,** is as follows:

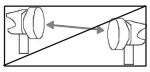
- modification of the channel **frequency** in **another sub-band**, see § *7.4.1 Change of frequency in a different sub-band or band*;
- addition of a **radio sector**, see § *7.4.2 Addition of a radio sector*;
- addition of a **network interface**, see § *7.4.3 Network interface*;
- updating of the **7390LT software**, see § *7.4.4 Updating the 7390LT software*;
- redundancy setting of the **ANT board**, see § *7.4.5 Setting ANT board redundancy*;
- redundancy setting of a **radio sector**, see § *7.4.6 Radio sector redundancy corresponding to the addition of AMD/IBS and backup RBS boards*;
- change **network interface** 34 Mbit/s to 155 Mbit/s, see § *7.4.3.2 Change of a network interface (34 to 155 Mbit/s)*.

Note: Change **network interface** 155 Mbit/s to 34 Mbit/s is not possible.

7.2 Recommendations

	**For carrying out work of any kind on boards (disassembly/assembly, configuration modification), the operator must be equipped with a grounding strap (e.g., a "Disposable Wrist Strap" 3M, reference 2209).** **THESE OPERATIONS ARE ONLY TO BE CARRIED OUT BY QUALIFIED TECHNICIANS AUTHORISED BY ALCATEL.**

	**UPDATE THE REFERENCE DOCUMENTS AND LABELS IN ORDER FOR THEM TO COMPLY WITH THE NEW CONFIGURATION.**

The presence of the symbol  at the start of the description of an intervention indicates that this involves the temporary interruption of the link.

7.3 Remote interventions using software

7.3.1 Alarm filtering for NT

Order number of steps	Designation	Comments	Refer to paragraph concerned
I	Access to the choose NT	Go to ***NT List*** screen from the main button bar: - select the NT you wish to filter Alarms, - check if it is the right NT	4.6
II	Inhibits alarms	- click on the icon to inhibit receiving acknowledgement of the alarm of the NT, - check that the alarm reported has changed in the ***NT List*** screen	4.6.1

7.3.2 Alarm filtering for BS

Order number of steps	Designation	Comments	Refer to paragraph concerned
I	Inhibits alarms	Go to the ***BS Details*** screen, - click on the icon to inhibit receving the alarms, - check that the alarm state has changed.	4.5.1

7.3.3 Modification of service parameters

7.3.3.1 Changing the name of an E1 leased line

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Edit the E1 link	On the ***leased lines*** screen: - select the link to edit - click on the edit icon	4.12.1.2 (E1) 4.12.2.2 (X21) 4.12.3.2 (T1)
II	Modification of link name	In the modification field: - enter the new name of the link	4.12.5.4
III	Validation of the new name	- click on «*OK*»	

7.3.3.2 Changing the capacity of an E1 leased line

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Suppression of the "cross- connec-tion" concerned	To modify the contract affected to an allocated line, the cross-connection must be suppressed first.	6.2.16
II	Creation of the new link	Assign the same value to the other parameters (ports, name, Vpi, Vci) as those of the previous "cross-connection".	6.2.15
III	Definition of the new bit rate	Create the new cross-connection by assigning the desired TS to the new "cross-connection" (the bit rate is defined depending on the number of TS assigned).	4.12.1.6 (E1) 4.12.2.6 (X21) 4.12.3.2 (T1)

7.3.3.3 Changing the name of an IP cross-connection

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Edit the IP link	On the ***IP*** screen: - select the IP link to edit - click on the edit icon	4.13.2.1
II	Modification of link name	In the modification field: - enter the new name of the IP link	4.13.2.5
III	Validation of the new name	Click on «*OK*»	

7.3.3.4 Changing the capacity of an IP cross-connection

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Suppression of the "cross- connec-tion" concerned	To modify the contract affected to an IP link, the cross-connection must be suppressed first.	6.2.16
II	Creation of the new IP link	- assign the same value to the other parameters (especially Vpi and Vci) as those of the previous "cross-connection". - assign the new bit rate desired for transmission and for reception	6.2.15.5 4.13.2.3 table

7.3.4 Change of power level (RBS)

	**THE POWER OF AN RBS MUST NOT BE MODIFIED IF RTS ARE ALREADY IMPLEMENTED, POINTING TO IT. IN THIS CASE, CONTACT THE RADIO PLANNER.**

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Modification of the power	On the ***RBS Details*** screen: - modify the transmission power - validate by clicking on the «*Apply*» button - close the application	4.5.7
II	Checking the modification	In the **Current A*larms List***: - check that there are no new alarms for the RBS	4.10.1.3
III	Updating the installation record	Note the new value of the RBS transmission power in the BS installation record.	A.1.2 –

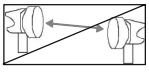
7.3.5 Changing the IP address of the equipment

Note: *to ensure remote access after any change of IP address, it is necessary to signal the new IP address assigned to one of the BS interfaces (ATM or Ethernet) and the new IP configuration of remote managememt Network* ***to the supervisor before making changes****.*

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Notifiying the supervisor of the change	Inform the supervisor of the IP address change.	
II	Changing the NE IP address	On the ***BS's Local Networks*** screen: - modify the IP address - validate by clicking on the «*Apply*» button - close the application - wait (a few minutes) for the terminal to configure	4.9.2
III	Changing the network address	On the ***Network Address*** screen: - change the network addresses - validate by clicking on «*Apply*» - close the application - wait (several minutes) for the terminal to be configured	4.9.3
IV	Updating the installation record	Note the new value of the IP and network addresses in the BS installation record.	Appendix 1 –

	**IF THE ETHERNET IP ADDRESS CHANGES, IT IS IMPOSSIBLE TO CONNECT THE LOCAL LT TO THE BS.**

7.3.6 Change of channelling



Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Suppressing client services	Suppress the different cross-connections (leased lines, IP) by refering to the "suppression of services" section of Operation.	6.2.16.4 (LL) 6.2.16.5 (IP)
II	Suppressing NT	On the ***NT List*** screen: - select the NT to suppress - click on the «*suppress*» button - confirm by clicking on «*OK*»	4.6 4.6.4
III	Desactivation of the upstream.	In the ***Radio Configuration*** screen: - unselect the upstream to be desactivated and - click on *«Apply»*	4.7.1

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
IV	Modification of the band width	On the ***Radio Configuration*** screen: - modify the band width - click on the «*Apply*» button to take into account the modifications - click on the «C*lose*» button to exit the window.	4.7.1
V	Activation of the upstream.	In the ***Radio Configuration*** screen: - select the upstream to be activated and apply.	4.7.1
VI	Creation of previously suppressed NTs	On the ***NT List*** screen: - click on the creation button - fill in the fields with the same information as for the suppressed NTs - click on the «A*pply*» button to validate - click on the «*Close*» button to exit the window.	4.6
VII	Checking	Check the re-created NTs are in the NT list.	4.6
VIII	Alarms disappearance	- Wait for the disappearance of alarms from the NTs (approximately 10 minutes). If alarms persist, see Chapter 6	4.10.1.3
IX	Re-creation of client services	Re-create the suppressed cross-connections with the same characteristics as those suppressed in stage I.	6.2.15
X	Checking	In the different lists for the cross-connections: - check that the re-created links are in the leased line links lists (LL) and IP.	4.12.5.1 (LL) 4.13.2.2 (IP)

7.3.7 Inhibition of Dynamic traffic on upstream

Note: *No IP cross-connection must be present in the system on the upstream to be unvalidated.*

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Edit the Dynamic Traffic Configuration.	Go to ***Dynamic Traffic Configuration*** screen from the ***BS Details*** screen.	4.7.2
II	Unvalidate on the upstream.	- click on the Dynamic traffic field for the right upstream and select "No", - validate the modification by clicking on «*Apply*».	
III	Check configured bandwidth	Check on the ***Dynamic Traffic Configuration*** screen that the configured bandwidth has been correctly decreased.	

7.3.8 Desactivation of upstream

Note: *An upstream can be desactivated only if there is no NT declared on this upstream.*

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Access the radio management screen.	Go to the ***Radio Configuration*** screen from the ***BS Details*** screen.	
II	Desactivation of the upstream.	In the ***Radio Configuration*** screen: - unselect the upstream to be desactivated and - click on *«Apply»*.	

7.3.9 Inhibition of automatic time setting

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Inhibition of the SNTP server.	Go to the **Time Management** screen and put 0.0.0.0 for the IP address time server and click on *«Apply»*. ***Nota:*** *The system will stop updating its time and will remain synchronized with its last update.*	4.14.4
II	Alarm appearance.	The alarm time server loss appears.	4.10.1.3
III	Manual time setting if wanted.	Time setting is carried out from the ***BS Details*** screen by clicking on the Time setting button. The system updates its time only when manual time setting is done. ***Nota:*** *Manual time setting is not allowed when SNTP server is configured.*	4.5.5

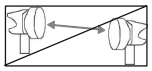
7.3.10 Modification of CES parameter of a TNT board

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Lock the TNT port (Necessary before suppressing the CES cross-connection)	In the ***Board TNT x: E1 ports configuration***: - lock the relevant TNT board port - click on «*Apply*».	4.12.1.4
II	Suppression of the CES cross-connection	In the ***Circuit Emulation Service*** screen: - select the "cross-connection" to be suppressed - click on the «*suppress*» button - validate the confirmation screen - check that the suppressed "cross-connection" no longer appears in the "cross-connections" list.	4.12.6.3 4.12.6.4

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
III	Configure parameters for circuit emulation	- Change parameters, (Buf Max Size) and (Cdv Rx T) ***Nota:*** *The TNT board will reset. Wait until TNT board becomes enabled again.*	4.5.3.2
IV	Creation of a CES link	- select the TNT board, - select a TNT port from the list - choose the Vci of ATM link - click on the cross-connection creation button.	4.12.6.3
V	Unlocking and activating the cross-connection	In the ***E1 cross-connection*** screen: - click on the «*unlock*» button. ***Nota:*** *If the TNT port is used for synchronisation, it must be masked then unmasked.*	4.12.1.3

Note: *For T1 services, CdvExt parameter must be greater than 375 µs.*

7.3.11 Change of frequency in the same sub-band



Check with reference to the table in § *7.5 Sub-band distribution plan* whether the new frequency belongs to the same sub-band. If so, follow the procedure described below. If not (change of sub-band), follow the procedure indicated in
§ *7.4.1 Change of frequency in a different sub-band or band*.

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Modification of reception and transmission central frequencies	On the ***Radio Configuration*** screen: - modify the central upstream frequencies - modify the central downstream frequencies - validate by clicking on «*Apply*» - close the application	4.7
II	Checking	In the **Current *Alarm List***: - check that there are no alarms at the AMD and IBS board and RBS level. - wait for disappearance of all NT alarms (approximately 10 minutes). If alarms persist, see part 6.	4.10.1.3
III	Updating the installation record	Note the new values of the frequencies in the BS installation record.	Appendix 1 –

7.3.12 Upgrading the equipment

Note: *Software download fails if a hardware failure is present.*

7.3.12.1 Upgrading the equipment from release 2.0 to 2.2b

	**FOLLOWING THE FIRST DOWNLOAD, THE WHOLE CONFIGURATION IS LOST (THE REFERENCED AND ACTIVATED PACKAGE INFORMATION IS THEREFORE LOST), A SECOND DOWNLOAD IS THUS REQUIRED TO UPGRADE THIS INFORMATION AND TAKE THE BOARDS INTO ACCOUNT.**

Note: *This upgrade is only carried out once. Other upgrades correspond to an NR 2.1 update, cf. § 7.3.12.2 Upgrading the equipment from release 2.1 / 2.2a to 2.2b.*

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Complete download	There is loss of system configuration (synchronization, time, radio, RBS, NT, services, IP addresses) - The cabinet is not already operational, indeed: on completion of the download, the DBS boards operational status is notified as "active" but the boards are not recognized by the system.	7.3.12.2 4.5.3
II	RBS and radio configuration (setting traffic frequencies)	The AMD boards become operational for the second download, but not for service.	5.1.2 -VIII 5.1.2 X
III	Second complete download	The DBS boards are recognized by the system.	7.3.12.2
IV	System configuration	- synchronization - agent time setting - configuration of the ATM medium type - information about the BS - create the NTs - create the services	5.1.2 -VI 5.1.2 VII 5.1.2 -XI 5.1.2 -XII 4.6.2 6.2.15
V	Checking	In the ***NT List*** *screen*: - the NTs come into the network. - check that their operational status is "active". Otherwise re-start a download, only by clicking on the «*download*» button.	4.6 4.14.3.4

7.3.12.2 Upgrading the equipment from release 2.1 / 2.2a to 2.2b

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Installation of MIB migration tools	Check that migration tool is property installed on the system, a directory "c:\mibconv" should exist on your PC/LT. Create the directory "c:\A7390WW" on your PC/LT and export it in R/W with the NFS server.	Appendix 3 –
II	**Connect** LT 2.1	The LT 2.1 / 2.2*a* has to be started and connected to the BS.	
III	**Back up** the configuration	Go to the ***Backup / Restore Management*** screen: - give the name of the file and start the Backup ***Nota:*** *In the file name it is advised to indicate the network release (in this case 2.1 / 2.2a).*	6.2
IV	**Selection of the file** which describes the software configuration	In the ***Software Management*** screen: - click on the button «*Select*»: the update software list is displayed: then, double-click on the file to import, then on the «*Apply*» button, and finally on the «*Close*» button.	4.14.3 4.14.3.2
V	**Selection** of the software storage zone on the BS	Click on package 1 or 2 of the ***Software Management*** screen.	4.14.3
VI	Downloading the software	- click on the «*Download*» button of the Software management screen toolbar to import data, - click on the «*continue*» button.	4.14.3.4
VII	MIB migration	- click on the «*Migrate*» button and wait until completion.	4.14.3.6
VIII	**Referencing** the software	In the ***Software Management*** screen: - select the chosen package, - click on the «*reference*» button of the toolbar.	4.14.3.7
IX	**Activating** the selected software configuration	Click on the activation button of the ***Software Management*** screen toolbar.	4.14.3.8
X	**Connect** LT 2.2b	- quit the LT 2.1 / 2.2*a*, - start the LT 2.2b and - connect it to the BS.	
XI	**Updating** the statuses on the 7390LT	Wait for approximately 10 minutes.	
XII	**Restarting downloading** of the same package, to the other software storage zone	Click on the «*Download*» button of the ***Software Management*** screen toolbar to allow automatic update of the new NTs coming into the network	4.14.3

Note: *If the download status becomes red due to a timeout, the BS is still downloading the software. Another message will appear to indicate the successful download: the upgrade can be carried on.*

7.3.12.3 Downgrading the equipment from release 2.2b to 2.1 / 2.2a

Note: *A local PC must be used to communicate with the BS and must contain on its hard disk directories:*

- *software 7390 LT 2.1 / 2.2a and embedded 2.1 / 2.2a software package,*
- *software 7390 LT 2.2b,*
- *backup 2.1 /2.2a(perform just before upgrade 2.2b).*

The 2.2a version must be activated in the system.

	**NTs THAT ARE NOT IN TRACKING MODE WHEN MIGRATING FROM NR 2.2B TO NR 2.2A OR NR 2.1 WILL BE LOST UNTIL COMING BACK TO NR 2.2B.**

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	**Connection** of a local PC with software 7390 LT 2.2b	- start the 7390 LT software, - connect the DBS by using current IP address of the DBS.	
II	**Selection of the** file which describes the software configuration	In the ***Software Management*** screen: - click on the button «*Select*»; the last software update is displayed; then, double click on the file to import, then on the «*Apply*» button, and finally on the «*Close*» button.	4.14.3 4.14.3.2
III	**Selection** of the software storage zone on the BS	Click on package 1 or 2 of the ***Software Management*** screen.	4.14.3
IV	**Downloading** the software	- click on the «*Download*» button of the Software management screen toolbar to import data. - click on the «*Continue*» button.	4.14.3
V	MIB **migration**	This step is automatically detected by the system. In that case, do not click on the «*Migrate*» button and click on the «*Abort*» button.	4.14.3.6
VI	**Referencing** the software	In the ***Software Management*** screen: - select the chosen package, - click on the «*reference*» button of the toolbar.	4.14.3.6
VII	**Initializing** the RAM ANT board	Follow the instruction in cf. 4.5.6 ***Nota:*** *The configuration is lost.*	4.5.6
VIII	Quit 7390 LT 2.2b software		
IX	**Connection** of a local PC with 7390 LT 2.1 software or 2.2a	- start the 7390 LT software, - connect the DBS by using the default IP address (192.168.99.1) ***Nota:*** *Assure that the PC is configured to connect the BS with the default IP address (cf. 5.1.2 6/7)*	
X	**Restore** the 2.1 or 2.2a	Go to the ***Backup / Restore Management*** screen: - select "Restore tab", - select the restore file path with the 2.1 or 2.2a backup file, - start the transfer.	4.14.2
XI	**Quit** the 7390 LT software		
XII	**Connection** of local PC with 7390 LT 2.1 or 2.2a software	- start the 7390 LT software, - connect the DBS by using the configured IP address. ***Nota:*** *Assure that the PC is configured to connect the BS with the configured address.*	
XIII	First 7390 NE software **update**	See § 7.3.1.	
XIV	**Checking**	- check the activated and referenced software package, - check board and NT states.	

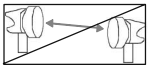
7.3.13 First 7390NE software update

⚠	**THIS UPDATE IS CARRIED OUT AS DESCRIBED IN § 7.3.12.2 BUT THERE MAY BE NO MIGRATION (THE MIGRATION STEP CAN BE CANCELLED).**
⚠	**FOR AN AUTOMATIC UPDATE, THE LT MUST REMAIN CONNECTED.**

New NT operational state will be set from DISABLE to ENABLE after the software automatic update.

7.4 On-site interventions

7.4.1 Change of frequency in a different sub-band or band



Check with reference to the table in § *7.5 Sub-band distribution plan* whether the new frequency belongs to the same sub-band:

- if the sub-band has changed, follow the procedure described below;
- if the new frequency belongs to the same sub-band, follow the procedure described in § *7.3.11 Change of frequency in the same sub-band*.

A change of frequency in a different sub-band or a modification of the duplex spacing requires a change of RBS and RT.

The change of frequency requires, in both cases, the **on-site intervention** of a technician both for the BS and the TS, for carrying out modifications to the hardware configuration. Furthermore, the software configuration needs to be modified. This is carried out on site for BS and TS.

Concerning the **TS**, follow the stages discribed in section "Changing a RT unit" of the chapter "Operation and maintenance" of the TS user manual.

Concerning the **BS**, the operations described below must be carried:

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Disconnection	Disconnect the DBS/RBS connection DBS side	
II	Changing the equipment	Modify the outdoor part with respect to the new configuration (exchange of transceivers and, where applicable, antenna(s)), with reference to chapter 6.5.3	6.5.3
III	Reconnection	Connect the DBS/RBS connection DBS side	

Once the hardware configuration change is done on TS and BS, follow the steps below:

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Commissioning	Repeat the commissioning operations by programming the new operational parameters, as indicated in § 5 , steps VII and VIII	5
II	Checking the absence of alarms	In the **Current *Alarms List***: - check the absence of alarms on AMD, IBS boards and RBS, - wait for disappearance of all NT alarms (ten minutes approximately)	4.10.1.3
III	Updating the BS and TS "installation record"	- note the new data for the BS and the TS in the respective installation record. (TS installation record in Appendix A.1 of the TS User guide - ref. 3CC12423 AAxx)	Appendix 1 –

7.4.2 Addition of a radio sector

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Installation of the new RBS	Follow the installation procedures for the RBS.	3.3 , 3.4 , 3.5.5
II	Inserting the AMD	Insert the board in one of the locations reserved for it (see component type/slot number table) and follow the procedures defined in the chapter "Operation".	3.5.6 6.5.1 II
III	Checking the AMD board version	Follow the procedures defined in the chapter "Operation".	6.5.1 III
IV	Inserting the IBS board	Insert the board in one of the locations reserved-for it (see component type /slot number table) and follow the procedures defined in the chapter "Operation".	3.5.6 6.5.1 II
V	Adjusting the frequencies	- adjust the radio frequencies in accordance with the procedure defined in the chapter "Operation".	6.2.2
VI	Configuration of the RBS	- configure the new RBS in accordance with the procedures defined in the chapter "Operation".	6.2.4
VII	Checking	In the **Current *Alarms List***: - check that there is no alarm from the AMD-IBS-RBS group - wait for the disappearance of the alarms (approximately 10 minutes). - if the alarms persist, see § 6	4.10.1.3
VIII	Updating the instal-lation record	Note the changes in the BS installation record	Appendix 1 –

7.4.3 Network interface

7.4.3.1 Addition of a network interface

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Inserting the TNT board	- insert the TNT board in one of the locations reserved for it (see component type/slot number table) - connect it to the DBS sub-rack the system is immediately operational.	3.5.6 3.5.3
II	Checking the TNT board version	Follow the procedures defined in the chapter "Operation".	6.5 III

7.4.3.2 Change of a network interface (34 to 155 Mbit/s)

Note: *1. The system must be already with release 2.2.b.*

Note: *2. The laptop is necessary for the change.*

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	**Back up** the configuration	Go to ***Backup / Restore Management*** screen: - give the name of the file and start the Backup.	4.14.2 6.2.4
II	**Replace** the ANT(s) boards and the CPL board.	- switch "off" the BS, - replace the 34 ANT(s) boards by the 155 ANT(s) boards. - replace the 34 CPL board by the 155 CPL board.	
III	Connect the PC.	Connect laptop PC to DBS rack using a dedicated cable.	5.1.2 V, VI, VII
IV	**Connection**	- start the LT and connect it to the BS by using the BS default IP address (192.168.99.1), - switch "on" DBS.	
V	**Initializing** the RAM ANT board	- go to ***ANT Ram initialisation*** screen and - validate by clicking on «*OK*» button.	4.5.6
VI	**Restore** the configuration	Go to ***Backup / Restore Management*** screen: - give the name of the file (see backup procedure 4.14.2.1 , steps I) and - start the restore.	6.2.28
VII	**Check** the system	Check that the board and NT(s) become operational.	

7.4.4 Updating the 7390LT software

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Disconnection of the software	From the ***7390 LT (Craft Terminal)*** screen: - scroll down the Management menu - select the close item - confirm exit from the 7390 LT	4.2.3
II	Disconnection of the Ethernet cable	- disconnect the cable connecting the DBS to the laptop computer	5.1.2
III	Updating the software	- install the disk (the CD-ROM) containing the update in the appropriate reader of the laptop computer used for system management. - from Windows, launch software installation on the computer hard disk.	Appendix 2 –

7.4.5 Setting ANT board redundancy

	**THE BACKUP ANT BOARD MUST NOT COMPRISE A NR2.0 SOFTWARE (A NR2.0 ANT BOARD MUST BE UPDATED ON ANOTHER TEST RACK).**

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Checking the cabinet version	On the ***BS Details*** screen: - check that the BS version is 2.1 - if the cabinet is in version 2.0: first perform a download to upgrade the equipment to version 2.1. (see § 7.3.12)	4.5
II	Inserting the ANT board	- insert the board in slot number 2 of the DBS - during initialization, the red "F" LED is lit and also the green "ON" LED - the "F" LED goes off on completion of the initialization phase - check that the "on line" LED is not lit (redundancy)	
III	Checking the version of the ANT board inserted	Follow the procedures defined in the chapter "Operation".	6.5.2.3
IV	Checking the absence of alarm	On the **Current *Alarms List*** screen: - check the absence of alarm linked to this ANT board - wait for the disappearance of the alarms (approximately 10 minutes) - confirm at the ***BS Details*** screen level	4.10.1.3 4.5
V	Updating the installation record	- fill in the sections concerning the ANT 2 board in the BS installation record.	Appendix 1 –

7.4.6 Radio sector redundancy corresponding to the addition of AMD/IBS and backup RBS boards

	**THE SERVICE WILL BE SHUT DOWN DURING RADIO SECTOR REDUNDANCY INSTALLATION.**

Order number of steps	Designation	Comments	Refer to screens or paragraphs concerned
I	Checking the cabinet version	On the ***BS Details*** screen: - check that the BS is not version 2.0. If the cabinet is in version 2.0: first perform a download to upgrade the equipment to version 2.2a.	4.5 7.3.12
II	Installation of the redundant RBS	- remove the current RBS - perform the installation of the new RBS - implement both RBSs with the 2 pole mounting attachment kit - link both RBSs to the DBS - point both RBSs in the same direction	3.3.5 3.4 3.3.3.2 3.5 3.3.6
III	Configuration of the RBS	Follow the steps defined in the chapter "Operation".	6.2.4
IV	Inserting the AMD	Insert the redundant board in the location reserved for it: board slot number + 4 (see component type/ slot number table) and follow the procedures defined in the chapter "Operation".	4.5.8 6.5.1 II
V	Checking the AMD board version	Follow the procedures defined in the chapter "Operation".	6.5.1 III
VI	Inserting the IBS board	- insert the redundant board in the location reserved for it: board slot number + 4 (see component type/lot number table) and follow the procedures defined in the chapter "Operation".	4.5.8 6.5.1 II
VII	Checking the absence of alarm	On the **Current *Alarms List*** screen: - check the absence of alarm linked to this redundancy - check at the ***BS Details*** screen level.	4.10.1.3 4.5

7.5 Sub-band distribution plan

Sub-band reference	Duplex	Down-link (*) (BS ⇨ TS)	Up-link (*) (TS ⇨ BS)
24/800	800	24 250 - 24 450	25 050 - 25 250
25/1008/A	1008	24 549 - 24 773	25 557 - 25 781
25/1008/B	1008	24 773 - 24 997	25 781 - 26 005
25/1008/C	1008	24 997 - 25 221	26 005 - 26 229
25/1008/D	1008	25 221 - 25 445	26 229 - 26 453
25/1480/A	1480	25 900 - 26 070	24 420 - 24 590
25/1480/B	1480	25 730 - 25 900	24 250 - 24 420
26/855/A	855	26 305 - 26 545	25 450 - 25 690
26/855/B	855	26 485 - 26 725	25 630 - 25 870
28/425/A	425	27 925 - 28 050	27 500 - 27 625
28/425/B	425	28 012.5 - 28 137.5	27 587.5 - 27 712.5
28/425/C	425	28 126 - 28 2510	27 701 - 27 826
28/425/D	425	28 225 - 28 350	27 800 - 27 925
28/500/B	500	28 000 - 28 180	27 500 - 27 680
28/500/C	500	28 165 - 28 345	27 665 - 27 845
28/723/A	723	27 548.5 - 27 723.5	28 271.5 - 28 446.5
28/723/B	723	27 653.5 - 27 828.5	28 376.5 - 28 551.5
28/1008/A	1008	27 548.5 - 27 828.5	28 556.5 - 28 836.5

(*) : figures given here represent the total bandwidth, i.e. from the lower edge of the lowest channel to the higher edge of the highest channel.