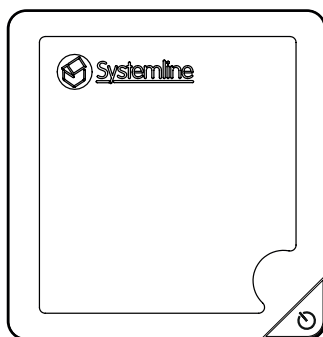
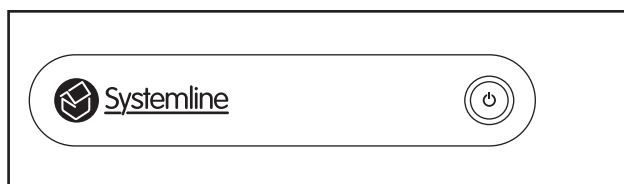


Instruction Manual



Systemline 7 NetServer & Mini NetServer

Systemline 7 NetServer & Systemline 7 Mini NetServer

Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarised or grounding-type plug. A polarised plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer
12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus 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 apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.

WARNINGS

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

This apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

Apparatus with CLASS1 construction shall be connected to a MAINS socket outlet with a protective earthing connection.

Instructions de sécurité importantes

1. Veuillez lire ces instructions.
2. Veuillez conserver ces instructions.
3. Veuillez prendre connaissance de tous les avertissements.
4. Veuillez suivre toutes les instructions.
5. N'utilisez pas cet appareil a proximite de l'eau.
6. Nettoyez uniquement avec un chiffon sec.
7. N'obstruez pas les grilles de ventilation. Suivez attentivement les instructions du fabricant lors de l'installation.
8. N'installez pas cet appareil a proximite d'une source de chaleur telle que des radiateurs, des bouches d'air chaud, des fours, ou tout autre appareil (y compris des amplificateurs) produisant de la chaleur.
9. Ne supprimez pas la securite apportee par la prise polarisee ou de type B. Une prise polarisee possede deux broches, dont une plus large que l'autre. Une prise de type B possede deux broches et une fiche terre. La broche la plus large ou la fiche terre sont la pour votre securite. Si la prise fournie ne convient pas, adressez-vous a un electricien pour une mise aux normes de votre installation electrique.
10. Evitez de marcher sur le cordon d'alimentation ou de le pincer, en particulier, a l'extremite du cordon, de la prise et a la sortie de l'appareil.
11. Utilisez uniquement des accessoires specifiques par le fabricant.
12. Utilisez uniquement les chariots, pieds, tripodes, supports ou les tables recommandes par le fabricant ou vendus avec l'appareil. Si vous utilisez un chariot, faites tres attention lors du transport de l'appareil et evitez de le faire tomber pour ne pas vous blesser.
13. Debranchez cet appareil en cas d'orage ou lorsque vous ne vous en servez pas pendant une periode prolongee.
14. Pour toute reparation, adressez-vous a un professionnel. Faites reparer cet appareil pour des dommages de n'importe quelle nature : cordon d'alimentation abime, liquide ou objet introduit dans l'appareil, exposition a la pluie ou a l'humidite, fonctionnement inhabituel, chutes diverses.

AVERTISSEMENT

Afin de diminuer les risques d'incendie ou de choc electrique, conservez cet appareil a l'abri de la pluie et de l'humidite.

Evitez toute eclaboussure et ne posez pas d'objets contenant des liquides, comme des vases, sur cet appareil.

L'appareil de construction de CLASS1 doit être connecté à une prise secteur dotée d'une protection par mise à la terre.

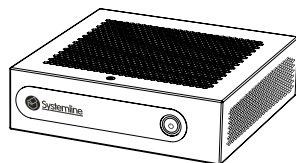
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1.0 Pack contents

NetServer

- 1 x NetServer
- 2 x Mounting brackets with 4 bracket fixing screws
- 1 x Power supply
- 1 x Mains cable
- 1 x Quick start instruction manual



NetServer (SN2030/SN2100/SN2200)

Mini NetServer

- 1 x Mini NetServer
- 1 x Mounting Bracket
- 1 x Power supply
- 1 x Set of mains plug inserts
- 1 x Quick start instruction manual



Mini Netserver (SN2010)

2.0 Introduction

The Systemline 7 NetServer acts as the central portal for all S7 zones to receive stored music and internet based services via the USB connection to the S7 NetAmp. The 160GB Mini NetServer supports up to 4 zones, 320GB NetServer supports up to 8 zones, the 1TB and 2TB NetServer supports up to 24 zones. The server comes with pre-loaded software that includes a web page setup, Logitech Media Server, CD auto ripping and cover art look up, USB back up and Shared Network folders. The Server has been designed to be centrally located with all NetAmps in the system to make the multiple USB (up to 24*) connections easy to manage without the need for additional equipment except an S7 USB Hub.

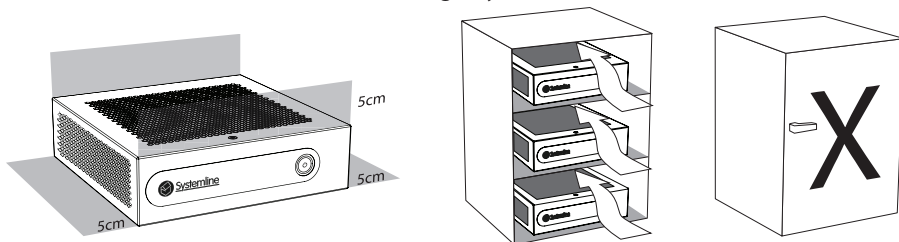
*1TB (SN2100) and 2TB (SN2200) models support 24 zones; 320GB (SN2030) model supports 8 zones, 160GB (SN2010) supports 4 zones.

3.0 Mounting and locating the server

3.1 NetServer

The server should be located with all the NetAmps in the system and have access to a wired network connection on RH45 Cat5 or Cat6, connected to the broadband router or network switch. This in turn should be connected to the router running an active DHCP server.

The NetServer can be mounted in the following ways:



3.1.1 Shelf Mounting

Use the supplied stick-on rubber feet on the underside of the server and place on a shelf. Allow at least 5cm clearance above the server venting slots.

Plug the Local Area Network connection into the network with an active DHCP server. Plug a USB A-B cable into each NetAmp zone. The diagram shows two zones on one NetAmp. If more than 3 zones are required, a separate USB hub can be used. Plug the power supply in and turn on. The server will boot up automatically.

Always keep a minimum of 5cm clear space on both sides and on top of the NetServer for ventilation. Do not use the NetServer inside an enclosed space.

3.1.2 Wall Mounting

Use the supplied L-shaped brackets and screws and fix the brackets to the sides of the server. Use the fixing points on the brackets to fix to the wall using suitable fixings (not supplied). Leave at least 5cm in front of the server for ventilation.

3.2 Mini NetServer

3.2.1 Shelf Mounting

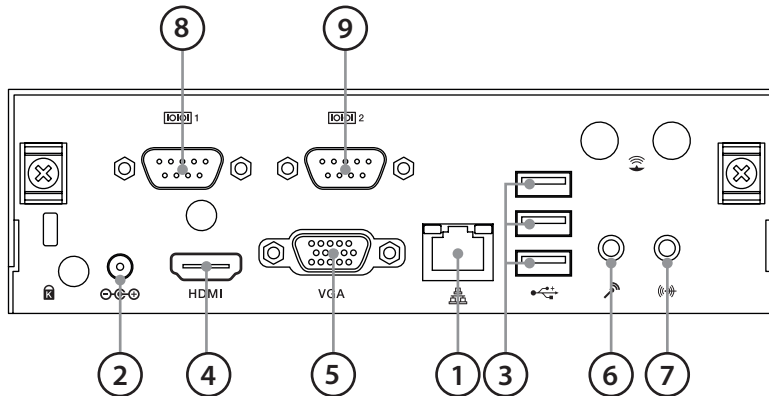
Use the supplied stick on rubber feet on the underside of the server and place on a shelf. Allow at least 5cm clearance above the server venting slots.

3.2.2 Wall Mounting

Use the supplied bracket and fix it to the wall using suitable fixings for the wall type (not supplied). Slot the Mini NetServer onto the bracket. Ensure that the server is located in the correct orientation; there is an arrow on the back of the server showing you the correct orientation.

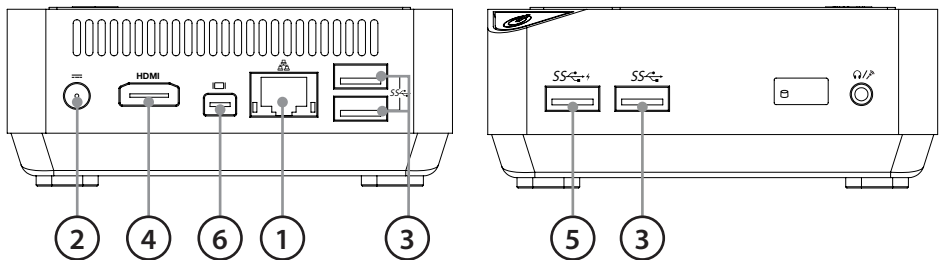
4.0 Connections

4.1 NetServer



1. Local Area Network (LAN) Ethernet RJ45
2. DC power input
3. USB 2.0
4. HDMI monitor out – not used with Systemline 7
5. VGA monitor out – not used with Systemline 7
6. Microphone in – not used with Systemline 7
7. Audio out – not used with Systemline 7
8. RS232 Serial – not used with Systemline 7
9. RS232 Serial – not used with Systemline 7

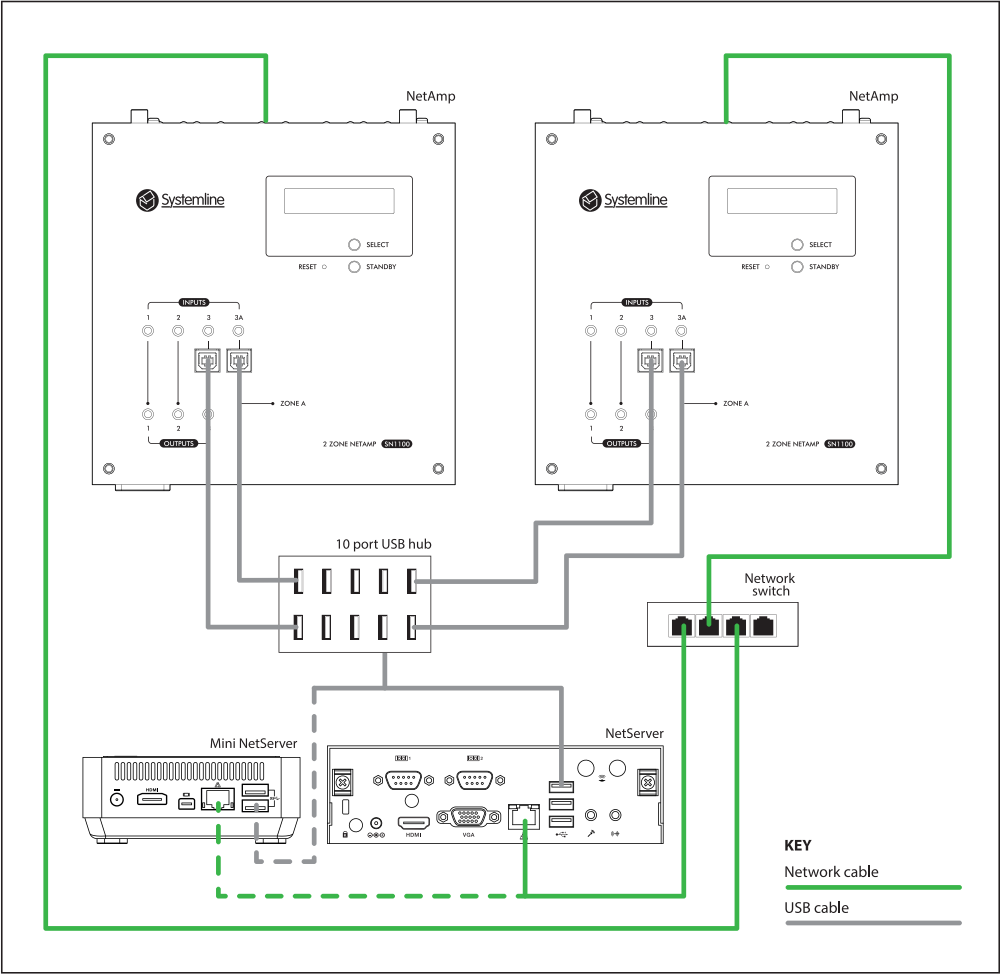
4.2 Mini NetServer



1. Local Area Network (LAN) Ethernet RJ45
2. DC power input
3. USB 3.0
4. HDMI monitor out – not used with Systmeline 7
5. High power USB3.0 (can be used with USB CD drive)
6. Mini display port – not used with Systemline 7

4.3 Connecting to NetAmps




The server requires a wired LAN connection to the network with a router and DHCP sever. Each S7 zone requires one USB connection from the server to the NetAmp. A USB hub is required if more than three zones are being used in the system as there are only three USB ports on the server itself.



Please note: It is important that you connect the USB cables and switch the NetAmps on before the NetServer when first installing.


5.0 The NetServer Web Page


Once booted up you can find the IP address of the NetServer using a FREE App called *Fing*. Run a scan of the network and look for the IP address of *S7_NetServer*.


	192.168.0.205		Digital telemedia	00:15:C0:35:78:55
	192.168.0.250	S7_NETSERVER	AOpen	00:01:80:82:63:4D
	192.168.0.251		IEEE Register	00:50:C2:0E:79:BE


Type the IP address into a browser and open up the web set up page.


e.g. enter 192.168.0.250





Home


SqueezeBox Server


CD Ripper


FLAC Mirror


Network Configuration

Main Menu

Welcome to your Systemline.

If you need help please check out the documentation section and the user forum on www.systemline.co.uk

System name: s7_netserver

Systemline SW Version: 2.3

Linux OS Version: Fedora release 20 (Heisenbug)

eth0 IP: 192.168.0.250

eth0 MAC: 00:01:80:82:63:4D

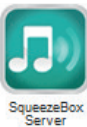
Filesystem	Size	Used	Available	Use%
/storage	886G	400G	441G	48%

5.1 Home button



The home screen shows you the current status of the server including the software version and available storage space for music.

5.2 SqueezeBox Server



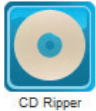
This starts a new web page for the Logitech Media Server (LMS) web interface. As Systemline 7 uses an embedded LMS, this web interface becomes available and was designed as a web control for Squeezebox systems. S7 is different to standard Squeezebox systems as it uses the NetAmp for volume control and zone naming which does not appear in the LMS web page.

This LMS web page is not recommended to be used with S7 as the zone names will appear as numbers which correspond to the unique USB number on each NetAmp connection, and the volume control will not operate the NetAmp.

S7 installers will use this page as a step to *Settings* where the LMS can be configured for plugins and *mysqueezebox.com* account services.

There is a separate document titled *S7 Plugins* that details adding plugin services to the server.

5.3 CD Ripper



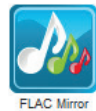
The CD ripper software is embedded in the server, you will need a USB optical drive plugged into a USB port of the server. It is recommended that you use a USB CD drive with a motorised drawer or eject function so that the server can eject a CD when it is finished ripping.

The CD ripping software is designed so that you simply insert the audio CD into the drive, the server then scans the disc, looks up the meta-data and starts the ripping process.

This page will show you the status of the CD rip, the details of meta-data and the status of the FLAC encoding.

Any CD will be ripped as FLAC in the folder `\files\music\flac`

5.4 FLAC Mirror



If you wish the CD ripper to create an mp3 file in addition to FLAC then you can set it here. Tick the *Enable automatic mp3 mirroring* and set the mp3 bitrate that you would like to use. The 320Kbit/s is the highest quality but takes up more space.

You can convert all files in the FLAC folder to mp3 after ripping or transfer has taken place. Simply press *start mp3 mirroring* and the server will transcode and copy all files and folders.

The server also supports ALAC in the same way. If you select this then the server will create a new m4a folder `\files\music\m4a` and transcode all FLAC to this folder.

5.5 Network Configuration



You can set a static IP address here with all the correct Subnet Mask, Gateway and DNS settings. If you are using NetAmps with a 3rd party control then you should set a fixed IP address here. See section 6.0 for details on configuring the network.

5.6 System Configuration



You can change the time zone here, the default is Europe/London. Make sure you set this correctly or the alarm clock functions may not work at the right time. You can also reboot or power down the server here. See section 6.0 for further information.

5.7 Backup

If you plug in a USB hard drive with enough storage space, the page will give you an option to back up the music library. Doing so will format the drive, name the folder and copy all content to the USB drive. See section 7.0 for further information.



5.8 Configuration Player



Each NetAmp USB connection is listed here. The *Name* is the unique USB serial number of the NetAmp USB socket which is set at the factory, and will correspond to the number shown on the NetAmp web page *Source Setup*. The server will allocate a unique and random MAC address to each USB connection, this is 6 sets of two characters (0-9 and 1-f) and is shown in the table. The server also shows which connections are active by a 1 or 0, as it retains connection information. You can update this table by pressing *Refresh & submit*.

Each time the server is rebooted or the *Refresh & submit* button is used, the current active USB connections are submitted to the Logitech Media Server as available zones.

It is possible to delete or edit the allocated zone's MAC address, see section 8.0.

The server table of 4 active NetAmp USB connections.

Configure Player			
Name	MAC address	Active	
000101	00:04:20:89:7E:75	1	Edit
000102	00:04:20:7F:7E:C1	1	Edit
000065	00:04:20:03:F3:A3	1	Edit
000066	00:04:20:51:5B:C9	1	Edit
Refresh & submit			

5.9 Systemline Upgrade

You can upload new software on the server here and also add additional software services. To upload new server software, simply press *Start Upgrade*. The log below will show your progress and also verify that new software is available.



To install additional software such as *BLISS* simply press *Install* next to the required service.

See section 9.0 for details on additional optional software services.

6.0 Configuring the system

When you first connect your S7 Server to a network the server will obtain its IP address automatically via DHCP (Dynamic Host Configuration Protocol). For S7 to function well, you must give the NetServer a static IP address. We would recommend you go into your routers settings and limit the DHCP range to 200 addresses, for example the DHCP range could be 192.168.1.2 to 192.168.1.200 this would then give out 199 IP addresses automatically. Then 192.168.1.201 to 192.168.1.254 would be fixed, leaving you with 53 static manual IP addresses that will never be given out to devices.

You must make sure that your Static IP is inside the range of your router. The usual range for home networks in the UK is 192.168.1.2 to 192.168.1.254 or 192.168.0.2 to 192.168.0.254. So this means that the router can have 253 devices attached.

1. Pick a IP address that is free and not inside the DHCP range and enter into static IP address

box.

2. Enter the subnet mask – usually 255.255.255.0.
3. Enter the gateway, this is the IP address of the router.
4. The DNS settings can be left blank or you can select your own DNS servers, if you leave them blank the server will automatically find its own DNS.
5. Once you are happy with your settings simply press submit, and the server will re-boot and after a few minutes you will need to log in with your new IP address.
6. To find your Network settings

If you are using a Windows PC go to start menu type CMD into windows search and press return, then type ipconfig and you will see IP address of your PC, Subnet mask and Gateway.

If you are using a mac simply go to the apple logo at the top right of your desktop then select system preferences then Network. You will see the subnet mask and the gateway listed here.

Warning: Please ensure you apply a correct and valid IP address, otherwise the system will not operate correctly and you will not be able to easily discover and connect to it.

7.0 Backing up the music library

If you plug a USB hard drive into the Server you will be able to back up stored music. The size of the hard drive inserted must be larger than 16GB but also larger than the total amount of stored music. The amount of storage used can be seen on the S7 Server home page. It is recommended that you insert a blank Hard drive as when you format all the data will be wiped and the right file structure will be installed.

1. Insert USB Hard drive (Larger than 16GB)
2. Select Backup page from S7 server web page
3. Select Format Drive
4. Select Back up to USB

The S7 Server will start backing up all the stored music and give you progress status on this page. The time the process takes will depend on the amount of data stored. Once it has finished the progress report will say 'Task complete. You can now remove the hard drive'.

Inserting this drive into a PC or a Mac will allow you to see the backed up files. This is for personal use only.

Warning: When backing up the S7 Server will become slow to respond.

8.0 Removing or exchanging NetAmps

If you need to exchange an S7 NetAmp for some reason, then you may need to copy the associated MAC addresses from one NetAmp being removed to a replacement unit. This is important if you have another 3rd party control system selecting favourites or opening up the S7 App and selecting the zone automatically. All these functions require the use of the zone MAC address, and if you simply exchange one NetAmp with another, the NetServer will allocate a new set of MAC addresses and your 3rd party system will no longer control these zones.

It is quite easy to replace a NetAmp and copy the MAC addresses from one to another.

1. Disconnect the NetAmp to be removed from the server, browse to the server *Configure Player* page so that you can see all active zones, and press *Refresh & submit*

Configure Player			
Name	MAC address	Active	
000101	00:04:20:89:7E:75	1	<input type="button" value="Edit"/>
000102	00:04:20:7F:7E:C1	1	<input type="button" value="Edit"/>
000065	00:04:20:03:F3:A3	0	<input type="button" value="Edit"/>
000066	00:04:20:51:5B:C9	0	<input type="button" value="Edit"/>
<input type="button" value="Refresh & submit"/>			

You will see that the two connections associated with the NetAmp to be replaced have changed their state to inactive (0). In this example the USB connections are 000065 and 000066.

2. Plug in the replacement NetAmp, making sure the two USB cables are plugged in, and switch on. Once booted up press *Refresh & Submit* and you should see the two new NetAmp zones appear as active. In this case 000049 and 000050 and have been allocated new MAC addresses.

Configure Player			
Name	MAC address	Active	
000101	00:04:20:89:7E:75	1	<input type="button" value="Edit"/>
000102	00:04:20:7F:7E:C1	1	<input type="button" value="Edit"/>
000065	00:04:20:03:F3:A3	0	<input type="button" value="Edit"/>
000066	00:04:20:51:5B:C9	0	<input type="button" value="Edit"/>
000049	00:04:20:5B:00:B5	1	<input type="button" value="Edit"/>
000050	00:04:20:34:15:49	1	<input type="button" value="Edit"/>
<input type="button" value="Refresh & submit"/>			

3. You now need to copy the MAC address from the old unit into the new unit. Highlight and copy the lower number first. Now press *Edit* next to the lower number of the new zone and paste the MAC address, overwriting the current MAC address and press *Submit*.

Edit Player

Name: 000049

MAC address:

Active: 1

- Repeat the process for the higher USB number so that the new NetAmP has the same MAC addresses as the old one.

Configure Player			
Name	MAC address	Active	
000101	00:04:20:89:7E:75	1	<input type="button" value="Edit"/>
000102	00:04:20:7F:7E:C1	1	<input type="button" value="Edit"/>
000065	00:04:20:03:F3:A3	0	<input type="button" value="Edit"/>
000066	00:04:20:51:5B:C9	0	<input type="button" value="Edit"/>
000049	00:04:20:03:F3:A3	1	<input type="button" value="Edit"/>
000050	00:04:20:51:5B:C9	1	<input type="button" value="Edit"/>
<input type="button" value="Refresh & submit"/>			

- To finish off, press *Edit* on the zones no longer being used and delete them so that only the remaining zones are left shown. Finally press *Refresh & Submit*.
- You should find that any 3rd party control system is left unaffected as long as you configure the same IP addresses and zone name etc. as the previous NetAmP.

Configure Player			
Name	MAC address	Active	
000101	00:04:20:89:7E:75	1	<input type="button" value="Edit"/>
000102	00:04:20:7F:7E:C1	1	<input type="button" value="Edit"/>
000049	00:04:20:03:F3:A3	1	<input type="button" value="Edit"/>
000050	00:04:20:51:5B:C9	1	<input type="button" value="Edit"/>
<input type="button" value="Refresh & submit"/>			

9.0 Systemline Upgrade Service

You can enhance the power of the S7 NetServer by installing additional software services listed in the *Systemline Upgrade* page.

9.1 BLISS

BLISS is a software package designed by Elsten Software Limited which will give the Systemline S7 server the following additional functions:

- Album cover art look up
- Album cover art resolution fixing
- Album cover art alternative picture option
- Album cover art embedded file
- Custom folder and file organisation

BLISS is a software partner for Systemline7 as it gives very useful automatic album cover art management when importing media from iTunes. BLISS requires a paid for licence to operate beyond 100 fixes. There is a link to the web site where a licence can be paid for.

Please refer to the separate document *S7 Using with iTunes* available on the S7 website from the download section:

<http://www.systemline.co.uk/systemline/s7.htm>

9.2 Supersync

SuperSync software gives Systemline 7 the ability to easily receive a copy of an iTunes library media and playlist from the host PC or MAC. SuperSync can be added to the S7 NetServer by selecting it in the *Systemline Upgrade* page, but must also be installed on the PC or MAC hosting the iTunes library. The software gives the following useful features:

- Identifies the iTunes library on the host PC or MAC and allows easy transfer of the media onto the S7 NetServer over the Local Area Network
- Identifies iTunes playlists and transfers this information to the S7 server, allowing the user to select these from the S7 App
- Creates a backup of the iTunes library on the S7 server
- S7 still plays all the iTunes media when the PC or MAC is switched off, or disconnected from the LAN

SuperSync is a software partner for Systemline7 as it gives useful easy transfer of media and playlists from an iTunes library. SuperSync requires a paid for licence to be entered on the host PC or MAC and is available from the SuperSync website.

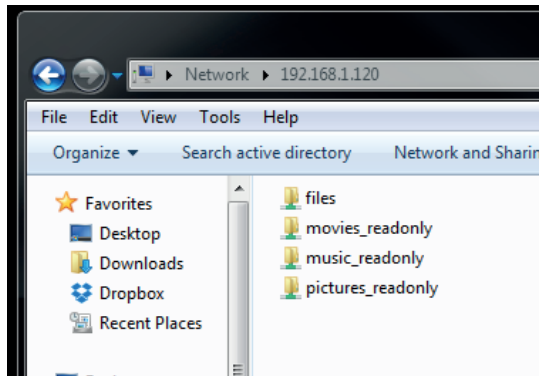
Please refer to the separate document *S7 Using with iTunes* available on the S7 website from the download section:

<http://www.systemline.co.uk/systemline/s7.html>

10.0 Copying existing digital music library

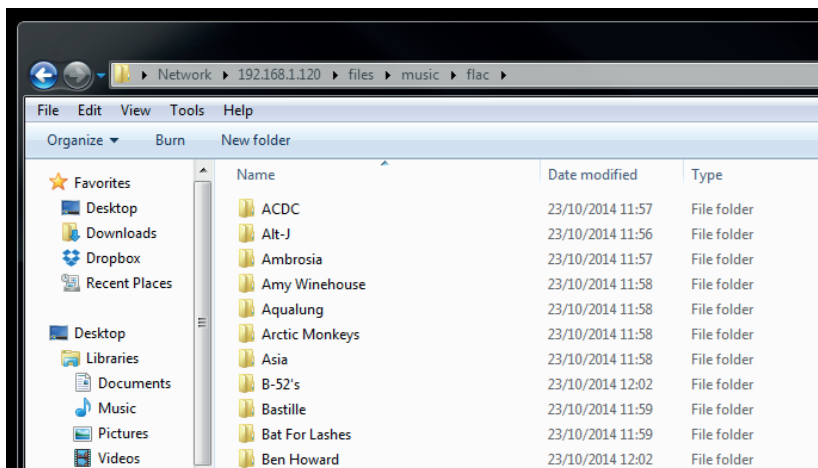
The S7 server acts as a NAS drive, in that you can browse, copy and paste files to its shared folders. If you have an existing digital music library, you can transfer this into the server.

1. Browse to the server IP address by selecting *Computer* and typing \\ followed by the server's IP address.
e.g. \\192.168.1.120

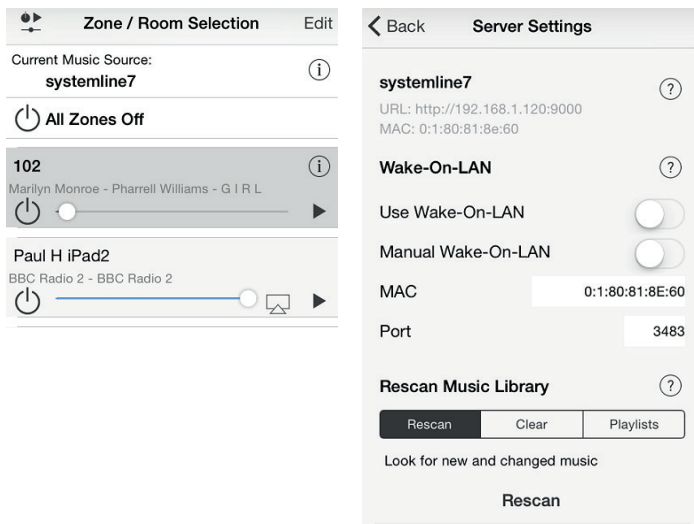


2. Double click *files* and then *music* and finally *flac*. This is a default media location for the embedded Logitech Media Server. All music should be transferred into this folder.

- Copy your digital music library into this folder. The example below has a folder structure of artist / album / file.



- Once complete, the Logitech Media Server will rescan this location if you have the *Auto Rescan* plugin enabled. See the separate document *S7 Plugins* available in the download section for Plugin instructions. If not, you can force a rescan of the library from the App by simply pressing the (i) button next to the *Current Music Source* at the top of the zone selection pop up, and then selecting *Rescan*.





armourHOME

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