GENII RADIO DATA LOGGING SYSTEMS
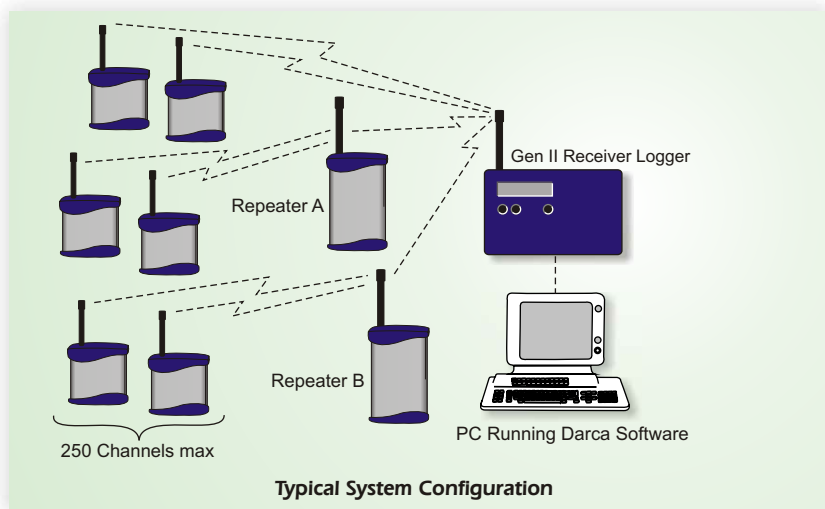
Eltek
S P E C I A L I S T
D A T A   L O G G E R S

Easy to use customised data loggers

The Eltek GenII series is a new range of telemetry products providing reliable radio data logging for a wide range of users and applications. Sensors can be located almost anywhere with reliable and secure collection data assured.

Radio Telemetry offers a cost-effective, flexible and practical alternative to hard-wired data logging systems without forfeiting system reliability or security. The GenII telemetry system does not compromise on the range of sensor types that can be connected, measurement accuracy or metering capability. Consistent performance in a range of environments is ensured by using only the very highest quality licence exempt FM low power radio modules.

Gen II Receiver Logger

Repeater A

Repeater B

PC Running Darca Software

250 Channels max

Typical System Configuration

Radio Telemetry Logging System Features

- UHF
- Wireless connection of sensors
- 12 bit resolution for high accuracy
- 250 channel system capability
- Easy system design and installation
- Flexible configurations for permanent and temporary installations
- Complete turnkey system solution
- Range easily extended by Repeaters
- Options for use in extreme ranges of temperature and physical environments
- Tamperproof indoor or outdoor wall mounting bracket

Transmitter Features

- High performance crystal controlled transmitter compliant to EN-300-200-1
- Up to 12 Channel capability for each transmitter
- Wide range of sensor types
- Sensors can be integral, external or a combination of both
- Inputs available for Voltage, Current, Temperature, Pulse, Digital or Light
- Program from PC or Receiver Logger
- Battery operation allows flexible and rapid installation
- Powered by standard alkaline batteries
- 5 - 10 year typical battery life
- Compact size and light weight
- Unobtrusive rugged aluminium customised case and wall bracket

Receiver Logger Features

- Data Logger with integral receiver
- Models available with up to 8 wired-in sensors
- Alarm and GSM text output
- Built-in standby battery
- 247K readings expandable to 2M readings

- Transmitter battery alarm
- Display and keypad for "on line" metering
- Dual RS232 Serial Ports
- Darca setup, graphing and data export software

Repeater Features

- Contains high performance Receiver and Transmitter compliant to EN-300-200-1
- Extends range of transmitters many fold
- Antenna socket permits use of external antenna to improve performance in difficult conditions

- Multiple repeaters can be used within the system
- Mains powered with built-in rechargeable battery back up
- Wall Bracket
- Black list blocks unauthorised transmitters

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What is radio Telemetry?
Simply the transfer of information using radio as the bearer.

What are its advantages over wired or cabled-in systems?
Wireless systems offer an almost unlimited freedom to site sensors. Information is collected by the sensors and periodically transmitted to the Receiver Logger for PC analysis or real time metering.
Transmitting over the Licence-exempt Low Power Radio (LPR) spectrum means no annual licence fee, and the use of standard system modules allows rapid systems design, installation and expansion.

Where is it currently used?
The Eltek Radio Telemetry System is designed as a total system solution. Existing installations include environmental monitoring, the storage of sensitive chemicals and drugs and the monitoring of manufacturing processes. Customised thermal barriers are available for through-process measurement in extreme temperatures.

Eltek Support
Eltek's Technical help line is there to assist from project conception to completion. A three year warranty is standard.

Technical Specifications

Common Features	GenII Radio data logging system
UHF Frequency	434.225MHz (Europe and countries where applicable)
Compliant to	EN 300-220-1

Radio Repeater	Type RP250GL
Ambient Temperature	10 to +55C
Humidity	Up to 95% (non condensing)
Power supply	12VDC at 500mA (Type MP12U, 97-263V AC input)
Batteries	6 x AA Ni Mh battery
Backup battery life	Typically 24 to 48 hours dependant on activity
Dimensions	D 41mm x W 80mm x H 125mm
Weight	500g inc. batteries
Receiver	Crystal controlled
Antenna connector	SMA 50 ohm female
Black List	Unauthorised transmitters are barred

Receiver Logger	Type Rx250
Number of channels	Up to 250
Number of transmitters	Up to 125
Ambient Temperature	-10 to +55C
Humidity	Up to 95% (non condensing)
Power supply	12VDC at 500mA (Type MP12U, 97-263V AC input)
Batteries	6 x AA Ni Mh battery
Backup battery life	Typically 24 hours
Memory	247K readings expandable to 2,000,000 readings
Clock Accuracy	I second/day at 20C
Dimensions	D 60mm x W 180mm x H 120mm
Weight	1Kg inc. batteries
Case material	Scratch resistant Noryl coated ABS
PC/modem interface	RS232C up to 38.4K Baud
Options	Alarms
Receiver	Crystal controlled
Sensitivity	UHF: 115db
Antenna connector	SMA 50 ohm female

Transmitters

For detailed transmitter types and specifications, see technical datasheet TD1071.

Accessories	
External antenna	Light weight dipole
WBG	Wall bracket for added security and difficult surfaces

Darca Plus Software
Downloading **A**nd **R**emote **C**ontrol **A**pplication

- ·System set-up
- ·Data analyser
- ·Local connection to data logger via PC serial port
- ·Remote connection via modem
- ·Export to popular spreadsheets
- ·Intuitive use and Wizard for first time users
- ·Real time metering via bar/needle
- ·Real time metering via graph
- ·Graph display options include: 3D, zooming, custom axes, statistics including threshold
- ·Engineering units conversion on graphs
- ·Customise and save graphs
- ·Insert text/comments at points of interest on graph
- ·Graphing can be paged or scrolled
- ·"Shed" scheduling utility
- ·Settings can be password protected
- ·Transmitter low battery warning and voltage display
- ·Set up transmitters from Darca
- ·SMS messaging using GSM modem
- ·Ethernet connectivity
- ·Program transmitter from PC or Receiver Logger

FDA 21 CFR Part 11
Darca Secure is a version of the Darca Plus software designed in line with the recommendations as prescribed in FDA 21 CFR Part 11. It is primarily for the Pharmaceutical market and requires a special Data Logger type 1000SC

Guarantee Equipment manufactured by Eltek is guaranteed against faulty materials or workmanship for three years. For repairs carried out under guarantee, no charge is made for labour, materials or return carriage.

CE *The basic logger is manufactured under licence from Grant Instruments (Cambridge) Ltd.*

QMS
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REGISTERED FIRM

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