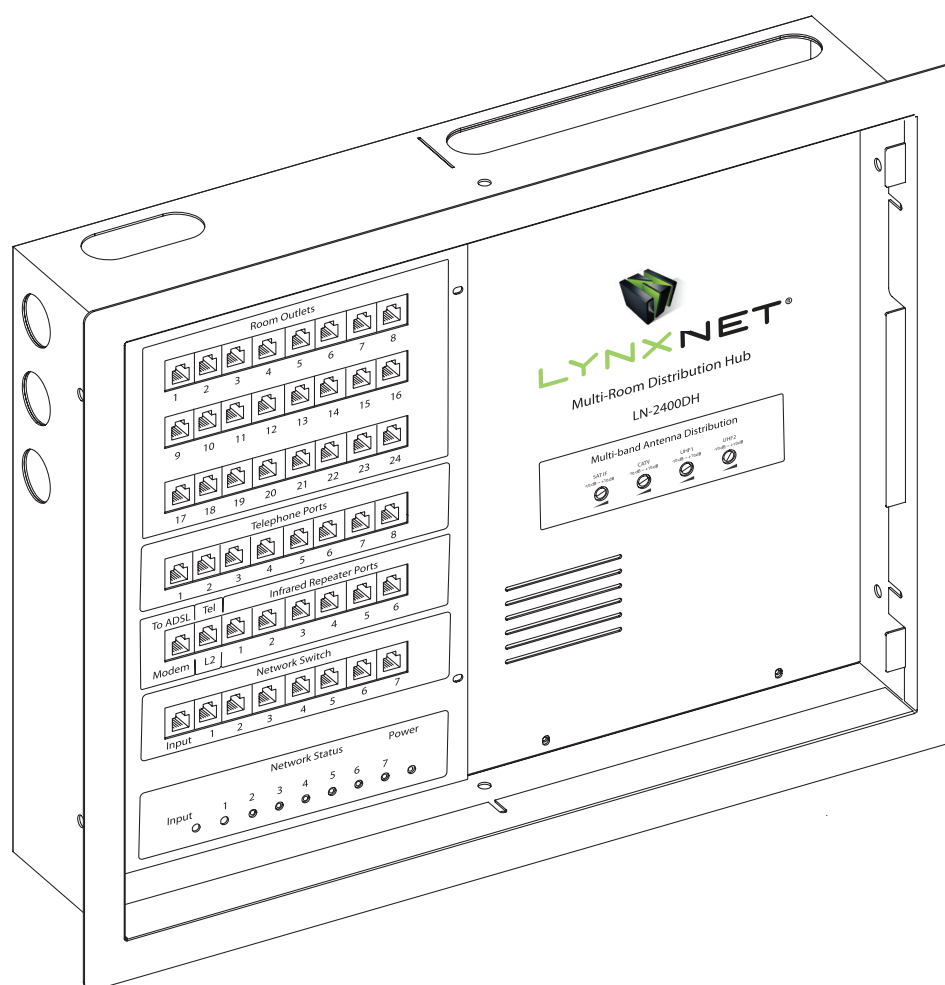


# INSTALLATION MANUAL

## LN-2400DH (US)

Multi-Room Distribution Hub



100215



## NOTES

*This device complies with Part 15 of FCC Rules. operation is subject to the following two conditions:*

- (1) This device may not cause harmful interference*
- (2) this device must accept any interference received, including interference that may cause undersired operation.*

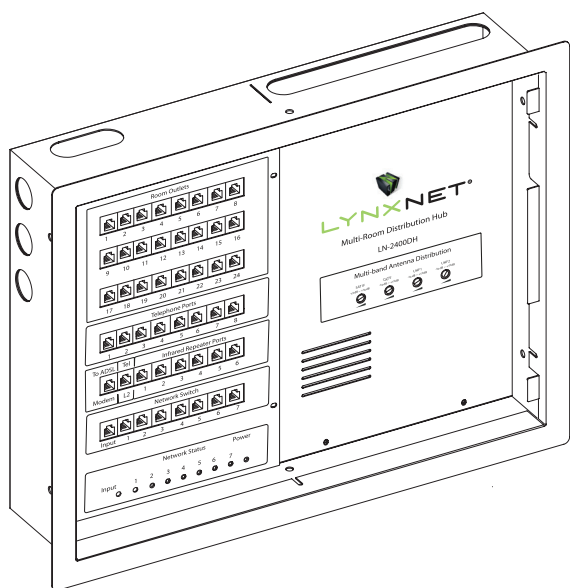
*Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.*

*This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates 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 cause harmful interference to radio or television reception, which can be determined by turning the equipemnt 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*
- Consult the dealer or an experienced radio/TV technician for help.*



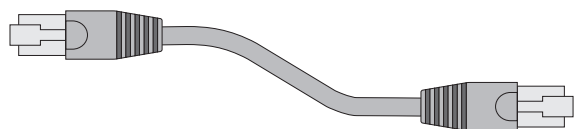
# KIT CONTENTS



- Multi-Room Distribution Hub  
Qty: 1 Pc  
Part Code: LN-2400DH (US)



- Computer Network Patch Cables  
Qty: 8 Pcs  
Part Code: LN-CAT6-0.3BL



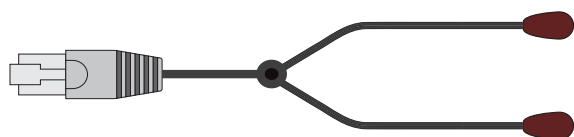
- Telephone Patch Cables  
Qty: 8 Pcs  
Part Code: LN-CAT6-0.3GY



- IR Patch Cables  
Qty: 2 Pcs  
Part Code: LN-CAT6-0.3RD



- IR Target  
Qty: 1 Pc  
Part Code: LN-IRT



- IR Emitter  
Qty: 1 Pc  
Part Code: LN-IRE



# OVERVIEW

## General Description

The LN-2400DH is an "All in One" distribution hub designed to be installed during the construction or renovation of a home or small office.

Installation of the panel will help "Future Proof" your home or office through the flexible distribution of:

- Telephone Outlets
- CATV/UHF Antenna Signals
- Satellite Signals
- Computer Network
- Internet Connections
- Remote Control Repeaters

The system comes completely assembled and configured to minimise installation time and allow for quick, easy and flexible distribution to up to 24 room outlets within your home or office.

Features of this innovative Distribution Hub include:

- Easy Installation & Configuration
- 24 x CAT6 Configurable Room Outlets
- 12 x Antenna Outlets
- 8 x Computer Network Ports
- 8 x Telephone Outlets
- 6 x IR Repeater Ports
- 100/1000 Base Network Hub
- Independent CATV/UHF/SAT Gain
- Satellite Signal to All Antenna Outlets
- Sky/Free-View Distribution
- CATV/UHF/SAT Inputs
- ADSL Modem Port Including Filter
- 18 x CAT6 Patch Leads Included
- 1 x RF Modulator Input (Security Camera's, DVD Players, Set-Top Box)

## Antenna Distribution

Dedicated inputs are provided for CATV, UHF Antennas and Satellite dish.

An onboard amplifier provides individual control of each input giving full flexibility when balancing the system.

Output from the Amplifier provides CATV, UHF, SAT & AV modulated signals to up to 12 room outlets including 2 outlets with return path to allow two way communication.

You will now have complete flexibility of your Set-top box location within the home combined with the balanced sharing of modulated signals.

All outlets are power-pass capable allowing a Set-top box to pass power to the Satellite dish. The Satellite dish may also be powered from the Amplifier by setting the LNB switch to 13 or 18 volts.

A 12 volt output is provided through the UHF Input connector to power an optional (not included) Mast-head amplifier.

## Computer Network

An onboard 100/1000 Mb/s Ethernet Switch provides distribution for an 8 port computer network.

Port 1 is used as an input from the ADSL Modem, while ports 2-8 may be patched to any one of up to 24 room outlets using the blue patch leads.

LED's indicate the status of each port: green indicates high speed and red indicates lower speed.

## Telephone Distribution

The LN-2400DH allows for 2 incoming lines. Line 1 and 2 are punched down on the rear of the patch panel.

Termination is also provided to allow the main Telephone line to go via a monitored Alarm panel.

An onboard ADSL filter provides filtered signal to the 8 Telephone ports on the front of the patch panel. These 8 Telephone ports can be patched to any one of up to 24 room outlets using the grey patch leads.

Line 2 (if connected) has 1 port on the front of the patch panel which can be patched to any one of up to 24 room outlets using a grey patch lead.

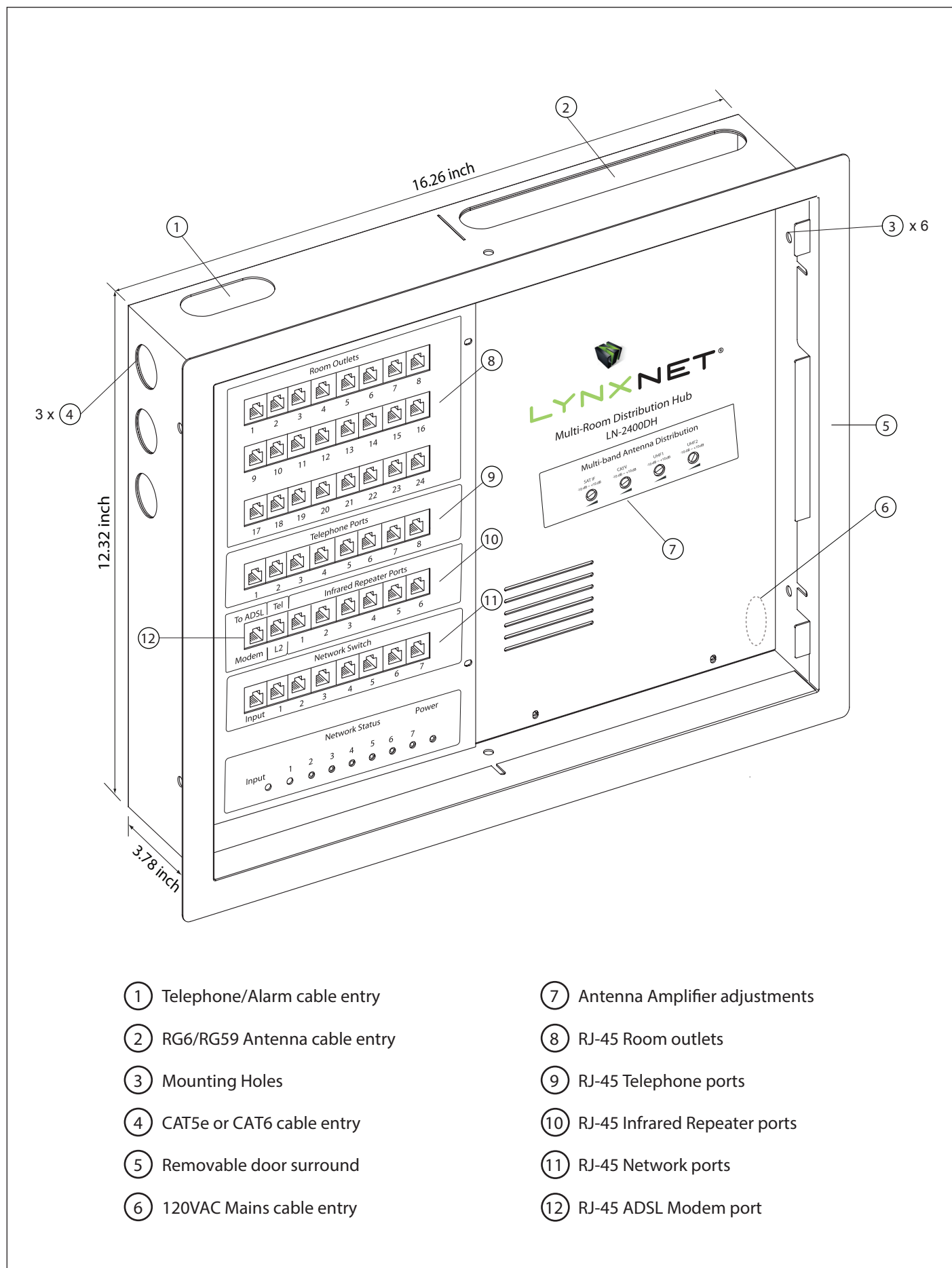
## IR Distribution

The LN-2400DH provides onboard circuitry to receive and distribute infra-red remote control signals via the 6 IR ports on the front of the patch panel, which can be patched to any one of up to 24 room outlets using the red patch leads.

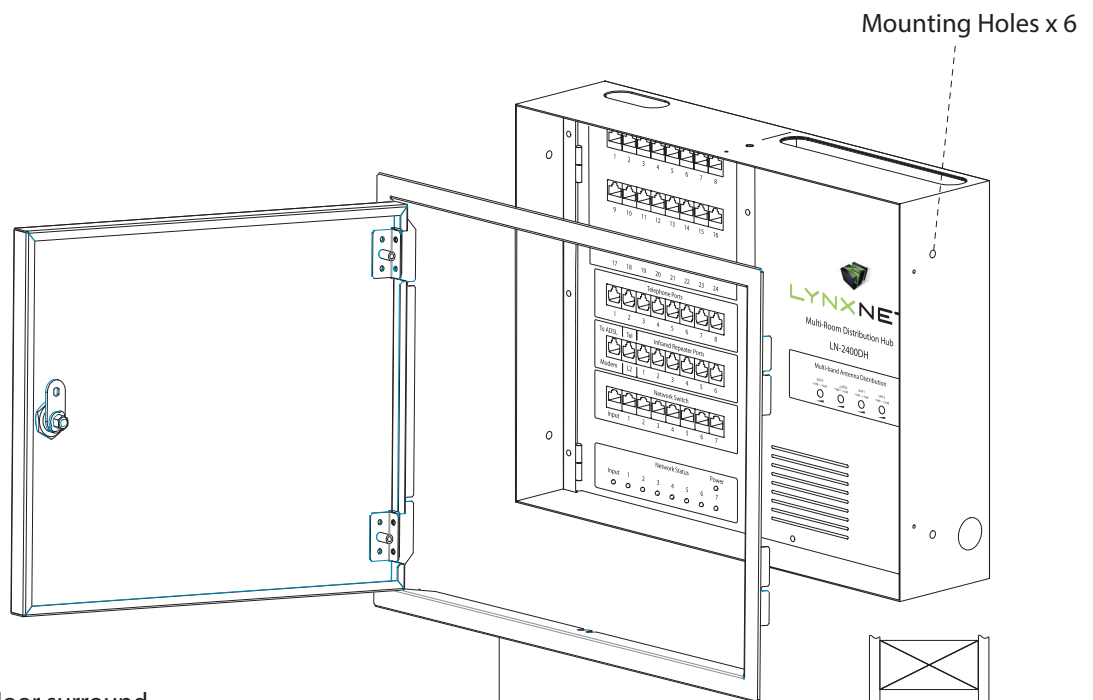
Multiple IR receivers can be used to send IR signals to one or more products.



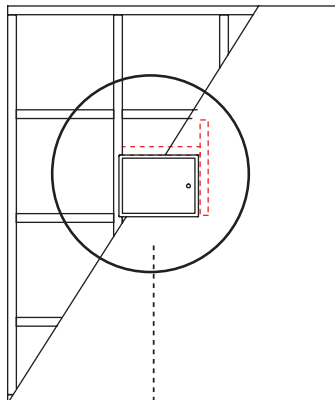
# INSTALLATION DIAGRAM



# WALL MOUNTING

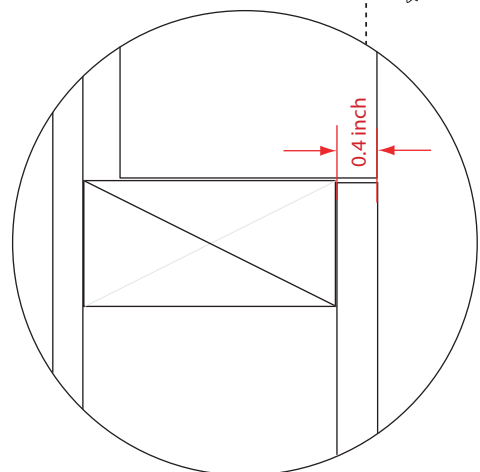
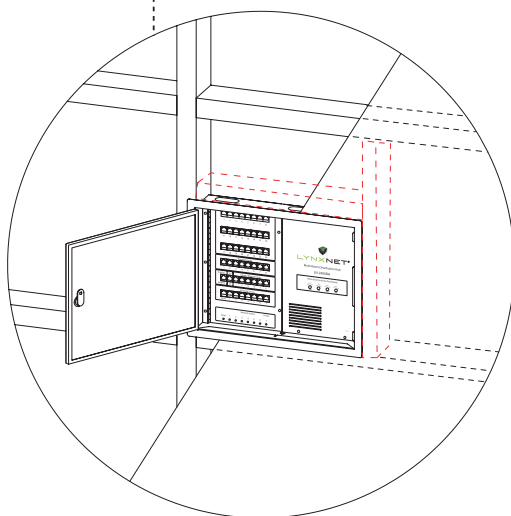
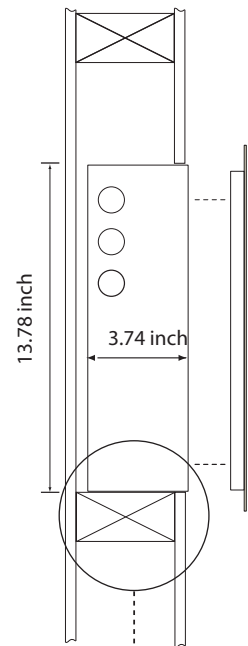


Removeable door surround.  
May be rotated and installed as  
Right or Left hanging door.

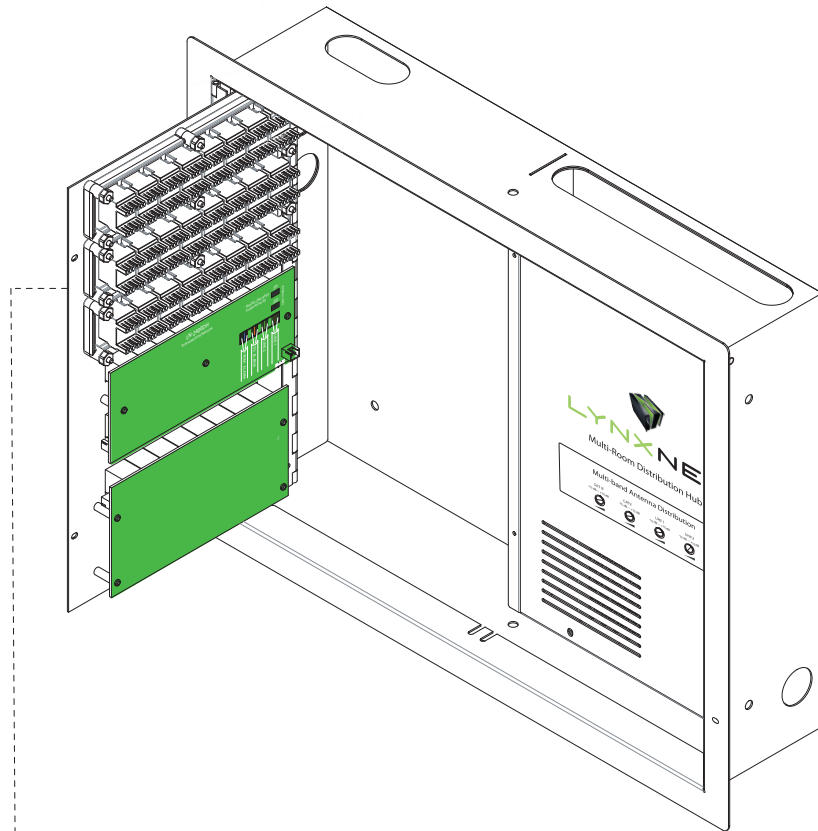


NOTE: Ensure the case is  
installed 0.4inch proud of the  
framing to allow for the thickness  
of the plasterboard wall lining

Additional framing  
maybe added to provide  
further support



# CAT5e or CAT6 CABLE CONNECTION



## Cat5e or CAT6 Termination

As shown in the diagram below, terminate all room outlet CAT5e or CAT6 cables to conform with the T568A Or T568B colour code standard.

Using a "punch down" cron tool, start from the right (outlet1), finishing on the left (outlet 8)

After installation all cables are to be secured to the plastic frame pocket at the hinge side with 140mm cable ties provided.

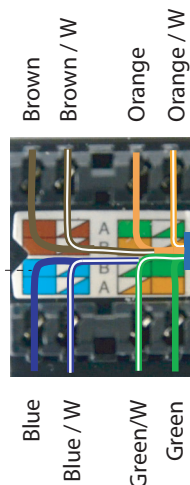
## INSTALLATION TIP:

When running cables ensure a minimum of 2 Cat5e or CAT6 cables are run to each room. ADSL Modem distribution uses 2 cables.

**T568A**

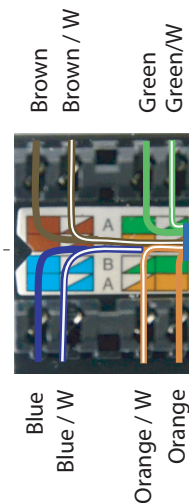
**OR**

**T568B**



**CAT5e or CAT6 cable**

To Room outlet 1

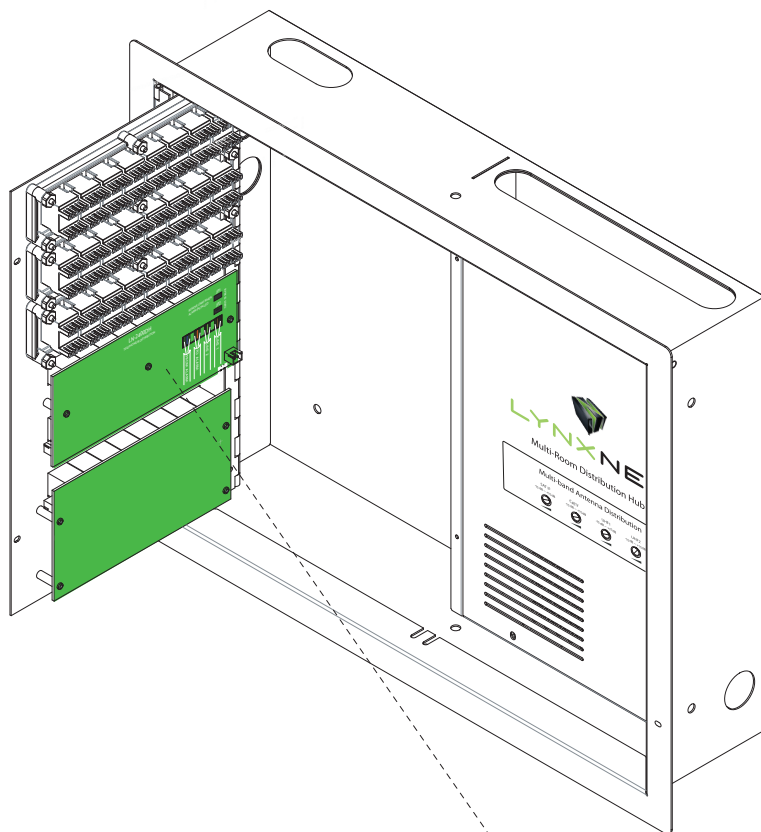


**CAT5e or CAT6 cable**

To Room outlet 1

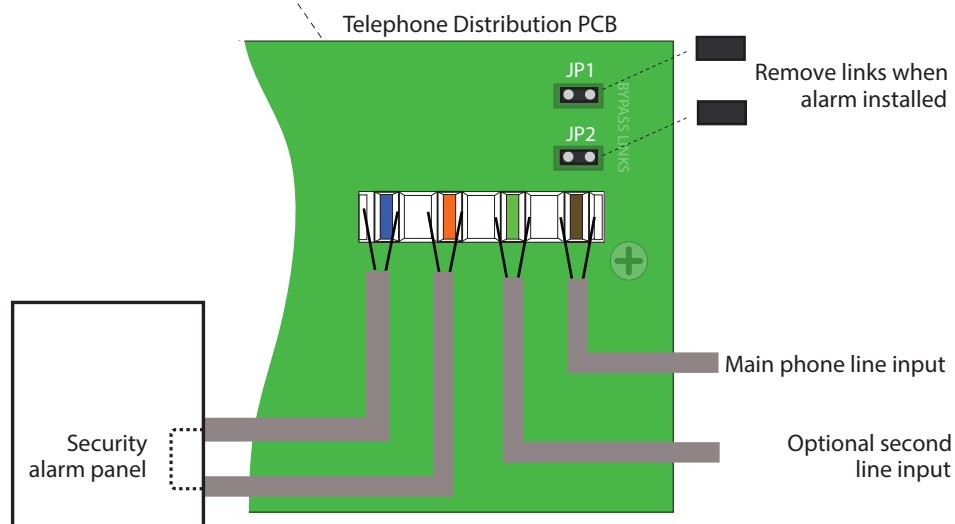


# TELEPHONE CABLE CONNECTION



## Telephone line(s)

Connect the main incoming Telephone line as shown below. Provision has also been made for the second line as shown



## Security Alarm Panel

If a Security Alarm panel is installed, provision has been made to allow the main Telephone line to pass through the Security panel. This enables the security system to take priority over the line in the event of an activation.

Using standard two core cable, connect the security panel as shown above. Remove the two "Links" JP1 & JP2 to allow the phone line to pass through the system.





# ANTENNA DISTRIBUTION AMPLIFIER

## ① INPUTS

- CATV:** 54~1000Mhz  
CATV Antenna input  
Adjustable -10dB Anttenuation ~ +10dB Gain
- UHF1:** 470~862Mhz  
UHF Antenna input  
Adjustable -10dB Anttenuation ~ +10dB Gain  
Includes 12VDC output for optional Masthead Amplifier power
- UHF2:** 470~862Mhz  
UHF Modulator input  
Adjustable -10dB Anttenuation ~ +10dB Gain
- SAT:** 950~2150Mhz  
Satellite dish input  
Adjustable -10dB Anttenuation ~ +10dB Gain

## ② Satellite LNB voltage select switch

- 13V:** Vertical Polarisation  
Select switch to this position to provide 13VDC to the Satellite LNB from the Amplifier power supply.
- 18V:** Horizontal Polarisation  
Select switch to this position to provide 18VDC to the Satellite LNB from the Amplifier power supply.
- STB:** Set Top Box - Power pass.  
Select switch to this position to allow power to pass from Set Top box (i.e SKY) via any one of the 12 outputs to Satellite dish LNB.

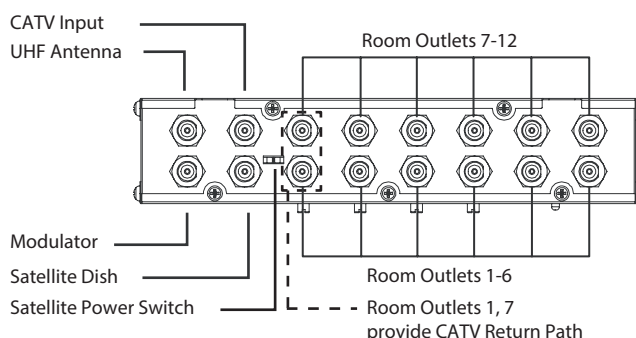
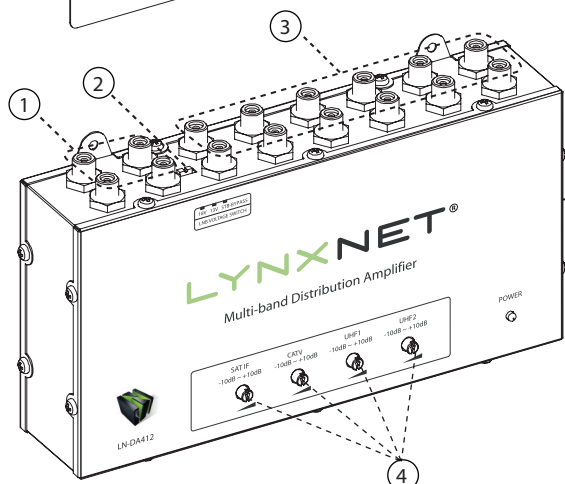
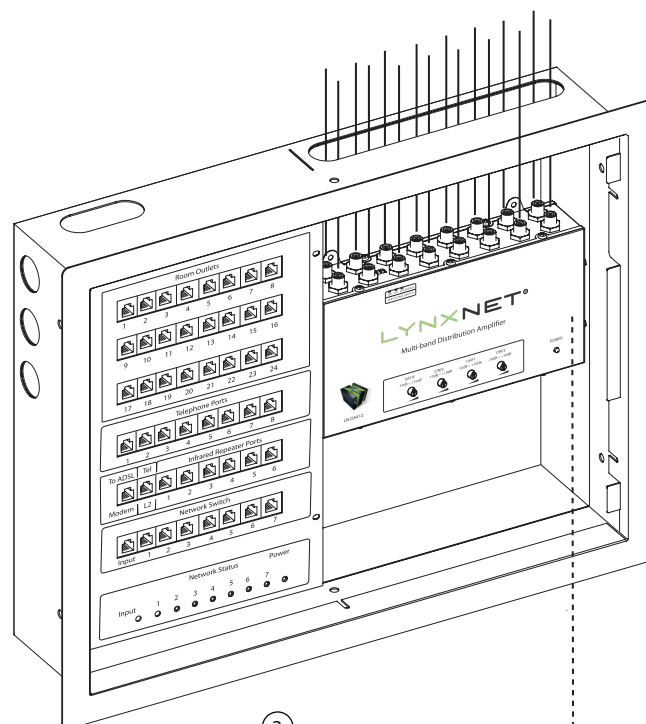
## ③ Outputs

### 12 Room outlets

All 12 outlets contain SAT IF, CATV, UHF & modulated signals. Any of the 12 outlets outlet is capable of passing DC power back to the satellite dish when the LNB voltage select switch is set to STB  
Outlets 1&7 provide a return path with the ability to pass signals back into the cable in the 5-42 MHz range.

## ④ Antenna input adjustments

Independent attenuation or gain of -10dB to +10dB



## Antenna Cable Connection

As shown above, Antenna cables from the roof & room outlets enter the distribution case from the opening in the top of the case.

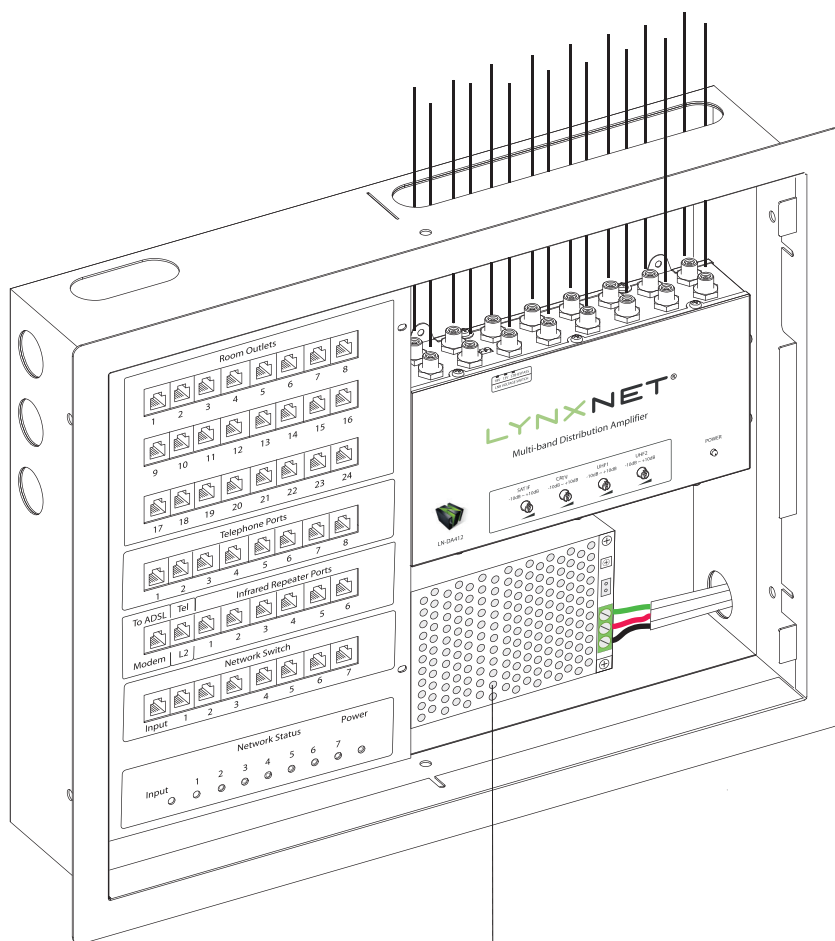
It is recommended that all Antenna cables be of the RG6 type and terminated with Radial or Hex type crimp connectors.

A minium of (3) RG6 cables should be run from the roof to allow for CATV, UHF & Satellite signals.

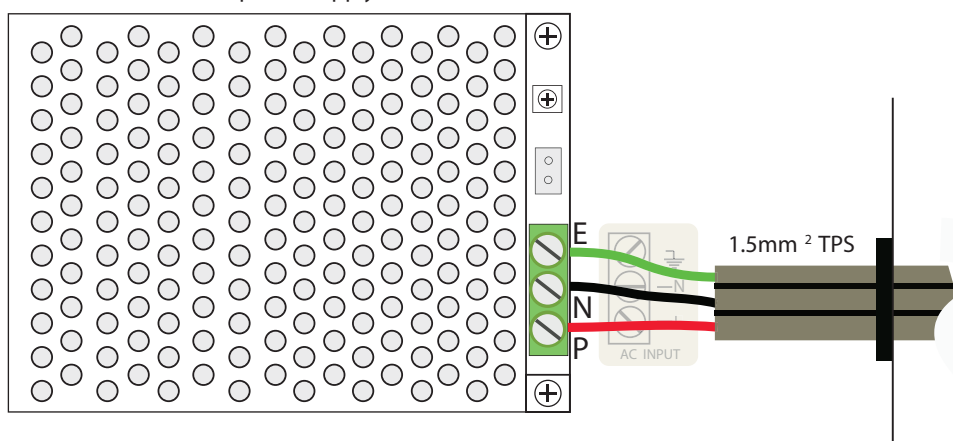
It is also recommend that (2) or more cables be run to the main entertainment area, allowing for "Set top Box" signals to be routed back to the distribution hub for distributing modulated signals to other rooms.



# ELECTRICAL POWER SUPPLY CONNECTION



18V power supply



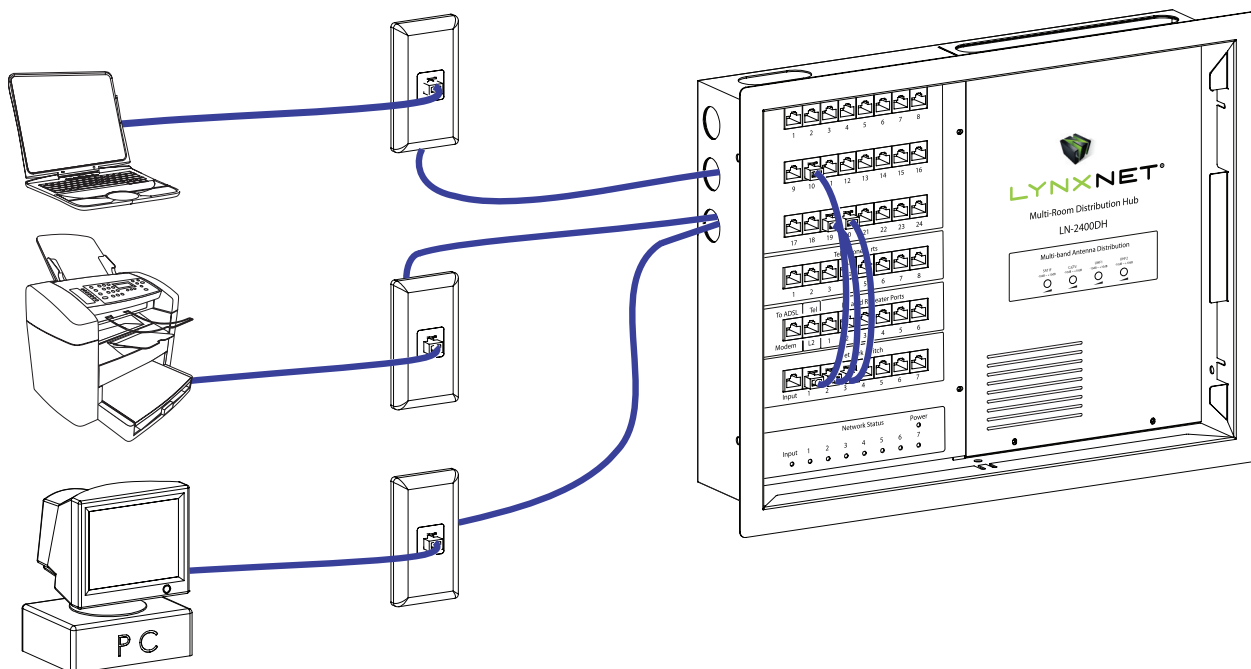
## Electrical 120VAC Input

This Distribution hub includes an internal switch mode power supply. A 120V AC connection is required as shown above. Use standard 1.5mm TPS cable for this connection .

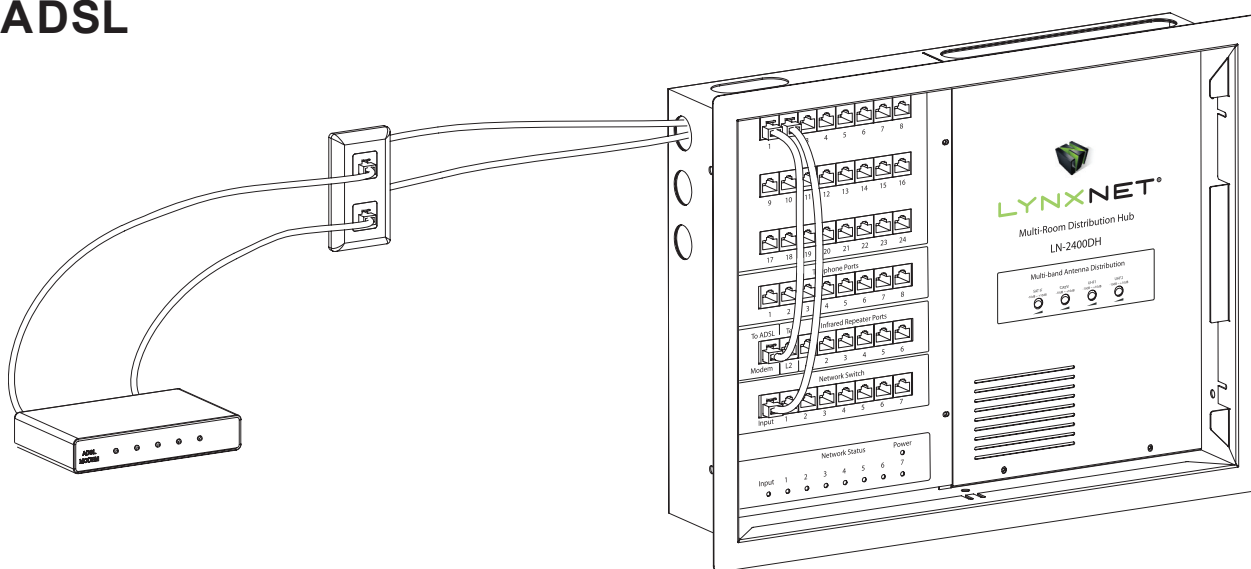
NOTE This connection must be done by a registered Electrician



## COMPUTER NETWORK

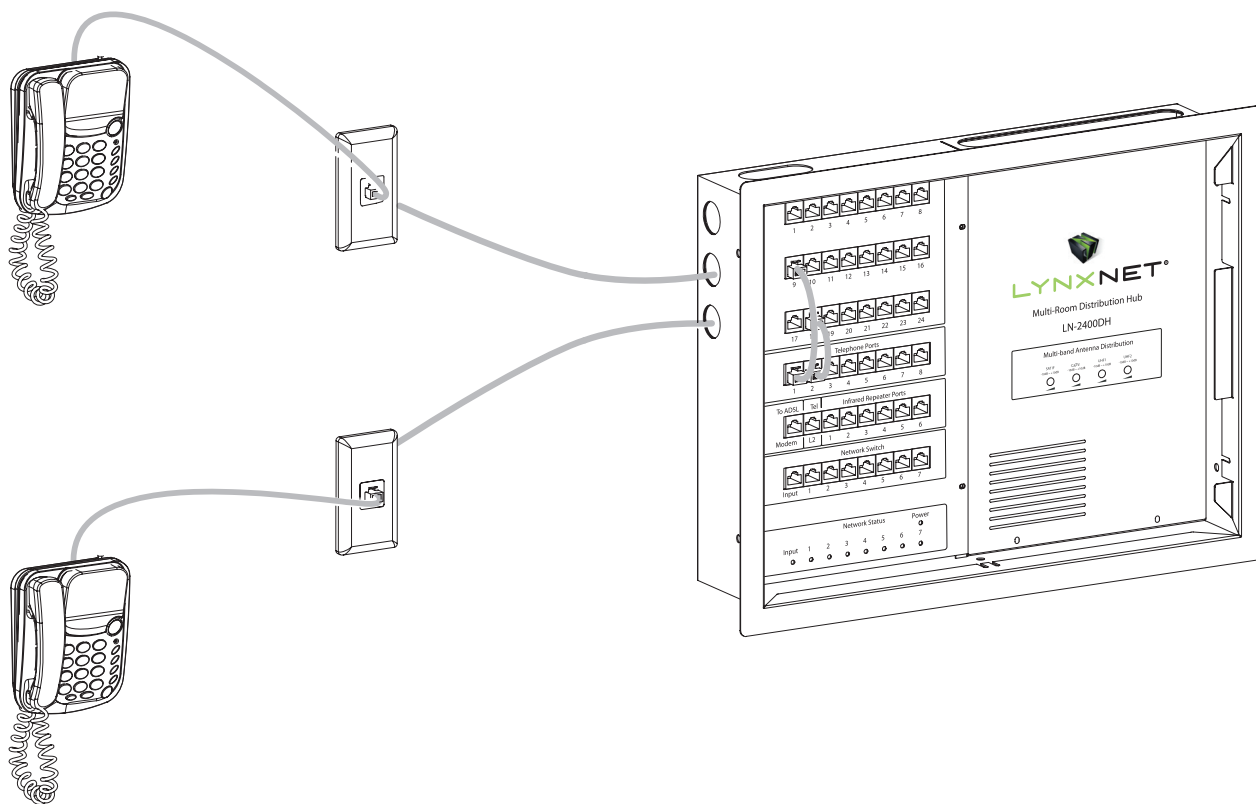


## ADSL

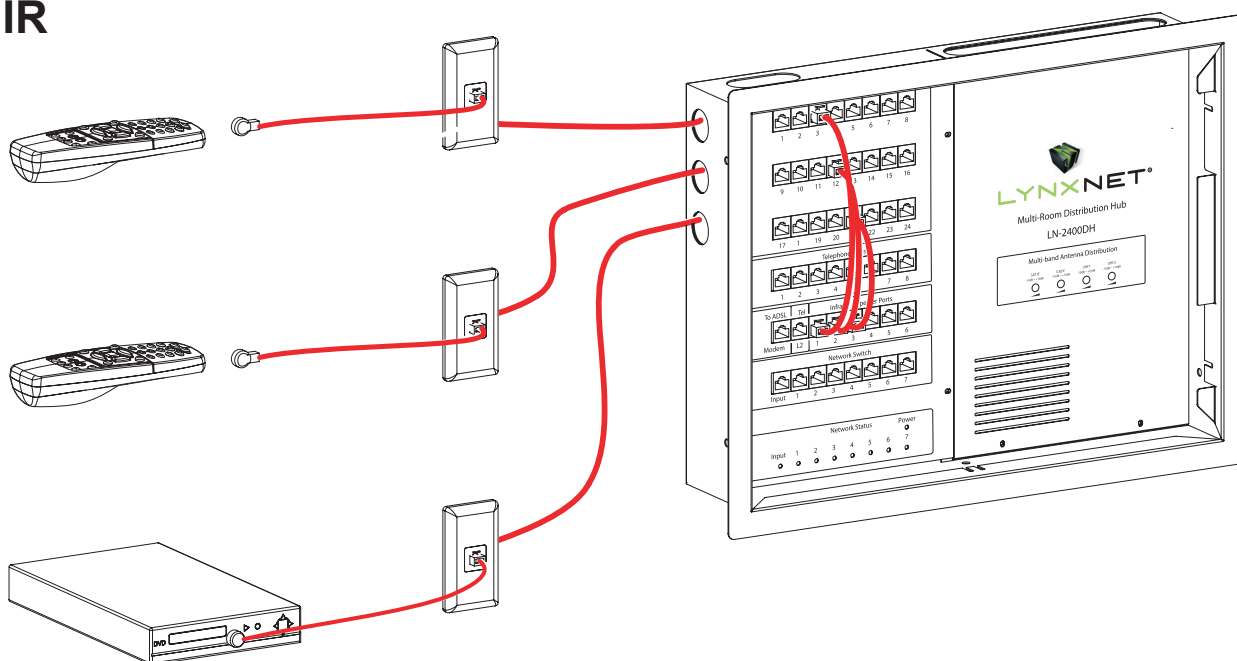


# PATCHING

## TELEPHONE



## IR



# ROOM OUTLET TABLE

Room Outlet	Location (ie boardroom 1 Kitchen etc)	Use (ie telephone, Data, IR etc)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
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22		
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24		

