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**Explanation of terms:**

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTP</td>
<td>Unshielded Twisted Pair Cable</td>
</tr>
<tr>
<td>STP</td>
<td>Shielded Twisted Pair Cable</td>
</tr>
<tr>
<td>MRA</td>
<td>Multi Room Audio</td>
</tr>
<tr>
<td>Zone</td>
<td>Usually a room, referred to in Multi Room Audio</td>
</tr>
<tr>
<td>Audio Keypad</td>
<td>A controller within a room which allows the user to control the audio system. Usually located adjacent to a light switch.</td>
</tr>
<tr>
<td>AKP</td>
<td>Audio Keypad as above</td>
</tr>
<tr>
<td>Slave Keypad</td>
<td>Audio Keypad used in En-Suite bathrooms</td>
</tr>
<tr>
<td>Lounge Plate</td>
<td>The Lounge Plate is sited wherever the SKY Box(es) are to be located.</td>
</tr>
<tr>
<td>Patch Panel</td>
<td>The Patch Panel is situated inside the Wiselan® Home Cabling Cabinet, the panel has 12 numbered outlets, and these numbers correspond to numbers on wall mounted outlets.</td>
</tr>
<tr>
<td>Host Panel</td>
<td>The Host Panel is also situated inside the Wiselan® Home Cabling Cabinet; the twelve way panel is split into three sections, four RJ45 sockets are allocated to each incoming phone line. Once the line/s are connected to the panel connectivity can be patched around the home.</td>
</tr>
<tr>
<td>LJU</td>
<td>Line Jack Unit. This is a standard UK telephone connection</td>
</tr>
<tr>
<td>SSP</td>
<td>Surround Sound Plate</td>
</tr>
<tr>
<td>SSTP</td>
<td>Surround Sound Termination Plate</td>
</tr>
<tr>
<td>Audio Input plate</td>
<td>This plate is included with our MRA system, your source audio equipment plugs into this plate.</td>
</tr>
</tbody>
</table>
Cabling Cabinet Location & Assembly:

It is generally preferred to locate the Cabling Cabinet and associated wiring in a cupboard out of sight. If you have the luxury of choosing the location there are a few points to bear in mind:

- Cables should enter the Cabinet through the rear, ideally on a stud work wall which allows free movement of the cables and aids in maintenance.

- The cupboard should ideally be ventilated (particularly if audio equipment is also sited here)

- The incoming telecom services will need to be presented underneath the Cabling Cabinet. If they are not then we suggest running 2no. Cat 6 UTP cables between the incoming location and underneath the Cabling Cabinet location. This provides plenty of scope for expansion and additional Telephone/Broadband lines.

- The Cabinet will require 240v power and will require earthing in accordance with current regulations.

- If a Multi Room Audio system has been specified and the audio source equipment is to be situated at the Cabinet location then the Audio Input plate should be located underneath the Cabling Cabinet at socket height.

All Panels are mounted into the Wiselan Cabinet with the use of Captive Nuts. Simply push the assembly through the square hole on the vertical mounting rail within the Cabinet so you are left with an almost flush fixing. Use the included bolts and washers to secure all the panels.
What is Home Cabling?

Home Cabling, Home Networking & Smart Homes are terms used to describe the installation of various cabled technologies in a residential property. Common applications are:

- Telephone/Internet Distribution
- PC Networks (LAN)
- Home Cinema
- Surround Sound
- Multi Room Audio
- CCTV
- TV/FM/ DAB Radio & Satellite TV Distribution (inc. SKY + & Freeview)

The following sections offer an overview of each of these topics.

The core of any Home Cabling System is the 'Structured Cabling' Multi purpose RJ45 Outlets situated around the home. These outlets are used for Telephone Distribution (inc. Internet connections) and PC Networks. Networking PC’s in the home allows the sharing of files and devices such as printers, scanners etc. *Ideally you should install 2no. Cat6 cables to each general use point and one to each TV location.*

Once a network is set up then users can share files, hard drives, Printers and internet connections.

Wiring the Structured Cabling is very straight forward. A Cat6 UTP (unshielded) cable runs between the Patch Panel (WL/12PP) and wall mounted RJ45 outlets (shown below), the Patch panels are numbered 1-12, 13- 24 etc. and the outlets are numbered the same so that port 1 on the Patch Panel corresponds with the wall outlet labelled 1.

Wired in Cat 6 UTP. 35mm 1Gang Back box required. All outlets should be labelled.
The image to the right shows a typical Cabinet layout. Note the slotted 1U blank plate at the very top of the Cabinet, this allows Patch cables to travel between the Network Hub and the Cable Management section of the Cabinet in a neat and tidy fashion.

The **TV distribution panel will only fit in one location within the Cabinet**. Typical panel layout is as follows.

1. 1U slotted Blank
2. Telephone Host panel
3. Patch Panels (blanks may be required)
4. TV Distribution unit
5. Blank (if using larger Cabinet.

**Terminating**

Strip minimal amounts of the outer sheath of the Cat6 cable (13mm suggested) using the Wiselan® UTP strip tool

When terminating a Cat 6 outlet or Patch panel, it is essential to follow the following rules: Follow the colour code marked ‘T568B’ on both the Patch Panels and Modules. Keep the stripped outer sheath to a minimum and retain the twist in the cable pair right up to the point of termination.

Using the Wiselan® IDC tool, ‘punch down’ the wires, ensuring you have the scissor blade on the correct side so the excess wire is cut away. Note the use of a cable tie for strain relief purposes.
**See the TV Distribution section below for TV Amp and Lounge Plate terminations.**

**Labelling**

It is important to label all outlets; These images give an example of correct labelling.

![Labelling Image]

**Testing**

Once the cables are terminated they should be tested. For simple continuity testing and wire maps we suggest using the WL/TEST/01. A series of LED’s shows at a glance that continuity and wiring configuration is correct.

![Testing Image]

**Telephone/Internet Line Distribution**

The rear of the Wiselan® Host Panel shows three RJ45 sockets. The Panel is supplied with three RJ45 to LJU cables (BT style). Simply plug the cable between the incoming Master Telephone Socket (underneath the Cabinet) and the rear of the Host Panel, this presents that line on four of the RJ45 sockets on the front of the Host Panel and can now be transferred (patched) to the numbered outlets in the home of your choice using Wiselan® Cat 6 Patch Cables (WL/CAT 6/1M).

Most telephone handsets will require an adapter to work with the multi purpose RJ45 sockets (WL/2PABX) these adapters simply plug in and are very discreet.

![Telephone/Internet Line Distribution Image]
PC Networks (LAN)

The Network Hub fits inside the Wiselan® Home Cabling System using supplied magnetic fixings and allows PC's around the home to be connected together.

Simply plug a Patch Cable (WL/CAT6/3M) into the RJ45 wall socket adjacent to the PC equipment and then plug a shorter Patch Cable (WL/CAT 6/1M) between the corresponding numbered Patch Panel outlet and the Wiselan® Hub. Repeat these steps for as many PC’s as you wish to connect together.

Multi Room Audio (System 1)

Note: The following is a guide, based on our ‘System 1’ Multi Room Audio System (see www.wiselan.com for details) cabled completely in Cat 6 cable.

Important note: To avoid interference, all efforts should be made to segregate audio cables from power cables

Keypads: Use 47mm 1 Gang Back Boxes for this system, available from any Electrical Wholesaler.
Multi Room Audio/Visual (System 2) wiring Master Zones.

This system distributes Master & Slave Zones, in a Master Zone you have full control of your source equipment. A Slave Zone provides just as high quality Audio as a Master but has limited control, a typical example of a Slave zone would be an En-Suite.

**See note.**

For Keypad Back Boxes order part no: WJUNOB2

AKP wired in Cat5e

Speakers wired in 16 Gauge Speaker Wire

**If also wiring for a Wiselan TV Distribution system than 1 x CT100 coax should also be wired to this point from the Wiselan Cabinet.**
Plasma Screens are cabled between a likely source location (where your DVD player is sited for example) and the screen. As a guide, install, power, a high quality HDMI cable and a Cat 6 UTP Cable (check with your manufacturer for available inputs to your screen and outputs from your source.)

As a guide, the underside of a wall mounted screen to be 1000mm AFFL Plasma screen point to be 1300mm AFFL
A Surround Sound outlet consists of a Single Gang plate located at Electrical socket height. Surround Sound speaker points (SSP) wherever possible, to be located directly opposite each other. Each socket individually wired to SSTP with Wiselan® High quality Audio Cable.

**Central Surround Sound Speaker:**
To be located central to your TV Screen

**Surround Sound Termination Plate (SSTP)**
To be located behind your source equipment (Home Cinema, DVD etc.) all SSP’ are wired back to this plate.

*Images are for guide only*
All Cables to be CT100 COAX or Sky approved equivalent. The Wiselan® TV Distribution system allows multiple inputs (these inputs must be separate) and up to nine outputs (main position + eight). The following table shows the various connections and their uses.

<table>
<thead>
<tr>
<th>Input</th>
<th>Description</th>
<th>Output</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCTV</td>
<td>Connect a modulated CCTV signal for distribution to all TV’s</td>
<td>1</td>
<td>Room outlet plate</td>
</tr>
<tr>
<td>UHF</td>
<td>Standard Terrestrial TV</td>
<td>2</td>
<td>Room outlet plate</td>
</tr>
<tr>
<td>FM</td>
<td>FM Aerial</td>
<td>3</td>
<td>Room outlet plate</td>
</tr>
<tr>
<td>Return</td>
<td>Connects to the Lounge Plate’s ‘Return’ socket</td>
<td>4</td>
<td>Room outlet plate</td>
</tr>
<tr>
<td>SAT</td>
<td>Incoming Sat1 connection</td>
<td>5</td>
<td>Room outlet plate</td>
</tr>
<tr>
<td></td>
<td>*Note SAT2 wires directly to the Lounge Plate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAT</td>
<td>Incoming Sat2 connection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triplex</td>
<td>Connect to the ‘Triplex’ (TV SAT, RADIO) on the Lounge plate</td>
<td>6</td>
<td>Room outlet plate</td>
</tr>
<tr>
<td>DAB</td>
<td>Digital Radio Aerial</td>
<td>7</td>
<td>Room outlet plate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8</td>
<td>Room outlet plate</td>
</tr>
</tbody>
</table>

Each SKY Box requires 2no. Coax Cables from the Satellite Dish. It is good practice to install 4no. Cables from the Dish to allow for future upgrades.
TV Unit Configuration

When making connections to the TV unit you **must ensure** that all connections are tied to the strain relief rail with the included cable ties (shown below). Failure to follow this procedure may result in damage to the unit and may affect your warranty.

The connection shown below shows a connector from our professional range (Snap & Seal), a specific tool is required for this type of connector, Screw on connectors are also available. Please see our online shop at www.wiselan.com for details.

![Connector Image]

Lounge Plate Configuration

The following diagram shows various TV distribution scenarios using the Wiselan® unit. This configuration applies to both standard house type wiring and communal systems.

![Diagram Image]
Standard Installation

Standard Installation plus sky digital
Communal TV Distribution

All Cables to be CT100 COAX or Sky approved equivalent. This Schematic is for communal aerial systems.

Please note that individual signals are required to the Wiselan unit.
All CCTV cameras are wired back to the Wiselan® Home Cabling System. The following is a guide only and certain environment factors may dictate alteration. Wiselan® provide a full range of CCTV products, the Wiselan® TV distribution unit allows the distribution of CCTV as standard; this means you can view your cameras from any TV connected to the system.

**CCTV Wiring**

(allowing CCTV Cameras to be viewed over the TV system)

Purchase our pre-terminated CCTV Cable kit available from our Online Shop at www.wiselan.com