

Power & Control Solutions

For Arduous and Safety Critical Environments





Power & Control Solutions

As a trusted supplier to the Defence sector for many years, Ferranti Technologies can work with you to design or upgrade your power & control equipment ensuring effective, robust and value for money solutions.

Ferranti Technologies' Power and Control group boasts an engineering design team possessing a wealth of experience in the development of numerous complex, high reliability, safety and mission critical systems for aerospace, military and naval applications.

Our team of professionally qualified engineers are able to offer specialist technical expertise in a wide range of disciplines encompassing

- Systems and safety engineering
- Safety critical hardware and software
- Design for harsh environments
- Design for electromagnetic compatibility
- Cross-functional turnkey solutions

This enables Ferranti Technologies to rapidly facilitate the most demanding of customer requirements.

The efficient realisation of complex products is guaranteed by our proven systems development and in-service support processes.

In conjunction with our accredited in-house manufacturing and environmental test facility, we offer customers a single point of contact for the creation of custom built, optimised engineering solutions.

Upgrades and Modifications

In addition to offering design services for new products, Ferranti Technologies has extensive experience in the upgrade and modification of existing equipment.

Upgrading existing equipment can offer significant benefits:

Reduced Cost

Leveraging supplier relationships, sourcing alternative materials and engineering development are just some of the ways we can help to reduce the cost of manufacture.

Reduced Down Time

Upgrading tired equipment can save you time. Our knowledge and expertise will not only provide you with the optimum solution, but our business processes ensure this is done with minimum down time.

Enhanced Safety

Maintaining the functionality of your power and control equipment ensures operational safety now and beyond to your future needs.



Land Systems

Ferranti Technologies has a proud heritage in the custom design and manufacture of robust systems that are in service across the British Army.

Ferranti Technologies' power and control capabilities for land based systems include:

- Control Systems
- Power Distribution
- Complex Power Supplies

Control Systems

Hydraulic Control Units

Designed for use in heavy military engineering platforms and powered from a standard 28V DC vehicle supply, these HCUs contain multiple cards (microprocessor, digital & analogue I/O, PSU and filter and reversionary PLD).

Engine & Transmission Control System

Designed for upgraded Armoured Fighting Vehicles and comprising 4 units (engine junction box, warning light box, electronic control unit, engine temperature sensors), these systems interface the new engine and automatic transmission to the existing vehicle control/instrumentation and electrical system.

Power Distribution Systems

Ferranti Technologies has successfully designed and manufactured a System Power Distribution Unit to integrate a military Bridge Layer System onto an existing Main Battle Tank Chassis.

This system provides additional logic control and the distribution of 28V DC vehicle supply to bridge laying hydraulic system.

Total power capacity is 2.25kW.

Complex Power Supplies

Designed for use in harsh environments, these specialist complex power supplies are for safety-critical uses such as Explosive Ordnance Disposal (EOD) equipments.



Case Study - Redesign & Upgrade

Engine & Transmission System

When the UK Ministry of Defence identified an Urgent Operational Requirement to extend the life and upgrade the performance of the AFV 430 series of Armoured Fighting Vehicles, Ferranti Technologies became part of the team that delivered the highly successful Bulldog upgrade.

Ferranti Technologies was commissioned, as part of the BAE Systems Bulldog programme, to carry out the redesign, qualification and manufacture of the Engine and Transmission Management System for the AFV 430 Bulldog.

This programme saw the upgrade of 900 vehicles and has recently been concluded with all deliverables and milestones achieved on schedule.

The programme was designed to replace obsolete and legislatively non compliant systems and improve reliability and performance whilst significantly reducing whole life costs.

Ferranti Technologies' pedigree in the design and qualification of Power and Control systems for the Defence and Aerospace markets made them a natural choice for this high-priority programme.

During the upgrade of AFV 430, FTL helped to ensure that the newly designed units were not only compatible with existing systems but that they also incorporated the latest technology.

Within the newly designed Engine Control unit, FTL were able to include functionality that had previously been housed in separate units including the speed limiter and the automatic transmission control.

The improvements to this platform gave the AFV430 Bulldog the ability to undertake operational roles that had previously been limited to much more modern vehicles such as the Warrior Infantry Fighting Vehicle.