PENETRADAR CORPORATION

Portable GPR System

IRIS-P CONTROL UNIT

Description:

The Portable Integrated Radar Inspection System - IRIS Version P is a self contained, low cost single antenna ground penetrating radar system designed for applications requiring field portability. The IRIS-P includes a digital GPR control unit and real-time data acquistion/ processing system with high intensity12 Inch SVGA data display, touch screen control and internal hard disk storage. This system was designed to operate with all of Penetradar antennas and IRIS software. Standard features of the IRIS-P include DMI input for distance tagging, USB data ports for data download and connection of peripherials, GPS port and IRIS Software.

Features:

- ◆ Complete Integrated Radar Inspection System - Includes GPR, Data Acquisition/Processing Computer and Software

- ◆ Built-in high intensity (sunlight readable) SVGA Display, touch screen control and internal hard disk data storage

- ◆ Low Cost and Easy to Use

- ◆ Rugged Design for Man-Portable Use in the Field or Low Speed Vehicular Installation

- ◆ Digital GPR Control Unit with Interchangeable Antenna and Transceiver Units

Applications:

- ◆ Geotechnical investigations, manual site inspections, concrete evaluation, layer thickness and rebar depth measurement.

- ◆ Detection of subsurface utilities and UST's

- ◆ Low cost pavement and bridge deck inspection.


IRIS ANTENNAS

PENETRADAR
CORPORATION

Niagara Falls, NewYork 14304 U.S.A.
716-731-4369 Tel 716-731-5040 Fax
www.penetradar.com

3 - USB PORTS

ANALOG OUTPUT

GPS SERIAL PORT

12.1 INCH SUNLIGHT READABLE LCD WITH TOUCHSCREEN

LCD PANEL CONTROLS

RUGGED CARRYING CASE DESIGN

IRIS-P Digital Control Unit

Operation

IRIS-P GPR data are acquired by the onboard data acquisition subsystem and stored on the internal hard drive. Acquired data are displayed on the high intensity TFT LCD screen and analyzed immediately on the IRIS-P console or transferred via USB for archival storage or download to an office PC.
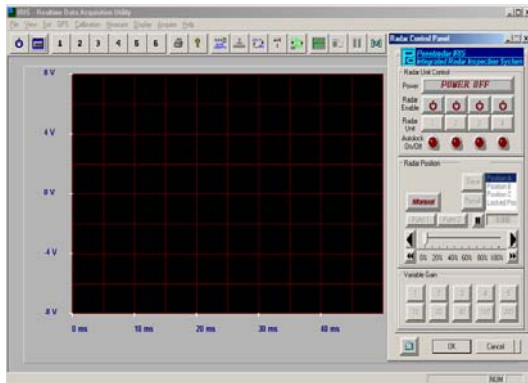
The IRIS-P virtual control panel facilitates user setup and operation of radar system, acquisition parameters and signal display, with convenient touch screen operation. The IRIS-P accomodates direct connection to an external keyboard, mouse and other Windows based USB peripheral devices. Several optional components are available, including external power sources, transport cart, Distance Measurement Instrument (DMI) and GPS receiver.

IRIS-P System Specifications

System Configuration:
One antenna, either contacting or non-contacting, Model 30AGC, 60AGC, 301B, 401B, 501B, 1001B, 2001B
Power Requirements:
Input Power: 12VDC @5.5A or 110/220VAC 60/50Hz @ 0.6A/0.3A
Radar Video Fully coherent, bipolar, +/- 10 volts max, 3 kHz bandwidth.
Video Output Gain Selection: 1,2,3,4,5,10,20,40,100,200 over direct receiver output.
Dimensions/Weight:
20.5in/52cm (w) x 17in/43cm (l) x 8.9in/22.6cm (h), 38 lb (17kg)
Input/Output:
Radar Video Out, Radar Sync Trigger Out, GPS Port, Power Input, DMI Input, (3) USB Ports
CPU: Processor - 1.6GHz CPU 1GB Ram, 60GB Internal HD
Data Acquisition Subsystem: 12bit, 80kHz
Display & Touchscreen
12.1in sunlight readable Color TFT 800x600 resolution, 1300nit with resistive touchscreen, standard

Ordering Information

A standard IRIS-P configuration includes:
   • Digital Radar Control Unit,
   • Antenna
   • Antenna Boom (or Handle)
   • 25ft (7.7m) antenna cable
   • IRIS Software
Model IRIS-P - XXXX - YY
(XXXX) corresponds to antenna model
(YY) corresponds to transmit pulse width, i.e. 1.0ns, 2.0ns, 3.0ns