

## USER MANUAL FOR IR-7000

See the world in its true color

### Contents

#### Safety Precautions

#### Unpacking

#### Your IR-7000

#### Front Panel

## USER MANUAL

#### Getting Started

#### Advanced Features

#### Information Box

#### System Settings

#### System Info

#### System Status

#### System Log

#### Electronics

**TECHNOSAT**

DIGITAL SATELLITE RECEIVER

IR-7000

Model: IR-7000

**Contents**

<b>Safety Precautions</b>	1
<b>Unpacking</b>	2
<b>Your IRD</b>	3
Front Panel Layout	3
Rear Panel Layout	4
Connection	5
<b>Remote Control Layout</b>	6
<b>Advanced Features</b>	7
Information Box	7
Audio Language	7
OSD	7
EPG	7
<b>Using the menu</b>	8
Program	9
Installation	14
System Setting	21
Info	24
<b>Electronic Program Guide</b>	27
<b>Troubleshooting Guide</b>	29
<b>MENU Map</b>	30



## Warning

Note: This equipment has been tested and found to comply with limit for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used according with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna
- Increase the separation of between the separation and receiver.
- Connect the equipment into an a circuit different from that to which the receiver is connected.
- Consult the dealer or an experience radio/TV technician for help.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## **Safety Precaution**

The IRD is complied with international safety standards. Please read these simple guidelines carefully before using this device

### **Power Supply**

80-125V AC 50-60Hz

### **Do Not Dismantle**

Do not attempt to dismantle the IRD. Opening the cabinet may cause malfunction or electric shock.

### **Avoid Overloading!**

Do not overload a wall outlet, extension cord or adapter as this may result in fire electric shock.

### **Avoid Extreme Humidity!**

Do not install the IRD in an extreme humid place. The STB shall not be Exposed to dripping or splashing and that no objects filled with liquids, Such as base, shall be placed on the apparatus.

### **CLEANING!**

Disconnect the STB from the wall outlet before cleaning. Use dry cloth to Dust the STB.

### **Avoid Object and Liquid Entry**

Do not insert any kinds of small objects, such as a coin, into the IRD as it may result in short circuit.

### **Ventilation Openings and Installation**

The IRD'S ventilation openings prevent itself from overheating. Do not block them as it may cause malfunction. Put the IRD on a firm and flat surface. Avoid extreme heat and direct sunlight.

### **Power supply**

Do not defeat the safety purpose or the polarized or grounding-type plug. If the provided plug does not fit into your outlet consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at Plugs, convenience receptacles, and the point where they exit from the apparatus.

## Safety Precaution & Unpacking

### Location

Place the STB indoor or outdoors to expose to lightning, rain or sun light. Unplug this STB during lighting storms or when unused for long periods of time.

### Maintenance

Use spare parts and accessories only from the original manufacturer.

### Service

Refer servicing to qualified service personnel. Servicing is required when the STB has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the STB, the STB has been exposed to rain or moisture, does not operate normally, or has been dropped.

### Your package contains the following items.



Remote Control Unit

IRD



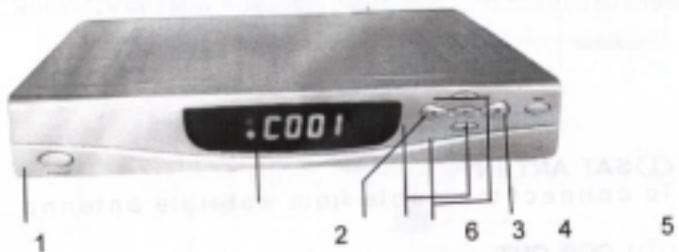
User's Manual



RCA cable

## Your IRD

### Front Panel Layout



#### ① Power On/Off Key

To turn on or off the IRD

#### ② Display Window

Red indicator lights up when power turn on.  
Green indicator lights up when channel is locked.  
Four segment LED display indicates channel number, error  
Message, RCU commands etc.

#### ③ VOL & VOL ▶

To adjust volume level or move cursor in MENU.

#### ④ CH ▲ & CH ▼

To surf channel or scroll cursor in MENU.

#### ⑤ MENU

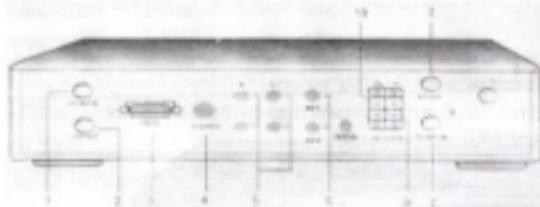
To display the main menu.

#### ⑥ OK

To display TV or radio list. In MENU status, press this key  
to confirm selection.

Your IRD

Rear Panel Layout



① **SAT ANT IN**

To connect the cable from satellite antenna

② **LOOP OUT**

To connect another satellite receiver.

③ **RS-232**

To connect PC for software download

④ **S-VIDEO**

To connect S-VHS jack of TV or VCR.

⑤ **AUDIO(R/L)**

Audio signal output from IRD to TV or VCR.

⑥ **VIDEO**

Video signal output from IRD to TV or VCR.

⑦ **TV ANT IN**

To connect terrestrial cable or an external RF input.

⑧ **RF Output**

RF Signal output from IRD to TV or VCR.

⑨ **0/12V**

For an external LNB switch

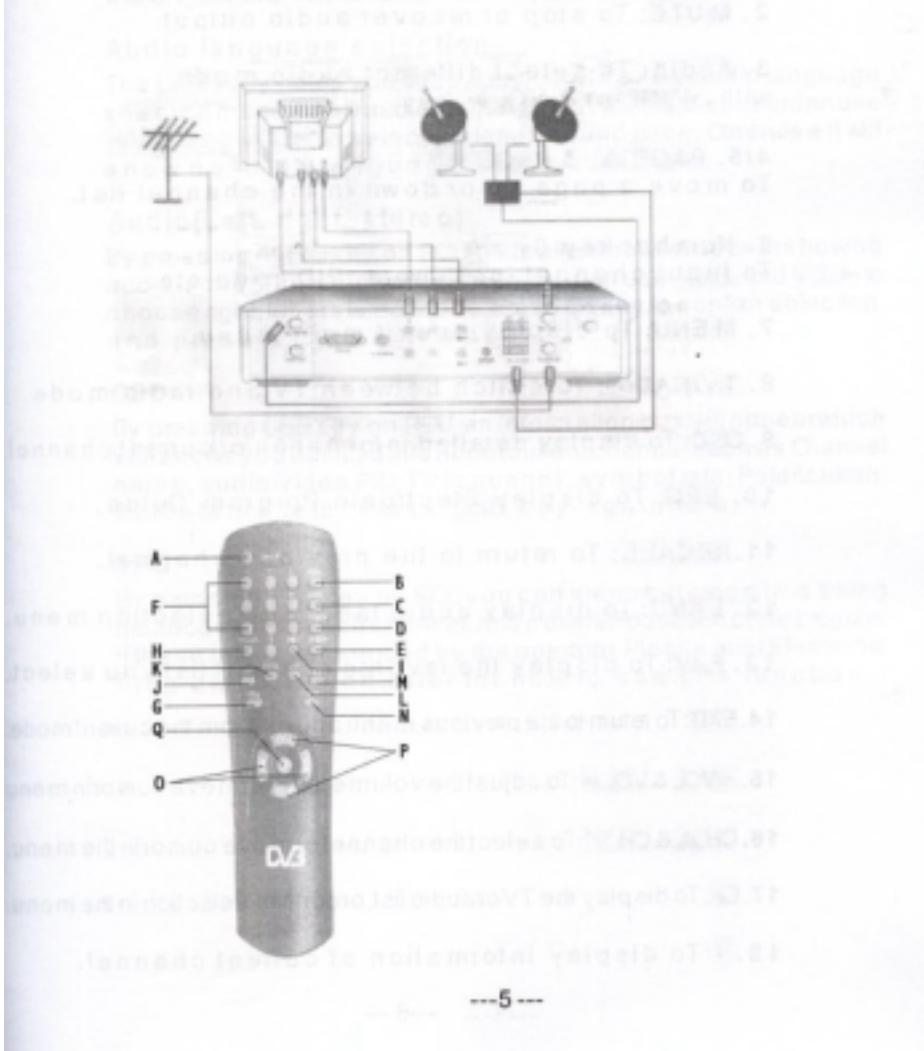
⑩ **+5V Pulse out**

To supply 5V pulse signal.

Your IRD

### Connection

The following picture shows how to connect cable from LNB, TV and IRD. There are several ways of connection between IRD and your existing audio/TV system. Following diagram is recommended for best solution.



## **Remote Control Unit (RCU) Layout**

The various keys function as follows:

1. **On/OFF**: To Switch between On and Standby mode

2. **MUTE**: To stop or recover audio output.

3. **Audio**: To select different audio mode with **◀VOL** and **VOL▶** key.

### **4/5. PAGE▲ & PAGE▼**

To move a page up or down in the channel list.

### **6. Number key 0~9**

To input channel, password, PID code etc.

7.  **MENU**: To display or exit main menu.

8. **TV/RADIO**: To switch between TV and radio mode.

9. **OSD**: To display detailed information of current channel.

10. **EPG**: To display Electronic Program Guide.

11. **RECALL**: To return to the previous channel.

12. **LANG**: To display audio language selection menu.

13. **FAV**: To display the favorite channel list you select.

14. **EXIT**: To return to the previous menu and exit from the current mode.

15. **◀VOL&VOL▶**: To adjust the volume level or move cursor in menu

16. **CH▲&CH▼**: To select the channel or move cursor in the menu.

17. **OK**: To display the TV or audio list, or confirm selection in the menu.

18. **I**: To display information of current channel.

## Advanced Features

### Information Box

Information Box shows you current channel number, name, audio mode, etc. It is displayed for 3 seconds when you change channels. You can also view the information box by pressing **I** key on RCU.

### Audio language selection

The LANG key helps you trace audio. It will display audio language selection menu if multi audio language is available, then user can use **◀VOL** and **VOL▶** to select preferred sound track. Otherwise it will show no multi language audio available.

### Audio(Left, right, stereo)

By pressing AUDIO key on RCU, a small window will appear showing audio mode of current channel. Then you can use **◀VOL** and **VOL▶** to choose right, left or stereo mode. Press OK key to confirm selection, and press exit to exit window.

### OSD

By pressing OSD key on RCU, an information box will appear which will shows you detailed info about current channel such as Channel name, audio/video PID, TP frequency, symbol rate, Polarization, 22K status, etc. Press OSD key again to exit.

### EPG

By pressing EPG key on RCU you can view what program is being broadcasted on each channel, and a brief introduction of the program if these info is transmitted by the operator. Please refer Electronic Program Guide chapter for how to use this function.

## Using the Menu

By pressing the MENU button on RCU or on the front panel, the following main Menu will be displayed. There are four items: Program, Installation, System Setting and Info which you can use **◀ VOL** and **VOL ▶** key on RCU to move and select. Sub menus stick to each item (Please refer menu map as well), use **CH▲** and **CH▼** to choose sub items.

### Program

This submenu includes four selections. Choose these items Accordingly to view, edit all TV and radio channel stored.

### Installation

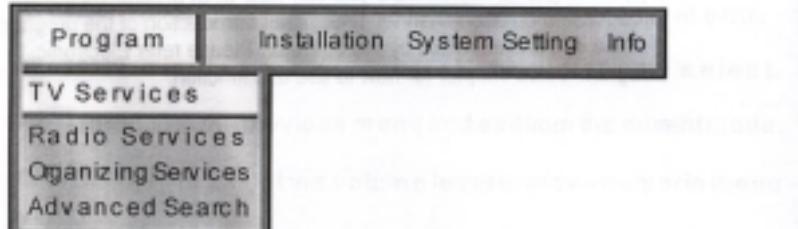
Please note there is no programmed channels in a newIRD. For first time installation, change parameter according to the antenna and LNB you installed, then do a manual or auto search. If you want to erase all settings you made, please select factory default.

### System Setting

Includes menu language select, RF Setting, Audio Select, GMT time set, etc.

### Info

Displays all information aboutIRD. Current channel info, IRD Status, CA Status, loader status etc.



Using the Menu

## Program

**TV Services**  
 Select TV Services and press OK, TV program list will be displayed. Some icons such as \$(scrambled) and 🔒 (locked), or ▪ (favorite) will be displayed with channel name together if you have edited them. Use CH▲ and CH▼ to select channel one by one, or use PAGE▲ and PAGE▼ for quick page scroll. Press OK to confirm, then Press exit to exit.

TV Program	
1 ART	\$
2 ART	\$
3 ART	\$
4 TCM	\$
5 TCM	\$ 🔒
6 Star	▪ \$
7 [V]	▪ \$
8 NaGe	▪ \$
9 Star	▪ \$
10 Zee TV	\$
11 Zee TV	\$

ARAB2A/3A

**Radio Services**  
 Select Radio Services and press OK, Radio program list will be displayed. Some icons such as \$(scrambled) and 🔒 (locked), or ▪ (favorite) will be displayed with channel name together if you have edited them. Use CH▲ and CH▼ to select channel one by one, or use PAGE▲ and PAGE▼ for quick Page scroll. Press OK to confirm, then Press exit to exit.

Radio Program	
1 Dubai	
2 Shajar	
3 Bahrain	
4 MBC	
5 Syria	🔒
6 FM	▪
7 IRIB	
8 LBC	
9 Ajnan	
10 Zee	\$
11 Zee	\$

ARAB2A/3A

Using the Menu

### Organizing Services

This model allows you to Delete, Move and Lock TV or Radio program, and select favorite channels. You can also sort and organize your channel list by using Sort button.

#### Delete

You can delete unwanted channels.

Move cursor to Delete button. Press OK button to jump into information box. Select a channel you want to delete by using CH▲, CH▼, PAGE▲, PAGE▼. Press OK to confirm. You can see a symbol ✓ displayed in line.

Press OK again if you decide not to delete this channel, the symbol ✓ will disappear.

If you want to delete more channels, repeat the above steps. Then press EXIT to exit from information box. It will highlight OK button in menu, press OK to delete all selected channel.

If you don't want to delete these channels, move cursor to EXIT in menu and press OK.

#### Move

This function allows you to move a channel to a specified position.

Move cursor to Move button in menu. Press OK to jump into the Information box. Select a channel you want to move by using CH▲, CH▼, PAGE▲, PAGE▼. Press OK to confirm. You can see a symbol ✓ displayed in line.

Press OK again if you decide not to move this channel, the symbol ✓ will disappear.

Move the selected channel to your desired position by using CH▲ and CH▼. Press OK to confirm, or press EXIT to return to the original location. Press EXIT to exit from the information box.

**Using the Menu**

**Organizing Services Menu**

No	CH Name	SAT Name	TP	F	L	\$
1	ART	ARAB2A/3A	1			\$
2	ART	ARAB2A/3A	1			\$
3	ART	ARAB2A/3A	1	■		\$
4	TCM	ARAB2A/3A	1	■		\$
5	TCN	ARAB2A/3A	1			\$
6	Star	ARAB2A/3A	5	▼		\$
7	[V]	ARAB2A/3A	5	▼		\$
8	NaGe	ARAB2A/3A	5	▼		\$
9	Star	ARAB2A/3A	5	▼		\$
10	Zee TV	ARAB2A/3A	5			\$
11	Zee TV	ARAB2A/3A	5			\$
12	Ajman	ARAB2A/3A	6			

**Lock**  
By this you can lock desired channels.

Move cursor to Lock button in menu. Press OK to jump into the information box. Select desired channel by using CH▲, CH▼, PAGE▲, PAGE▼. Press OK to confirm, you can see symbol ■ displayed. To unlock this channel press OK again.

Repeat above operation to select all the desired channels. Press EXIT to exit from information box.

When surfing channels use CH▲ & CH▼ key, locked channels could not be skipped. Please use program list to skip locked channels.

—11—

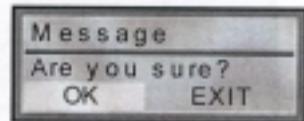
Using the Menu

**Sort**

You can sort and organize channels by scrambled, lock and/or favorite.

Move cursor to Sort button in menu, select a mode by using **◀VOL** and **VOL▶**. Press **OK**, a message box will be displayed.

Press **OK** to confirm, or move cursor to **EXIT** button in the menu and press it to cancel.



**Favorite**

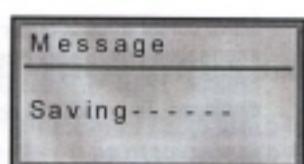
By this mode, you can create a favorite list.

Move cursor to Favorite button in menu. Press **OK** to jump into the Information box. Select desired channel by using **CH▲**, **CH▼**, **PAGE▲**, **PAGE▼**. Press **OK** to confirm, you can see symbol **▼** displayed. To release this channel press **OK** again.

If you want to select more channels one time, repeat the above operation.

**EXIT**

After edit, press **EXIT** or **MENU** to exit. From the information box, a message box will appear for a few seconds showing "saving.....".



**Using the Menu**

**Advanced Search**

In this mode, you can modify channel's parameter, especially modify channel number, channel name, Audio PID, Video PID and so on.

**Advanced Search Menu**

Sat Name	Nile 01/02	Information
Transponder	TP6	Type: TV
CH No.	1	TP Freq (K): 11998.00
Name	Super Movie	Symbol Rate (K): 27.500
Video PID	0544	22K: Auto
Audio PID1	0545	12V: OFF
Audio PID2	0000	Dseqc: OFF
Teletext PID	0000	LNB1 (MHz): 9750
PCR PID	0544	LNB2 (MHz): 10700
		LNB Type: Universal

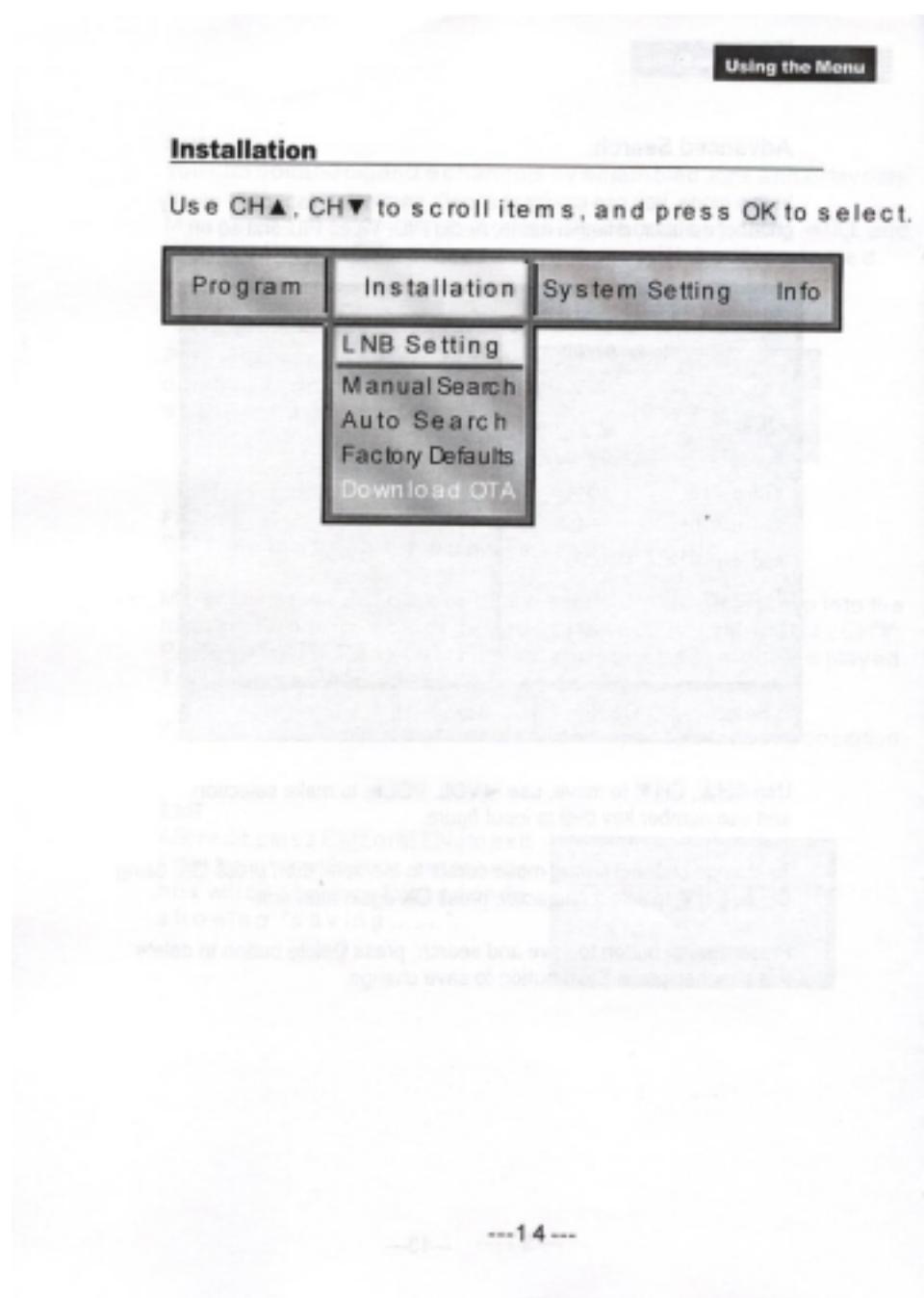
Search    Delete    Save

Use CH▲, CH▼ to move, use ◀VOL, VOL▶ to make selection, and use number key 0~9 to input figure.

To change channel name, move cursor to the item, then press OK, using CH▲, CH▼ to select character, press OK again after edit.

Press Search button to save and search, press Delete button to delete this channel, press Save button to save change.

—13—



**Using the Menu**

**LNB Setting**

Use CH▲ and CH▼ to select item.

Use ◀VOL and VOL▶ to change.

Use numberkey to input parameter.

Press OK to confirm and Exit to exit.

**LNB Setting**

SatName	NILE01/02
LNB Type	Single
LNB 1	10700
LNB 2	0000
22K	OFF
12V	OFF
Disp	OFF
OK	

Use ▲▼▶◀ and OK button execute operation  
Use OK button to modify satellite name

**Sat Name**  
There are preprogrammed transponders for following satellites Arabsat 2A/3A, Nilesat 01/02, and Eutel 1-5. It also provides 5 user named satellites for you. Use ◀VOL and VOL▶ to select desired satellite.

If you want to change satellite name, select and press OK, then use CH▲ and CH▼ to change, press OK again when finished.

**LNB Type**  
There are two modes you can choose: Single or Universal.

Use numberkey to key in proper frequency of LNB1 and LNB2. If single type is selected, only LNB1 you can change.

**22K**  
When dual LNB or two antennas are connected to a 22K switch box, define 22K switch on or off to select LNB or antenna.

---15---

Using the Menu

0/12V

When two LNBs or antennas are switched by 0/12V, define which LNB and antenna is used IRD for ON, and which one is for OFF. 0/12 terminal is located on the rear of STB.

Diseqc

In case a Diseqc switch is used, identify which antenna or LNB represents the respective LNB1 to LNB4, on the Diseqc switch.

If there are A, B, C, D marked on Diseqc switch port, it is Understood LNBA mean LNB1, and so on.

**Using the Menu**

**Manual Search**

In this sub menu, you can input TP's parameters and find services.

Use CH▲, CH▼ to move cursor, ▲VOL and VOL▼ to select, use number key to input figures. The bars at the bottom of menu shows signal power and quality when TP's parameters are entered.

Move cursor to Search TP, Delete TP and Save in menu, and Press OK to execute operation accordingly.

Search TP will save TP and search available services. Delete TP will delete presented edited TP, while save operation will save presented edited TP.

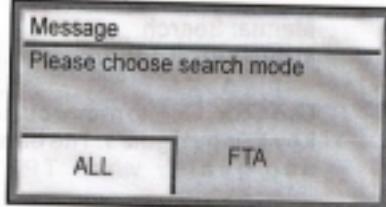
**Manual Search Menu**

Sat Name	NILE01/02	Information
TP:	TP6	Diseqc: OFF
Trans Freq:	11996.00	LNB1: 9750
Symbol Rate:	27.500	LNB2: 10600
Polarization:	Horizontal	LNBF-Type: Universal
Skew:	OFF	22K: Auto
Network Search	OFF	12V: OFF
<b>Search TP</b> <b>Delete TP</b> <b>Save</b>		
Signal power	70%	
Signal quality	85%	

---17---

Using the Menu

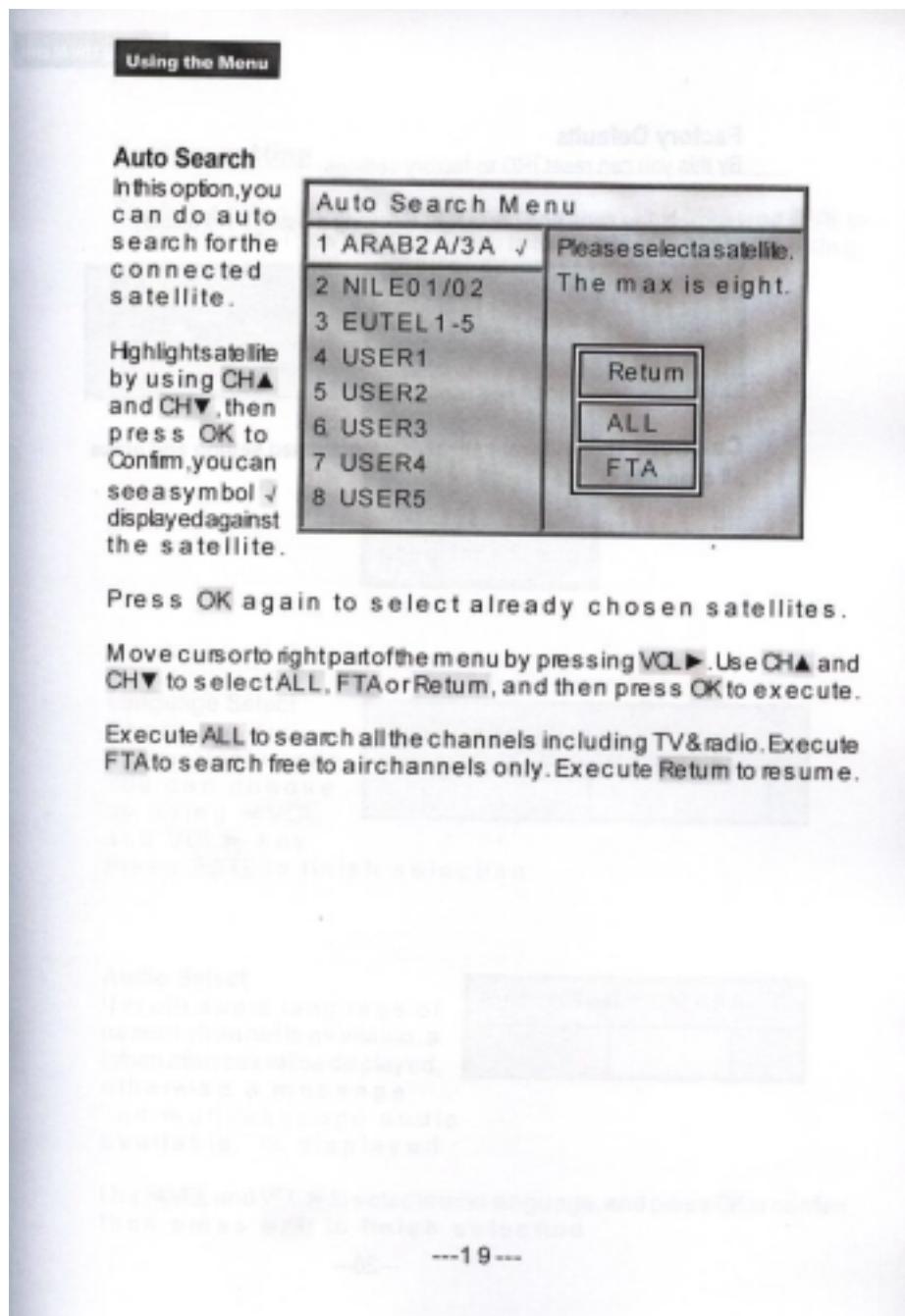
When Search TP is executed, an information box will be displayed. Use **◀VOL** and **VOL▶** to choose the mode you prefer, and press **OK**, it will begin to Search services. A message "Searching programs, please wait a while" will display.



If new services are found, TV program list will be displayed, new channel are added to the bottom of the list, and last found channels will be displayed

If no services are found, it will continue to show present channel.

To stop this operation, press **exit** when information box is displayed Instead of **OK**.



Using the Menu

### Factory Defaults

By this you can reset IRD to factory settings.

Highlight this item, and press OK, following message will display:

Factory Defaults will erase all user added channels!

Press OK to confirm, press EXIT to cancel

**Caution:** This will erase all user-programmed setting and erase all channels stored.

Using the Menu

**System setting**

System setting includes 6 items (see below). Use CH▲ and CH▼ to scroll items. Press OK to enter into each individual setting.

Program Installation	System Setting	Info
	Language Select	
	Audio Select	
	RF Setting	
	Parental Control	
	Satellite Guide	
	LocalTime Setting	

**Language Select**

There are six different languages. You can choose by using **◀VOL** and **VOL▶** key. Press **EXIT** to finish selection.

Language Select Menu

Language select English →

**Audio Select**

If multi audio language of current channel is available, a information box will be displayed, otherwise a message "no multilanguage audio available" is displayed.

Audio Select Menu

English

Use **◀VOL** and **VOL▶** to select audio language, and press **OK** to confirm, then press **exit** to finish selection.

---21---

**Using the Menu****RF Setting**

Use CH▲, CH▼ to highlight item. Use  
◀VOL, VOL▶ to change setting.

**RF Setting Menu**

RF Output	38 CH
RF Model	PAL-B/G

Use MENU, EXIT, NUMBER button and ▲▼▶◀ button to execute operation.

**RF output**

By this you can program RF modulator output to UHF CH21 to 69. Select one channel as required.

**RF Model**

The IRD supports NTSC, PAL B/G, PAL D/K and PAL-I. Select one that your TV supports.

These setting will effect at once when you change. Press exit to exit menu.

**Parental Control**

In this menu, you can set or modify system password and menu password by using number key. Use CH▲ and CH▼ to move Cursor, and select ON/OFF mode by using ▲VOL and VOL▶.

**IRDPassword Setting Menu**

System Password	OFF
Menu Password	ON
New Password	****
Confirm Password	****

Use Number keys, MENU, EXIT and ▲▼▶◀. Press OK to save.

Default password is 0000.

Using the Menu

**Satellite Guide**

This helps to calculate antenna setting angle. Input local latitude, Longitude and longitude of a satellite which your antenna points to. Move cursor to OK button and press to confirm, then it will show azimuth and elevation angle for the antenna.

Antenna Elevation	
Local Longitude	000°00'
Local Latitude	000°00'
Satellite Longitude	000°00'
OK	
Antenna Azimuth	
Antenna Elevation	
The north is 0 degree of the azimuth, increasing clockwise; The horizon is 0 degree of the elevation, increasing upwards.	

**Local Time Setting**

Use CH▲ and CH▼ to highlight item, then use ◀VOL and VOL▶ to select local time and set summertime ON or OFF.

Local Time Setting Menu	
SetLocalTime	GMT +4
Summer Time	OFF

**Using the Menu****Info**

There are 7 items in this option: Channel info, CA Status, IRD Status, Loader Status, Mail Message, Announcement and About. These show info about current channel, IRD status and Supplier. Use CH▲ and CH▼ to highlight each item, then press OK to view.

**Channel Info**

This information box shows detailed info about current channel. Press OSD key to show it directly.

Program Type: TV	Channel Number: 1
SatName: NILE01/02	TP: TP6
Name: Nat Geo	Trans Freq(MHz): 12073
Symbol Rate: 27500	Polarization: Horizontal
12V: OFF	TelePid: 0000
22K: ON	VideoPid: 0784
	AudioPid: 0785
	AudioPid2: 0000
PerPid: 0784	LNB Type: Universal
LNB1(MHz): 9750	LNBw(MHz): 10600
Diseqc: OFF	Skew: OFF
Signal Power: 60%	

**CA Status**

SoftCELL VERSION: 2.09H
SmartCard Number: 00053109856
Type: 0405
Version: V2.01
Status: 0200
Transport Stream Info: TS1: EMM PID 0x0000
Service Info:
Service Handle 1: 0x0000
Global Service State: 0x06
Component Stream States: 00 00 00
Monitoring EMM: 00 00 00 00 00
ECM: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
Nationality: ARE

Using the Menu

IRD Status

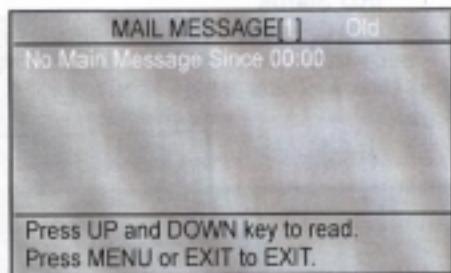
IRD STATUS	
IRD	Smart Card
477053615	00053109856
IRD 33.2.33	Firmware: 1.0
CA Module: Softcell V2.09h	
Loader: 3.2 -1.0.80 OK L-80	
IRD SW: V3.20 DVC-S 31/12/2001	
OpenTV SW: Not available	
Appl SW: Not available	
Driver SW: V2.01	

Loader Status

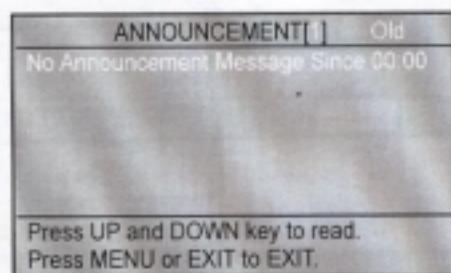
LOADER STATUS	
IRD SerNo: 477053615	LoaderVer: 3.2
Manu Code: 33	H/W Ver: 2
Load Ver: 80	Sign Ver: 80
Variant: 33	Key Sys ID: -1
Key Status: OK	Key Ver: 0
Random Num: 325922663	CRC Part: 24
Bin2Ird Ver: 3.1	Bin2Ird Ser: 1
Sign Date: 04/01/02	Load Date: 02/01/02
Sign Time: 20:00:57	Load Time: 21:22:34
Load Dur: 00:04:09	ImageSize: 51658495

Using the Menu

Mail Message



Announcement

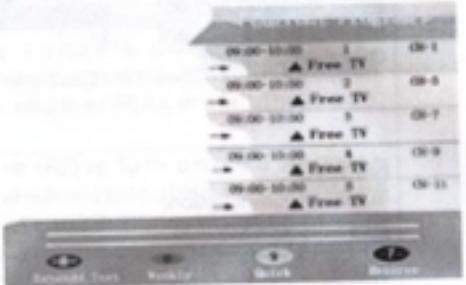


About

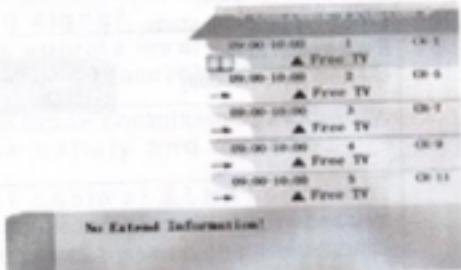


## Electronic Program Guide

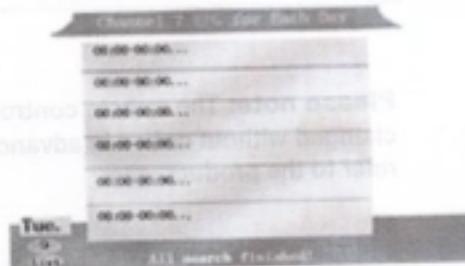
Press EPGkey on the RCU to enter into EPG box. Press **◀VOL** and **VOL▶** to alternate between current program and next program.



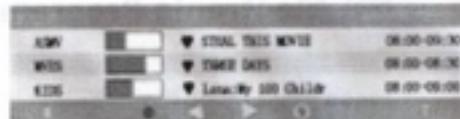
Press numberkey 8 to display extended symbol against selected program. Wait until extended info about this program appear, if any. Press **EXIT** to exit from extended information status.



Press numberkey 0 to display program forecast for whole week if it is transmitted in data stream. Use **◀VOL & VOL▶** to view each day forecast. Press **EXIT** to exit.



Press number key 9 to Enter into brief EPG List. You can also press specified number key to execute relevant operation as above.



EPG

Reminder  
In next program option, press number key 7 to display clock symbol. This indicates that you have set a reminder. When the program starts, it will switch to this channel automatically.

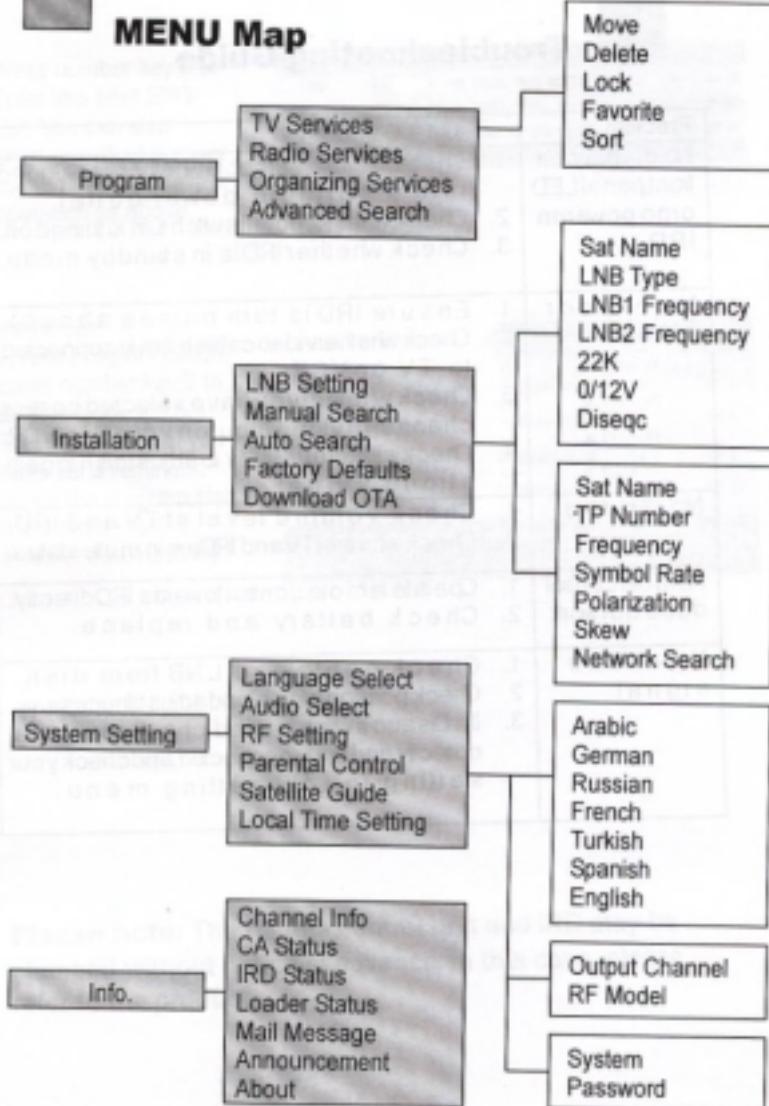


**Please note:** The remote control unit and IRD may be changed without notice in advance, in this case, please refer to the product.

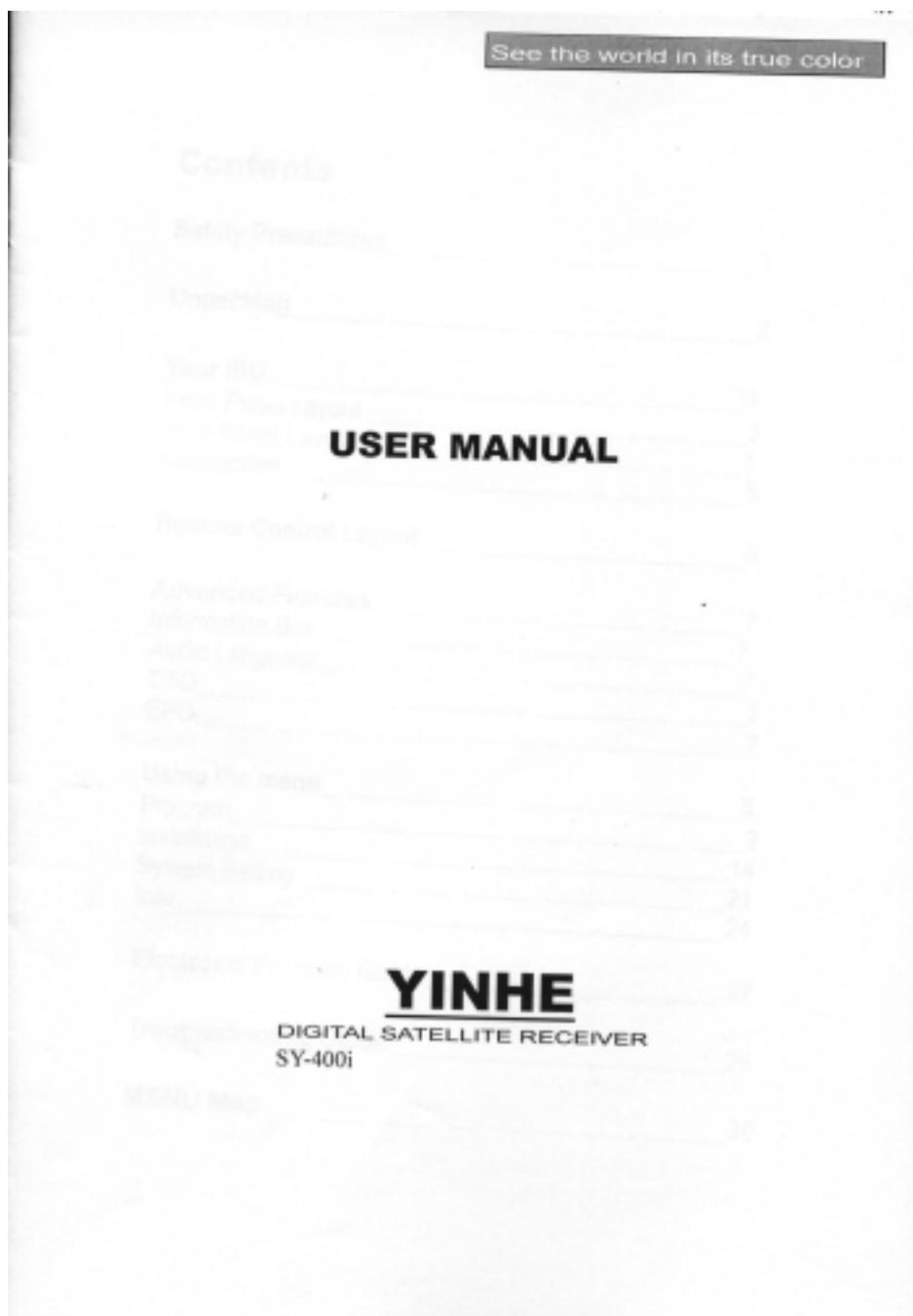
## Troubleshooting Guide

Problem	Solution
No display on front panel LED or no power on IRD	<ol style="list-style-type: none"> <li>1. Check main power cable whether it is plugged into a suitable power outlet.</li> <li>2. Check whether power switch turn is turned on.</li> <li>3. Check whether IRD is in standby mode.</li> </ol>
No or poor picture	<ol style="list-style-type: none"> <li>1. Ensure IRD is turn on (see above).</li> <li>2. Check whether video cable is firmly connected to TV or VCR.</li> <li>3. Check whether you have selected correct channel or video input on your TV or VCR.</li> <li>4. Check signal quality, try to adjust dish to gain strong signal.</li> </ol>
No Sound	<ol style="list-style-type: none"> <li>1. Check volume level of TV and IRD.</li> <li>2. Check whether TV and IRD are in mute status.</li> </ol>
Remote control does not work	<ol style="list-style-type: none"> <li>1. Operate remote control towards IRD directly.</li> <li>2. Check battery and replace.</li> </ol>
No or bad signal	<ol style="list-style-type: none"> <li>1. Check cable and LNB from dish.</li> <li>2. Check position of dish, and adjust if necessary.</li> <li>3. If a Diseqc switch is used, check whether it is correctly and firmly connected, and check your setting in LNB setting menu.</li> </ol>

## MENU Map



Cover page of SY-400i



Cover page of IR-401

