

# CONTENTS

Front panel-----	Cover 2
1. SAFETY INSTRUCTION-----	2
2. ACCESSORIES-----	2
3. REMOTE CONTROL-----	3
4. NOTICE FOR OPERATION-----	5
5. MAIN MENU-----	6
5.1 CHANNELS EDIT-----	7
5.2. FAVORITE SETUP-----	9
5.3. SATELLITE EDIT-----	10
5.4. TRANSPONDER EDIT-----	12
5.5. SYSTEM-----	14
6. MAIN OPERATION-----	17
7. GENERAL FETURES-----	21
8. TECHNICAL SPECIFICATIONS-----	22
9. MENU MAP-----	23
Rear panel-----	Cover 3

## 1. SAFETY INSTRUCTION

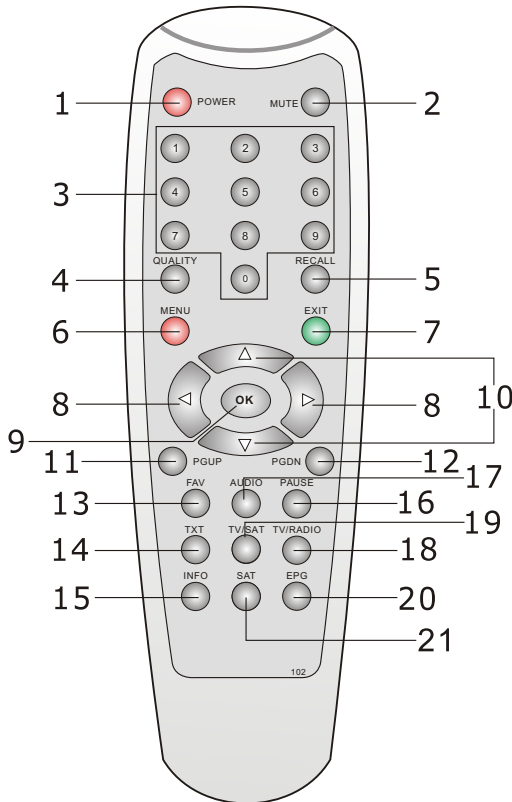
- Be sure to read this User's Manual before starting the operation of the receiver.
- Place the receiver in well ventilated and no-heat enviroment.
- Never open the cover.It is dangerous to touch the inside of the receiver due to possible electric hazard.
- Disconnect the receiver from the wall outlet before cleaning.Use a light damp cloth(no solvents) to dust the receiver.
- Do not expose the receiver to lightening,rain or sunlight, and do not place objects filled with liquids on the apparatus.
- When connecting the cables,the receiver must have been powered off.
- When the receiver is unused for a long time,unplug the power cord from the wall outlet.
- Service should be carried out only by isolating the receiver completely from the mains supply.
- **For software upgrading, Please use the manufacturer's RS-232 serial cable only! Otherwise the machine would be damaged.**

## 2. ACCESSORIES

Please ensure that the following items are included with the IRD.

- User's Manual
- Remote Control Unit
- AV Cable
- Battery

### 3. REMOTE CONTROL



- 1) **POWER**  
To switch the receiver in and out of standby mode.
- 2) **MUTE**  
To be sound on /off of the receiver.
- 3) **Numeric buttons (0-9)**  
To select a channel directly.  
To enter the numbers in the menus.
- 4) **QUALITY**  
To show the detailed information of the on-running program. Such as satellite name, channel name, channel No., etc.
- 5) **RECALL**  
To return to the previous channel .
- 6) **MENU**  
To display the main menu on the screen or return to the screen from a menu screen.

- 7) **EXIT**  
To return to the previous menu and screen.
- 8) **LEFT / RIGHT (◀ / ▶)**  
To move leftwards/rightwards in the menus.  
To change the settings in the menus.  
To control volume down / up.
- 9) **OK**  
To confirm the choice with the highlighted menu item.  
To display the channel list in the no-menu state.
- 10) **UP/DOWN (▲ / ▼)**  
To move upwards/downwards in the menus.  
To change channels on the TV/Radio program screen.
- 11) **PGUP**  
To turn to the previous page in the channel list, satellite list or TP list.  
To enter into position setup.
- 12) **PGDN**  
To turn to the next page in the channel list, satellite list or TP list  
To enter into motorised setup.
- 13) **FAV** (Favorite)  
To display the favorite channel list defined by you.
- 14) **TXT**  
To see the teletext broadcasting program.
- 15) **INFO** (Information)  
To display brief information concerning the current channel.
- 16) **PAUSE**  
To stand a picture on the screen.
- 17) **AUDIO**  
To select the desired language and soundtrack.
- 18) **TV/RADIO**  
To toggle between TV/Radio.
- 19) **TV/SAT**  
To select the modulator On/Off(if available).
- 20) **EPG** (Electronic Program Guide)  
Press to display the TV/Radio program guide.
- 21) **SAT**  
To list the satellites.

## 4. NOTICE FOR OPERATION

A menu is a field of text shown on the TV screen. The selected line is generally highlighted.

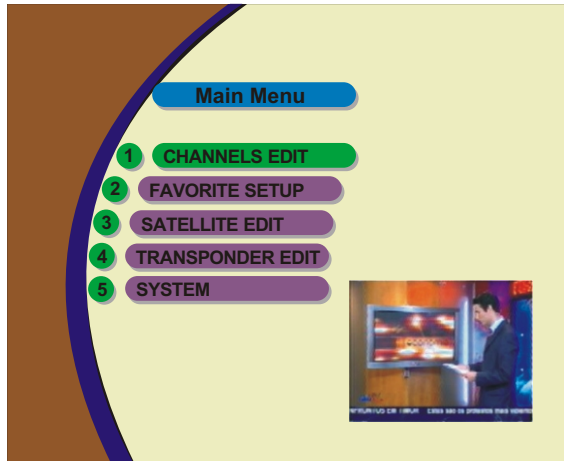
The **OK** button always confirms a selection within these menus, and pressing it to display the service list. However, and this is important, often more than one value has to be entered in a menu. First, perform all necessary settings on the different lines. Then, confirm them all simultaneously by pressing **OK**.

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

Use the **▲ / ▼** buttons to move upwards and downwards from one line to another. Use **◀ / ▶** to change settings.

You can also use the numeric buttons on the remote control to select a line on a menu and to enter numeric values.

## 5. MAIN MENU



Many of the functions of this receiver are available from the Main Menu, therefore if you want to proceed into the each sub-menu, you should access the Main Menu section first.

There are five kinds of sub-menus in this Main Menu which are:

1). CHANNELS EDIT

In this menu you can edit the TV/Radio channels. For example, locking a channel or change the channel name as your choice.

2). FAVORITE SETUP

In this menu you can edit the favorite channel list. TV channels and radio channels both can have eight favorite groups.

3). SATELLITE EDIT

In this menu you can control all the satellites information of the receiver. For example, setup a satellite, searching the programs of a satellite or adding a new satellite.

4). TRANSPONDER EDIT

In this menu you can control the TPs of all the satellites. For example, adding a new TP, editing a TP or setting up the PID.

5). SYSTEM

This menu is used for setting the parameters of the system, such as system, OSD, parental control, timer, factory default, etc..

## 5.1.TV CHANNELS



Press **TV/RADIO** to toggle between TV and radio.

Press **▲ / ▼** to select the channel.

Press **◀ / ▶** to toggle between *Select, Lock, Skip, Sort, Delete, Move, Edit*.

Press **OK** to confirm.

### 5.1.1. Edit TV Programs----Select

Move the cursor on *Select*, select a channel and press **OK** to confirm the selection, and then you can view the program of the channel.

### 5.1.2. Edit TV Programs----Lock

Move the cursor on *Lock* and press **OK**, the lock mark will appear beside the channel name. The locked channel would be viewed by password input. Press **OK** again to release the channel lock.

### 5.1.3. Edit TV Programs----Skip

Move the cursor on *Skip* and press **OK**, the skip mark will appear beside the channel name.

The skipped channel would not be shown in the channel list.

Press **OK** again to release the channel skip.

#### 5.1.4. Edit TV Programs----Sort

Move the cursor on *Sort* and press **OK** , the dialog box 'Sort Channel List' will appear, then you can select a sort method by pressing numeric buttons.

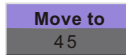


#### 5.1.5. Edit TV Programs----Delete

Move the cursor on *Delete* and press **OK**, the deletion mark will appear beside the channel name. Your selected channel will be deleted. Press **OK** again to release the channel deletion.

#### 5.1.6. Edit TV Programs----Move

Move the cursor on *Move* and press **OK**, the dialog box 'Move to' appears:

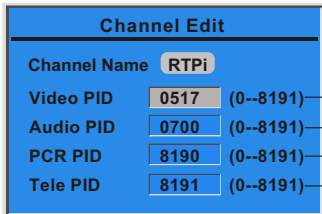


Press the numeric buttons to input the new position number where you want to locate the channel.

Press **OK** to confirm and the channel name is displayed in the new position.

#### 5.1.7. Edit TV Programs----Edit

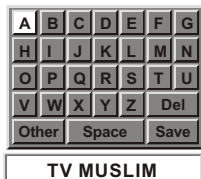
Move the cursor on *Edit* and press **OK**, the 'Channel Edit' dialog box will appear as follows:



Press the numeric buttons and ◀ / ▶ to edit.

Press **OK** on *Channel Name*, then pop up a keyboard box.

Press ▲ / ▼ / ◀ / ▶ / **OK** to select editing the channel name.





## 5.2. FAVORITE SETUP

TV channels and radio channels both can have eight favorite groups. You can view the favorite programs by pressing the **FAV** button, referring to **6.1.2 Select favorite channel**.



Press **TV/RADIO** to toggle between TV and radio.

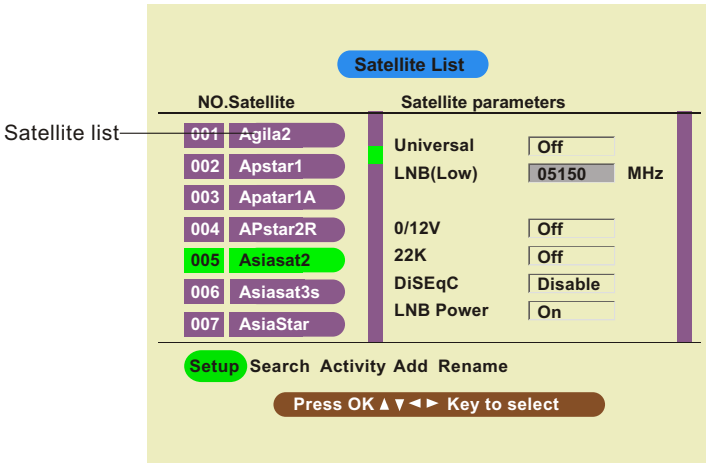
Press **▲ / ▼** to select the channel.

Press **◀ / ▶** to toggle between the eight groups(Favor1~Favor8).

Press **OK** to set the channel as a favorite, then the favorite mark is displayed on the corresponding position in the *Status* bar. And the number on the favorite mark is the group No.,as displayed above.

Press **OK** again to cancel the setting.

### 5.3. SATELLITE EDIT



#### 5.3.1. Satellite Edit----Setup

Move the cursor on *Setup* and press **OK**, then you can edit the different parameters.

Press ▲ / ▼ to toggle between the parameters as follows: *Universal*, *LNB(Low)*, *LNB(High)*, *0/12V*, *22K*, *DiSEqC* and *LNB Power*.

Press ◀ / ▶ and numeric buttons to edit the value of the parameters and press **OK** to confirm.

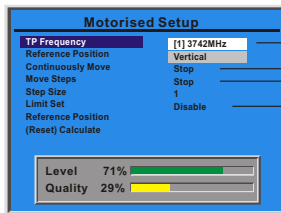
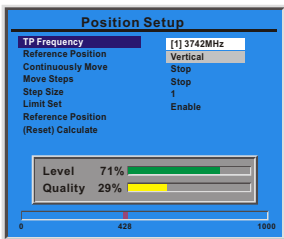
If you set *Universal On*, the *22K* setting is unnecessary.

If you set *Universal Off*, the *LNB(High)* setting is unnecessary.

**NOTE:**

**For normal LNB, you need only 1 local frequency, but for Universal LNB you can select 2 local frequency.**

If you set *Position*, it enters into position setup.

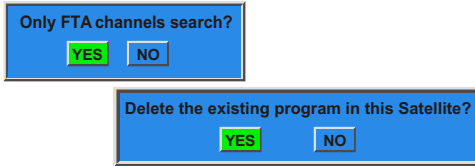


Transponder List  
East/Stop/West  
East/Stop/West  
Disable/West Limit/East Limit

If you set *DiSEqC DiSEqC1.2*, it enters into Motorised Setup.

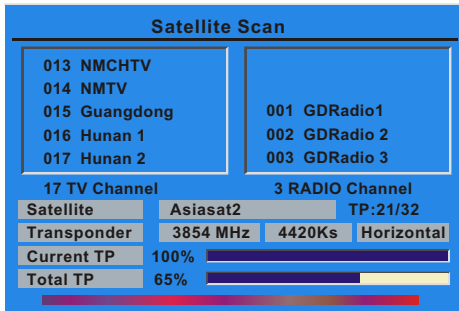
### 5.3.2. Satellite Edit----Search

Move the cursor on *Search* and press **OK**, the following dialog box will appear:



Press **YES** or **NO** to continue, then the 'Satellite Scan' dialog box appears, and you can view the scan information.

This search is for all the channels of a satellite.



### 5.3.3. Satellite Edit----Activity

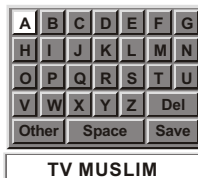
Move the cursor on *Activity* and press **OK**, the deletion mark will appear beside the selected satellite name, then the satellite is disabled. To enable the satellite again, press the **OK** button again, and the deletion mark will disappear.

### 5.3.4. Satellite Edit----Add

Move the cursor on *Add* and press **OK**, a new satellite is inserted into the satellite list. The default name of this satellite is **NEW SAT**.

### 5.3.5. Satellite Edit----Rename

Move the cursor on *Rename* and press **OK**, a keyboard dialog box will appear as follows:



Press **▲** / **▼** / **◀** / **▶** / **OK** to select editing the channel name.

## 5.4. TRANSPONDER EDIT



### 5.4.1. Transponder Edit----Satellite

Move the cursor on *Satellite* and press **OK**, then you can setup the parameters of your selected satellite.

### 5.4.2. Transponder Edit----Search

The transponder search is for all the channels of this transponder. The operation is similar to the satellite search. Refer to **5.3.2. Satellite Edit ----Search**.

### 5.4.3. Transponder Edit----Add

Move the cursor on *Add* and press **OK**, the 'Add New TP' window will appear:



Then you can edit the parameters of the new TP and view the satellite information.

#### 5.4.4. Transponder Edit----Edit

Move the cursor on *Edit* and press **OK**,the 'Edit Transponder' window will appear:

Edit Transponder	
Sat Name	Asiasat2
Frequency	03660 MHz
Symbol	27500 KHz
Polarization	VER
FEC	AUTO
Satellite Information	
Universal	Off
LNB(Low)	05150MHz
DiSEqC	Disable
0/12V	Off 22K Off

Then you can edit the parameters of the new TP and view the satellite information.

#### 5.4.5. Transponder Edit----Delete

Move the cursor on *Delete* and press **OK**,a prompt window appears as follows:

Press OK to Delete or EXIT to Cancel
---

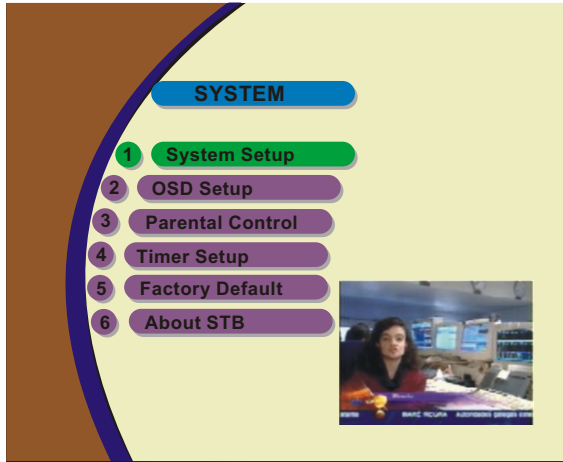
You can press **OK** to delete or press **EXIT** to cancel.

#### 5.4.6. Transponder Edit----PID

Move the cursor on *PID* and press **OK**,the 'Manual PID Search' window will appear.You can edit the *Video PID*,*Audio PID*,*PCR PID* and *TeI PID* by numeric buttons.

Manual PID Search	
Video PID	0000 (0--8191)
Audio PID	0000 (0--8191)
PCR PID	0000 (0--8191)
Tele PID	0000 (0--8191)

# 5.5. SYSTEM



## 5.5.1. System Setup

System Setup		
Video Output	PAL	PAL,NTSC,AUTO
Screen Ratio	4:3	4:3,16:9
UHF Channel	35 (21-- 69)	21--69
Audio Mode	B/G	B/G,I,D/K,M
GMT Usage	ON	GMT Usage : ON/OFF
Time Offset	GMT+00	GMT-12~GMT12
Set Local Date	01/01/02	
Set Local Time	00:24	

Press ◀ / ▶ to select the values of *Video Output*, *Screen Ratio*, *UHF Channel*, *Audio Output* and *Time Offset*.  
 Press the numeric buttons to change the values of *Set Local Date* and *Set Local Time*.  
 Press **OK** or **EXIT** to save the settings and return to the previous menu.


## 5.5.2. OSD Setup

OSD Setup	
Menu Language	English
Menu Color	Color01
Transparency	09

Press ◀ / ▶ to select the values of *Menu Language*, *Menu Color* and *Transparency*.  
 Press **OK** or **EXIT** to save the settings and return to the previous menu.

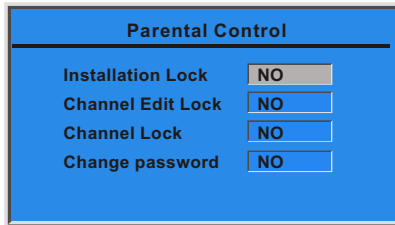
### 5.5.3. Parental Control

Press **OK** on *Parental Control*, then you need enter the PIN code.



Enter your PIN
----

The default PIN number is 0000. Enter it and edit the following parameters by pressing **◀ / ▶**.



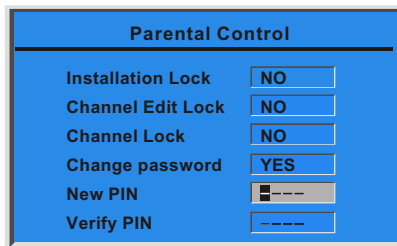
Parental Control	
Installation Lock	NO
Channel Edit Lock	NO
Channel Lock	NO
Change password	NO

If you select YES for Installation Lock, then input the PIN code when you want to edit the satellites and TPs.

If you select YES for Channel Edit Lock, then input the PIN code when you want to edit the channels.

If you select YES for Channel Lock, then input the PIN code when you want to view the locked channel.

If you select YES for Change password, then you can change the PIN code.

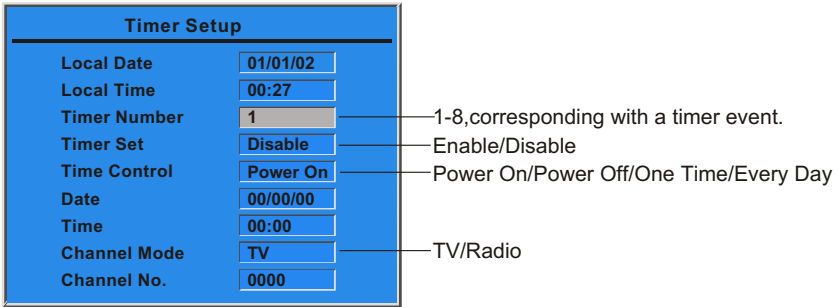


Parental Control	
Installation Lock	NO
Channel Edit Lock	NO
Channel Lock	NO
Change password	YES
New PIN	----
Verify PIN	----

Press the numeric buttons to input a set of numbers (4 digits) repeatedly. Press **OK** or **EXIT** to save the settings and return to the previous menu.

### 5.5.4. Timer Setup

You can setup the real time information and timer on/off functions.



*Local Date* and *Local Time* are not editable.

Press ◀ / ▶ to select the values of *Timer Number*, *Timer set*, *Time Control* and *Channel Mode*.

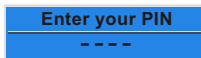
Press the numeric buttons and ◀ / ▶ to edit the values of *Date*, *Time* and *Channel NO.*

Press **OK** or **EXIT** to save the settings and return to the previous menu.

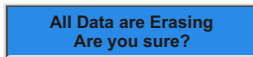
### 5.5.5. Factory Default

This menu can reset the whole parameters of this receiver.

First you need enter the default PIN code '0000'.



Then you should consider to reset it or not carefully.

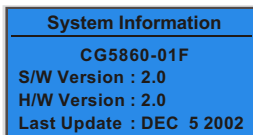


If you ensure the reset, the system will tell you waiting because the reset will take a little time.



### 5.5.6. About STB

You can see the receiver's hardware and software updated score.





## 6. MAIN OPERATION

### 6.1. Channel selection

#### 6.1.1. Select a channel from all channel list

Press **OK** while watching TV or listening to Radio, the 'All Channel List' will appear.



#### 6.1.2. Select favorite channel

Press **FAV** while watching TV or listening to Radio, the Favor List will appear.

Select programs from all favorite channels by pressing **OK** on '000 All Favorite list'.

Select programs from one favorite group by pressing **OK** on '00\* Favor\*'.

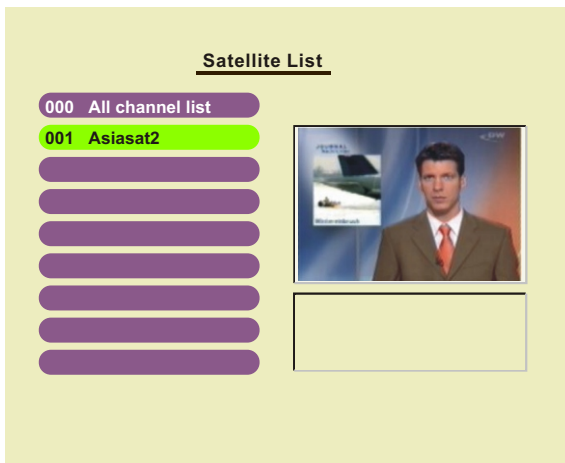


### 6.1.3. Select according satellites

Press **SAT** while watching TV or listening to Radio, the Satellite List will appear.

Press **OK** on '000 All channel list' to display the list of all channels. list'.

Press **OK** on '00\* Satellite Name' to display the channel list of this satellite.



## 6.2. Channel information view

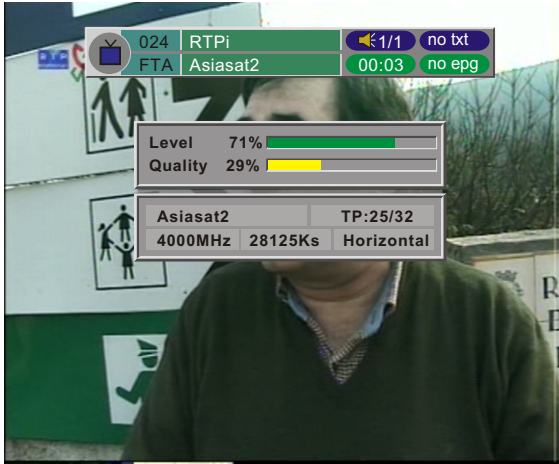
### 6.2.1. view general information

When Pressing **INFO** or changing channels, the information box will appear on the top of the screen. It displays the channel information which you are watching.



### 6.2.2 view quality information

Press **QUALITY** while watching TV or listening to Radio, the quality information box will appear in the center of the screen (The general information box appears too). It displays the channel's quality information which you are watching.

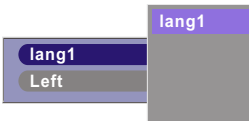


### 6.3. Audio language and mode selection

Press **AUDIO** while watching TV or listening to Radio, the following dialog box appears on the screen.



Press **OK** on 'Language' to select the audio language.




Press **OK** on 'Mode' to select the audio mode.



## 6.4. Electric Program Guide

Press **EPG** while watching TV or listening to Radio, the 'Program Guide' box will appear.



The screenshot shows a 'Program Guide' window with a table of channels and their availability for different time slots. The current time is 10:08. The table has four columns for time slots: 09:00-09:30, 09:30-10:00, and 10:00-10:30. The first column is 'Current Time: 10:08'. The channels listed are 041 TV5-Asia, 042 RTPi, 001 KUWAIT SP., 002 Saudi CH1, 003 AL\_ALAM, 004 IRIB3, 005 TV MUSLIM, and 006 Henan TV. The availability for each channel is 'NO' for all time slots. A button at the bottom says 'Press OK ▲▼◀▶ Key to select'.

Current Time: 10:08	09:00-09:30	09:30-10:00	10:00-10:30
041 TV5-Asia	NO	NO	NO
042 RTPi	NO	NO	NO
001 KUWAIT SP.	NO	NO	NO
002 Saudi CH1	NO	NO	NO
003 AL_ALAM	NO	NO	NO
004 IRIB3	NO	NO	NO
005 TV MUSLIM	NO	NO	NO
006 Henan TV	NO	NO	NO

Press OK ▲▼◀▶ Key to select

Press ▲ / ▼ to select the channel.

Press ◀ / ▶ to move to another time-axis.

**YES** indicates the broadcaster supplies the service.

Press the **OK** button on **YES** to view the program guide information.

## **7. GENERAL FEATURES**

### **FREE TO AIR RECEIVER**

1. Input Frequency : 950~2150 MHz, 1 input with loop through
2. Fully MPEG-II MP@ML DVB compliant
3. MCPC / SCPC all support ( 1- 45 MS/SEC)
4. EPG for on screen channel graphic display
5. Plug and play self installing program set up
6. DiSEqC 1.0, 1.2 version control compatible
7. 256 color OSD with 720 X 576 resolution
8. RS-232 serial data transfer interface with max 115K baud rate
9. CVBS out
10. Manual PID insertion
11. 4Phone (Video, Audio L/R, 0/12V)
12. Direct drive DiSEqC 1.2 motor equipment
13. PLLRF modulator (UHF CH 21-69)
14. CD quality audio sound
15. 4:3, 16:9 screen format selectable
16. Power: SMPS inserted
17. Total 3,000 channels programable (TV + Radio)
18. PIG Function (Picture In Graphic)
19. Super low threshold. Sharp Tuner
20. User's Friendly OSD

## 8. TECHNICAL SPECIFICATION (Digital only)

### System

Main Processor  
. Digital: STI5518  
Memory  
. Flash: 8Mbit  
. SDRAM: 64Mbit

### MPEG Transport Stream(Digital)

Transport Stream: ISO/IEC 13818  
System: ISO/IEC 13818-1  
Video: ISO/IEC 13818-2  
Audio: ISO/IEC 13818-3  
Profile & Level: MP@ML  
Video input rate: Max 15Mbit/s

### Tuner Part

Input Connector: IEC169-24 Female with F Type  
Frequency Range: 950~2150MHz(Digital)  
Input Impedance: 75 $\Omega$   
Signal Level: -65 ~ -25dBm  
LNB Power: Max 600mA  
DiSEqC Control: Version1.0, 1.2 Compatible  
22KHz Tone: 22 $\pm$  2KHz, 0.6 $\pm$  0.2V

### Demodulation Part

Method: QPSK Demodulation  
Input Symbol Rate: 1~45MS/s  
FEC Decode: Convolution Code Rate----1/2, 2/3,  
3/4, 5/6 and 7/8 with Constraint  
Length K=7

### Audio/Video Decoder

Video Aspect Ratio: 4:3 & 16:9  
Video Resolutio: 720X576(PAL),  
720X480(NTSC)  
Audio Decoding: MPEG Layer I&II  
Audio Mode: Mono / Dual Channel  
/ Joint Stereo / Stereo  
Audio Sampling Rate: 32, 44.1 and 48KHz  
Audio Resolution: 16bit, 18bit  
DAC Output Level: Max 2Vrms

### I/O Connection

Video/Audio Output: 4 Phone  
(VIDEO,AUDIO L/R,0/12V)  
Data Interface: RS232 (9pin D-SUB),

### RF Modulator

Connector: 75 $\Omega$  IEC169-2, Male/Female  
Type: PLL Type  
Channel Range: UHF CH21~69

### Position Control

Motor Control Voltage: 35-37V  
Max Output Current: 3A

### Power Supply

Input Voltage: 80~260VAC, 50~60Hz  
Type: SMPS  
Power Consumption: Max 26W

### Physical Specification

Working Temperature: +5 $^{\circ}$ C ~ +40 $^{\circ}$ C  
Storage Temperature: -40 $^{\circ}$ C ~ +65 $^{\circ}$ C  
Operating Distance for Remote Control: Max 10m

\* Please contact your supplier if any update needed.

# 9. MENU MAP

