







### Fibre Range









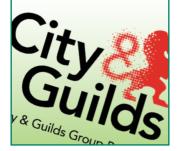


Fibre Optic WB Receivers

Fibre Optic dSCR Multiswitches

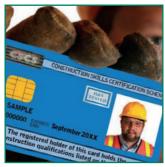
**Fibre Optic Quattro Receivers** 

Digital innovation made easy











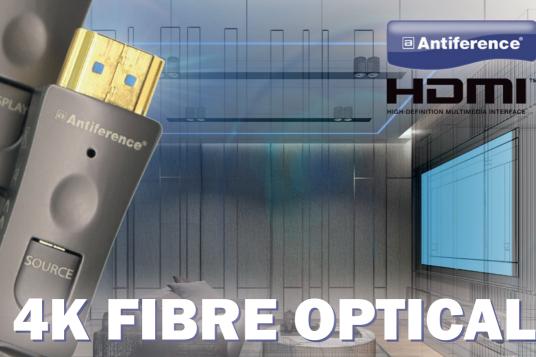


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Editor: Suzie Hamm-Bury

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- 4K 18Gbps bandwidth
- 10m 30m lengths
- Optional detachable ends
- **Gold plated connectors**
- Dust cap

With detachable ends...!



The 4K fibre optical HDMI cables from Antiference are an innovative way to extend HDMI to a display or projector. With full 4K support up to 18Gpbs, they are ideal for distances which are longer than a certified cable can reach but perfect when an HDMI extender is not required.

The range offers options of lengths from 10m to 30m and either with or without a detachable end. The detachable ends are useful when running cables through walls or in ducting meaning a much smaller hole is required.

www.antiference.co.uk











### **Editor's Report**

Suzie Hamm-Bury, Marketing Specialist





### A warm welcome to the spring 2023 edition of



This spring edition of Feedback welcomes articles from all areas of our industry including technical articles, new product launches, trade news and some of our all-important membership benefits.

This edition is bursting with technical stories from Peter Barnett on understanding amplifiers, Robin Earl from Dehn UK Ltd letting us know of the changes to BS7671 – The Wiring Regulations, Bob Calaz, our much-respected CAI tutor who has recently retired, Keith Bail, our current CAI tutor discussing training, and finally Kevin Dawson, our Assessment and Technical Executive,

providing his latest round up of news. In addition we have our fantastic member benefits section within the publication.

Make sure you read and understand all the offerings from the CAI partners particularly from Fleet & Commercial, our insurers, as there are real savings to be had. Our other member benefit partners also include Bosch power tools, The AA, Fuelcard, Utility Aid and Approved Business – so there really is something for everyone.



Of course, this spring edition is also packed with full show details of Evolving Connectivity 2023. Our full show guide of all of our



exhibitors can be found at the back of this publication.

The CAI are all immensely proud of how Evolving Connectivity has developed over the years and are more than confident that EC2023 will be a bigger and better event, and will again be hugely productive and informative for everyone involved.

This year, we will again be holding our highly successful CAI Gala Dinner and Awards on the evening of Wednesday 22nd March. This has always been extremely well attended, so we are sure the evening will be another great success. This year the dinner is to be held at The National Motorcycle Museum and coaches are provided from the Arden Hotel and return. We look forward to seeing you there.

I am always happy to hear any news from any of our members, as this is what makes Feedback and makes it so unique. I do hope you enjoy reading this edition.

A big thank you once again to all contributors to Feedback. As always, I am extremely grateful for all your articles and your continued support, enabling it to remain a well known and respected trade journal.

### City & Guilds Accreditation & Training

CAl's courses remain ever popular with members and non-members alike, undoubtedly due to the City & Guilds accreditation



of 12 of our bespoke training courses. We remain confident that CAI can deliver courses that will really enhance the professionalism and standards in our industry.

### **Trustmark**



We are very pleased to report that our TrustMark scheme continues to be successful. Since its launch to CAI members in spring 2015, we now have 122 Members with 8 Branches gaining TrustMark status. With over 22,000 people every month searching for reputable traders, we can expect the scheme to continue to grow.

### **Which? Trusted Traders**

CAI are excited to have joined forces with Which? Trusted Traders to offer members a 50% discount for the first 6 months of Which?



Trusted Traders' membership. The scheme has been running a year now and is an excellent offering to CAI members, that gives another route to attract potential domestic customers for an initially discounted rate. More details can be found on this CAI member scheme later in the publication.

### **Membership**

Since the last issue of Feedback was published in spring 2022, membership has increased by 10 companies joining CAI. We are confident that CAI will continue to prosper, welcoming new companies into membership in the coming months and years.

### **New Members**



D2 Fire & Security Ltd



**AKA Innovations** 



BT47 Digital



Max Technologies Ltd



**Multiconnect Communication Services Ltd** 



**Aarons Aerial Systems Ltd** 

MR LJ HAMPSON HFCAI	Worcestershire
LDA INSTALLATIONS	North Yorkshire
AARONS AERIAL SYSTEMS LTD	Essex
D2 FIRE AND SECURITY LTD	Kent
BT47 DIGITAL	Londonderry
AJK SYSTEMS LTD	Essex
AKA INNOVATIONS POWER & ELECTRICAL ENGINEERING LTD	Aberdeenshire
MAX TECHONOLOGIES LTD	Nottinghamshire
MULTICONNECT COMMUNICATION SERVICES LTD	Tyne & Wear
SHOAL GROUP T/A FS CABLES	Hertfordshire

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### **CAI Certification Scheme**

**Previously known as CAI Benchmarking** 



### **CAI Cable Certification Scheme**

Detailed below is the current list of companies plus their respective cables that have been accredited under the CAI cable approval scheme – this is correct as at the time of going to press. An updated list will be printed in each issue of Feedback and can also be found live on the CAI website.

### **CAI Approved Cables**

Company	Part No	Certificate No
Cable Type 100		
Antiference Ltd	A100	CAI 0125 F
Deta Electrical Co Ltd	535B, 535B/250, 537B, 537B/250	CAI 0146 D
DTECH Cabling Systems (UK) Ltd	DT100	CAI 0149 C
Foshan Shengda Cable Co Ltd	MF100	CAI 0156 B
Leigh Cables Commercial Ltd	LCC100	CAI 0136 E
Mayflex UK Ltd	AR-01-004, AR-01-104, AR- 01-204, AR-01-204W	CAI 0157 B
Philex Electronic Ltd	PF100 A	CAI 0143 C
Qing Cables Ltd	DFD100	CAI 0100 G
Qing Cables Ltd	DFD100 LSZH/CPR-Cca	CAI 0158 C
Securi-Flex Ltd	SFX100	CAI 0131 E
Shoal Group t/a F S Cables	392FS100	CAI 0161 A
Televes UK Ltd	SK110 Plus	CAI 0115 F
Televes UK Ltd	SK2005PLUS	CAI 0151 C

Triax UK Ltd	KOKA 110+	CAI 0150 C
Triax UK Ltd	TX100 Plus	CAI 0124 E
Webro Cables & Connectors	WF100	CAI 0116 F
Webro Cables & Connectors	WCF100	CAI 0122 F
Webro Cables & Connectors	HD100	CAI 0154 C
Zhejiang TianJie Industrial Corp	TJ100	CAI 0162 A
Cable Type 125		
Webro Cables & Connectors	WF125	CAI 0142 D
Cable Type 165		
Webro Cables & Connectors	WF165	CAI 0141 D
Cable Type RG6		
Televes UK Ltd	CXT-1	CAI 0096 F
Webro Cables & Connectors	RG6 SDU	CAI 0110 F
Cable Twin Type 0.65		
Cables Britain Ltd	2xCB63R	0.65 Twin CAI 0001 H
Hengtong Optic-Electric Co. Ltd	HT63	0.65 Twin CAI 0006 F
Triax UK Ltd	TX63	0.65 Twin CAI 0015 B
Webro Cables & Connectors	WF65	0.65 Twin CAI 0011 D
Zhejiang TianJie Industrial Corp	TJ65 Twin	0.65 Twin CAI 0020 A
Cable Twin Type 100		
Qing Cables Ltd	DFD100 Twin	100 Twin CAI 0017 B
Securi-Flex Ltd	SFX100 Twin	100 Twin CAI 0012 D
Webro Cables & Connectors	TWINSAT 100	100 Twin CAI 0013 C

### **CAI Aerial Certification Scheme**

Detailed below is the current list of companies plus their respective aerials that have been accredited under the CAI aerial approval scheme – this is correct as at the time of going to press. An updated list will be printed in each issue of Feedback and can also be found live on the CAI website.

### **CAI Approved LTE Aerials**

Company	Model	Benchmark Standard	Certificate No	Group
Antiference Ltd	TCX-10T	Standard S	CAI/AB 171	Т
Blake UK Ltd	DMCT/F	Standard S	CAI/AB 162	Т
	DMX05T/F	Standard S	CAI/AB 163	Т
	DMX08T/F	Standard F	CAI/AB 164	Т
Televes UK Ltd	13 Element Yagi 790	Standard F	CAI/AB 167	Т
	V Zenit	Standard F	CAI/AB 172	Т





# **European IRS Certification Scheme**





The European IRS Certification Scheme (EICS) outlines a set of tests to verify the efficient use of spectrum by dSCRs and multiswitches as well as interoperability with satellite and DTT receivers, providing an industry agreed test regime for these types of equipment.

Currently there are no harmonised standards for satellite launch amplifiers, dSCRs and multiswitches to demonstrate compliance to the Radio Equipment Directive meaning there is no industry-wide specification to test how spectrally efficient their performance is.

Spectral efficiency is a key aspect of a performance and criteria such as isolation, dynamic range, interference rejection, and gain control, all indicate whether a product can perform well in today's environment where

multiple technologies are expected to work in adjacent spectrum bands without causing interference to one another.

Similarly, interoperability between receivers and switching equipment is essential to support platform delivery as well has having industry agreed requirements and independent verification of properties such as signalling and power levels being sent between receivers and switches.

Therefore, the EICS gives installers, specifiers, distributors and retailers, manufacturers, broadcasters and platform operators confidence that products will perform as intended and are compatible with platform requirements, providing system integrity.

### dSCRs/plug-in dSCRs

Company	Product Name/Part Number	Certificate Number
Fracarro	SWI8508 dSCR multiswitch	EICS-DC-1031 A
Fracarro	SWI8504 dSCR multiswitch	EICS-DC-1032 A
Inverto	dSCR multiswitch 4o/p	EICS-DC-1001 A
Inverto	dSCR multiswitch 8o/p	EICS-DC-1002 A
Televes S.A.U	dCSS multiswitch 714101 2o/p	EICS-DC-1007 A
Televes S.A.U	dCSS multiswitch 714102 4o/p	EICS-DC-1008 A
Televes S.A.U	dCSS multiswitch 714103 8o/p	EICS-DC-1009 A
Televes S.A.U	dCSS multiswitch 714104 12o/p	EICS-DC-1010 A
Televes S.A.U	dCSS multiswitch 714105 16o/p	EICS-DC-1011 A

Triax UK Ltd	TdSCR508	EICS-DC-1003 A
Triax UK Ltd	TdSCR512	EICS-DC-1004 A
Triax UK Ltd	TdSCR516	EICS-DC-1005 A
Triax UK Ltd	TdSCR504	EICS-DC-1006 A
Vision Products (Europe) Ltd	EV5-D2S	EICS-DC-1015 A
Vision Products (Europe) Ltd	EV5-D4S	EICS-DC-1016 A
Vision Products (Europe) Ltd	EV5-D6S	EICS-DC-1017 A
Vision Products (Europe) Ltd	EV5-D8S	EICS-DC-1014 A
Whyte Technologies	WSCR504RP 4o/p	EICS-SR-1013 A
Whyte Technologies	WSCR504	EICS-DC-1033 A
Whyte Technologies	WSCR506	EICS-DC-1034 A
Whyte Technologies	WSCR508	EICS-DC-1035 A
Whyte Technologies	WSCR512	EICS-DC-1036 A

### **Satellite Receivers**

Company	Product Name/Part Number	Certificate Number
Freesat	UHD-4X-500	EICS-RC-1018 A
Freesat	UHD-X	EICS-RC-1019 A
Sky UK	SkyQ	EICS-RC-1012 A

### **LNBs**

Company	Product Name/Part Number	Certificate Number
Televes S.A.U	Wideband LNB 747402	EICS-LNB-1020 A

### **Optical Gateways**

Company	Product Name/Part Number	Certificate Number
Televes S.A.U	Overlight Optical Transmitter 237501/502	EICS-OG-1021 A
Televes S.A.U	Optical Receiver Quattro 237540	EICS-OG-1022 A
Televes S.A.U	Optical Receiver dCSS 237530/31/32	EICS-OG-1023 A

### **Launch Amps**

Company	Product Name/Part Number	Certificate Number
Triax UK Ltd	318641/646 TMSA	EICS-LA-1029 A
Triax UK Ltd	318640/645 TMSA	EICS-LA-1030 A

### **Multiswitches**

Company	Product Name/Part Number	Certificate Number
Triax UK Ltd	318613/626 TMS 5x8	EICS-MS-1024 A
Triax UK Ltd	318614/627 TMS 5x12	EICS-MS-1025 A
Triax UK Ltd	318615/628 TMS 5x16	EICS-MS-1026 A
Triax UK Ltd	318616/629 TMS 5x24	EICS-MS-1027 A
Triax UK Ltd	318617/630 TMS 5x32	EICS-MS-1028 A



























































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### From the Chairman

Peter Sealey, Chairman and Senior Executive



Welcome to the spring 2023 issue of Feedback. I'm sure you'll find it as informative, interesting, and useful as ever. As always it includes the guide to Evolving Connectivity 2023, where I hope to see as many of you as possible.

I must report how happy we all were, and how positive the feedback was, regarding the show in 2022, so we really hope everyone enjoys Evolving Connectivity and finds it useful again this year. We have an interesting line up of seminars this year, as well as a panel discussion where industry experts can answer any questions you have, but we'd always welcome requests or suggestions for topics or speakers you'd like to hear from.



I have to say that it is nice that COVID is not a topic worthy of significant mention this year, although it can still have an impact on any business, but of course I must mention the economic environment that we're all operating in. Rising costs, especially fuel and energy costs are clearly having an impact on everyone, including CAI.

At the CAI AGM held in November 2022 the members voted for a subscription increase for the 2023 to 2024 year, but in an unusual move, to try to minimise the increase, they

opted to approve an increase based on the inflation rate in March 2023, rather than that in the autumn of 2022, something we hope will keep the rise as low as possible. They voted for an increase of 50% of the rate of inflation in March 2023 or 7.5%, whichever is the lower. Hopefully therefore the rise will be more affordable and nearer 4% to 5%, despite our costs increasing significantly this year.

After holding the rates flat for 3 years from 2019, and a modest 3% increase last year, when inflation was nearer 10% and energy costs were about to spiral out of control, we continue to keep a tight control over membership costs and endeavour to offer excellent value for the services and benefits we provide.

We are also happy to report that feedback from members suggests that most continue to weather the storm well and many members are still saving they are busy. Some members have reported the difficulties with attracting new staff now and we're working to see if that's something we can help with. Members also continue to report that they are diversifying into new areas of business, with home networking and AV. fibre network work for the alt nets and data networks all new for some, while traditional areas of work still provide regular income. One of the speakers at Evolving Connectivity 2023 is Malcolm Corbett from INCA, the CAI for the alt nets. and he'll be highlighting opportunities for new business from his members in several areas.

### **Technical Progress**

Since the last time I wrote, the work of the Technical Committee and sub-committees has continued to progress. The Code of Practice Sub-Committee and the main Technical Committee have continued to put considerable time and effort into rewriting the Codes of Practice. The update of CoP1 - Installation of Terrestrial and Satellite TV Reception Systems (MDU & Commercial) - was published over a year ago, and then in late 2022 the updated version of CoP2 -Aerials, Antennas and Receiving Equipment in the Single Dwelling Unit - was also published, after being distributed for consultation. The committee is currently working on updating CoP3 - Electrical Safety Requirements for Signal Reception Systems (Excluding CATV) and we hope it will be put out for consultation very soon. The other codes will follow, and then once completed, it'll be time to start work on CoP1 all over again.

CPR also remains a topic that we're keeping an eye on and reviewing developments to see if we need to issue new advice to members regarding the fire performance of the cables they use, although so far, we have merely had to reiterate our original advice.

We also continue to keep an eye on developments within the RED and will update members of any changes when the time comes.



The Certification sub-committee is also busy. We've been developing a new Group K Aerial Certification standard, and, as I write, a visit to the National Physical Laboratory to certify the

specification is only 24 hours away. Providing that goes as expected it won't be long before you can use CAI Certified Group K aerials. The European IRS Certification Scheme, developed hand in hand with the DTG, continues to go from strength to strength with new products about to be added and a programme of promotion to specifiers due to start later in 2023.



The Technical Committee continues to monitor, and have input into BSi, Cenelec and ETSI activities and I'd like to take this opportunity to thank Dave Hodges and Peter Barnett for their work in these areas. Several new standards are, as always, in development, and when we have the relevant details, we will, of course, let members know. Of course, the most asked question, to the Technical Committee, Kevin, or myself, last year, was "what's happening to channel 55". So, I'm pleased to report that, as I wrote here last year, it did indeed close at the end of June 2022!

We're keen to remind members that the members-only forum continues to operate via our website. This is a very useful facility if you have technical questions, observations, or answers to other member's questions, and we'd like to encourage members to take part and use the facility, subject to the rules listed on the forum, of course.

If you don't have member log-in details, then you can request them on www.cai.org.uk under the My CAI section.

### **Training Progress**

The Education and Skills Committee and the various tutors have also been very busy. As well as launching several new training courses over the last 3 years, we'll soon be launching yet more, hoping to help members in several ways with practical training. We've also recently become a CPD accredited organisation, so watch out for more news on courses over the coming months. Kevin will be giving a brief update on CAI Training Courses at Evolving Connectivity 2023, so make sure you're there to hear the latest news.

As you can see from Keith Bail's piece later in Feedback, we've made some key improvements and updates to the facilities in the CAI Training Room. Keith goes into full details later, but I'd like to take this opportunity to thank all the manufacturers who've provided updated equipment for the room, including Triax, Fracarro, Televes, Whyte, Global Invacom, Inverto, Webro, Alltrade, Blake UK, SCS Technologies Ltd and KB Consultancy.

### **Marketing Developments**

The Marketing Committee also continues to work hard for CAI members. As well as trying to support Amanda as much as possible while she works so hard to make sure Evolving Connectivity 2023 and the Gala Dinner are a success, we're also trying to improve benefits we offer members. Member benefits include the continuing relationship with Which? Trusted Traders which was pretty new this time last year and is proving popular, and a new relationship with Bosch professional Power Tools, both companies offering CAI members discounts. Fleet and Commercial remain our recommended insurance broker. and we've had very positive feedback about their service since they started working with CAI Member Companies. However, they'd like us to reiterate that members need to be sure that they're getting the correct level of cover, especially for tools in transit, following an increase in thefts from vans. Insurance companies seem to be taking increasingly hard attitudes around cover, so it's definitely worth making sure you have the correct cover, even though this can take up a lot of admin time once a year.





It would be remiss of me not to also mention TrustMark here. We are the only organisation in the Home Entertainment sector that enables you to obtain TrustMark status. TrustMark have been working away to develop new opportunities for Registered Businesses, and to increase their visibility to the public, something which is really starting to benefit TrustMark Registered Businesses. They've also released an app, offering the public a convenient way to find a trader as well as help jargon busting and a 'one-stop shop' guide to making home improvements. Don't forget that systems members can also become TrustMark registered, following an update to the categories we can include another benefit of CAI membership.



Of course, both the CAI office, and www. getmeviewing.org.uk continue to receive

many enquiries, from residential and commercial customers, all looking for a high quality, reputable, company to undertake work for them. Although our primary focus remains the raising of standards in our industry, through education, training, Codes of Practice, and member assessment, we will also always strive to help our members attract customers, whichever category they operate in.

As Chairman and Senior Executive, I have also continued to have meetings with organisations and individuals who we feel can benefit the CAI membership. Sky Homes continue to offer support to systems members who wish to engage with them and have had input into various Technical Committee discussions. Although face to face meetings still haven't reached the pre-pandemic levels, with many still on video, I also have discussions with the DTG, Ofcom, CEDIA and Retra as well as CAI

members, broadcasters, and anyone else who I can find to help drive forward our agenda.

Lastly, I'd like to welcome Mark Kenyon and Peter Edginton – new CAI directors elected at the last AGM – and look forward to their, and the other existing directors, enthusiasm, knowledge, and expertise to help to move CAI forward as our market continues to evolve and develop. We really appreciate all the directors giving up their time to give back to the industry. I'd also like to thank everyone at CAI for their untiring support and assistance – especially Bev, but also Kevin, Amanda, Suzie, and Charlene.

I wish you all, and your families, suppliers and customers, the best of health, wealth, and happiness at this time, and hope for a successful 2023 for all your businesses.







**TRAINING** 

**MEMBERSHIP BENEFITS** 

**STANDARDS** 

**SUPPORT** 



www.cai.org.uk





























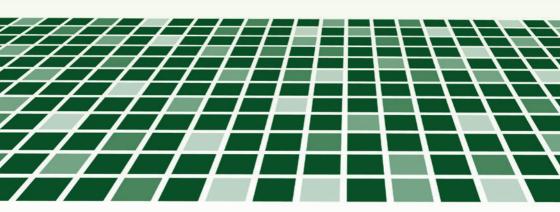








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- · Damage to the item being worked upon
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- · Environmental Clean-up costs
- · Alarm / security device failure
- · Inefficacy (failure to perform)
- · Removal of customers goods

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### **Benefits of using Fuel Cards**

**Fuel Card Services** 



Fuel Card Services is the chosen fuel card provider for members of CAI. We help members control their diesel and petrol costs by finding the best fuel card for their needs. CAI members can save up to 10p per litre on fuel, with free credit and reduced administration, backed by personal service and security. Now, to help members reduce their vehicle operating costs even further, Fuel Card Services have been working hard on My Fleet Hub, a suite of products offering complete fleet management control anytime, anywhere.

### More service, more savings, more security

CAI members will be able to manage old and new fuel cards more easily by viewing card transactional data and running reports on fuel spend, download up to six years of invoices and statements, find the next nearest pump to avoid unnecessary detours and costs with the Driver's Club App. With CO2Count, members can monitor and control carbon related emissions, insure cards against misuse with Card Protect, and use MileageCount for capturing business and private mileage.

### New products, new services

As if all that wasn't enough, Fuel Card Services also offer some great products and services that can be managed within My Fleet Hub. These include MyService. Expert granting you access to a nationwide garage network with potential savings on vehicle maintenance and repairs, MyDriveSafe. Expert app for paperless vehicle checking and defect resolution, Tele-Gence Telematics which enables you to track and view your vehicles and high-value assets all in one system.

For more information about Fuel Card Services please visit the website on https://www.fuelcardservices.com/cai/





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- Quality Assurance
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- Driving up standards across the audio and visual trade



#### **Consumer Protection**

- Give your customers confidence that they're protected
- Help for you and your customers if things go wrong
- Access to support, training and an independent Ombudsman to help you resolve difficult complaints



### Access to new work opportunities

- Promote your business with a personalised profile page
- As a TrustMark Registered Business you will be eligible for our national Trading Standards Approved scheme (£90.00+VAT)
- Benefit from TrustMark's profile and relationship with the UK Government

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www.trustmark.org.uk/tradespeople/join-through-trustmark



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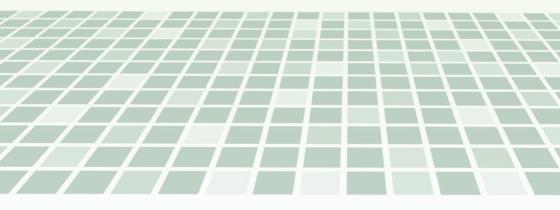






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### TV - all over the place

Robert A Calaz C Eng





Bob Calaz has recently retired after 64 years in the TV reception industry, half of them with various organisations within the Rediffusion group of companies and the other half running wholesaler and retailer Race Communications in Berkshire. He has published lots of papers, articles and books, and many in our industry know him as one of their tutors. In this article, he outlines some of the more colourful aspects of his life.

The early years

I left Imperial College with an electronics degree in June 1959 and was posted for three months to a radio station in Port of Spain, Trinidad, where my first lesson was how to stand up for yourself without help on a desert island. This was followed by a classical two-year apprenticeship with various Rediffusion group companies and a one-year follow-on course with Associated Rediffusion, which was, at that time the UK's only ITV channel. Each evening's broadcast was terminated by a three-minute videotape at around 11pm, initiated by me pressing the "play" button on the latest two-inch videotape machine imported from the States.

I remember the evening of Friday 22nd November 1963. At 6pm, there were five of us in the whole building at Television House in London plus a crew just finishing a recording at Studio 5 in Wembley Park, when the news came through that President Kennedy had been shot! We rounded everyone up and cut the rest of the evening's programmes,

breaking into the archives department and played a two-hour tape of the Halle Orchestra - in that time we put together a tribute to the President, beating the BBC by two hours.

I also spent time in the Telecine department (converting cinemascope film to TV which was only 4:3 at that time) and manning the water tower at Campden Hill in Kensington to receive outside broadcasts on microwave links from such places as Farnborough Airport and football grounds (there were no satellite links in those days).

### **Overseas Operations**

In 1964 I transferred to Rediffusion International in Lower Regent Street to help support all Rediffusion's overseas broadcasting operations. Hong Kong had more than 100, 000 cable subscribers using Rediffusion's multipair principle. I was involved with the establishment of broadcast TV in Monrovia, Liberia, and was sent to Malta to install its first TV studio and VHF transmitter. The first evening, the Prime Minister, Dr Borg Olivier, asked to make a party-political broadcast and, the second night, the leader of the opposition Dom Mintoff reciprocated.

This gentleman did not stop at the end of his allocated time, so I rang The Prime Minister. "Cut him off", I was told "He's not having longer than me", so we faded to black and carried on. Mintoff came out of the studio, looked at me and said in a very loud voice – "If ever I get into power, your Company will have

24 hours to leave this island." Some years later, he did indeed come to power and banished our Company from Malta!

#### The UK Industrial Scene

The Chief Engineer of Rediffusion Industrial Services (RIS) fell sick in 1966 and I was asked to take over in a temporary capacity. One of my responsibilities was the audio system at Wembley Stadium which was then owned by Rediffusion. What happened in 1966? England won the football World Cup – I wish that I could still find that ticket that said "Pass all Barriers" which could get me anywhere except the Royal Box.

Later that year, RIS moved to Feltham and I joined them on a permanent basis and projects that I became involved with included the House of Commons "Announciator" system and the large CCTV monitoring system at Beckton Sewage works.

### The job of a lifetime

In the summer of the year 1970, an advertisement came out for the position of Chief Engineer of Rediffusion (South Africa) Ltd, the last civilised country in the world without TV. My experience was just what was needed and I got the job and stayed for 15 years, ending up as General Manager. The Company grew in size and I ended up with 220 staff.

The start of TV in South Africa was interesting. It was announced in 1972 that TV would start in four years' time and I found myself as the main headline in that day's newspaper criticising the Government for a political decision for the delay - rash comments made by myself to a reporter during a telephone interview.

Our intention was to wire all the hotels and apartment blocks prior to the start of TV broadcasting and we ended up with 600 blocks prewired. Of course, none of them had been tested and we ended up in a pretty pickle, having to import some engineers from the UK on a temporary basis (some of whom stayed on for good).

TV installations are a bit different in South Africa. Distances from the nearest transmitter are sometimes very large and involve relay sites on mountain tops. Farmers often provide mains power in difficult places so that line-of-sight relay sites can be installed. Baboons throw rocks at you and use TV aerials as climbing frames. A snake bite is often fatal – a mountain being used as a relay site on the Swaziland border was subsequently nicknamed "mamba mountain".

South Africa started TV broadcasting in 1976 with 38 VHF and UHF TV transmitters, including one at George on the southern coast and known as the garden route. This is flanked by the Outeniqua mountain range, bridged by the Outeniqua Pass and 40 miles to the north lies the sleepy town of Oudtshoorn which is full of nothing much except ostrich farms.

Whilst we were installing a first relay site in the Pass and a second on the Oudtshoorn water tower, the Town Clerk came and asked if we could come to the Town Hall and tell everyone what this new TV thing was all about. Everyone trekked in and I was able to lay on the first ever demonstration of broadcast TV in Southern Africa – lucky because most of the audience only spoke Afrikaans and did not understand my English!

All equipment, systems, TVs and aerials including the subsequent satellite services

had to conform to compulsory technical specifications issued by the South African Bureau of Standards to promote local manufacture. We started a satellite installation franchise in 1997 and ended up with 81 takers. Several hundred interested parties turned up to a two - day seminar chaired by myself, at which several prominent CAI members went to Johannesburg to give technical papers.

Perhaps the biggest job that I handled was to wire the whole of the South African Broadcasting Corporation's Johannesburg HQ using Rediffusion's "Dial a program" concept – 120 programmes to 110 locations using rotating telephone exchange-type switches.

Sun City is an amazing place. 50km from anywhere with no electricity, water, roads or

airport, it was created in just ten months by a guy called Sol Kerzner. Our involvement included a Rediffusion HF distribution system, 4,000 TVs, casino security cameras and a vast CCTV security system.

Johannesburg is the worst inhabited place in the world for thunderstorms (mainly due to its altitude and all the gold under the ground). On an average of 84 days each year at about 2.30 in the afternoon, the sky goes jet black, then the big hailstones come - that's when you get your car under a motorway bridge. Then the lightning starts, striking the two tallest buildings (the TV tower and the Post Office tower). This plays havoc with all the TV installations and is why many are linked to equipment using fibre which is of course totally inert to lightning.





### **Back in the UK**

My family and I returned to the UK in April 1985 – lucky that we had not sold our house in Berkshire – and I started retailer Race Communications Ltd in Ascot selling telephone logging equipment, Panasonic fax, office intercoms and CCTV.

After two years we moved to our own premises in South Ascot and, after another three years, to more self-owned offices in Sunningdale. By now, domestic satellite TV reception had become an industry and that, together with domestic TV reception, had become our prime activity. We also started a trade counter as "Solutions Group Berkshire".

Trading as we did, near to Ascot and the Wentworth Golf Course, we created a long list of VIPs, only to lose them all to Sky, who, once they discovered a customer's famous identity, would do anything without charge. However, we developed an Arabic TV market which we retained for many years, our biggest spender now topping a quarter of a million pounds.

We joined the CAI and I was elected to the board of directors for a three-year term. I was also awarded the title "Installer of the Year" by the CAI.

We created a close association with the Tri-Services Resettlement Centre in Aldershot, running two-week technical training courses for many years and training thousands of exmilitary personnel for life in our industry, many of whom I still see at CAI events. The military centre also allowed the CAI to run courses for themselves and Sky at the well-equipped Aldershot workshop.

### Retirement

In 2014 I sold the Company to Focus21. I subsequently retired and turned our Sunningdale premises into a domestic dwelling. I have since published another book, copies of which are still being sold by the CAI.

I am now being kept busy as secretary of an active local Rotary Club. I have a small garden with no lawn. I plan to go fishing in Cornwall with Barry Shuter and write articles for Suzie of the CAI.



### Wiring Regulations

Robin Earl, Market Development Manager Dehn UK Ltd





The latest edition of the wiring regulations the 18th edition amendment 2 of BS 7671 has been released for a year, so it may be prudent to go over the key points that will be important going forward.

Significant changes include a new requirement for Arc Fault Detection Devices (AFDDs) in some AC final circuits for installations in some types of (HRB) higher risk residential buildings. There are also changes to the method for determining the requirements to provide overvoltage protection in the form of surge protection devices (SPDs). Any building with a fitted lightning protection system shall have SPDs to comply with all parts of the lightning protection standard BS EN 62305.

There is a new regulation related to the SPD requirements in section 443 of BS 7671.

443.4.1 Transient over voltages due to the effects of indirect lightning strikes.

Protection against transient over voltages shall be provided where the consequence caused by the overvoltage could result in:

- (i) serious injury to, or loss of human life.
- (ii) failure of a safety service, as defined in Part 2.
- (iii) significant financial or data loss.

For all other cases, protection against transient over voltages shall be provided unless the owner of the installation declares it is not required due to any loss or damage

being tolerable and they accept the risk of damage to equipment and any consequential loss

This new risk assessment replaces the old CRL calculation in BS 7671 and it makes it more likely that SPDs shall be required due to the clause requiring that all safety services are protected, as they protect human life. The definition of a safety service in Part 2 of BS 7671 would include smoke detectors and fire alarms. Safety service - An electrical system for electrical equipment provided to protect or warn persons in the event of a hazard, or essential to their evacuation from a location. Once a decision has been made to fit SPDs to meet 443.4.1 then we need to be aware of another regulation that fits in with the requirements in BS EN 60728-11.

That regulation is 534.4.1.6 and it reads as follows:

534.4.1.6 Consideration shall be given to the provision of SPDs to protect from other sources, such as:

- (i) switching over voltages produced by current-using equipment located within the installation.
- (ii) overvoltages on other incoming services such as metallic telecommunication and signalling services.
- (iii) overvoltages on other services feeding other structures such as secondary buildings, external installations/lighting, power lines feeding external sensors.

These SPDs shall be installed and located as close as possible to the origin of such events. By looking at indent (ii) we can see that any cable entering or leaving the structure needs to be assessed for SPDs. If there are SPDs for the LV supply then those other services and the external circuits or loads mentioned in indent (iii) require protection.

Then we see the requirements for the location of the SPD as close as possible to the origin of the events. In this case when we consider lightning on the roof mounted aerial/ IRS TV installation, the SPD is located where the cables enter/leave the structure. This way the surges are nipped in the bud before they can propagate inside and impact on other circuits.

This regulation and the requirements of BS EN 60728-11 and the lightning standard BS EN 62305 requires attention to maintain the integrity of the protected structure in the case where a fitted lightning protection system (LPS) is present and the protection of equipment with low withstand voltages even with no LPS fitted.

In the next section we shall see the way the lightning standard breaks the installation into zones and how SPD form part of the mitigation from over voltages on all incoming lines.

## How does this have any bearing on the membership of the CAI?

For any structure with a fitted lightning protection system the specialist lightning protection installer will likely make a bond using copper tape from the mast or aerial support to the LPS. This prevents flash over which causes fires.

However, BS EN 60728-11 and BS EN 62305 will require type 1 SPDs on all

incoming metallic cables going to and coming from the external plant or installations.

Failing to do this means that although the metal work is cross bonded the cable cores will have induced lightning currents flowing and coming inside and the type 1 COAX SPDs will shunt the currents to earth as the lightning voltage curve ramps up and turns the SPD on. This protects the installation and equipment installed not only on the signals but also adjacent LV supplies.

BS 7671 in section 534 for the installation of surge protection devices covers SPDs in the LV distribution system but does not include end equipment so the onus is on the provider of the terminal equipment to ensure the overall installation is not compromised with "holes in the Faraday cage".

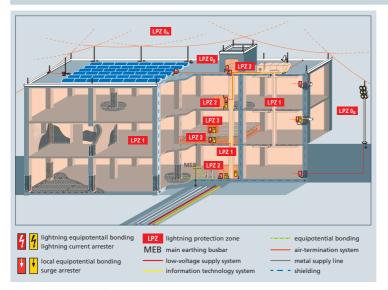
It is possible to remove the threat posed by direct lightning strikes to the head end equipment. And following a conversation with the LPS installer, if a separated lightning protection mast was erected to provide isolation from the rest of the fitted LPS, that would remove the mandated use of type 1 SPDs. By working with the other trade, a far more satisfactory result can be found and be fully compliant with all relevant standards.

Another way that the standard looks at surge protection is by the lightning protection zone concept (LPZ). This breaks down the structure into zones. See figure 1 overleaf. LPZOa is the external zone, the sky, the most dangerous as lightning can be fully present in this zone with no protection from the effects of a direct strike. For example, cross bonded roof plant and aerials. Type 1 SPDs are required.

LPZOb is also external but under the volume of protection afforded by any fitted LPS.

### Lightning protection zone concept as per BS EN62305-4 and BS 7671 section 534





25.07.16 / 8080 E.38

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In this zone partial lightning currents are still present, induced into any cables and mitigated against using SPDs.

LPZ1 is a zone screened from the effects of the lightning electromagnetic pulse (LEMP), this can be the entire structure by using the steel frame and cladding.

LPZ2 is within LPZ1 or a smaller volume bounded from LPZ 1, like a metal distribution board or signal amplifier or alarm box.

As each cable crosses a zone the integrity of that zone is maintained by using SPDs – see BS 7671 534.4.1.2. As mentioned before that cable could be a COAX from the dish to internal equipment and as that crosses the boundary of LPZO to LPZ1 then SPDs are required.

With the attention given to the buildings at higher risk (HRB) post Grenfell Tower,

all trades will be expected to be working together for instituting a culture change and motivating compliance to the new series of building standards.

Everyone will be contributing to higher standards and operating from a common overarching design. This will of course mean that joint decisions with other trades and suppliers of packages to the site will be inevitable.

Robin Earl is a specialist in surge protection representing ATLAS, the lightning protection trade organisation on JPEL/64 wiring standards committee for BS 7671.





# Home Networking category of membership

With a further dramatic swing of trade towards data networking around the home as well as linear TV, CAI is reminding members there is a category of membership

dedicated to home connectivity.

This gives members further promotional coverage in this new scope of home installations that many installer members now find themselves working. In the field, CAI assessment officers find themselves looking at more than DTT and satellite installations. There may be TV internet connections required in order to access catch-up services. System installers are stretching far beyond the IRS as we know it with the inclusion of broadband and IPTV on many large distribution systems.

CAI has defined and documented the criteria and competency scope a new applicant for the category would be expected to prove. Desktop competence checks can be made with existing CAI members wishing to switch to the new category. The category – which can simply be an addition to the existing



listings where your business is found - will follow the same subscription price banding as the systems category. New applicants for CAI membership will simply be assessed according to the work-streams they undertake and naturally be absorbed into the relevant categorisation.

For further details on how your business could fit into the new category; email Kevin Dawson – **kevin.dawson@cai.org.uk** or call the Watford Office for details.

### **Thoughts on Wideband**

Robert Sydee FSCTE, Technical Director Whyte Technologies







As more IRS installations are becoming wideband (dSCR only), let's take a closer look at some of the things that need to be carefully considered when installing and commissioning wideband systems.

It's easy to forget that we are dealing with a lot more satellite transponders on our wideband satellite input feeds, so we need to apply the appropriate derating and consider wideband slope.

Most IRS installation engineers are familiar with amplifier derating for quattro LNB IRS installations, but there is a difference for wideband systems. Let's use Astra at 28.2° east (Sky) as our example where on a typical wideband LNB output you could have approximately 55 vertical and 62 horizontal transponders. We would of course need to include all transponders on the vertical or horizontal path, not just the Sky, FreeSat television and radio services, as each transponder will have an impact on the amount we need to derate by.

Typically, wideband launch amplifiers have the maximum output stated as relative to 2 channels as part of their specification however, we have an almost fully loaded bandwidth from 290MHz ~ 2340MHz on each vertical and horizontal path.

So, the rule of thumb for derating is... "Where we have a doubling of transponders, we derate by 3dB incrementally plus another 3dB for the signal variation disparity of Digital Channel Power (DCP)."

So, for those familiar with quattro installations where there is an average of 32 transponders per path, we'd need to derate by 12dB and then add another 3dB for the signal variation, a total of 15dB typically.

For wideband installations we would need to derate a little bit more as we could have up to 64 transponders (per path), so we would need to derate by 15dB and again add 3dB for signal variation, a total of 18dB typically. This derating figure is simply deducted from the max output signal as stated by the manufacturer. When commissioning this piece of equipment (amplifier/multiswitch etc), we would ensure that the strongest transponder in band does not exceed this figure.

Let's do some comparisons starting with quattro. Let's say that our installation site has a considerable cross-site distance of 50m from the array so, at this distance we would expect about 15dB of coax signal loss on SAT (average 3dB loss per 10 metres of 100' type cable). There would also be about 5dB worth of signal slope introduced on each SAT path

(calculated as 1dB slope introduced per 10 metres of 100' type cable).

The typical off-air source from 28.2 east will add to the signal disparity but, we would have an acceptable input to our quattro launch amplifier where we can apply slope correction and set the required level of gain to feed our IRS equipment.

For wideband, the coax loss is going to be a little bit more than a quattro system due to the slightly higher frequencies involved, and we would expect around 16.5dB of coax signal loss over the same distance of 50m (average 3.3dB loss per 10 metres of 100' type cable).

As we are dealing with a much wider bandwidth (290MHz to 2340MHz) our slope will be much greater. Here we would expect approximately 10dB of slope (calculated as 2dB slope introduced per 10 metres of 100' type cable).

Add this to the existing off-air disparity from 28.2 east then suddenly we could be in trouble at the furthest point in our wideband trunk as the 12dB slope control available on wb launch amplifiers cannot compensate enough.



So how would we overcome this scenario? The answer is to launch as close as possible to the array. This will allow you to apply the positive slope required to overcome the slope introduced by the coax drop length with the aim of having a flatter response at the input of your next wb launch amplifier, where further pre-slope can be applied to compensate for additional slope further down the line.

Also keep in mind that taps, splitters and cascading multiswitches also introduce slope, hence why Whyte Technologies developed Trunk EQ for all our new generation dSCRs, taps and splitters.

Ultimately, when dealing with wideband IRS installations, consider the slightly higher loss and the introduction of double the amount of slope.



### CAI Principles of Risk Assessment and RAMS

**Keith Bail FSCTE, Trainer and Consultant KB Consultancy.** 

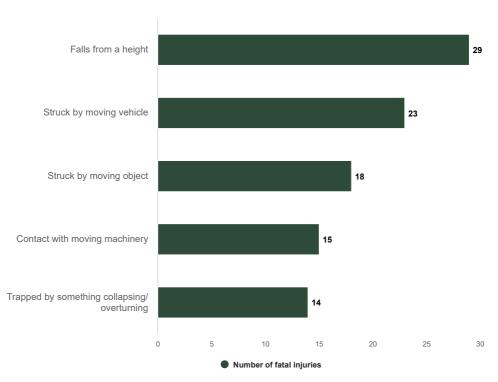


Every year, thousands of people in the UK are forced to take time off work due to health and safety-related incidents. For most, this is a number of days.

However, in some cases people can suffer major injuries and even death. Falls from height are consistently the biggest cause of workplace fatalities in the UK accounting for 26% of all deaths at work. (2021/2022 https://www.hse.gov.uk/statistics)

A hard-hitting fact is that the vast majority of these incidents could have been avoided if standards of health and safety in the workplace had been better.

#### Main kinds of fatal accident for workers, 2021/22



Note: Chart above shows all accident kinds accounting for 10 or more deaths in 2021/22

credit: www.hse.gov.uk

#### **Incident 1**

### Public raise alarm as workers spotted on unsafe roof.

Incident date - 21st January 2019 to 28th February 2019 Hearing and Sentencing Date January 2022

Manchester Crown Court heard that concerns were raised with the Health and Safety Executive (HSE) after workers were spotted on the roof of the building, without safety measures in place to prevent a fall.

HSE carried out two inspections at the site following the reports. On the second site visit, on 27 February 2019, employees were found to be working on the roof with no suitable controls in place to prevent falls. Inspectors intervened and stopped the work on site.

An investigation by HSE found that the unsafe work on the roof had taken place over a period of time from 1 January 2019 to 28

February 2019 with a significant risk of death or serious injury.

The Limited Company, was found guilty of breaching section 2(1) of the Health and Safety at Work etc. Act 1974.

The Company director was found guilty of breaching section 37 of the Health and Safety at Work etc. Act 1974, in relation to the company's failing of section 2(1) of the Act. He was given a community order for 270 hours of unpaid work and ordered to pay costs of £5,049.73 and a victim surcharge of £85.

Speaking after the hearing, HSE inspector: "Falls from height remain one of the most common causes of work-related fatalities in this country and the risks associated with working at height are well known. HSE will not hesitate to take appropriate enforcement action against companies that fall below the required standards and endanger their employees."



credit: www.constructionenquirer.com

#### **Incident 2**

### BT engineers' ladder falls may have followed electric shocks

Incident Date 1st April 2010 Hearing and Sentencing Date Circa May 2016

Teesside Crown Court heard how the two BT Openreach engineers were working at the company's Darlington Automatic Telephone Exchange.

One of the engineers was installing a cable in a ceiling level cable tray to the main distribution frame, which connects equipment to cables, on the ground floor.

The engineer was standing on a stepladder reaching up to the cable tray which ran beside the lighting system. He fell off the ladder and was taken to hospital with serious head and back injuries.

BT did not properly investigate the accident and later the same day the cable installation resumed. The second engineer stood on another ladder and also fell off, sustaining skull and back injuries. He was blinded in one eye and has long-term memory problems.

The Health and Safety Executive (HSE) found that the work was not properly assessed or planned, despite workers being exposed to such risks as working at height close to an electrical system.

Serious failings were also found in the electrical lighting system where the workers were exposed to live components, some at 240 volts. The system was poorly constructed and had not been properly maintained or tested. It is likely the engineers received electric shocks which threw them from the ladders.

BT was fined £600,000 after pleading guilty to breaching Section 2(1) of the Health and Safety at Work Act and ordered to pay costs of £60,000.

HSE inspector said after the hearing: "These life changing incidents could have been avoided if BT had provided safe systems of work and ensured that the electrical systems were properly constructed, maintained and tested."



credit: www.constructionenquirer.com

#### **Incident 3**

### A Tragic Case: Client fined £80,000 over roofer death.

Incident Date 22nd May 2017, Hearing and Sentencing Date February 2021

A company has been sentenced after an employee was fatally injured completing snagging work on a roof on 22 May 2017 when he fell six metres.

The Company was prosecuted by the Health and Safety Executive (HSE) for failing to ensure the contractor it hired had devised a safe system of work. Owners of the building pleaded guilty to breaching the Health and Safety at Work etc. Act 1974, section 3.

An investigation by the Health and Safety Executive (HSE) found that employer failed to take reasonably practicable measures to reduce the risk to those working on the roof.

Speaking after the hearing, the HSE inspector said:

"This was a tragic incident, which resulted in a needless loss of life and could have easily been avoided by properly planning the work and ensuring appropriate safeguards were in place. Those in control of work at height have a responsibility to devise safe methods of working, which should include providing clear and comprehensive information for their workers."

## A Risk Assessment correctly written and properly applied would have helped to reduce the outcome of these incidents or even prevented completely.

### What is a Risk Assessment?

A risk assessment is simply a careful examination of what, in your work, could cause harm to people, so that you can weigh up whether you have enough precautions or whether you should do more.

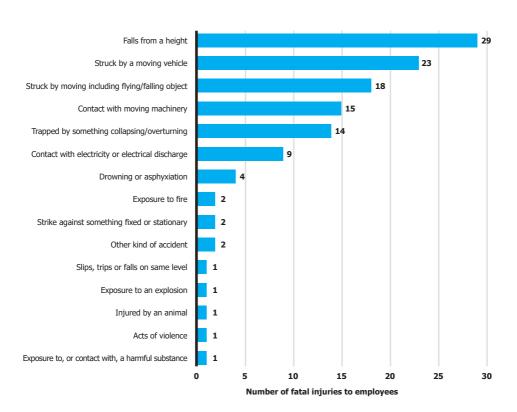
As an employer or self-employed person, you must do a risk assessment.

### Why do we need a Risk Assessment?

"To prevent accidents by identifying hazards and reducing the risk of injury from those hazards to as low a level as is reasonably practicable"

#### Main causes of injuries

- 1. Handling, lifting, carrying
- 2. Slip, trip, fall (on the level)
- 3. Struck by moving object
- 4. Fall from height
- 5. Struck against something fixed/stationary
- 6. Contact with moving machinery
- 7. Violence
- 8. Harmful substances
- 9. Struck by moving vehicle
- 10. Animals
- 11. Electricity
- 12. Trapped by something collapsing/ overturning
- 13. Fire



#### Costs of work-related injuries and ill health

To individuals and their families £5.6 billion through:

- Human suffering:
  - injury
  - pain
  - stress
  - grief
  - death
- Loss of income
- Unemployment
- Need for additional expenses

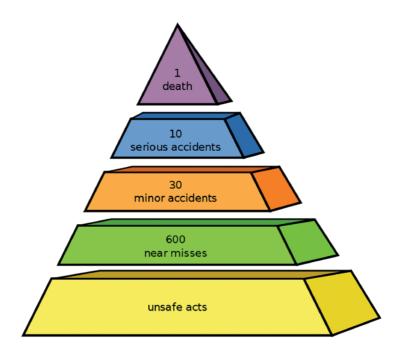
To employers £3.5 to £7.3 billion through:

- Compensation claims and insurance
- Prosecution, fines, prohibition
- Legal fees

- Lowered staff morale/reduced productivity
- Absenteeism, sick pay, increased staff turnover and replacement costs
- Repair costs to damaged buildings and equipment
- Loss of reputation and customer confidence
- Increased cost of management and administration

To society £9.9 to £14.1 billion through:

- Damage
- Lost industrial
- Medical treatment
- Administration costs
- Investigation costs
- Victim and family costs



### **The Accident Triangle**

For every 600 near misses, there is 1 fatality. Unplanned and uncontrolled events leading to injury, ill health, damage or other loss or error.

**Legal requirements for Risk Assessments** Health and Safety at Work etc. Act 1974 (1)

### **Employers:**

- Health, safety and welfare of employees
- Health and safety of non-employees

### Self-employed:

- Health and safety of themselves
- Health and safety of others

#### **Employees:**

- Reasonable care for their own and others' health and safety
- Co-operation with employers

Each group or individual does not need to eliminate every foreseeable risk, but they do need to have dealt with them to a certain extent. To what extent will depend on the risk involved and the cost of avoiding or controlling it.

#### Other specific regulations

- Management of Health and Safety at Work Regulations 1999
- Fire Precautions (Workplace) Regulations 1997 (amended 1999)
- Manual Handling Operations Regulations 1992
- Health and Safety (Display Screen Equipment) Regulations 1992
- Control of Substances Hazardous to Health (COSHH) Regulations 2002 (as amended)
- Control of Asbestos Regulations 2012
- The Control of Lead at Work Regulations 2002 (CLAW)

- The Control of Noise at Work Regulations 2005 (Noise Regulations 2005)
- Personal Protective Equipment at Work Regulations 1992
- Regulatory Reform (Fire Safety) Order 2005 (FSO)

### Why is risk assessment important in the workplace?

Risk assessments carried out correctly will prevent accidents and ill health by recognising what can cause harm and putting controls to stop that harm from occurring.

To carry out risk assessments, risk assessors must have an understanding and awareness of common accidents and ill health, which are associated with their type of work activities and which ones are common causes of injury.

#### What is risk assessment?

A risk assessment is an important step in protecting people in the workplace and those affected by its activities.

It does not need to be a complex process nor eliminate all risk. People carry out informal risk assessment all the time, for example before crossing the road they make a judgement as to whether it is safe to do so or whether they need to find somewhere else to cross. For most organisations it means putting in place

simple and effective measures to protect people from harm in the workplace.

Risk assessment takes into account how people's health and safety can be affected by their working environment, methods of work, plant and machines and materials and any equipment used.

#### **Key Definitions**

- 1. **Hazard** something having the potential to cause harm
- 2. Risk likelihood that the hazard is realised
- 3. **Extent of risk** likelihood, number of people affected and severity of consequences
- 4. **Control measures** the arrangements made to reduce risk

BS 18004:2008 'Occupational Health Systems' is a guide to occupational health and safety management systems. It provides guidance for occupational safety and health and safety management systems. It helps you to control risks and improve overall performance. This standard looks at the health and safety requirements in a working environment and offers practical advice to get the right safety measures in place. By following these recommendations, management can better their risk assessments and quality auditing, whilst improving conditions of employment and accident prevention.

### Severity / Consequence

	Slightly Harmful (1)	Harmful (2)	Extremely Harmful (3)
Highly Unlikely (1)	Trivial Risk	Tolerable Risk	Moderate Risk
	(Score 1)	(Score 2)	(Score 3)
Unlikely	Tolerable Risk	Moderate Risk	Substantial Risk
(2)	(Score 2)	(Score 3)	(Score 6)
Likely	Moderate Risk	Substantial Risk	Intolerable Risk
(3)	(Score 3)	(Score 6)	(Score 9)

Risk Matrix (Based on BS 18004)

credit: www.hse.gov.uk

Likelyhood

The advantage of using risk evaluation is that it will assist the employer in prioritising what action to take following the risk assessment.

Obviously hazards which remain with substantial risk will need controlling more immediately than hazards that are ranked moderate. Some assessors will always take 'the middle of the road' approach and bunch all ratings as moderate. This should be avoided as it often results in no action being taken.

In very low-risk workplaces, risk assessments may only contain words and no evaluation matrix, for examples the HSE guidance for small businesses.

#### Personnel involved in risk assessment.

- Employers/directors
- Safety managers/competent persons
- Line managers/supervisors
- Safety representatives/employees
- Contractors
- Specialists

### The Five Steps to Risk Assessment

#### 1) Identify the hazards

There is no hard and fast rule on how a risk assessment should be carried out. Walk around, ask questions observe behaviours whatever needs to be done in order to identify the potential hazards present.

#### 2) Decide who might get harmed and how

Once the hazards have been identified look at who is likely to interact with them and in what way. When identifying people at risk you will need to think about the person undertaking the activity, as well as those that may be affected by it (members of the public, passers-by etc.)

### 3) Evaluate the risks and decide on suitable control measures

Having identified the hazards and potential people involved you then need to decide what the likelihood is that harm will occur. Risk is everywhere and you are not expected to eliminate all risk completely. What you should do is make sure you are aware of the main risks and do everything 'reasonably practicable' to manage them, taking into account cost, time and trouble.

When evaluating the hazards for your risk assessment you should use the hierarchy of control.

- Elimination Physically remove the hazard
- Substitution Replace the hazard
- Engineering controls Isolate people from the hazard
- Administrative controls Change the way people work
- PPE Personal Protective Equipment

### 4) Record your findings

Maintain a record of your significant findings. If you have less than five employees you are not required to write them down but it is a good idea to record them as it will make it easier to review if something changes. If you have more than 5 employees the law requires you to document your significant findings.

### 5) Review your risk assessment and update if necessary

Change is a part of life and sooner or later there will be new people, equipment, working practices that could introduce new hazards so review your risk assessment at regular intervals.

### What are RAMS?

If you are asked for your RAMS, you are being asked for a package consisting of your risk assessments and method statements for the job.

RAMS stands for Risk Assessment Method Statements. RAMS are documents that companies create after the completion of a risk assessment. RAMS contains details of the hazard and a step-by-step guide to working around that hazard that all employees, contractors and others can easily follow. This differs from a risk assessment which identifies hazards in the workplace and analyse the possible risk to employees. With the help of RAMS, you can explore and implement methods for eliminating the risk.

It is logical for safety method statements to follow risk assessments. Since there is still a risk to employees after actions are taken, but the next step is to decide on and communicate those measures to keep people safe at work.

### What are Method Statements?

A work Method Statement sometimes called a "Safe System of Work" (SSOW), this is a document that details the way a work task or process is to be completed. The Method Statement should outline the hazards involved and detail a step-by-step guide on how to do the job safely, it will also detail which "control measures" are to be introduced to ensure the safety of everyone who is affected by the task or work process.

### **How Are RAMS Used?**

RAMS are most commonly used within the construction industry. One of the reasons for this is that companies often include as a requirement during the tender process. RAMS are used to prepare their safety documentation alongside assessing the health and safety policies of companies who submit tenders.

### Making Workplaces Safer with RAMS

RAMS ensure that the right people, with the right skillset work to the right method statement in the right place at the right time. This ensures that incidents are avoided and people go home safely at the end of the working day.

Using RAMS can also benefit the overall business. This includes having effective control measures put in place thanks to the information gathered. Your business will see reduced rates of absence, improved productivity through the satisfaction of employees and the less risk of the business suffering any financial or reputation issues because of a serious incident.

### **Benefits of RAMS**

- Supports decision making:
   discusses ways of conducting a task
   safely but no formal decision is expected.
   Safety method statements will help you
   make the right choices.
- Stops misunderstandings:

  responsible workplaces communicate
  to staff the safe ways of completing
  tasks. Management don't want their staff
  becoming injured or worse because of a
  workplace incident protecting employees
  is their top priority. Verbal or informal
  instructions can become misunderstood
  and can change as the message is passed
  on. Method statements formalise the
  process with a clear safe system of work
  which eliminates misunderstandings.
- Improving work processes: with a step-by-step guide in place which explains how to complete a task that involves risk safely, processes are improved and productivity enhanced.

### **How to Use RAMS**

A RAMS document should be put in place if you can't eliminate a risk by other actions or measures.

Here are the best tips for using RAMS:

- Include the risk assessment.
- Put supervisor details, equipment involved and other relevant information into the document.
- First Aid Provision should be included.
- Prepare a step-by-step guide on how to complete a task safely, covering every step
- Make sure employees involved with a task is given a copy of the RAMS document.
- The document should be reviewed periodically to make sure they are used regularly and the information remains correct.

### **The CAI Training Programme**

The Principles of Risk Assessments and an introduction to RAMS is one of the training courses run by the CAI.

To carry out risk assessments, risk assessors must have an understanding and awareness of common accidents and ill health, which are associated with their type of work activities and which ones are common causes of injury.

This CAI in-depth course is designed to provide delegates with a practical understanding of how to conduct and record Risk Assessments & Method Statements in accordance with current legislation.



## **Understanding amplifiers**

Peter Barneti





Have you ever connected a launch amplifier to a set of good quality off-air signals, and found that the output is awful? If so, you will probably have greatly improved the signal quality by reducing the signal power. It's not immediately obvious that reducing the signal power can improve the signal quality, so let's have a look at what is going on.

An ideal amplifier would simply take an input signal, increase its power, and present that at its output. This could be represented on a graph as a straight line (see Figure 1, where the blue line represents an ideal amplifier with 20dB gain), where every dB increase in power at the input causes an identical number of dB increase in power at the output, without limit.

In the real world, we have to put up with some imperfections, the most important of which is usually the amount by which the amplifier's performance deviates from the ideal straight line. Looking again at Figure 1, the red line shows behaviour typical of a launch amplifier, but the same principle applies to any amplifier that we might use in a receiving system. At the low signal end, the red line closely follows the blue line, but as the signal level increases, the red line increasingly deviates from the ideal. This is known as nonlinearity.

Nonlinearity has the undesirable effect of creating signals at frequencies that are not present in the input. These additional signals are called intermodulation products. In digital television, intermodulation products take the

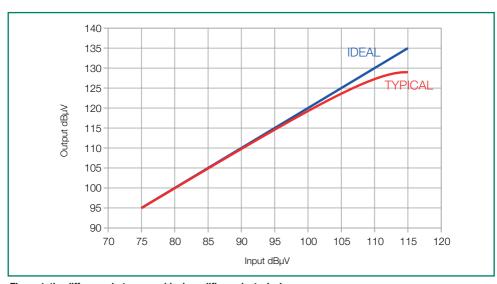


Figure 1: the difference between an ideal amplifier and a typical one

form of a noise-like interference which is spread widely across the band of frequencies in use. This is often called intermodulation noise.

It may be helpful to think of this being rather like an audio amplifier where the volume has been turned up so high that the sound is distorted. The music is obviously still there, but there are also new sounds, representing the distortion, that were not present on the input.

Looking at Figure 2, we can see the spectrum of a group of off-air TV signals after passing through an amplifier. There are two traces, representing two levels of output signals. In both cases, the intermodulation noise can clearly be seen between the wanted signals. Of course, the intermodulation noise is not only between the TV signals, but is spread fairly evenly across this entire region of spectrum. It therefore acts in much the same way as any other source of noise, resulting in degradation of the MER.

In Figure 2, moving from the blue trace to the red trace shows an increase in the power of the TV signals of about 2dB, while the intermodulation noise has increased by around 6dB. Ignoring any other source of noise, this would result in a reduction in MER of around 4dB. Contrast this with a possible 2dB increase in MER if there was no intermodulation noise.

The important point here is that for a relatively small increase in output power, there can be a large decrease in MER. This is illustrated in Figure 3. The line to the left of the peak shows that as the signal power increases, so does the MER (this assumes that the thermal noise remains constant, which in practice is not always the case). Then as the output power increases further, there comes a point where the intermodulation noise exceeds the thermal noise, and begins to dominate. As we have seen above, the intermodulation noise rises much faster than the signal power, so the slope of the line to the right of the peak is much greater than to the left.

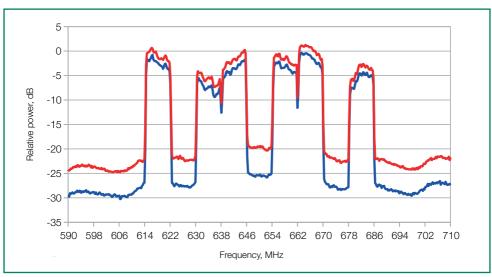


Figure 2: the spectrum of DTT signals at the output of an amplifier, showing a small increase in signal power causing a much larger increase in intermodulation noise

This means that if an amplifier is over-driven, even by a fairly small amount, the MER can be quite heavily degraded, but also that it should be possible to improve the signal quality by reducing the output level. In fact, this is a widely used test to see whether noise is arising from an intermodulation process: if the input signal to an amplifier is reduced by say 3dB, and the noise level falls by much more than 3dB, then the amplifier is generating the intermodulation noise. If the noise falls by 3dB or less, then intermodulation noise is not dominant (don't forget that an amplifier will always generate some amount of intermodulation noise: when the amplifier is being operated correctly, the intermodulation noise should be much lower than the thermal noise.)

This creates a balance that must be achieved: the CAI Code of Practice requires both signal levels and MER values at outlets to be within prescribed ranges. A high level of launch power is often seen as desirable to overcome distribution network losses and deliver signals

to outlets at levels well above the minimum, but driving the launch amplifier just a little too hard can degrade the MER values so they no longer meet the CoP requirements. It is possible to build a system where you can either meet the signal level requirement, or the MER requirement, but not both.

One final point: in systems using a single amplifier for FM, DAB and DTT, the cause of poor MER on the DTT signals could be FM or DAB at levels that are too high, as well as mobile phone or base station signals. It is always worth a full scan of the spectrum at the input to the amplifier, from low frequencies to at least 1GHz, to make sure that there is nothing present that could overload the amplifier.

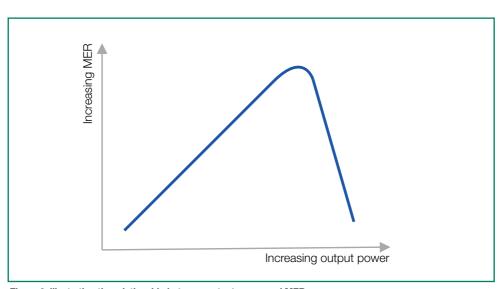


Figure 3: illustrating the relationship between output power and MER



### the connected home...









To find out about all the fantastic new member benefits the CAI can offer along with all course information contact:

CAI - Communications House

41a Market Street, Watford, Herts, WD18 0PN UK

www.cai.org.uk

### Assessment & Technical Executive Report 2022/23

Kevin Dawson, Assessment and Technical Executive FSCTE ASET



Welcome to another Assessment & Technical Executive report. It's been another busy year for me, assessing and teaching, and despite the many changes in the UK economy, I hope all of our members are busy and prospering too.

### The Weather

Being a man who spends his life on various motorways, the weather once again hasn't been our best friend. Definitely a couple of cold snaps, but the flooding in parts of the UK has been horrendous at times. With spring just around the corner, we should be through the worst and I sincerely hope all of our CAI members have been able to carry on working through it.

### **Assessments**

Our members in the Reading and Surrey area will know Kev's back on the road having visited many of you in January this year. I am sending out assessment request letters asking members if they can agree to be assessed with plenty of notice, in many cases well over 3 weeks. You know I will always conduct the assessment as fast as possible even if it means meeting you on site, for your convenience. Whilst I have a job to do in assessing, it is always good to have a catch up too, even if it's just to discuss your CAI membership and where we can make any improvements.

Don't forget CAI has easy access to gaining the blue CSCS skills card, or renewing your safe working at height certification. It's always good to remind members that these services are available and can make the owner of a company's life a little easier.

### Certification

I am sure you will all know that Com 7 left the spectrum around July last year which paved the way for Group K to become effectively the new wideband for DTT reception. Paul Blake (Blake UK) who will be acting on behalf of the technical committee and myself, are booked in to visit NPL (National Physical Laboratory) in February, to test a selection of aerials for the new aerial certification standard for group K aerials. By the time you read this the process should be moving forward at pace to introduce manufacturers' certified Group K aerials to the market.

### **Training**Bob Calaz Retires

CAI would like to thank Bob Calaz for his many years of service as a training tutor, and the many courses he has



written over the years for us, with much of the content still included in a number of courses we use today. Bob is now enjoying a long overdue retirement and we wish him well.

We have also been updating, as always, the existing courses we offer to ensure the latest

developments within the industry are catered for. I must give a special thank you to Keith Bail and Graeme Mayhew for the many hours they have both put into developing and updating some of the courses we offer.

Keith has totally revamped and updated the Making the Bond course, which is now called Electrical Safety for Signal Reception. The course covers many more aspects of electrical safety within the industry and offers excellent content additions. Recent updates now include an introduction to PAT testing, Minor Electrical Works Certificates plus the latest recommendations for Surge Protection Devices.

The CAI Technical Committee are in the process of reviewing The Code of Practice 03. This Code of Practice is intended to provide requirements to ensure adequate electrical safety provision for Signal Reception Systems (excluding CATV); these requirements are based on BS EN 60728-11:2018, BS EN 60065:2002, BS EN 60950-1:2006, BS EN 60990:2016, BS EN 62305-4:2006, TS 60479-1:2018, IEC 62368-1:2018 and other overriding safety standards such as BS EN 7671:2018 (wiring regulations), Directive 2006/95/EC, Electricity at Work Regulations 1989 and the Health and Safety Directive (Health and Safety at Work etc. Act 1974 (HSW Act) in Great Britain or the Health and Safety at Work (Northern Ireland) Order 1978 in Northern Ireland).

These Laws, Regulations and Directives are all covered in the training course.

We have now introduced the brand-new systems course called IRS Networks, no longer called an Introduction to IRS. This is a brand-new course written and put together

by Graeme and Keith and because of the all-new content, the training room has been vastly upgraded with new equipment to allow more hands-on experience for the students attending the course. This really is a must do course in 2023!

This course includes all the usual IRS techniques plus practical exercise in building an IRS system using a 'live' fibre optic source.

### **Ladder Association**

I was very honoured to be asked to attend the Ladder Association's 75th Anniversary dinner and conference last year. This was a very interesting event and the speakers presenting were of the highest standard. I was very much captivated by one of the presentations given by Hannah Williams representing the No Falls Foundation, a charity dedicated to preventing falls from height and helping people affected by the consequences of a fall.

This presentation was a real eye opener to me. Knowing there is a charity that dedicates itself to people who work at heights, and is there for everyone if the unthinkable ever happened. I am proud to say Hannah Williams has agreed to give a presentation at our event in March and I would urge everyone to attend her







Ladder Association's 75th Anniversary dinner and conference last year.

presentation.

### **Sapphire Anniversary**

#### Congratulations to Elite Aerial Services Ltd and Recent Award Success with Gower College!

A special congratulations goes to one of our previous Company of the Year winners, Elite Aerial Services based in Swansea. The company was formed by Alan Polverino in 1977 and the company joined CAI in 1978. Alan himself started in the industry back in 1967, when I was only 7 years old! and he is still going strong. I know he does love the industry, and hope he stays part of it for some years to come.

Elite have also had recent success at the apprenticeship award celebrations 2023 with Gower College.

One of the company's apprentices received 2 of the top awards, with Elite Aerials being awarded Employer of the Year.

Photo shown are all the business companies and apprentices associated with Gower College, and two of the awards achieved by apprentice Ben Lewis from Elite have been highlighted. These included Electronics Apprentice of the Year and Apprentice









Exceptional Achievement Award. Elite Aerials were also awarded Apprentice Employer of the Year on the same night. Huge congratulations on these achievements go to Ben and Elite from everyone at CAI.

Photos of the awards achieved include Ben Lewis and Elite's new Managing Director Ross Adams. Also including Steve Williams, Head of Electronics, at Gower College.

Looking forward to seeing you all at Evolving Connectivity on 23rd March







## Saving lives by stopping falls

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### RESEARCH

**RESEARCHING THE CAUSES OF FALLS** AND FALLING **OBJECTS** 

### SUPPORT

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For more information visit

nofallsfoundation.org





### **CAI Training Room**

**Keith Bail FSCTE, Trainer and Consultant KB Consultancy.** 



The CAI training Room has undergone a major update over the past few months.

The ceilings have been down, the floors have been up, the drills, saws and hand tools have been deployed with great gusto – two guys, four days and more to come.

Over 100m of fibre cable plus over 50m metres of coax, 60 or more F connectors and 60 fibre splices. It doesn't seem like a lot but those ceilings can be proper awkward!

Active working equipment boards include Triax, Whyte, Televes and Fracarro all of which have been installed side by side. This is probably one of the few locations in the country where training can be carried out on the different types of equipment in one place easily.

A 16-way passive optic network has been installed providing fibre distribution to all workstations on the desks. This network will soon be updated to a 19" rackmount solution providing easy 'patching' option from the available optical source to all stations.

The distribution network to now has a combination of Astra 29.2° (Sky) wideband (H & V), Quattro (VL, HL, VH & HH), Sky Legacy, SkyQ (dCSR/dCSS), Astra 19°E, Hotbird 13° plus terrestrial (DTT/FM/DAB) feeds to all work stations and associated equipment.





Triax

Whyte



Televes



Global Invacom



Fracarro



One of the six workstations with outlets from various services



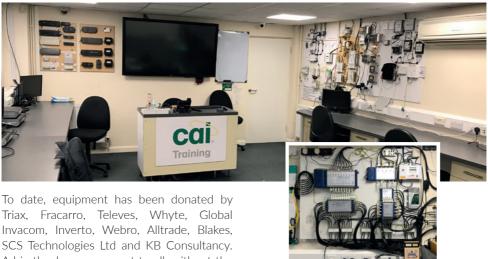
The 19" networking rack used extensively in the Home Network & Connectivity Training Course has been rewired and is

now located below the work desk providing more manoeuvrability around the front of the training room. Further updates are planned here to include additional CCTV systems.

Additional HDMI cables have replaced the old RGB + sync cable from the front desk to the main training monitor, enabling presentations from the tutor's laptop, spectrum analyser and other sources

As most will know the new training display (monitor) was replaced recently for a fully smart and interactive type, now enabling tutors to deliver interactive presentations with enhanced fluidity.





SCS Technologies Ltd and KB Consultancy. A big thank you goes out to all, without the support of our partners, these improvements could not be made.

The CAI training room has capability to deliver LAN, PON, FTTx, IRS and CCTV.

The next major upgrade planned will include the replacement of the existing 30-year-old headend which has served well (Spaun) – but is now due a refresh.

Additional HDMI fibre cables will be installed throughout the length of the room to enable full UHD sources to be viewed up to 10 metres away! Wideband and Quattro distribution will be 'patched' to the benches.

Further development will include an additional 19" track enclosing an EDFA, 32-way SC/APC splitter, F patch panel and .... It's not finished yet. There are plans to fit two new monitors on the wall for additional viewing for students.

### **Training courses**

#### IRS updated to include....

Electrical Safety, formerly Making the Bond, has now been updated with the latest

recommendations for Surge Protection and to include PAT testing and Minor Electrical Works, to reflect the most recent version of CoPO3.

The Fibre course has been updated to include latest systems from Triax, Televes, Fracarro, Whyte and Global Invacom, practically developed to include analysis of networks.

We are currently working on a new range of courses providing essential certification in accordance with current construction site requirements. These courses will be CPD accredited and include the four major requirements of First Aid, Safe Working at Heights, Asbestos Awareness and Manual Handling. It is intended that these courses will be available and delivered in a full one-day session, giving successful attendees the appropriate certification on these areas. More information to follow when these courses are finalised later in 2023.

Basic Networking is currently being revised as a two-day complete course (Basic & Intermediate).

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### **Theft of Tools from Vehicles**

James Archer Cert CII
Senior Account Executive
Fleet and Commercial





According to a study by a leading vehicle manufacturer, tool theft from vehicles has increased in the last year, with more than a third of van drivers becoming victims, up from a quarter the previous year. The average value of equipment stored per van is £2,500, implying that UK tradespeople pay an estimated £4.4 billion in replacement tools each year. Furthermore, the study discovered that when tools are stolen, work is halted for an average of six days, costing UK businesses up to £5.2 billion per year.

An increase in the number of van drivers leaving tools in their vehicles overnight has created more opportunities for thieves, with three-quarters of drivers admitting to doing so compared to less than half in 2020.

Only half of van drivers use additional security measures such as alarms, locks, and vehicle trackers.

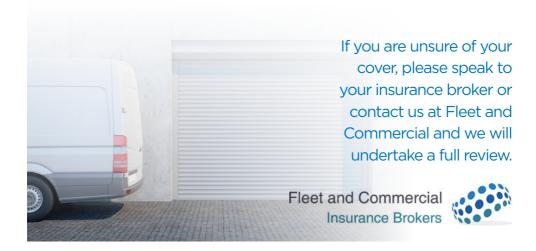


### How to Prevent a Theft

- Remove the tools from your vehicle overnight if possible and put stickers on your van confirming "No tools are left in this vehicle overnight".
- You can avoid tempting thieves by displaying as little as possible. Never leave your roof rack or rails overnight, and if your van has windows, get them tinted and fitted with steel grilles. Thieves will be less likely to break into your van to steal your equipment if they cannot see it.
- Parking in a well-lit area or in a car park equipped with CCTV can assist in reducing unwanted attention. If this is not possible or if you have more than one vehicle, parking defensively with doors blocked by another vehicle or object will be a good deterrent.
- Applying additional security measures to your tools such as Smartwater or investing in secure tools storage boxes for your vehicle will make the tools more difficult to access in the first instance, but also increase chances of recovering the tools.

### **Insuring your Tools in Transit - Areas to Consider**

- Are you comfortable the full value of your tools are insured? If you are not insuring for the correct value insurers may apply the condition of "Average" should there, be a claim, this means that they will reduce any claims payments by the percentage that you are underinsured, leaving you with a lower-than-expected settlement.
- Have you checked the single article limit on your policy, this can often be found on your policy schedule or within the policy wording? Do you have any items valued over this amount? If so they would need to be specified on your policy and the appropriate premium paid.
- Are you aware of certain conditions that may apply such as overnight exclusions or cover being excluded if the vehicle is not kept in a locked compound overnight? It is important to be aware of such conditions or exclusions, as it will result in a claim not being paid should they not be adhered to. These will often be found on your policy schedule or within the policy wording.
- Have you informed your insurer as to who owns the tools? There are sometimes different categories for employee tools and company/director owned tools.
- Insurers expect to see "Violent or Forceable Entry" to pay a valid claim so remember to always lock your doors and set your alarms.
- Remember to keep receipts and proof of purchase/ownership as insurers will require you to submit these in the event of a claim.





## **Upcoming Dates**

Please find below the upcoming training dates that are available. If you wish to book yourself or any of your engineers onto any of the courses below, then please contact the CAI office on 01923 803030.

### Basic Aerial & Satellite Installation

#### £585 member rate / £900 non-member rate

03, 04 & 05 May 2023 - Watford

11, 12 & 13 July 2023 - Watford

08, 09 & 10 August 2023 - Watford

17, 18 & 19 October 2023 – Watford

12, 13 & 14 December 2023 - Watford

### Electrical Safety for Signal Reception Systems

#### £195 member rate / £300 non-member rate

18 April 2023 - Watford

23 May 2023 - Watford

18 July 2023 - Watford

30 August 2023 - Watford

31 August 2023 - Watford

31 October 2023 - Watford

05 December 2023 - Watford

### **Essential Principles** for Installers

#### £390 member rate / £600 non-member rate

04 & 05 April 2023 – Watford – Date Full 27 & 28 June 2023 – Watford

03 & 04 October 2023 - Watford

### Risk Assessment & Method Statement (RAMS)

#### £195 member rate / £300 non-member rate

06 April 2023 – Watford

29 June 2023 - Watford

05 October 2023 - Watford

### **Basic Home Networking & Connectivity**

#### £195 member rate / £300 non-member rate

12 April 2023 - Watford

06 June 2023 - Watford

15 August 2023 - Watford

24 October 2023 - Watford

### Intermediate Home Networking & Connectivity

#### £390 member rate / £600 non-member rate

13 & 14 April 2023 - Watford

07 & 08 June 2023 - Watford

16 & 17 August 2023 - Watford

25 & 26 October 2023 - Watford

### Fibre Optics in Signal Distribution

#### £390 member rate / £600 non-member rate

19 & 20 April 2023 - Watford - Date Full

24 & 25 May 2023 - Watford

19 & 20 July 2023 - Watford

26 & 27 September 2023 - Watford

01 & 02 November 2023 - Watford

06 & 07 December 2023 - Watford

### **IRS Networks**

#### £390 member rate / £600 non-member rate

30 & 31 March 2023 - Watford - Date Full

10 & 11 May 2023 - Watford

04 & 05 July 2023 - Watford

19 & 20 September 2023 - Watford

07 & 08 November 2023 - Watford

### Train the right way - the CAI way!



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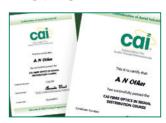
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City Accredited
Guilds Programme

This recognises the process and delivery of **Twelve** bespoke CAI training programmes.









CAI - Communications House, 41a Market Street, Watford, Herts, WD18 0PN UK

S +44 (0)1923 803030 S office@cai.org.uk (f)/cailimited √o/cailtd

www.cai.org.uk

## Marketing Report - an update

Suzie Hamm-Bury, Marketing Specialist





### **Evolving Connectivity 2023**

Welcome to the spring 2023 edition of Feedback and another exciting marketing update for CAI. This is a busy time for CAI as we begin to focus very much on our main show of the year Evolving Connectivity 2023.



This year will see CAI returning to the National Motorcycle Museum in Birmingham, where we are sure the show will be an even bigger success than ever. As expected, all of the relevant industry questions will be asked right here, and with top presenters visiting the industry's leading show for signal reception and distribution, this really is an event not to be missed! Fast track registration to the show is now available when you visit: http//evolvingconnectivity.com/index.php/visitor-registration

The office is also busy with the final arrangements for another Gala Dinner and industry presentation evening. The dinner will be held at the National Motorcycle Museum on Wednesday 22nd March, along with our prestigious awards ceremony.

Accommodation for most, remains at the Arden Hotel, and coaches have been arranged to help with logistics for guests. We very much look forward to seeing you there.

### **City & Guilds Accreditation**

CAI continues to be pleased with our City & Guilds Accreditation that we were awarded 8 years ago, passing 2022's audit with flying colours once again. We now



ACCREDITED PROGRAMME

have 12 bespoke CAI courses that are C&G accredited. This year's audit will take place late summer into early autumn and we will ensure all our evidence and procedures are once again in place to make sure we retain our accreditation moving forward, and to gain it for even more CAI courses in the future.

### **TrustMark Scheme**



Our affiliation with TrustMark – the government standards for tradesmen working in our homes continues to gain ground on all the other players in the internet trade directories race. The government endorsed scheme for tradesmen working in UK homes, enables members to apply for TrustMark status so they can be found by homeowners with a platform to find reliable, safe and competent trades people. To find out how you can become TrustMarked, contact CAI's office today!

### **Social Media**

As many of our members are aware, CAI are very active on Facebook, Twitter, LinkedIn









and Instagram. We find that all 4 platforms are excellent ways of quickly sharing information with you, for example, our new course dates, new MUX listings, member benefits and how to join CAI. We would thoroughly recommend members to set up their own accounts using social media, as it can really help businesses grow and can begin relationships with customers not necessarily based in your own vicinity.

#### Which? Trusted Trader

CAL have ioined forces with Which? Trusted Traders to offer members а 50% discount for the first 6 months of



Which? Trusted Traders membership. This is a new scheme that officially launched on 7th February 2022 and is an offering to CAI members that gives another route to attract potential domestic customers for an initially discounted rate. By starting this arrangement with Which? Trusted Traders, CAI are further building on efforts to help consumers find reliable, assessed, companies to carry out work for them, while also providing new customers to our members. Call 0117 456 6036 and quote CAI50 to find out further details and to join.

#### **CAI Member Benefits**

Fleet and Commercial is the CAI approved insurance partner. This means that they are able to offer CAI members competitive pricing and excellent service across a wide range of insurance services. They are able to provide cover not only for Aerial Installers but also TV & Satellite Installers/Engineers, Alarm Installation, Home Automation, Automatic Gate/Entry System Installers or any other















#### approvedbusiness.co.uk

business activities CAI members are involved. with. They can offer CAI members tailored packages for Public. Products & Employer's Liability, Stock & Contents, Personal Accident & Professional Indemnity insurance along with all of their other services.

For more information or to receive a quotation, please contact the Fleet and Commercial office on 01993 843 040 or email at sales@fleetandcommercial.co.uk and one of their dedicated handlers will get back in touch with you.

CAI members will be pleased to know that The AA (still offering CAI members an incredible 59% discount) and the Fuelcard People (5p off at the pump) continue to be money-saving benefits of membership. We also have 3 more companies that have joined the CAI market partner offerings. These are Utility Aid the only energy broker endorsed by CAI as they offer a bespoke policy tailored to our members' needs and requirements, Bosch Power Tools, offering CAI members 15% off direct from Bosch, and Approved Business - a business to business platform allowing visitors to find our members at the click of a button. Details of all of our very successful schemes with contact. details can be found in this edition.

Web Development and Free Email Hosting also remains a great benefit that CAI offers.

We know that if you maximise all the schemes correctly you could actually cover your annual CAI subscription fees and maybe even more!

#### **CAI 2023 Wall Planner**



CAl's 2023 wall planner was very well received again this year. Designed as a striking advertising platform for many of our manufacturers/distributors, it has also proved popular for trade counters. If you are interested in advertising on the 2024 wall planner, to be circulated from mid December 2023, please email **suzie.hamm-bury@cai.org.uk**, and a reminder will be sent out in the autumn.

Thank you to all the manufacturers/distributors for all of your continued support.

#### **CAI Website**



Our two websites continue to get excellent traffic and both are very useful tools. As you are aware we have one for the trade www. cai.org.uk that incorporates a members only

area, and the other recently updated for consumers where they can easily find a CAI approved installer in their postcode area at; **www.getmeviewing.org.uk**.

The CAI office has also had an upsurge in consumer calls of late, where they have requested our approved installer details. By doing our own postcode searches, we are able to provide all of our member's details to these consumers thus bringing in work for you. The Trade Gateway website is constantly being updated, and is an excellent way of finding out new technical information including the most up to date mux listing and Sky Transponder listings.

A recent addition has been our complaints process on line, and we are also considering banner advertising on the website as another platform for companies to use to advertise their products and services. More details on this new opportunity tbc. If you still aren't registered as a CAI member on our trade website, contact **office@cai.org.uk** where we will be more than happy to provide log-in details.

#### **Training**

Training at. CAL continues to go from strength to strength. From our basic aerial and satellite courses that are forever popular, to our fibre and more advanced IRS courses. know that we have strong offering for all installers



looking to gain extra qualifications. NVQ's, City & Guilds or even just to refresh your knowledge and skills. Our complete syllabus, along with process and location can be found

at **www.cai.org.uk**. If you wish for further details on any of our training courses that our website doesn't provide, please email any enquiries to **amanda.ward@cai.org.uk** and she will be happy to help.

#### **Misuse of CAI Logo**

It remains imperative that our members keep a look out for the misuse of CAI's logo. Many installers know that they have to apply to us, provide various pieces of evidence and pay a yearly subscription, but still we find companies using the logo illegally.

CAl's logo is a registered and protected one, and if reported to local Trading Standards offices it very often leads to a prosecutional offence. If you know of anyone using the logo who shouldn't be, please email

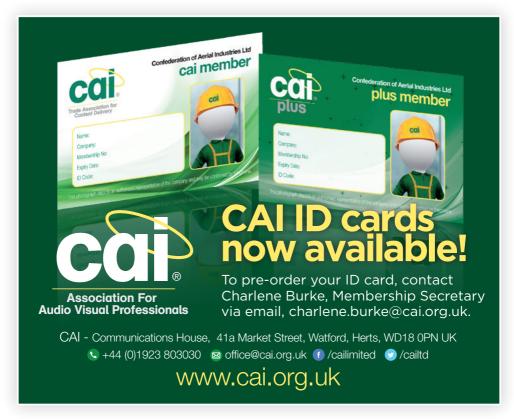
**suzie.hamm-bury@cai.org.uk** and I will be happy to look into it.

#### **Conclusion**

As well as free technical advice, access to up to date and relevant trade industry materials including Codes of Practice, new mux information and transponder listings, not to mention all of our extensive member benefits, we hope you will understand how important it is to continue to be part of a growing trade association – the only trade association for our industry...

We look forward to welcoming you all at Evolving Connectivity 2023 on Thursday 23rd March in Birmingham.

See you there!





### **SCTE Lectures**

Training, education and knowledge dissemination









We offer a mix of webinars, online and physical lectures as well as panels, roundtables and technical demonstrations.

We are always looking for new contributors. Would you like to speak at one of our lectures?'

- Spring Lecture March 30
  National Motorcycle Museum,
  Birmingham
- Summer Lecture July 6 Tylney Hall, Hook
- Autumn Lecture October 12
   One Great George Street,
   London



Contact us: office@theSCTE.eu

# **CONSTRUCTION**

www.constructionnational.co.uk national

# Offer to CAI members from Construction National Magazine

CAI has been a regular editorial contributor to Construction National magazine and the magazine's website www.constructionnational.co.uk is currently receiving over 270,000 hits each month of which some 7,000 are unique visits. The audience for Construction National includes contractors & developers, consultants, house builders, Government departments, quantity surveyors, architects and educational establishments. Many major construction companies, suppliers and Universities are featured on the website.

The website carries the CAI logo at the foot of the home page and for a discounted



price of just £95 + VAT, CAI members can have a Profile listing in a Directory accessed via the CAI logo for a period of 12 months. The profile will include full contact details, live website link, live e-mail link, description of services, logo and images, key search words and a Google map.

To secure your company's listing contact John Conway on john@dmmonline.co.uk or ring 0161-710 3876. The listing will be designed by their in-house team and a proof sent to you for approval and amendment before invoicing.

# CAI Education & Skills Training Programme

Course Results



Since the last issue of Feedback was published, the following students have successfully passed CAI training courses:

### BASIC AERIAL & SATELLITE INSTALLATION

Luis Bahamonde SCCI Alphatrack Ltd Robert Barlow TV/C Gareth Barnes Mark Wardle Flectrical Services Ltd Dan Barrett SCCI Alphatrack Ltd Freddie Box SCCI Alphatrack Ltd Nathen Brown Chantry TV Ltd James Darcv SCCI Alphatrack Ltd Joanna Darcv Tandem Electrical Ltd Garth De Witt SCCI Alphatrack Ltd Branden Dohertv SCCI Alphatrack Ltd Russell Dowell AAA Satellites & Aerials Ltd AAA Satellites & Nabil Fl Amrani Aerials Ltd Owen Ferguson D2 Fire & Security Ltd William Fincham Trusol Ltd Matt Finney D2 Fire & Security Ltd Leslie Gates Trusol Ltd Daniel Geldart SCCI Alphatrack Ltd William Hellel Lasyl Audio Visual Centre Owen Jacobs **RF Digital Systems** Colin James AAA Satellites & Aerials Ltd

Daniel Jimenez-Nunez	Lasyl Audio Visual Centre
David Kirkpatrick	SCCI Alphatrack Ltd
Saulius Lileikis	RF Digital Systems
Rob Mellor	RJ Mellor Electrical Contractors
Andrew Moss	SCCI Alphatrack Ltd
Jordan Murgatroyd	TV Aerial Specialists Ltd
Jamie Newson	Barnford Installations Ltd t/a Handley Aerials
Alfie O'Shea	London Hearts Aerial Services Ltd
Mustafa Osman	SCCI Alphatrack Ltd
Alexandru Parhautanu	SCCI Alphatrack Ltd
Catalin Parhautanu	SCCI Alphatrack Ltd
Jonathan Peters	No Company Name
Andrew Rawes	SCCI Alphatrack Ltd
Nicolas Richardson	Avonline Networks Plc
Igors Rzajevs	RF Digital Systems
Vadims Severjanovs	RF Digital Systems
James Simpson	SCCI Alphatrack Ltd
Jawahar Sundaresan	Zyena Ltd
Marcus Sutton	Aerial & Satellite Systems Ltd
Tom Wilde	SCS Technologies Ltd
Tony Wilkie	D2 Fire & Security Ltd
Robert Williams	SCCI Alphatrack Ltd
Michael Wilson	L&Q Group

Chris Jenkins

SCCI Alphatrack Ltd

# ELECTRICAL SAFETY FOR SIGNAL RECEPTION SYSTEMS

Paul Alexander SCCI Alphatrack Ltd
Luis Bahamonde SCCI Alphatrack Ltd
Daniel Barrett SCCI Alphatrack Ltd
Kieran Benson Digital Vision NW Ltd
Freddie Box SCCI Alphatrack Ltd
Craig Buttriss T2 Digital Ltd

Craig Buttriss T2 Digital Ltd

Jack Cox Airwave Europe Ltd

James Damm Sky UK James Darcy SCCI Al

James Darcy SCCI Alphatrack Ltd Garth De Witt SCCI Alphatrack Ltd

Paul Elliott Sky UK

Marc Finney Peter Preston Ltd

Matt Finney D2 Fire & Security Ltd
Steven Frame Digital Mobile

en Frame Digital Mobile Spectrum Ltd

Sam Fynan SCCI Alphatrack Ltd
Daniel Geldart SCCI Alphatrack Ltd
Steve Godfrey Max Technologies Ltd

Ben Gordon IRS Solutions Ltd

Matthew Harvey Happy TV Ltd

Andrew Holmes Sky UK
Wayne Hudson Sky UK
Matthew Hughes Sky UK

Owen Jacobs RF Digital Systems

Chris Jenkins SCCI Alphatrack Ltd

Adrian Jennings SCCI Alphatrack Ltd
David Kirkpatrick SCCI Alphatrack Ltd

Stephen Lawrence Airwave Europe Ltd

Graham Lever SCCI Alphatrack Ltd Saulius Lileikis RF Digital Systems

Gray Mayhew DAS

Derek McCrudden Peter Preston Ltd

Neil McPartlin Sky UK

Andrew Miller Peter Preston Ltd

Andrew Moss SCCI Alphatrack Ltd

Jamie Newson Barnford Installations

Ltd t/a Handley Aerials

Alfie O'Shea London Hearts Aerial

Services Ltd

Catalin Parhautanu SCCI Alphatrack Ltd

Jake PinchenSCCI Alphatrack LtdAndrew RawesSCCI Alphatrack Ltd

Craig Rawes SCCI Alphatrack Ltd
Nicolas Richardson Avonline Networks Plc

lgors Rzaievs RF Digital Systems

Marcus Sutton Aerial & Satellite

Systems Ltd

Vadims Severjanovs RF Digital Systems

James Simpson SCCI Alphatrack Ltd
Craig Turner Sky UK

Laig luttlet Sky OK

Luke Tyler SCCI Alphatrack Ltd
Jake Woolley SCS Technologies Ltd

Jokubas Zilius Ozzas Security Systems Ltd

### ESSENTIAL PRINCIPLES FOR INSTALLERS

Jonathan Peters No Company Name
Alex Tricker D2 Fire & Security Ltd

### FIBRE OPTICS IN SIGNAL DISTRIBUTION STAGE 1

Craig Buttriss T2 Digital TV
Paul Corbett Hilltop Systems

Leslie Gates Trusol Ltd

Farshid Karimi ISS International Ltd

Keith Newman Trusol Ltd

Ben Page Stow Aerials &

Satellites

Wesley Rea Hilltop Systems

Nic Simpson Stow Aerials &

Satellites

### FIBRE OPTICS IN SIGNAL DISTRIBUTION STAGE 2

Craig Buttriss T2 Digital TV
Paul Corbett Hilltop Systems

Leslie Gates Trusol Ltd

Farshid Karimi ISS International Ltd

Keith Newman Trusol Ltd

Ben Page Stow Aerials &

Satellites

Wesley Rea Hilltop Systems

Nic Simpson Stow Aerials &

Satellites

### FIBRE OPTICS IN SIGNAL DISTRIBUTION

Mark Barratt VPMC Ltd

Veaceslav Braghis VPMC Ltd

Akeem Burke VPMC Ltd

Maxim Chirciu No Company Name

Jamie Coombes SCCI Alphatrack Ltd
Paul Coombes SCCI Alphatrack Ltd

Claudiu Doca VPMC Ltd

Angel-Stefan Gajura VPMC Ltd

Ben Gordon IRS Solutions Ltd

Colin Oglesby VPMC Ltd
Jamie Pugh VPMC Ltd

Georgi Radev HAS Fibre IRS

Systems Ltd

Khyon Samuda VPMC Ltd
Davian Tapper VPMC Ltd
Jarryd Vlok Aonyx Ltd

James Yourell Interphone Ltd

#### **IRS NETWORKS**

Craig Buttriss T2 Digital TV

Jack Cox Airwaye

Nabil El Amrani AAA Satellites &

Aerials Ltd

William Fincham Trusol Ltd

Matt Finney D2 Fire & Security Ltd

Leslie Gates Trusol Ltd

Colin James AAA Satellites &

Aerials Ltd

Lee Jones Total Integrated

Solutions Ltd

Paul Lawrence Total Integrated

Solutions Ltd

Stephen Lawrence Airwave

Saulius Lileikis RF Digital Systems

Alfie O'Shea London Hearts Aerial

Services Ltd

Igors Rzajevs RF Digital Systems

Mete Sensoy Transact Technology

Solutions

Vadims Severjanovs RF Digital Systems

Marcus Sutton Aerial & Satellite

Systems Ltd

#### BASIC HOME NETWORKING & CONNECTIVITY

Connor Simmons Aerial & Satellite

Systems Ltd

# INTERMEDIATE HOME NETWORKING & CONNECTIVITY

Adam Barr Antenna Systems Ltd

Bob Calaz Race Communications

Ltd

Gareth McCullough Antenna Systems Ltd

### **Televes**

# HAVE YOU EVER CONSIDERED INSTALLING A COMPREHENSIVE DATA AND VOICE NETWORK INFRASTRUCTURE?

We offer you technical support and products for the installation of structured cabling and networking at homes, companies and the hospitality sector.





# FIBRE OPTICS IN SIGNAL DISTRIBUTION

### Stage 1

#### Suitability

This programme is suitable for participants involved in the TV/RF distribution industry with a desire to learn the developments of Fibre Optic Technology focusing on Fibre Integrated Systems (FIRS). A reasonable understanding of conventional IRS would be beneficial but not absolutely necessary.

#### **Aims**

This programme will enable participants to understand the working and planning of a typical sized Fibre IRS.

#### **Objectives**

Over this 1-day programme participants will become practically familiar with the components of a working Fibre IRS.

#### Learning Style

A PowerPoint led delivery including industry videos, clear theoretical explanations and handson applications. The training environment is interactive and inclusive. A comprehensive full colour reference book is issues to all participants.

#### **Assessment Method**

Continual informal and formal assessments will monitor progress throughout the day. Practical assessment exercises and a multiple choice open book assessment paper with a pass mark of 65%.

#### **Programme Duration**

This programme is run over 1 day.

#### Costs

Members £225 Non-Members £330

#### Content

(P) indicates inclusive practical elements

- The history and development of fibre optic technology.
- Single Mode Fibre Optic principles.
- Health and Safety when working with fibre optics. (P)
- Types of cables and connectors used in Fibre IRS.
- Components contained within FIRS and their practical application.
- FIRS Sky Q components, upgrade, planning and testing.
- Basic Passive Optical Network (PON) design.
- Fibre connector inspection and cleaning. (P)
- Repair and termination of fibre optic cables by Fusion and Mechanical Splicing. (P)
- Measurement and calculation of signal losses within a typical fibre network. (P)
- Demonstrate an ability to install and fault find on fibre optic systems in the TV industry. (P)

#### **Learning Outcomes**

This programme will enable all participants to:

- Work with main components of a Fibre IRS.
- Carry out fusion splice of optical fibre.
- Connect and terminate fibre cables
- Design and test basic FIRS.

Contact the CAI Training team on: 01923 803030 or email: amanda.ward@cai.org.uk to discuss availability & booking.



**ACCREDITED PROGRAMME** 



# FIBRE OPTICS IN SIGNAL DISTRIBUTION

### Stage 2

#### Content

(P) indicates inclusive practical elements

- Revision of H & S handling and correct disposal of optical fibre.
- Multimode Fibre principles.
- HDMI over fibre
- DWM/DWDM.
- Multiple Satellite Fibre Systems.
- GEPON and EDFA. Principles of operation.
- System testing using OLTS and OTDR.
- Practical Cable management and Blown Fibre.
- In depth analysis of the effects of connector contamination. (P)
- Internal plant cable preparation. (P)
- Assembly of optical splitters enclosures. (P)
- Termination at Customer Premise. (P)
- Advanced test commission and fault finding on FIRS. (P)

#### **Learning Outcomes**

This programme will enable all participants to:

- Specify, design and build a Fibre Integrated Reception System.
- Manage Fibre containment and terminations.
- Troubleshoot, test and commission Fibre IBS and basic GEPON

#### Suitability

This advanced level programme is suitable for participants who have completed the CAI Fibre Optics in Signal Distribution Level 1 (or previous CAI 1-day programme) or have a good understanding of general Fibre optic principles in relation to Fibre Integrated Reception Systems and who wish to progress to a higher level of competence and practical ability in this area.

#### Aims

This programme will enable participants to design, build and analyse Fibre Optic systems used for Signal Distribution.

#### **Objectives**

Over this 1-day programme participants will become familiar and confident with Fibre technology. They will be able to design, test, commission and fault find on Fibre IRS and other basic optical networks.

#### Learning Style

Guided by PowerPoint presentations, industry supported videos and interactive sessions. Focusing on a kinaesthetic (learning by doing) style of tuition promoting group activity in a professional environment.

#### Assessment Method

Continual informal and formal assessments will monitor progress throughout the day. Practical assessment exercises and a multiple choice open book assessment paper with a pass mark of 65%.

#### **Programme Duration**

This programme is run over 1 day designed to follow level 1 or supplement previous knowledge.

#### Costs

Members £225 Non-Members £330

Contact the CAI Training team on: 01923 803030 or email: amanda.ward@cai.org.uk to discuss availability & booking.



# Safe Working at Heights Refresher Assessment



#### **How to Book** a Refresher **Assessment?**

Please email Charlene at charlene.burke@cai.org.uk with the following information:

- 1. Member Company Name
- 2. Engineer Name/s requiring Refresher
- 3. Copy of SWAtHt Certificate previously completed by each engineer

Otherwise please call the CAI office and this information can be obtained.

Please be aware this is a benefit for members only. If you would like to join CAI, please refer to our website or call the office to discuss membership further.



The CAI assessment team is offering SWAtHt assessments within its on-going normal assessment process. We will offer this extra service at a cost of £70 per refresher assessment. Members undergoing their CAI assessment will be able to opt for an actual installation observation so that the safe working ladder practice can be checked against the CAI standards as detailed in the 'Guidelines on Safe Operating Procedures'.



There will be major advantages such as huge savings for you in respect of time and travel costs. The overwhelming complaint by members is the down-time and work lost along with travel expenses and the cost of a course that merely repeats all that was covered before.

If you have a SWAtHt certification that is nearing the end of its 5 year life and have not had a CAI company assessment for some time, or simply require the refresher, please contact CAI to co-ordinate an assessor visit.

For more details on the actual assessment process, email the CAI's Kevin Dawson - kevin.dawson@cai.org.uk. If you have recently been inspected but require a refresher assessment, the CAI team will visit for this reason only.

CAI - Communications House, 41a Market Street, Watford, Herts, WD18 0PN UK

📞 +44 (0)1923 803030 🖾 office@cai.org.uk 🚺 /cailimited 💟 /cailtd

www.cai.org.uk

### CAI Safe Working at Height with Ladders Refresher Assessments



The CAI assessment team is offering safe working at height with ladders (SWAtHt) refresher assessments within its on-going normal assessment process. We offer this extra service at a cost of £70.00 per refresher assessment. Members undergoing their CAI assessment will be able to opt for an actual installation observation so that the safe working ladder practice can be checked against the CAI standards as detailed in the 'Guidelines on Safe Operating Procedures'.

There are major advantages such as huge savings for you on time and travel. The overwhelming complaint by members is the down-time and work lost along with travel expenses and the cost of a course merely repeats all that was covered before.

The list below details the engineers who have undertaken the CAI Safe Working at Height with Ladders refresher assessment since the last issue of Feedback:

Gavin Bage	SCCI Alphatrack Ltd
Robert Beech	Brightwell Aerials Ltd
Kieran Benson	Digital Vision NW Ltd
Mark Crowther	Necessity Services Ltd
Alan Dennison	Dennison & Son
James Gallagher	SCS Technologies Ltd
Lee Greenwood	Satellite Services (UK) Ltd
Malcolm Knight	Satellite Services (UK) Ltd
Chris Laird	Brightwell Aerials Ltd
Chris Leon	Mediacoms Ltd
Rob McGuchan	IRS Solutions Ltd
Robert Parlour	Mediacoms Ltd
Stuart Price	Brightwell Aerials Ltd
Owain Pritchard	Owain Pritchard Ltd
Gordon Smith	Nicoll & Stewart
Aaron Thompson	Aaron's Aerial Systems Ltd

### CAI Education & Skills Training Programme

Foundation Level Diploma in Signal Reception Results



Recent difficulties relayed to CAI regarding obtaining CSCS cards for site work drove us into contacting CSCS for a defining statement on the matter as it seems to be an ever perplexing issue. Companies still find it hard to undergo the process necessary to prove competence for a skills card. This is also a forewarning that if you cross construction site boundaries and have so far managed to do so without being asked to produce a skills card, then there is every chance you will soon be caught out. It is proving more and more essential that workers from all trades prove their competence and will be asked to do so by being qualified in the work they do.



A route of entry was agreed with CSCS a while ago once the NVQ course proved too difficult to find. To quote their Schemes' Co-ordinator;

... The Assessed Route of Entry and in order to gain this, applicants must have achieved the CAI Foundation Level Diploma in Signal Reception (CAI - Trade Association for Content Delivery).

### Since the last issue of Feedback was published, the following have successfully obtained their Foundation Level Diploma in Signal Reception:

Trevor Bruntnell Evolution Media Installations  Craig Buttriss T2 Digital Ltd  Jack Cox Techlive Ltd t/a Airwave TV  Daniel Dalziel No Company Name  James Damm Sky UK  Paul Elliott Sky UK  Marc Finney Peter Preston Ltd  Steven Godfrey Max Technologies Ltd  Ben Gordon IRS Solutions Ltd  Matthew Harvey Happy TV Ltd  Andrew Holmes Sky UK  Wayne Hudson Sky UK  Matthew Hughes Sky UK  Jan Jacobs RF Digital Systems  Derek McCrudden Peter Preston Ltd  Neil McPartlin Sky UK  Andrew Miller Peter Preston Ltd  Jamie Newson Barnford Installations t/a Handley Aerials  Igors Rzajevs RF Digital Systems  Craig Turner Sky UK  Jake Woolley SCS Technologies Ltd	Kieran Benson	Digital Vision NW Ltd
Jack Cox Techlive Ltd t/a Airwave TV  Daniel Dalziel No Company Name  James Damm Sky UK  Paul Elliott Sky UK  Marc Finney Peter Preston Ltd  Steven Godfrey Max Technologies Ltd  Ben Gordon IRS Solutions Ltd  Matthew Harvey Happy TV Ltd  Andrew Holmes Sky UK  Wayne Hudson Sky UK  Matthew Hughes Sky UK  Stephen Lawrence Techlive Ltd t/a Airwave TV  Saulius Lileikis RF Digital Systems  Derek McCrudden Peter Preston Ltd  Neil McPartlin Sky UK  Andrew Miller Peter Preston Ltd  Jamie Newson Barnford Installations t/a Handley Aerials  Igors Rzajevs RF Digital Systems  Craig Turner Sky UK	Trevor Bruntnell	Evolution Media Installations
Daniel Dalziel No Company Name  James Damm Sky UK  Paul Elliott Sky UK  Marc Finney Peter Preston Ltd  Steven Godfrey Max Technologies Ltd  Ben Gordon IRS Solutions Ltd  Matthew Harvey Happy TV Ltd  Andrew Holmes Sky UK  Wayne Hudson Sky UK  Matthew Hughes Sky UK  Ian Jacobs RF Digital Systems  Stephen Lawrence Techlive Ltd t/a Ainwave TV  Saulius Lileikis RF Digital Systems  Derek McCrudden Peter Preston Ltd  Neil McPartlin Sky UK  Andrew Miller Peter Preston Ltd  Jamie Newson Barnford Installations t/a Handley Aerials  Igors Rzajevs RF Digital Systems  Vadims Severjanovs RF Digital Systems  Craig Turner Sky UK	Craig Buttriss	T2 Digital Ltd
James Damm  Sky UK  Paul Elliott  Sky UK  Marc Finney  Peter Preston Ltd  Steven Godfrey  Max Technologies Ltd  Ben Gordon  IRS Solutions Ltd  Matthew Harvey  Happy TV Ltd  Andrew Holmes  Sky UK  Wayne Hudson  Sky UK  Matthew Hughes  Sky UK  Ian Jacobs  RF Digital Systems  Stephen Lawrence  Techlive Ltd t/a Airwave TV  Saulius Lileikis  RF Digital Systems  Derek McCrudden  Peter Preston Ltd  Neil McPartlin  Sky UK  Andrew Miller  Peter Preston Ltd  Jamie Newson  Barnford Installations t/a Handley Aerials  Igors Rzajevs  RF Digital Systems  Vadims Severjanovs  RF Digital Systems  Craig Turner  Sky UK	Jack Cox	Techlive Ltd t/a Airwave TV
Paul Elliott Sky UK  Marc Finney Peter Preston Ltd  Steven Godfrey Max Technologies Ltd  Ben Gordon IRS Solutions Ltd  Matthew Harvey Happy TV Ltd  Andrew Holmes Sky UK  Wayne Hudson Sky UK  Matthew Hughes Sky UK  Ian Jacobs RF Digital Systems  Stephen Lawrence Techlive Ltd t/a Airwave TV  Saulius Lileikis RF Digital Systems  Derek McCrudden Peter Preston Ltd  Neil McPartlin Sky UK  Andrew Miller Peter Preston Ltd  Jamie Newson Barnford Installations t/a Handley Aerials  Igors Rzajevs RF Digital Systems  Craig Turner Sky UK	Daniel Dalziel	No Company Name
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Craig Turner Sky UK	Igors Rzajevs	RF Digital Systems
	Vadims Severjanovs	RF Digital Systems
Jake Woolley SCS Technologies Ltd	Craig Turner	Sky UK
	Jake Woolley	SCS Technologies Ltd

### **Products & Ideas**

Bringing you news and reviews of the latest technology

### **NEW DataCom range by Televes**



PAGGIOI VION QUALITY

#### **Copper Cables and patch-cords**

Data cables have different purposes (to establish physical communication between networks, interconnect analogue or IP telephones with communication centres...). The composition of data cables of several conductors (made of copper or copper clad aluminium), isolating each conductor with a

layer of coloured polyethylene so it can be easily identified and it also protects it from oxidation. These conductors are twisted in pairs, in order to improve the integrity against electromagnetic interference. The sheath will determine the protection of the cable in different environments.

### Products include: CAT5, 6, & 7 data cables, patch cords, connectors and tools.

https://www.televes.com/uk/datacom/copper-solutions/cables-and-patch-cords.html

#### **Fibre Cables and patch-cords**

Fibre cables and patch-cords for equipment interconnection and optical network implementation. The attenuation is only 0.3dB/km; it can thus cover large distances without the need for re-amplification, providing a secure and reliable transmission.

Furthermore, the reduced dimensions and light weight make it easy for it to pass through narrow piping and conduits. However, it requires a careful handling for termination and dust protection.

## Products include: Multi strand fibre cables, patch-cords, pre-terminated leads of various lengths, connectors, transitions and tools.

https://www.televes.com/uk/datacom/optical-fiber/cables-and-patch-cords.html.

#### **Racks and Data cabinets**

Made of steel and powder coated, are characterised by its durability and compatibility with different systems. Specifically designed to protect and allocate in them all the equipment for the interconnection and consolidation of networks. Its standardisation to a 19" format, makes it compatible with most of the equipment available in the market, making them versatile. It is possible to fit in them both passive and active devices (in the case of the latter you can complement it with a cooling system).

### Products include: Racks, patch panels, splice boxes and trays.

https://www.televes.com/uk/datacom/racks-and-cabinets/19-racks.html

#### **Network Electronics**

Infrastructure that allows the interconnection of computers and peripherals using mainly routers and switches. These devices enable



the interconnection between them in a local network, as well as the interconnection with other networks.

### Products include: Routers, Switches and Media converters.

https://www.televes.com/uk/datacom/networking/network-electronics.html

#### **WiFi Access Points**

The access points are the final devices of a network infrastructure that allow the Internet connection of a wide variety of wireless



devices. This equipment serves as a link between wired and wireless networks. These solutions are designed to provide high-capacity connectivity, as well as to guarantee coverage in the common areas of the establishment.

### Products include: WaveData Series access points.

https://www.televes.com/uk/datacom/ networking/wifi-access-points.html

### For more information on this range contact:

Televes UK Unit 11 Hill St Industrial Estate Cwmbran NP44 7PG (UK) Tel: +44 (0) 1633 875821 Mob: +44 (0) 7778 846206 Fax: +44 (0) 1633 866311

televes.uk@televes.com www.televes.com



# **Expansion continues with Grax joining the ranks from 1st April**



2022 saw Alltrade open four new branches in Glasgow, Northampton, Manchester and Colchester taking our branch network to eleven and 2023 will see the network grow again and become fourteen locations with the acquisition of Grax! Alltrade will retain the three remaining Grax branches; Birmingham, Leeds and Nottingham which will be manned by the same knowledgeable and friendly staff that installers have known for many years and will still be headed up by Tony Pritchett, Stuart Thompson and David Badder. Their local knowledge and expertise will be a great asset to the whole Alltrade network. The products and pricing that Grax customers benefit from will remain and also be extended to our existing customer base. but with the additional brand names that Alltrade have become synonymous with, as well as the industry leading technical support on all product ranges.

Many updates and improvements are planned to this existing network of Grax branches with a larger unit in a more accessible location for the Leeds staff and a possible relocation for the Birmingham team to enable a more suitable and larger training facility.

As our network expands so does our unrivalled free next day delivery service. This is now facilitated by a fleet of over 25 vans, covering over 80% of the UK postcode areas. Coupled with site deliveries and a key holding service available at all branches. Minimising the use of unreliable couriers will eliminate

#### **OUR TRADE COUNTERS**

14 UK Locations



#### **FREE NATIONWIDE**

**Next Day Delivery** 



the risk of lost or damaged deliveries. Those that fall out of the branch catchment areas can still receive our brands with a courier delivery.

This continued expansion has made us the preferred distributor for many key manufacturers, such as Antiference, Ajax, Blake UK, Blustream, ELAN, Fracarro, Freesat, Global Invacom, Hikvision, Hisense, Johansson, Kidde, Sanus, Sonos, LigoWave, Lutron, Mountson, Televes, TP-Link, TRIAX, Ubiquiti, Webro and Whyte. The acquisition of Grax will also see a welcome return of the full range of SAC products into all branches. Grax and SAC were companies sharing the same board of directors so the previous competitor, Grax, is now merged with Alltrade and all products are again available.

We don't just add brands to our portfolio then try and 'box shift'. All brands are fully supported by our growing technical team to cover all the ranges we offer. Our technical team offer product recommendations, planning, installation support and site visits. If the product is new to you, we offer full

training either in person or in one of 14 dedicated training centres across the UK. All this for FREE if you are an Alltrade customer, this inhouse service is simply not offered by any other distributor.

I would also like to take this opportunity to thank our long standing and newer customers for your continued support, patience and understanding over the past 18 months. Without your loyalty our growth to support more installers across the UK would not have been possible.

#### Meet The Technical Team

#### **IRS**

#### **Piers Johnston**

Technical Sales Manager for IRS (MATV-SMATV, Coax IRS & Fibre IRS) piersjohnston@alltrade.co.uk 07595 651526

#### Steven Litchfield

Technical Support for IRS (MATV-SMATV, Coax IRS & Fibre IRS) stevenlitchfield@alltrade.co.uk 01273 003540

#### **CUSTOM INSTALL**

#### Lee Harding

Technical Director for CI (Smart Home, Networking, Audio & Video) leeharding@alltrade.co.uk 07872 037764

#### Mark Bartlett

Technical Sales Manager for CI (Smart Home, Networking, Audio & Video) markbartlett@alltrade.co.uk 07795 632888

#### Ronan McTernan

Northern Sales Representative for CI (Smart Home, Audio & Video) ronanmcternan@alltrade.co.uk 07803 476525

#### Richard Gibbs

South East Sales Representative for CI (Audio & Video) richardgibbs@alltrade.co.uk 01273 003535

#### **SECURITY**

#### Dean Rogers

Technical Sales & Support Executive (Security) deanroger s@alltrade.co.uk 0344 225 2704

#### Mark Adams

Technical Sales & Support Executive (Networking & Security) markadams@alltrade.co.uk 0161 6723724



# Fallstop training safety and consultancy

#wearenofalls

Fallstop training safety and consultancy are a leading provider of fall protection training in the south of England. We offer bespoke theory and practical training at our state of the art all weather training facility in Surrey. With over 20 years of fall protection competency we can offer everything your teams may require for working safely @ height. For all enquiries visit: fallstop.co.uk

We offer industry specific training to satellite/aerial/fibreoptic/construction/maintenance/refurbishment/schools/local authorities and many more.



- CAI accredited W@H using ladders for access.
- Pitched roof training.
- Flat roof access and egress training.
- Suspended worker training.
- Unconscious worker rescue.
- Medium risk confined space (escape BA).
- First aid.
- Risk assessment and hazard avoidance training.
- Construction WAH.
- Onsite consultancy.
- Film and tv production assistance.

All training is assessed and certified and can be conducted at our premises or direct to customers.













# Webro: We do more than you think

Webro Cables & Connectors Limited has always been known as 'the cable company'. Without doubt, it's the UK's best-known brand for TV and satellite cable.

The business has enjoyed continuous growth throughout its four-decade history, driven by a strong reputation for providing quality product solutions that exceed the highest technical standards, unrivalled expertise, attentive customer service, and dependable logistics.

That said, Webro has developed significantly in recent years under new ownership, and now offers an extensive choice of copper and fibre cable and connectivity solutions too, that are used in a wide range of applications across the Fibre & Telecoms, AV & Custom Install, Data, Fire & Security, TV & Satellite, and Future Technology sectors.

Considerable strategic expansion ensures that Webro stays at the forefront of the industry, focusing investment in on-going product development.

This includes a relentless pursuit of future technology opportunities, having just launched both solar power and EV charging cables for example.

Led by the ambitious new leadership team, the dramatic root and branch transformation continues into 2023 - with a full website build for example, to ensure that Webro is the company that customers turn to first for their increasingly more varied cable needs.



### Fracarro: Celebrating 90 years

# FRACARRO

Fracarro was founded in 1933 and we have:-

- Over 60 years' experience in aerials and amplifiers
- Over 40 years' experience in satellite dishes
- Over 25 years' experience in fibre optics, multiswitches and headends

Fracarro have a wealth of knowledge and experience built up over many years and are now a highly respected and recognised global organisation excelling in all areas of TV, radio and satellite distribution.

Going forward we have new products being introduced to extend and enhance our

comprehensive range of products to suit every installation requirement in line with the rapidly changing industry requirements.

#### **Galaxia**

Our new Galaxia range is a modular and high density IP based professional solution for the distribution of AV content.

It is the perfect choice for managing IPTV content in any sector where distribution over a GPON network is required, for example in hospitality, prisons, university campuses and such.

For any further information please contact us at info@fracarro.com.



Galaxia









Media Partner

Essential INSTALL

MAGAZINE
Evolving Connectivity Media Partner

Visitor Registration Sponsor

**Seminar Sponsor** 





Evolving Connectivity, being held at the National Motorcycle Museum in Birmingham, is the UK's leading trade show for the signal reception, content delivery and smart home industry. Evolving Connectivity allows the showcasing of new industry products along with live seminars from keynote industry speakers about the future changes the industry will experience.

Evolving Connectivity 2023 is a very powerful marketing medium. It brings together buyers and sellers in one place in a short space of time. There are many ways to look for products and suppliers, but nothing can beat the benefits that Evolving Connectivity has to offer.

Evolving Connectivity enables visitors to see large numbers of products at the same time, to evaluate and compare them, to attend keynote seminars and to ask detailed questions. Evolving Connectivity provides visitors with a comprehensive overview of the entire market and industry. By taking advantage of the benefits Evolving Connectivity has to offer, you can increase your business in one go!

- Gain an overview of the market and industry Evolving Connectivity brings together the whole industry.
- Find new markets and opportunities.
- Follow latest trends and innovations keep yourself up to date.
- Get new ideas for your business.
- Evolving Connectivity is a place where large numbers of new products and services are launched.
- Evaluate products and suppliers you get competitive information about a wide range of products and suppliers in a short space of time.
- Compare and discuss specific issues, features, prices, and conditions.
- Look for specific products and services.
- Find information to solve specific problems.
- Evaluate your competitors a visit to Evolving Connectivity is an efficient way of gathering competitor intelligence.
- Learn Evolving Connectivity is a great place to extend and deepen your knowledge.
- Keep in touch with your existing business partners.
- Generate new business contacts.
- Network Evolving Connectivity provides a unique place for people with common interests to connect personally with one another.

This one-day event is informative, fun, and imperative to attend whether you are a new start-up or long-standing business.





### **Kevin Dawson**Assessment & Technical Executive of CAI

Kevin has been with the CAI since April 2001 and is the Assessment & Technical Executive responsible for assessing potential members as well as the existing member companies and ensuring that the Codes of Practice are being adhered to. Kevin also helps to deal with the many technical enquiries that the CAI's growing profile generates as well as tutoring some of the CAI's basic training courses. Kevin is also in charge of auditing the CAI's product certification schemes.



Hannah Williams
Charity Manager of No Falls Foundation

Hannah Williams began her career in the work at height sector at Lyte Ladders and Towers in 2006. In 2009 Hannah was appointed to the board of directors serving in various positions until 2018. During her time at Lyte Hannah took a keen interest in improving height safety and sat on the governing bodies of both the Ladder Association and PASMA, including the Ladder Association's Technical Committee. Her work experience embraces sales and marketing, public relations, product development and product sourcing and Hannah is delighted to be continuing her interest in height safety by serving as manager of the No Falls Foundation.



Alex Buchan
Strategic Technologist of DTG

Alex Buchan is Strategic Technologist for Spectrum and Security at DTG, the industry collaboration centre for broadcast and digital media. He is the project lead and co-founder of the 5G VISTA project who are developing 5G broadcast solutions for live sporting events, and a Director at SafeShark, a DTG Testing joint venture developing a consumer IoT cyber security assurance scheme.



### Malcolm Corbett CEO of INCA

Malcolm Corbett is the founder and CEO of the Independent Networks Co-operative Association. INCA brings together the UK's Altnets, building the next generation fibre and wireless digital infrastructure in the UK, alongside supporters in the public and private sectors. Prior to setting up INCA, Malcolm ran the Community Broadband Network, founded in 2004 to support local broadband initiatives through mentoring, advice and consultancy. Malcolm has a background in the Internet industry. He was a director of one of the first UK ISPs, Poptel, and he co-invented the .coop global Internet domain. He has also been active in social enterprise and cooperative movements in the UK and internationally. Malcolm has a degree in Biochemistry from the University of Surrey.

### Keynote Schedule

09.30	Registration	Q.	Show	Onene
09.30	Registration	Œ	Snow	Opens

10.30 Welcome & Introduction
Peter Sealey, Chairman, CAI

#### 10.35 Training Update

**Kevin Dawson, Assessment & Technical Executive, CAI**Kevin will be providing attendees with an insight into all the new updates to our Education & Skills programmes.

### 10.45 Falls from height – the biggest killer in the workplace

### Hannah Williams, Charity Manager, No Falls Foundation

Falls from height are consistently the biggest cause of workplace fatalities in the UK accounting for 26% of all deaths at work. In addition to this, every year 35,000 non-fatal falls also occur, often resulting in life-changing injuries. Hannah Williams takes a look at the potential dangers of working at height and what happens when things go wrong.

### 11.10 The European IRS Certification Scheme Explained Alex Buchan, Strategic Technologist, DTG

In-building TV and satellite distribution systems can be made up of many components from the antenna through to the receiver, all of which need to work together seamlessly to ensure the best possible service for the end user. But with standards for equipment being open to interpretation and minimal checks on

equipment, the lowest price can be the leading factor when systems are designed leading to faults and callbacks. This presentation explains how the CAI and DTG's EICS scheme can help manufacturers through to installers protect their customers and reputation while enhancing their products and brand with industry backed testing and certification for in-building TV distribution equipment.

#### 11.40 Full Fibre Britain

#### Malcolm Corbett, CEO, INCA

Malcolm will be talking about the rapid growth in the AltNet sector, building new full fibre connections around the UK. Collectively the AltNets have attracted more than £20bn in private investment, significantly more than BT Group is investing in full fibre through Openreach. Malcolm will also speak about the challenges ahead, not least the need to connect customers to the new networks as quickly as we can and the opportunities that represents for CAI members.

#### 14.30 Panel Discussion

Alex Buchan of DTG

Malcolm Corbett of INCA

Peter Madry of Ofcom

Mark Kenyon of SCS Technologies Ltd

Christian Boyce of Sky MDU Operations Support

#### 17.00 Exhibition Closes

<sup>\*</sup>Seminar programme titles, content and timings are subject to change\*

#### Evolving Connectivity 2023

Thursday 23rd march 2023





Aerials & Cable Equipment Ltd will be holding a business card prize draw to win a TP Link DECO-S4 wifi mesh system. Visit stand number 20 & 21 to enter.



Blake UK will be holding a 'how many different products do Blake stock?' competition to be in with a chance of winning a prize from one of their new ranges. Visit stand number 25 to enter.



CAI will be holding a prize draw for you to win a £300 training voucher - to be in with a chance to win this you will need to place your visitor badge in the prize draw box located in reception when the event closes.



EUROSAT DISTRIBUTION LTD will be holding a business card prize draw to win 2 x Manhattan SX Official Freesat Boxes. Visit stand number 3 to enter.

events



Fleet & Commercial Insurance Brokers Ltd will be holding a business card prize draw to win a prize hamper. Visit stand 24 to enter.



PPC will be holding a business card draw to win installation compression tools and a tool bag. Visit stand number 36 to enter.



Triax UK Ltd will be holding a business card draw to win a prize bundle containing a Triax Pocket Compression Tool, Triax TX100 F Compression Connectors and a reel of 100m Triax TX100 Plus White Cable. Visit stand number 18 & 19 to enter.



Unitron NV will be holding a business card draw to win a Johansson Smart AMP KIT7473L2. Visit stand number 6 to enter.



Webro Cables & Connectors will be holding a business card prize draw to win 2 x Amazon Echo Dots. Visit stand number 17a to enter.

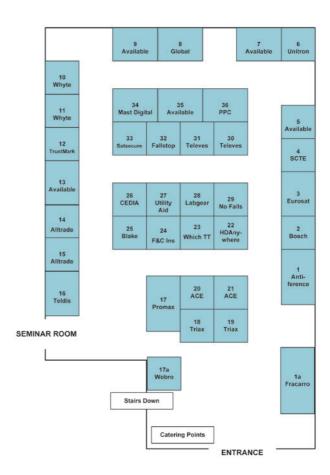


Whyte Technologies will be holding a business card draw to win a WPSU-SAP1 and a WSCR504RP (The Perfect Partner). Visit stand number 10 & 11 to enter.

# events

#### Evolving Connectivity 2023

Thursday 23rd march 2023



#### Aerials & Cable Equipment Ltd

Stands 20 & 21

#### Alltrade

Stands 14 & 15

#### Antiference

Stand 1

#### Blake UK Ltd

Stand 25

#### **Bosch Power Tools**

Stand 2

#### **CAI Training**

Reception Area

#### CEDIA

Stand 26

#### **Eurosat Distribution Ltd**

Stand 3

### Fallstop. Training, Safety & Consultancy Ltd

Stand 32

#### Fleet & Commercial Insurance Brokers Ltd

Stand 24

#### Fracarro UK Ltd

Stand 1a

#### Global Invacom Ltd

Stand 8

#### **HDAnywhere**

Stand 22

#### Labgear®

Stand 28

#### Mast Digital (UK) Ltd

Stand 34

#### No Falls Foundation

Stand 29

#### PPC Broadband Europe

Stand 36

#### Promax Electronics Ltd

Stand 17

#### Satsecure

Stand 33

#### SCTE®

Stand 4

#### Teldis Ltd

Stand 16

#### Televes UK Ltd

Stands 30 & 31

#### Triax UK Ltd

Stands 18 & 19

#### TrustMark

Stand 12

#### Utility Aid

Stand 27

#### Unitron NV Stand 6

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#### Webro Cables & Connectors

Stand 17a

#### Which? Trusted Trader

Stand 23

#### Whyte

Stands 10 & 11

### Brand Names and Where to Find Them



PhilexStand 28
PolytronStand 16
PROceptionStand 25
Promax Electronics Stand 17
Pro Series
Qube RacksStands 20 & 21
QuikDrop®Stand 36
QuikPush® Stand 36
QuikPush®Nano Stand 36
RemoteLinkStand 1
RoverStand 1a
SACStand 7
Sanus
SCTE®
Series 5 LITEStands 10 & 11
SignalTight® Stand 36
Sonos Stands 14 & 15
Splice & Play®Stand 36
StorageTekStand 1
TelesteStand 16
TelevesStands 14, 15, 30 & 31
TP-Link
Triax
TuffDuct® Stand 36
TrustMark
Uniview Stands 14 & 15
Utility Aid Ltd Stand 27
Webro Stand 17a
Which? Trusted TraderStand 23
Whyte
Whyte Series 5Stands 10 & 11
Whyte Series 5WBStands 10 & 11
Whyte Series 9Stands 10 & 11
Whyte Series 17Stands 10 & 11
Whyte Series AStands 10 & 11
Whyte Series D Stands 10 & 11
Whyte Series DRPStands 10 & 11
Whyte Series FStands 10 & 11
WolseyStands 18 & 19
ZeeVeeStand 16

#### **Exhibitor Previews**



#### **AERIALS & CABLE EQUIPMENT LTD**

**STANDS 20 & 21** 



Aerials & Cable Equipment Ltd distribute key product ranges for the Audio Visual, Network and Security markets throughout the UK and Ireland.

Visit stand 20/21 for a demonstration of our new Niko range of lighting with control, and importantly assisted living applications – live demonstrations every hour. Also see the new generation TP Link Wi-fi 6 access points, network switches and cloud controller. Enter the prize draw for a new Deco Mesh Wi-fi kit



Our Key Vendors include Ajax Alarms, SONOS, TP Link, Ubiquity, IC Realtime with HD over coax and IP CCTV extensive products, Qube racks, Sonos Polk audio speakers, Global Invacom Fibre, Sanus and B-Tech TV mounts, not forgetting Antiference, Blake, Fracarro, Televes, and Triax, Vision, Webro and Whyte.

In addition to our traditional aerial and satellite equipment ranges, we offer HD Anywhere multiroom UHD extenders and matrices including their new 8x8 stackable units with U-Control for both domestic & commercial applications, complemented by video wall and digital signage solutions.



Speak to a member of the sales team about joining our HD Media Partnership and benefit from access to our SkyQ referral commissions.

Pick up samples of our popular cable ranges which include CAI Approved IRS distribution, HDBaseT rated CAT6, as well as audio, KNX & Lutron cables.

We offer regular training for Niko lighting, Ajax Alarms, SONOS Audio, CCTV, and Wi-fi networking including Ubiquity, TP Link & Clear Flow as well as free system planning advice and project management.

Aerials & Cable Equipment Ltd 345 High Street, Cheltenham, Gloucestershire, GL50 3HS Tel: 01242 511511 Contact: Richard Miller Email: sales@aceonline.co.uk

Website: www.aceonline.co.uk

exhibitors

#### Evolving Connectivity 2023

Thursday 23rd march 2023



### ALLTRADE

Altrade, the UK's largest Aerial, Satellite, IRS and Fibre distributor and leading provider of Custom Install, Security and Smart Home products will be showcasing some of the sector's leading brands and product ranges at Evolving Connectivity 2023.

Sonos will be launching a brand-new product. Be one of the first to see, hear and feel the next instalment of the ultimate wireless home sound system – an opportunity not to be missed.



With Fibre IRS becoming increasingly popular, Alltrade will be showcasing the usually overlooked containment element of a Fibre install. New products will be on display from Blake UK, TRIAX and Key Fibre. As well as containment, Alltrade will also be displaying Fibre transmitters and receivers from Fracarro, Global Invacom, Televes and TRIAX. With their IRS technical team on hand to explain the features and

benefits from each manufacturer and how they can be utilised on their own or incorporated together to create a bespoke system.

Networking and Security are huge sectors for the install industry. Alltrade will have products from the biggest brand names including Hikvision, Ajax, TP-Link and Ligowave.

Alltrade are proud to have the largest network of branches, trade counters and training facilities offering the widest range of products, supported by their well-respected technical team. With their own fleet of vehicles offering next working day delivery and an industry leading website no other distributor is investing more to support its trade customers across the Aerial, Satellite, Smart Home and Security industries.

Make sure you visit stand 14 & 15 to see what Alltrade can do for you.

#### Alltrade

Unit 4 Sussex House Business Park, 274 Old Shoreham Road, Hove, East Sussex, BN3 7EU Tel: 01273 765180

Contact: Sales

Email: sales@alltrade.co.uk Website: www.alltrade.co.uk







Antiference Limited will once again be at stand 1 of the Evolving Connectivity exhibition with a number of new products to show.

In June 2022 we saw the switch from 800MHz to 700MHz due to 5G mobile phone launch and as you would expect Antiference have a full range of aerials, amplifiers and filters to support the changes. Our amplifiers are RED class 1 which means they have built in filters.

All the usual popular Antiference aerials are available in K group, including our Log periodic aerials.

The Clear Switch networking product range has a new range of switches with larger models up to 24 outputs and are supported by our latest addition of CAT6A patch leads, with a variety of lengths from 0.25m to 20m.

A new range of launched commercial amplifiers include a 38dB 4 input launch amplifier with 2 UHF, and separate DAB & FM inputs. A highly agile programmable amplifier with 32 filters, has three UHF/DAB inputs and a dedicated FM input for greater flexibility. Easy to programme from the front panel, via the LCD screen.

Mountsure TV brackets continues to grow in popularity and has a new addition, the UF100 is a fixed bracket for televisions 60" to 100" with Vesa fitting up to 900 x 600.

We look forward to seeing you all again on 23rd March 2023.

Antiference Ltd
Unit 2 Common Lane, Fradley Park,
Lichfield, Staffordshire, WS13 8NQ
Tel: 01675 465487
Contact: Trevor Paintain
Email: trevor.paintain@antiference.co.uk
Website: www.antiference.co.uk







### Blake's New Range for 2023 Will Save Your Time and Your Money! High Quality and Reliability at Competitive Prices.

This year we are launching more products than ever before, and every item has been designed with the installer in mind.

Whether you are a system engineer or a domestic specialist, Blake is your one-stop-shop for all the reliable products you need to get the job done.

## Come and visit us on Stand 25 at the CAI show.

From innovative ideas to cost-saving efficiencies, we are sure to have something for you. Our friendly and knowledgeable team will be happy to answer all your questions. You can experience first-hand the quality of our products as well as find out about the services and guarantees we have to offer.

We would also be very interested to hear your views – tell us what we can do to meet your needs, we're happy to help as much as we can.

We look forward to seeing you.

How many different products do Blake stock? Enter our competition and be in with a chance of winning a prize from one of our new ranges!

Blake UK Ltd 177-187 Rutland Road, Sheffield, South Yorkshire, S3 9PT Tel: 0114 223 5000 Contact: Paul Blake

Email: paul.blake@blake-uk.com Website: www.blake-uk.com





### **BOSCH POWER TOOLS**

STAND 2



At Bosch Professional, we draw on decades of expertise to design products that make hard work easier for professionals in trade and industry. As one of the world's leading manufacturers of power tools, measuring tools and accessories, we believe that the best products are designed not only for the work, but also for the worker.

From compact powerhouses such as the BITURBO cordless series to the disruptive X-LOCK quick-change system for angle grinders, we are relentless about delivering innovations that combine power and ease – so that workers enjoy higher levels of productivity at unprecedented levels of comfort.

Our designs go the extra mile to make tools easy to use and go easy on the worker.

With unmatched technological expertise and the impetus to invent for life, our more than 21,800 employees worldwide are dedicated to inventing new ways to make hard work faster, smarter, easier.

Discover more!

Enjoy a 15% discount only redeemable on Bosch Professional Power Tools online store.

Use code: EVOLVING23

Visit: www.bosch-professional.com/gb/en
\*\*Terms and conditions apply. (See on website)

Robert Bosch Ltd Broadwater Park, North Orbital Road, Denham, UB9 5HJ Tel: 0344 736 0109

Contact: Omotayo Fakoyede Email: Omotayo.Fakoyede@uk.bosch.com

Website: www.bosch.co.uk







At a time of increasing change within our industry, training and education is essential if you want to keep abreast of the latest technology, design and installation techniques. CAI's intense programmes are designed to develop skills and competencies necessary to meet the demands of the aerial and systems installation industry.

Come and speak to our team about your training requirements.

### CAI

Communications House, 41a Market Street, Watford, Hertfordshire, WD18 0PN Tel: 01923 803030

Contact: Amanda Ward

Email: amanda.ward@cai.org.uk

Website: www.cai.org.uk





CEDIA STAND 26

# CEDIA

CEDIA® is the global membership association that serves the home technology industry through advocacy, connection, and education. Founded in 1989, CEDIA fights for the rights and interests of its members in governmental bodies around the world, gathers industry professionals worldwide, and creates the trainings, standards, and certifications that ensure the industry excels and attracts new workers. Today, over 30,000 CEDIA members deliver home technology solutions that enrich our lives.

Whether you are starting out or you've worked in the industry for over twenty years, CEDIA membership will help support and inspire you at every stage of your Smart Home technology career. In today's challenging environment, it is even more important to distinguish yourself from the competition. As a CEDIA member, you can demonstrate your commitment to the Smart Home technology industry, show you are credible in the industry and keep up-to-date and informed with our extensive range of content.

When you join CEDIA, you step into a community of industry peers and change-makers with the skills and tools to help your business thrive. Members get access to many benefits.

From networking to training, marketing to advocacy, discounts to development, membership powers success.

Especially for attendees of Evolving Connectivity, we will be offering a 10% discount on our Cabling & Infrastructure Technicians Manual and our Smart Home Essential training package. These resources are the perfect first step to diversifying your skillset into the smart home technology industry, and we cannot wait to have you on board.

Learn more about CEDIA at www.cedia.net

### Cedia

Unit 2 Phoenix Park, St Neots, Cambridge, PE19 8EP Tel: 01480 213744 Contact: Matt Nimmons Email: MNimmons@cedia.org

Website: www.cedia.net



EUROSAT STAND 3



With over 30 years of expertise, Eurosat is your value-added distributor of choice for TV and Satellite equipment, together with a comprehensive range of other home entertainment, CCTV, networking solutions and multimedia technology from the sector's leading brands.

Nationwide network of branches supported by over 60 members of staff, the group incorporates a high percentage of staff who been part of the Eurosat team for at least 15 years and several members over 25 years. Through regular training and development, plus a high level of passion, offer a wealth of knowledge and information to our nationwide customer base.

Eight fully stocked regional branches strategically located around the UK provide immediate and convenient access to our entire product portfolio. Or if preferred, our nationwide next day delivery service either through our own van service or carefully selected courier providers makes sure you will get everything you need exactly when you need it.

We understand that being your valued and trusted trade partner is not just about supplying the latest products and IRS solutions at the most competitive pricing. Which is precisely why we also offer expert technical advice and support across our entire range to help you quote for and win more business.

For more information go to www.eurosat. com or contact your local friendly branch Scotland, Leeds, North West, Midlands, Eastern, London, Bristol, Exeter.

Eurosat Distribution Midlands Ltd Argyle House, Longmore Avenue, Walsall, West Midlands, WS2 0BW Tel: 01922 639299

Contact: Greg Simonds
Email: greg.simonds@
eurosatmidlands.com
Website: www.eurosat.com





### FALLSTOP: TRAINING, SAFETY & CONSULTANCY LTD STAND 32



Fallstop training safety and consultancy are a leading provider of fall protection training in the south of England.

We offer bespoke theory and practical training at our state of the art all weather training facility in Surrey.

With over 20 years of fall protection competency, if your teams work at height, please visit **fallstop.co.uk** 

### #wearenofalls

We offer industry specific training to satellite/aerial/fibreoptic/construction/maintenance/refurbishment/schools/local authorities and many more.

- Training offered.
- CAI accredited W@H using ladders for access.
- Pitched roof training.
- Flat roof access and egress training.
- Suspended worker training.

- Unconscious worker rescue.
- Medium risk confined space (escape BA).
- First aid.
- Risk assessment and hazard avoidance training.
- Construction WAH.
- Onsite consultancy.
- Film and TV production assistance.

All training is assessed and certified and can be conducted at our premises or direct to customers.

Fallstop. Training, Safety & Consultancy Ltd
Unit 14 Minden Road, Sutton, Surrey, SM3 9PF
Tel: 0203 654 1367
Contact: Phil Bond

Email: phil@fallstoptraining.co.uk Website: www.fallstop.co.uk

### FLEET & COMMERCIAL INSURANCE BROKERS LTD

### STAND 24

## Fleet and Commercial Insurance Brokers



Fleet and Commercial is a CAI approved insurance partner, this means that we can offer CAI members competitive pricing and excellent service across a wide range of insurance services.

We pride ourselves on bringing a fresh approach to insurance broking, with dedicated skilled account handlers that can provide advice and guide you with your insurance needs only a short phone call or email away. We specialise in commercial insurance products for businesses like yours, so understand the need for a quick and efficient service that allows no margin for compromise when delivering the right policy for you.

We can provide cover not only for Aerial Installers but also TV & Satellite Installers/ Engineers, Alarm Installation, Home Automation, Automatic Gate/Entry System installers or any other business activities vou are involved with.

We use a panel of insurers who understand the needs of CAI members, and their policies can include the following covers depending your needs:

- Unlimited Height Limits
- Professional Indemnity extensions
- Defective Workmanship and Rectification of work cover
- Damage to the item being worked upon

- Financial Loss
- Environmental Clean-up costs
- Alarm / security device failure
- Inefficacy (failure to perform)
- Removal of customer's goods

We can offer CAI members tailored packages for Public, Products & Employers Liability, Stock & Contents, Personal Accident & Professional Indemnity insurance along with all of our other services.

For more information, please contact the office on 01993 843 040 or email at sales@ fleetandcommercial.co.uk and one of our dedicated handlers will get back in touch with you.

Fleet & Commercial Insurance **Brokers Ltd** Suites 6-10 Wesley House, Ventura Business Park. Carterton, OX18 1AD Tel: 01993 843040 Contact: Tony McLeman Email: tony.mcleman@

fleetandcommercial.co.uk Website: www.fleetandcommercial.co.uk



# exhibitors



### FRACARRO UK LTD

### STAND 1A

## FRACARRO

This year marks Fracarro's 90th anniversary as one of the leading manufacturers of high-quality TV reception and distribution products with our comprehensive equipment ranges that are well known and respected worldwide. Fracarro continues to adapt to the ever-changing requirements of the industry and has over 25 years of experience in fibre-optic and IRS distribution design and support. We create the best solutions for the management of terrestrial and satellite signals and also specialise in signal processing for GPON, IP and co-axial networks. We look forward to welcoming you to Stand 1A where you can meet the knowledgeable and dedicated Fracarro team to discover the many solutions available.

### **Fibre Optic Wideband Range**

Fracarro's range of wideband fibre optic products complement the home fibre range to provide even more comprehensive



solutions for your installation requirements. Thanks to our excellent quality and high performance products it is possible to manage full wideband solutions through fibre, coaxial and hybrid distribution systems. Our LTE filtered LNBs, amplifiers, fibre-optic equipment and multiswitches provide the ideal solution for any installation with their ease of use enabling costeffective systems all backed up with the Fracarro 4-year warranty.

### Galaxia

Galaxia is the new Fracarro modular and High Density IP based professional solution able to meet all requirements for the distribution of AV content.



Galaxia is the perfect choice for managing IPTV content in any sector where distribution over a GPON network is required including, amongst others, hospitality, prisons, university campuses etc.

### dSCR 502W/504W/506W/508W

Fracarro's latest additions to their range of dSCRs offer the same fantastic performance and compact design but with reduced power consumption and more variations in the number of subscriber outputs. Installation options are



greatly increased allowing easier integration into existing systems and minimising the need for electrical supply. Wideband input allows for dual satellite reception if required while AGC for both Legacy and SCR modes maintains a constant output level to the subscriber connections.

Fracarro UK Ltd Suite F9A, Whiteleaf Business Centre, Little Balmer, Buckingham, MK18 1TF Tel: 01908 571571

**Contact: Ernest Juricic** 

Email: ernest.juricic@fracarro.com Website: www.Fracarro.co.uk



### **GLOBAL INVACOM LTD**

### STAND 8



### **About Global Invacom**

Global Invacom Group Limited is a worldwide leader in satellite broadcast solutions manufacturing. We are one of the world's largest developers, manufacturers and suppliers of satellite and TV peripheral equipment to the Direct Broadcast Satellite and VSAT markets.

Providing a wide range of products including satellite antennas, LNBs, switches and video distribution components.

### **New Products**

All of our new equipment is designed to make satellite distribution easier and more cost effective, they are also backward compatible with existing FIRS systems.

### **OTx**

Introducing the new OTx optical headend from Global Invacom. Fully compatible with all the current FibreIRS equipment. This unit replaces the functionality of the optical LNB and ODU32. Available in 1310nm or 1550nm output wavelengths with a Wideband LNB input.

### 020

Introducing the new O2O (Optical to Optical) regenerator from Global Invacom. This unit replaces the



functionality of the O2E and ODU32 in one compact unit. This unit is fully compatible with GI optical LNB, ODU32 (1310/1550) and the new OTX kit. The addition of an O2O in a FIRS system provides two further outputs each with a PON 32. Up to 32 x O2O's can be added to a single OTX giving a system expansion of over 2,000 points.

### 12 Way dCSS Switchblade

The new 12way dCSS Switchblade features 4 x dCSS outputs that support SKY Q and legacy



STB's plus a further 8 x Legacy outputs that with the addition of Switchblade 'Sat+' units support up to 3 further Orbital slots.

### **Antennas**

Global Invacom now have Zone 1 and 2 antennas available to the UK trade. Stocks are also held of 1.0, 1.2, 1.8 and 2.4 M SMC antennas (ex-Channel Master) in the UK.

Global Invacom Ltd Units 1 & 2 Caxton Place, Stevenage, Hertfordshire, SG1 2UG Tel: 01438 310510

Contact: Russell Macleod Email: russell.macleod@ globalinvacom.com

Website: www.globalinvacom.com





### HDANYWHERE

The HDANYWHERE™ endeavour is to centralise, maximise, unify and neaten home entertainment technology. Their range of MHUB AV distribution systems

allows professionals to install the bulk of all the entertainment technology in a typical home out of sight in a single location and be distributed over a minimum number of cables to each video and audio location in the home. Core to the HDANYWHERE's value is uControl™, an integrated control system built into every MHUB, that gives end-users an enjoyable and practical means to control their AV entertainment experience in any room in the home using their free mobile app, Apple Watch app or voice without having to rely on 3rd-party control brands. uControl™

requires no actual programming and significantly reduces integrator's setup time.

HDANYWHERE believes that the smart home experience starts with AV but now uControl™ even includes the ability to interface with smart lighting systems, smart relays, smart PDU's and other IP-controlled devices through uControl™ Zone Processors which, together with their video and audio products, allows integrators to spec HDANYWHERE to deliver all the

everyday smart functionality of a typical home without the cost and complexity of traditional top-flight control systems. The new uControl™ Remote coming later

> this year also promises to help make HDANYWHERE the perfect and unbeatable choice for integrators looking to grow their businesses and deliver customer-pleasing systems.



MHUB PRO 2.0

At Evolving Connectivity 2023, come see a demo of a smart home experience, showing how HDANYWHERE seamlessly and easily delivers Media, Music and Mood. Sign up to attend training sessions that will teach you how to make more money by incorporating video, audio and control in a smart home.

Visit HDANYWHERE.com for more information or find them on Social Media (@ hdanywhere).

HDAnywhere The Haysfield, Malvern, Worcestershire, WR14 1GF

Tel: request a callback at www.hdanywhere.com
Contact: Chris Pinder

Email: sales@hdanywhere.com Website: www.hdanywhere.com



LABGEAR STAND 28



Labgear was founded in Cambridge, England, over sixty years ago and its expertise is in developing and producing high quality aerial and other reception equipment. Labgear has an enviable reputation for innovation, quality, reliability, and excellent customer service.

Labgear makes products that, quite simply, enable the best possible sound and vision to be delivered to and from TVs and AV systems.

Labgear is committed to a policy of continuous product innovation and improvement. The UK TV broadcast industry is undergoing rapid change, with digital TV at the forefront of signal reception technology, and High Definition and 4K broadcasts now well established; we believe it is vital to work closely with customers to meet their demands.

Labgear delivers reliable high-quality products at competitive prices.

In June 2004 Labgear became part of Philex Electronic Limited. This accessories specialist was established in 1982 (our 40th year) and is a dynamic rapidly expanding company supplying multiple retailers, distributors, and wholesalers with a focused range of electrical, audio-visual, signal distribution and computer accessories.

Labgear was added to the Philex portfolio as the trade division for signal distribution products, dealing directly with major UK Distributors.

We are confident that Labgear is now ideally placed to meet the challenges of both the consumer and professional markets, with the latest 5G products available now and for use in the future. Come and see us and say hello, we are on stand 28.

Labgear

Philex House, Kingfisher Wharf, London Road, Bedford, Bedfordshire, MK42 0NX Tel: 01234 263700 Contact: Mike Dobbins

Email: mike.dobbins@philex.com Website: www.philex.com



# exhibitors



MAST DIGITAL (UK) LTD

STAND 34



Since 1989, Mast Digital UK has been a fast-growing family run business, passionate towards offering great service and support with an advanced product portfolio across CCTV, AV, Network, Aerial & Satellite related industries.

Mast Digital's emphasis on product knowledge, in-house training and remote technical support gives the customer confidence in specifying the correct equipment to meet the end user's requirements. Whether you are a domestic installer or a commercial specialist, we can help create a solution for your installation concerns.

Decades of calculated decisions and reinvestments have led to the diverse portfolio on offer. Just a few of the disciplines on display at our stand will be:

- CCTV & Security
- Access Control
- Alarm Systems
- HDMI Distribution
- Networking solutions

Mast Digital are inviting all installation companies who are keen to grow and diversify their business to visit the stand. Do not forget to leave your business card to be in with the chance to win some great prizes!

- The Team at Mast Digital (UK) Ltd.

Mast Digital (UK) Ltd Unit A Station Road Industrial Estate, Station Road, Epworth, Doncaster, DN9 1JZ Tel: 01427 874455

Email: enquiries@mastdigital.co.uk Website: www.mastdigital.co.uk

Contact: Sales

### NO FALLS FOUNDATION

### STAND 29



The No Falls Foundation is a UK based charity devoted to the work at height sector and is dedicated to preventing falls from height and helping people affected by the life-changing consequences of a fall. It aims to foster greater awareness and understanding of the risks associated with working at height, to research the causes of falls from height and to support those facing the aftermath of a fall.

The need for a charity dedicated exclusively to the work at height sector is clear. Falls from height remain the single biggest cause of fatalities in the workplace accounting for 26% of all fatal incidents. Every year falls from height cause 35 deaths in Great Britain and an additional 4 in Northern Ireland. It is also estimated that there are up to 35,000 non-fatal falls from height, often resulting in serious injury – that is nearly 100 falls every single day.

Visit us at stand 29 and find out more about our work and how you can support the No Falls Foundation.

No Falls Foundation 7 Newton Place, Glasgow G3 7PR Tel: 0845 020 4242

Contact: Hannah Williams Email: hannah.williams@ nofallsfoundation.org

Website: www.nofallsfoundation.org





### PPC BROADBAND EUROPE

STAND 36



PPC is the global leader in connectivity solutions for the 'last mile' (xTTx®) and optimization of broadband networks. PPC is proud of its reputation for technical leadership and craft-friendly innovations in FTTx and other network applications.

For the optical fibre communications market, PPC Broadband Fibre has developed revolutionary technologies, including Miniflex® pushable fibre cable, that reduce the cost of fibre cable deployment across a host of applications. Through recent acquisitions, PPC Broadband Fibre has broadened its fibre optic portfolio to offer universal solutions for every installation need. This combined product breadth expands PPC's offerings to support applications throughout the optical fibre network.

PPC has grown their fibre business both organically and through acquisition, making them not only a major global supplier of fibre components and assemblies, but now also a leading turn-key integrator, supplying complex, fully populated street cabinets, manufactured to exacting service providers' specifications and ready for immediate network deployment.

PPC's continuing investment in fibre follows a long history of commitment to the broadband industry. PPC has developed and manufactured connectivity solutions for broadband service providers for more than 75 years. PPC has manufacturing facilities, offices, technical support and sales channels in the UK, Europe and worldwide.

PPC Broadband Europe Vaerkstedsvej 14, Praestoe, DK 4720, Denmark Tel: 0045 5599 1722 Contact: Chris Bailey Email: chris.bailey@ppc-online.com

Website: www.ppc.dk







### PROMAX ELECTRONICS LTD

STAND 17





PROMAX is a leading manufacturer of test and measurement systems, broadcast, and TV signal distribution equipment. Our product lines include measuring instruments for cable TV, satellite TV, broadcast, wireless and fibre optics networks, FTTH and GPON analysers. DVB-T modulators, IP streamers or IP converters (ASI, DVB-T) are among the company's latest developments.

# TV, Cable, and Satellite field strength meters

Due to its reliability, design and long lifetime, the PROMAX field strength meters are a reference for the professional market worldwide. PROMAX currently have 19 different meters available in the market. To view their range visit http://www.promaxelectronics.com/ing/products/tv-cable-and-satellite-field-strength-meters

Promax Electronics Ltd 6 Caxton Centre, Porters Wood, St Albans, Hertfordshire, AL3 6XT Tel: 01727 832266 Contact: Simon Humphries

Email: simon.humphries@promaxelectronics.co.uk

Website: www.promaxelectronics.com/ing

exhibitors





Satsecure is your leading Premium Distributor of Ajax, CCTV, Access Control, Networking and Fire solutions.

By Partnering you will get your handson brand-new products first and receive bespoke sales and marketing support to rocket your success.

You will get a team of committed tech experts eager to work with you on finding the most profitable solutions to your customers' problems.

With deep insights on market trends and growths to ensure you have always got instant access to the stock you need.

Ask David or Dan about your Partner benefits and how you can get Exclusive Access to our brand-new website.

### Satsecure

Unit 21 Whitehill Industrial Estate, Haigh Park, Stockport, Cheshire, SK4 1QR Tel: 0161 430 3849 Contact: Daniel Allen

Email: Daniel.allen@satsecure.uk Website: www.satsecuretrade.uk

### **SCTE®** - THE SOCIETY OF BROADBAND PROFESSIONALS

STAND 4



The SCTE (Society for Broadband Professionals), est 1945, is central to the industry of broadband and telecoms. Designed to raise and maintain technical standards, it is a membership organisation that provides training and accreditation, lecture meetings, webinars, podcasts, and networking events throughout the calendar year.

The SCTE also publishes a quarterly glossy magazine, Broadband Journal, aimed at the decision-makers across the telecoms and broadband sectors, providing industry news, thought leadership pieces, technical papers, interviews with key industry figures and its widely acclaimed Long Read. Our members benefit from speaking opportunities, introductions, sponsorship and advertising opportunities via the Journal and our website.

With offices in the Benelux, Balkans, and India, we are also close partners with IBC and you will find Broadband at all major trade shows.

The Society also chairs the British Standards' Committee for Cable Systems and represents the UK at European (CENELEC) and world (IEC) levels. As an agnostic and central point of communication for the industry, we are an ideal partner for you to reach your customers, raise your personal profile and elevate your brand presence via education, knowledge dissemination and debate.

At Evolving Connectivity 2023, the SCTE will also be promoting our range of acclaimed theoretical training courses, as well as its newly launched Learning Management System for training.

If you are in the industry, you need to be part of the SCTE.

SCTE® – The Society of Broadband Professionals Communications House, 41a Market Street, Watford, Hertfordshire, WD18 0PN Tel: +44 (0) 1923 815500, 07501 783042 Contact: Melissa Cogavin Email: melissa@thescte.eu

Website: www.thescte.eu



### Evolving Connectivity 2023

Thursday 23rd march 2023

### TELDIS LIMITED/WISI







Continuing our theme from last year on the Teldis stand we have invited our friends at WISI to take centre stage and present their portfolio of end-to-end solutions. Wisi are one of the world's pioneers of receiving and distribution technology and have worked with Teldis on many prestigious projects in recent years.







Headends on display will feature the cost-effective OM 10, 11 and 20 series of micro types, offering a simple one box solution for DVB-S, DVB-T + 'in-house' channel inputs together with outputs in RF or IP with or without middleware. Also shown will be the well-established Tangram range, using a powerful IP core to transpose practically any input to any output within the simplicity of a 1U high platform.

New ultra-dense modules offer a costeffective channel load ideally suited to IP distribution projects. Finally, the INCA 4440 IP video SRT receiver allows the remote reception of large and complex channel loads into remote distribution systems with minimal latency and packet loss.



Networking and distribution is best achieved using a GPON nowadays and the Optopus optical range perfectly satisfies that requirement as well as offering an RF overlay onto an IP network. If the question is RF or IP distribution, either way the answer is the Wisi Optopus.

Not content with hardware alone Wisi present WISIon. WISIon is a smart and affordable middleware for all hospitality applications. It's scalable from small hostelries up to large healthcare or university campus environments and is not restricted to IPTV alone. It performs seamlessly in hybrid coax + IP systems and even in WIFI networks. WISIon has a modern, elegant user interface and can support mobile devices.

Want to know what the word WISI means? You will have to ask us to find out.

Teldis Limited, Unit 7 Manor House Business Park, 97 Manor Farm Road, Wembley, Middlesex, HA0 1BN Tel: 01892 511411

Contact: Neil Kumar Email: sales@teldis.com Website: www.teldis.com



### **TELEVES UK LTD**

### STANDS 30 & 31



Televes is now in its 35th year in the UK, join us to celebrate and see what we have to offer for the latest challenges we face for SkyQ, Fibre networks, Hospitality, data and much more.

Overlight (Fibre IRS) - Televes are delighted to have worked with CAI and the DTG to be the first to achieve EICS certification for its ever-expanding Overlight range which consists of 2 FIRS transmitters (1310 & 1550nm) wideband LNB and 4 Fibre gateways (DCSS 2 out, 4 out, quad and quattro) plus 2 new wideband amplifiers.



**EDFA** - Complementing our extensive fibre optic range and compatible with Overlight this module amplifies the 1550nm optical signal producing an optical output power of 20dBm. Based on EDFA (erbium doped

fibre) technology, it provides a high gain and a low noise factor, available with 1, 8 or 32 output (also available in 19" format).



**CWDM/DWDM** - Capable of combining 2 or 4 Satellites, data plus DTT over a single fibre network using EDFA amplification, expand your networks to thousands of points.

Aerials – Our extensive range of aerials which includes Yagi's (10 and 17 element) The Zenit with its two vertically stacked booms and our flagship aerial the Ellipse an intelligent antenna that adapts automatically in real time to conditions and signals received. It has been designed to offer a stable and quality reception of DTT (UHF) signals, optimizing the rejection of the LTE band (channel 48 or 60) thanks to a SAW filter that offers great selectivity.

**AvantX** - Headend amplifier with SAW filtering, up to 32 programmable filters with adjustable bandwidth, features include Android app or auto program, compact size and ultra-low consumption.

### SmartKom intelligent mast amplifier

 Auto-programming, or manual programming via Bluetooth (Asuite)
 Filters, mixes, amplifies and balances at the touch of a button. Compact and intelligent amplifier for mast installation with digital channel processing, designed

# exhibitors

### Evolving Connectivity 2023

Thursday 23rd march 2023





for medium size installations. Equipped with 3 inputs to amplify terrestrial signals (VHF+UHF) in which each channel can be individually filtered by any of the 32 available programmable filters. In addition, it includes an input for mixing FM radio.

The amplifier is supplied with a 12V (800mA) domestic power supply that is inserted into the coaxial installation and powers it through its output connector. (Also available in an indoor version.)

**TOX IP Streamers** - Our TOX range of IP streamers convert your DVB TV or HDMI signals to IP, for content distribution over an Ethernet or FO network.

**dSCR** - You will have the chance of see first-hand our solutions for SkyQ and dSCR technology including switches and Fibre products.

H30 Range - With a new addition to the H30 Range (H30 Evolution) and as a direct result of our R&D work with Sky to be their primary supplier of spectrum analysers. A lightweight handheld meter packed with all of the



features required to install and maintain TV systems using DVB-S/S2, DVB-T/T2 or DVB-C digital modulation as well as wideband for SkyQ and dCSS available for the first time in an economic product, digital processing brings installers the opportunity to take measurements with a high level of accuracy.

### **GPON (Gigabit Passive Networks) -**

Offers speed of up to 2.5Gbps downstream and 1.25 Gbps upstream over passive optical networks like the ones that we are designing today to offer IRS over fibre. It can easily be integrated over an existing optical network offering the client an array of new services: telephony, VoIP, WiFi, IPTV and others.

**DATACOM** – Is our newest product line consisting of a complete range of cabling and networking solutions for data infrastructures including Optical fibre, copper solutions, racks and cabinets, network switches, routers and media converters (SFP).

Other products that will be on display will be: our successful range of 5, 9, 13 and 17 wire multiswitches, and a range of LTE700 products.

Televes UK Ltd Unit 11 Hill Street Industrial Estate, Cwmbran, Gwent, NP44 7PG Tel: 01633 875821 Contact: Andrew Brann

Email: televes.uk@televes.com Website: www.televes.com





TRIAX are committed to delivering exceptional service before, during and after installation to help you get the very best from our high quality, reliable product range. Our team of dedicated technical support staff are available to provide design services, advice or technical support for your next installation. Come and meet our knowledgeable team and discover the benefits of installing with TRIAX.

# TdSCR Multiswitches – the next generation

Following your feedback, our highly popular TdSCR multiswitches are being further enhanced with LED port status indicators, 4, 6, 8, 12 and 16 way models for ultimate flexibility and a 6-year warranty! Independent outputs for legacy or dSCR mode mean the switches can be used as cascade, standalone or terminated, are compatible with Quattro and Wideband LNBs, and support 1 or 2 satellite positions. Featuring simple integration with existing TRIAX solutions, our TdSCR switches are certified to the European IRS Certification Scheme and include 5 x quick F connectors and earth bars for all subscriber outputs. The next generation is coming - discover more at the show.

### **TMS Multiswitches**

With a 6-year warranty and all the functionality you will need in a simplified,

streamlined range featuring 5 wire standalone and 5, 9, 13 and 17 wire cascade options. With installer convenience in mind, we have packed our TMS Multiswitches full of features to make installations easier to check, build, expand and maintain - including LED power indicators and flexible power injection. Along with a family of amplifiers, taps and splitters you are guaranteed excellent performance, reduced footprint, RED compliance and our core values of reliability and innovation – switch to TRIAX TMS Multiswitches for your next installation.

### **TRIAX Optical Fibre**

Our successful TRIAX Optical Fibre range features our all-in-one combined Fibre Headend with built-in AGC and high output power - designed for an easy installation and setup. Our optical Headend units are also optimised for plug & play simplicity to 64 Splits from a single headend, providing much greater flexibility when designing fibre IRS or FTTH systems. With a market leading optical budget of 23dB and MER's, we will be demonstrating the impressive live meter readings during the show. The range also offers a multitude of conversion options back to coax including Wideband, Legacy & dSCR Quad & Quattro as well as multi-satellite and extended systems up to 1,000+ Splits!

### **TdCH Compact Headend**

As experts in headend technology, every TRIAX Headend provides the same quality TRIAX experience, saving you time, costs and increasing your own customer loyalty. The latest software update for the TDcH



### Evolving Connectivity 2023

Thursday 23rd march 2023



The TDcH is based on the advanced TRIAX Next Generation Headend Platform, which offers the full range of signal modulation options from satellite, terrestrial, cable and now IP signals in QAM, COFDM or IP. Additional features for quick installation and reduced costs include optimized channel

set up with advanced multiplexing and no need for retuning TV sets in rooms. Discover all things TRIAX at stands 18 +19.

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### TRUSTMARK

STAND 12



TrustMark is the only Governmentendorsed Quality Scheme covering work carried out in or around the home. Operating across the UK, TrustMark is a not-for-profit social enterprise that continually re-invests in the scheme to support Scheme Providers and Registered Businesses to improve consumer protection and standards across all sectors.

Established in 2005, TrustMark has since expanded its remit following the Each Home Counts (EHC) review in 2016 to include all Repair, Maintenance and Improvement (RMI), Energy Efficiency and Retrofit measures. From 1 July 2021, on behalf of Ofgem, TrustMark has been responsible for the Energy Company Obligation Technical Monitoring. From

this date, this work has been subject to TrustMark's Quality Assurance Framework.

TrustMark operates within a Master Licence Agreement issued by the Government's Department for Business, Energy and Industrial Strategy (BEIS).

TrustMark licences and audits over 35 Scheme Providers with over 15,000 Registered Businesses.

Tradespeople wishing to register with TrustMark can find out more via: www.trustmark.org.uk/tradespeople/jointhrough-trustmark.

### TrustMark

The Square, Basing View, Basingstoke, Hampshire, RG21 4EB Contact: Rhys Jones Email: rjones@trustmark.org.uk Website: www.trustmark.org.uk



UNITRON NV STAND 6





As an aerial specialist with an eye for quality, you're Johansson's favourite installer!

At Evolving Connectivity 2023, you can discover how our IP and RF solutions can help you. Do not miss out on this, because we're looking forward to helping you at the UnitronGroup booth.

At this year's CAI exhibition, besides a general overview of our products, we will present some of our newest Johansson products especially designed for the English market:

- NEW premium universal pre-amplifiers
- Smart Amp auto programming preamplifier
- Profino Revolution, the international best-selling programmable digital filter amplifier
- Titanium, the most complete range of compact transmodulators and IP streamers in the market
- 4- and 8-Way Digital SCR
   Multiswitches, the next generation
   dSCR Multiswitch from your market
   leader

**Johansson**, our brand, equals a quality label for reliable and state-of-the-art technology. In 2022, the Johansson

brand celebrated its 60 year anniversary. The TV-industry recognises Johansson for its supreme quality and innovation. Today, Johansson products are used on all continents, by tens of millions of daily tv-viewers.



**UnitronGroup** is a family-owned international group of companies with headquarters in Belgium. We develop, produce and sell telecommunication, multimedia and Internet of Things applications.

Our strong R&D team has years of experience in Radio-Frequency Engineering. Do you want more info? Please visit our booth, or just send us a message: pietro.cilli@unitrongroup.com

Unitron NV Frankrijklaan 27, B-8970 Poperinge, Belgium

Tel: +32 5733 3363 Contact: Pietro Cilli

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Website: www.johansson.be





# (+) utility aid

Utility Aid provide a range of services to all sizes of commercial premises including Account Management, Invoice Validation, Net Zero and Carbon reporting, saving you precious time.

**Support:** Our experts check you are not being overcharged by your current supplier, offer honest advice on the current energy markets, and can help you plan ahead for changes in energy charges and how they may affect your budget, in the short and longer term.

**Procurement:** Bespoke quotations based on accurate information. Our services are tailored to your building and budget.

**Net Zero & Carbon Reporting:** our in-house assessors can support your business with making strategic decisions on investment to reduce energy use.

Determine the potential for microgeneration across the estate and the impact on Carbon.

Set building energy targets and reduce the performance gap.

Decide on a timeline of improvement measures to align with maintenance/ improvement budgets.

Display Energy Certificate (DEC).

Energy Use Investigation.

We can provide evidence backed Carbon & Energy Reporting for Scope 1 and 2 emissions, under the SECR guidance.

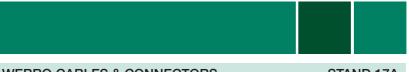
Smart Export Guarantee (SEG).

You can be assured that you will be in safe hands with our team of customer focused experts. We were awarded the Best Customer Service 2022 (Energy Live Awards).

For further information, get in touch with our Partnership Manager, Emily Berry.

Utility Aid Ltd
Unit 1 Mill House, Carre Street,
Sleaford, Lincolnshire, NG34 7TW
Tel: 0808 178 2021
Contact: Emily Berry
Email: eberry@utility-aid.com

Website: www.utility-aid.co.uk



WEBRO CABLES & CONNECTORS

STAND 17A

# webro

The Webro brand is known for premium quality coaxial cables, but our range includes much more than that.

We offer a full range of cables for today's AV and custom install market, including cables compatible with most of the major lighting control, blind control, and BMS systems, such as Control4, Dali, Lutron, Crestron and KNX

We also stock a variety of speaker cables, including 16/2 and 16/4 speaker cables in violet, pink and white as well as 14/2, 14/4, 12/2, and 12/4 cables sheathed in violet. For outside applications we offer external weatherproof and duct grade cables. Our extensive speaker cable range boast oxygen free copper conductors for peerless sound quality.

Our webnet data range includes data cables up to Cat7a, with a range of colours, sheath types and screening options, including HDBaseT approved products, and cables CPR-compliant to B2ca level. Our vast cable range also includes cables ideal for alarm and CCTV applications, as well as fibre.

You do not need to worry about quality either. We've more CAI-benchmarked cables than anyone else, and our range

also includes HDBaseT-approved and KNX-certified cables. We are also members of CEDIA, the AV and custom install industry's only certified body. For the safety-conscious, our flagship WF100 is available up to CPR class Cca, and the Webro range includes products up to B2ca standard.

Our team have over 350 years of combined cable knowledge, and they are ready and waiting to support your next project, whether you need a quote or technical advice. We understand installers' needs and work closely with you to help deliver your installations on time, to spec, and to budget.

With next-day delivery available on much of our range, contact us to get your cable delivered tomorrow. We do more than you think.

Webro Cables & Connectors Meadow Brooks Business Park, Meadow Lane, Long Eaton, Nottingham, Nottinghamshire, NG10 2GD Tel: 0115 972 4483 Contact: John Pindar

Email: sales@webro.com Website: www.webro.com





### WHICH? TRUSTED TRADERS

STAND 23



Which? Trusted Traders is an endorsement scheme that recognises reputable traders in the home improvement and motor industries.

Which? Trusted Traders aims to raise standards for consumers, by setting a benchmark we expect all traders to meet before they can be endorsed. All traders who meet our standards process can become a Which? Trusted Trader and can display our Which? Trusted Trader logo on their branding and promotional material.

Members of CAI can apply to join Which? Trusted Traders and take advantage of a special offer giving them 50% off their membership fees for the first six months.

All applicants will still have to pass our rigorous assessment process and agree to follow our Code of Conduct, as all of our Trusted Traders do.

But those that make the grade will be able to use our endorsement logo, helping them to stand out from their competitors and giving customers confidence when looking for someone to work in their homes.

Which? Trusted Traders 3 Capital Quarter, Cardiff, CF10 4BZ

Tel: 0117 456 6032 Contact: Huw Payne

Email: whichtrustedtraders@which.co.uk Website: www.trustedtraders.which.co.uk





### WHYTE TECHNOLOGIES

### STAND 10 & 11



It is that time of the year again and there is nothing like Evolving Connectivity to usher in the spring. Once again, we will be at the show in full force as we look forward to showcasing our latest products.

### Whyte Series D dSCR Multiswitches

The new 2nd Generation Cascadable dSCR multiswitch range from Whyte offers substantial enhancements such as higher power output, even lower power consumption, a small form factor and Trunk EQ. The range now boasts 4, 6, 8,12 and 16-way models. This alongside low loss trunks and high TERR gain make the Whyte Series D range the most versatile and easy to install dSCR multiswitch available. Clever cast aluminium housing design means the dSCR multiswitch can be orientated horizontally without the risk of overheating.

Each subscriber output provides Sky Q, Legacy, TV and Radio services. Satellite subscriber signal levels in both Legacy and dSCR mode are automatically set to 89dBµV for dSCR and 83dBµV for legacy via AGC. Terrestrial signal levels are controlled via a manual Gain Control and a selectable Pro-Tap™ which permits a wide range of TERR input signals levels from 50 to 108dBµV. The reception of 2 satellites can be facilitated with 2 Wideband LNB's

when WB mode is selected. The unit can be powered directly via the DC Input Port or be remotely powered via the trunk lines.

## Whyte Series DRP Remote Powered dSCR Multiswitch

The Whyte WSCR504RP is a remote powered dSCR multiswitch designed specifically for installations where no landlord's power is available. The WSCR504RP retains all the features and performance of the 2nd Generation Series D range of dSCR multiswitches. These performance features easily facilitate the cascading of several units due the low loss trunks, TERR gain control and Pro-Tap.

The power is provided remotely via the REC port which powers only that particular port, the trunk, and any amplifier, legacy multiswitch or LNB connected. The WSCR504RP cannot be powered via the trunk therefore any additional WSCR504RP's within the system will not be powered and added to the load. This ensures that no individual apartment will experience apartment PSU overload. When used with the WPSU-SAP1/SAP2 Smart Apartment PSU's from Whyte. customer support is reduced and customer satisfaction is increased as the IRS system will function correctly irrespective of building occupancy or type of set-top-box (if any) is used by the resident.

### Whyte Smart Apartment PSU

The WPSU-SAP1 and WPSU-SAP2 are the worlds first Smart Apt PSU's. When used Whyte remote powered multiswitches, customer support is reduced, and

# exhibitors

customer satisfaction is increased as the IRS system will function correctly irrespective of building occupancy or type of set-top (if any) is used by the resident. A Smart Apt PSU must be fitted in to every apartment irrespective of whether satellite services are required or not.

They are available in 1 and 2 feed versions and are compatible with both legacy and dSCR Set Top Boxes. When connected to a legacy STB, voltage switching commands (13/18V) are relayed by the dynamic PSU. In the absence of STB LNB voltage, the Smart Apt PSU will provide 14V to maintain the IRS System functional for circumstances where the occupants may require TERR services only. The Smart Apt PSU's can be set back locally near the TV or fitted discretely in an electrical cupboard.

### Whyte Series F Fibre Optic Range

In designing our new Fibre Optic range one of our major design objectives was to overcome the signal quality deterioration which has been an ongoing issue with Fibre IRS Systems over the years. Another was to design a system that was suitable for small to large FTTB (Fibre to the Block) and FTTH (Fibre to the Home) Single Satellite or Multi Satellite Fibre IRS Systems with minimal signal degradation. This has been achieved by utilising WB Vertical and Horizontal inputs to the Fibre Transmitter which are modulated on a single laser per each polarity alongside a third laser for TERR signals. All Whyte Fibre products can connect directly to other products within the Whyte IRS range for seamless Hybrid Fibre to Copper integration. The complete range will include a range of high and low power Optical Transmitters, and also a range of WB, Quattro and dSCR Optical Receivers.

### **Whyte Series A Distribution Amplifiers**

This is a new comprehensive range of RED Compliant, professional quality Advanced Distribution Amplifiers with IRS Loop-through. The IRS loop-through enables the Whyte Distribution Amplifier to be connected directly to a multiswitch subscriber output whereby the SAT/TERR signals are passed through the Amplifier and terminate in a Triplex outlet. The TERR/ RADIO signals are amplified before being distributed to the TERR and Radio Outlet plates. This is by far the most cost-effective and most reliable way of implementing an IRS System with quad/triplex outlet to the Living Room and TERR only to bedrooms. Whyte Series A Distribution Amplifiers feature full metal housings and are available in sizes ranging from 2-way to 16-way and feature 10dB gain with gain control.

We look forward to seeing you on stand 10 & 11 for a friendly chat with our very knowledgeable team of industry experts who will be happy to demonstrate our products as well as answer ANY technical query regarding IRS.

Whyte Technologies
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Edison Road, Enfield, Middlesex, EN3 7XF
Tel: 0330 999 1980

Email: info@whytetechnologies.com Website: www.whytetechnologies.com





# **And Finally... Coming to 2024!**









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I would like to personally thank all contributors for helping make Feedback so informative and interesting to read. Without the submission of articles and news bytes, feedback would prove very difficult to publish. So thank you!



# **Wideband Fibre Optic**

Fracarro's new wideband fibre optic products compliment our comprehensive and extensive Home Fibre range to provide even more solutions for all installation requirements backed up with our 4 year warranty.







**Celebrating 90 Years** 



# MICRO HEADEND OM 20 064S

### **TELDIS Ltd**

Email: sales@teldis.com Tel: 01892 511411 Wembley HA0 1BN









### At a glance:

- IP-Streamer of 128 SPTS services from 6 DVB-S/S2/S2X transponders
- The integrated 4 in 6 switch matrix reduces the installation effort and DiSEqC 1.0 is increasing the flexibility by controlling up to 4 satellites
- 4 CI slots for central decryption
- Freely selectable IP addresses at the output
- Automatic generation of M3U tables
- USB interface to feed in any video content
- Programming via web interface
- Integrated DHCP server enables an automatic connection to a PC
- Smartphone and tablet access via Bluetooth





Developed for Hospitality



Made in Germany

