



Nokia Mediamaster **221 T** Owner's Manual

Digital terrestrial Free-to-View is a non-subscription service through an existing TV and aerial.

Total Channel availability is subject to coverage.

You may be required to upgrade your television aerial to enable full service reception.

Contact information:

Nokia Support: 01793 556 046, E-mail: NHC.sales@nokia.com

NOKIA
CONNECTING PEOPLE

General information about the Mediamaster

Throughout this manual you will notice that the everyday operation of your Mediamaster is based on a series of user friendly on-screen displays and menus. These menus will help you get the most from your Mediamaster, guiding you through installation, channel selection, viewing and many other functions.

All functions can be performed by using the buttons on the remote control, and some of the functions can also be performed by using the buttons on the front panel.

Please be aware that new software may change the functionality of the Mediamaster.

Should you experience any difficulties with the operation of your Mediamaster, please consult the relevant section of this manual, including the Problem Solving, or alternatively call your dealer or a customer service adviser.

Read this before using the Mediamaster

- Allow 10 cm space around the Mediamaster for sufficient ventilation.
- Do not cover the Mediamaster's ventilation openings with items such as newspapers, tablecloths, curtains etc.
- Do not place the Mediamaster on top of a unit that emits heat.
- Do not place naked flame sources, such as lighted candles, on the Mediamaster.
- Use a soft cloth and a mild solution of washing-up liquid to clean the casing.
- Do not expose the Mediamaster to dripping or splashing liquids.
- Do not place any objects filled with liquids, such as vases, on the Mediamaster.
- To give your Mediamaster an extra protection, e.g. at a thunderstorm, we recommend that you connect it via an external surge protection device.
- Do not connect or modify cables when the Mediamaster is plugged in.
- Do not remove the cover.
- Do not allow the unit to be exposed to hot, cold or humid conditions.
- Service should be carried out only at a Nokia Authorised Service Centre.
- Please note that the only way to isolate the Mediamaster completely from the mains supply is to unplug the mains cable!

Contents

Remote control	4	Control folder ➤ User preferences	14
Front and rear panel	5	Control folder ➤ Edit channels	15
About the Common Interface slot	6	Control folder ➤ Timer	18
Connecting the Mediamaster	7	Control folder ➤ System info	18
About the SCART sockets	7	Settings folder ➤ Channel	19
Preparing the remote control	7	Settings folder ➤ TV	20
About the digital transmission	7	Settings folder ➤ Modem	21
Connecting the Mediamaster	8	Settings folder ➤ Access Ctrl	22
Connecting to the TV aerial	8	Settings folder ➤ Time	22
General about connections	8	Settings folder ➤ SW update	23
Connecting to the TV with SCART	8	Settings folder ➤ Reinstall	23
Connecting to the TV without SCART	9	Games folder	23
Connecting a HiFi system	9	Viewing Mode	24
Connecting a video recorder without SCART	10	General Information	24
Connecting a video recorder with SCART	10	Programme information	24
First time installation	11	Extended programme information	25
General information	11	Temporary settings	25
Switching on for the first time and start the "First time installation"	11	TV Release (0)	26
Time adjustment	12	Enhanced TV / Digital Text	26
Channel search in progress	12	Glossary of terms	27
Navi Bars	13	Troubleshooting	28
General information	13	Technical specifications	29
The "Control" and "Settings" folders	14	Nokia Mediamaster software end-user license	30

Nokia, Nokia Connecting People and Navi Bars are registered trademarks of Nokia Corporation. Other product and company names mentioned herein may be trademarks or trade names of their owners.

Nokia operates a policy of continuous development. Therefore we reserve the right to make changes and improvements to any of the products described in this manual without any prior notice.

Copyright © 2003 Nokia. All rights reserved.



Remote control

This section describes how to operate the Mediamaster using the buttons on the remote control. Some of the functions can also be carried out using the buttons on the front panel.

mute  Press once to turn the sound off/on (mute). **Press and hold for a few seconds to switch the Mediamaster into standby mode. Press any number button to switch it on again.**

red Function keys for interactive applications

green
yellow
blue

freeze To freeze the picture. Press the button one more time to return to normal viewing mode

subtitle To show and hide subtitles.

wide Toggle between Fullscreen, Combined and Letterbox formats. Your Mediamaster must be set to 4:3 picture format. When set to 16:9 the Mediamaster will automatically manage the picture display.

navi To open or close the Navi Bars.

info To display brief and detailed information (if transmitted) about current and next programmes. Can be used with All TV folder in Navi Bars.

cancel Function key for interactive applications.

select Confirm choices and selection of a highlighted item.

▼ ▲ Move up/down in the Navi Bars and menus and to change channels.

◀ ▶ Move left/right in the Navi Bars, in menus and to adjust sound.

P+ P- Change channels up and down, one at a time. Return to TV mode from an interactive application.

back Go back one level at a time within menus

▲ + - Adjust the volume. The Mediamaster's maximum volume level is controlled by the TV's volume setting.

0 - 9 Change channel and to select individual menu options.
Note: If 0 is entered as the first digit, the TV Release functionality is activated (see below).

0 □ TV Release. To switch between digital TV/Radio and analogue TV, satellite TV and VCR. Function may not be available on all TV and Video models.

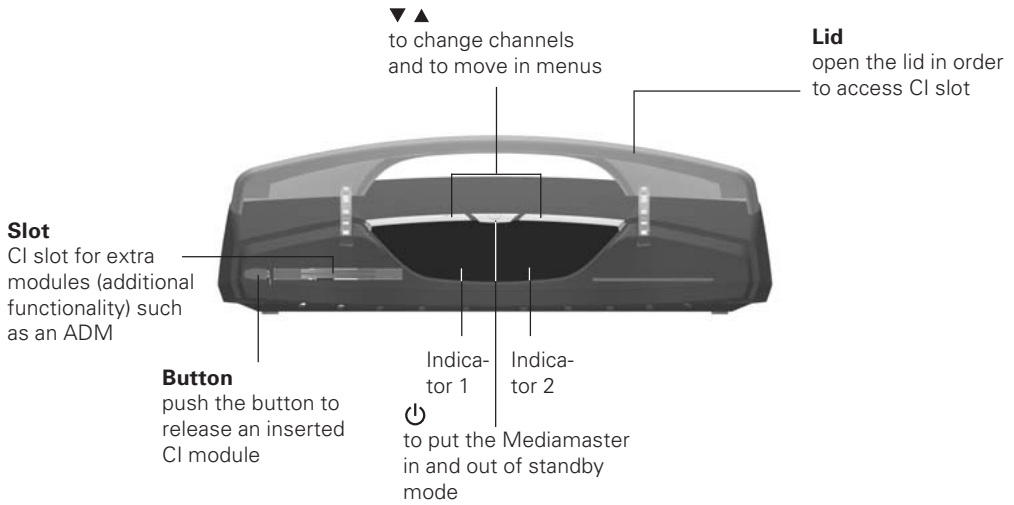
opt Show service options in viewing mode. Only applies to the channel you are watching.

txt Press to enter teletext (if available).



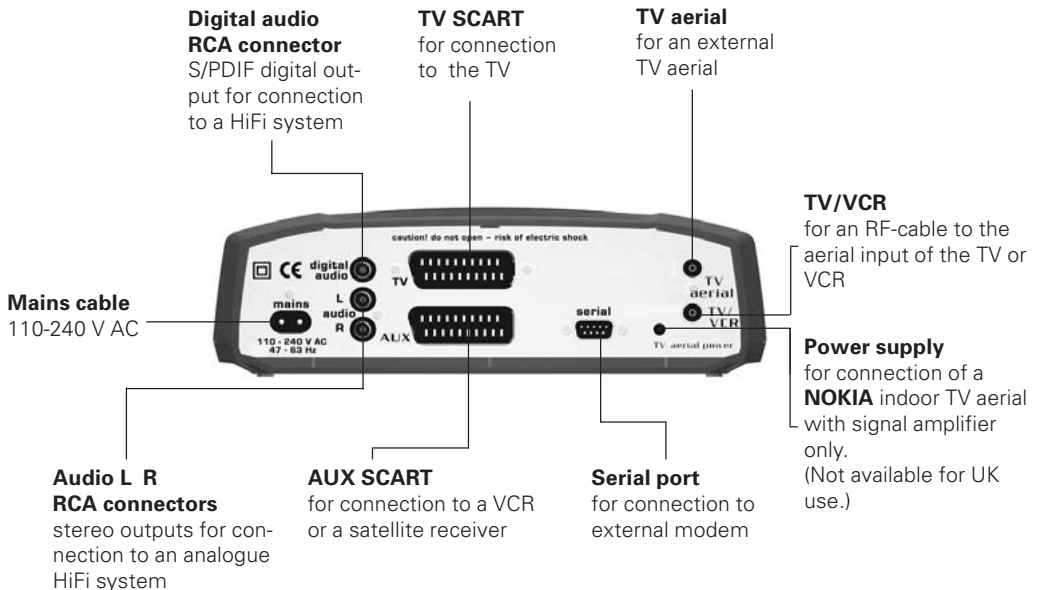
Front and rear panel

Front panel



Function	Indicator 1	Indicator 2
ON	Green	Green
Standby	Red	-
Locked to channel / Signal Drop out	Green	Red if not locked to channel
Remote control feedback	Green	Single flash
SW download	Continous green flashing	Continous green flashing
Error. Please contact Nokia Support	Continous red flashing	Continous red flashing

Rear panel

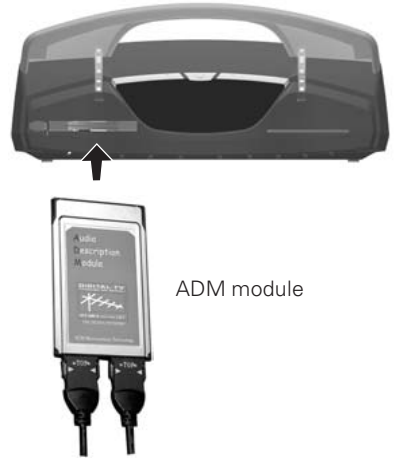


About the Common Interface slot

Common Interface slot

The Nokia Mediamaster 221 T has an integrated Common Interface (CI) slot, which can give you access to future services such as Audio Description.

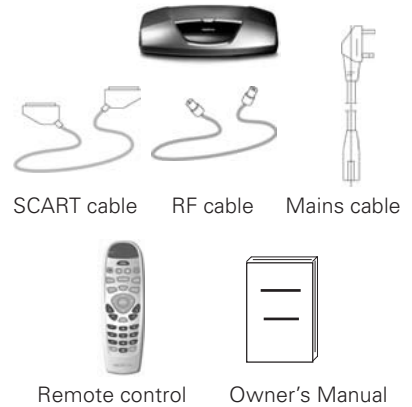
Audio description is a service which provides an extra sound commentary to accompany a programme. The purpose of this commentary is to describe actions, scenery or facial expressions to enable people with sight problems to enjoy the programme to the full.



Connecting the Mediamaster

The box for your Mediamaster should contain the following items:

- the Mediamaster
- remote control with 2 AAA batteries
- SCART cable (fully connected; 1,0 metre)
- mains cable
- RF cable
- Owner's manual including a software license agreement



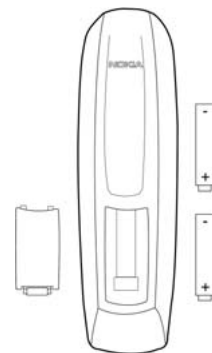
About the SCART sockets

The rear panel of the Mediamaster is equipped with 2 **SCART** sockets (see diagram). When you connect other devices to any of these sockets, always **use fully connected** SCART cables (as the one supplied.) There are SCART cables available which do not have all the pins connected. The picture quality could be reduced if you use them.



Preparing the remote control

- Remove the cover on the battery compartment at the bottom of the remote control.
- Insert the 2 AAA; 1,5 V batteries, as shown in the diagram, taking care to observe the + and - markings indicated inside.
- Replace the cover.



About the digital transmission

Digital Radio and TV signals can be blocked by buildings, mountains and the terrain. Depending on if the receiver is located in a valley, behind a mountain or in a concrete building, the quality of reception may vary considerably.

As with most other transmissions, bad weather does affect the reception quality.

Connecting the Mediamaster

Connecting to the TV aerial

You can connect the Mediamaster to the following type of aerials:

1. Standard outdoor aerial

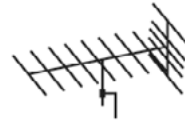
Where possible, use an outdoor roof aerial intended for receiving UHF channels between 21 and 69.

Please note the following:

- In some block of flats, the roof-mounted aerial system includes a filter and channel selector. If so, the aerial may not work with the Mediamaster. Please consult the landlord.
- Many older roof-mounted aerials may only receive a limited number of channels. As a result, digital channels transmitted on higher frequencies are difficult or even impossible to receive. The problem can be solved by replacing the roof aerial.
- Some outdoor aerials are directed towards an analogue transmitter. The aerial must be directed towards a digital TV transmitter.
- It is not always advisable to position the aerial as high as possible. If problems arise, experiment with different aerial heights.

2. Indoor and window mounted aerials

It is not advisable to use indoor or window mounted aerials, as digital channels will be difficult or even impossible to receive.



General about connections

There are many different types of TV/VCR and other equipment that you can connect to the Mediamaster.

In this manual you will see some of the most **common** ways to connect your equipment.

If you have problems with your connections and need help, contact **your retailer or Nokia Support**.

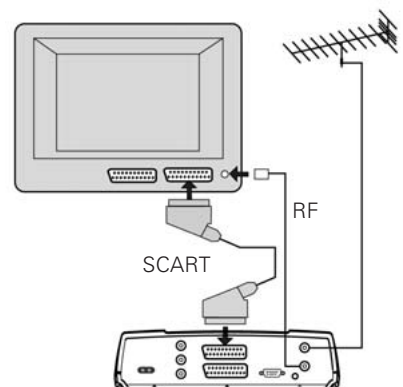
Connecting to the TV with SCART

- Remove the aerial lead from your TV and connect this to the TV AERIAL input socket on the Mediamaster.
- Connect a SCART cable between the main SCART socket on the TV and the TV SCART socket on the Mediamaster.
- Connect an RF cable from the TV/VCR output on the Mediamaster to the RF input socket on the TV.
- Switch on your TV, plug in and switch on your Mediamaster.

You may need to select the AV (SCART) channel on your TV to watch Digital TV. In some cases your TV will automatically select this channel when the Mediamaster is switched on.

Note: The RF lead will need to be connected in order to watch analogue channels (your old 1,2,3,4,5)

It is always advisable to consult your TV instruction book.

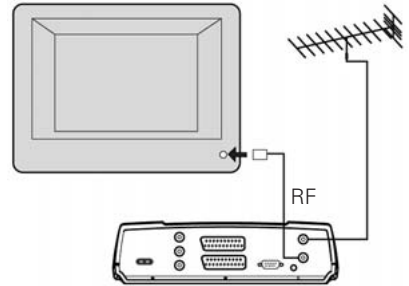


Connecting the Mediamaster

Connecting to the TV without SCART

- Remove the aerial lead from your TV and connect this to the TV AERIAL input socket on the Mediamaster.
- Connect an RF cable from the TV/VCR output on the Mediamaster to the RF input socket on the TV.
- Switch on your TV, plug in and switch on your Mediamaster.
- Select a programme number on the TV that is not currently used for other TV channels.
- Follow the instructions in your TV manual to tune the TV to pick up the First time installation menu.
- Follow the instructions in your TV manual to store this channel.
- When the First time installation menu is visible, press the **select** button on the Mediamasters remote control to start the installation procedure.

If the picture quality is bad you can later change the predefined UHF channel 43 to any other figure between 21 and 69. You will also have to tune your TV to the same (= the new) channel number. Please see **RF modulator output channel** setting on page 20.

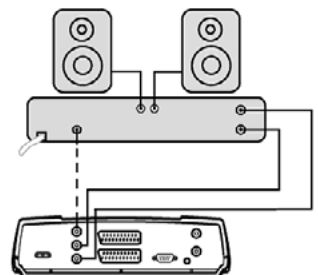


Connecting a HiFi system

- Connect an RCA/Cinch stereo cable (phono) from the AUDIO L R sockets on the Mediamaster to the LINE, -IN, AUX, SPARE or EXTRA input sockets on your HiFi system.
- If available you can connect an RCA/Cinch single cable from the DIGITAL AUDIO socket on the Mediamaster to a HiFi system equipped with digital audio input. This output is also used for connection to an external Dolby™ digital decoder.

Note: To avoid interference you must use screened audio cables. Never connect digital output to any analogue input.

It is always advisable to consult your HiFi instruction book.



Connecting the Mediamaster

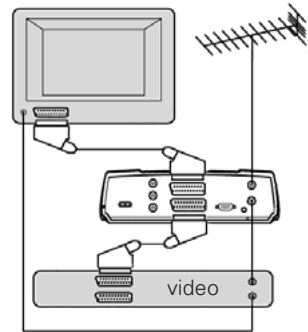
Connecting a video recorder with SCART

- Remove the aerial lead from your TV and connect this to the TV AERIAL input socket on the Mediamaster.
- Connect a SCART cable between the main SCART socket on the TV and the TV SCART socket on the Mediamaster.
- Connect an RF cable from the TV/VCR output on the Mediamaster to the RF input socket on the video.
- Connect an RF cable from the TV/VCR output on the video to the RF input socket on the TV.
- Connect a SCART cable between the TV SCART socket on the video and the AUX SCART socket on the Mediamaster.
- Switch on your TV, plug in and switch on your Mediamaster.
- On your VCR there should be an AV select button. This should be selected to record Digital TV.

You may need to select the AV (SCART) channel on your TV. In some cases your TV will automatically select this channel when the Mediamaster is switched on.

Note: To record a digital channel you will need to select the AV (SCART) channel on your video.

It is always advisable to consult your video and TV instruction books.

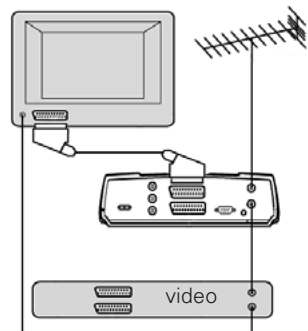


Connecting a video recorder without SCART

- Remove the aerial lead from your TV and connect this to the TV AERIAL input socket on the Mediamaster.
- Connect an RF cable from the TV/VCR output on the Mediamaster to the RF input socket on the video.
- Connect the TV aerial to the TV AERIAL input socket on the Mediamaster.
- Connect an RF cable from the TV/VCR output on the video to the RF input socket on the TV.
- Switch on your TV, plug in and switch on your Mediamaster.

You may need to select the AV (SCART) channel on your TV. In some cases your TV will automatically select this channel when the Mediamaster is switched on.

- Pick a spare channel on your VCR and tune this into the 221T – store this channel.
- Select this channel on your video when you want to record a digital channel.



First time installation

General information

Once you have correctly connected the Mediamaster, you also have to perform a "First time installation."

During this procedure, helpful information is displayed at the bottom of the menu.

Please note!

The **select** button always **confirms** a selection within these menus, and pressing it will take you to the next step in the installation process. However, and this is important, often more than one value has to be changed in a menu. First, perform all necessary changes then, confirm them all by pressing **select**.

You can always go back to the previous menu by pressing **back**.

Use ▼ ▲ the buttons to move upwards and downwards from one line to another.

Use ◀ ▶ buttons to change settings.

You can also use the numeric buttons on the remote control to enter numeric values.

Switching on for the first time and start the "First time installation"

- Ensure you have selected the AV (SCART) channel on your TV
- The "First time installation" menu is shown.
- Press **select** to continue.



First time installation

Channel search in progress

This menu will be shown as long as the Mediamaster is searching for TV and radio channels.

All channels found will be listed on the screen.

Please note that the search procedure may take a few minutes. You can cancel the search at any time by pressing **select**.

When the search procedure has ended, a message will tell you how many TV and radio channels have been found.

- Press **select** to continue.

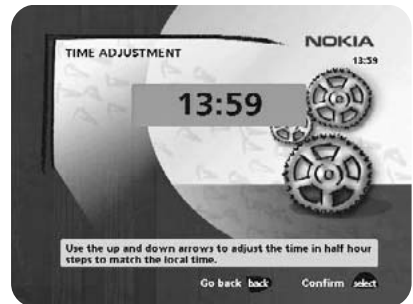


Time adjustment

The time is adjusted by using the ▼ ▲ buttons, ± 1/2 an hour at a time.

You can also adjust the minutes by using the ◀ ▶ buttons.

- Press **select** to finish the first time installation and to open the Navi Bars.



Navi Bars

General information

- Press the **navi** button on your remote control to open the Navi Bars.

In order to select TV or radio channels and to change system settings you will use the **Navi Bars**.

The horizontal row contains **folders**, e. g. **All TV, Settings** and so on. Their names are shown with black text at the bottom of each folder.

Each folder contains **bookmarks**. The All TV folder contains bookmarks for the different TV channels; the Control/Settings folder contains bookmarks for some system settings and so on.

You move a folder horizontally by pressing the ◀ ▶ buttons.

When a folder is moved to **focus**, the bookmarks will be shown in a vertical row. The name of the different bookmarks are shown with white text at the top of each bookmark.

You select a bookmark by pressing the ▼ ▲ buttons. To confirm the selection, press **select**.

Below the folder bar some information about the bookmark in focus is presented. When a TV or radio channel bookmark is in focus, this box can contain two different symbols after the channel name:

“★” = new channel you have not previously visited.

“🔒” = channel is locked by the user.

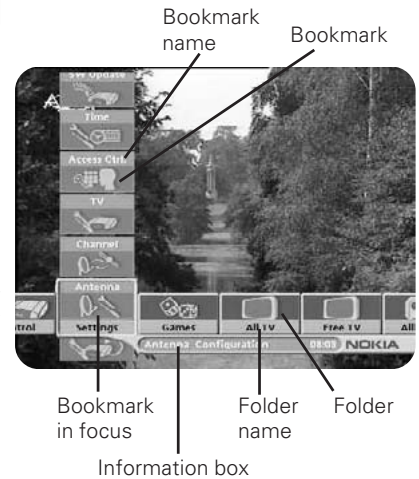
With a TV or radio programme bookmark in focus you can get programme information by pressing **info**.

When you press **info** with bookmark from the control or settings folders in focus, you get more detailed information about what you can do in that menu.

When you press **opt** you get a detailed channel information about the TV or radio programme bookmark in focus.

You can leave the Navi Bars at any time by pressing **back**.

If you open the Navi Bars and do not press any buttons on the remote control, the Navi Bars will automatically close after 2 minutes.



Navi Bars

The “Control” and “Settings” folders

Both of these **system folders** contain bookmarks. Each of these bookmarks contains **menus** from where you can make different settings.

The system folders can not be deleted.

The manual will now explain the different settings you can perform from the **Control** and **Settings** folders, starting with the bookmarks from the **Control** folder.



Control folder User preferences

Banner Time-out

When you switch channels, an information banner will be shown for a few seconds. You can select how long the banner will be shown.

Volume bar

Select whether or not you want the volume bar to appear on the screen when you change the volume.

Volume bar time-out

Select how long the volume bar will be visible on the screen.

Subtitles

Select whether or not subtitles will be visible on the screen.

Main Subtitle Language

If you select the “Visible” alternative for subtitling and more than one language is available, you may select a main language.

Main Audio Language

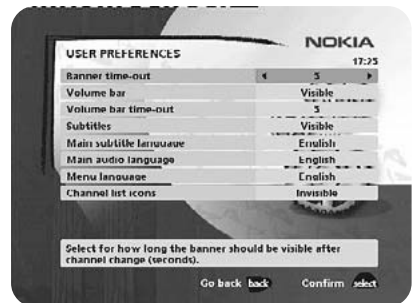
If more than one audio language is transmitted, you may select the main language.

Menu Language

Menu language is in English.

Channel list icons

In order to make the bookmark lists for TV and Radio channels shorter you can hide the icons and only show the channel names.



Navi Bars

Control folder Edit channels

From these menus you can create and edit favourite channel lists. You can add, delete, rename and arrange the order of the channels within the favourite lists.

The "All TV" list might contain lots of channels. By creating your own favourite lists you can make channel handling more convenient.

Important about editing channels

Before you start you must select which list, TV or radio, you want to edit. When you are watching TV and press **select** and choose Edit channels, you can only edit TV channels. When you are listening to radio channels you can edit radio channels.

After the selection, radio or TV, use the ◀ ▶ buttons to select the name of the list to edit.

Create list

From here you create your own favourite lists, containing the channels you watch most frequently. You must give each list a specific name, e.g. "Sport" or "Films". The new lists you create will appear as a new **folder** in the horizontal part of the Navi Bars.

When a favourite list is selected, you see only those channels defined in the list.

When you have given the list a name; press **select** and choose "Add/Delete Channels" from the menu.

You can create separate favourite lists for TV and radio channels.

How to give a specific name

This procedure is the same whether you enter a name for the first time or change an existing.

- Move to a new character position by using the ◀ ▶ buttons.
- If you make a mistake, you can remove characters by pressing **txt** as many times as needed.



Navi Bars

- **Enter the name as follows:**

Press the numerical button corresponding to the character you want: once for the first character, twice for the second and so on.

The available characters are listed below.

1 * # & % \$, ! ; - +) / \ @ ^ 1	6 m n o 6 Ö Ô Ñ Ó Ò
2 a b c 2 Å Ä Á Â Ã	7 p q r s 7 \$
3 d e f 3 É Ê Ë Ì	8 t u v 8 Û Ü Ú
4 g h i 4 Î Ï Ñ	9 w x y z 9
5 j k l 5	0 space 0

- If the next letter is located on the same key as the present one, wait for the time-out or press the ► button to move one position and then select the letter.
- Toggle between capital and lowercase letters with **opt**.
- To insert a space, press numerical button number **0**.

Delete list

If you want to delete a favourite list completely, select the list with the ◀ ▶ buttons and press **select**.

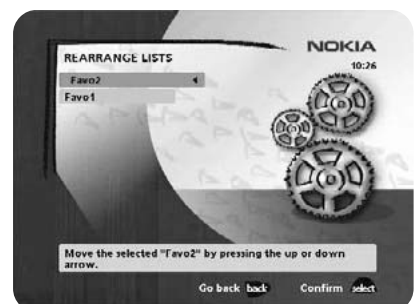
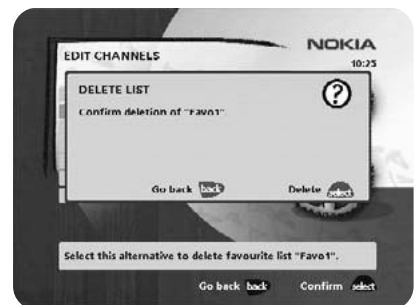
Rename list

You can give an existing list a new name by following the instructions under the headline **How to give a specific name**, page 20.

Rearrange lists

If you have created several favourite lists you can determine the sequence in which the lists will appear.

- With the ► button, mark the list you want to move to a new position.
- Move the list to the desired position with the ▼ ▲ buttons and press the ◀ button.
- Press **select** to confirm the new position.



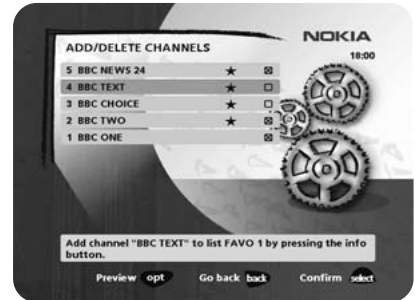
Navi Bars

Add/Delete channels

From this menu you add and remove the channels in your favourite lists. You use the "All TV" or "All radio" list as a basis to select the channels from.

A channel is added or removed from the list by pressing **info**. The square to the right on a line will be empty for removed channels, and will contain an "x" for added channels. Beside the channel name three different symbols can be shown. ("★" = a new channel you have not previously visited. "🔒" = the channel is locked by the user.)

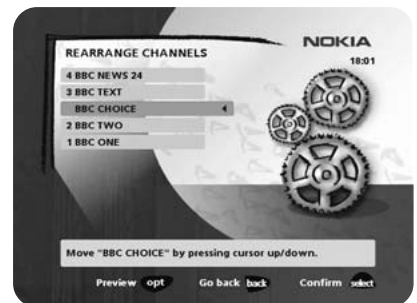
- Move to the desired channel(s) with the ▼ ▲ buttons.
- Press **opt** if you want to preview the channel.
- Add/remove by pressing **info**.
- When you are ready, confirm the selections and leave the menu by pressing **select**.



Rearrange channels

From here you can arrange the sequence for the channels within your favourite lists.

- Move to the desired channel(s) with the ▼ ▲ buttons.
- Press **opt** if you want to preview the channel.
- With the ► button, mark the channel you want to move to a new position within the list.
- Move the channel to the desired position with the ▼ ▲ buttons and press the ◀ buttons.
- Press **select** to confirm the new position.



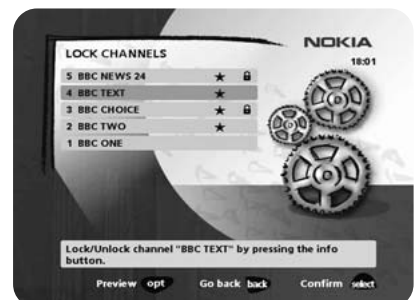
Lock channels

To get to this menu you first have to enter your access code.

From here you can lock (and later unlock) channels in order to prevent e.g. your children from watching.

- Select the channel you want to lock and press **info**. Repeat the procedure for each channel you want to lock.
- Press **opt** if you want to preview the channel.
- Press **select** to confirm.

A locked channel will be marked with a "🔒" (padlock) symbol. You must enter your access code before you can watch a locked channel.



Navi Bars

Control folder Timer

General

You can programme the Mediamaster to turn on and off at a selected time on a selected channel, in conjunction with the timer setting on your VCR.

A useful example of this function is:

If you go out and want to record different programmes on different channels at different times you set the timer on the Mediamaster to change to those selected channels.

Remember you must set the timer on your VCR in order to make the recordings.


This function can be used for up to 8 different settings, on different dates, times and channels in conjunction with the capabilities of your VCR'S timer.

Note! The timer function only works when the receiver is in standby.

Timer setup

- Press **select** to enter the Timer setup menu.
- First, select Channel List with the ◀ ▶ buttons.
- Then, step to Channel to select the desired TV/Radio channel.
- Set the date using the numerical buttons on your remote control (dd/mm/yy).
- If you enter a wrong digit you can erase it with the ◀ button.
- Set the start and stop time using the numerical buttons on your remote control.

The different start times may never overlap each other. If you try to enter a start or stop time within an already occupied period of time you will get a warning message.

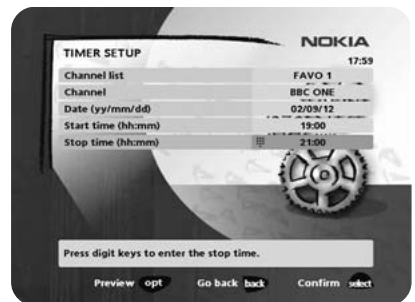
- Press **select** to save or **back** to cancel.
- Press **back** twice to leave the Navi Bars and return to viewing mode.
- Press and hold  to put the Mediamaster in standby.

Up to 8 different events can be predefined. The events will be sorted in start time order.

At each stop time the box will return to standby.

You can erase a predefined event by pressing the ▶ button.

- Press **back** to cancel the deletion and **select** to delete the event.



Control folder System info

In the menu you find general information about which hardware and software version your Mediamaster is running on.



Navi Bars

Settings folder Channel

When you want to search for channels at a later time. To open this menu you will be asked to enter your access code.

From the factory the access code is set to 1234.

A channel search procedure can be performed in different ways: Automatic, Manual or Advanced manual search.

Automatic search

- Highlight the line and press **select** to start searching for channels.

Manual search

When you perform a Manual search you first need to enter some parameters for the channel search to work.

The information you need to enter in this menu should be supplied by your broadcaster or local aerial installer.

Channel: Select the channel you want to search for.

Network search: Select "Yes" if you want to search on all transmitters connected to a specific network.

- Press **select** to start searching for channels.
- Within this menu you can also check the strength of your digital signal if you know the UHF channel numbers for your area (This information can be supplied by your local aerial installer.) Alternatively if you exit this menu and go to a selected channel then re-enter this menu you will see the signal strength for that chosen channel.

Advanced manual search

The information you need to enter in this menu should be supplied by your broadcaster or local aerial installer.

You can use this menu if you are looking for some "specific" channels (i.e. non-DVB standard channels) which can be more easy to find when you have entered the necessary PID settings here.

Channel: Select the channel you want to search for.

PID Video: Enter the PID (Packet Identifier) for the video signal.

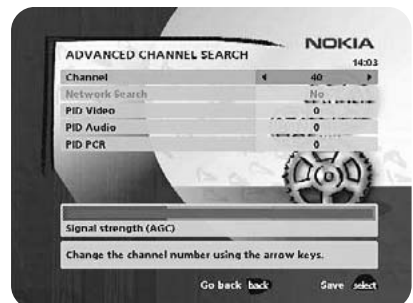
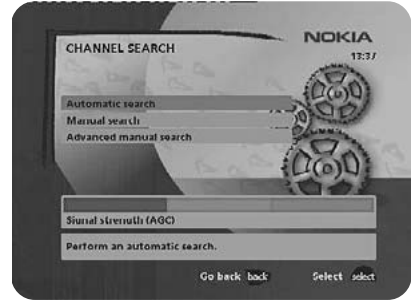
PID Audio: Enter the PID for the audio signal.

PID PCR: Enter the PID for the PCR (Programme Clock Reference).

- Press **select** to tune with the specified values.

All channels created with advanced manual search will get an automatically generated name, e.g. P0001 for the first channel, P0002 for the second etc.

- Press **select** to save the new channel or **back** if you do not want to save it.



Navi Bars

Settings folder TV

To open this menu you will be asked to enter your access code. **From the factory the access code is set to 1234.**

From here you can adjust the audio/video settings for your Mediamaster.

TV screen format

Select your TV screen format.

The 4:3 format is the standard format for most TV screens. Select 16:9 for a widescreen TV.

Position of the RGB output

Adjust the horizontal position of the TV picture with the ◀ ▶ buttons.

Set transparency level

Adjust the transparency level of the graphics in the menus by using the ◀ ▶ buttons.

Select digital audio format

Select audio format for **the digital output**. (The upper audio output on the rear of the Mediamaster). AC-3 when the sound is transmitted in Dolby™ Digital format. PCM for ordinary digital sound. **Please note; When you select AC-3 there will be no sound output from the analogue audio connections.**

Picture format

If you have a TV set with the 4:3 picture format and the transmission is in 16:9, you can select "Fullscreen" or "Letterbox". If you have the stretched and boxed format 14:9, you select "Combined".

Fullscreen will fill up the screen but will cut off some information on the left and right sides.

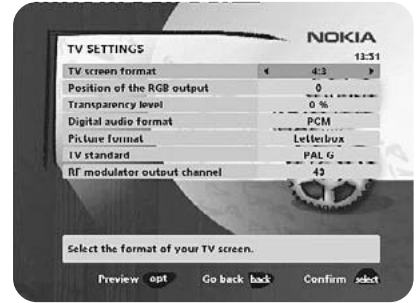
Letterbox will give a complete picture, but leave black areas at the top and bottom.

Combined will give black areas both at the top and bottom and also on both sides

RF modulator output channel

Select this alternative if you have to change the RF channel. (Channel 43 is preset from factory.)

When you change the RF channel number, you must also change to the same value on the TV. If you do not, there will be no picture and sound.



fullscreen



letterbox

Settings folder Modem

General

In the future some Service Providers may make it possible for you to order e. g. movies via an external phone modem.

Normally you do not need to change any of the following settings. They are there to make it possible to use any external modem that accepts AT commands. **For more information about AT commands, please consult the documentation of your particular modem.**

Prefix

If the connection has to pass a switch board, enter the digit(s) that will open the line.

International dialling code

This sequence of numbers will replace the '+' sign in an international phone number where the '+' sign is followed with country code, area code and actual local number. Maximum length of the number is four digits.

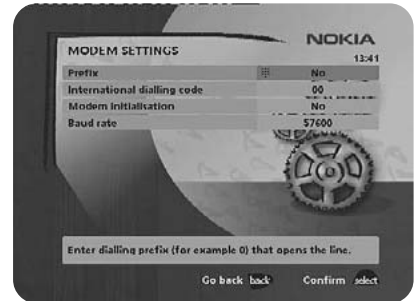
Modem initialising

In most cases you can leave this field empty. To start with, always check your system without entering anything in this field.

Baudrate

This field specifies the data transfer rate (speed) between your Mediamaster and your modem. In most cases modems can detect the right speed automatically.

Default value is 57600 bits/s. If your modem does not seem to respond, enter a lower value.



Navi Bars

Settings folder Access Ctrl

To open this menu you will be asked to enter your access code. **From the factory the access code is set to 1234.**

The following settings can be altered from this menu.

Access Control

Select "Yes" or "No" to turn the access control in all menus on or off. Note: Even when "No" is selected, the access code still has to be entered before you can watch locked channels.

Receiver lock

If you select "Yes" you will have to enter the access code every time you start the Mediamaster from standby.

Age rating control

If you want everybody to have access to all available types of programmes, select "No"

If you select "Yes" you may block programmes unsuitable for children.

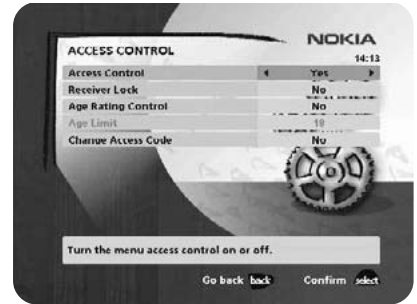
Age Limit

Select an age limit between 3 and 18 years on the line that appears.

However, you should be aware that not all Service Providers have the necessary codes for these functions implemented in their transmissions.

Change access code

From here you can change the access code from the standard 1234. DO NOT FORGET IT! Without it you do not have access to any of the functions where the code is required! If you forget it, please contact Nokia Support for help.



Settings folder Time

To open this menu you will be asked to enter your access code. **From the factory the access code is set to 1234.**

The time is adjusted by using the ▼ ▲ buttons, ± 1/2 an hour at a time.

You can also adjust the minutes by using the ◀ ▶ buttons.



Navi Bars

Settings folder SW update

Your Mediamaster will advise you from time to time of any new software upgrades using information sent by TV Broadcasters through your aerial.

Note : These messages will only appear if your Mediamaster has been switched on from Standby.

After downloading of a new software version, **all** your previous settings, access code and favourite channels etc. will be erased!

IMPORTANT! The updating may take a while.

NEVER turn off the Mediamaster, never use the remote control or disconnect the antenna cable during the download procedure! This will damage the software and the receiver will have to be sent in for service!



Settings folder Reinstall

Use this option **only** if you have to start the complete installation procedure from scratch. If you continue from here, **all** your previous settings, access code and favourite channels etc. will be erased!

If you do not want to perform a reinstallation you can leave this menu when the warning is displayed by pressing "back".



Games folder

- When the Games folder is in focus, select a game and press **info** to get instructions how to play it.
- Press **select** to start a game.
- Press **back** to finish a game.



Viewing Mode

General Information

The following describes the basic functions of your Mediamaster while watching terrestrial digital TV.

Some of the functions described here are dependent on the Broadcaster and can only be used if they are included in the transmitted programme information.

In addition to the normal functions like switching the Mediamaster in/out of standby, changing the volume etc. there are some other useful functions which will be explained in this part of the manual.

You can always leave a menu at any time you want, without affecting any settings, by pressing the **back** button.

Programme information

Every time you change channels you will receive programme information for a few seconds. (In the Control folder/User preferences' menu you can select how long this information will be shown.)

The information may include:

Current time.

Channel list.

Channel number and name.

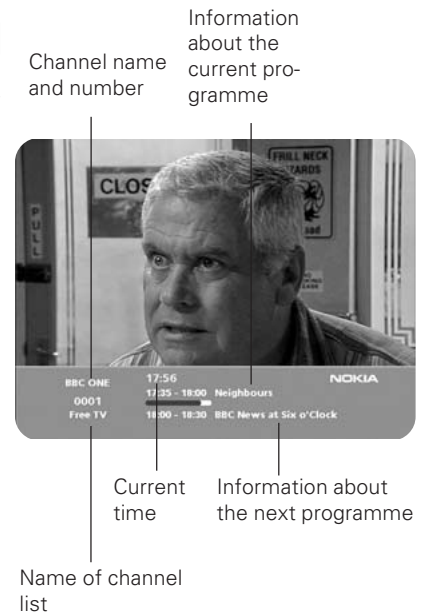
Name of the current and next programme.

The start and stop time of the current programme.

A bar, indicating the elapsed time of the current programme.

The start and stop time of the next programme.

Programme information will only be available if it is included in the transmission. Otherwise a "No information available" message will be shown.



Viewing Mode

Extended programme information

The Mediamaster can display information about programmes currently being broadcast as well as those that will be broadcast next.

This procedure is the same for both TV and radio mode.

By pressing **info** while watching TV you will get the "Programme information" banner. Press **info** again to display extended information about the current and next programme. Use the ◀ ▶ buttons to switch between the current and next programme information.

When there is a lot of information text, use the ▼ ▲ buttons to continue reading on the next info page.

You cannot switch to another channel while the banner is visible.

- Press **info** or **back** to return to TV/radio mode.



Temporary settings

By pressing **opt** you open a menu in which it is possible to enter **temporary** settings. Settings made in this "options menu" are only valid for the programme you are currently watching. If you leave the programme and return to it again, the temporary settings will be gone.

Audio language

When available, you can select among the different languages being broadcast.

Subtitle language

When available, you can select among different subtitle languages.

TV screen format

If you have a TV set with a 4:3 picture format, and the transmission is in 16:9, you can select Fullscreen or Letterbox to change display format. Fullscreen will fill up the screen vertically, but cut some information from the left and right sides of the picture.

Letterbox will give a complete picture, but leave black areas at the top and bottom.

- Press **opt** or **back** to return to TV/radio mode.



Viewing Mode

TV Release (0)

With the **0** button you can toggle between external connected equipment, e. g. a digital terrestrial TV or a Video recorder. This function may not be available on all TV and Video models.

(This is only valid when the units are connected via SCART cables, and not by RF connection.)

Enhanced TV / Digital Text

On a Digital Text service pressing **txt** will open an application. Broadcasters may also use on screen promptings to enter into interactive applications.

Once in the interactive application follow the on screen instructions and menus to navigate and exit.

Use P **+** / **-** on the remote control to exit this service.

Glossary of terms

Access code

A four-digit code stored in the Mediamaster. Used to lock/unlock the Mediamaster.

Access control

A feature that allows parents to "lock" programmes that they consider unsuitable for children. A "locked" channel or programme can only be "unlocked" with the special access code.

ADM

Audio Description Module

AGC

Automatic Gain Control.

BER

Bit Error Rate. Signal quality measure.

CI

Common Interface

C/N

Carrier to Noise. Signal quality measure

DVB

The Digital Video Broadcast group was created to establish a technical framework for the introduction of digital video broadcasting systems.

GHz

The prefix giga means billion, and Hertz means cycles per second. Signals in the GHz range are often called micro-waves.

MHz

The prefix mega means million, and Hertz means cycles per second.

MPEG

Moving Picture Experts Group. Established by the International Standards Organisation to provide the basis for a picture coding and compression system.

PCM

Pulse Code Modulation. Non-compressed digital audio format.

PCR

Program Clock Reference.

PID

Packet Identifier.

RCA

Coaxial connector used to connect the Mediamaster to an external amplifier.

RF

Radio frequency (known as HF in some countries).

RGB

Red, Green, Blue. Colour signals are routed in separate cables in order to provide a high quality TV picture.

SERIAL RS 232

A serial communication standard data port.

SCART

A 21-pin connector used for connection of the Mediamaster, VCR and TV. Also named Euroconnector or Peritel connector.

S/PDIF

Sony/Philips digital interface format. Digital audio output.

SW

Software. Programme code.

TS

Transport stream.

VCR

Video Cassette Recorder.

Troubleshooting

Problem	Possible causes	What to do
The LED on the front panel does not light up/is not lit.	Mains cable is not connected.	Check that the mains cable is plugged into the power socket.
The left LED is shining red	The Mediamaster is in standby mode.	Press the standby button to bring the Mediamaster out of standby mode.
The remote control is not working.	Battery exhausted. Remote control is incorrectly aimed.	Change both batteries. Aim the remote control at box. Check that nothing blocks the front panel.
You have forgotten your Access code.		Contact your Nokia Support.
During the first time installation when the Mediamaster tries to find and store channels you get the message "No channels found". When only very few of the expected number of channels are found.	The aerial is not properly connected to the Mediamaster. The aerial is not correctly directed towards the transmitter. The aerial is not suitable for digital channels. The signal is too weak for the connected aerial. There are no terrestrial digital transmissions in the area.	Check the aerial installation including its connections. Check if you can receive and watch analogue channels from the transmitter. Check that the aerial is directed towards the transmitter. Check that digital transmissions are available in the area. If things do not work as they should, let the local TV dealer check whether the aerial is intended for receiving digital transmissions or not. If not, you have to upgrade the aerial.
There is no First time installation menu on the screen when you switch on the Mediamaster for the first time.	The system is connected by SCART cables and the TV is not in AV/EXT mode. The system is connected by RF cables and the TV is not set to the channel tuned for digital terrestrial TV.	When the system is connected by SCART cables the TV must be set in AV/EXT mode. When the system is connected by RF cables, select the appropriate TV channel on the TV. If you have not yet tuned the TV to the same output channel as the Mediamaster, you must do this before you get picture and sound from it.

What to do if you can't solve the problem?

If you have tried all of the actions suggested above, without solving the problem, please contact your Retailer or Nokia Support.

Technical specifications

Transmission Standards DVB, MPEG 2, OFDM

RF input Modulator output

In-/output connector	IEC female / IEC male
RF input frequency	174-300; 474-862 MHz
RF input power level	-78 to -30 dBm
RF impedance	75 Ω
Frequency range	Loop through 47-862MHz
Frequency range	RF modulator 470-862 MHz
Output channel	CH 21-69
Preset channel	43
Output signal	PAL I
Demodulation	Supports 2k and 8k

TV SCART

Video output	1 V _{pp} (±1 dB) / 75 Ω
Audio output	0.5 V _{rms} / R _L > 10 kΩ
RGB output	Internal RGB
RGB bandwidth	5.8 MHz ± 3 dB
Fast blanking output	Internal
Status output	0/6/12 V / R _L 10 kΩ

AUX SCART

Video output	1 V _{pp} (±1 dB) / 75 Ω
Video input	1 V _{pp} / 75 Ω
Audio output	0.5 V _{rms} / R _L > 10 kΩ
Audio input	0.5 V _{rms} / R _L > 10 kΩ
Status input	0/6/12 V / R _L > 10 kΩ

DIGITAL AUDIO (S/PDIF)

Connector	1 x RCA
-----------	---------

AUDIO R L

Connector	2 x RCA (R+L)
Output	0.5 V _{rms} ± 0.5 dB/ R _L 10 kΩ

SERIAL (RS 232) Serial data

Connector	9-pin D-sub male
Signals	RS232, max. 115,2 kbit/s
Pin 1 DCD	(Data carrier detect) not connected
2 RXD	(Receive data)
3 TXD	(Transmit data)
4 DTR	(Data terminal ready) Set to high
5 GND	(Signal ground)
6 DSR	(Data set ready) not connected
7 RTS	(Ready to send)
8 CTS	(Clear to send)
9 RI	(Ring indicator) not connected

Conditional Access system

One PCMCIA interface for a Common Interface CA module (DVB Standard)

Front panel

Two LED; Buttons: ⏻, ▼ ▲

General data

The model code, variant and serial number, are located on a label on the underside of the housing.

Supply voltage	110-240 V AC, 47-63 Hz
Power consumption max	10 W
Power consumption in standby	5 W
Operating temperature	+5° C to +45° C

Storage temperature	- 40° C to +65° C
Humidity	25 to 75 % rel humidity
Operating distance for remote control	About 10 meters
Dimensions (w x d x h)	251 x 275 x 80 mm
Weight	1100 g. approx.

SCART sockets

TV		AUX
1	Audio out right ch.	Audio out right ch.
2	-	Audio in right ch.
3	Audio out left ch.	Audio out left ch.
4	Audio ground	Audio ground
5	RGB blue ground	-
6	-	Audio in left ch.
7	RGB blue signal out	-
8	Switch voltage out	Switch voltage in
9	RGB green ground	-
10	Connect to pin 10 in AUX scart	-
11	RGB green signal out	-
12	-	-
13	RGB red ground	-
14	Fast blank. ground	Fast blank. ground
15	RGB red signal out	-
16	Fast blanking out	-
17	Video out ground	Video out ground
18	-	Video in ground
19	Video out	Video out
20	-	Video in
21	Ground (casing)	Ground (casing)



Nokia Mediamaster software end-user license

IMPORTANT: READ CAREFULLY BEFORE OR USING THE SOFTWARE NOKIA CORPORATION, NOKIA HOME COMMUNICATIONS END-USER SOFTWARE AGREEMENT

This Software Agreement ("Agreement") is between You (either an individual or an entity), the End User, and Nokia Corporation, Nokia Home Communications ("Nokia"). The Agreement authorises You to use the Software specified in Clause 1 below and which is included in this Nokia digital TV receiver. This is an agreement on end-user rights and not an agreement concerning sale.

Read this Agreement carefully before using the Software. By using this Nokia digital TV receiver, You agree to the terms and conditions of this Agreement. If You do not agree to all of the terms and conditions of this Agreement, return this Nokia digital TV receiver and accompanying documentation to the place of purchase. **YOU AGREE THAT YOUR USE OF THE SOFTWARE ACKNOWLEDGES THAT YOU HAVE READ THIS AGREEMENT, UNDERSTAND IT, AND AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS.**

1. **SOFTWARE.** As used in this Agreement, the term "Software" means, collectively: (i) the software product identified above (ii) digital images, stock photographs, clip art, or other artistic works ("Stock Files") (iii) related explanatory written materials and any other possible documentation related thereto ("Documentation"); (iv) fonts, and (v) upgrades, modified versions, updates, additions, and copies of the Software, if any, licensed to You by Nokia under this Agreement.

2. **END-USER RIGHTS AND USE.** Nokia grants to You non-exclusive, non-transferable end-user rights to use the Software on this Nokia digital TV receiver only.

3. **LIMITATIONS ON END-USER RIGHTS.** You may not copy, distribute, or make derivative works of the Software except as follows:

(a) You may transfer all your rights to the Software at the same time as You transfer this Nokia digital TV receiver on a permanent basis, provided that You transfer this Nokia digital TV receiver and all copies of the related Documentation, do not retain any copies by yourself, and the recipient agrees to the terms and conditions of this Agreement.

(b) You may not use, modify, translate, reproduce, or transfer the right to use the Software or copy the Software except as expressly provided in this Agreement.

(c) You may not resell, except as set forth in clause 3 (a), sublicense, rent, lease, or lend the Software.

(d) You may not reverse engineer, decompile, disassemble, or otherwise attempt to discover the source code of the Software (except to the extent that this restriction is expressly prohibited by law) or create derivative works based on the Software.

(e) Unless stated otherwise in the Documentation, You shall not display, modify, reproduce, or distribute any of the Software.

In the event that the Documentation allows You to display the Stock Files, You shall not distribute the Stock Files on a stand-alone basis, i.e., in circumstances in which the Stock Files constitute the primary value of the product being distributed. You should review the "Readme" files (if any) associated with such Stock Files that You use to ascertain what rights You have with respect to such materials. Stock Files may not be used in the production of libelous, defamatory, fraudulent, infringing, lewd, obscene, or pornographic material or in any otherwise illegal manner. You may not register or claim any rights in the Stock Files or derivative works thereof.

(f) You agree that You shall only use the Software in a manner that complies with all applicable laws in the jurisdiction in which You use the Software, including, but not limited to, applicable restrictions concerning copyright and other intellectual property rights.

4. **COPYRIGHT.** The Software and all rights, without limitation including proprietary rights therein, are owned by Nokia and/or its licensors and affiliates and are protected by international treaty provisions and all other applicable national laws of the country in which it is being used. The structure, organisation, and code of the Software are the valuable trade secrets and confidential information of Nokia and/or its licensors and affiliates. You must not copy the Software

5. **COMMENCEMENT & TERMINATION.** This Agreement is effective from the first date You use this Nokia digital TV receiver. You may terminate this Agreement at any time by returning, at Your own costs, this Nokia digital TV receiver, and all related materials provided by Nokia. Your end-user rights automatically and immediately terminate

Nokia Mediamaster software end-user license

without notice from Nokia if You fail to comply with any provision of this Agreement. In such an event, You must immediately return at Your own cost, this Nokia digital TV receiver, and all related material to the place of purchase.

6. NO OTHER OBLIGATIONS. This Agreement creates no obligations on the part of Nokia other than as specifically set forth herein.

7. LIMITATION OF LIABILITY. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL NOKIA, ITS EMPLOYEES OR LICENSORS OR AFFILIATES BE LIABLE FOR ANY LOST PROFITS, REVENUE, SALES, DATA, OR COSTS OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES, PROPERTY DAMAGE, PERSONAL INJURY, INTERRUPTION OF BUSINESS, LOSS OF BUSINESS INFORMATION, OR FOR ANY SPECIAL, DIRECT, INDIRECT, INCIDENTAL, ECONOMIC, COVER, PUNITIVE, SPECIAL, OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED AND WHETHER ARISING UNDER CONTRACT, TORT, NEGLIGENCE, OR OTHER THEORY OF LIABILITY ARISING OUT OF THE USE OF OR INABILITY TO USE THE SOFTWARE, EVEN IF NOKIA OR ITS LICENSORS OR AFFILIATES ARE ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. BECAUSE SOME COUNTRIES/STATES/JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF LIABILITY, BUT MAY ALLOW LIABILITY TO BE LIMITED, IN SUCH CASES, NOKIA, ITS EMPLOYEES OR LICENSORS OR AFFILIATES' LIABILITY SHALL BE LIMITED TO U.S. \$50.

Nothing contained in this Agreement shall prejudice the statutory rights of any party dealing as a consumer. Nokia is acting on behalf of its employees and licensors or affiliates for the purpose of disclaiming, excluding, and/or restricting obligations, and liability as provided in this clause 7, but in no other respects and for no other purpose.

8. EXPORT CONTROL. The Software, including technical data, includes cryptographic software subject to export controls under the U.S. Export Administration Regulations ("EAR") and may be subject to import or export controls in other countries. The EAR prohibits the use of the Software and technical data by a Government End User, as defined hereafter, without a license from the U.S. government. A Government End User is defined in Part 772 of the EAR as "any foreign central, regional, or local government department, agency, or other entity performing governmental functions; including governmental research institutions, governmental corporations, or their separate business

units (as defined in part 772 of the EAR) which are engaged in the manufacture or distribution of items or services controlled on the Wassenaar Munitions List, and international governmental organisations. This term does not include: utilities (telecommunications companies and Internet service providers; banks and financial institutions; transportation; broadcast or entertainment; educational organisations; civil health and medical organisations; retail or wholesale firms; and manufacturing or industrial entities not engaged in the manufacture or distribution of items or services controlled on the Wassenaar Munitions List.)" You agree to strictly comply with all applicable import and export regulations and acknowledge that You have the responsibility to obtain licenses to export, re-export, transfer, or import the Software. You further represent that You are not a Government End User as defined above, and You will not transfer the Software to any Government End User without a license.

9. CONTACT DETAILS. If You want to contact Nokia in respect of this Agreement, contact Nokia at the following address:

Nokia Home Communications
ITÄMERENKATU 11-13,
00 180 HELSINKI
FINLAND

10. APPLICABLE LAW & GENERAL PROVISIONS.

This Agreement is governed by the laws of Finland. All disputes arising from or relating to this Agreement shall be settled by a single arbitrator appointed by the Central Chamber of Commerce of Finland. The arbitration procedure shall take place in Helsinki, Finland in the English language. If any part of this Agreement is found void and unenforceable, it will not affect the validity of the balance of the Agreement, which shall remain valid and enforceable according to its terms. This Agreement may only be modified in writing by an authorised officer of Nokia.

This is the entire agreement between Nokia and You relating to the Software, and it supersedes any prior representations, discussions, undertakings, end-user agreements, communications, or advertising relating to the Software.

DECLARATION OF CONFORMITY

Hereby, Nokia declares that this digital receiver 221 T is in conformity with the essential requirements and other relevant provisions of Directive 1999/5/EC. Via an external modem this Terminal Equipment can be connected to the analogue Public Switched Telephone Networks (PSTNs), in which network addressing, if provided, is by means of Dual Tone Multiple-Frequency (DTMF) signalling.

NOKIA

Declaration of Conformity

Manufacturer: Nokia Corporation through its unit Nokia Home Communications

Address: Keilalahdentie 4,
FIN-02150 Espoo,
Finland

Declares that the product

Product: Digital Receiver 221T with infrared remote control


is in conformity with the following Directives and Standards

Directives: 73/23/EEC
93/68/EEC
89/336/EEC
92/31/EEC

Standards: EN 55013: 1990+A12+A13+A14
EN 55020: 1994+A11+A12+A13
EN 55022: 1998 (class B)
EN 55024: 1998
EN 61000-3-2: 2000
EN 61000-3-3: 1995
EN 60065: 1998

Turku, 13th of May, 2002

Nokia Home Communications


Jorma Hekkanen
Head of R&D

Postal Address
Nokia Home Communications
P.O. Box 226, FIN-00045 NOKIA GROUP

Phone
+358 7180 180 71

Fax
+358 7180 646 712

Nokia is a registered trademark of Nokia Corporation

www.nokia.co.uk



667699311.01

© 0312