

# GUIDE TO CONNECTING YOUR EQUIPMENT

DISCOVER SERIES CONSOLES



**DISCOVER SE3  
CONSOLE**



**DISCOVER SE3HD  
CONSOLE**



**DISCOVER ST  
CONSOLE**

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# LIFE FITNESS CARDIO

## SETUP INSTRUCTIONS

The following information will help you connect Life Fitness cardio to the internet and ensure that the facility owner has access to the appropriate systems.

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# BANDWIDTH REQUIREMENTS

Discover products are able to connect via a wired ethernet or wireless connection.  
For best performance we recommend your facility have the minimum bandwidths outlined below.

## SE3/SE3HD CONSOLES

### MINIMUM DOWNLOAD BANDWIDTH REQUIREMENTS

SERVICES	UP TO 8 UNITS	EACH ADDITIONAL UNIT
Asset management, remote software updates, and User workout tracking	2.5 Mbps	0.25 Mbps
Above services and web browsing access	4 Mbps	0.25 Mbps
Above services and web video, e.g. YouTube	4 Mbps	0.5 Mbps
Above services and video streaming apps (Netflix)	8 Mbps	1.0 Mbps
Above services and Life Fitness On Demand classes	20 Mbps	2.5 Mbps

### MINIMUM UPLOAD BANDWIDTH REQUIREMENTS

SERVICES	UP TO 20 UNITS	ADDITIONAL 20 UNITS
Asset management, remote software updates, and User workout tracking	.5 Mbps	0.5 Mbps
Above services and web browsing access	.5 Mbps	0.5 Mbps
Above services and web video, e.g. YouTube	.5 Mbps	0.5 Mbps
Above services and video streaming apps (Netflix, Hulu)	.5 Mbps	0.5 Mbps

#### NOTE:

A dedicated internet connection is always recommended

## ST CONSOLES

### MINIMUM DOWNLOAD BANDWIDTH REQUIREMENTS

SERVICES	UP TO 8 UNITS	EACH ADDITIONAL UNIT
Asset management, remote software updates, and user workout tracking	2.5 Mbps	0.25 Mbps

### MINIMUM UPLOAD BANDWIDTH REQUIREMENTS

SERVICES	UP TO 20 UNITS	ADDITIONAL 20 UNITS
Asset management, remote software updates, and user workout tracking	.5 Mbps	0.5 Mbps



# NETWORK CONFIGURATION

All traffic initiated from our consoles is outbound (i.e. data only flows out from our consoles). If you do not block outbound traffic and the associated return traffic, then no additional configuration is needed. Otherwise, if your network restricts outbound traffic, you need to open outbound connections on these specific ports:

## PORT CONFIGURATION

### *Protocols/Ports*

TCP port 80

TCP port 443

TCP port 1883

TCP port 8883

TCP/UDP port 9933 (SE3 & SE3 HD Only)

UDP port 1194

## DESTINATION URLs

The cardio machines will contact *\*halo.fitness*, *\*lfconnect.com* and *\*s3.amazonaws.com*. These URLs are load balanced and resolve to different IPs at different times, so please use the DNS names and not the resolved IPs.

## CONTENT FILTERING

- Discover SE3 and SE3HD consoles do not come with content filters. If you wish to filter content, a separate content filtering solution should be implemented.
- Discover SE3 and SE3HD consoles are equipped with a web browser. If you wish to prevent users from browsing the internet on the device, you can disable the browser from the configuration menu. This removes the browser icon from the user interface. Other internet connected features including user log in, asset management, and software updates will continue to function when the browser is disabled.
- Discover SE3 and SE3HD consoles come with preset URL links. These links offer quick access to specific web pages within the web browser. Site managers can customize the destination URLs of the preset links. Additionally, the machines can be restricted to only allow access to the preset links. In this configuration, users are no longer allowed to manually enter an address into the address bar. This limits navigation to the preset links and any hyperlinks embedded in those pages.

## NETWORK EQUIPMENT PLACEMENT AND POWER REQUIREMENTS

Network equipment such as modems, wired routers and switches will require power; refer to product specs for exact requirements.



# WIRED NETWORK SETUP



You should follow all industry best practices, as well as all national and local building codes, when running your Ethernet cables.

We recommend an additional 12" (30.5cm) of cabling to accommodate treadmill incline.

**A dedicated internet connection is always recommended.**

## WIRED LAN (LOCAL AREA NETWORK) REQUIREMENTS

You will need to provide DHCP addresses for all of the machines. The table below shows the recommended cable rating for each installation type.

### CABLE TYPE:

INSTALLATION TYPE	AVAILABLE OPTIONS	RECOMMENDATION
Wired	CAT 5e, CAT 6 or CAT 7	CAT 6
STB Sync or Open IPTV	Shielded twisted pair CAT 6 or CAT 7	Shielded twisted pair CAT 6 or CAT 7

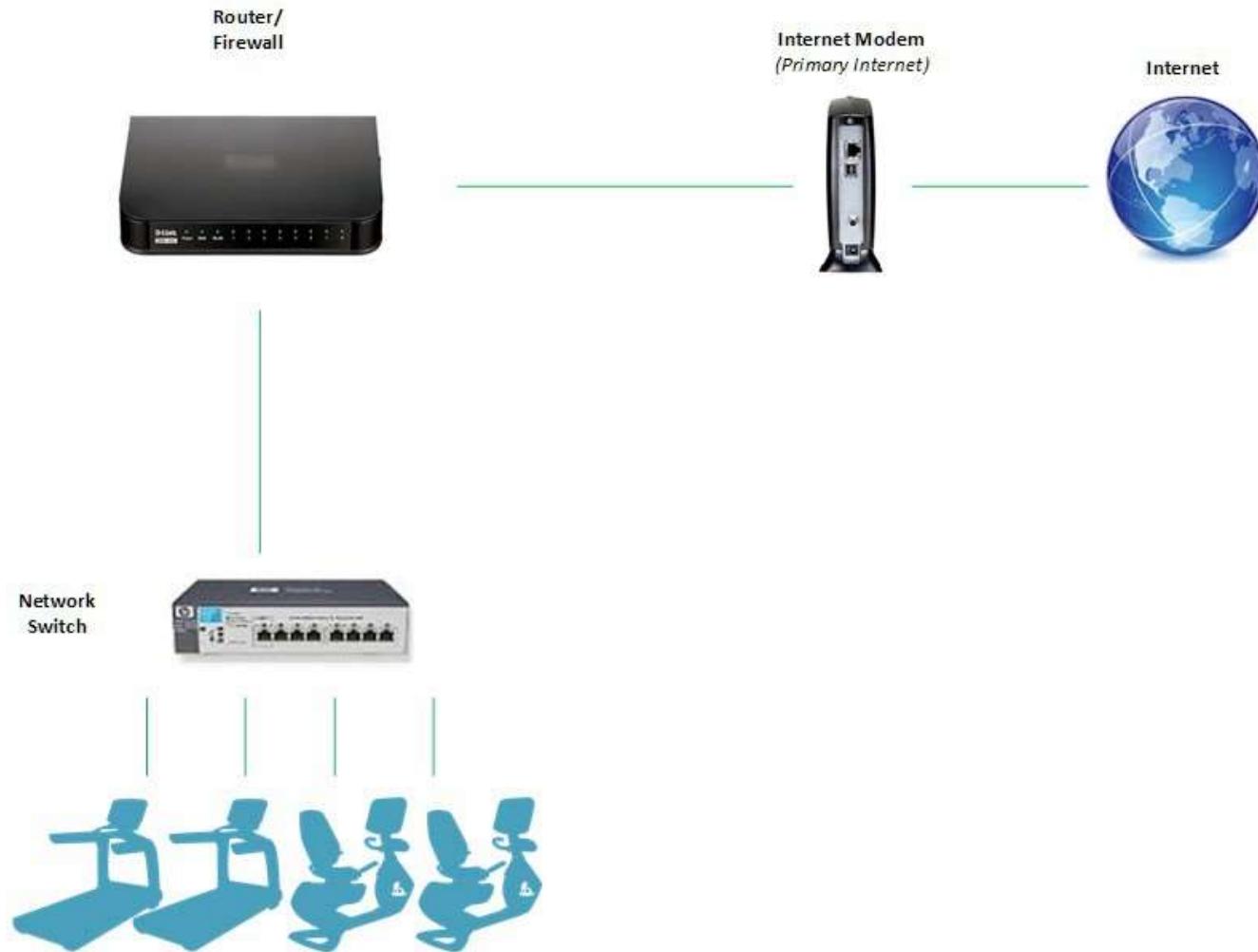
### NOTE:

You will need a switch capable of aggregating all of the individual Ethernet runs (see table below for speeds).

NUMBER OF MACHINES	RECOMMENDATION
1-7	8-port 10/100/1000
8-23	24-port 10/100/1000
24-47	48-port 10/100/1000

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# WIRED NETWORK DIAGRAM



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# WIRELESS NETWORK SETUP

## WIRELESS LAN (LOCAL AREA NETWORK) REQUIREMENTS

Be sure to configure the desired SSID (service set identifier or wireless network) and security settings on your access points before attempting to associate the cardio equipment.

Speak with your network security specialist to determine the best security options for your Network. At this time, the machines support all commonly used encryption and authentication protocols including: WEP, WPA, and WPA2-PSK (pre-shared key) with either TKIP, or AES encryption. Additionally, the consoles support some enterprise authentication including EAP-TLS, EAP-TTLS, and EAP-PEAP.

It is recommended that you design your wireless network to achieve an RSSI (received signal strength) value of -65 dBm or better, and an SNR (signal to noise ratio) of 20 dB or better.

## CONNECT TO A WIRELESS NETWORK

In order to scan for available wireless networks follow the below steps:

1. Enter System Options Menu (please see page 13 for access instructions)
2. Tap on "Configuration" on the left > "Wireless Connectivity"
3. Enable
4. Tap on "Scan"
5. Choose your network

**A dedicated internet connection is always recommended.**



## RECOMMENDED ACCESS POINT REQUIREMENTS

It is recommended that you install commercial grade access points that meet the following minimum requirements:

- Wireless-N Access Point (802.11n) with 2x2 MIMO
- Band: Dual band 2.4/5 GHz capable
- Protocol: IEEE 802.11n
- Security: WPA2-PSK
- Mounting: wall or ceiling mountable (e.g. Meraki MR32 or Ruckus R500)

It is recommended that the machines connect to the access points on the 5GHz band.

A site survey through your IT partner is recommended to verify the number of access points required based on each unique facility layout and model of the access points. General guidelines below:

DISCOVER SE3 & SE3 HD	DISCOVER ST
One access point for every 8 units	One access point for every 20 units

## ACCESS POINT CONFIGURATION

Preconfigured Meraki access points purchased through Life Fitness are recommended for easy setup.

No firewall changes are required for most networks. If you block outbound connections please see [Meraki Firewall Rules](#) for additional configuration information. For all other access points check with your IT Partner for the correct configuration.

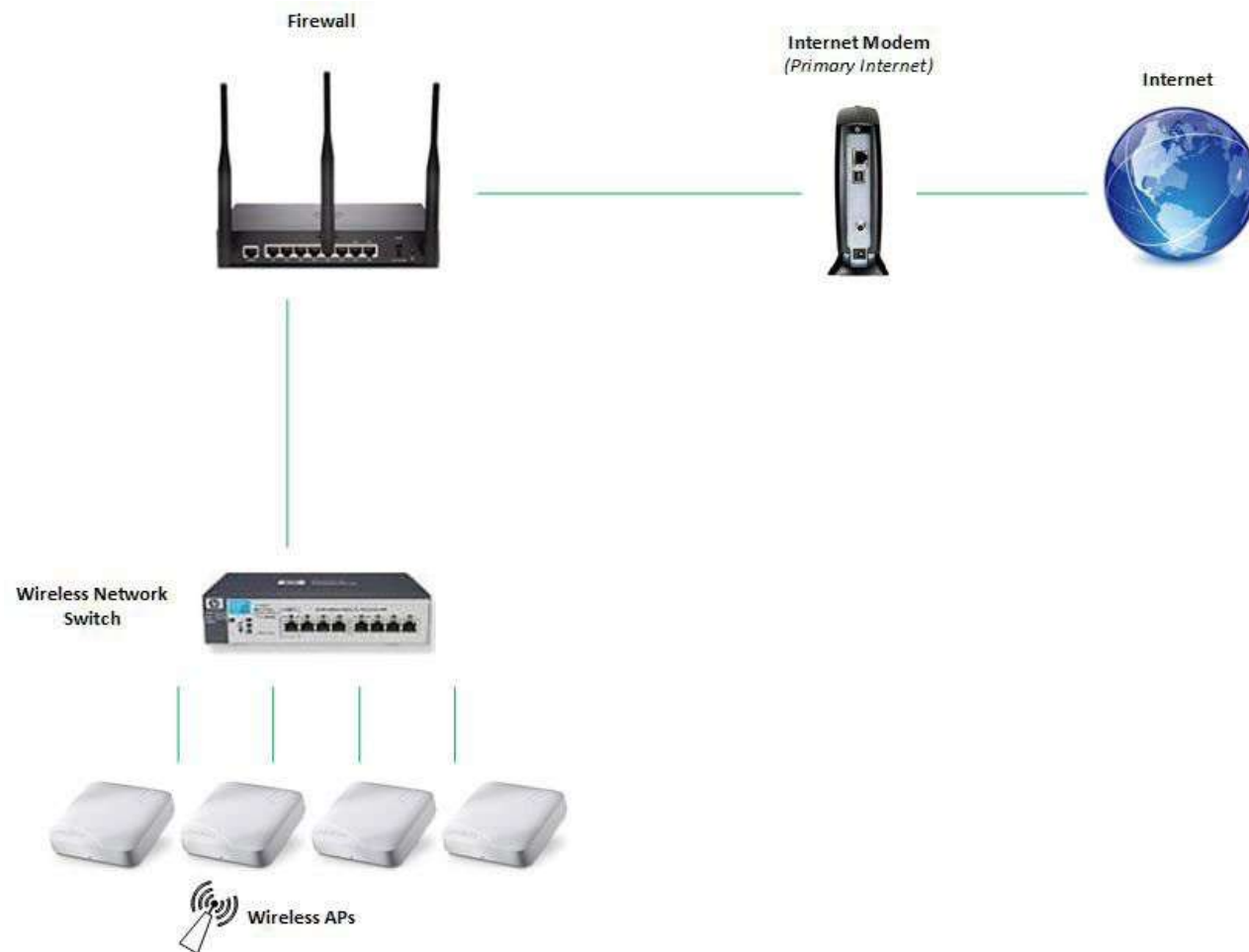
## NETWORK EQUIPMENT PLACEMENT AND POWER REQUIREMENTS

Each access point will need power via PoE (Power over Ethernet) or additional optional power adapter. Refer to recommended manufacturer power requirements for further information. A site survey through your IT Partner is recommended to ensure proper placement of your access points.



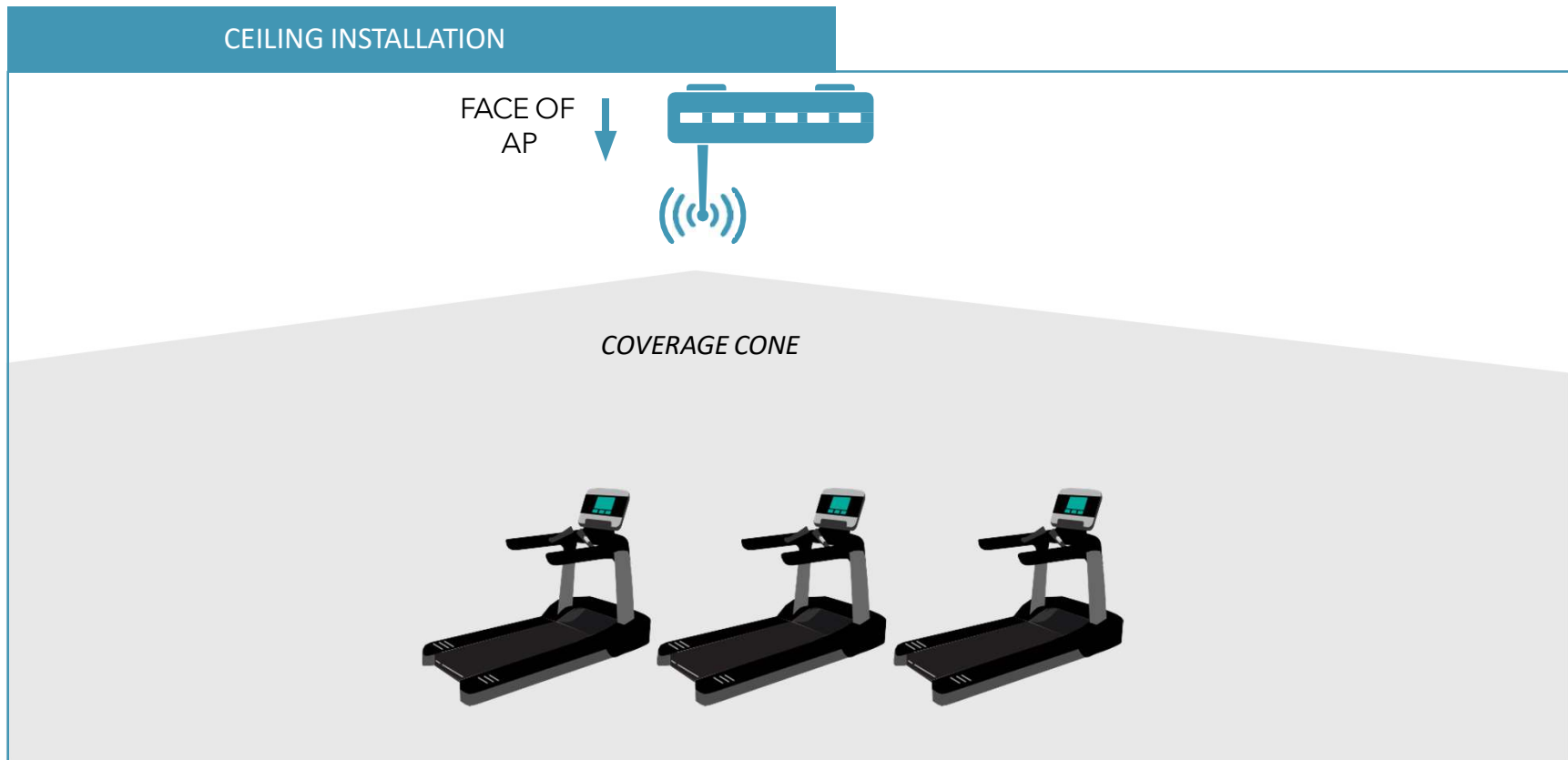


# WIRELESS NETWORK DIAGRAM

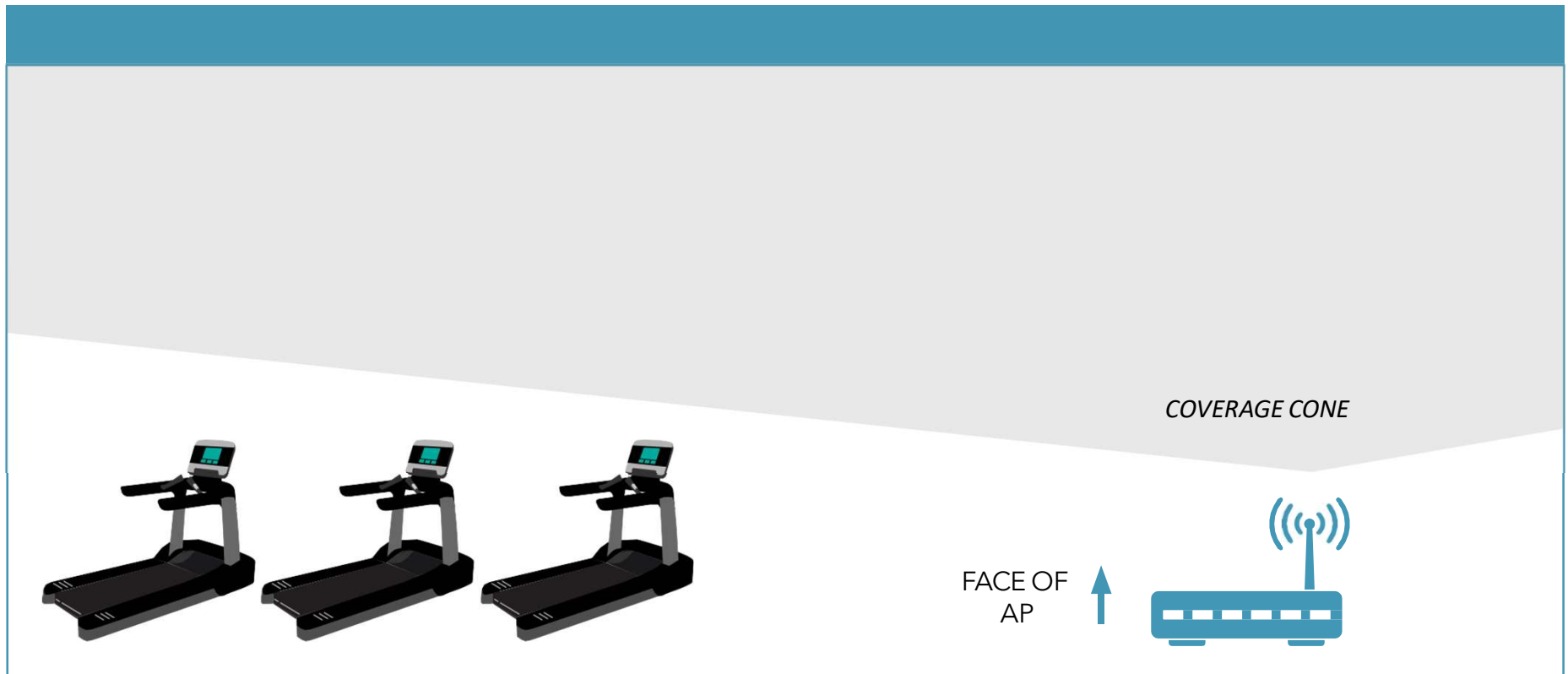


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# WIRELESS NETWORK SETUP (GOOD COVERAGE)



# WIRELESS NETWORK SETUP (BAD COVERAGE)



# TV REQUIREMENTS

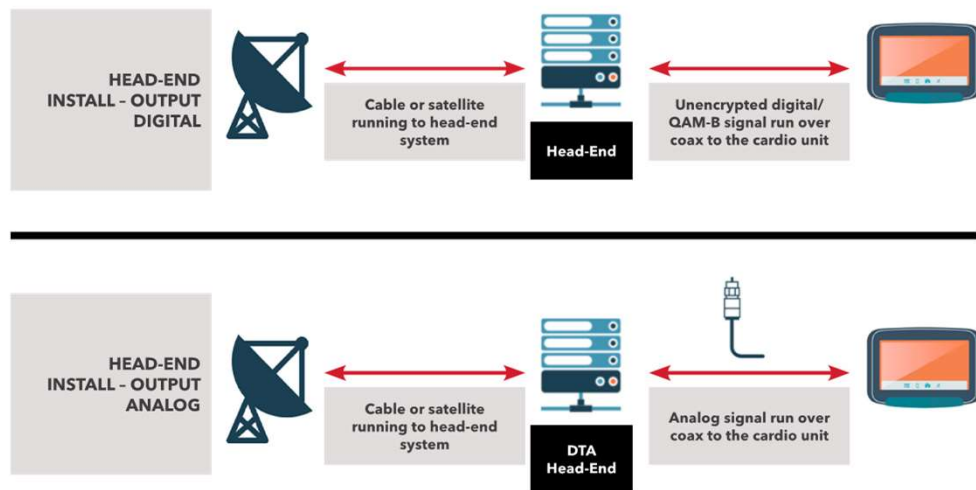
Life Fitness has multiple solutions for providing video content to your users. Below are the options we currently offer with our products.

**Note:** Please have TV infrastructure and TV signal ready prior to the install of your Life Fitness cardio equipment.

## STANDARD COMBO TUNER

For Discover SE3, ST, SE3HD and Cybex 70T

- Signals Supported: ATSC, NTSC, QAM-B (MPEG 2 & 4 - note some Discover SE3 units can only handle MPEG 2)
- Cabling required from customer: Coax (including any patch cables from wall to cardio units)
- The TV signal can be distributed to the machines using taps or splitters provided the signal level arriving at each unit's TV tuner is 70 dBuV +/-15 dB. This is equivalent to +10 dBmV +/-15dB. These levels are acceptable for both analog and digital TV signals.
- Have your TV system provider verify the signal level arriving at each machine.



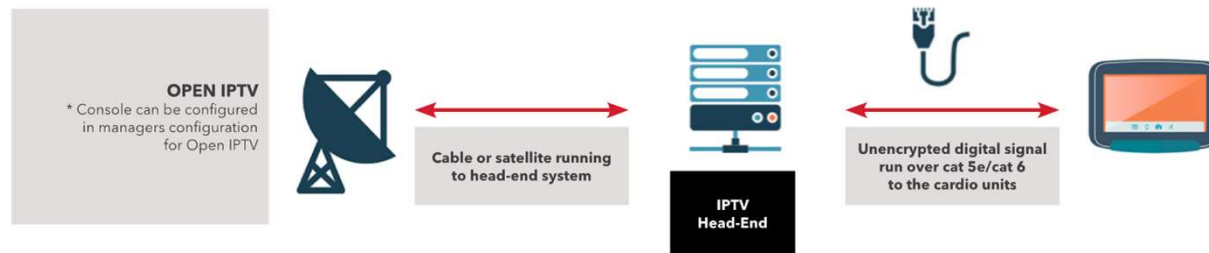
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# TV REQUIREMENTS

## OPEN IPTV

For Discover SE3, ST, SE3HD and Cybex 70T

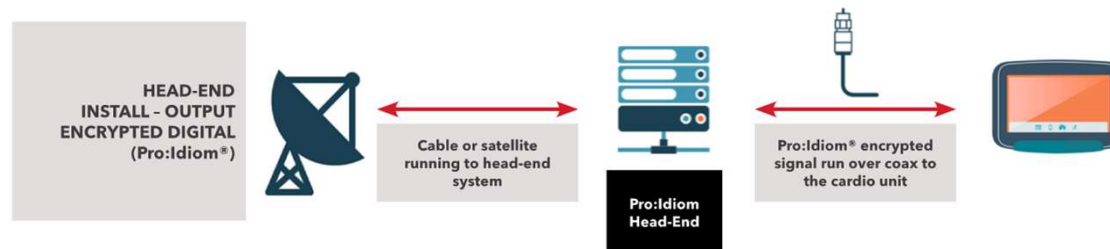
- Cabling required from customer: Ethernet (including any patch cables from wall to cardio units)
- Channels are IP addresses or URLs
- Works regardless of tuner configuration inside of the console – software setting
- Reference IPTV Requirements document for full details



## PRO:IDIOM TUNER

For Discover SE3, ST, SE3HD and Cybex 70T

- Signals supported: Pro:Idiom and QAM B (MPEG2 and MPEG4)
- Cabling required from customer: Coax (including any patch cables from wall to cardio units)
- Ethernet is not currently supported
- The TV signal can be distributed to the machines using taps or splitters provided the signal level arriving at each unit's TV tuner is 70 dBuV +/- 15 dB. This is equivalent to +10 dBmV +/- 15dB. These levels are acceptable for both analog and digital TV signals.
- Have your TV system provider verify the signal level arriving at each machine.



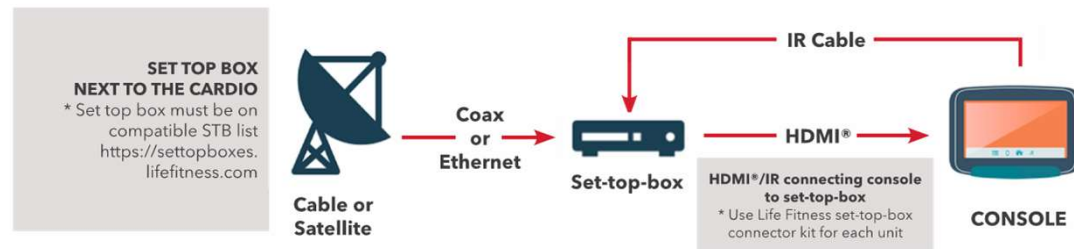
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# TV REQUIREMENTS

## SET TOP BOX ON THE FLOOR

For Discover SE3, ST and SE3HD

- Cabling required from customer: Coax (including any patch cables from wall to set-top boxes)
- Set-top boxes must output HDMI
- Coax output not supported
- Set-top boxes must be listed as compatible on [settopboxes.lifefitness.com](https://settopboxes.lifefitness.com)
- Connector kits contain varying lengths of HDMI and IR cables
- Works regardless of tuner configuration inside of the console



Kits for Elevation Bases (Intended to be run externally)	
T-STB-HDMI-IR-KIT	Treadmill Kit
X-STB-HDMI-IR-KIT	Elliptical Kit
C-STB-HDMI-IR-KIT	Upright Bike Kit
R-STB-HDMI-IR-KIT	Recumbent Bike Kit
F-STB-HDMI-IR-KIT	Flex Strider Kit

Kits for Integrity Bases	
None (Pre0Routed)	Treadmill Kit
INT-STB-HDMI-IR-KIT	Elliptical Kit
INT-STB-HDMI-IR-KIT	Upright Bike Kit
INT-STB-HDMI-IR-KIT	Recumbent Bike Kit
INT-STB-HDMI-IR-KIT	Arc Trainer Kit

Life Fitness Bases (Intended to be run externally)	
P-STB-HDMI-IR-KIT	PowerMill Kit

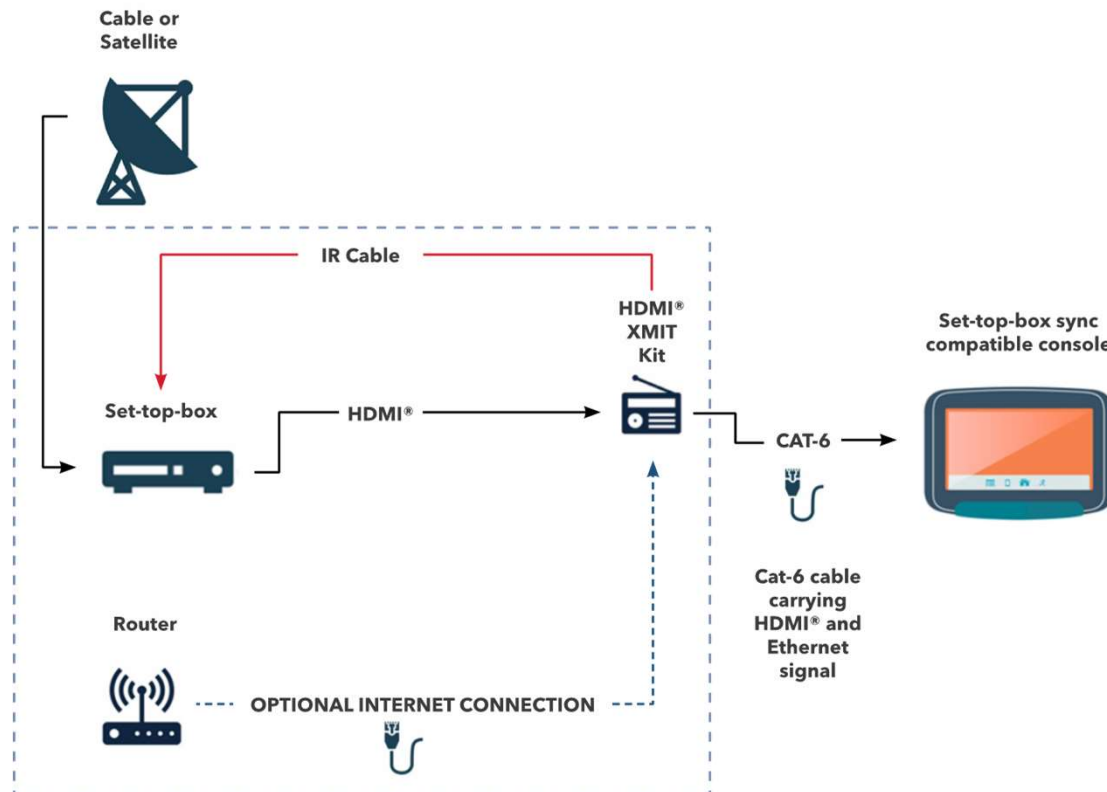
Cybex R Series	
Not currently supported	

# TV REQUIREMENTS

## SET TOP BOX SYNC

For Discover SE3, ST, SE3HD and Cybex 70T

- Cabling required from customer: Ethernet and HDMI (including any patch cables from wall to cardio units)
- Set-top boxes must output HDMI
- Coax output not supported
- SITESURVEY-IPTV-01 must be included on the order for Life Fitness to connect the transmitter kits to the set top boxes, otherwise it is the customer's responsibility
- Set-top boxes must be listed as compatible on [settopboxes.lifefitness.com](http://settopboxes.lifefitness.com)
- One Life Fitness transmitter kit required per cardio unit, which will require power
- Reference Set Top Box Sync Requirements document for full details



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# HALO FITNESS CLOUD SETUP

Registering the equipment on [Halo.Fitness](#) gives facilities access to a full suite of equipment management features including: usage statistics, equipment customization, service notifications for open issues and easy access to the Parts Store.

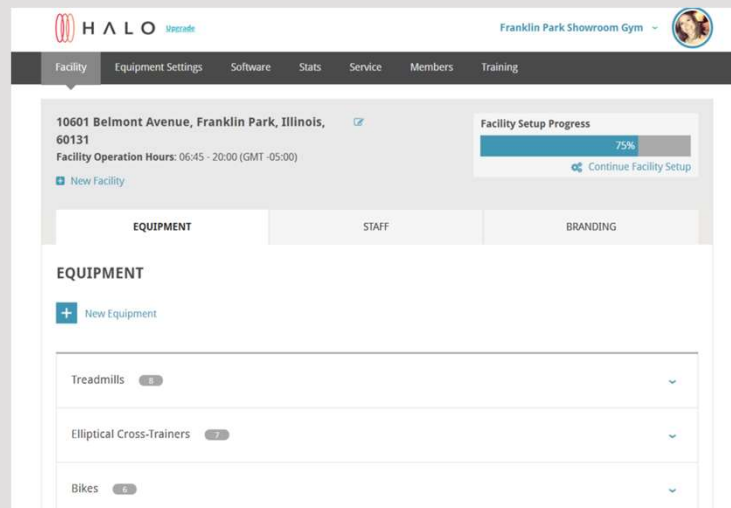
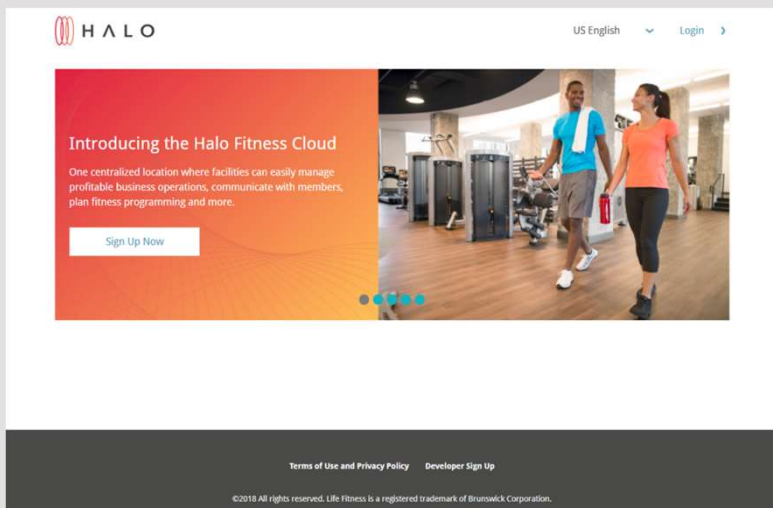
## Follow these steps to set up a new Halo Fitness Cloud account:

- Go to [www.Halo.Fitness](#)
- Click on “Sign Up Now” to create a new account
- Enter facility manager credentials
- Enter the details of the facility
- Continue facility set up by completing the available options such as adding connected equipment and other managers to the facility

## Follow these steps to add a facility to an existing Halo Fitness Cloud account:

- Go to [Halo.Fitness](#)
- Click on “Login” in the upper right
- Enter facility manager credentials
- Click on the Facility tab
- Click on the “New Facility” link
- Enter the details of the facility
- Continue facility set up by completing the available options such as adding connected equipment and other managers to the facility

To add Life Fitness cardio equipment to your account find the base serial number from a connected unit. The base serial number for Discover consoles is located on a sticker placed on the base or can be found by going into the System Options menu - see page 13 for instructions on accessing this menu. Once you add one connected unit to the Halo Fitness Cloud it should pull all other units that are connected to the same network.



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## SYSTEM OPTIONS MENU, NETWORK VALIDATION & MAC ADDRESSES

The System Options menu allows you to control various settings and view important information about your product. Additional settings for your connected equipment are available on Halo.Fitness.

To enter the System Options menu follow the below steps:

1. Go to the “Language” screen and tap the lower corners of the pop-up box in the sequence left-right-left-right to open System Options.
2. Scroll down to Cardio On Demand Switch and click to turn on. We also recommend you enable “Nightly Reboot” to improve processing speed of the console.

## VALIDATION OF NETWORK STATUS AND OPEN PORTS

To view the status of your network connection and ensure the necessary ports are open take the following steps:

1. Enter System Options Menu
2. Tap "Information" on the left > Tap "Network Information"
3. The screen will display network status at the top of the screen and port status at the bottom of the screen

## MAC ADDRESSES

Your IT staff may need the MAC address of the Discover console to configure access control lists. The following steps outline the process to retrieve the MAC address of the console:

1. Enter the System Options menu
2. Tap "Information" on the left > Tap "Network Information"
3. The screen will display the MAC address for the wired Ethernet adapter, the wireless 2.4 GHz adapter and the wireless 5 GHz adapter

MAC Addresses	
Ethernet	00:50:C2:7B:D8:6C
Wireless 2.4 GHz	74:72:F2:07:B2:4E
Wireless 5 GHz	74:72:F2:07:B2:4F
Bluetooth	00:1C:7B:DF:5E:47

## CHECKLIST

Please make sure the facility owner completes the following checklist **prior to the fitness equipment installation**

TASK TO BE COMPLETED BY THE FACILITY PRIOR TO FITNESS EQUIPMENT INSTALLATION	COMPLETED
Internet network setup	<input type="checkbox"/>
Ethernet run to each unit (If wired network)	<input type="checkbox"/>
Access points setup and installed (If wireless network)	<input type="checkbox"/>
Network meets appropriate bandwidth to support product features and number of installed units	<input type="checkbox"/>
Network speed tested	<input type="checkbox"/>
Network outbound traffic (and associated return traffic) allowed for specified ports, protocols and destination domains	<input type="checkbox"/>
MAC addresses of units whitelisted (If necessary)	<input type="checkbox"/>
Halo Fitness Cloud account set up	<input type="checkbox"/>
Adequate internet bandwidth for desired on-demand features. Note that Life Fitness On Demand requires a recommended 2.5 Mbps per unit.	<input type="checkbox"/>

### QUESTIONS & TROUBLESHOOTING

If you have questions or are experiencing any issues with the internet connectivity of your Life Fitness equipment please contact Customer Service and have the following information available:

- Cardio equipment base serial number(s)
- Console software version
- Type of network connection, wired or wireless

Customer Service  
1.800.351.3737  
[customersupport@lifefitness.com](mailto:customersupport@lifefitness.com)

For Life Fitness On Demand-specific questions, please contact:  
833-682-0392  
[digitalsupport@lifefitness.com](mailto:digitalsupport@lifefitness.com)