Equipment, Training and Technical Services for Community Radio
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Mid-Range Complete Radio Station Package

This system contains all the equipment needed to start broadcasting, plus a few extras:

An 8 channel mixing console, which allows 4 mics and 4 stereo audio sources (eg CD player, cassette player or computer) to be plugged in and mixed or broadcast simultaneously.

A laptop, for music and programming storage, automatic playback over the air, and production of jingles, spots and pre-recorded shows.

2 CD/Mp3 players, which allow 2 pieces of music or programming to be mixed together, or played seamlessly one after the other.

2 Portable Digital Recorders, which allow 2 community radio journalists to be out making recordings in the field simultaneously.

A 100 Watt transmitter and half wave stacked dipole 3.7dB gain antenna, which provide sufficient power to broadcast to a range of 35km, depending on the height of the antenna, and the terrain of the local area.

And a lot more!

The equipment in this system is suited to a radio station with two rooms:

A Control Room, where the mixing console, laptop PC and other studio equipment is installed, used to mix recordings and live broadcasts.

A Recording Room, for the radio presenter and guests.

The studio equipment could all be housed in one room, which would allow the radio host to also have control of the studio equipment.

With either arrangement, the transmitter should be housed in a separate room, as it has a loud fan which could be picked up by the microphones, and because the closer the transmitter is to the studio equipment, the more likely it is that feedback might be introduced into the system.

Mid-Range Package Equipment List

Studio Equipment

1 Behringer Xenyx 1622 8 Channel Mixer (4 Mic/4 Line Inputs)
5 Dynamic Microphones
4 Pairs of Studio Headphones
2 CD/Mp3 Players (Separates)
1 Laptop PC with recording and radio playlist software
1 Cassette Player
1 Headphone Splitter
2 Portable Digital Recorders
4 Microphone Stands
1 Limiter / Compressor
1 Pair of Studio Monitors

Please note: the following equipment is not supplied, but is required for the proper functioning of the station, and should be sourced locally:

- Antenna Tower/Mast
- Studio Building
- Studio Furniture
- Voltage Regulator

Please contact us if you would like help with finding any of the above items.

Transmission Equipment

1 100 Watt FM Transmitter
1 Stacked Dipole Antenna
1 RG 213 50 Ohm Antenna Cable (50m)
5 PL 259 Connectors
1 Lightning Protection (includes ground cable and copper tube)
1 SWR / Power Meter
1 Dummy Load

Please note: any equipment can be added to or removed from this package to suit specific project needs.

Please contact us to discuss your particular requirements.

Extras

2 Power Strips
1 20 Pack of Batteries (AA)
Rechargeable Batteries (AA) + Charger
Blank Cassettes (20) and Blank CDs (100)
CD Wallet
Cables and Connectors
Tools (Toolkit, Multimeter, Soldering Iron, Tape, Ties etc.)
Pens and Paper

TOTAL: (excl. shipping and customs) **£4000**

Payment Details

Payment can be made by wire transfer to:

Account Name:	RadioActive Consulting Limited
Bankers:	Santander
Bank Account	47185580
Sort code	090127
IBAN:	GB87 ABBY 0901 2747 1855 80
Swift Code / BIC:	ABBYGB2LXXX
Bank Address:	Santander UK PLC, Business Banking, 301 St Vincent Street, Glasgow, G2 5NT, United Kingdom

Please note:

Prices are in UK Sterling excluding VAT (no VAT payable on exported goods.)

Order will be assembled upon 50% payment. Assembly takes 4 – 6 weeks. Once the assembly is complete will contact you to ask for payment of the remaining fee. Once this has been received the order will be shipped.

Mid-Range Package Equipment Details

Below are descriptions and images of all the main pieces of equipment included in the mid-range package.

Behringer Xenyx 1622 8 Channel Mixer

The Behringer Xenyx 1622FX mixer allows 4 mics to be plugged in, along with 4 other stereo audio sources (eg. 2 CD players and a cassette players and a computer. This is ideal for radio drama or panel shows, where there may be several guests each with their own mic.

This mixer has 4 stereo outputs. This means one output can be used to send the signal to the transmitter, one can be used for recording, and two can be used for monitoring, via headphones and studio monitors. This mixer has Pre-Fade-Listen, which allows you to listen to one audio source while broadcasting another. This is useful when preparing songs to be broadcast. It also has an On/Off switch for each channel, to let you know whether the channel is on air.

5 Superlux Dynamic Microphones

These clear-sounding mics are sturdy and durable, and able to handle dusty, dirty conditions, as well as being dropped by accident. 5 mics allows for several guests to be on air at once. These mics can be used in the field or in the studio.

Numark Dual CD/MP3 Player (with 2 CD decks)

These are essential for playing audio CDs and mp3 CDs on the air. These are DJ CD players, built to withstand many years of use.

Roberts "Long Play" Cassette Recorder

This cassette recorder allows you to record for 6 hours onto a single 90 minute cassette. Useful for recording your broadcasts, which is a requirement under community radio licensing law in many countries.

Laptop PC with Office XP, Radio Production and Playlist Software

This laptop comes with 512MB of RAM, a 40 GB Hard Drive, 1.6 GHz processor and built-in CD Burner. Digital audio editing, recording and production software is provided, as well as radio playlist software which allows music and programming to be stored on and broadcast from the computer. An external 160 GB hard drive can be added to this package for **£80.**

2 Zoom H2 Portable Recorders

These professional quality recorders are handy for recording out in the field, and transferring directly to computer via USB. Records onto SD Card in WAV or mp3 formats. A high quality versatile recorder.

4 Sennheiser Studio Headphones

These high-quality studio headphones allow the presenter and one host to monitor what is being broadcast. This make and model produce quality sound and will last for a long time in tough conditions.

Alesis Limiter/Compressor

This device is not essential, but useful to ensure that the sound being broadcast is not too quiet or too loud. It helps makes your station sound more professional.

Alesis M1 2-Way Active Loudspeakers

No studio is complete without a pair of monitor speakers. These monitors come with built-in amplifiers and produce 80 watts each. There are plenty of other options for low-cost loudspeakers. Please contact us to find out more.

200 Watt ERP FM Transmission Equipment

100 Watt FM Transmitter

The transmitter is the heart of the transmission system. Connecting this 100 Watt Transmitter with a 3.7dB gain Antenna will provide on average of 200 Watts ERP. The transmitter can be supplied as mono or stereo. A mono transmitter will generally give you a clearer signal and go a little further. But a stereo transmitter gives you a stereo signal. The price is the same, so the choice is yours.

SWR/Power Meter

SWR stands for "Standing Wave Ratio". It is a measurement of the efficiency of the transmission system. This device measures the SWR and power of the system.

Lightning Protection

This consists of a small lightning arrestor, fitted between the antenna and SWR Meter. It should be connected to a copper cable feeding to a copper rod buried into the earth (copper cable and rod not supplied).

Half-Wave Stacked Dipole Antenna

The stacked dipole antenna gives a boost of 3.7dB to the power of the signal being broadcast. It must be attached to a 3-4 metre long metal pole with a diameter of 25-50cm. This must be placed as high as possible, to cover as large an area as possible.

RG 213 or RG8 50 Ohm Coaxial Antenna Cable (40m)

It is important to choose the right cable, as a lot of power can be lost with the wrong cable. This cable is used to connect the transmitter, swr meter, lightning arrestor and antenna.

PL259 Connectors

These radio frequency connectors go at each end of the antenna cable.

Dummy Load

A dummy load is used to test the transmitter without connecting it to an antenna. A transmitter should NEVER be switched on without being connected to a load, which under normal circumstances would be an antenna. If it is switched on without a load, it can burn out. So if a transmitter needs to be tested, but for any reason cannot be connected to the antenna, then a dummy load is used.