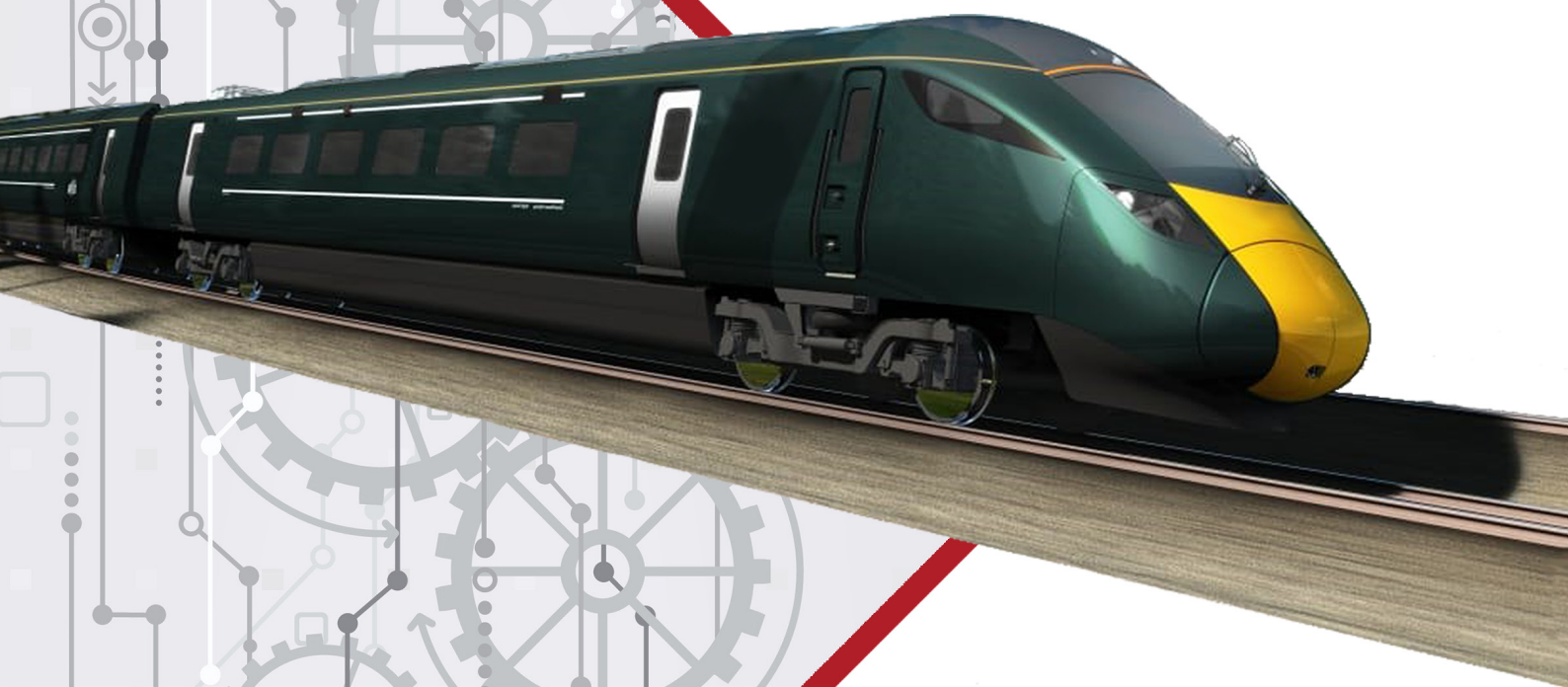


# RAIL ENGINEERING SERVICES FOR THE RAIL INDUSTRY

BROCHURE 1



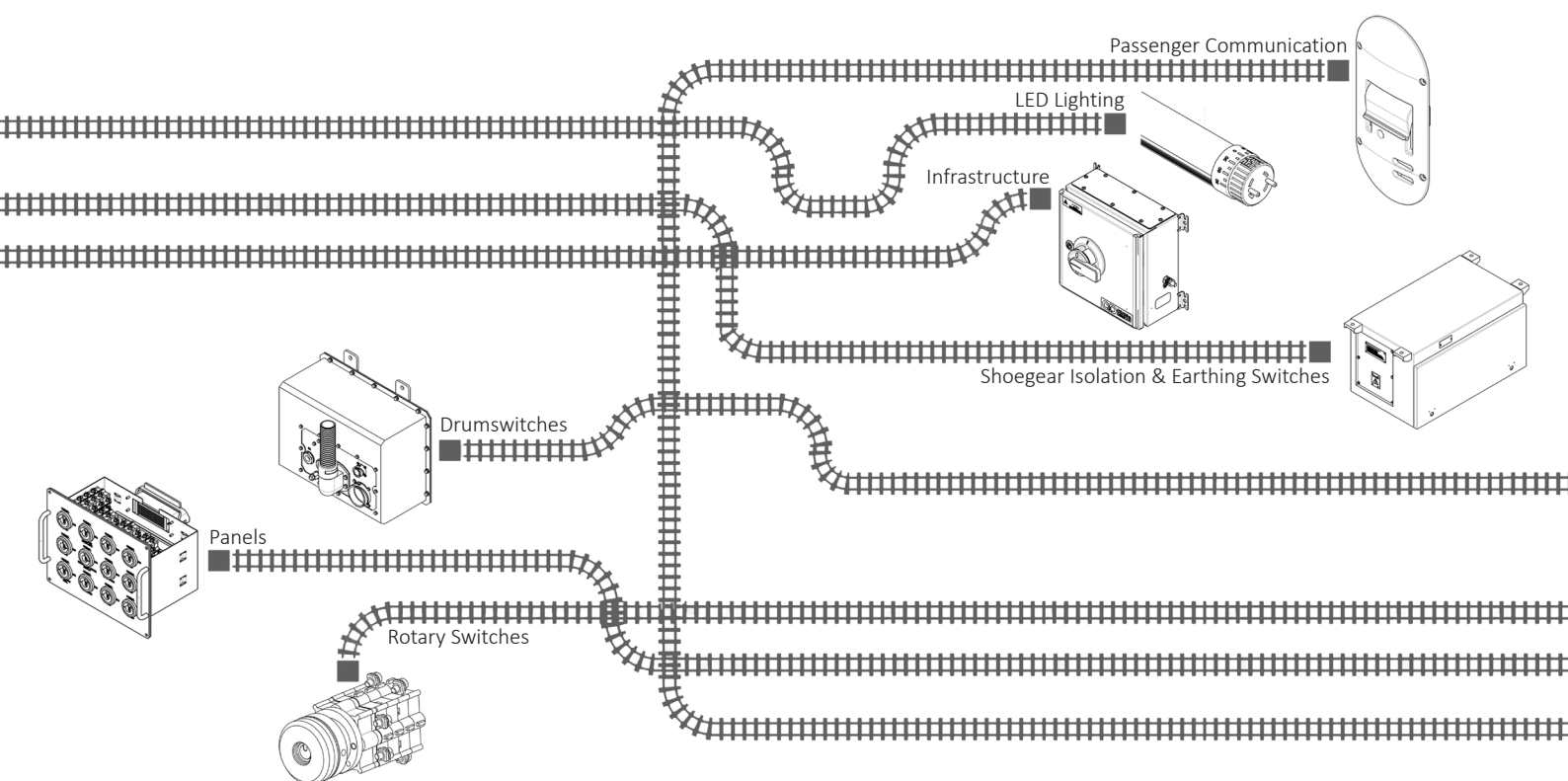
CPD181 Issue 3

**C&D** **CRAIG &  
DERRICOTT**

# ABOUT US

ESTABLISHED IN 1922, BRITISH MANUFACTURING COMPANY CRAIG & DERRICOTT SPECIALISES IN THE DESIGN, MANUFACTURE AND OVERHAUL OF LOW VOLTAGE ELECTRICAL SWITCHGEAR & CONTROL GEAR, RAIL ROLLING STOCK COMPONENTS AND LED LIGHTING.

OVER THE PAST 100 YEARS, CRAIG & DERRICOTT HAS EARNED A STRONG REPUTATION FOR CUSTOMER SERVICE EXCELLENCE AND DELIVERY OF HIGH-QUALITY PRODUCTS.



Craig & Derricott has been a component supplier to the passenger transportation sector for more than 60 years and in that time we have earned a reputation for well-engineered products. This is especially so in the Rail industry where we supply to both the Rolling Stock & Infrastructure areas.

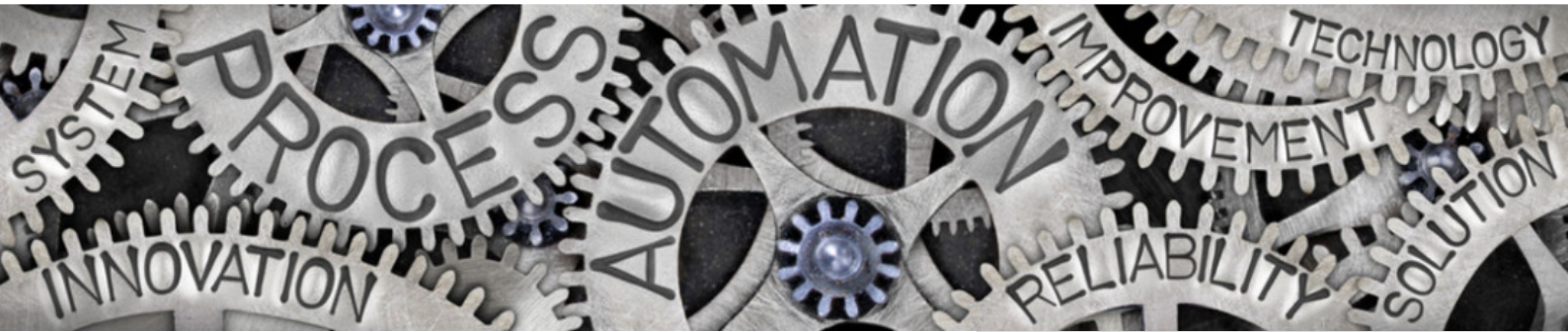
Our rolling stock range covers products designed for use on trains worldwide. The range includes LED lighting, rotary actuators, driver's key switches, panels, footswitches, door pressels, passenger communication devices, shoe-gear earthing equipment & isolation switches.

Rail infrastructure covers a wide spectrum of environments and we have supplied equipment into many including station platforms, escalators, maintenance bays and trackside areas. For these areas we have a comprehensive range of isolation equipment to suit most applications.

Craig & Derricott became part of the Addtech group in 2017. Addtech is a Swedish technology group that develops and sells high-tech components, products and systems to companies and the service industries around the world. Addtech is a publicly traded company and currently consists of more than 130 operating companies that are all market leaders in their niches.



# WHAT WE DO



## DESIGN INNOVATION

Working closely with our customers we are able to create innovative products to meet customer specification and fully comply with relevant railways standards.

## ENGINEERED SOLUTIONS

We have a wide variety of products that can cover both rolling stock and infrastructure applications. We can reverse engineer components or equipment to deliver a direct replacement.

Infrastructure	Products that offer isolation, control and protection for low voltage systems as well as lighting solutions in both above ground or below ground environments
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Rolling Stock	Lighting products, cab control switches, system isolation switches, power isolation and earthing switches, coupling switching devices and many more
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## OVERHAULING SERVICE

Recognising the need to keep trains in service, we offer overhaul programs to replace end of life products (both our own and third parties) and rebuild them to almost as new state.

## REPAIRS SERVICE

We offer a simple return procedure, to return a broken or faulty unit, to include a fault diagnosis, a quote to repair the unit and once agreed, repair the unit and return.

## INVESTIGATION SERVICE

If there is a component or system with reliability issues, we are able to offer a service to fully investigate a problem and make the necessary recommendations to fix the problem.



# ENGINEERING FOR RAIL

WORKING WITH RAIL ASSET MANUFACTURERS, OWNERS, OPERATORS AND MAINTAINERS



## RAIL ENVIRONMENT — WE UNDERSTAND KEY DEMANDS AND REQUIREMENTS

- We ensure products are designed and manufactured in accordance with rail standards and specifications for EMC, Shock & vibration and material fire performance.
- Equally, we have the knowledge and understanding to meet the expectations of designers, owners, operators, maintainers and passengers.

## BESPOKE SOLUTIONS — ABILITY TO DELIVER NEW PRODUCTS FOR NEW AND EXISTING ROLLING STOCK AND RAIL INFRASTRUCTURE

- We innovate. If there isn't an off-the-shelf solution that meets your specific requirements, we will develop one.
- We integrate and adapt new or existing products to provide a complete solution.

## COOPERATION - WE'RE WITH YOU ALL THE WAY THROUGH THE DEVELOPMENT PROCESS

- We don't just deliver product solutions, where required we can provide a fully documented product file that details risk assessments, control plans, work instructions and compliance statements.

# ENGINEERING FOR RAIL

WORKING WITH RAIL ASSET MANUFACTURERS, OWNERS, OPERATORS AND MAINTAINERS



## RELIABILITY GROWTH – OUR OWN AND THIRD-PARTY PRODUCTS

- Investigate and report system / equipment failures to root cause
- Propose improvements and recommendations
- Develop, test and document prototype performance during in service trials

## ASSET LIFE MANAGEMENT – OUR OWN AND THIRD-PARTY PRODUCTS

- Equipment strip down and condition assessment to define overhaul scopes and to support VMS optimisation and LCC prediction.
- Undertake refurbishment and overhaul of our own and third-party products

We're effective because we listen to our customers, develop bespoke solutions for their individual needs and ensure long term support is available. We ensure our projects are scoped and managed by our expert team providing over 60 years of combined industry knowledge.

If you're looking for industry experts to deliver your projects, we are here to help.

## CASE STUDY

# WORKING WITH C&D

## NI TRANSLINK - LED LIGHTING

WORKING CLOSELY WITH NI TRANSLINK, CRAIG & DERRICOTT SPECIFIED A DETAILED DESIGN, MANUFACTURED AND SUPPLIED A COMPLETE REPLACEMENT LIGHTING SYSTEM TO A FLEET OF CAF BUILT CLASS 3000 VEHICLES.

THESE BESPOKE LED EMERGENCY LIGHTING TUBES WERE ENGINEERED WITH A NEW PHOTO-LUMINESCENT DESIGN THAT ALLOWS THE TUBES TO REMAIN ILLUMINATED AFTER ALL POWER IS TERMINATED.

This new design of LED photo-luminescent emergency lighting system with cable harnesses, ancillary hardware and labelling was engineered by Craig & Derricott, specifically to meet the requirements of the customer.

System integration and engineering was provided by the team to ensure the lighting system was compatible with the available power supply, lighting control system and vehicle environment of the CAF rolling stock.

C&D produced dedicated documentation, including installation design documentation and drawings, user manuals, vehicle and equipment maintenance documentation, and system assurance and validation documentation.

Installation, testing and commissioning of the LED system was supported on site throughout First in Class Installation to ensure quality and reliability of the units.



To learn more about Craig & Derricott's range of LED lighting, please refer to our dedicated lighting brochure.



## CASE STUDY

# WORKING WITH C&D

## BOMBARDIER - DRUMSWITCH REPLACEMENT UNIT

THE ORIGINAL DEVICE SUPPLIED BY CRAIG & DERRICOTT WAS FITTED ON THE CLASS 357 VEHICLES TO PROVIDE SAFE ISOLATION OF CONTROL CIRCUITS WHEN THE VEHICLE IS NOT COUPLED.

THE ORIGINAL DESIGN WAS A MECHANICAL PNEUMATIC DEVICE THAT REQUIRED PERIODIC MAINTENANCE OF THE MECHANICAL PARTS.

Bombardier engaged Craig & Derricott to develop a new drumswitch uncoupling device to eliminate the need for maintenance by the use of relay technology.

The solution maintained the electrical, pneumatic and mechanical interfaces of the original drumswitch while offering a drop-in replacement that was easy to fit and required minimal changes to the vehicle.

Over 150 units were supplied on a managed scheduled change out program.



## CASE STUDY

# WORKING WITH C&D

## ALSTOM - TALKBACK UNIT ASSEMBLY

ALSTOM ENGAGED CRAIG & DERRICOTT TO DESIGN AND ENGINEER A NEW CALL FOR AID UNIT THAT INCLUDED VOICE COMMUNICATION, LED INDICATION AND AN EMERGENCY GRAB HANDLE.

THIS NEW UNIT WAS PRESENTED IN AN AESTHETICALLY PLEASING HOUSING TO COMPLEMENT THE TRAIN ENVIRONMENT AND FITTED ACROSS THE FLEET OF CLASS 390 WEST COAST MAINLINE VEHICLES.

This project was awarded as a result of Craig & Derricott's record in designing and manufacturing several similar products which had been supplied previously to Alstom and MTR.

Craig & Derricott also provided an adapted disable access version of the unit with the pull handle replaced with a shrouded pushbutton, allowing for ease of operation and to meet the required regulations.

Up to 1000 unit were supplied across the fleet.





# WORKING WITH C&D

## VIVARAIL - BATTERY ISOLATION BOX

THE ORIGINAL BATTERY ISOLATION DEVICE SUPPLIED BY CRAIG & DERRICOTT WAS FITTED ON THE CLASS 230 VEHICLES THAT UTILISED LONDON UNDERGROUND CARRIAGES WITH LUL BOXED-IN STYLE SEATING.

When Vivarail developed a new version of the class 230 carriages with aircraft style seating it was necessary to relocate the battery isolation device.

Craig & Derricott was engaged to develop a new composite battery isolation switch including switch, contactor and MCB within a reduced space envelope located beneath the vehicle floor.

These devices were successfully adopted and fitted across the fleet.



## CASE STUDY

# WORKING WITH C&D

## TRANSPORT FOR LONDON - LUL APPROVED SWITCHGEAR

FOLLOWING THE LONDON KINGS CROSS FIRE OF 1987, ADDITIONAL FIRE PRECAUTIONS FOR 'SUB-SURFACE RAILWAY STATIONS' WERE ESTABLISHED; THESE WERE KNOWN AS SECTION 12 REGULATIONS. IN 2015, LONDON UNDERGROUND INTRODUCED STANDARD S1085 TO DEFINE THE REQUIREMENTS FOR MATERIALS INSTALLED ON LU STATIONS AND TUNNEL INFRASTRUCTURE.

C&D'S RANGE OF SWITCH DISCONNECTORS AND AUTOMATIC TRANSFER SWITCHES ARE ALL DESIGNED TO MEET THESE REQUIREMENTS.

In 2016 Craig & Derricott supplied 23 ATS units for Crossrail, one of the major infrastructure projects in Europe. Then in 2019 C&D supplied over 70 ATS units for the northern line rail extension project from Kennington to Battersea. These successful projects led to Craig & Derricott being able to develop and supply an ATS unit to TFL for Acton Station, during the on-going COVID-19 pandemic.

C&D's ATS2 range is designed to meet S1085 and features switch disconnectors and outgoing fused combination units with segregation to meet form 4 type 2 specifications.

The ATS2 range has become a byword for unparalleled design combined with unimpeachable build quality, safety and ease of installation. The modular solution demonstrates complete flexibility to meet any Rail project design.



# CONTACT US

## YOUR PERSONAL CONTACT

### MARTYN DELAHAY- NATIONAL SALES MANAGER (RAIL PRODUCTS)



Martyn joined Craig & Derricott in May 2018 as the Sales Manager of Transport Products, selling mainly into the Railway Rolling Stock market.

After studying business and management at the University of Wales, Martyn first moved into the Rail Industry in 1998 becoming Operation Manager of Pullman Rail, a train maintenance company, before joining Schaltbau as Sales Manager. This experience equipped him with a broader knowledge of European Railways standards and supply mechanisms before joining Craig & Derricott.

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### IAN STRETTON- NATIONAL SALES MANAGER (INDUSTRIAL PRODUCTS)



Ian joined Craig & Derricott in June 2008 as a Sales Engineer covering the East & West Midlands.

Ian learnt his trade with a 6 year apprenticeship in Electrical and Electronic Engineering before going back to college to become an Electrical Technician and Project Manager. Using this experience, Ian decided to move into electrical wholesaling & manufacturing, specialising in industrial products. During his time at Craig & Derricott, Ian has covered many areas within Industrial Sales and is now the National Sales Manager for Industrial products with a profound background in ATS and LUL products.

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For further information about Craig & Derricott and the range of products we offer, please complete the enquiry form on our website or contact us using the details below:

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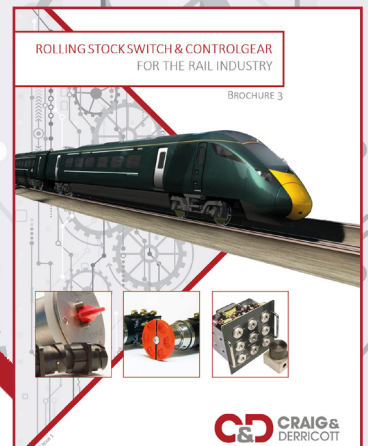
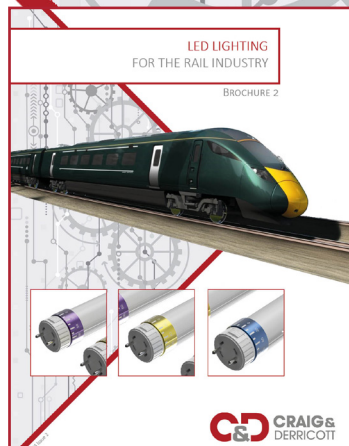
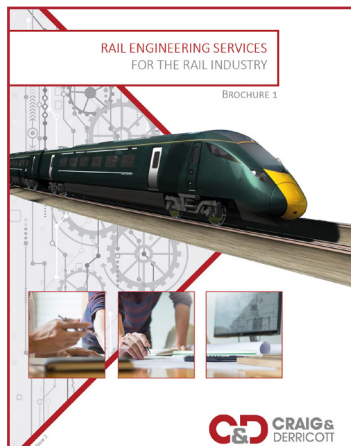
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# CRAIG & DERRICOTT

## SUPPLYING THE RAIL INDUSTRY



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