WIRELESS ROUTER CONFIGURATION – ASSIST

Calrec's Assist apps are connected to the console via a wireless router. The setup options provided by different router manufacturers can differ substantially so this setup guide should be used along with the manufacturers instructions for your particular router configuration application. Also, some basic networking knowledge is assumed.

Calrec serial control protocol (CSCP) allows communication with Calrec consoles using the TCP/IP protocol at a pre-determined TCP port number.

Assist apps run on iPad devices which connect to the Calrec system through a wireless router, through which console functions can be controlled using CSCP.

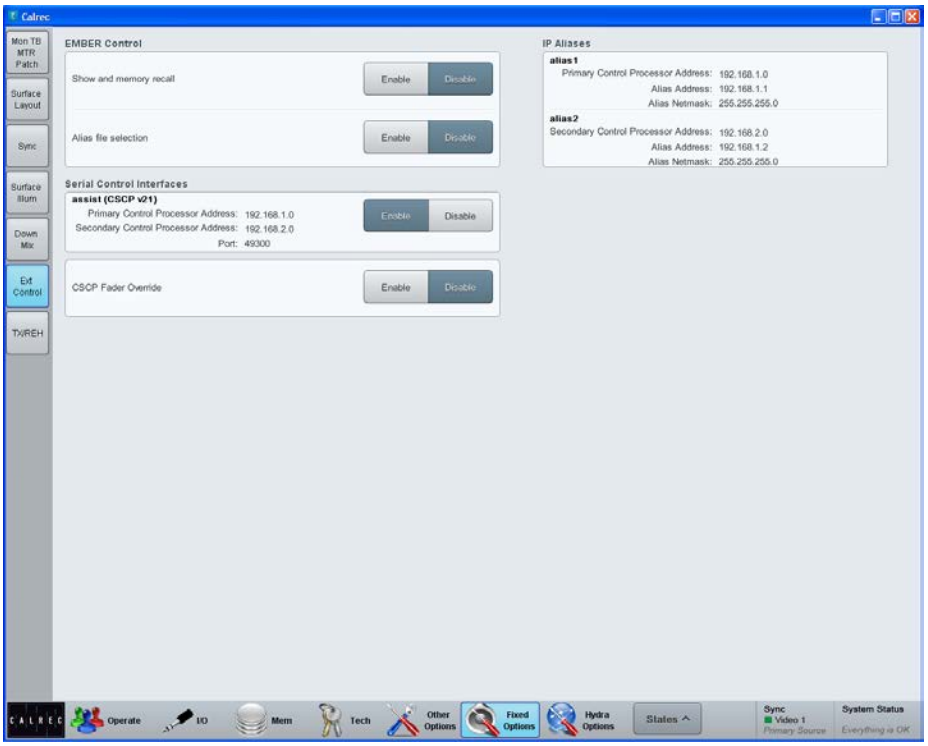
Console Configuration
From software version 1.14.7 onwards, Calrec consoles are pre-configured with a basic 'Assist' CSCP configuration which is disabled by default.

This basic configuration assumes a simple, point to point connection with a wireless router on a 192.168.1/24 subnet. This basic setup is unlikely to be suitable for connection to a more complex corporate network.

To enable the basic Assist connection, select **FIXED OPTIONS** from the menu along the bottom of the main application, then select **EXT CONTROL** from the left hand menu and click to **ENABLE** '**assist(CSCP v21)**'.

The console will now be providing the CSCP connections shown in this table.

ASSIST CSCP ENABLE



	IP Address	Subnet Mask	Port Number
Primary Control Processor	192.168.1.1	255.255.255.0	49300
Secondary Control Processor	192.168.1.2	255.255.255.0	49300

Wireless Router Configuration
When the basic 'Assist' configuration has been enabled the console provides CSCP connections on the 192.168.1/24 subnet so the wireless router LAN connection must be configured to be part of this subnet. We advise that the wireless router is configured with a LAN IP address of 192.168.1.3 and an IP subnet mask of 255.255.255.0

DHCP Configuration
To connect hand held wireless devices, such as the iPad, the wireless router should be configured to provide a DHCP (Dynamic Host Configuration Protocol) server to distribute IP addresses to these hand-held devices.

The wireless router should be configured as a **DHCP server**: The **IP Start address** or **IP Pool address** should be configured to be **192.168.1.100** and the **IP** or **DHCP pool size** should be set to **4**.

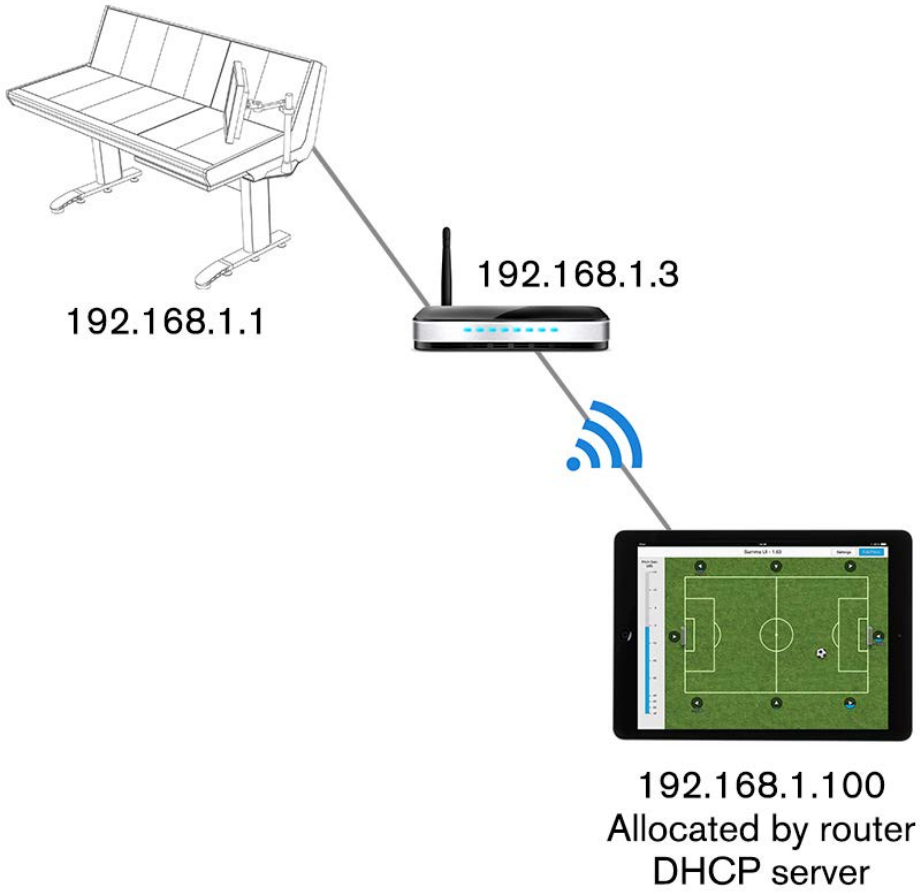
This allows up to four wireless devices to be connected to the console simultaneously. They will be allocated IP addresses in the range: 192.168.1.100 to 192.168.1.103.

DNS (Domain Name System) parameters are not required for this setup.

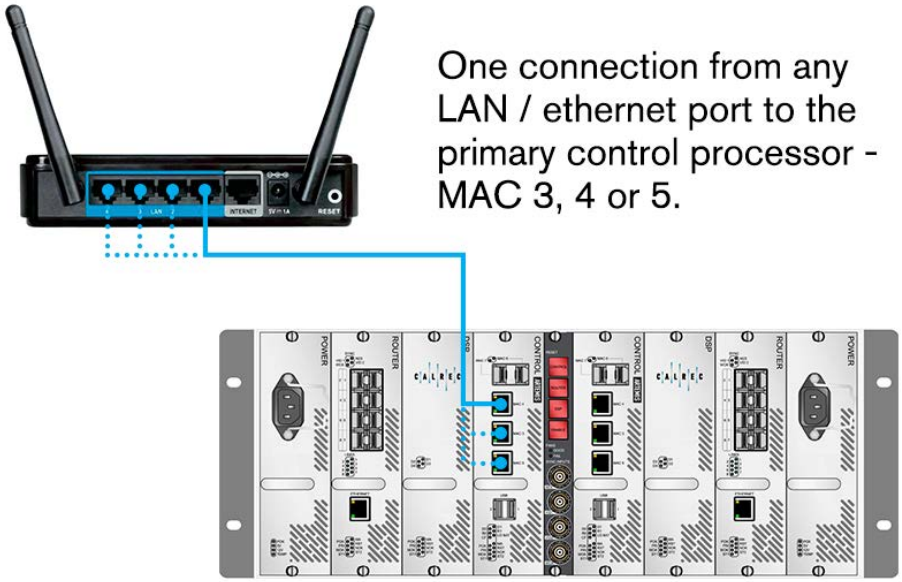
Other Configuration Parameters
Wireless routers provide many different services and it is not possible to cover all setup permutations in this document. Some common considerations are:

- Firewalls should be disabled if possible. If not then the firewall should be configured to enable TCP/IP traffic in both directions on port 49300.
- NAT (Network Address Translation) should be avoided.
- Packet filtering and MAC address filtering should be avoided.

IPAD, CONSOLE AND WIRELESS ROUTER CONNECTIONS



WIRELESS ROUTER TO CONTROL PROCESSOR CONNECTION



Security Considerations
The wireless LAN (and therefore the console) is open to any devices that can discover the wireless network and have access to the encryption keys. It is strongly recommended that the wireless LAN is configured to use some method of encryption. WEP is considered to be insecure so as a minimum you should select WPA(2)-PSK. This requires both communicating parties to agree on the same keyword or passphrase before access is allowed.

Assist Application Configuration
Assist applications should be configured with a CSCP IP address of 192.168.1.1 to connect to the primary control processor or 192.168.1.2 to connect to the secondary control processor. The CSCP port number should be set to 49300.

To access these settings, launch one of the Assist apps on an iPad and tap **NEW** in the top right hand corner to add a new connection. Enter your settings, as shown here, then press **DONE**. (The number of faders should reflect the number of faders on your desk and the 'Connection Label' can be customized to reflect your particular connection.)

ASSIST APP CONFIGURATION