

SHARP

ENGLISH

Instructions for - Installation of Satellite Channels

Updated: March 2011



Experience Reality

AQUOS LCD-TVs – Spring/Summer 2011

LE820 - LE822 - LE814 - LE824 - LE914 - LE925

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In case during the installation of satellite channels on your 812 or 822 series SHARP LCD television you encounter problems or questions, refer to these installation guidelines.

In the following part of the manual you will find examples of installations and answers to frequently asked questions concerning the above-mentioned device series:

When the device has already been fully installed:

In course of the first installation the device didn't find the expected stations?
Search for satellites hasn't been fully carried out?
The number of found stations seems to small?

Remedy:

First of all run a software update, so that the device has the latest software!
(Update 8/8/10 = Version 1.06) The software can be found in the service area of SHARP website.

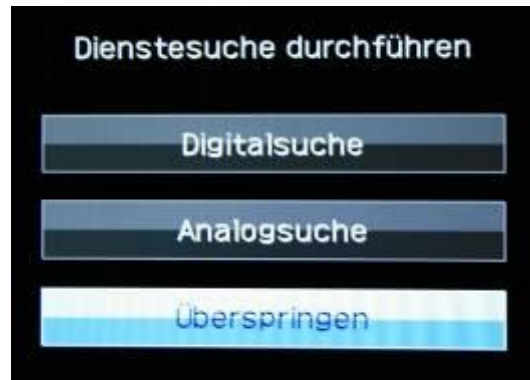
After updating software start the installation of the TV again!

In order to do so enter the menu "Set up "

After entering the menu highlight „ Reset " and confirm your choice with the „OK "- button on the remote control. Confirm the resetting and restarting of the device (see user manual). This will take a few seconds. After this the image of first installation will appear on the device.

1. First installation

When the device is switched on for the first time, first of all you need to set the language and later the type of installation (usually „**Home** “) and at the end choose the country in which the device will be used. After all these actions the following image will appear:



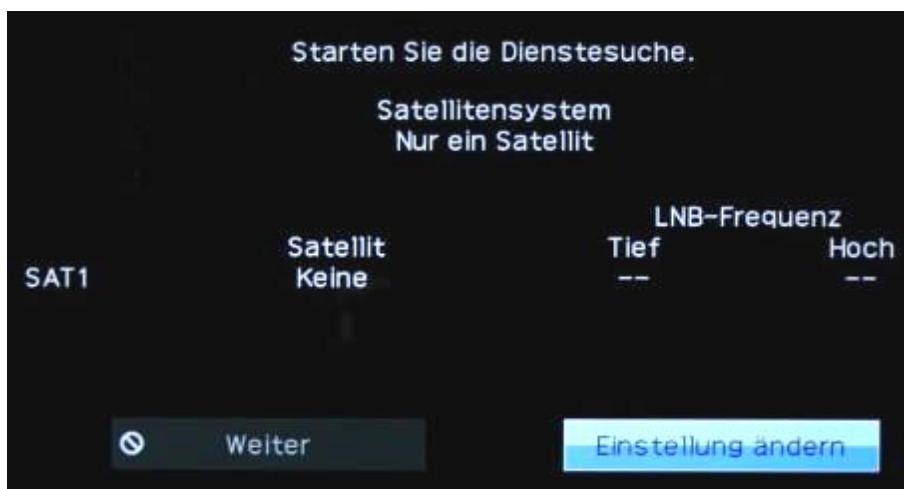
In order to install satellite channels choose „**Skip** “ and confirm your choice with „**OK** “-button on the remote control.

The following image will appear:



Choose „**Yes** “ and confirm your choice with the „**OK** “ button on the remote control.

The following image will appear:



Remain on the button **„Change settings“** and confirm the choice with the **„OK“**-button on the remote control. You will see the following:



Choose the setting applicable to your satellite device and confirm your choice with the **„OK“**-button on the remote control. You can find an overview of settings in the chapter **„Frequently asked questions“** in the appendix. The example shows installation for a satellite device with an individual connection (only Astra).

After confirmation you will see the following image:



Don't change anything and confirm it with the „OK “ button on the remote control.

Now you will see the following:



Choose the preferred satellite and confirm your choice with the „OK “-button on the remote control (in this example Astra1).

You will now see the following image:

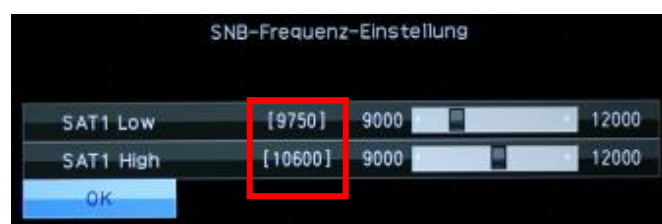


Choose „Yes “ and confirm your choice with the „OK “ button on the remote control.

Now you will see the following:



Confirm the displayed setting by pressing the „OK “-button on the remote control. (An explanation of this setting can be found in the chapter „**Frequently asked questions**“ in the appendix). The example shows the installation for a satellite device with an individual connection (only Astra). After confirmation you will see the following image:



If you use a satellite device with an "exotic" LNB, here you can set the oscillator frequencies of upper and lower sidebands. For a normal, standard LNB confirm the displayed settings by pressing the „OK “-button on the remote control.

The following happens then:



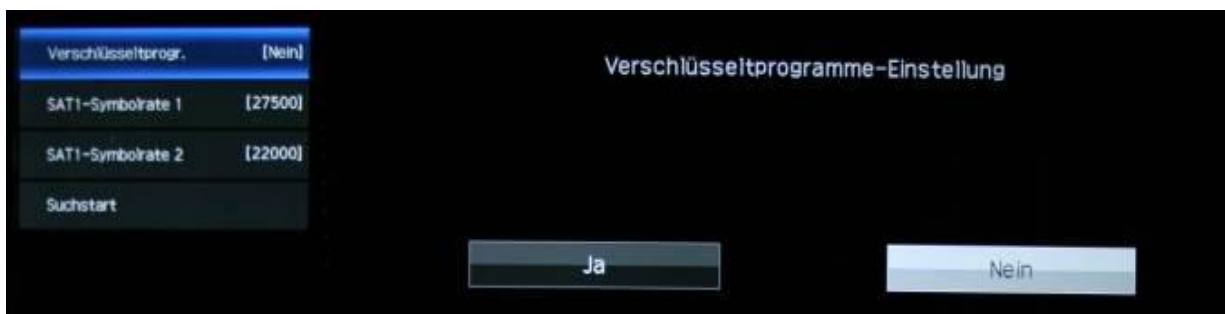
If the settings are correct, don't change anything and confirm the choice of „**Continue** “ option with the „**OK** “ button on the remote control.

Now you will see the following:



Please don't start the search yet! Please highlight „**Change settings** “ and confirm your choice with the „**OK** “-button on the remote control.

The following image will appear:



Don't change anything and confirm the point „**Coded channels** “ and confirm your choice with the „**OK** “ button on the remote control.

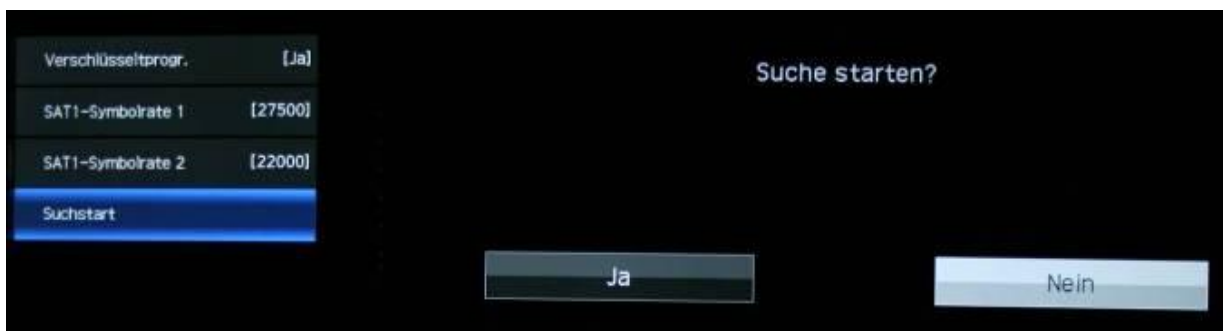
Now you will see the following:



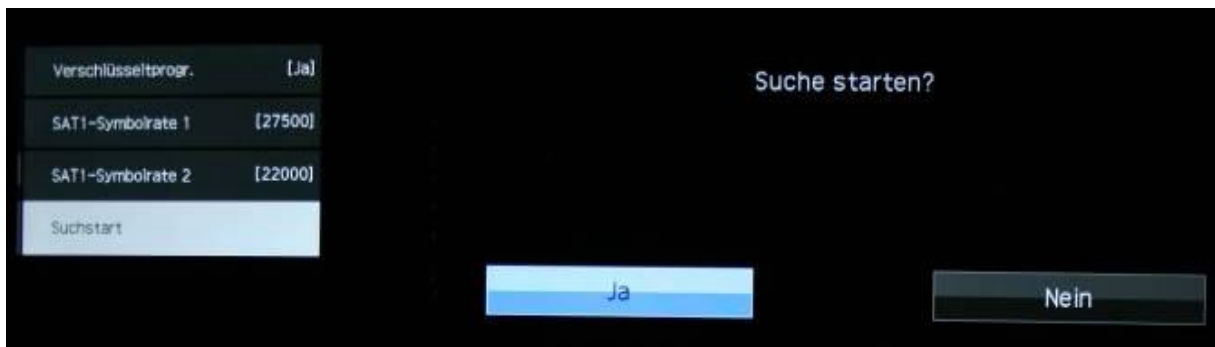
Choose „**Yes** “ or „**No** “ to conduct the search including or excluding coded channels and confirm your choice with „**OK** “-button on the remote control.

! If you choose "Yes", coded channels will be included in the search. In the list of channels they will appear after the channels that can be received freely. If you choose the "No" option (factory setting), the coded programs will be automatically deleted in course of automatic sorting. If later you need coded channels, you will have to repeat the installation process.

Now highlight the option "Start search" and confirm the choice with the „**OK** “-button on the remote control. (The symbol rates are standard values and ususally don't have to be changed, exceptions listed in the chapter "**Receive special satellites**".)



After pressing the „OK “ button you will see the following:



Don't change anything and confirm "Yes" with the „OK “ button on the remote control.

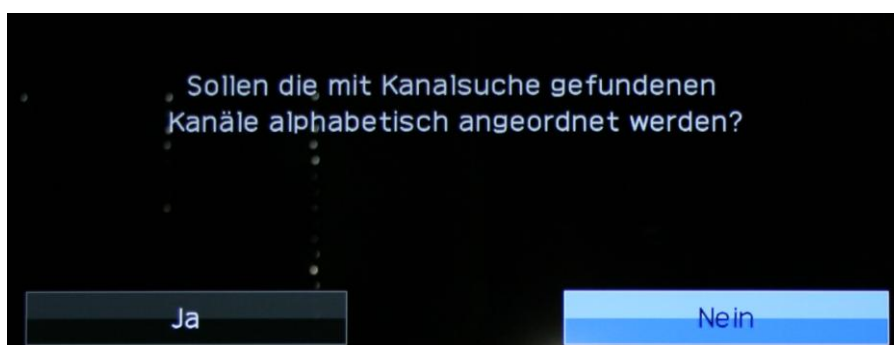
Now you will see the following:



The device has started automatic search for tv stations.

The installation of satellite channels may, according to chosen settings or the chosen system configuration take more or less time.

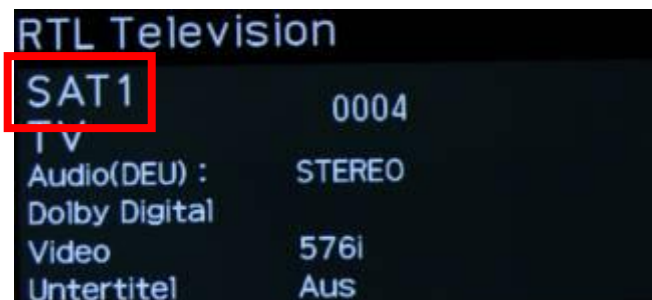
After the end of the automatic search the following image will appear:



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After choosing the mode of sorting and confirming it with „OK “ the TV will start displaying the tv-station which is stored at channel slot number one.

! Take into consideration the fact that the device may have more than one satellite channel list. Depending on the chosen system configuration there could be up to 4 various lists, which can be called up with the "SAT" button on the remote control. They are named SAT 1 to SAT 4 and after changing channel or by pressing the Info button the name of the current list will be displayed in the upper right corner of the screen (see photograph below). Lists which are not needed (e.g. in case of receiving signal only from Astra), can be hidden by using the menu (see user manual, "Input skip").



2. Sort channels manually

When during the display of a channel you press the „OK “ button on the remote control, on the right edge of the screen a list of automatically sorted channels will appear. If you want to change the sequence of channels, it is possible by using the menu, „Set up “ and the point „Channel settings “. See the following image:

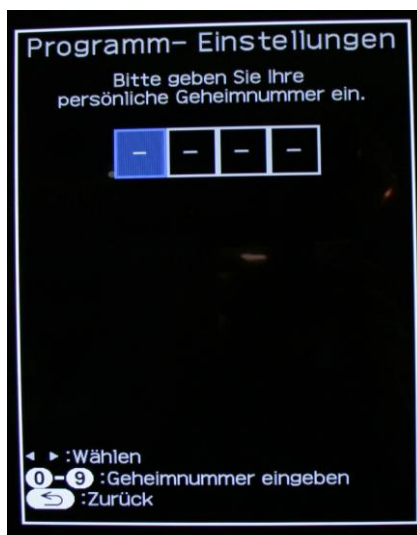


Confirm your choice with the „OK “-button on the remote control. Now you will see the following:

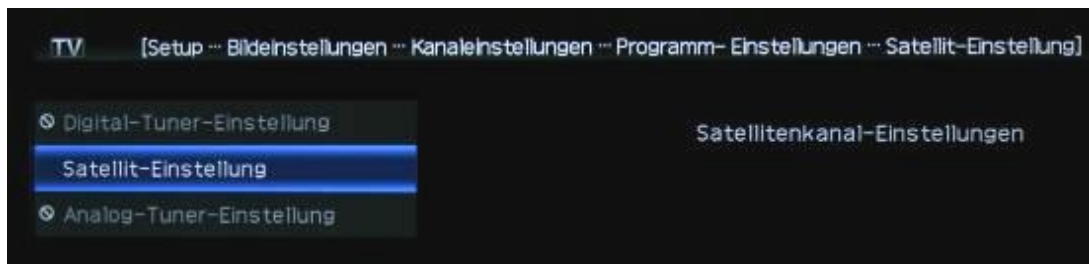


Don't change anything and confirm "**Program settings**" with the „OK “ button on the remote control.

The following image will appear:



Enter the 4-digit pin number (factory setting **1234**) !
Now you will see the following image:



Confirm „**Satellite settings** “ with the „**OK** “ button.

In case in the original search settings 2 or more satellites are selected, you will see the following image:



Choose the satellites, whose channel lists you would like to process and confirm your choice by pressing the „**OK** “ -button on the remote control. If in the search settings only one satellite is selected, this choice will be skipped and shortly the following image will appear:



Choose „Manual set-up“ and you will see the following:



Confirm your choice with the „OK “-button on the remote control.

Now you will see the following:



Confirm the choice „Yes “ by pressing the „OK “ - button on the remote control.

The following image will appear:



! Don't use the function key "Delete" - yellow button in the on-screen menu - in order to delete channels, before you sort all channels, as other channels will also be deleted. This would mean that you would have to spend a lot of time allocating other channels. These channels would not appear on the list of stored channels any more. This leads to a situation in which some channels from the normal sequence are missing (e.g. 1, 2, 3, 5, 9...., e.g. the programs 4, 7, 8 would be missing).

It is best to remove unwanted channels by moving from the list in a manner described below.

Using arrow keys choose the channel which is supposed to be moved. With the „**B**“ (blue) button you can mark the channel (e.g. VOX). The following image appears:



Using arrow keys on the remote control choose the new position:

You can also look through the list of channels going 10 channels back or forth at a time, by using the arrow key "Left" and "Right" on the navigation panel of the remote control.

Further steps for moving channels in the following screen:



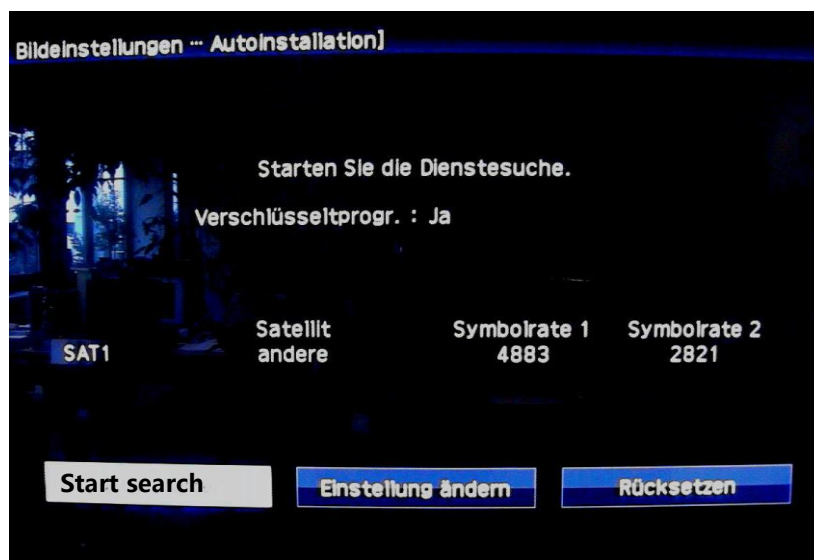
Confirm the newly chosen channel location by pressing „**OK** “ button on the remote control. The channel will be moved to the chosen location and the following channels will be moved one place ahead.

3. Receive signal from special satellites

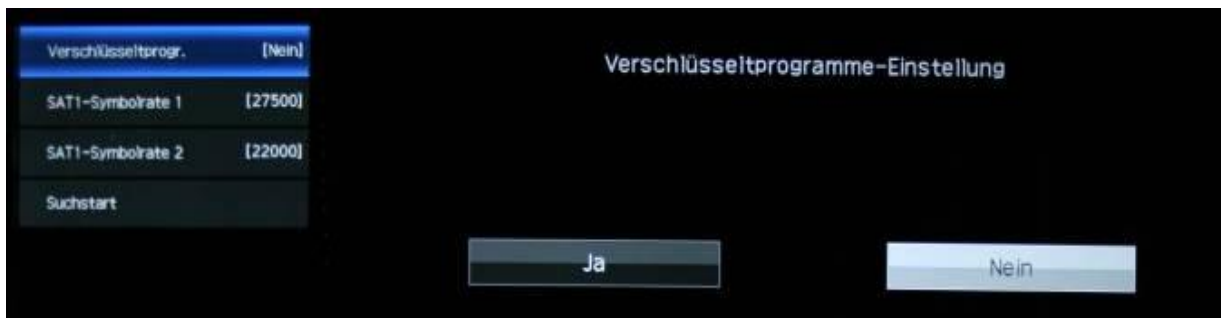
If satellites other than provided in the menu are received, e.g. Türksat or Eutelsat 4/5, in the satellite selection the point „**others** “ can be chosen.



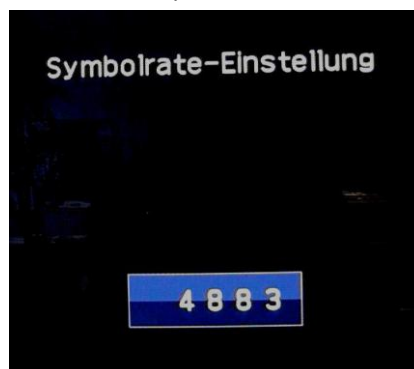
The search settings must usually then be adapted to these satellites.
Example: Change symbol rate:



Instead of „**Start search**“, choose the point „**Change settings**“ and the following image will appear.



Choose the point „**SAT-Symbolrate 1** “ and change the symbol rate over the digit keyboard of the remote control, as shown on the following image.



If necessary carry out the same action with regard to „**SAT-symbol rate 2** “. You can find the right value for symbol rates in the Internet at the website of the relevant satellite operator or the program provider.

Important: You can pre-program 2 symbol rates per one search run. In case on the satellite more symbol rates are available, by using the point of menu "Additional search" you can carry out many additional searches with further 2 symbol rates each, till all symbol rates are found.

4. Special case: attenuator

In some rare cases it may happen that during the reception of HD channel for a short time small squares appear on the screen or the sound stalls. Often such effects are caused by the fact that the level of the satellite antenna is too high.

First of all check whether the device has the latest software.

If necessary download software updates from the following website:

http://www.sharp.de/cps/rde/xchg/de/hs.xsl/-/html/service_downloads.htm.

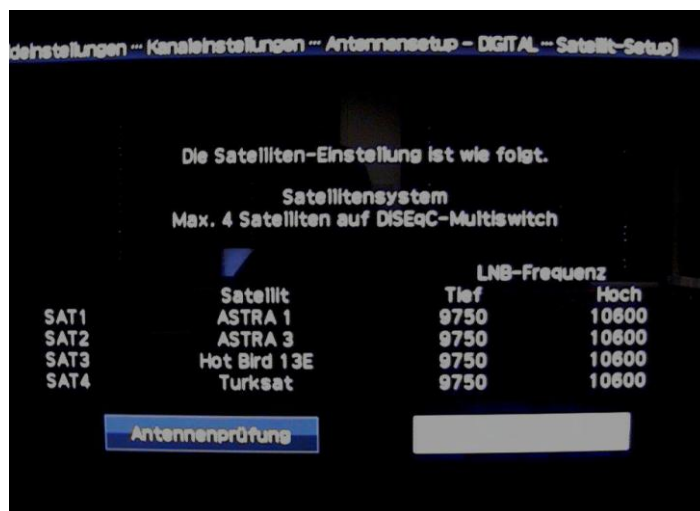
If the above-mentioned error still appears after updating software, it is recommended to reduce the level of the satellite antenna with the attenuator.

In order to set the actuator correctly, you can use the gauge of reception field strength and quality in the device menu. Switch the tv on in the satellite reception mode and choose a free HD channel and later choose the following options:

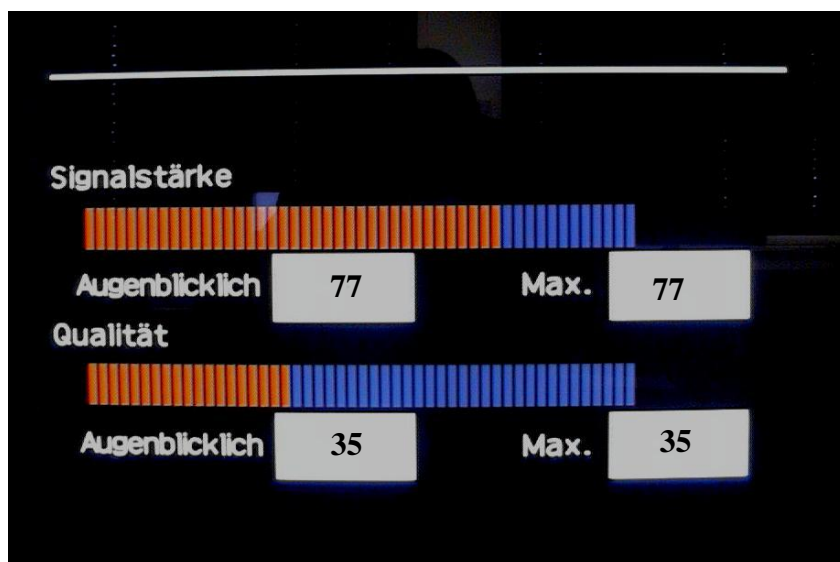
„Menu > Setup > Settings > Channel settings > Antenna setup digital“



Possibly you will be asked to enter PIN-code. Enter the 4-digit PIN number. Now choose **„Satellite set-up “** the following image will appear.



Choose „Test antenna “ and the following image will be shown:



Using the attenuator change the input level of the device, but during the process observe the „**Quality** “ scale and using the attenuator set the possibly highest value. It should reach 37-42. A value of over 42 is also good. While setting quality pay attention to the „**Signal strength** “ scale, when quality is set at maximum, the value of signal strength shouldn't sink below 60 (dB), so that also in bad weather the signal is sufficient. After successful setting errors in reception of HD channels don't appear any more.

5. Frequently asked questions

Why haven't satellites been fully searched?

Check the settings of SAT_system configuration (e.g. individual or DiSEqC_system).

Why does the number of found channels seem too small?

Check the settings of SAT_system configuration (e.g. individual or DiSEqC_system).

Why hasn't the device found the expected channels in course of automatic installation?

Please keep in mind that when searching through numerous satellites the device allocates channels to up to four SAT_lists.

Make sure that your satellite equipment is suitable for receiving digital channels, as also analogue LNC's can receive some channels (old satellite equipment, community equipment, single cable solutions).

Why doesn't the device find all channels even after changing search settings?

It is possible that even during the repeated search the changed search settings are not applied so that the device doesn't receive all channels just like earlier.

In such case using the "Set up" menu, subpoint "Reset" reset the device to its default setting.

Is it possible to go through the program list also in blocks?

During normal operation of the tv it is possible to use „Green “ and „Yellow “ buttons in order to progress in blocks of ten channels.

When sorting channels in the "Set up" menu you can use arrow keys "Right" and "Left" in the navigation panel you can browse through channels in blocks of ten.

6. Definition of terms concerning satellite reception

This compendium was prepared with the aid of the Internet website www.wikipedia.de
You can find further information concerning this subject on the same webpage.

DiSEqC - Digital Satellite Equipment Control

describes a digital control signal technology, applied in the building cabling of satellite reception facilities, DiSEqC-control signals compared to the 14/18-Volt- and 22-kHz control signals enable broader range of functions in satellite reception.

DiSEqC switching commands are transmitted serially as digitally encrypted data words.

22kHz Switchbox – Switch for two satellites

22kHz Switchbox is an electronic switch which is controlled with a 22kHz signal from the satellite receiver. The switch can be found between the receivers and the satellite equipment. Attention! When this point is not properly configured, it could happen that only one satellite will be found in a search (usually the satellite which is connected to the first port (0kHz) of the switchbox).

Toneburst

To obtain another switch criterion (along with 14/18 volt and 22 kHz) tone burst was introduced. Here only one sequence of bits (e.g. "0" = satellite A or "1" satellite B) is modulated onto the 22 kHz signal.

Highband 22kHz signal

The 22kHz signal is required for switching between lower and upper sideband. Thus the 22kHz signal is another switch criterion (along with 14/18 Volt) and is transmitted by the satellite receiver to the multiswitch/LNB.

Toneburst switchbox - switch for two satellites

22kHz Switchbox is an electronic switch which is controlled with a 22kHz signal from the satellite receiver. The switch can be found between the receivers and the satellite equipment. Attention! When this point is not properly configured, it could happen that only one satellite will be found in a search (usually the satellite which is connected to the first port (0kHz) of the switchbox).

Multiswitch

Multiswitch is usually applied in order to distribute one or more satellite signals to many satellite ports in one house.

The main task is the distribution of signals delivered by LNB to individual satellite receivers. Moreover, its purpose (depending on the design) is the feeding of terrestrial or cable tv signals into antenna lines to participants.

Repetition rate (in DiSEqC operation)

The repetition rate shows how often the digital command from the satellite receiver should be transmitted to multiswitch. Usually here the choice „0 – repetitions “ can be retained. However, if there is a problem with the actuation of the equipment, try repetition rate "1" or "2".

Community installation (single cable system)

is a type of antenna system arrangement in which through abandoning direct current-remote power supply 14/18 Volt and DiSEqC-control signals a high-frequency signal in frequency range 950 – 2250 MHz (satellite range) can be linearly delivered to many participants of a community radio reception system. In this case it is possible to distinguish between simple single cable solutions and programmable single cable solutions. Currently SHARP LCD-TV supports only the simple solution.

Simple single-cable systems can be often found in older community facilities and most often don't transmit digital channels but only analogue ones.

Astra 1 / Astra 2 / Astra 3

In the installation menu of LCD-TV you can choose from various Astra satellites.

Usually satellite systems are adapted to satellites from the "Astra 1" family.

Astra 1 is a tv satellite on the orbital position 19.2° East

Astra 2 is a tv satellite on the orbital position 28.2° East

Astra 3 is a tv satellite on the orbital position 23.5° East

LNB - low-noise block converter

Low-noise signal converter (LNB) is the first electronic module of a satellite reception system located in focus of a parabolic antenna. It converts the satellite frequency of for example 10.7–11.75 or 11.8–12.75 GHz to the 950–2150 MHz range and thus enables transfer through a coaxial cable and reception with a satellite receiver.

LNB – Intermediate frequency

Intermediate frequency is necessary to transmit the received signal without any problems and losses to the satellite receiver with a normal coaxial cable. The conversion is achieved through mixing the received signal with a local oscillator frequency multiplicatively (typically: 9.75 GHz for lower band and 10.6 GHz for upper band reception).

For some LNB's setting a differing intermediate frequency may be necessary. Some foreign satellites require this.

Symbol rate

The symbol rate simply shows how many symbols per second are being emitted - how "high" the symbol is depends on the transmission system.

The symbol rates can vary greatly depending on the satellite and the tv provider.

More than 10 various symbol rates are possible on one and the same satellite.

Transponder

A Transponder on a satellite receives data and transmits it again. For example a ground-based radio station can transmit data signals for tv to a geostationary satellite, which will send back the signal back to Earth. Any

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suitable satellite antenna with visual contact with a satellite can receive the signal.

A transponder can transmit many different satellite channels.