



Plasma and LCD Screen Installation Guide

This guide discusses a few of the options around getting your new plasma or LCD screen installed. Firstly we shall look at using a stand or wall mounting your screen, then discuss how you can get your screen installed and, finally, touch on some of the other options you may wish to consider when having a flat panel installed.

Stand or Wall?

The first question to ask is should the panel be wall mounted or on a stand. There is no doubt that using a stand involves less work than having a screen wall mounted. Whilst some would point to the aesthetics of wall mounting it is also fair to say that you can purchase high quality A/V furniture that looks stunning and provides a useful site for other equipment such as your DVD player. Using a stand however does increase the footprint of your kit on the floor. It is also hard to completely hide cabling, especially when using open glass shelving style units which are currently very popular. For those wishing to make the most of their room space and create a highly contemporary look then wall mounting remains the preferred option.

Getting It Installed

So what is the best way of getting your screen installed? Is it a DIY job? What if it comes from a major electrical retailer? Does having a professional installation really add any value? How much should it cost? Well let's consider each of these in turn so you can make an informed choice.

Installing It Yourself

If your screen is going onto a stand then there is perhaps little obvious reason to call in a professional. For many people, there will be little difference in connecting up the new screen compared to the old television connections. However, new digital technologies and the fact a large plasma or LCD will undoubtedly expose weaknesses in cables and equipment. To really make the most of a screen you need to consider the cables and equipment plugged into it (see the section below for more information). If the cabling does seem daunting however or you wish to get the picture professionally configured then a professional plasma screen installer can help.

What about DIY wall mounting? For a competent DIYer, hanging a plasma or LCD on a wall bracket is not a difficult task just so long as you take into account the weight, wall construction, bracket type, environmental factors and so on. Cabling also needs to be considered. Leaving cables exposed is easy but not professional. Chasing cables is again a reasonable DIY task but bear in mind if you lay the incorrect number, type or specification of cables then it is much more work to replace to remove the resulting disappointing screen performance. Having an experienced and professional installer wall mount your screen and advise on installation will remove these risks.

Major Electrical Retailer Installations

If you purchase your screen at a major electrical retailer such as Dixons or Currys, you may be tempted to use their installation services which you can purchase at the same time as when you buy the product. These services sound convenient however we believe that you should seriously compare the service to a professional installation before committing. So, firstly what does the

Dixons/Currys (same company of course) actually consist of?

The Dixons and Currys service is actually managed by MasterCare, the third party company that provides delivery and post sales services.

- It costs £300 which includes a mount and VAT.
- They will conduct a telephone survey to check installation can be performed smoothly. They will not install if the plasma is to be near heat source or opposite a window.
- They will install the bracket and mount the plasma.
- They will connect cables but will not wall mount speakers.

They ask that you:

- Ensure you have all the required cables.
- Have a power socket within one metre or a commercial extension lead (which they do not supply).
- Bear in mind cables will not be chased into the wall.

Reality Logic have checked these details with MasterCare and established some further details.

- The telephone survey is conducted by an operator in the call centre. They are not trained installation engineers but call centre staff working from a script. They establish a few details such as the wall construction, heat sources and so on. They expect the customer to know the detail of the construction of their house. If you have, or think you have, a wooden or metal stud and plasterboard wall then they will not install.
- The installer is not a specialist but the delivery driver with some training. Operators that Reality Logic have spoken to have stated that MasterCare did use a third party but changed sometime ago to the delivery team.
- Cables will not be chased in. They will be left trailing down your wall. Power will go into the wall using an ugly plug socket or into an extension lead (more trailing cables).
- You have to get the right cables. If ask in store then you will be sold whatever cable the sales person feels is appropriate. This means you may end up paying too much for the right cable or, worse, too much for the wrong cable. For example, if your DVD player has component output but is connected to your current TV using a SCART cable then you will probably be sold an overpriced SCART cable when you could use the better quality component connections.
- The mount will be the cheapest mount possible. There will be no tilt or cantilever options. It may not be the most appropriate for your wall or for reducing the depth of your screen on the wall.
- Wall mounted speakers will not be installed.
- Although the television will be tuned and any cable or satellite connected, no consideration will be given to optimise the setup.

Dixons and Currys promote this as a professional installation service. We would encourage anybody considering this service to discuss their installation with in-store staff or MasterCare call centre operators and compare with the service offered by ourselves. We would expect to have a conversation with you in your home during a free and no obligation pre-installation survey. Once you have spoken to both parties we are confident what judgement you will make.

Professional Installation

Reality Logic provide a professional flat panel installation service. How does it differ to doing it yourself or having an installation done by a major electrical retailer? Firstly we find every installation is different and therefore we have to treat each installation, and more importantly the customer, as unique. We will always provide a free and no-obligation survey of the installation site. During that meeting we will:

- Discuss the optimal location for mounting the screen.
- Check existing equipment and cabling to advise on how these shall perform with your new screen.
- Help advise you a screen if required.
- Look at where the source equipment is going to be located and discuss cabling, remote control and so on.
- Check wall construction and advise accordingly.
- Go through anything else you would like us to.

So what does an installation cover? Again, every installation is unique as each customer has specific requirements however we always do the following:

- Fit a suitable bracket, including tilt or cantilever options, and mount the screen.
- Chase or pull into stud partition walls all the required cables. We typically supply the correct cables for your DVD, cable/satellite box, home theatre, games console etc.
- Fit wall plates for a neat finish. Where appropriate we terminate cables for equipment using specialist custom installation wall plates. This ensures a very tidy installation and allows kit to be easily moved. We can even do this with SCART sockets however this does incur an overhead due to the amount of soldering required.
- Isolate panels using fused sockets. We never connect a screen into the mains using a standard three pin plug. Not only would this be ugly it is unprofessional. We always create a spur from the ring main and use a fused socket (a switch with a fuse in it) to ensure a neat and professional method of isolating your screen.
- Fit all accessories such as speakers. If you are connecting to external speakers we will mount and connect those - including chasing/pulling cable where required.
- Connect your equipment. We will connect and test your equipment such as DVD, VCR, satellite/cable system, surround sound system and so on. Where possible we will optimise the setup to get the best of the viewing conditions and equipment.
- Leave your property in the state we found it. We will make good any chasing, always vacuum, use dust sheets and so on to work cleanly and not leave a mess. At the very least we shall make good ready for decoration, but if they have the paint we will do that as well. We always use professionals for larger jobs such as electrics, plastering, decorating, carpentry, joinery and so on if we are required to do so.

So how much does an installation like this cost? Less than you may think. Many installations can be completed for £350 - £400 including a quality mount, cabling and VAT. Compare this to the major electrical retailer offering and you will appreciate the value for money. To get an accurate picture however we will never quote without first performing a no-obligation and free on-site evaluation. We know you may get quotes for less however we also know you will not get the quality of

materials, knowledge, finish and service for less. Our installation expertise extends to boardrooms, home cinemas, video conferencing, home automation and so on - all of which is reflected in our approach to domestic flat panel work. We can also supply screens and home theatre equipment which means we can provide a complete package and peace of mind.

Check out the following table to compare our offering with that offered by retailers such as Dixons and Currys.

	Major Retailer	Reality Logic
Experienced A/V Installers	No	Yes
Free, no-obligation on-site survey	No	Yes
Full range of mount styles installed	No	Yes
Cables hidden in the wall	No	Yes
Proper electrical connection	No	Yes
Wall face plates if required	No	Yes
Most suitable cables supplied	No	Yes
Properly integrated with any other A/V equipment	No	Yes
Installation onto brick, block, wood and metal stud, "dot and dab" walls catered for	No	Yes
Customer specific requirements catered for	No	Yes

Cables and Kit

Regardless of what screen you get and how you install it there a few other things you should think about to get the most from it. For instance, when connecting your Sky box or DVD player to your LCD or plasma screen it is important to remember that the size of screen means that the shortcomings in your equipment that you may not previously have noticed now become apparent. Although using better source equipment may be the solution it is cheaper and easier to ensure that you are firstly using the best connections that you can and that the cables you use are of a high quality.

Using the Best Connections

There are many ways of connecting bits of kit like DVD players, satellite/cable boxes, games consoles, video cameras and so on to your television. The methods range from "composite;" right up to the latest digital connectors - DVI/HDMI. Some connections carry both the picture (video) and sound (audio) signals, others are designed to carry only video. The following table describes each connection type.

Connection	Signal Type	Description
Composite	Video only	Composite is the most basic connection is usually a thin cable with yellow plugs at each end. Since the cable can only carry a video signal, the cable is often joined to red and white stereo leads. Most people have used a cable like this to connect a video camera or games console to a television.

Connection	Signal Type	Description
S-Video	Video only	Although it is still a video only connection, s-video offers better quality than composite by splitting the video signal into two parts. The plug is different to that normally found on a composite cable (i.e. phono) with all the connectors set into the end. As with composite cables, s-video cables are often supplied with red and white stereo audio connectors.
9 pin SCART	Video and audio	SCART cables are the most common way to connect things like DVD players to televisions however you may not be aware that SCART cables are wired in two main ways. At the lower end, just 9 of the possible 21 connections are wired. When this is the case the video and audio signals are both carried, however the video is only at s-video quality. Effectively this cable is the same as an s-video and stereo audio lead.
Fully wired SCART	Video and audio	A fully wired SCART cable is one that has been wired up with all possible 21 connections. A cable like this can be used to transmit higher quality video as it has enough wires inside to split the signals. Video signals can be split into the RGB components. This provides a better quality picture however it does depend on the the sockets on the television and the source equipment like a DVD player supporting RGB output/input. Sometimes you need to enable RGB output/input on the device (e.g. Sky boxes) but often a screen will detect that an RGB signal is being sent. Another pitfall is that sometimes not all the SCART sockets available on a device are enabled for RGB input/output. This means that if you use the wrong socket you will not be seeing an RGB picture but one at s-video quality. Fully wired SCART cables also support other signals being sent, such as automatic source switching (e.g. when you put a DVD into a DVD player). RGB signals over SCART should be the minimum quality you accept for your plasma or LCD panel.

Connection	Signal Type	Description
Component	Video only	Component was, until relatively recently, the preserve of commercial video equipment. However, since plasma and larger LCD screens will almost certainly have these inputs, many more entry level DVD players will support component output. Component cables are sold as three cables, usually about the diameter of aerial co-ax cable or hi-fi interconnects. This is because, like RGB, a video signal sent in it's component form is split into three signals. This may be exactly the same as the RGB in a fully wired SCART but is usually a little different. This type of signal (and the cabling used) will provide a better quality picture than other methods and should be used if possible instead of RGB over SCART. There is obviously no support for sending an audio signal but it can be provided to a television using stereo cables. More likely, however, is that the audio would go directly to a hi-fi or surround sound system.
DVI	Video only	DVI supports both analog and digital signals to a specific set of standards. For digital signal support the equipment sockets must be DVI-D or DVI-I (as opposed to DVI-A) compliant. As with all the other video only connectors, alternative methods are needed to send the audio signal. You may come across a DVI connector on data orientated displays or on older plasma screens however most newer domestic models use HDMI connectors.
HDMI	Video and audio	HDMI is a completely digital signal that supports both video and audio. Because of this, most screens will have this connector over the alternative DVI-D/I. The useful thing however is that HDMI is compatible with DVI so kit can be interchanged (audio limitations accepted). HDMI does come in two flavours, A and B. The first of this is the most common, with the second being much less common at the moment. Digital connections like these are the ones that must be used to get the benefit of the upcoming high definition digital broadcasting. It must be pointed out however that most of the broadcasts shall be encrypted using a method called HDCP and any sockets on equipment must be HDCP conformant to enable the best viewing resolutions.

Good Cabling

As the previous table shows, there are many methods to connect your kit up to your plasma or LCD screen. If you can choose the best method available to you then the next best thing to do is ensure that the cables are good quality. You may be able to obtain a reasonable SCART or HDMI cable from a major electrical retailer however specialist suppliers such as Reality Logic's own digitalpicturehouse.com will often be able to supply award winning cables, more selection and various lengths at prices that represent far better value for money. We can also demonstrate cables as part of an installation to show you the improvements in quality that you can expect by using the right cable.

It will often be the case that a less expensive panel can have a better picture than a more expensive panel simply because the cables and connections used are of a higher standard.

Source Equipment

Using the right connections and quality cabling can have a hugely positive effect on even the most basic of source equipment such as DVD players and so on. You may, however, have purchased an HD ready screen and do not have an HDMI compliant DVD player. If this is the case then you may be surprised to know that you can buy a good quality HDMI DVD player like the Toshiba SD350E for under £100. If you have a slightly larger budget then the Denon 1920 DVD player is fantastic.

For more information, or to arrange your free pre-installation survey, please just get in touch via e-mail or call us on 0870 458 9020.