



WHEN COMMUNICATION IS CRITICAL



PIS/PA TUFF

Passenger information systems.
Passenger announcements.
Guard operator panels.



A+
STIPA SPEECH
INTELLIGIBILITY

IP65
HANDSET
PROTECTION

EN45545
COMPLIANT

EN50155
COMPLIANT

SPECIALIST HANDSET FOR PASSENGER INFORMATION & ANNOUNCEMENTS

Moulded in a robust fire-resistant polyurethane material, our **TUFF® Handset** provides excellent durability and resistance to wear, up to **1,000,000 hours MTBF.***

Handset failure's lead to train delays, or at worst, trains out of service – all of which incurs significant costs to train operators & manufacturers. That's why we've meticulously designed our TUFF handset to withstand the harshest of environments – so you can depend on reliable communications when it matters most.

Our *PIS/PA TUFF* handset is a safety critical train component compatible with any class of vehicle, customisable with connectivity for any train cab application.

A VITAL COMPONENT ON TRAINS FROM

SIEMENS **ALSTOM** **CAF** **HITACHI** 

GWR  **GTR**  **EMR** 

*Handset achieved 1,030,396 hours MTBF across ~ 500 RETB Train Cab installations from March 2014 to Aug 2022

TECHNICAL COMPLIANCE

- ✓ POWER CONSUMPTION
- ✓ STIPA TEST: A+
- ✓ EMC CERTIFICATION
- ✓ TECHNICAL PACK AVAILABLE UPON REQUEST

EN50155 COMPLIANCE

- ✓ VIBRATION SHOCK & BUMP
- ✓ SURGES, ESD AND TRANSIENTS
- ✓ DRY HEAT & LOW TEMP
- ✓ OPERATION OVER VOLTAGE RANGE
- ✓ FIRE RESISTANCE TO EN45545

AVAILABLE ACCESSORIES


- Interconnecting wiring loom
- Transition bracket to utilise existing fixing points
- Laser engraving to distinguish handset type (PIS/GSMR)

THERMOPLASTIC POLYURETHANE
EN 45545-2

DUAL PUSH-TO-TALK
Single model also available

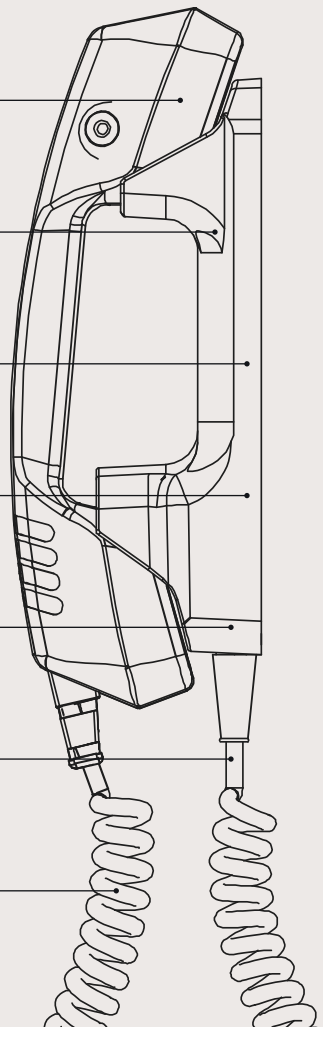
EMC TESTED
to EN50155

MULTIPLE CONNECTORS
to suit any connection requirements

BLACK OR RED


CURLY CORD
*Available in custom lengths
See length table

ARMOURED CORD
Available in custom lengths

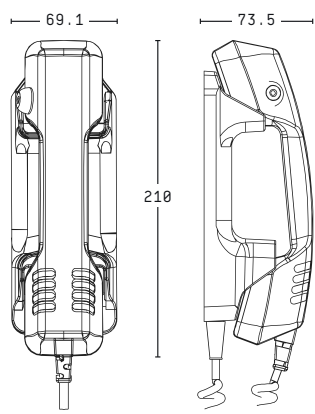


HANDSET INTEGRATION & ENGINEERING APPROVAL

We recognise the importance of thorough and accurate technical data when gaining engineering approvals for train upgrades. Therefore, to aid Fleet Engineers with product approvals, we have compiled a comprehensive *PIS/PA TUFF®* handset technical pack, detailing the required standards and specifications.

"The payback period for the Class 185 train upgrade was just 21 months factoring direct costs alone, no doubt much less if we accounted for indirect costs too"

Ryan Sandiford, Class 185 Fleet Engineer



Try our **TUFF Handset return on investment calculator** for free, visit daclimited.co.uk/TUFFcalculator

CORD LENGTH TABLE*

Curly Cord	Compressed Length (mm)	Safe Stretch Length (mm)
30 – Coil	190	880
40 – Coil	250	1120
50 – Coil	320	1400
60 – Coil	380	1640
80 – Coil	500	2120

WHEN COMMUNICATION IS CRITICAL

**DAC design and manufacture ruggedised communication equipment
focused on providing unwavering reliability when it matters most.**

Our range of products prioritise safety by ensuring critical communications remain clear and dependable, protecting lives and maintaining operations in all arduous and critical environments.

PROUD TO PARTNER



SIEMENS



ALSTOM

BAE SYSTEMS

OTHER EQUIPMENT IN OUR RANGE



GSM-R/FRMCS TUFF HANDSET

A safety critical train cab handset compatible with any class of vehicle, with customisable connectivity for any train cab application.

- ✓ Siemens GSM-R Train Radio
- ✓ Funkwerk GSM-R Train Radio
- ✓ GSM-R Train Radio – Other
- ✓ FRMCS Train Radio



RA708 RUGGEDISED TELEPHONE

Fully-contained telephone within a corrosion-resistant weatherproof case. Can be installed without direct access to a power source or network. Available as VoIP, GSM or Analogue.

- ✓ Track Side
- ✓ Road Side
- ✓ Military & Defence
- ✓ Public Services
- ✓ Oil & Gas
- ✓ Energy Generation
- ✓ VoIP, GSM, Analogue



RA711 HANDSFREE RUGGEDISED TELEPHONE

Handsfree rugged telephone for use where customers experience loss through vandalism. Available as VoIP, GSM or Analogue.

- ✓ Train Station
- ✓ Airports
- ✓ Help Points
- ✓ Prisons
- ✓ Public Services
- ✓ VoIP, GSM, Analogue



INDUSTRIAL HEADSET

EN352-approved hearing defence with comms and market leading passive attenuation. Interface to any PMR radio with clear and dependable communications.

- ✓ Construction
- ✓ Motorsport
- ✓ Energy Generation
- ✓ Military & Defence
- ✓ Cameraman / TV
- ✓ Warehouse
- ✓ Airport



EMERGENCY ROADSIDE TELEPHONE

A diverse range of solutions including GSM upgrades to existing mechanical hardware.

- ✓ Special Projects
- ✓ National Highways Type 354
- ✓ UK
- ✓ Europe
- ✓ GSM
- ✓ VoIP



ASSET MANAGEMENT SOFTWARE (AMS)

Cloud based Asset Management Software for use on PC, tablet or mobile. Compatible with all DAC GSM and VoIP products – keeping a close eye on asset performance and availability.

- ✓ Periodic Reporting
- ✓ Data Collation
- ✓ Remote Maintenance
- ✓ Preventative Maintenance
- ✓ Cloud Based
- ✓ PC, Mobile, Tablet



DESIGNED & MANUFACTURED IN THE UK. **INSTALLED ACROSS THE WORLD.**

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