

Labgear

LCOM1

Combo HD Satellite & Terrestrial Receiver

User Guide



General Safety

- This product is for indoor use only, do not expose to rain, moisture, very high and low temperatures, strong magnetic fields and dusty environments
- Disconnect power to the units before cleaning. Do not use abrasives or solvents to clean the surface of the unit, wipe with a clean soft cloth
- Do not disassemble any of the units in this kit they contain no user serviceable parts. Refer servicing to qualified personnel only
- This device should be operated using only the AC/DC adaptor supplied with it. Unplug the adaptor from the mains if the unit is not going to be used for a while
- Install the units in locations with adequate ventilation.
- This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Advice on Recording USB Media

The LCOM1 supports recording and playback on external hard disk drives (HDDs) and flash memories (Pen drives). In all instances, the correct operation of the recording function depends on the type of memory connected. Please read the following advice and limitations.

1. All USB memory media connected must support the USB 2.0 standard.
To ensure stable recording and playback, always use high speed drives recommended for recording HD video. Slower hard drives and flash memory sticks may not function properly, and have problems with recording (image jitters), or just not function at all.
2. Drives must be formatted with one basic NTFS or FAT32 partition to function properly (we recommend using the NTFS format). If you do not have such a format, prepare the disk on your computer before connecting it to the receiver.
3. Highly fragmented or used memories may also not operate smoothly or correctly.
4. External hard disk drives should be connected to a suitable power supply, since the built-in USB ports are unable to provide sufficient power.

Warning

1. Do not disconnect the USB device from the receiver during recording or playback. As this can cause damage to the receiver and/or memory, and to the recorded data.
2. To prevent the risk of an electric shock and permanent damage to the receiver!
Do not touch the working device (and in particular the USB connector) with wet hands.

Features

- Receives High-Definition satellite and terrestrial TV
- PAL upscaling up to 720p or 1080p resolution
- Supports teletext & multilingual subtitles
- Simultaneously watch Terrestrial while recording Satellite content or watch Satellite while recording Terrestrial
- Full compliance with DVB-S/S2X and DVB-T/T2 digital TV reception standards
- Support for HDTV/SDTV: MPEG-2/MPEG-4/H.265 decoding
- Support for 480i/480p/576i/576p/720p/1080i/1080p
- User friendly auto search function
- Storage capacity for storing up to 2000 transponders and 4000 channels
- Input frequency: Terrestrial 470 – 860MHz, Satellite 950MHz - 2150MHz
- Reception for SCPC/MCPC.C/Kuband LNBs.
- Supports DiSEqC 1.0, 1.1, 1.2 USALS motorised dish systems
- 7 Day EPG for terrestrial channels and a "now and next" for satellite channels
- Favourite channel store, edit and parental lock functions
- Adjustable aspect ratio 4:3 Pan & Scan or 16:9 Widescreen modes
- Twin USB 2.0 ports for: PVR and Timeshift recordings from satellite and terrestrial inputs / Multimedia video, audio, image file playback & storage / Database backup

Box contents

1x Combo Receiver
1x Remote Control

1x 12V=1A Power Adaptor
2x AAA Batteries

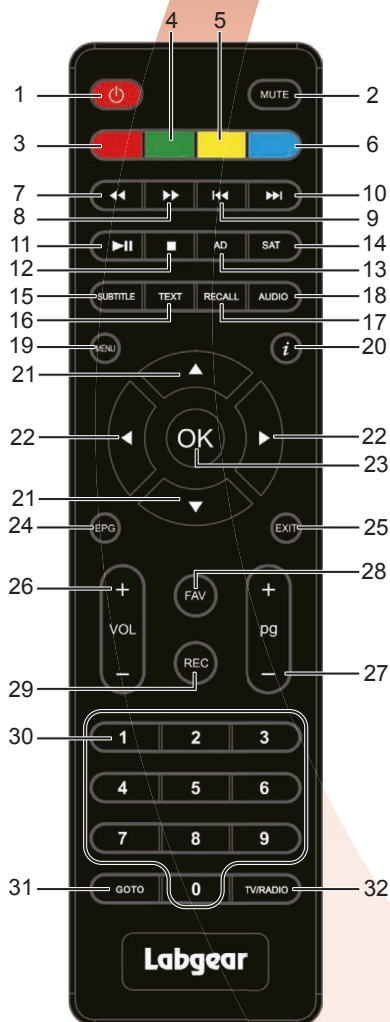
1x 1m HDMI Cable
1x User Guide

Basic Operations

The main menu simplifies operation of the receiver. All of the receiver functions are displayed in the menus and can be controlled by using of a small number of keys, and certain keys on the remote control allow direct access to specific functions.

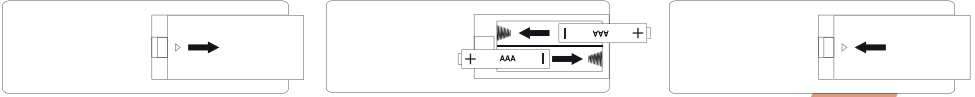
Remote Control

1	POWER : Standby or power on from standby
2	MUTE : Mute or Restore Audio Output
3	RED : Red function key
4	GREEN : Green function key
5	YELLOW : Yellow function key
6	BLUE : Blue function key
7	◀◀ : Searches backwards during media play
8	▶▶ : Searches forwards during media play
9	◀◀ (PREV) : Skips to the previous media track
10	▶▶ (NEXT) : Skips to the next media track
11	⏸ : Play / Pause
12	■ (STOP) : Stops media play
13	AD : Switch on voice-over function
14	SAT : Enter or Exit satellite mode
15	SUBTITLE : Selects Subtitle Language
16	TEXT : Displays Teletext information
17	RECALL : Switch between the last two viewed channels
18	AUDIO : Selects an Audio Language or Audio mode
19	MENU : Turns on the Main menu
20	i (INFO) : Displays additional channel information
21	▲/▼ : Cursor UP/DOWN, change channels
22	◀/▶ : RIGHT/LEFT: Navigates through menus/VOL +/VOL-
23	OK : Confirms entry or selection/Displays channel list
24	EPG : (Electronic programs Guide) turns guide ON/OFF
25	EXIT : Exit the current menu or returns to previous menu
26	VOL+/- : Increases or decreases the volume
27	Pg+/- : Page Up / Down
28	FAV : Turns on the Favourite menu
29	REC : Press to record selected programme
30	0 - 9 : Numbers
31	GOTO : Press to switch between Satellite / TP mode
32	TV/RADIO : Switch between TV and Radio function

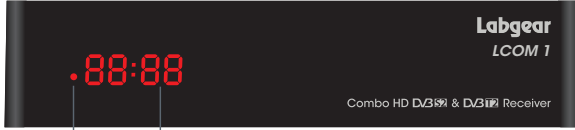


Installing Batteries in the Remote Control

Insert the batteries supplied (2x AAA Alkaline) into the remote taking care to observe the polarity indicated in the battery compartment. When replacing batteries do not mix old and new batteries, or batteries of different types.

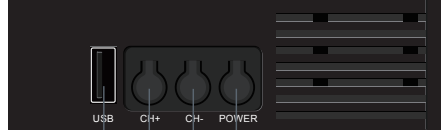


Front Panel



Remote Control Sensor LED Display

Side Panel



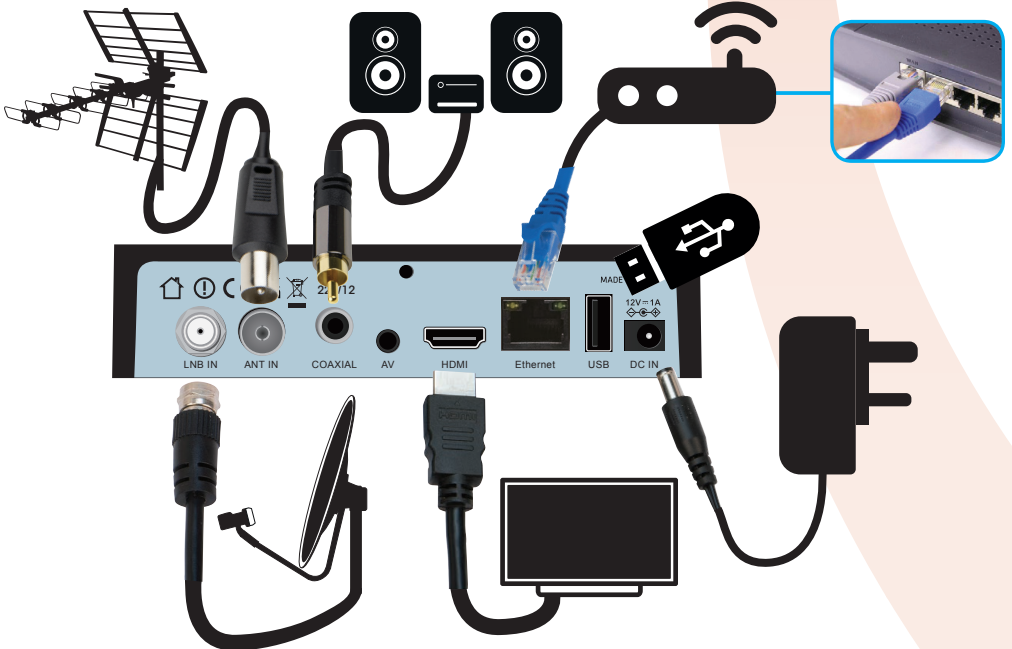
USB 2.0 Ports for Flash Media, PVR, Timeshift, Media Player, Wi-Fi Dongle connections
 CH+ CH- Standby/Down ON

Back Panel



Satellite LNB IN TV Aerial IN Audio Out (Analog) AV Out (Digital) HD AV Out (Digital) LAN/Network Connection Power Adaptor Connection
 USB 2.0 Port for Flash Media, PVR, Timeshift, Media Player, Wi-Fi Dongle connections

Connections



Connecting a Satellite Dish LNB to the LCOM1

For satellite signal reception you will need a satellite dish fitted with a suitable LNB connected to the "LNB IN" port on the LCOM1 back panel. The satellite dish needs to be positioned in line of sight of the satellite(s) from which you wish to receive signals. Make sure there are no obstructions in the way. Accurate positioning of the dish and LNB is critical for reception and it is recommended that you contact an experienced installer if you need any help.

Satellite Dish Alignment Settings

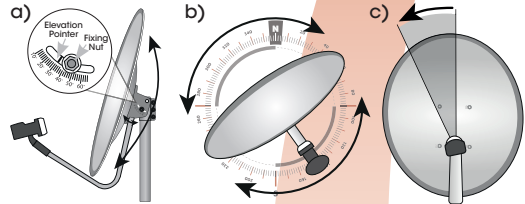
There are a number of online satellite finder apps for smartphones which can be used to help align your dish. Finder apps vary so we suggest you use them in conjunction with a satellite meter and a compass. You can also obtain accurate settings from the website: www.dishpointer.com. Enter your location and select a satellite the website will give the precise settings that you will require to align to the satellite.

Labgear stock a range of TV and Satellite signal finders and meters, for more information please visit <https://labgear.co.uk/product-category/meters-testers/tv-sat-signal-meters>

Aligning the Satellite Dish

Three settings are required. Initially use the settings you have obtained using one of the methods described in the paragraph above :

- Dish elevation** - usually close to vertical
- Azimuth angle** - this is the compass bearing required and varies depending on your location in the country.
- Polarisation (Skew) angle** - this is the angle at which the LNB needs to be rotated in its mount.



Motorised Satellite Dish systems

The LCOM1 is fully compatible with USALS positioners which should be installed between the mast and the dish and connected to the "LNB IN" port. The USALS function considerably simplifies the setup. Once your local geographical coordinates are entered the positioner turns the dish to align automatically with the selected satellite. When the first satellite signal is locked on, you should fine tune the antenna's elevation and azimuth settings in order to optimize signal reception.

Once you have tuned in the first satellite, other satellite positions will be remembered automatically as long as the values have been entered accurately.

The LCOM1 is also compatible with DiSEqC 1.2 positioners.

For additional information on positioners please check the manufacturer's instruction manual and website support.

Connecting a terrestrial aerial

For DVB-T/T2 terrestrial digital TV reception use a suitable outdoor wideband aerial. Make sure the aerial is in good condition and suitable for reception in your area. You can use the postcode checker on the Wolfbane website <http://www.wolfbane.net/cgi-bin/tvd.exe?> to check suitability and also to give you a bearing for your local transmitter.

For best reception ensure that:

- The coaxial lead from the aerial uses good quality cable and is positioned away from radio transmitting devices, metal objects and heat sources.
- The antenna is installed at as high an elevation as practical pointed in the direction of the nearest TV broadcast transmitter
- Check your neighbour's aerial or look online for information on local transmitter locations and bearings. You can also use a signal strength meter (not included) to align your aerial for optimum reception.
- Try and ensure there are no obstructions in the line of sight between the antenna and transmitter.

Only use an indoor aerial if you are close to a transmitter and receive a strong signal.

Connect the selected aerial to the "ANT IN" port on the back panel of the LCOM1.

Video and Audio output

To connect a TV or other display equipment use an HDMI cable connected to the HDMI port for high definition video and audio output. You can make a separate digital audio connection to digital Hi-Fi systems via the coaxial port.

Connecting external memory

The receiver supports all types of hard disk drives and USB flash drives. See the “Advice on Recording USB Media” on page 2. Connection can be made via either of the USB ports on the back or the side of the receiver. Connected drives can be used for recording satellite and TV programmes and for playback of these recordings as well as playback of a wide range of video, music and image files stored on USB media,

Network connection

The RJ45 port allows you to connect the receiver to a local network using a patch lead connected to a router. Alternatively network connections can be made using a USB Wi-Fi dongle.

Navigating menus

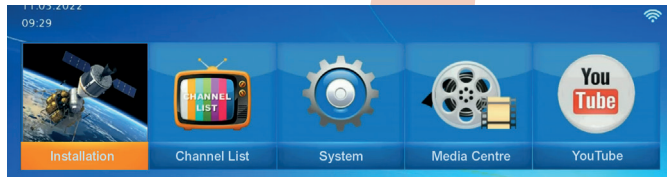
Some keys on the remote allow direct access to functions of the receiver. Such as MENU and OK. Some keys are multi-functional and their operation depends on the type of device selected by the user. See below some of the device functions available through the user menu.

1. The ▲/▼ up/down arrow keys on remote move the cursor up and down the menu.
2. The ◀▶ left/right arrow keys on the remote are move the cursor left and right, or to go to submenus.
3. The OK key is used to enter submenus.
4. The EXIT key is used to exit menus or functions.
5. In a submenu, press the OK key to confirm a selection; a green background indicates an active function.

Main menu

Press the MENU key display the main menu and access the following menus:

1. Installation
2. Channel List
3. System
4. Media Centre
5. YouTube

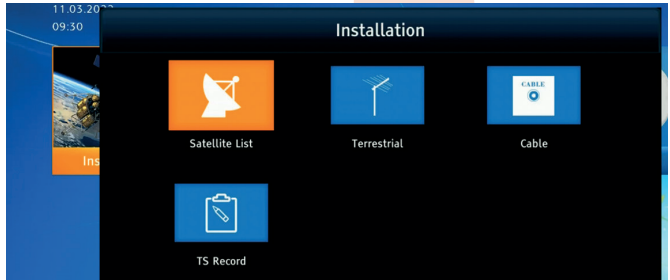


Installation

This menu sets satellite/terrestrial/cable search parameters and to search channels for them.

Satellite list

This menu sets satellite/terrestrial/cable search parameters and allows you to search for channels.



Satellite

Use the ▲/▼ keys to move up and down the list and press OK to select a satellite(s). Selected satellites will be marked with a tick. If you have a standard static satellite dish it will usually just be a single satellite.

1. Then press the blue key to scan. If one satellite is marked for scan, it will be a single satellite search, if multiple satellites are marked, it will be a multi satellite search.
2. Press green key to edit a satellite
3. Press yellow key to delete a satellite.
4. Press the red key to add a satellite not listed.



Satellite search

In this menu you can search channels from one selected satellite.

1. Press ▲/▼ key to select FTA (Free to Air) only, ◀/▶ key to select Yes/No.
2. Press ▲/▼ key to select Scan Channel, ◀/▶ key to select TV + Radio/TV Channel/ Radio Channel.
3. Press ▲/▼ key to select Search Mode, ◀/▶ key to select Blind Scan (**recommended**)/Full Scan.
4. Press ▲/▼ key to select Search, and press OK key to start.

1. Blind Scan is an automatic search for all available satellite frequencies, which are then scanned in turn for channels.

2. Full Scan – searches according to the receivers pre-loaded TP list. Frequency by frequency.

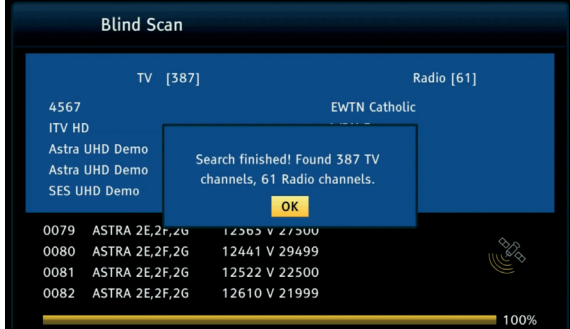
For satellite systems with motorised dishes you can search multiple satellites.

When the Blind Scan is complete press the OK key to save the list of channels found.

The screen will show the first channel in the list.

Press the OK key again to see the list of channels found.

The full list of channels found can be viewed and edited in the TV Channel List menu, see page 9.



Terrestrial channel search

Open the Installation menu and select the Terrestrial option and press OK to open the Channel Search menu.

Press ▲/▼ key to select Auto Search (recommended) press OK key to start.

1. Use ▲/▼ and ◀/▶ keys to select your country.
2. Use ▲/▼ and ◀/▶ keys to select FTA (Free to Air Channels) Only, On option.
3. Press ▲/▼ key to select Search, and press OK key to start.

Auto Search - Recommended

Searches all available terrestrial channels automatically - the receiver searches frequency by frequency according to the search mode saved for the Country you have selected.

Manual Search

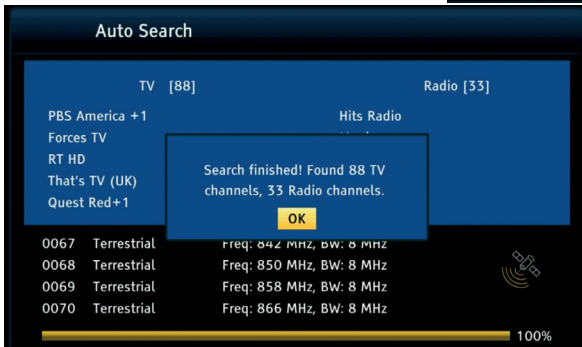
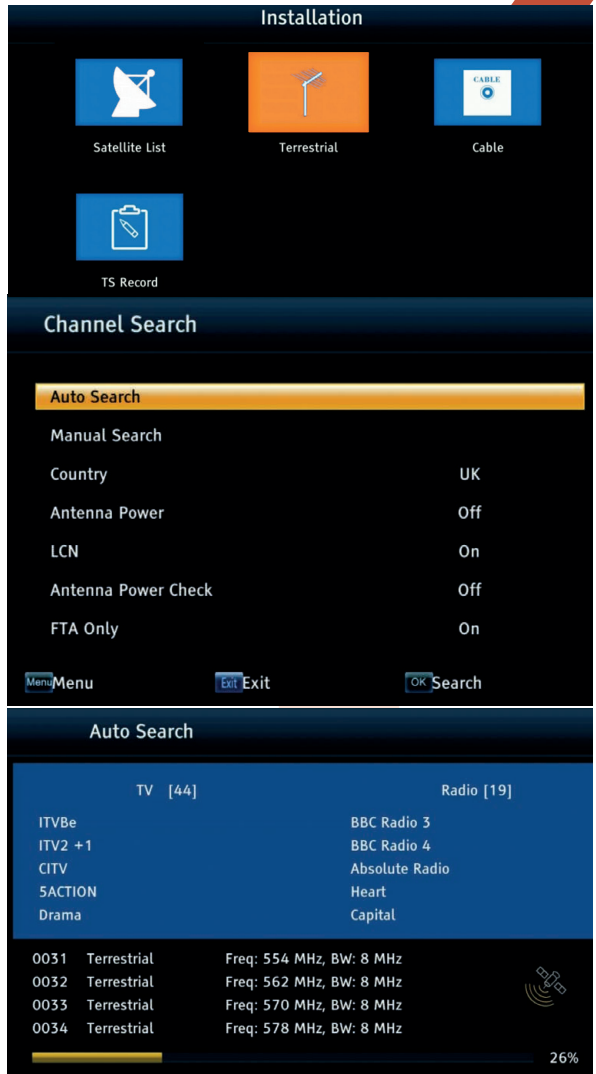
You can search for channels manually if channels that should be available locally do not appear in the terrestrial channel list - the receiver searches the channel frequency choose in the manual search menu.

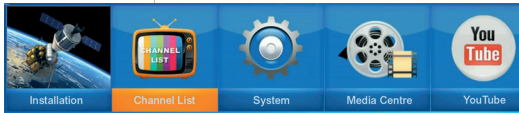
When the Auto Search is complete press the OK key to save the list of channels found.

The screen will show the first channel in the list.

Press the OK key again to see the list of channels found.

The full list of channels found can be viewed and edited in the TV Channel List.





Channel List

In the Main menu select Channel List & press OK. Press OK again to enter the TV Channel List submenu.

TV Channel List

Press the SAT key ▲/▼ key to scroll to < All > press OK and select from All, a satellite list (by name) / Terrestrial channel list and all the Favourite categories with saved channels.

Editing the list of TV channels.

Use the ▲/▼ keys to go to a channel then press the FAV key or one of the colour keys on the remote control to mark the channel.

1- FAV: Highlight a TV channel press the **FAV** key to open the Favourites list, use the ▲/▼ keys to select a category and press OK twice. Press EXIT to save. Favourite selections are marked with a heart symbol.

2- LOCK: Press the **RED** key to lock a selected channel. The LOCK option is password protected, enter the default password "0000". Press EXIT to save. Locked selections are marked with a padlock symbol.

3- SKIP: Press the **GREEN** key to select a TV channel you want to Skip it will be marked with a return arrow symbol. Exit to save selections.

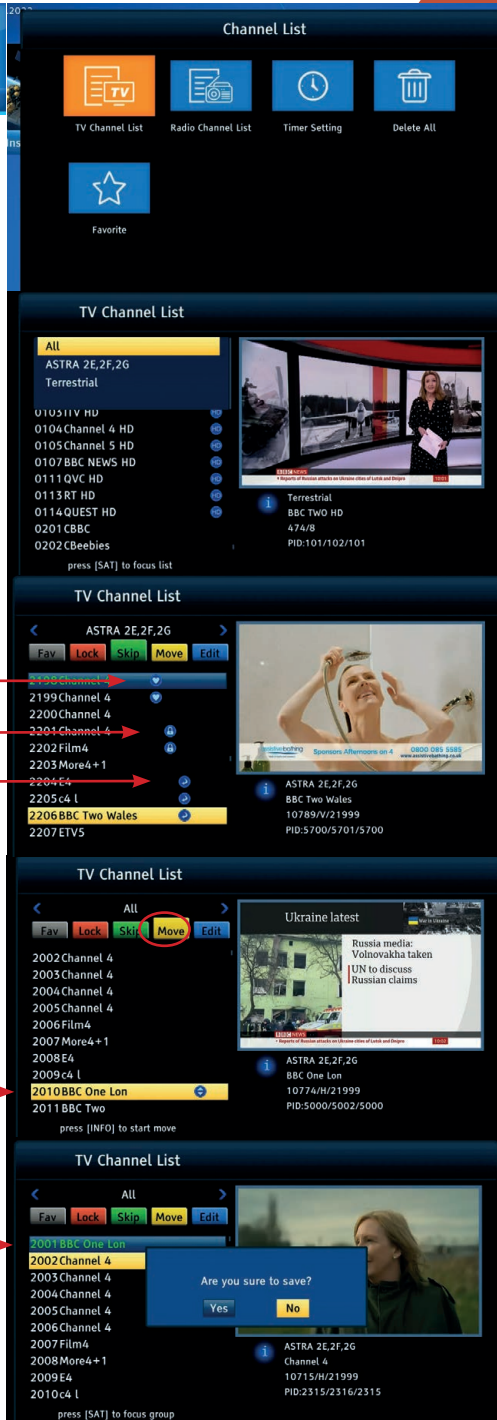
4- MOVE: Press the **YELLOW** key, use the ▲/▼ keys to move the highlight bar to the TV channel(s) you want to move and press OK to mark, then use the ▲/▼ keys to move the highlight bar to the position you want move the channel(s) to and press the INFO key. Finally, press the EXIT key twice to exit the TV channel list menu and save the new list order.

5- Edit (Sort/Edit Name/Delete):

To SORT press the **BLUE** key first then press the **RED** key to see sort options select the option you want and press OK, press the EXIT key to save new list order.

To EDIT a selected channel name, press the **BLUE** key, now then the **GREEN** key, follow the on screen instructions to rename the channel, press the **YELLOW** key then the EXIT key to save.

To DELETE a channel, press the **BLUE** key, use the ▲/▼ keys to select a channel, press the **BLUE** key again then press the EXIT key to complete the deletion and save the change.

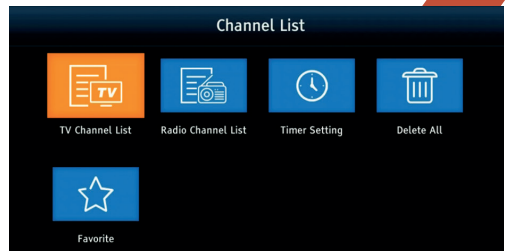
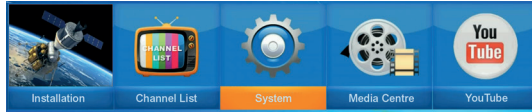


Radio Channel List

In the Channel List menu use the ◀▶ keys then press the OK key to open the Radio Channel List. To EDIT use the same actions as used with the TV Channel List.

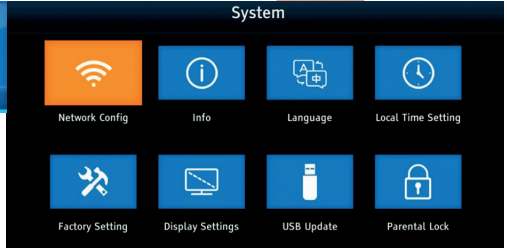
Favourite Menu

The Favourite function lets you recall by genre any channels you have saved to categories in the TV Channel List: Movies, News, Music, Sports, Childrens, Education, Social and Culture. In the Favourite menu you can edit the category titles.



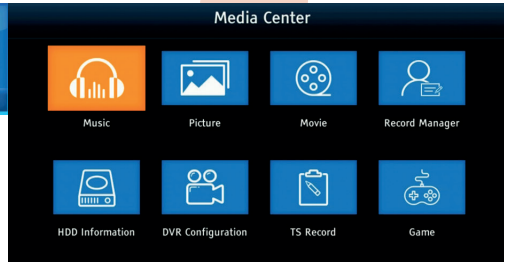
System Menu

In the System menu you can make network configurations (once you are connected to a network). Set the OS language, local time and a parental lock. Set the optimum output resolution to suit your display. Control receiver software updates via USB and if necessary perform a factory reset.



Media Centre Menu

The Media Centre menu lets you playback media files stored on USB Hard Drives and USB Flash/Pen Drives attached to the USB ports on the side and back of the LCOM1 receiver.

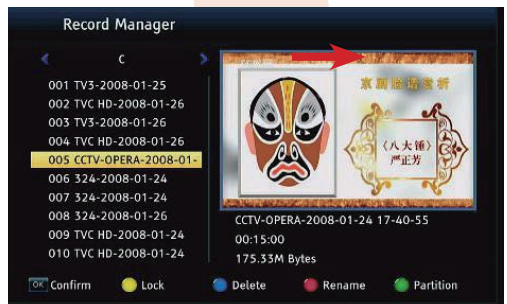


The **MUSIC** submenu lets you playback stored music files in MP3 and other popular formats.

The **PICTURE** submenu lets you playback stored photos and images stored in jpeg and bmp format files in MP3 and other popular formats.

The **MOVIE** submenu lets you playback stored avi, mkv, mpeg, ts, mp4 etc. format videos/movies. Please Note: Not all files with these extensions are playable - some files may have unsupported codecs or settings.

The **RECORD MANAGER** submenu lists the TV programmes you record. The list is fully editable and recordings can be locked or deleted.



The **HDD INFORMATION** submenu displays information about the Hard Drives connected to the USB ports.

The **DVR CONFIGURATION** submenu lets you configure a partition for Timeshift recording.

The **TS RECORD** submenu lets you set the Transponder to make Transport Stream recordings. **Please Note:** This is only available when a hard disk or USB disk is connected to the receiver.



The **GAME** submenu lets you play Othello or Tetris.

Important Remote Control Functions

Live Programme Recording

This function is only available when a suitable Hard Drive is connected to one of the USB ports.

1. Select a channel and press the **REC** button to record the channel selected.
2. The information bar indicates which program you are recording and viewing.
4. In order to terminate recording, press the **STOP** button. Keep in mind that during recording, the information bar may be hidden by means of the **EXIT** button. In order to restore the bar, press **REC** again.

Twin Tuner

The receiver has separate tuners for the reception of satellite (DVB-S/S2) and terrestrial (DVB-T/T2) signals.

This allows you to watch a satellite channel broadcast whilst recording a terrestrial channel and vice versa - watch a terrestrial channel while recording a satellite channel.

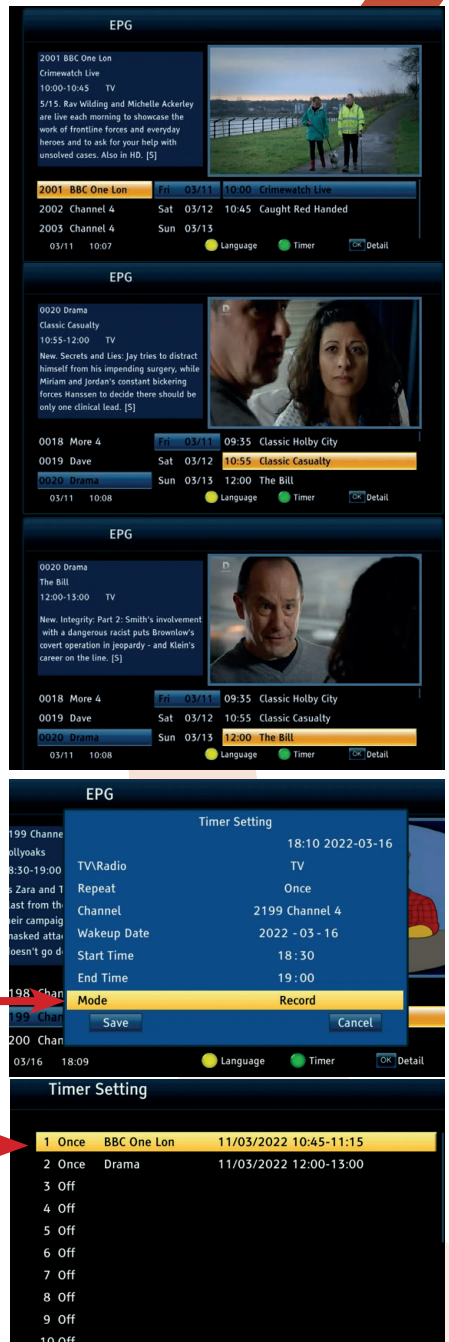
EPG - Electronic Programme Guide

The receiver features a 7 Day EPG for terrestrial channels and a "now and next" EPG for satellite channels. Press the EPG key to display the guide.

Use the **▲/▼** and **◀▶** keys to view programmes in the EPG. Using the **Timer** option you can schedule future viewings and recordings of your favourite programmes automatically in advance. To enter the **Timer Setting** submenu press the **GREEN** key on the remote. All the programme timing details are shown scroll down to highlight **Mode** and press the **◀▶** keys to select the "View" or "Record" option. To record you will need to ensure a suitable USB drive is connected.

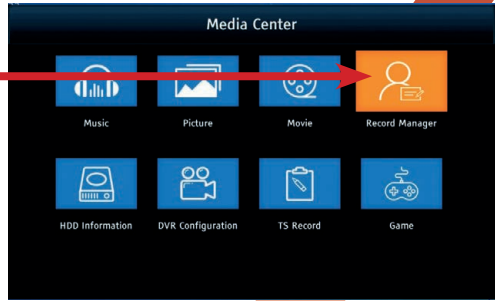
Timer Setting - List of Recordings

You can review all the recordings scheduled by opening the Channel List menu and then opening the **Timer Setting** menu which lists the scheduled recordings. To see the details or to edit or cancel a recording highlight the recording and press **OK** to open the **Timer Setting** submenu.



Playing Back Recordings

To playback recordings open the Record Manager submenu in the Media Centre menu available recordings are listed.



Editing Recordings

In the Record Manager use the ▲/▼ keys to select a recording press OK to play. You can also Lock, Delete and Rename a recording.

If your hard drive has more than one partition you can also change partition.



PAUSE - Timeshift Recording

If your viewing is interrupted or you need to stop viewing but don't want to miss the action:

1. Press PAUSE ►||.
2. The time elapsed bar will now be visible on the screen and the programme will freeze.
3. Press the PLAY ►||| button in order to resume viewing from the pause point. The receiver will continue to record the same channel while you watch the previously broadcast program. During timeshift playback, press the EXIT button to hide the information bar. Press the PAUSE ►|||/i INFO key again to restore the bar.

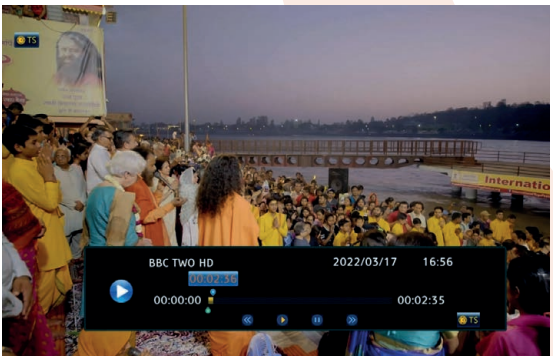
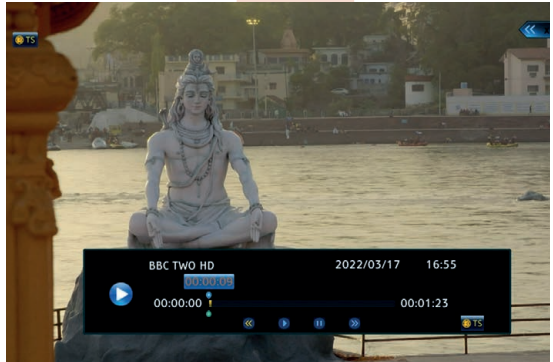
To scroll through currently stored timeshift recordings:

1. Press PAUSE ►||| to switch on timeshift mode.
2. Use the Fast forward and Rewind keys to navigate through the timeshift buffer, press PLAY to view.
4. Use the ◀/▶ keys to move the playback start marker position and press OK to play.

To switch off the Timeshift mode press the STOP or EXIT key.

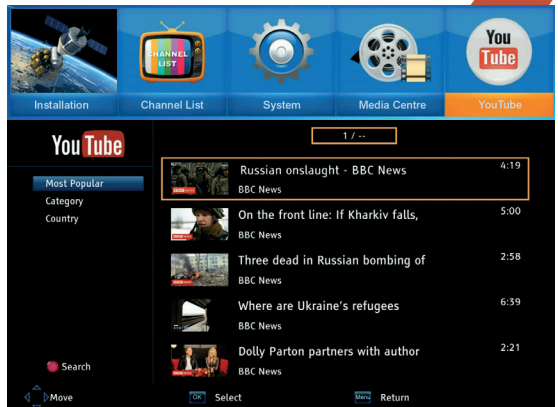
Please Note: if a hard drive is not connected to the USB port or timeshift is not enabled, pressing the PAUSE ►||| key, will only temporarily pause the image and there will be no recording.

Please Note: the DVR CONFIGURATION submenu lets you configure a partition for Timeshift recording on a suitable drive when it is connected to one of the USB sockets (see page 10).



YouTube Video Playback

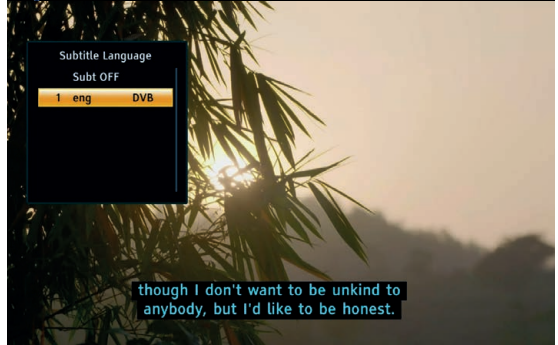
Providing you have connected the receiver to a network which is connected to the internet you can open YouTube in the main menu and playback videos.



Subtitles and Audio Description

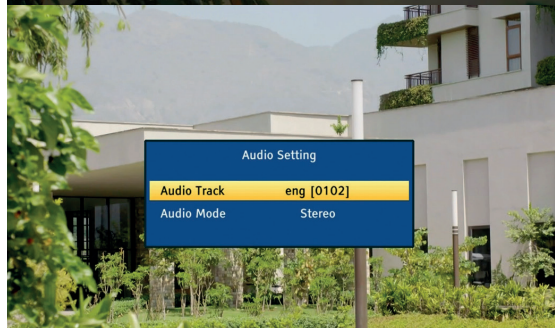
Press the **SUBTITLES** key on the remote to switch on subtitles if they are supported for the channel you are playing.

Similarly press the **AD** key to switch the audio description if it is available



Audio Track Output

Press the **AUDIO** key on the remote to see if a separate digital audio track is broadcast for the channel playing. You can select the track and output to a Hi-Fi amplifier via the digital audio coaxial port on the receiver.



Info Key

Press the **i** (INFO) key once to call up the main information bar showing current channel and now and next programme info. Press twice, to display more detailed information about the channel, satellite and transponder.



Specifications

SECTION	ITEM	DESCRIPTION
Processor	CPU	Montage M88CS8051B-T00D
	Flash Memory	8MB
	DDR2	1GB
DVB-S/S2 Tuner	Input Frequency:	950 ~ 2150MHz
	Input level:	-80 ~ -20dBm
	Input impedance	75 Ω
DVB-T/T2 Tuner	VHF:	174 ~ 230MHz,
	UHF:	470 ~ 862MHz
	RF input Signal Level:	-78 ~ -5dBm
Channel Decoding	Demodulation	QPSK, BPSK, 16PSK
	FEC mode	DVB-S 1/2, 2/3, 3/4, 5/6, 7/8 DVBS2X: 1/23/5.2/3,3/4, 4/5, 5/6, 8/9, 9/10(QPSK)3/5, 2/3, 3/4, 5/6, 8/9, 9/10 (8PSK)
	Symbol Rate	DVB-S: 2.0 ~ 45 MS/s
	Demodulation	QPSK, 8PSK, DVB-S2:1030Mb/s(QPSK),10-31Mb/s (8PSK)
Demultiplexer	Standard	ISO/IEC 13818-1
	Input Max. Bit Stream Rate	100Mbps (Serial) / 12.5Mbps (Parallel)
Video Decoding	Standard	ISO/IEC 13818-2, MPEG-2 MP@ML, MPEG-4, AVC (MP L4.1)
	Aspect Ratio	4:3, 16:9
	Video Format	PAL-B / NTSC-M / PAL-N / PAL-M
	Video Resolution	1080p, 1080i, 720p, 480p / 576p, 480i / 576i SD, compatible
Audio Decoding	Standard	ISO/IEC 13818-3
	Decoding	MPEG-1 Layer I and II, MPEG-2, MPEG-4 AAC
	Output Mode	LPCM, RAW
	Sampling Frequency	32, 44.1, 48KHz
	Volume Level	24 Levels
AV Output	Video de emphasis	CCIR REC.405-1, 625LINES
	Video bandwidth	5.5MHz
	Video output impedance	75Ω
	Video output level	1.0Vp-p
	Audio output	Stereo
	Audio output frequency	20Hz ~ 20KHz
	Audio output impedance	Low
	Audio output level	A 1.0Vrms ± 2dB into 10K.
	Panel Interface	• 1x Mini AV • 1x HDMI • 1x LNB In • 1x ANT In • 2x USB 2.0 Port • 1x Ethernet • 1x DC-IN • 1x Coaxial
Power	Power input Specification	12V/1A DC In Max. 8W

Disclaimer

Updates to Firmware and/or hardware components are made regularly. Therefore some of the instructions, specifications and pictures in this documentation may differ slightly from your particular situation. All items described in this guide are for illustration purposes only and may not apply to your particular situation. No legal right or entitlements may be obtained from the description made in this manual.

Declaration of Conformity

Hereby, Philex Electronic Ltd. declares that the radio equipment: Labgear LCOM1 Combo HD Satellite & Terrestrial Receiver for reception of satellite and terrestrial signals in domestic premises is in compliance with the Radio Equipment Directive 2014/53/EU.


The full text of the EU declaration of conformity is available at the following internet address:
www.philex.com/doc

Technical Support

If you experience problems using your combo receiver, or require further information please visit our technical support website at:

www.labgear.co.uk/support

Power Supply: ErP/EuP directive No. (EU) 2019 (1782)

Manufacturer Trademark Address	Philex Electronic Ltd. London Road, Bedford, MK42 0NX, UK. Registration No. 339123	
Model identifier	LM-802B-120100L02CE, LM-802B-120100L16CE	
Input voltage	100-240 VAC	
Input AC frequency	50/60Hz	
Output voltage	12.0 V DC	
Output current	1.0 A	
Output power	12 W	
Average active efficiency (230V/50Hz)	84.96%	
Efficiency at low load (10 %) (230V/50Hz)	77.27%	
No-load power consumption (230V/50Hz)	0.09 W	



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Waste electrical and electronic products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority for recycling advice.



Labgear

To see the full range of Satellite and TV reception and distribution accessories ideal for use with the LCOM1 visit: www.labgear.co.uk

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