

Price List and Evaluation of Equipment

Mixers:

▲ Arguably one of the most important pieces of equipment allows all audio to come together and be levelled in real time to sit properly together in a mix. The mixer processes all of the audio signals and produces a finished master signal for everyone to hear and a separate signal for the DJ so he can perfect the mix without giving anything away.

Mixers come in a range of prices and capabilities and it is important to find a good compromise on both when trying to keep to a budget.

Vestax VMC 004XL USB rating: 3/5

£199 (hfr) 12 month warranty. Extremely affordable.

.4 channel + 2 microphone channels.

This fills the requirement for number of channels up to 4 potential audio sources and 2 mics

.3 band EQ with kill switch

This has the 3 band EQ needed to effectively level mixes enough to sit on top of each other, plus the bonus of kill switches being able to kill single EQ bands with the flick of a switch rather than turning down the pot.

.USB output

This is an interesting feature that allows parts of the mixer to be assigned to tasks on the computer, on MP3 mixing software for example. This means that MP3 mixes can be carried out on the mixer without needing to use the computer as much. ▲ Also high quality recordings can be taken through this connection.

This is the lightest mixer

▲ benefit not to be overlooked as a mobile DJ. Easier to transport and carry.

This mixer looks very good on paper, but upon reading reviews on it I am lead to believe it is more of a top end bedroom/hobby DJ and probably lacks the all round quality needed for a professional.

Because of this I will rate this 3/5 as it would do everything I need it to at a very reasonable price, but I don't think I should be compromising too much on the performance of the mixers due to how vital its role.

Pioneer DJM400 4/5

£449 (htfr) 12 month warranty

quite expensive almost a 6th of the budget.

.2 Channel + 1 Mic

This is not as many channels as I had hoped for this means only 2 audio sources and 1 vocalist can be mixed.

.3 band EQ with kill switch

This has the 3 band EQ needed to effectively level mixes enough to sit on top of each other. **.replaceable fader**

Good for long term maintenance, fader is usually the first thing to break and being able to replace the fader without the whole mixer will be an advantage in the long run.

.7 on board FX

Gives me the ability to further manipulate the tracks and therefore the opportunity to be more creative with the mixing.

.24bit 96KHz sampler

Has extremely high quality recording facility for recording samples or performances in double the standard CD sample rate.

Reviews on this mixer suggest a sound quality and playability that is second to none this mixer is not overly expensive for such an integral part of the kit, but compromises 2 channels on what I would ideally like but from what reviews would suggest it makes up for it in superior sound quality.

I rate this mixer 4/5 as it has the quality and credibility that I require but it falls short on the number of channels, meaning I would have to alter my set up to accommodate this.

Allen and Heath Xone 62 4/5

£698 (htfr) 12 month warranty

The most expensive mixer I have reviewed.

.4 channel + 2 microphone channels.

This fills the requirement for number of channels up to 4 potential audio sources and 2 mics

.3 band EQ with kill switch

This has the 3 band EQ needed to effectively level mixes enough to sit on top of each other.

.Ballanced XLR outputs

This means XLR leads will be able to be fitted reducing interference caused by vibration in the connections as they secure in to the ports.

.Hi and Lo pass filters

▲An excellent effect very effective for mixing great sounding effect.

Reviews of this mixer are excellent great sound quality and in my experience very nice to play as well.

This mixer will do everything I need it to and very well I have rated IT 4/5 due to the expensive price tag, but as I said the mixer brings everything together and it may not be wise to compromise on quality.

From comparing these mixers I have decided it is between the pioneer and the Allen and Health, however due to the fact that the pioneer has less channels than I really need I would rather pay the extra for the Allen and health as fewer compromises will be necessary later on in the setup. Also the Allen and Heath has balanced XLR outputs making the connections more secure and have less interference caused by bass vibrations. It is the most expensive at Cost of £698 but does everything i require excellently.

Turn tables

The turntables will be partially responsible for how well the tunes stay in time and how good the signal quality being read. Good turntables will mean tunes will stay in time with less attention and have better sound quality. This leaves the DJ to spend more time on the levels and the finer points of the mix.

Technics 1210 pair

£998 (htfr)

Very expensive almost a 3rd of the budget

.High torque motor

Means the turntable has a very strong force driving it making it less likely to slow down or speed up without the operators instruction.

.Keeps time very well

Due to quartz crystals built in

.Very Heavy

Will be effected less by vibration

.+/-8%pitch range, 33rpm and 45 rpm

Relatively small pitch range for such a top end model would be limited on mixing different tempos

.Choice of S shaped or Straight tone arm

Both have advantages and disadvantages a lot about personal preference.

.Comes with Stanton Diablo cartridges

Well respected good performance needles

This deck has received excellent reviews and is the industry standard, but it is ver expensive and I feel you are paying for the brand name to a certain extent as there are other decks that boast similar, even better specs for a much lower price.

Because of this I rate them 3/5

Santon ST 150 pair

£699 (htfr)

Less expensive still not cheap

.High torque motor

Means the turntable has a very strong force driving it making it less likely to slow down or speed up without the operators instruction.

.Keeps time very well

Due to quartz crystals built in

.Very Heavy

Will be effected less by vibration

.+/-50%pitch range 33, 45and 78 rpm settings

▲ massive pitch range meaning mixing music of totally different tempos is possible.

.Comes with Stanton Diablo cartridges

Well respected good performance needles

.key lock

When you change the speed of the track the key that it is in remains the same, this is very good for extreme mixes that can often make tracks far too high or low pitched.

.Variable return

Can change return on pressing play button from gradual build up to speed or pretty much instantly at speed.

.Reverse function

Motor can be put into reverset to play vinyl backwards.

▲ very versatile turntable can do a wide range of useful things that many of its competitors don't, they are the heaviest deck which means they're a bit more effort to carry but far better at coping with vibration which is essential for a live performance on vinyl. There doesn't seem to be any way I can fault the stantons so I rate them 5/5.

Numark TT1650 pair

£260 (maplin catalogue)

Much less expensive

.direct drive not as high torque

Will affect the decks ability for time keeping

.+/-10% pitch range 33/45rpm

Standard speed adjustment available

.Lightweight

Good for mobility bad for being less susceptible to vibration

This deck has reviews that suggest it is very good statup deck for those on a tight budget but would not cut it as a part of a professional setup

This deck has much less of the advantages of the other decks but the price reflects this it would be a compromise on the quality in an essential part of the setup I feel this was designed with a beginner setup in mind so for that reason I rate it 2/5

From this I have concluded the most viable option for turntables will be the Stanton ST 150's due to their competitive price and excellent specifications and extra functions. they seem to have everything With a very reasonable cost of £699.

Speakers and amplification

Another very important part of the system it is the speakers and amp that amplify and play the mix that the DJ is playing. The sound quality of the whole system rides on appropriate speakers being chosen.

Bass speakers/ sub woofers

Pro Sound 15inch 800w integrated amplifier

£249

Quite expensive for a single unit

.45Hz- 18KHz frequency response

Means can handle low frequencies well and can adapt well to midrange

.Internal amplifier

No amplification necessary

.Strong casing

Ideal for transport and coping with wear and tear.

.XLR inputs

Secure XLR leads can be used for better signal quality .

This speaker has good low end frequency response needed from a bass speaker it has a 15 inch cone in which will make it very effective at producing the low frequencies with the necessary detail. I rate this unit 4/5 Due to it being a good speaker for the job however it is quite expensive for one unit.

Pro Sound 15inch 800w bassbin integrated amplifier

£299

Quite expensive for a single unit

.35Hz- 12.5KHz frequency response

Means can handle low frequencies well not so good on mid range and top end

.Internal amplifier

No amplification necessary

.Strong casing

Ideal for transport and coping with wear and tear.

.XLR inputs

Secure XLR leads can be used for better signal quality.

This speaker is slightly more expensive than the last but it more specifically aimed toward bass frequencies. Looking at the frequency response this would have to be a part of a system containing more speakers to handle the mids and highs because of the better bass response in this speaker but the slightly higher pricetag I rate this at 4/5 as it is slightly better for what I want but also more expensive.

Pro Sound 15inch 800w bassbin

£299

Quite expensive for a single unit

.35Hz-12.5KHz frequency response

Means can handle low frequencies well not so good on mid range and top end

.No Internal amplifier

External amplification necessary

.Strong casing

Ideal for transport and coping with wear and tear.

.XLR inputs

Secure XLR leads can be used for better signal quality.

This speaker is less expensive as a unit but the cost of amplifying it may take it over however the use of several unamplified speakers connected to one communal amp may work out cheaper.

Cost of suitable amplifier (prosound power amp 1000) on top £179, but can run 2 unamplified bass bins.

Because of the amp to run one speaker is cheaper to use an integrated amplifier but if using 2 bassbins external amplification would work out cheaper so I will rate it 4/5 because of this.

Midrange and high frequency speakers

Pro sound 8 inch 300w mid range high end speaker

£59

Extremely reasonable

.75Hz 20KHz frequency response

Can handle remainder of frequencies bass bins cannot produce

.strong durable case

Good for transport

.Jack inputs

Less secure, more prone to interference

This speaker will produce the frequencies needed but may not be powerful enough to power an event in a large room due to a low SPL

Prosound 600W 12inch cabinet speaker.

£129

Little more expensive

.45Hz-18Khz

Wide spectrum of frequency may be unnecessary to have different kinds of speakers just a few of these

.Strong and durable

Good for mobile nature of the setup.

This is a very good all round speaker it does not cover all of the audible frequencies as using a bass bin and a mid range would but will mean a much lower price I rate this 3/5

Cost of a suitable amp (Power amp 800 £169 or poweramp 1000 for £179) amp is designed to power 2 of either of these mid range speakers.

500W 10 inch midrange speaker with integrated amplifier

£229

Very expensive for a single unit

.50Hz-18KHz frequency response

Good range of frequencies covered

.Internal amp

No external amplification needed.

.Strong casing

Good for mobility and wear and tear

.XLR connectors

More secure connections and therefore better signal

This is again a good all round speaker but does not encompass all frequencies and is expensive. If 2 speakers are needed but it is cheaper if just one is needed.

From looking at different ways to setup the speakers I have noticed that if only 1 of a speaker is required then it is cheaper to buy the

active integrated amplifier version. But if 2 of a certain type of speaker is required it is cheaper to use the passive version of the model with an external amplifier.

I have decided on using 1 15inch 800W active bass bin, as bass is non directional and has no need for stereo sound and as I'm using just 1 speaker I will take the cheaper integrated amplifier option. This will be accompanied by 2 300W 8inch passive cabinet speakers as they will handle remaining frequencies not covered by low frequency bassbin. And can handle high end frequencies the other midrange speakers could not reach. I will use 2 of these speakers as they are quieter than the bass bin and will benefit from stereo sound. Due to the fact im using 2 of these I will use the passive option with the external amp(power amp 1000 the more powerful external amp) powering both of them. This will also mean I can separately level the bass and lo mid speakers separately to the hi to hi mids which could be helpful when trying to find the best mix of the two kinds

The overall cost of this system is £600

And covers a frequency range of 37Hz -20KHz a very wide range

It will have stereo sound in the midrange frequencies.

Monitor Speakers

Monitor speakers are very important as they need to be able to cut through background noise to give the DJ a good idea of whats going on in the mix low frequency response is not as important for the monitors as they are just there so the MC and DJ can get a better idea of what the final mix is sounding like, without waiting for sound to reach from other further speakers or reverberate back to you, which would cause latency and make beatmatching extremely difficult.

Skytronic active speakers pair

£44

.2way

.5.25" bass woofer

.32Hz-22KHz frequency response

.20W per speaker.

These speakers are cheap and seem good on paper they should be able to cope easily over the small room setup I have decided on for their cheapness and good statistics I will rate them 4/5.

Behringer MS 40

£99

.2way

.4.75" woofer

.independant EQ

Due to these speakers similarity in specifications and larger pricetag I have decided to rate it 2/5.

Upon evaluating monitor speakers I have decided to go with the cheaper Skytronics, as they have very similar specifications at less than half the price of the other speakers.

Headphones

Good quality headphones are essential as the DJ needs to be able to hear them clearly over the background noise otherwise mixing can become very difficult .

Sennheiser HD 280

£99 (hfr)

Quite expensive but a tiny fraction of the overall budget

.Designed for professional monitoring

.8Hz-25KHz frequency range

Covers a very wide frequency range beyond human hearing both low and high

.32Db attenuation to external noise

Means it filters out 32 Decibels of background noise so th e headphone will sound a lot clearer

.Comes with a 2 year warranty

▲very good set of headphones all round will keep for at least 2 years a frequency range beyond what our ears can manage to pick up, noise attenuation will also help the clarity of what you would be hearing in a loud environment. Good all round headphones I give them 4/5.

Kam KHP 1500

£34.95 (hfr)

Much cheaper than the other models under review

.20Hz-20KHz frequency range

This is adequate as it lies on the edge of our hearing range on both ends of the spectrum.

.12month warranty

Not bad price considered.

These headphones are a very reasonable price, but lack some of the handy features of the other headphones, so I'm going to rate them 3/5

Pioneer NS1000

£149

The most expensive headphones I looked at.

.Noise cancelling

Plays a the reverse wave of the background noise to cancel it out.

.15Hz-20KHz frequency response

a large pitch range just past the edge of human hearing

. "Ultra Comfortable"

.Gold plated jack

Gold much better conductor for electrical contacts so a stronger signal is transferred.

.Travel case included

.12 month warranty.

Quite expensive for a set of headphones but has several good features like noise cancelling would be particularly useful in a loud club situation, Ultra comfortable and a free carry case is quite handy as they will be moving around a lot.

I Have decided on using the Sennheiser HD 280 as they feature noise attenuation which is useful in loud environments also I feel I wouldn't notice a lot of difference in the sound quality between the Sennheiser and the Pioneer, they have similar frequencies response and both have noise attenuation/cancelling features, but I would probably find use of the extra £50 or the extra years warranty.

Microphones

Essential for the MC, a good microphone can be the difference between an amazing set and a set ruined by distorted poor quality vocals, For this I have looked specifically at dynamic mikes, mainly due to the durability. Condenser mikes are too sensitive and too delicate for extended gigging they would pick up a lot of background noise. ▲ vocal dynamic mic is perfect as it has a frequency response best suited

to human voice frequencies and is not sensitive enough pick up a lot of background noise in a gig situation.

Sennheiser 840

£79

.Dynamic vocal mic

Has a frequency response best suited to recording frequencies in the vocal range, and it a dynamic mic so less sensitive and more hardwaring and ideal for live acts.

.40Hz-18KHz frequency response

will be less sensitive to unwanted very lo and very hi sounds.

.Insensitive to handling noise

.Industry standard for live performance

.10 year warranty

Good for 10 years

This mic looks ideal for live mobile gigging its durable, and has a 10 year warranty its well suited to vocalists which is all I will need it for, its not going to pick up unwanted frequencies and the cost is right as well so I rate it 5/5

Shure Beta 57A.

£125

.Dynamic vocal mic

Has a frequency response best suited to recording frequencies in the v ocal range.

.50Hz-16KHz frequency response

will be even less sensitive to unwanted very lo and very hi sounds.

.Designed for professional recording

More attention paid to the sound than the durability.

.12 month warranty

Suggests its not as durable as the Sennheiser.

This mic is a little more expensive than the others and review on it suggest it has been built as more of a recording mic where it is not as hard ware-ing but records a better quality audio,I feel this mic was not build with live performance in mind and has a short warranty so I will have to give it 4/5 on the basis of this.

Behringer XM8500

£17.95

.50Hz-15KHz frequency response.

.Sturdy metal construction

.2year warranty

.Designed for live performance

This is a good mic very good price its quite robust, ideal for being moved venue to venue and getting passed about a good length warranty I rate it 4/5

▲After looking at all the microphones I decided that the Sennheiser was the best mic for me as it had a 10 year warranty so I need not buy another for a long time, it was well suited to vocalists which is all it will mainly be used for and it wasn't too expensive.

Digital audio

It is very important to have a way to play new digital tracks as they are just so much more readily available and convenient there are different ways I can approach this.

Serato + laptop (ASUS X71Q)

£429(hfr) + £379

- .MP3 files played through vinyl turntables.**
- .no extra deck required can be set up on existing decks**
- .USB powered**
- .lightweight**

.Basic laptop capable of running serato

Serato is a very tempting suggestion due to the ability to play MP3 and other digital formats as if they were on vinyl. This is quite an expensive system as a laptop would have to be purchased to run the serato, however this would mean no extra channels are needed for the digital device they will connect to existing turntables meaning the cheaper 2 channel mixer could be used. The including of a laptop in this setup makes it very easy to store tracks, promote and network. This is an expensive yet versatile way around the digital format problem. For this reason I rate serato and a laptop 5/5.

Vestax CDX05 (pair)

£789

- .Pair of CDJ's**
- ./- 100% pitch range**
- .instant start**
- .Track search**
- .Bpm counter**
- .3 Platter effects: brake, dump, reverse**
- .3 DSP effects flanger, filter and delay loop**

.Master tempo key correction

These CDJ's have many useful features and can do much more to the track than the Serato on vinyl setup, the tracks will be cheap and easy to get, however to use this setup I will have to use the more expensive 4 channel mixer but it will mean 4 deck mixing is a possibility, but having to sacrifice the laptop means promotion and tune storage will suffer and for these reasons I give it 4/5

Vestax CDX05 (single) + laptop (ASUS X71Q)

£399 + £379

.+/- 100% pitch range

.instant start

.Track search

.Bpm counter

.3 Platter effects: brake, dump, reverse

.3 DSP effects flanger, filter and delay loop

.Master tempo key correction

.Networking storage and promotion with laptop

Using this system has the advantages of both other systems there is still a laptop for promotions etc... but there is a CDJ with 100% pitch range and other features to manipulate the track more extensively. For this reason I rate them 5/5

Upon looking at various different digital mixing methods I have decided to rest on the laptop and CDJ package, this is because with this I can mix 3 decks at once still remain up to date with newly released digital files cheaply. ▲ Also The laptop will be priceless in securing work and connections and purchasing downloads etc...

Other useful purchases

Membership to a musicians union

£60 per year

.Free legal advise/assistance

.Free equipment insurance

.Gives you a standard minimum rate

.Excellent for finding work and networking

For the hassle and money this could save in the longrun it would be foolish not to there fore I rate joining a musicians union 5/5

Carry cases for mixer and decks

£60 each

.Hard wearing will protect equipment

.Easy to transport

The flight cases would make a usefull addition to the mobile DJ's equipment, however at £60 per case I cant help but feel it is an unecessary expense

That can be avoided by being careful. So I rate them 2/5.

Tracks

£ rest of budget

.Most important part of DJing is selecting good tracks

.keeping up to date with what people want hear will make the difference between an average DJ and a great DJ

For these reasons I have rated spending all of the remaining budget on Tracks as 5/5 as each track will be relatively cheap and may have excellent reception if chosen correctly.

Cables and connectors

I will need:

.4 XLR to phono £8.95 each or £35.80

.4 phono to jack £2.95 each £11.80

Conclusion (final decision)

My Final decision has been made, but has had to remove one or two of my first choices to adhere to budget. You will notice I have not included any lighting into my budget. This is because I did not have enough money to approach it properly and may have done more harm than good by buying seriously cheap lighting.

For my mixer I decided on the Allen and Heath Xone 62 £698

For my turntables Stanton ST150 £699

For my speakers 1 active bass bin £299

For my digital mixing a laptop and Vestax CDJ £736

2 passive mid range + power amp 1000 £298

2 Skytronic active monitor speakers £44

For the Headphones the kam £35.95(change of plan to fit budget)

For the mic I went for the Behringer for £17.95(change of plan to fit budget)

I also spent £60 on membership to a musicians union

I spent £67.60 on cables needed to wire up speakers

Leaving £45 from my £3000 budget to spend on vinyls and CDs/MP3's.