SO EASY RADIO
STUDIO AND
STATION PACKAGES
about us

our company

Clyde Broadcast are experts in the design, specification and installation of radio studios and radio stations.

As well as manufacturing a range of our own analog and digital broadcast audio products, we have access to all leading makes of equipment and can tailor solutions to meet specific customer requirements of any size or budget.

We offer a comprehensive range of services including consultancy, equipment specification and procurement, project management, installation and training.

In addition to the supply of studio equipment, we can assist with locating studio premises, in building the studios, with the specification of studio to transmitter link and transmission equipment and systems, with outside broadcast equipment and vehicles, even with program consultancy and staff recruitment.

We offer a range of integrated radio studio and radio station packages, to meet all levels of sophistication and budgets.

our customers

In the 30+ years during which Clyde has been manufacturing and installing radio studio equipment, we have supplied the majority of the UK’s most prestigious broadcasters, including BBC local, regional and national services.

In the commercial sector we equipped the UK’s first three national broadcasters – Classic FM, Virgin Radio and TalkSport. Years later, when these stations upgraded to digital technology, they turned again to Clyde.

We have designed and equipped stations throughout the UK and Europe, in The Middle East and Far East, throughout Africa and the Indian sub-continent, as well as in Australia, China, Russia, the Ukraine and the US.

Our overseas customers include state broadcasting organisations, private broadcasters, educational establishments and community groups.

Whoever you are, whatever your interest is in radio, we can help!
packages

why a package?

Our packages were created in response to customer demands – particularly new start companies and organisations entering the world of radio for the first time.

There are many advantages of this approach:

- All equipment is guaranteed to be 100% compatible and to function as a complete system
- The package contains ALL of the equipment, cables and connectors etc required to be up and running in the minimum of time
- There is a single point of contact for installation, training AND support
- Fully pre-wired packages guarantee high quality installation
- A single order considerably reduces purchase and delivery logistics

There is a choice of packages to suit different levels of sophistication, budgets and operating styles, and to cater for different levels of local ‘in-house’ expertise.

so easy radio

So Easy Radio packages are what we called ‘hybrid’ solutions. They incorporate the very best of analog and digital technology, and incorporate carefully selected components, based on a combination of value, features, fitness for purpose, ease of use and reliability.

So Easy Packages are based around Clyde’s Octomix professional broadcast mixer, and optionally include S-Radio broadcast software – a suite of integrated software modules which cover all of the tasks associated with the production and broadcast of digitally-based programming.

Many of the components within these packages are manufactured by, or specifically for Clyde Broadcast, ensuring the highest possible level of support – no-one can possibly support a product as well as the manufacturer!

These packages are absolutely perfect for first-time broadcasters, for use by private FM stations, internet broadcasters, community groups and educational organisations.
**studio or station?**

We have packages which are suitable for both individual stand-alone studios, or stations made up of two studios, with optional workstations.

If you intend broadcasting 24/7, to include regular news bulletins and to record your own advertisements you will almost certainly require two studios – one to broadcast from, the second for ‘production’ activities.

We recommend that both are identically equipped, so that you have a back-up broadcast studio, and to allow successive programs to be broadcast from alternate studios, to simplify program hand-overs.

However, it is possible to start with a single studio and add a second at a later date, particularly as So Easy studio packages with S-Radio software allow ‘background’ recordings whilst broadcasting in automation.

‘Workstations’ allow tasks such as scheduling and the addition of new content to be undertaken in normal office environments without tying up valuable studio space.

**tech-op or self-op?**

Self-op is where the DJ or presenter operates the equipment himself. Guests sit in the same room as the presenter.

This tends to be the standard model for commercial stations, particularly those who broadcast mainly music, and a typical layout is shown opposite (top).

Tech-Op is where a technician operates the equipment and the presenter and guests sit in a different room (the Talks Studio).

This is the more ‘traditional’ approach, adopted by many state broadcasting organisations.

This arrangement is more suited to stations who broadcast a high content of speech-based programs – discussions and debates etc.

The Tech-Op arrangement obviously requires an additional room as shown opposite.
single studio packages

so easy elements studio package

This package contains a professional audio mixer, three microphones with stands and headphones, two pro CD players, a telephone balancing unit (with handset) a pair of active monitor loudspeakers and two Mic Live/On Air studio indicators. A set of loose interconnecting cables is also included.

so easy core studio package

This package contains a professional audio mixer, the S-Radio suite of integrated software tools and a BB5 intelligent mixer interface, plus connecting leads to mixer.

The package allows customers to supply their own source and monitoring equipment, and also the PC, though this can be provided as part of the package as an option, if preferred – either a rack-mounting version with separate touchscreen or all-in-one model.

The BB5 provides four channels of playback from the PC to the mixer, and two from the mixer to the PC, together with an interface to control external Mic Live Indicators.

so easy premium studio package

This package contains a professional audio mixer, three microphones with stands and headphones, one pro CD player, a telephone balancing unit (with handset) a pair of active monitor loudspeakers and two Mic Live/On Air studio indicators.

The package also contains Clyde's S-Radio suite of integrated broadcast software tools (record, edit, production, scheduling, library management, live and automated on broadcast), plus a BB5 Intelligent Mixer Interface, which allows the mixer to be connected digitally to a customer supplied PC, via a single USB cable.

The BB5 provides four channels of playback from the PC to the mixer, and two from the mixer to the PC, together with an interface to control the Mic Live Indicators.

The PREMIUM package is supplied with a robust industrial rack-mounting PC, which has two mirrored 1Tb hard-disc drives, capable of storing thousands of songs, together with a touch-screen, providing a highly intuitive user interface. A set of loose interconnecting cables is also included.
so easy premium plus studio package

This package, which contains identical equipment to the PREMIUM Package, also includes a set of custom technical furniture, with a pre-wired base equipment cabinet and a set of pre-loomed cables.

The furniture incorporates an adjustable monitor arm (for the touch screen), a mixer connector cover panel, desktop loudspeaker stands, a table top stand for the studio MIC LIVE indicator and two Guest Cough/Mic Live indicator panels.

so easy compact studio package

This package contains identical equipment to the So Easy Premium Plus Package, but is installed into portable furniture, suitable for transportation between locations or use as an Outside Broadcast or Rapid Response facility.

Its’ small footprint makes it ideal for use in locations where space is at a premium, and an optional rear table houses the two Guest Cough/Mic Live indicator panels.

The COMPACT package is supplied in a robust timber case, with easily removable front panel and pallet skids, making transportation in an open truck vehicle or van very easy.

The package can be unpacked and operational in minutes – requiring just a single power cable and feed to transmitter.

It is also possible to incorporate FM transmitters and processors, STLs or IP Codecs into the equipment rack, to special order.

so easy talks studio package

This package converts a self-op studio into a tech-op arrangement. The package includes a Talks Table with three mic positions, a headphone amplifier and active loudspeakers, together with a pre-wired cable loom, making connection to the control room/studio very easy.

The TALKS package can be used with ELEMENTS, CORE, PREMIUM or PREMIUM PLUS packages, and utilises some of the equipment within these packages.
octomix professional broadcast mixer

At the heart of the studio is a mixer with all of the ‘MUST HAVE’, most of the ‘WOULD BE NICE’ and none of the ‘DON’T NEED’ features, which is easy to operate yet surprisingly flexible, incorporating some innovative features aimed at making life as easy as possible for operators.

- Inputs for 3 mics, telephone, CD Player and multi-channel PC playback
- Separate input for CUE – listen in advance to PC audio
- Remote fader/button control of CD player
- Remote fader/button control of PC playlists
- Automatic prefade monitor switching from PC
- Indicators on inputs help prevent overload and distortion
- DUAL power supplies keep you on air at all times
- Solid state switching, conductive faders and rotary controls for ultra long life
- Metering on control surface AND on-screen
- Intelligent interface to S-Radio broadcast software via BB5
- ALL controls use Voltage Controlled Amplifiers for maximum life, minimum noise

Typical Self-Op Studio Schematic
s-radio integrated broadcast software tools

S-Radio Broadcast Software includes tools for each of the various processes associated with producing and broadcasting radio programs, including:

- Live Assist and Automated Broadcast
- Internet encoding and steaming
- Production and Scheduling
- Recording and Editing
- CD Ripping
- Library Management and Administration

Playback from the PC is across 3 faders – two associated with pre-prepared ‘playlists’ and one with ‘hot-keys’ or ‘carts’.

This offers far more flexibility than low cost automation packages on which all audio appears on a single fader, two at most.

Songs in the Library or a Playlist can be heard via the mixer’s monitor system, simply by clicking on them, which automatically activates the mixer’s prefade monitor system – an incredibly useful feature – in many systems this can only be achieved by dedicating a fader – not at all user friendly.

Fader/button control of Playlists is provided for convenient remote operation, and the action of ‘starting a cart’ using the touchscreen automatically opens the associated channel in the mixer.

A unique QUICK RECORD function allows simple recordings either from the mixer’s program output or from the PreFade output, allowing off-air recordings WHILST SIMULTANEOUSLY BROADCASTING.

S-Radio supports touchscreen operation, which is really intuitive for playing multiple ‘carts’ and for dragging and dropping content from the Library – a very user friendly interface.

The diagram below shows the various tasks in the ‘end to end’ broadcast process, with S-RADIO including tools for each job.
intelligent mixer interface

S-Radio, the software supplied with So Easy Radio packages offers an advanced level of intelligent interfacing to OctoMix, achieved through the BB5, providing features only normally found on extremely expensive high-end bespoke solutions.

The two playlist channels in S-Radio’s On Air software can be started from the mixer, using either fader or button control, and starting a cart player using the touchscreen automatically switches the Cart Channel in the mixer to an ON state.

The BB5 provides both audio and control connections between mixer, PC and touchscreen (when used).

Digital audio outputs from the PC are taken via the BB5 into the Octomix – playlist and cart outputs, plus the preview feed for pre-listening to audio. Record and Program feeds are taken from mixer to PC.

The BB5 connects to the mixer via a set of colour coded cables (supplied), and is typically mounted on the underside of the table, beneath the mixer.

There is also a connection to the MIC LIVE indicator panel, plus an output to an ON AIR indicator, useful in two studio packages.

pc options

The S-Radio software, together with a BB5 interface, can easily be installed on customer supplied PCs, requiring only a single USB connection from BB5 to PC.

For customers wishing to buy a package which includes a PC, we have two standard options, one is to use an all-in-one touch PC, from Dell or HP, the other is to use Clyde’s 2U rackmounting PC.

rackmount workstation

The S-Radio Workstation is an industrial rack-mounting PC. Containing an up-rated power supply for longer life and better reliability, with a low noise fan (so that live microphones don’t pick up fan-noise), the PC is supplied with S-Radio software pre-installed, together with Edcast and Shoutcast encoding and streaming software.

Featuring an X2 250 AMD 3GHz dual core processor, the workstations have fully mirrored 1Tb hard disc drives with automatic back-up, ensuring that should a drive fail, your valuable content will not be lost.

The Workstation is supplied with a 22” Touchscreen, which operates in conjunction with the mixer, mouse and keyboard (supplied).

all-in-one touch pc

Whilst it is not essential to use a touchscreen with S-Radio, most users praise the ease of use and say they would find it very difficult to operate without touch! Fortunately all-in-one touchscreen PCs from most major manufacturers are now readily available at very low prices.
monitoring

S-Radio Broadcast Software includes tools for each of the various processes associated with producing and broadcasting radio programs, including:

- Beyer DT231 headphones for presenter and guest(s).
- Microphones and indicators: Microphones are specially manufactured for Clyde; large diaphragm condensors, with an excellent voice response, supplied with elasticated shockmounts and pop shields. Presenter mics have anglepoise arms, with guest mics mounted on heavy duty table stands. High visibility led indicators give clear status indication – MIC LIVE and ON AIR, driven from the audio mixer and software. So Easy Packages also include a second indicator panel for mounting outside the studio.

pro cd player

Tascam CD500 professional CD/MP3 player, remotely controlled from the mixer via button and/or fader.

telephone balancing unit

All packages includes a Clyde BB3 Telephone Balancing Unit as standard, allowing calls to be put to air or recorded. Supplied with handset for fixed line or optional GSM interface for use in locations without fixed lines.

microphones and indicators

- Microphones are specially manufactured for Clyde; large diaphragm condensors, with an excellent voice response, supplied with elasticated shockmounts and pop shields. Presenter mics have anglepoise arms, with guest mics mounted on heavy duty table stands.

further options

The most common option is the addition of GSM Interfaces, for use in locations where fixed phone lines are not available.

Many customers like to purchase Clyde’s Acoustic Panels (CATS), which are very easy to install and prevent your studio from sounding like a bathroom!

We strongly recommend the use of AVR and UPSs, particularly in areas where mains supplies are erratic, and if you are prone to lightning strikes we suggest the use of specialist protection units.

Clyde can provide these items as part of complete bespoke solutions.

If you require a transmission system or outside broadcast equipment, please contact our sales office on +44 141 952 7950.
## what you get

### single studio packages

<table>
<thead>
<tr>
<th>ELEMENTS</th>
<th>CORE</th>
<th>PREMIUM</th>
<th>PREMIUM +</th>
<th>COMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Octomix professional broadcast mixer with dual power supplies</strong></td>
<td>●</td>
<td>●</td>
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<td>●</td>
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<tr>
<td><strong>S-Radio Suite of integrated broadcast software tools</strong></td>
<td>●</td>
<td>●</td>
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<td>●</td>
</tr>
<tr>
<td><strong>2U Rackmounting PC (1Tb+1Tb HDD) c/w touchscreen</strong></td>
<td>○</td>
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<tr>
<td><strong>All-in-one touchscreen PC</strong></td>
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<tr>
<td><strong>Intelligent mixer interface</strong></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td><strong>Pro CD/MP3 player with remote start from mixer</strong></td>
<td>● ●</td>
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<tr>
<td><strong>Large diaphragm cardioid condensor mic with shockmount</strong></td>
<td>● ● ●</td>
<td>● ● ●</td>
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<td>● ● ●</td>
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<tr>
<td><strong>Anglepoise arm</strong></td>
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<tr>
<td><strong>Heavy duty table top mic stand</strong></td>
<td>● ●</td>
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<tr>
<td><strong>Guest mic Cough panel</strong></td>
<td>●</td>
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<td>●</td>
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<tr>
<td><strong>Pair of bi-amplified active monitor loudspeakers</strong></td>
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<tr>
<td><strong>Professional stereo headphones</strong></td>
<td>● ● ●</td>
<td>● ● ●</td>
<td>● ● ●</td>
<td>● ● ●</td>
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<tr>
<td><strong>Automatic telephone balancing unit with remote divert and handset</strong></td>
<td>●</td>
<td>●</td>
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<td>●</td>
</tr>
<tr>
<td><strong>GSM Interface for above (required when fixed lines not available)</strong></td>
<td>○</td>
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<tr>
<td><strong>MIC LIVE/ON AIR indicator panel with mixer interface</strong></td>
<td>●</td>
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<tr>
<td><strong>Second MIC LIVE/ON AIR indicator panel (for outside of studio)</strong></td>
<td>○</td>
<td>○</td>
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<tr>
<td><strong>Set of technical furniture for above items</strong></td>
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<tr>
<td><strong>Pre-wired cable looms including mains distribution</strong></td>
<td>●</td>
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<td>●</td>
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<tr>
<td><strong>Set of loose cables and mains distribution</strong></td>
<td>●</td>
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</tr>
<tr>
<td><strong>Touchscreen monitor arm</strong></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td><strong>Table top MIC LIVE/ON AIR indicator stand</strong></td>
<td>○</td>
<td>○</td>
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<tr>
<td><strong>Table top speaker stands</strong></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td><strong>Mixer connector cover</strong></td>
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<td>●</td>
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<tr>
<td><strong>Rear guest table</strong></td>
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<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td><strong>Installation instructions and operations manual</strong></td>
<td>●</td>
<td>●</td>
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</tbody>
</table>

1/2/3 supplied as standard

Available as an option
The Talks Studio Package converts a So Easy Radio Studio Package into a Tech-op arrangement, whereby the mixer operator is located in a Control room and the Presenter and Guests are located in an adjacent ‘talks Studio’.

The Talks Studio Package includes:

- Additional Guest microphone, stand and headphones (making 3 mics in total)
- Studio playback loudspeakers and stands
- Acoustic table with 3 mic positions
- 3 x Mic Cough switches
- Multi-channel headphone amplifier
- 5m captive multiway cable
- 4 way mains distribution with 5m captive cable
- Talks Studio Connector Panel, pre-installed in control room base equipment sleeve, for easy inter-connection.

Communicating between Control Room and Talks Studio

OctoMix incorporates a talkback microphone, and using the Talk to Studio button it is possible for the technician operating the mixer to speak to the presenter and guests in the Talks Studio.

Talkback to the studio appears on headphones and on speakers (unless a mic is ‘live’, in which case the speakers will be muted).

It is also possible for the presenter and guests to communicate with the technician, even when their faders are down. This is accomplished using the Mic Live/Cough panels.

Each mic position has an associated panel, which contains an illuminating pushbutton. The button illuminates whenever the corresponding fader on the mixer is opened warning the person that their mic is live..

With the fader down, pressing the button activates the mixer’s prefade system on that particular channel, so that the technician can hear that mic’s output i.e. talkback from the studio.

When the fader is open, pressing the button mutes that microphone – allowing a guest to ‘cough’ for example – hence the name, and this action also causes the button above the fader to flash – to alert the technician that the mic is off.
**typical studio layouts**

**tech-op**

Typical Tech-Op arrangement with a technician operating the equipment in the control room, and presenter and guests in an adjacent room (the Talks Studio), ideally with a vision panel in between.

**self-op**

Minimum size for studios is approximately 2.5m x 3m. Rooms should ideally be acoustically treated to stop them from sounding like bathrooms!

**what else do you need?**

A room (or two), a single 13A mains outlet and a connection to the transmitter or streaming server, plus chairs for presenter and guests.
s-radio premium plus studio package – self-op

1. Touchscreen monitor, mounted on adjustable arm
2. Octomix professional broadcast mixer
3. Mixer connector cover
4. Active monitor loudspeaker on table top stand
5. Mic Live indicator on table top stand
6. Rackmounting CD Player (1U)
7. Rackmounting Telephone Balancing Unit (1U)
8. Rackmounting S-Radio PC (2U)
9. Base equipment cabinet on adjustable feet with rear door
10. Table top support legs, adjustable
11. Intelligent Mixer Interface, mounted on underside of table top
12. Custom table top
13. Guest microphone, mounted in shockmount on table top stand
14. Guest Remote control panel
15. Wireless mouse and keyboard for PC
16. Handset for telephone balancing unit
17. Presenter’s mic mounted in shockmount in anglepoise arm

Not shown: 3 pairs of headphones, second Mic Live indicator external connector panel, in rear of base equipment cabinet
s-radio compact studio package

1. Touchscreen monitor, mounted on adjustable arm
2. Octomix professional broadcast mixer
3. Mixer connector cover
4. Active monitor loudspeaker on side table
5. Mic Live indicator on table top stand
6. Rackmounting CD Player (1U)
7. Rackmounting Telephone Balancing Unit (1U)
8. Rackmounting S-Radio PC (2U)
9. Base equipment cabinet on lockable casters
10. Side hinging tables, shown in ‘up’ positions
11. Sliding drawer containing wireless mouse and keyboard
12. Guest microphone, mounted in shockmount on table top stand
13. Handset for telephone balancing unit
14. Presenter’s mic mounted in shockmount in anglepoise arm
15. Guest Remote control panel, supplied with optional rear table
16. Optional rear guest table

Not shown: 3 pairs of headphones, second Mic Live indicator external connector panel, in rear of base equipment cabinet

Layout below shows optional rear guest table, with two guest remote control panels
two studio stations

the cta central technical area

In stations broadcasting on a 24/7 basis, particularly those with a lot of internal production and news content, more than one studio will be required.

The Central Technical Area (CTA) – sometimes called the Master Control Room, is the ‘hub’ of the station, linking the two studios and interfacing to the outside world.

The simplest ‘station’ consists of two studios, and our entry level CTA Package (CTA1) works in conjunction with any two So Easy Radio Studio packages.

The Studio Switcher allows either studio to feed the transmitter, and outputs are provided which control On Air indicators in each studio, alerting staff that they are actually On Air and live to the transmitter.

The studio which is currently not live to air may be used for recording, scheduling and production purposes, and of course, provides 100% redundancy in case of a studio equipment malfunction, or to allow routine maintenance or to allow successive programs to originate from alternate studios.

This also avoids the rushed change-overs at program junctions, which with only a single studio are unavoidable.

The CTA1 Package contains:

- Studio Selector/Monitor Unit with multi-media speakers
- Distribution Amplifier
- Off-Air Receiver with Distribution Amplifier
- 8-port switch/firewall to connect PCs
- Back-up software for studio PCs
- Mains distribution to above items
- Cable harnesses to each studio

Content Back-Up

In two studio arrangements, content created in one studio is backed-up on the PC of the other studio, offering a high level of data protection.

The CTA package can also be used with a single studio – in fact we highly recommend this arrangement, for many reasons:

- It simplifies the addition of a second studio at a later date, minimising lost air-time
- It provides comprehensive monitoring including off-air
- It allows easy addition of an off-air Logger, which is a mandatory requirement in some countries

The CTA1 Package is supplied with two 10m pre-wired cable harnesses, one to connect to each studio (different lengths are also available).

Connecting up is very simple – all connectors and sockets are clearly marked, and once each cable is in place it only takes a few minutes to plug-up, requiring no tools or specialist skills.
For single studio stations, the choice is simple – Elements, Premium or Premium Plus Studio Packages, with an optional Talks Studio if ‘tech-op’ broadcasting is preferred to ‘self-op’. Note however that even for single studio stations we highly recommend the inclusion of a CTA1 package.

For stations requiring additional facilities, but not being able to justify a full-blown second studio, we offer the option of an office-based ‘workstation’, based around our DESKMATE desktop audio facilities.

DESKMATE includes simple audio mixing and monitoring, and is ideal for news-based applications, such as preparing bulletins in advance of broadcast.

Using a headset/microphone combination, DESKMATE includes a useful multi-input selector which allows feeds from external receivers to be recorded, plus an internal telephone balancing unit and built-in USB soundcard, for simple connection to a PC, which would run S-Radio Production Software.

This means that the addition of new content to the library, the creation and population of program schedules, the generation of reports - as well as news tasks, can be undertaken in a normal office environment without tying up the on-air studio.

The workstation PC can be almost any Windows 7 machine, and content created at the workstation can be saved to the On Air PC in the studio, which acts as a server.

DESKMATE has a USB port which allows reporter’s to transfer content from their portable recorders into the Library, suitably edited.

Clyde also supplies Reporter Kits, of varying complexity, for all applications.

In stations where there are several workstations, we recommend the use of a central content server, connected in the traditional client-server configuration.

This makes it easier to add additional workstations, and Clyde’s Linux Content Server also has options to add logging software and a time synchronisation interface.

Note that Control Rooms may have Elements, Core, Premium, Premium Plus or Compact Packages, in any combination.

To transmitter or streaming encoder

Optional Workstation(s)

Optional Workstation(s)

Optional Workstation(s)
specifying the equipment

single studios – core equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadcast mixer</td>
<td>Dual redundant power supplies</td>
</tr>
<tr>
<td></td>
<td>Minimum of 8 channels</td>
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<tr>
<td></td>
<td>Minimum of 3 channels dedicated to PC playback</td>
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<tr>
<td></td>
<td>100mm Conductive Plastic faders with voltage controlled amplifiers (VCAs)</td>
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<tr>
<td></td>
<td>Electronic channel ON and PF buttons, with no audio through switches</td>
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<tr>
<td></td>
<td>Conductive Plastic GAIN and MONITOR VOLUME controls with VCAs</td>
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<td></td>
<td>Individual OVERLOAD indicators on each channel</td>
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<tr>
<td></td>
<td>User programmable remote interfaces</td>
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<tr>
<td></td>
<td>Remote MIC on/off switching and PF activation</td>
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<tr>
<td></td>
<td>Individual channel MIC LIVE indicator outputs</td>
</tr>
<tr>
<td></td>
<td>MIC channels programmable for local (Control room) and remote (Studio) muting</td>
</tr>
<tr>
<td></td>
<td>Individual MIC LIVE indicator outputs for ANY studio or ANY control room live mic</td>
</tr>
<tr>
<td></td>
<td>Separate loudspeaker monitor outputs for control room and studio</td>
</tr>
<tr>
<td></td>
<td>Auto-muting of control room and studio speakers under live mic conditions</td>
</tr>
<tr>
<td></td>
<td>Auto injection of pre-fade source(s) into presenter headphones and c/room speakers</td>
</tr>
<tr>
<td></td>
<td>Auto activation of CUE system from external playout software</td>
</tr>
<tr>
<td></td>
<td>Fader AND/OR Button start of external playout system and CD player</td>
</tr>
<tr>
<td></td>
<td>SPLIT Monitor mode</td>
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<tr>
<td></td>
<td>Off-air Talkback to PHONE Caller</td>
</tr>
<tr>
<td></td>
<td>Incoming phone CALL indication on phone channel</td>
</tr>
<tr>
<td></td>
<td>Phone DIVERT button on phone channel</td>
</tr>
<tr>
<td></td>
<td>Separate h/phone monitor outputs for presenter and guests, with volume controls</td>
</tr>
<tr>
<td></td>
<td>External monitor input</td>
</tr>
<tr>
<td></td>
<td>Metering, with auto-PF switching</td>
</tr>
<tr>
<td></td>
<td>Phase Error indication</td>
</tr>
<tr>
<td></td>
<td>Minimum of 3 channels dedicated to PC playback</td>
</tr>
</tbody>
</table>

Playout software

<table>
<thead>
<tr>
<th>Playout software</th>
<th>Features</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Integrated tools for recording and editing, scheduling, live assist and automated broadcast, library management, report generation, encoding and streaming</td>
</tr>
<tr>
<td></td>
<td>All software fully pre-installed and configured</td>
</tr>
<tr>
<td></td>
<td>Playback to be controlled from mixer button/fader, mouse OR Touchscreen</td>
</tr>
<tr>
<td></td>
<td>Playback across a minimum of three faders</td>
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<tr>
<td></td>
<td>Intro, elapsed and remaining time progress bars for audio playout</td>
</tr>
</tbody>
</table>

Background

For greater reliability and no dead air-time
3 mics, phone, three PC playback, CD player
Maximises program options - two playlist, one ‘hot-keys’
Smooth feel, longest possible life
Silent action, no signal path degradation as switches wear out
Smooth feel, longest possible life
Alerting operator of potential distortion before it is too late
Ensuring operation with any type of external equipment
Facilitates COUGH and TALKBACK functions
Shows individual guests when their mics are live
Supports both Self-Op and Tech-op modes of use
Allows separate indicators for studio and control room
Supports both Self-Op and Tech-op modes of use
Prevents feedback!
Simplifies operation
Allows instant audition of items in playout system playlist or library
Simplifies operation and allows user choice of preferred operation
Simplifies operation and allows user choice of preferred operation
Allows discussion prior to putting caller live to air
Alerts operator to incoming call
Simplifies phone operation
Removes need for external amplifiers
Allows presenter to check ‘off-air’ signal
Essential to ensure good levels
Alerts operator to problems with external content

To cover each of the processes involved in creating and broadcasting radio programs, both live and fully automated
To ensure plug and play operation
Simplifies operation and allows user choice of preferred operation
Offering maximum playback flexibility
Providing visual information to presenter at all times
<table>
<thead>
<tr>
<th>Equipment</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playout software, cont.</td>
<td>Supports mixed file playlists with file transcoding tools</td>
</tr>
<tr>
<td></td>
<td>Scheduling module includes automatic music rotation tool</td>
</tr>
<tr>
<td></td>
<td>Scheduling module can import externally generated ads logs</td>
</tr>
<tr>
<td></td>
<td>Report generator for as-played music and commercials</td>
</tr>
<tr>
<td></td>
<td>Clock-based scheduling based around templates</td>
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<tr>
<td></td>
<td>Library SEARCH tool within broadcast module</td>
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<tr>
<td></td>
<td>Background RECORD mode – WHILST on air</td>
</tr>
<tr>
<td></td>
<td>Background EDIT and INSTANT REPLAY</td>
</tr>
<tr>
<td></td>
<td>Control mixer channel ON/OFF status from on-air screen</td>
</tr>
<tr>
<td></td>
<td>On-screen metering of mixer PROGRAM and RECORD levels with auto-prefade</td>
</tr>
<tr>
<td></td>
<td>On-screen timers and clock</td>
</tr>
<tr>
<td></td>
<td>Seamless switching between different tools WHILST on-air</td>
</tr>
<tr>
<td>Microphones</td>
<td>Large diaphragm cardiod condenser type, with windshields and shockmounts</td>
</tr>
<tr>
<td></td>
<td>Guest remote COUGH/TALKBACK buttons and CUE/MIC LIVE indication</td>
</tr>
<tr>
<td>Telephone Hybrid</td>
<td>Automatic operation – NO USER ADJUSTABLE controls</td>
</tr>
<tr>
<td></td>
<td>Incoming call indication via mixer</td>
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<tr>
<td></td>
<td>Remote DIVERT from mixer</td>
</tr>
<tr>
<td></td>
<td>Optional GSM interface</td>
</tr>
<tr>
<td>CD Player</td>
<td>Capable of playing CD audio and MP3 discs</td>
</tr>
<tr>
<td></td>
<td>Remotely started from mixer</td>
</tr>
<tr>
<td>Studio Indicators</td>
<td>MIC LIVE indicators required inside and outside of studio</td>
</tr>
<tr>
<td></td>
<td>Indicators to illuminate automatically under live mic conditions, without any audible clicks</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Background</th>
<th>Greatest flexibility</th>
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<tbody>
<tr>
<td></td>
<td>Ensuring consistent music rotation</td>
</tr>
<tr>
<td></td>
<td>Allows operation with existing traffic scheduling systems</td>
</tr>
<tr>
<td></td>
<td>For creating airtime bills and payment of music royalties</td>
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<tr>
<td></td>
<td>Allows tightly formatted programming</td>
</tr>
<tr>
<td></td>
<td>Allowing rapid access to music tracks</td>
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<tr>
<td></td>
<td>Maximises resources – effective ulti-tasking</td>
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<tr>
<td></td>
<td>Edit a recording WHILST on air and immediately drop it into playlist</td>
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<tr>
<td></td>
<td>Simplifies operation and allows user choice of preferred operation</td>
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<tr>
<td></td>
<td>To help prevent overload</td>
</tr>
<tr>
<td></td>
<td>Eases operation</td>
</tr>
<tr>
<td></td>
<td>Supports multi-tasking – maximising resources</td>
</tr>
</tbody>
</table>

For best quality sound
Simplifies operation

Simplifies operation and provides consistency of sound
Simplifies operation
Simplifies operation
For situations where fixed lines are not available

Greatest flexibility
For ease of operation

To prevent people from wandering in when there is a live mic
For ease of use and no interference with broadcast output