

Manufacturer:
Leica Geosystems

Issue : 6
Valid From : 27/09/2018

CABLE AVOIDANCE TOOLS

Product Description

DIGICAT : 500i, 550i, 600i, 650i, 500ixf, 550ixf, 600ixf, 650ixf, 700, 750i, 750 xf

EZICAT: - i500, i550, i600, i650, i500xf, i550xf, i600xf, i650 xf, 700, 750i, 750 xf.

Leica D Series: - DD120, DD130 Locators, DD220 Smart, DD230 Smart locators with GPS, Bluetooth and Memory and DA220, DA230 Signal Transmitters.

Product Image



Scope of Acceptance:

Full Acceptance

Cable Avoidance Tools For The Locating of Buried Services Including Metallic Pipes and Cables

This Product CANNOT be used on the live Third and Fourth Rail (see NR/L3/MTC/RCS0216/GA20)

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.

Reviewed by:

Authorised by:



Tom Riley
Product Acceptance Coordinator



Malcolm Miles
Head of Plant

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Specific Conditions

The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section. Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.

Manufacturer

- 1) **Please refer to General Terms And Conditions.**

User

- 1) This Product **Must Not** be used on the live Third and Fourth Rail (see NR/L3/MTC/RCS0216/GA20)
- 2) This Product should be used in Accordance With a Safe System of Work and GE/RT8000 Rule Book.
- 3) Equipment Operator(s) shall ensure that equipment is maintained in accordance with equipment manufacturers User Manual and Safety Guide.
- 4) Equipment Operator(s) shall ensure that all staff required to use the equipment are suitably trained.
- 5) Only to be used in accordance with a Safe System of Work and on site operational risk assessments.
- 6) Not to be used in live third or fourth rail areas where the proximity of work requires a traction isolation (see NR/L3/MTC/RCS0216/GA20)
- 7) Only authorised personnel are to operate the equipment. Operators must hold Cable avoidance equipment operator (cat & geny) PTMP13.01.
- 8) Personal Protective Equipment to be worn at all times when operating the equipment.
- 9) Equipment must only be operated as directed by the manufacturer's instructions and training requirements.
- 10) Cable detection system must be used in conjunction with NR/GN/TRK/7001/TWI3G101 How to carry out cat scan of a site and NR/L3/MTC/RCS0216/SP05 Use of Cable Avoidance Tool (C.A.T.) or company equivalent controls.
- 11) Each party in the Network Rail supply chain procuring and receiving a product is responsible for ensuring it is fit for its intended purpose. Any deficiency must be taken up immediately with the supplier. If the deficiency is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway this shall be reported in writing to Network Rail Acceptance Services.
- 12) Maintenance and calibration must only be completed by in accordance with the manufacturer's instructions and be undertaken by a competent trained person, manufacturer or representative.
- 13) Only equipment that is in-date maintenance and calibration is to be used.
- 14) Signal Clamps should not be applied to items such as Railway Signalling or Telecommunication Cables without a Safe System of Work that confirms interaction

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Product Configuration

System or Complete Assembly

Part Number	Description	PADS Number
Leica D Series		
872938	DD120 Locator	094/013361
872940	DD130 Locator	094/013362
850268	DD220 Smart Locator	094/013363
850270	DD230 Smart Locator	094/013364
850272	DA220 1 Watt Signal Transmitter	094/013365
850273	DA220 3 Watt Signal Transmitter	094/013366
850274	DA230 1 Watt Signal Transmitter	094/013367
850275	DA230 3 Watt Signal Transmitter	094/013368
850278	Trace Rod 50m	094/013369
850279	Trace Rod 80m	094/013370
850282	Property Plug Connector	094/013371
850280	100mm (4") Transmitter Clamp	094/013372
850281	80mm (3.15") Transmitter clamp	094/013373
850288	Mini Sonde 33	094/013374
850289	Midi Sonde 8/33	094/013375
850290	Maxi Sonde 8/33	094/013376
850291	Clamp Sonde 33	094/013377
856131	Duct Sonde 33	094/013378
845900	DD Smart, DA transmitter Li Ion battery	094/013379
790417	A100 Li Ion Mains Charger	094/013380
797750	A140 Li Ion Vehicle Charger	094/013381
Ezicat		
813354	Ezicat i700 –Locators (To be phased out)	094/013302 (superseded by 094/013363)
813356	Ezicat i750 –Locators (Rebranding to Leica DD220 SMART Locator)	094/013303 (superseded by 094/013363)
813359	Ezicat i750xf –Locators (Rebranding to Leica DD230 SMART Locator)	094/013304 (superseded by 094/013364)
798033	Ezitest t100 –Transmitters (Rebranding to Leica DA220 1 Watt Signal Transmitter)	094/013404 (superseded by 094/013365)
813361	Ezitest t100 xf – Transmitters (Rebranding to Leica DA230 1 Watt Signal Transmitter)	094/013406 (superseded by 094/013367)
813363	Ezitest t300- Transmitters (Rebranding to Leica DA220 3 Watt Signal Transmitter)	094/013405 (superseded by 094/013366)
813362	Ezitest t300xf –Transmitters (Rebranding to Leica DA230 3 Watt Signal Transmitter)	094/013407 (superseded by 094/013368)
731666	Property Connection Set - Signal Cable	094/013305 (superseded by 094/013371)
731327	Ezitest connection cable set- Signal Cable	094/013306 (superseded by 094/013371)
765876	Ezirod 30-Rods	094/013311 (superseded by 094/013369)
765877	Ezirod 50-Rods	094/013312 (superseded by 094/013369)

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765878	Ezirod 80-Rods	094/013313 (superseded by 094/013370)
Digitac		
821246	Digitac 700i-Locators (To be phased out)	094/013314 (superseded by 094/013363)
821248	Digitac 750-Locators (Rebranding to Leica DD220 SMART Locator)	094/013315 (superseded by 094/013363)
821252	Ezicat 750ixf-Locators (Rebranding to Leica DD230 SMART Locator)	094/013316 (superseded by 094/013364)
795946	Digitex 100t, transmitter (Rebranding to Leica DA220 1 Watt Signal Transmitter)	094/013399 (superseded by 094/013365)
798648	Digitex 100t xf Transmitter (Rebranding to Leica DA230 1 Watt Signal Transmitter)	094/013396 (superseded by 094/013367)
798651	Digitex 300t Transmitter (Rebranding to Leica DA220 3 Watt Signal Transmitter)	094/013398 (superseded by 094/013366)
798649	Digitex 300t xf Transmitter (Rebranding to Leica DA230 3 Watt Signal Transmitter)	094/013397 (superseded by 094/013368)
731666	Property Connection Set -Signal Cable (Rebranding to Property Plug Connector)	094/013317 (superseded by 094/013371)
731327	Digitex connection cable set-Signal Cable (Rebranding to Property Plug Connector)	094/013318 (superseded by 094/013371)
796702	Digitrace 30-Rods (To be phased out)	094/013321 (superseded by 094/013369)
796704	Digitrace 80-Rods (Rebranding to Trace Rod 80)	094/013322 (superseded by 094/013370)
796703	Digitrace 50 –Rods (Rebranding to Trace Rod 50)	094/020051 (superseded by 094/013369)

Previous 500 and 600 Product Series

Part Number	Description	PADS Number
798640	Digitac 500ixf (To be phased out)	094/013390 (superseded by 094/013362)
798642	Digitac 550ixf (Rebranded to Leica DD130)	094/013391 (superseded by 094/013362)
798644	Digitac 600ixf (To be phased out)	094/013392 (superseded by 094/013364)
798646	Digitac 650ixf (To be phased out)	094/013393 (superseded by 094/013364)
795939	Digitac 600i (To be phased out)	094/013394 (superseded by 094/013363)
795941	Digitac 650i (To be phased out)	094/013395 (superseded by 094/013363)
798648	Digitex 100txf (Rebranding to Leica DA230 1 Watt Signal Transmitter)	094/013396 (superseded by 094/013367)
798649	Digitex 300txf (Rebranding to Leica DA230 3 Watt Signal Transmitter)	094/013397 (superseded by 094/013368)
798651	Digitex 300t (Rebranding to Leica DA220 3 Watt Signal Transmitter)	094/013398 (superseded by 094/013366)
795946	Digitex 100t (Rebranding to Leica DA220 1 Watt Signal Transmitter)	094/013399 (superseded by 094/013365)
519640	Ezicat i500xf (To be phased out)	094/013400 (superseded by 094/013362)
519642	Ezicat i550xf (Rebranding to Leica DD130 Locator)	094/013401 (superseded by 094/013362)
519644	Ezicat i600xf (To be phased out)	094/013402 (superseded by 094/013364)
519646	Ezicat i650xf (To be phased out)	094/013403 (superseded by 094/013364)
795945	Logicat Software (To be phased out)	094/013408
731056	Signal Clamp	094/013409
780225	Digitac 500i (To be phased out)	094/013292 (superseded by 094/013361)
780231	Digitac 550i (Rebranded to Leica DD120 Locator)	094/013293 (superseded by 094/013361)
784345	Ezicat i500 (To be phased out)	094/013294 (superseded by 094/013361)
784349	Ezicat i550 (To be phased out)	094/013295 (superseded by 094/013361)
798029	Ezicat i600 (To be phased out)	094/013296 (superseded by 094/013363)
798031	Ezicat i650 (To be phased out)	094/013297 (superseded by 094/013363)

Please contact prodacc@networkrail.co.uk

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731047 (Previously part numbers 511047 and 15-0003)	Digicat 100 Cable Locator (also known as Ezicat 100)	094/020050 (superseded by 094/013292 - 094/013295)
731049 (Previously part numbers 512049 and 15-0004)	Digitex 8/33 (also known as Ezitrace 8/33)	094/020052 (superseded by 094/013399 OR 094/013404)
731048 (Previously part numbers 513048 and 731048)	Digicat 200 (also known as Ezicat 200)	094/020075 (superseded by 094/013292 - 094/013295)

Assessed Documentation

Reference	Title	Date and Applies to Cert. issue No.	
Cable Detection Limited	EZiCat 700 Series Operation And User manual	13/02/2015	4
Leica Geosystems	DigiCAT 700 Series Leica Operation And User Manual	13/02/2015	4
Crange FCC & Safety – R3187.01 E8565	EZiCat DigiCAT EMC Test Report	03/01/2010	4
Crange EMC & Safety – R3186.01 E8565	EZiCat DigiCAT EMC Test Report	03/01/2010	4
Cable Detection Limited	LOGICAT Software Declaration of Purpose	01/02/2015	4
Cable Detection Limited	LOGICAT Software Mobile Phone Application	13/02/2015	4
Cable Detection Limited – FM 73904	Quality Management System ISO 9001: 2008	26/04/2013	4
5110119/50/LN/001	Atkins Signalling Compatibility Report	26/07/2012	4
EN ISO/IEC 17050-1	Leica –DigiCat 700i, DigiCat 750i, DigiCat 750i xf CE Declaration of Conformity.	21/07/2014	4
Cable Detection Limited	EZiCat 700i, EziCat 750i, EZiCat 750i xf CE Declaration of Conformity	03/06/2013	4
Cable Detection Limited	Orderable Components and Accessories Part List	13/02/2015	4
Cable Detection Limited	700 Series Product Brochure	13/02/2015	4
Cable Detection Limited	Training Manual	13/02/2015	4
UBlox – UP501 – FTX-HW-12005-3	GPS Technical Details- Fastrax GPS Antenna Module –MT3329/GPS L1 CA, SBAS: WASS, EGNOS, MSAS.	01/01/2013	4
HAMA Smart Solution- EN 300 328 V1.8.1 Harmonised Standard EN301 489-1, V1.9.2 EN301 489-17 V2.2.1	Declaration of CE Conformity In Accordance With Radio And Telecommunications Terminal Equipment Act –FTEG And Directive 1999/5/EC (R&TTE Directive)	23/01/2015	4
Cable Detection Limited	EZICAT , DIGICAT 700 Series Declaration of Purpose	23/02/2015	4
5110119/50/LN/001	Assessment of Compatibility with Signalling Systems: EZITEX t100XF & t300XF Transmitters	14/11/2012	3
10782TC2	EMC Certification	14/11/2012	3
R3186.01/ R3187.01	EMC Certification	14/11/2012	3
Applications.ppt(t100)/ Location Equipment 600 500 series t100	Training Material	19/11/2012	3
EZiSYSTEM_XF_UserManual_1-0-0_en.pdf	User manual	19/11/2012	3
EZiSYSTEM_SafetyDirections_XF_1-0-0.pdf	Safety Directions	19/11/2012	3
Version 1.1	EZiSYSTEM i600/i650 Safety Guide		2
Version 1.1	EZiSYSTEM i500/1550 CD-ROM (contains user manual, safety guide, Brochure and Quick start guide).		2
	Declaration of purpose for EZiCAT i600 (Part No 519401) & EZiCAT i650 (Part No 519402)	01/03/ 2011	2
Version 1	EZiSYSTEM i500/i550 Safety Guide		1
Version 1	EZiSYSTEM i500/1550 CD-ROM (contains user manual, safety guide, Brochure and Quick start guide).		1
Version 1	DIGICAT 500i/550i Safety Guide		1

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Reference	Title	Date and Applies to Cert. issue No.	
Version 1	DIGICAT 500i/550i CD-ROM (contains User Manual, Safety Guide, Brochure and Quick start guide).	21/05/2010	1
Ref Assessment(1)-Cable detection	Atkins Signalling Compatibility Report	25/11/2010	1
	Declaration of purpose for DIGICAT 500i (Part No 780225), DIGICAT 550i (Part No 780231), EZiCAT i500 (Part No 591225) & EZiCAT i550 (Part No 7519231)	01/12/ 2010	1
panasonic_pan1026_datasheet_v1.4	Bluetooth module product specification	27/05/2016	5
Leica-EU-Conf-Decl_DA220_DA230_2018-07-11, Leica-EU-Conf-Decl_DD120_DD130_2018-07-11 Leica-EU-Conf-Decl_DD220_DD230_2018-07-11	EC Declaration	Xx/09/2018	6
864606 DD220 DD230 User Manual en v1.0.0 873882 DD120 DD130 User Manual en V1.0.0	User Manuals	2018	6
EMC Reports 12731TR1 12735TR1 12793TR2 12794TR2 12795TR1 Radio Reports 12729TR3 12732TR2 12733TR3 12820TR2	EMC and Radio Test Reports	2018	6
C3872L-1 C3958L-1 C12139TR2 C3872 CB Certificate GB 7716 Z C3958 CB Certificate GB 7724 Z CB Certificate GB 7660 Z M1	Electrical Safety Reports and Certificates	2018	6

Certificate History

Issue	Date	Issue History
1	04/01/2011	First accepted for use
2	18/04/2011	Re-issued to include EZiCAT i600/i650.
3	23/11/2012	Re-issued to include the addition of new products known as the xf range. This application also includes the amalgamation of items on listed on certificate No PA/05/02031 .
4	13/04/2015	Introduction of the new EZiCAT 700, 750, 750Xf & DigiCAT 700, 750, 750Xf
5	27/05/2016	Certificate reissued to acknowledge the following upgrade to Bluetooth capability:- Bluetooth module upgrade – Panasonic ENW89837AxKF Class 2 Bluetooth low energy SPP module
6	27/09/2018	Re-issued to include Leica D Series: - DD120, DD130 Locators, DD220 Smart, DD230 Smart locators with GPS, Bluetooth and Memory and DA220, DA230 Signal Transmitters. This range supersedes the Dig/Ezi ranges.

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Contact Details

Manufacturer

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Sponsor

Alastair Clarke
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Alastair.clarke@networkrail.co.uk

Lead Reviewer

Issue 4

Timi Ajasa
Network Rail –Product Acceptance
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Issue 5

A handwritten signature in black ink, appearing to read "Chris Browne", on a white rectangular background.

27/05/2016

Chris Browne
(Acting) Principal Engineer
Plant and T&RS - Mechanical & Electrical
Engineering – Network Rail STED

Issue 6

Adrian Vyse
Principal Conformance Engineer,
Network Certification Body
Adrian.Vyse@networkrail.co.uk

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General Terms & Conditions

1) General

- 1) This certificate can only be amended by Network Rail Product Acceptance. Any alterations made by a different person will invalidate the entire certificate.
- 2) Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.
- 3) Upon the review date this certificate and the product it relates to is invalid and not accepted for use. Manufacturers are to make an application for a review prior to the review date.

2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Acceptance Requirements and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Product Acceptance:
 - a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (Including corrective action undertaken or proposed).
 - b. Of any intended change to the accepted product; changes include:
 - i. a change to the product configuration (to the actual product or its application);
 - ii. a variation to or addition of manufacturing locations or processes;
 - iii. a change in the name or ownership of the manufacturing company;
 - iv. any changes to the ability or intention to support with technical services, spares or repairs.
- 3) The Manufacturer shall provide Network Rail Product Acceptance at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to the Network Rail Product Acceptance.
- 4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.
- 6) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment Manufacturer (OEM) or authorised agent only.
- 7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.
- 8) In accordance with Network Rail's Quality Assurance Policy Statement 2011, where the specification and/or Product Acceptance Certificates specify quality assurance classifications (QA1 to QA5) for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.
- 9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

3) Conditions of Use

Specifies, installers, operators, maintainers, etc. using the product shall:

- 1) Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Product Acceptance.
- 2) Check that the application of use complies with the relevant certificate's scope of acceptance.
- 3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Product Acceptance.
- 4) Inform Network Rail Product Acceptance in writing of a change to the product configuration (or to the actual product or its application).
- 5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.
- 6) Be appropriately trained and authorised for the installation, maintenance and use of the product.
- 7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.
- 8) Users are to be aware that Product Acceptance is not a substitute for design approval.

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4) Compliance

Railways and Other Guided Systems (ROGS) Regulations

1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsor shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations

2) As required in Railway Group Standard GE/RT8270, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:

- a. All rail vehicle types that have access rights over the area affected by the change
- b. Infrastructure managed by others
- c. Neighbours.

Railway Interoperability Regulations

3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.

4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail Regulation) is required before the equipment is to be used in revenue earning service.

5) Supply Chain Arrangements

1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.

2) Products may be purchased by Network Rail or its agents, suppliers or contractors.

3) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers