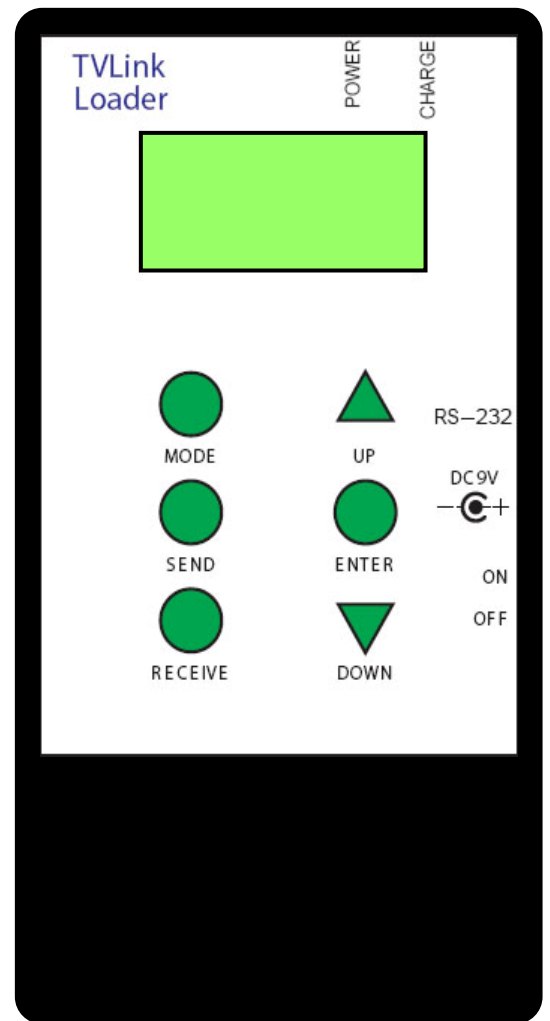


APPENDIX H
: USER'S MANUAL

TV Link Loader User's Manual

TV Link Loader User's Manual





Attention for Safety

'Attention for Safety' is to prevent accident and danger beforehand using product safety and right.

Two or three main point in place that keep necessarily and can see always

Warning

* When violated lower part item, serious injury or death can happen.

- ✓ In case this product wet in water, do not put in could apply heat place to dry.

Can explode or be responsible for transformation or breakdown.

- ✓ Do not use in place that temperature is high or there is moisture.

Whether wet because of rain or spill drinking water and so on, in if use be responsible for battery explosion or be responsible for breakdown can.

- ✓ When wild wind, thunder, lightning strike extremely, control use of product, and unplug supply cord and charger.

Can wound serious injury by lightning strike, and fire can break out.

- ✓ Disjoint product voluntarily, or do not shock.

- ✓ Power cord is not reflected, and do not use charge Adapter when part that inserts concert is loose.

- ✓ Do to put heavy thing on power cord or is not spread.

- ✓ Do not stare infrared rays window directly at infrared rays communication.

There is danger of eyesight damage.

Caution

* When violated lower part item, slight injury or product damage can happen.

- After avoid shock and impact, and extract when nonuse or when is absent power cord, keep in safe place.
- Do not drop or strike or shake product extremely.
- When wild wind, thunder, lightning strike extremely, control use of product, and unplug together supply cord and charger.
- Disjoint product voluntarily, or do not shock.
- Place that there are much dusts avoids setup, and do supply cord so that do not approximate to heating appliances.
- After is charged when nonuse battery and leave many long hours, keep at normal temperature.
- In case of use again battery after leaving alone many long hours, have better use after charge perfectly.

Note

This equipment has been tested and found to comply with the limits 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.

The equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance 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 not 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 between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected

Caution

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

➤ Contents

1. Intro
2. Each Button Function Explanation
3. To charge, to turn on Power
4. STANDBY Mode
5. Installation Menu Log-in
6. To use Installation Menu
7. Password Substitute
8. Debug Mode
9. Channel Edit Program
10. Electrical standard
11. Construction

Function of This Product

Thank for buying TV Link Loader.
This product has following function.

Remote Control Function

: Achieve channel and volume Up, Down of general remote control and function of OK button.

Channel Information Storage Function

: Can do channel information of TV to do storage on TV Link Loader interior.

Channel Information Transfer Facility

: Can transmit channel information of TV that is stored to TV Link Loader on other TV.

* Use extent is limitative in other TV product that product that see is exclusive use special procurements mounting of LG Electronics commercial LCD TV.

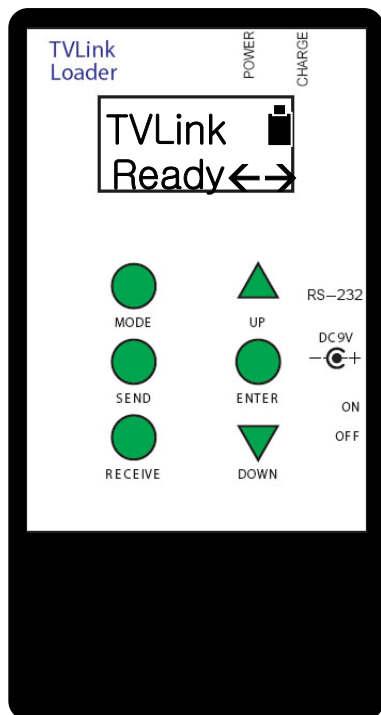
2

Each button function explanation

	MODE Button	It is when enter by TV INSTALLATION MENU and button that select Up, mode of Down button.
	Send Button	It is button to transmit channel information that is stored in TV Link Loader by TV through infrared-ray communication.
	Receive Button	It is button to store channel information of TV by TV Link Loader through RS232 communication.
	Up Button	It is button that act Channel Up of general remote control according to mode, Volume Up role.
	Enter Button	Enter to Password Mode, and it is button that act as enter of general remote control.
	Down Button	It is button that act Channel Down of general remote control according to mode, Volume Down role.

3

To charge, to turn on Power



DC 9V
Adapter

If charge

Connect 9V DC Adapter in marked position

that is  and insert to 220V AC concert.

If turn on power supply

Connect 9V DC Adapter in marked position

that is  and insert to 220V AC concert.

And that is , do marked place's switch by ON.

After power on

- ✓ Confirm that phrase called "TV Link" in LCD original idea first line and "Ready" in second line is marked.
- ✓ Confirm that battery residual quantity on the right top portion and arrow on right lower column are marked.
- ✓ When connected Adapter all, confirm since light is lighted in 'Power'.
- ✓ When connected Adapter all, battery does not pack, confirm whether light is lighted in 'Charge'.

4

STANDBY Mode

What is 'STANDBY'

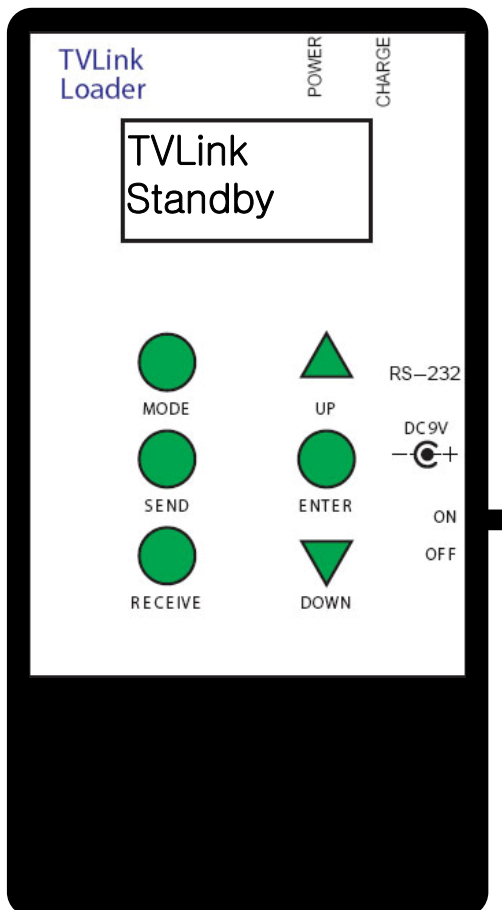
When power supply enters, is situation that do not act other thing to minimize consumption of current. "Standby" is marked in second line of LCD.

If get into 'STANDBY' state

Turn on power supply and in case there is no any manufacturing for 30 seconds, get into 'Standby' state. Also, get into 'Standby' state to when there is no any manufacturing after channel information transmission or for after click button 20 seconds.

If escape in 'STANDBY' state

Press 'Receive' button, or turn on again while put out power supply.

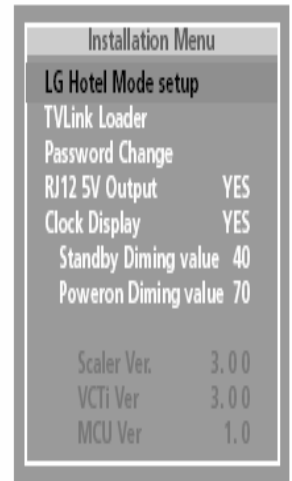
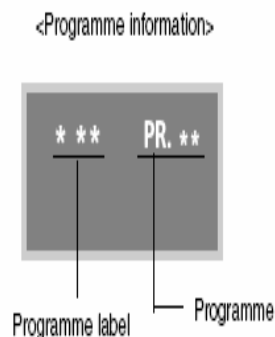
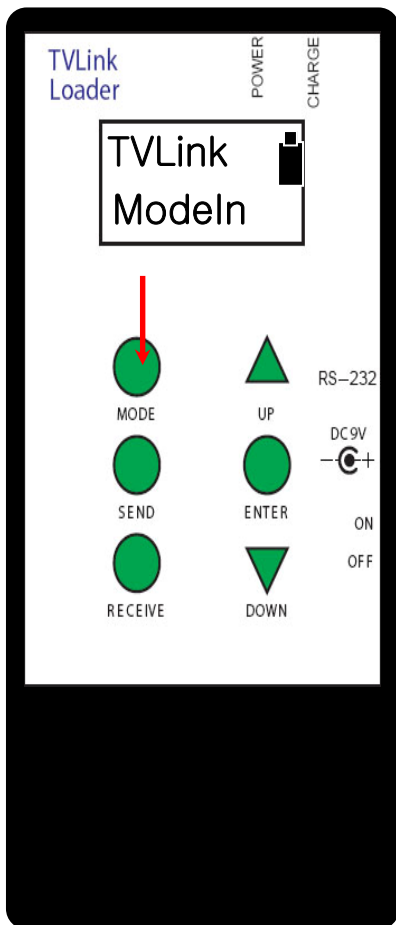


5

Installation Menu Log-in

If come to Installation Menu

First, Put TV Link Loader's top portion infrared rays communications department by TV and push MODE button more than 3 seconds. Turn TV Link Loader by TV when Installation menu is marked. Then, Installation menu is appeared automatically.

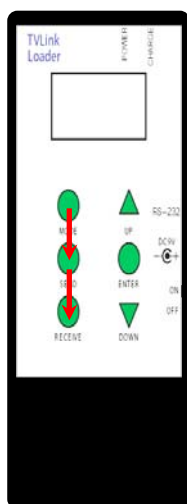
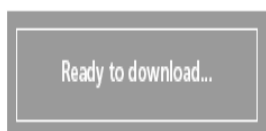
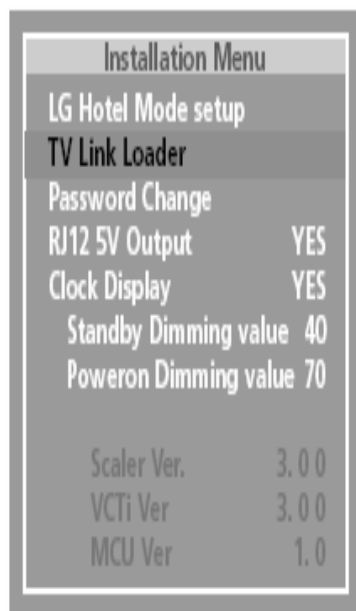


If is not come to Installation menu

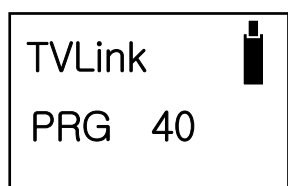
Confirm whether TV Password and TV Link Loader's Password agree.
If Password is same, try again.
In case may not be so, inquire to service center.

6

To use Installation Menu



< TV OSD >



< TV Link Loader LCD >

Button manufacturing in Installation menu

Transfer between menu changes arrow of LCD right side lower column using Mode button establish as '↑↓'.

Locate cursor to menu that want using Up, Down button.

Use Mode button again come to menu of do cursor addition if click Up button after establish as '↔'.

If channel information does send-receive

When receive channel information, RS232toRJ12 cable connects TV and TV Link Loader's **RS-232** necessarily. Select TV Link Loader in Installation menu.

Confirm "Ready to download ..." OSD at TV.

In the case of transmission, press Send button.

In the case of reception, press Receive button.

Confirm Volume OSD of TV and TV Link Loader's LCD for confirmation of progress situation.

6

To use Installation Menu

TVLink
SendErr



Channel information
cancel transmission

TVLink
RcommErr



Channel information
reception cancellation

If cancel channel information send-receive

When transmit channel information, is canceled if click more Send button once. When cancel, confirm "SendErr" in LCD window.

When receive channel information, is canceled if click more Receive button once. When cancel, confirm "RcommErr" in LCD window.

Channel information at send-receive caution

When receive channel information, connect cable necessarily.

In case "RCommErr" message is marked in LCD window, confirm cable joint.

7

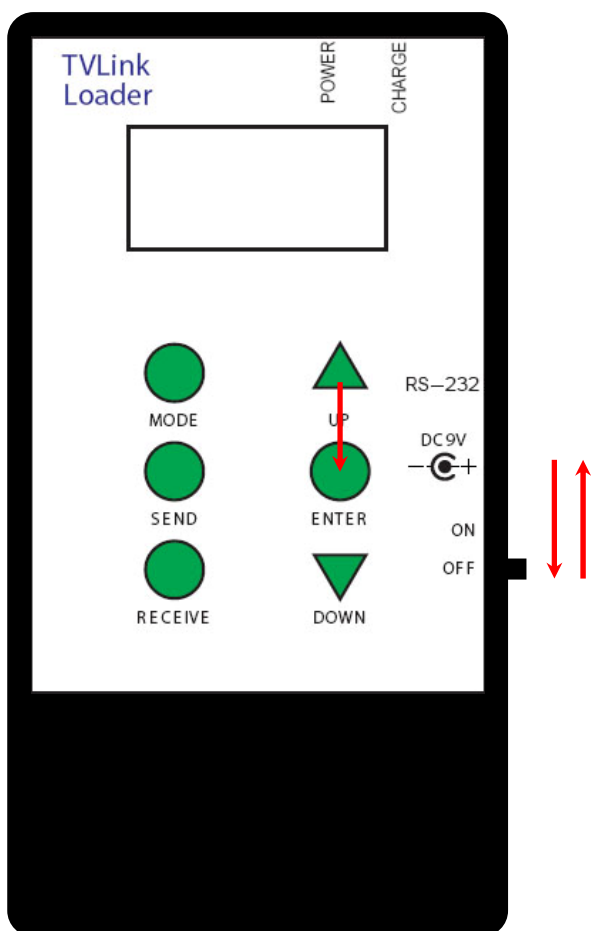
Password Substitute

If come to Password Mode

Put out TV Link Loader's power supply. If turn on TV Link Loader's power supply in state that click ENTER button, is entered by Password Mode.

If change Password

If click Up button in Password Mode, can change TV Link Loader's Password if develop into Password of TV convertibly and click Down button. If click selecting, can change number using Up, Down button. Select Password number that want and move by next time number through ENTER button. If click ENTER button in last number, Password is changed. Do 'Confirm' TV Password's case and transmit infrared rays data by TV, and store justly without Confirm case of TV Link Loader Password alteration.



Up. TLL
Dn. TV

Password
Mode In

PassWord
0000

Changing
Password

8

Debug Mode

Debug Mode Data Format

R/W	Program Number (2byte)	-	Program Info(2byte)	=	PLL Data (4yte)	,	ACMS Data (10byte)
-----	---------------------------	---	------------------------	---	-----------------------	---	-----------------------

Ex) R63-24=09A8,dc2503251b20

Basic Rule

- Basically, transmit 'Hex code' in 'ASCII' form.
- When is '0x63', '6' and '3' are transmitted in ASCII form.

Instruction

1. Read

A. R(Cr) : Is instruction that read all Eeprom data.

Ex) r(Cr)

R00-24=09A8,2503251b20

⋮

R63-24=09A8,2503251b20

(00 ~ 99 to 00 ~ 63 by Hex indication)

A. rxxp ,rxp : x,xx = 0~63 Input address in Hex type.

Ex) r63(Cr)

R63-24=09A8,2503251b20

Ex) r2(Cr)

R02-24=09A8,2503251b20

2. Write

A. w63-24=09A8,2503251b20(Cr)

: Is equal with data format that read except 'W' and 'P'.

Can confirm to read after have used through instruction.

8

Debug Mode

<Caution>

- ✓ UART communication is impossible in Standby mode.
- ✓ Debug mode is not communication with TV but communication with terminal of PC.
- ✓ Standby mode execution condition
 - ✓ Do confirmation possibility as "Standby" on LCD screen.
 - ✓ Enter by Standby mode after 30 seconds since Power On.
 - ✓ If click any button in Stand by mode, get into Ready state.
 - ✓ At this point, is entered by Standby mode by automatic after 20 seconds if do not any use.
 - ✓ Therefore, while put out power supply when was Standby mode turn on or desire to come by debug mode in 20 drafts after click Receive key once.
 - ✓ Desire to observe as is entered in Stand by state if there is no transmission for 1 minute after come by debug mode.

9

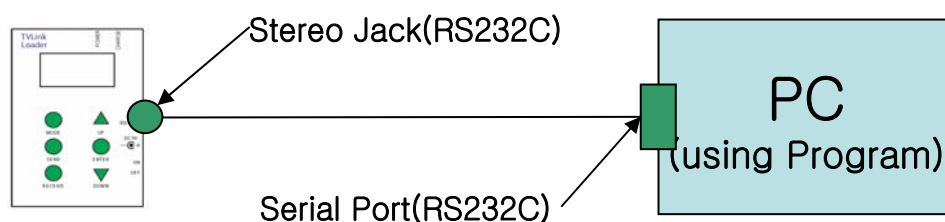
Channel Edit Program

– Functions

1. To view/get Channel-Map data of a TV Link Loader.
2. To change/update Channel-Map data of a TV Link Loader.

– How to Connect

Use a RS232C(PC)-to-stereo (TV Link Loader) Jack for a connection.



– The following screen is Main Screen.

TV-LINK_LOADER CHANNEL EDITOR.

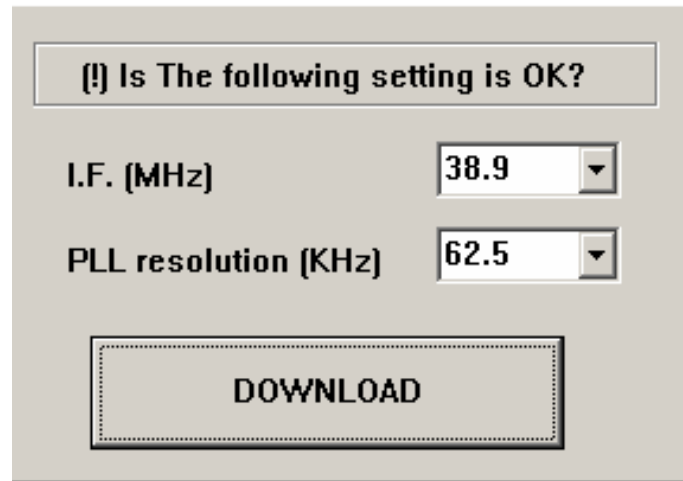
P.No	P.Info	PLL Data	ACMS Data
00	00	0000	
01	00	0000	
02	00	0000	
03	00	0000	
04	00	0000	
05	00	0000	
06	00	0000	
07	00	0000	
08	00	0000	
09	00	0000	
10	00	0000	
11	00	0000	
12	00	0000	
13	00	0000	
14	00	0000	
15	00	0000	
16	00	0000	
17	00	0000	
18	00	0000	
19	00	0000	
20	00	0000	
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22	00	0000	
23	00	0000	
24	00	0000	
25	00	0000	
26	00	0000	
27	00	0000	
28	00	0000	
29	00	0000	
30	00	0000	
31	00	0000	
32	00	0000	
33	00	0000	
34	00	0000	
35	00	0000	
36	00	0000	
37	00	0000	
38	00	0000	
39	00	0000	
40	00	0000	
41	00	0000	

Callouts and Functions:

- Double Click To VIEW/EDIT detailed information:** Points to the table headers.
- RESULT of a last job:** Points to the status bar showing "PROGRAM STARTED."
- On/off a function for changing the below Value:** Points to the "Change Available" checkbox in the Tuner Info section.
- To set COMPORT FOR connection with TVLINK Loader:** Points to the "COM1" dropdown in the [Connection Info] section.
- To UPLOAD DATA TO TV-Link Loader:** Points to the "PC => LOADER" button.
- To GET DATA From TV-Link Loader:** Points to the "LOADER => PC" button.
- IF/PLL resolution/Max Channel value:** Points to the "IF (MHz)" and "PLL res" dropdowns.
- To Save to a File:** Points to the "[SAVE] File" button.
- To Load form a File:** Points to the "[READ] File" button.
- Exit a program.** Points to the "Exit" button.

– Downloading Data from TV Link Loader

1. Make sure that it's connected between PC and TV Link Loader and “Ready-state”.
2. Click [LOADER=>PC] button. The following screen will be opened, and set up with Default value if you want to change a value.



3. If Downloading is failed. Check Comport and a state of a TV Link Loader.

– Updating Data to TV Link Loader

1. Check Connection (PC–TV Link Loader) and Check “Ready-State”.
2. All data in a PC program(Channel Editor) is loaded to a TV Link Loader.

– Upload/Download Problem

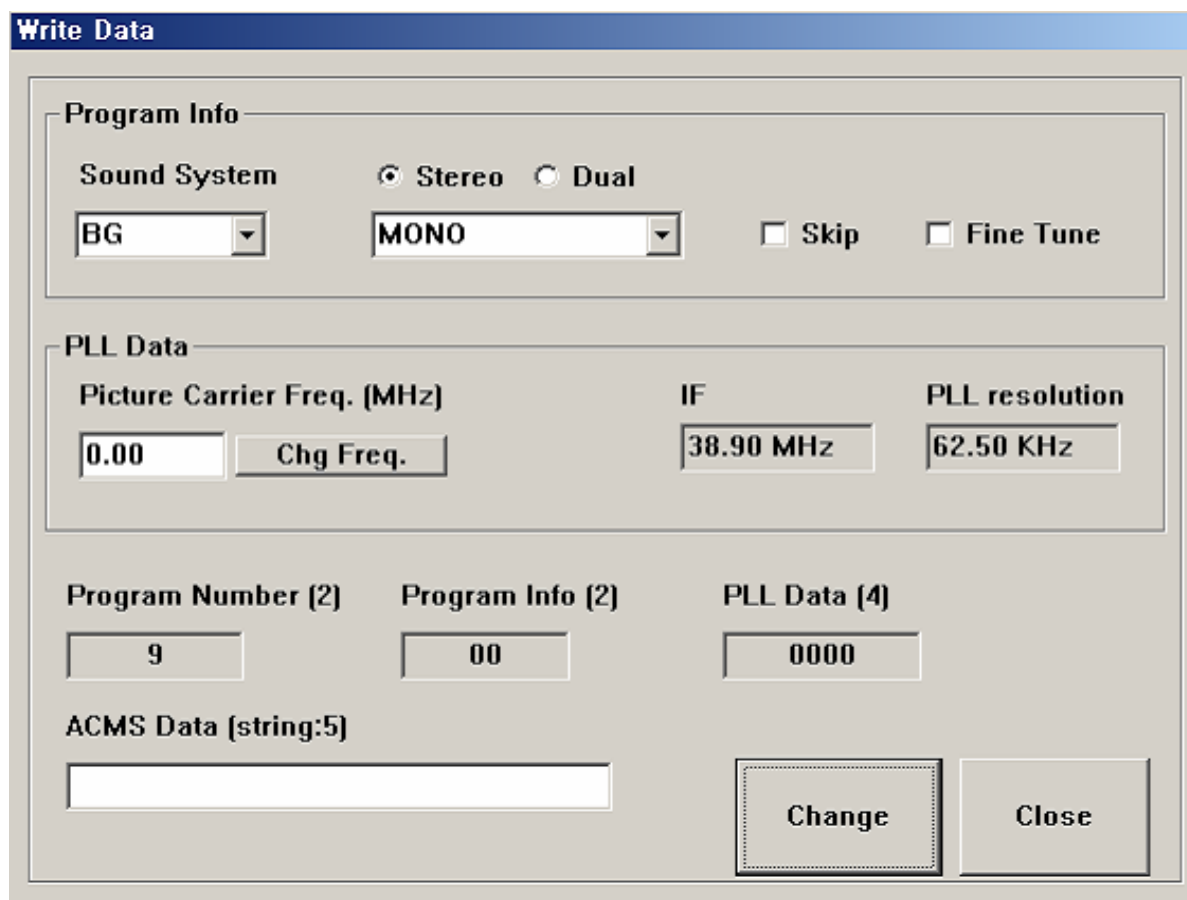
1. The upload/download data is possible when TV Link Loader is “Ready-State”.
2. If upload/download is failed in a “Ready-State”.
Turn off and on TV Link Loader and Retry transferring.

– Save/Read File

1. Click [Save File] button to save data to the file.
2. Click [Read File] button to load data from the file.

– View/Edit Channel Detailed-information

1. You can see following Input screen, when you double-click the [P.no] section.



The 'Write Data' dialog box is divided into three main sections. The top section, 'Program Info', contains a 'Sound System' group with radio buttons for 'Stereo' (selected) and 'Dual', and two dropdown menus for 'BG' and 'MONO'. There are also checkboxes for 'Skip' and 'Fine Tune'. The middle section, 'PLL Data', includes a 'Picture Carrier Freq. (MHz)' field with a value of '0.00' and a 'Chg Freq.' button, an 'IF' field with '38.90 MHz', and a 'PLL resolution' field with '62.50 KHz'. The bottom section contains three input fields: 'Program Number (2)' with '9', 'Program Info (2)' with '00', and 'PLL Data (4)' with '0000'. Below these is an 'ACMS Data (string:5)' text box and two buttons, 'Change' and 'Close'.

Program Info		
Sound System	☒ Stereo ☐ Dual	
BG	MONO	☐ Skip ☐ Fine Tune

PLL Data		
Picture Carrier Freq. (MHz)	IF	PLL resolution
0.00 [Chg Freq.]	38.90 MHz	62.50 KHz

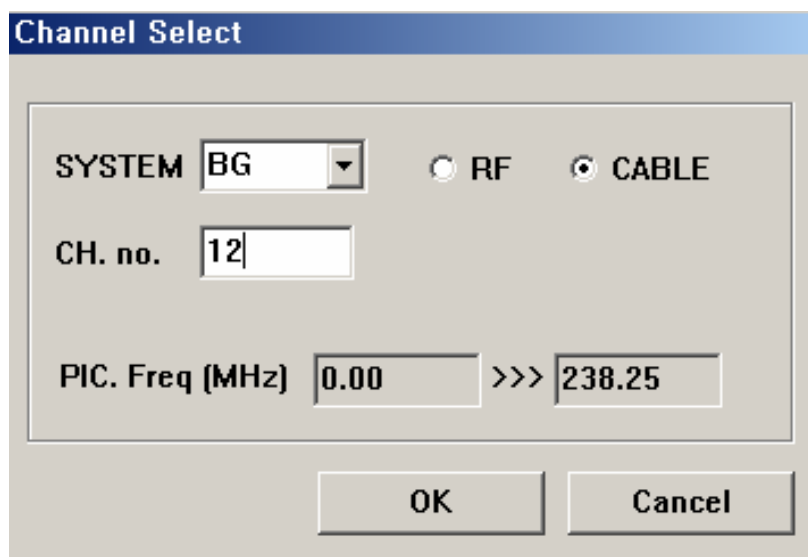
Program Number (2)	Program Info (2)	PLL Data (4)
9	00	0000

ACMS Data (string:5)

[Change] [Close]

2. You can edit [Picture Carrier Value] in Editor box or the following [Channel Select Box].

3. [Channel Select Box] will be opened When You click the [Chg Freq.] Button.



The 'Channel Select' dialog box contains three input fields: 'SYSTEM' with a dropdown menu set to 'BG', 'CH. no.' with a text box containing '12', and 'PIC. Freq (MHz)' with a text box containing '0.00' and a button '>>>>' next to a text box containing '238.25'. There are also radio buttons for 'RF' and 'CABLE' (selected). At the bottom are 'OK' and 'Cancel' buttons.

SYSTEM	CH. no.	PIC. Freq (MHz)	>>>
BG	12	0.00	238.25

[OK] [Cancel]

4. The range of Channel Number is 1 ~ 100.

<Specification>

✓ Power

- ✓ Adapter Input : AC230V~50Hz(for EU)
AC120V~60Hz(for US)
- ✓ Adapter Output : DC9V, 300mA
- ✓ Battery : DC1.2, 400mA (2/3AAA) * 5EA

✓ Use environment condition : 0 ~ 40°C, 10 ~ 80%

✓ LCD

- ✓ Panel : 32mm
- ✓ Need Power : DC5V
- ✓ Kind : 8 * 2 Character

✓ External form size : 65W * 22H * 120D (mm)

Construction



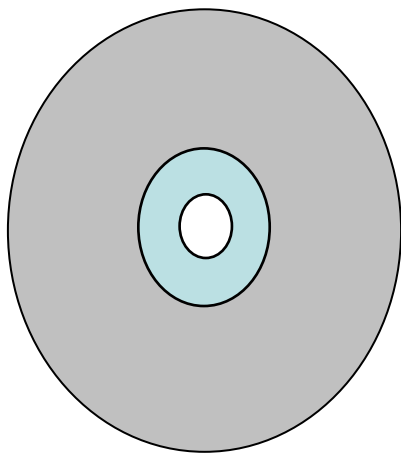
< TV Link Loader >



< DC 9V Adapter (For EU)>



< DC 9V Adapter (For US)>



< Program CD >



TV Link Loader
User's Manual

TV Link Loader
User's Manual



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< RS232toRJ12 Cable >