



SRT 5428





**High Definition Digital Set Top Box
User's Manual**



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IMPORTANT SAFETY INSTRUCTIONS

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN.		TO REDUCE THE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	This symbol indicates “dangerous voltage” inside the product that presents a risk of electric shock or personal injury.		This symbol indicates important instructions accompanying the product.

1 INTRODUCTION

This user manual is intended to guide you through the operation of the SRT 5428 High Definition Digital Terrestrial Receiver.

A password may be required to make changes in the advanced options. The default password is “000000”.


2 MAIN FUNCTIONS AND FEATURES

This product is a high performance HDTV Terrestrial receiver. It fully complies with DVB-T FTA receiver requirement specifications and it provides users with all Free to Air digital terrestrial TV and radio signals being broadcast in Standard Definition and High Definition.

Functions

1. Fully compatible with DVB-T FTA digital standard
2. Fully compatible with MPEG-4 H.264/AVC High Definition Digital TV
3. Fully compatible with MPEG-2 High Definition and Standard Definition Output
4. Fully compatible with MPEG-1 Layer I & II, Dolby Digital Audio
5. VHF & UHF input and LOOP OUT
6. On Screen Electronic Program Guide(EPG)
7. Supports Picture in Graphics(PIG)
8. Supports Auto search and Manual search
9. Parental control for channels
10. Plug and Play installation with an easy to use Menu System
11. Optical S/PDIF Digital audio output interface
12. Supports 576i, 576P, 720P, 1080i Video Resolution
13. Supports 4:3 and 16:9 Aspect Ratio
14. DVB or EBU subtitle selected by the system based on availability on the network
15. Various channel editing function(Favorites, Move, Lock, Delete)
16. Support HDMI High Definition Multimedia Interface
17. Software upgrade via USB2.0 interface
18. High sensitivity, low Eb/No to receive Digital Television
19. USB 2.0 interface DVR and media player
20. Record digital television FTA program to an external USB portable hard disk and playback via USB2.0

3 THE REMOTE CONTROL

Photograph	Key	Function
	MUTE	Disable Audio output
	STANDBY	Standby / On
	0.....9	0-9 numeric buttons, for input of numbers or for selecting a TV channel
	SWAP	Recall last channel while watching digital TV or listening to radio.
	TV/R	Press TV/R key to switch between TV program and Radio program.
	RED	Function key in different page.
	GREEN	Function key in different page.
	YELLOW	Function key in different page.
	BLUE	Function key in different page.
	MENU	Display menu, press again to exit current menu
	EXIT	Back to previous menu
	INFO.	Press INFO. Key to display the information bar during program viewing.
	EPG	Press EPG key to display 7 days EPG information.
	UP/DOWN	Move selection up/down within menus and lists
	CH+/CH-	Select next/previous channel
	LEFT/RIGHT	While watching a channel, the LEFT/RIGHT buttons increase or decrease the audio output volume.
	VOL+/VOL-	Increase or decrease the audio output volume
	OK	Call up a program list for the current channel while watching digital/TV or listening to the radio. In a menu, this button serves to confirm a selection.
	PGUP/PGDW	Page up/down in lists
	FAV	Display favorites channel list
	DVR	Displays Recorded Programs List
	REC	Press REC key to record the current program during TV program viewing
	STOP	Press STOP key to stop recording of a program or stop a program during DVR playback.
PLAY/PAUSE	Play or pause a program during DVR playback	
PIC.	Press PIC. key to select the picture settings in Multimedia	
ASPECT	Press ASPECT key to select the suitable aspect ratio of the video output	
SUBTITLE	Switch between different subtitles	
AUDIO	Press AUDIO key to set the audio track and audio mode	
RES.	Switch resolutions of video output	

Battery Installation

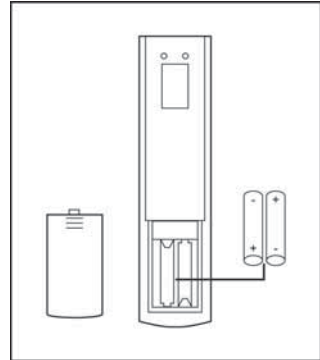
Insert the batteries observing the correct (+) and (-) polarities as illustrated below:

About the batteries

- If the remote control unit fails to work even when it is operated near the set top box, please replace the batteries.
- Use size UM-4 (AAA) batteries.
- Do not use rechargeable (Ni-Cd) batteries.
- Do not attempt to recharge or short circuit batteries.
- Do not drop, step on or cause any impact to the remote control unit. This may damage it, resulting in malfunction.
- Do not mix old and new batteries.
- If the remote control unit is not going to be used for a long time, remove the batteries.

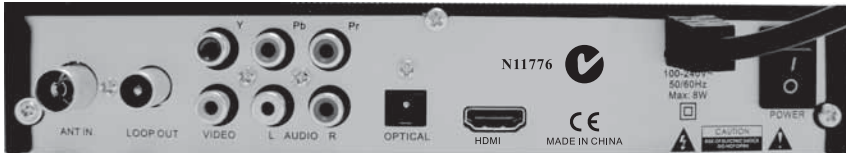
Caution

Keep batteries out of children's reach. If batteries are swallowed, contact a physician immediately.



4 FRONT AND REAR PANEL

4.1 REAR PANEL



Rear Panel	
ANT IN	Digital Terrestrial TV Broadcast signal input
LOOP OUT	Loop out of antenna signal
HDMI	Digital HDTV video output with HDCP
VIDEO	Composite video signal output
YPbPr	High Definition Component video output
OPTICAL	Digital audio output
AUDIO L/R	Analogue Audio output
AC	AC 100-240V Power input

4.2 FRONT PANEL

The red LED is the power indicator and the green LED is the signal indicator. You can access the following function keys as follow: Standby, CH▲, CH▼, OK.



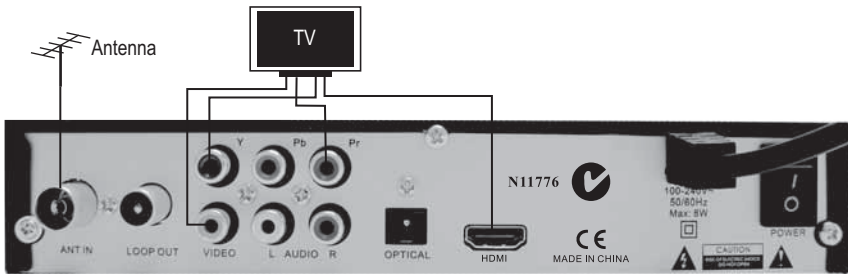
5 INSTALLATION

5.1 CONNECTING THE RECEIVER

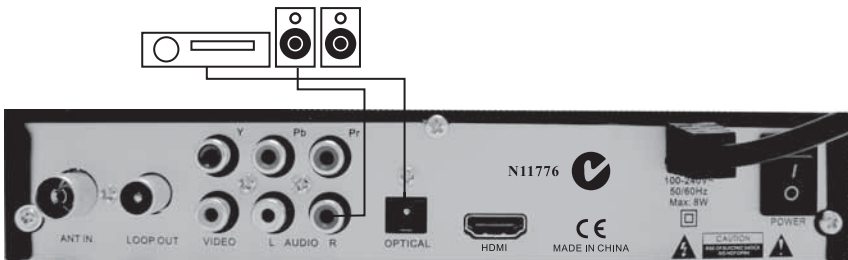
Connect the antenna to the receiver.



Connect the receiver to your TV set using the Composite (Yellow socket for Video, White and Red sockets for Audio, AV Cable Supplied with receiver), Component (Red, Green and Blue for Video, White and Red for Audio, Cable Sold Separately) or HDMI connections. (Cable Sold Separately)



Connect the receiver to an amplifier using either Optical Digital Audio Output or the Analogue Audio Output (Red and White Sockets, AV Cable Supplied with receiver)



5.2 INSTALLATION GUIDE

Follow the installation guide to enjoy your new high definition digital television receiver. Follow the help information at the bottom of the window to select preferences, Menu Language and Country (Region) Press OK button start channel search.

If no or some channels are not found during the channel search process, please have your antenna system checked by an antenna specialist.



6 DAILY USE

6.1 INFO. KEY

Press the "INFO" key to display the information bar while viewing TV programs. Press the "INFO." key twice to display detailed program information while viewing TV programs.



Base information bar



Further more information bar.

6.2 AUDIO KEY

The program may have multilingual audio language and the audio broadcast on different audio mode such as Stereo, Left or Right. All the available audio languages will be displayed on the audio track window when you press the AUDIO key. The screenshot illustrates this. If there is no audio output after you select the audio language, it indicates that there is no audio on the current audio mode, so you have to select the preferable audio mode.



6.3 SUB KEY

The program may have multilingual subtitle information. All available subtitle languages will be displayed in the subtitle information window when you press the SUBTITLE key. The screenshot illustrates this. Follow the help information on the subtitle windows to select preferred subtitle.



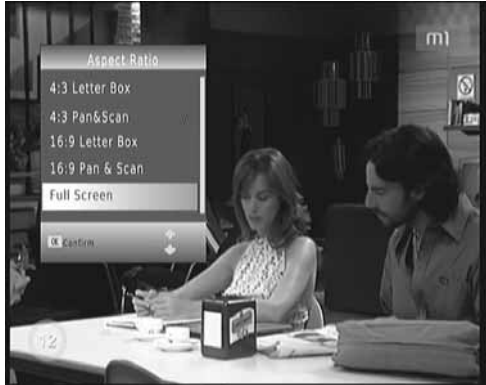
6.4 RES. KEY

The video programs may have different resolutions $720 \times 576i/p$, $1280 \times 720p$ and $1920 \times 1080i$. Normally, the standard definition programs have $720 \times 576i$ and high definition programs have $1280 \times 720p, 1920 \times 1080i$. In order to receive excellent quality on the TV screen, press the RES key on the remote control to display the resolution control window. The screenshot illustrates this. In the resolution window you will find 576i, 576p, 720p, 1080i.



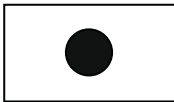
6.5 ASPECT RATIO

The aspect ratio of the video can be 4:3 (also known as Anamorphic Image) or 16:9 (also known as widescreen TV). In order to receive the correct aspect ratio for your TV set, press the ASPECT key to set suitable aspect ratio for your TV. The screenshot of the aspect ratio window is illustrated.



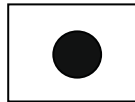
Here is a description of the aspect ratio options. Set the desired aspect ratio in relation to your TV type.

16:9 Stream on a 16:9 TV



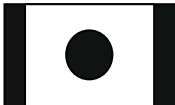
Whatever the mode

4:3 Stream on a 4:3 TV



Whatever the mode

4:3 Stream on a 16:9 TV

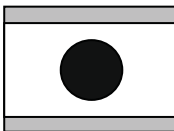


Letter-box

16:9 Stream on a 4:3 TV



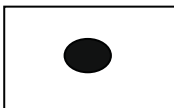
Letter-box



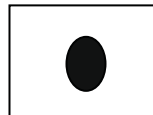
Pan and scan



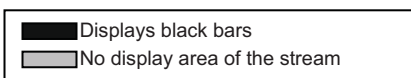
Pan and scan



Full Screen

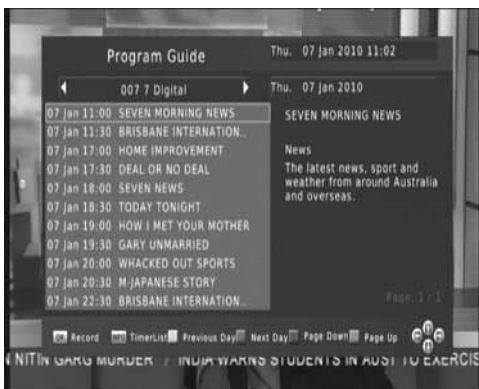


Full Screen



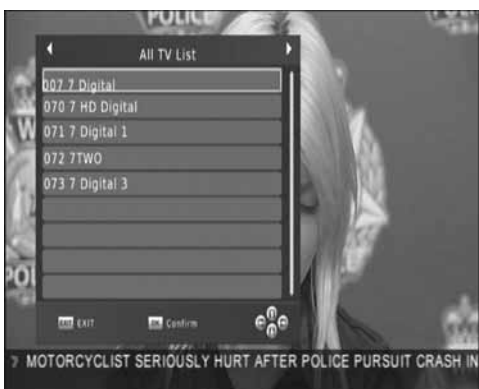
6.6 EPG

Press the EPG key to display the on screen Electronic Program Guide. This displays a 7 Day Electronic Program Guide for all programs being broadcast from all broadcasters.



6.7 TV CHANNEL AND RADIO CHANNEL LIST

Press the OK key to display a list of available TV and Radio channels. Follow the help information at the bottom of the window to select the preferred channel.



6.8 FAVOURITE CHANNEL

You can add preferred channels to a favourite's channel list on the channel edit window. Press FAV key to launch your favourite's channel list.



6.9 DVR FUNCTION

By connecting an external USB Hard Drive (sold separately) you can Record, Timeshift and Playback TV programs. There are 3 types of recording options, they are:-

6.9.1 Instant recording

Press the REC key to start an instant recording of the current TV program being viewed. The recording symbol will be displayed on the top left hand corner of the screen. The default recording time is 3 Hours. To adjust the recording time press the REC key again. This will display the recording time screen. Using the numeric keys, enter the desired recording time in hours and minutes. Press the INFO key to receive further information of the instant recording. Press the STOP key to stop the instant recording. Press OK to confirm you wish to stop the instant recording.



6.9.2 EPG recording

You will never miss your favourite program again by selecting programs to be recorded via the EPG.

Press the EPG key to display the Electronic Program Guide. Highlight the program you wish to record using the left and right arrow keys.

Press OK key on the selected program to set the EPG recording.

You can edit or delete the scheduled EPG recording event in the schedule window which is now displayed.

You can edit the start and stop time, the Repeat and the Mode

The selected program is now scheduled for recording.



6.9.3 Timer recording

You can set a manual timer recording to record at specific time.

Press the EPG key and the press the INFO key. This will display the Schedule window. In this menu select the parameters of the time frame to be recorded. Channel Type, Channel No., Start Time and End Time, Repeat and Mode



6.9.4 Timeshift

Press the REC key to start Recording first, then Press the Play key to start the timeshift function. While timeshifting Press the YELLOW key to FF. or Press the GREEN key to REW. Speeds supported are X2, X4, X8, X16, X32. Press the pause key to pause the program during live viewing.

Press the STOP key to stop the timeshift function, you also must press the STOP key again to stop the Recording



6.9.5 Playing back a recorded program

Press the DVR key to display the recorded programs list.

Select the program you wish to playback using the up and down arrow keys and press the OK key.

Press the RED key to begin playback of the recorded program.

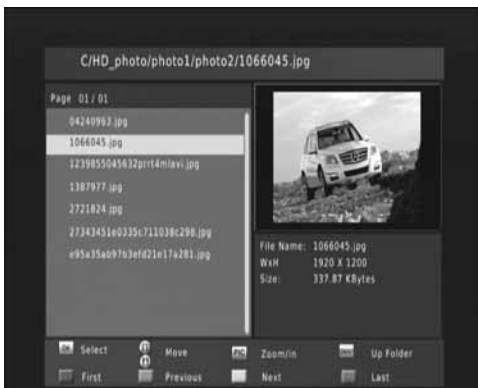
To delete a recorded program, select the program and press the YELLOW key, then press the OK Key twice to confirm deletion.



6.9.6 Multimedia player

A Multimedia player feature is integrated into the receiver. Press the MENU key and select USB using the UP and DOWN arrow keys. Press the OK key and select Multimedia to display the multimedia player window. In this window you have a choice of MUSIC, PHOTO, MOVIE and DVR. Select your preference using the UP and DOWN arrow keys and press the OK key. Supported files are listed below. NTFS, FAT32 and FAT16 file systems are supported.

Player	Supported file
Photo	JPEG, BMP, PNG
Music	*.wma, *.mp3, *.m4a, *.aac
Movie	*.avi, *.mpg, *.dat, *.vob, *.div, *.mov, *.mkv, *.mjpeg, *.ts, *.trp, motion jpeg



6.9.7 Format portable hard disk

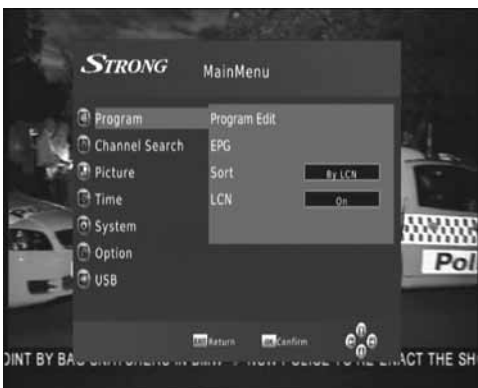
Formatting of a hard disk function is also available. Formatting your hard disk will delete all the data on the hard disk. It is strongly recommended to backup all the data on the hard disk prior to formatting.



7 MENU

7.1 MAIN MENU

Most functions are available via the Main Menu. Follow the operation help information on the bottom of the menu window to modify your preferences. A password will be required when attempting to modify the settings. Please note the Default password is "000000".



8 SOFTWARE UPDATE INSTRUCTIONS

8.1 COPY THE UPDATE FILE TO A USB DRIVE FROM A PC

1. Please visit the STRONG Australia website at www.strong.com.au or contact our customer service department on 1800 820 030 to obtain the latest software for updating your receiver.
2. Plug the USB drive to the PC and backup the entire data of the USB drive. Right click the USB drive and select Format item. Format the USB drive as FAT32 file system.
3. Copy the update file that is named, for example “SMC7828.AP” to the root of the USB drive. Then remove the USB drive from the PC.

Warning: The USB interface is for software upgrade of the Receiver is only possible by using a USB Flash Drive with FAT32 file system format. The USB interface does not support USB Flash drives with U3 PRO System. Never connect a portable hard disk to the USB interface of the Receiver for software updates.

8.2 UPDATE THE RECEIVER BY USB INTERFACE

1. Plug the USB drive that with the update file to the USB interface of the receiver.
2. Go to main menu and press “666666” to start upgrade process. When the upgrade progress has reached 100% and the update has finished, remove the USB flash drive power off and power on the receiver again.
3. Please set the receiver to the factory default setting via the main menu once it has rebooted

NOTE: Please do not remove the USB drive from the receiver and power off the receiver during upgrading process. Otherwise the receiver may not work properly.



9 SPECIFICATION

Tuner	
Input Connector	IEC 16902. Female
Input Frequency Range	VHF&UHF
Num of RF Inputs	1
Input impedance	75 ohm
RF output Connector	(bypass)IEC 169-2 Male
Loop through	47-862 MHz
Demodulation	
Standard	ETSI EN300 744
Guard interval Modes	1/32,1/16,1/8 Active Symbol duration
FEC Modes Rate	1/2,2/3,3/4,5/6,7/8
Carriers/Constellation	All modes supported including non hierarchical
Demodulation	COFDM(QPSK/QAM16/QAM64) 2K and 8K
Network	SFN
Channel bandwidth	7 or 8 MHz wide channel

System Resources	
SDRAM memory	128 MB DDR2 SDRAM (2×64MB)
FLASH memory	4 MB NOR FLASH
Display Planes	7 SEGMENTS LED
Graphic resolution	ARGB8888
Video Decoder	
Standard	ISO/IEC 13818-2 and ISO/IEC 14496-10
Transport stream	ISO/IEC 13818-1
Video decoding	MPEG-2 SD/HD (MP@ML and MP@HL), MPEG-4 H.264/AVC SD/HD DivX 3.X ~ 6.X JPEG,BMP,PNG, Motion JPEG AVI, VOB, MOV, MKV
Aspect ratio	4:3, 16:9
Audio Decoder	
Standard	ISO/IEC13818-3 TR1011154
Audio decoding	MPEG-1 and MPEG-2 Layer I & II, Dolby Digital Audio, E-AC3,WMA and HE-AAC Digital Audio
Dolby Digital (AC-3)	Stereo down-mixing to analog and digital audio outputs (including HDMI). For digital outputs, L-PCM stereo encoding is provided
Sample rate	32 kHz, 22.1 kHz, 44.1kHz,48 kHz
Subtitles	
Subtitle	DVB Subtitle
Rear Panel	
ANT IN	Digital Terrestrial TV Broadcast signal input
LOOP OUT	Loop out of antenna signal
HDMI	Digital HDTV video output with HDCP
VIDEO	Composite video signal output
YPbPr	High Definition Component video output
OPTICAL	Digital audio output
AUDIO L/R	Analogue Audio output
AC	AC 100-240V Power input
Front Panel	
bi-colored LED	Red / Green to indicate the various states of the STB
7-segments LED	To display the channel number or/and other information
Keys	5 KEYS (STANDBY, CH▲, CH▼, OK)
USB	USB2.0
Accessories	
Remote control unit	IR (36kHz)RC3/ other on request(38kHz)NEC
Batteries	2 x AAA
User Manual	1 in English
RCA cable	1
Power	
AC input range	100-240V
Power consumption	<8W WITHOUT DVR
Standby consumption	<1W
Physical	
Operating Temperature	+5 ~ 45 °C
Storage Temperature	-10 ~ +70 °C
Size (L x W x H) (mm)	220 x150 x40mm
Size packaging	225 x225 x60mm
Weight	1 KG



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