

# Studio equipment

## Furniture

You can buy special studio furniture, but you are probably better off having local carpenters build it.  
Buy good office chairs. The cheap ones (Wal-Mart) don't last.

## CD Players

Cheap: Home single play will work, won't last.

Look for: wired remote control, balanced out, countdown timer, easy track selection

Avoid: "5-disk"

Caution: The dual ones may seem convenient, but if one breaks you have none.

Brands: Denon, Tascam, Stanton, Numark

Price: \$250

## Turntables

More important than you think.

Look for: direct drive, magnetic "DJ" cartridge

Avoid: belt drive, ceramic cartridge, audiophile cartridge, USB interface, straight tone arm.

TT Brands: Technics (1200 used !!!), Stanton

Cartridge brands: Shure, Stanton, Audio Technica

Price: \$200 - \$500

## Turntable Preamp

Interface from turntable to board

Look for: balanced out

Brands: ART, Rolls, RDL

Price: \$50 - \$100

## DJ Mixer

Not really needed but some club DJ's prefer it.

Usually it is just added complexity.

## Cassette desk

Cassettes are inconvenient no matter what you do.

Don't buy new. Install one at a transfer station.

## **Stand-alone recorder**

Really part of remote equipment.

Brands: Zoom

More flexible, easier to record on the computer in the studio

Price: \$100

## **Computer**

Look for: Linux, big disk, good sound card, second sound card, second network card, higher quality motherboard, Higher quality CD (Plextor), quiet.

Avoid: proprietary software.

Brands to look for:

Motherboards: MSI, Asus

CD: Plextor (worth the extra money!)

Buy the parts, custom build

Price: \$500-\$1000

## **Software**

Look for: Free/open-source.

Avoid: Zero/low cost come-ons that will cost more in the long run.

Names: Rivendell, Audacity, Mplayer, Airtime

Caution: Changing to a different automation system is painful. Choose something you won't outgrow.

Price: \$0.

## **Sound card**

Look for: Low noise, good filter, good headroom, balanced in/out

Caution: some cheap sound cards have poor filters, very low in and out levels. Likely you will need to pad pro level signals feeding so-called line in.

Price: \$100.

## **Microphone**

Quality is important for good sound, but enough is enough. You need several of them.

Brands: Shure (SM-58), Electro-Voice, AKG, Audio Technica

Avoid: Cheap Hi-Z mics, connectors other than XLR.

Price target: \$100.

## **Microphone stands and booms**

You need these! At least 2.

Brands: OC White

Price: \$20 - \$150, \$100 for the studio

## **On-air console**

Price range: \$100 - \$100000

Reasonable price range: \$1000-\$4000.

Look for: Simple (no eq), switchable monitor with muting, real VU meters, high headroom, balanced inputs, balanced and/or floating outputs, modular, expandable, repairable, Standard connectors, such as RJ45 "Studiohub compatible", 1/4" TRS, or XLR.

Avoid: unbalanced inputs, RCA connectors, small LED meters, proprietary interface, mixers designed for recording or live performance, surface mount components.

If you need to ask, you are not ready for digital. Go analog.

Brands: Wheatstone/Audioarts, Arrakis, AEQ, Kaatskit

Think of 3 categories:

Minimal (6-8 faders, dead end):

Arrakis ARC-8 \$800

Wheatstone/Audioarts AIR-1 \$1800

Henry six-mix \$1200

Medium (12 faders, dead end)

Wheatstone/Audioarts AIR-4 \$4000

Ideal (12 or more faders, modular)

Wheatstone/Audioarts R55 \$5000 - \$10000

Kaatskit \$1000 - \$3000 kit, \$2000 - \$6000 assembled.

## **EAS Decoder**

Required, no short cuts.

Brands: Sage, DASDEC, Trilithic

Look for: For LPFM, it is probably best, certainly easiest, to buy a unit that has it all, including the radios, in one box.

Avoid: Old Pre-CAP units, consumer radios that lose settings in a power failure.

Caution: When comparing prices, be sure to compare bottom line price for the whole system, and also compatibility with your other equipment and software. Some brands include radios, some do not.

Price: \$2000 - \$3000 for the whole package, including 2 or 3 radios.

## **FM Monitor Tuner**

A consumer tuner will do.

Brands: Sony, Rolls

Price: \$200

## **Monitor speakers**

Look for: rugged

Recommend: Car radio speakers

Avoid: Cheap consumer speakers with poor power handling.

Price target: \$100/pair

## **Monitor amp**

Look for: balanced input, hideable volume controls

A good consumer amp will do.

Brands: ART (SLA1), Crown, Rolls

Price target: \$200-\$300

## **Headphones**

Some are more rugged than others, some sound better than others.

Look for: sturdy cord, replaceable cord, full ear cup.

Don't spend too much money here. They all break. Plan on replacing frequently.

Brands: Tascam, Sennheiser

Price target: \$20.

## **Headphone amp**

There are many. Look for the features you need, especially its physical configuration. Also look for balanced input.

Brands: Rolls, ART.

Price range: \$25 - \$100

Price target: \$50.

## **Distribution Amp**

Many to pick from. Not sure why such a price range.

Kaatskit has a bare-board for \$75 for use with a Studiohub system.

Rolls has a rack mount unit for \$150.

More expensive probably has more outs, but 4 is probably enough.

Look for and question: Type of outputs, floating vs nonfloating. Both have advantages. Type of connectors. RJ45/Studiohub, 1/4"TRS, XLR preferred. Most seem to have screw terminals.

Brands: Rolls, ATI, Rane, Audioarts, Kaatskit, Henry, Broadcast Tools.

Price range: \$100 - \$600.

## **Telephone hybrid**

Look for: digital

Avoid: knobs on the front

You can start with a cheap one and upgrade later. If you do this, go cheap cheap. Better quality comes with going digital. A more expensive analog hybrid is not much better than the cheapest.

Brands: JK, Telos

Price range: \$100 analog, \$500-\$1000 digital

## **Impedance matching, isolation**

Sometimes you need some kind of isolation on audio lines, most likely to feed unbalanced inputs from a non-floating balanced source. Example: console out or DA feeding a computer.

Could be a transformer or electronic device.

Don't buy unless you need it. If you think you need it, you may be better off upgrading the box you think needs it to a better one that doesn't.

Brands:

Transformers: Neutrik (\$30), Jensen (\$100)

Electronic: Kaatskit, ATI, Radio Systems, Henry

## **Equipment rack**

To securely mount your equipment.

Brands: Middle Atlantic

Price: \$100-up, or you can make one.

## **On-air light and relay**

Make or buy

Brands: Henry, Broadcast Tools, Radio Systems, Canna-Kit

Price: \$0 to \$200

## **Wiring**

Shielded cat-5 cable is excellent audio cable .. \$100 for 1000 foot box.

You need to decide how much to make, how much to buy.

Pre-made brands: Radio Systems (studiohub), Hosa

Cost: Figure \$500 by the time you are done.

## **Who??**

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