SMS Messaging
- Four active low inputs generate SMS messages
- Four active high inputs generate SMS messages
- Two normally open relay outputs activated by incoming SMS messages
- Two normally closed relay outputs activated by incoming SMS messages
- Optional validation of caller number for incoming SMS messages

Status Indicators
- LED indicators for:
  Ethernet connection activity
  GSM/GPRS connection activity
  ISDN status
  PSTN status
  Data port activity
  POTS port activity
  Polling successful

Power
- Supply voltage 12vDC Nominal

Physical
- 150mm x 140mm x35mm (boxed)
- Cables provided

IRIS 800-00

The **IRIS 800** takes the output from a standard digital communicator, which would normally connect to a telephone line, and converts it into the TCP/IP format. It can be used to transmit alarm signals over any TCP/IP Network (including the Internet) using Fast Format, Contact ID or SIA signalling. It will work with any existing Digicom. The system can poll between **IRIS 800** and Receiver to provide a secure signalling path. It can also be used with Downloader for remote maintenance over the network. The **IRIS 800** can also be used with any modem to send data, which would normally be sent over a telephone line over a TCP/IP Network.

IRIS 800-10

As **IRIS 800-00** but unboxed half size PCB with connection for 12v feed from panel or PSU.

IRIS 820-00

As **IRIS 800-00** with the addition of a secondary signalling path using either PSTN or ISDN. The secondary signalling paths are monitored and any failure notified to the central station over the primary path.

IRIS 820-10

As **IRIS 820-00** but unboxed PCB only, with connection for 12v feed from panel or PSU.

IRIS 850-00

As **IRIS 820-00** with additional signalling path using GPRS. This will take any network sim card and requires an aerial. The GPRS can be polled exactly the same as the primary path.

IRIS 850-10

As **IRIS 850-00** but unboxed PCB only, with connection for 12v feed from panel or PSU.

TCP/IP Applications

- Secure signalling on an intruder system
- Replace the Telephone line on a building management system which uses a modem to communicate.
- Replace Telephone line on Access Control Systems which use a modem and telephone line to upload and download data.
- Panel Uploading and Downloading – any Control panel which has a remote servicing facility. The **IRIS** device replaces the telephone line to connect over the network.
- Fire Alarms - Signalling and remote access.
- Monitoring of Fridge Temperatures (using Intruder alarm)
- Using **IRIS 820** to monitor the ISDN connection of a Transmitting CCTV System.
- Using **IRIS 850** as a stand-alone transmitter for alarm reporting. This does not need a hardwire network but works purely over GPRS. Ideal for remote sites.

PD6662:2004
These products have been independently tested to EN50136-1-1:1998 and prEN50131-1:2004. They are suitable for use on any system installed up to PD6662:2004 Grade 4.

IRIS 800 - Tested to ATS 6.
IRIS 820 - Tested to ATS 6 (IP) and ATS 4 (ISDN/PSTN).
IRIS 850 - Tested to ATS 6 (IP and GPRS) and ATS 4 (ISDN/PSTN)

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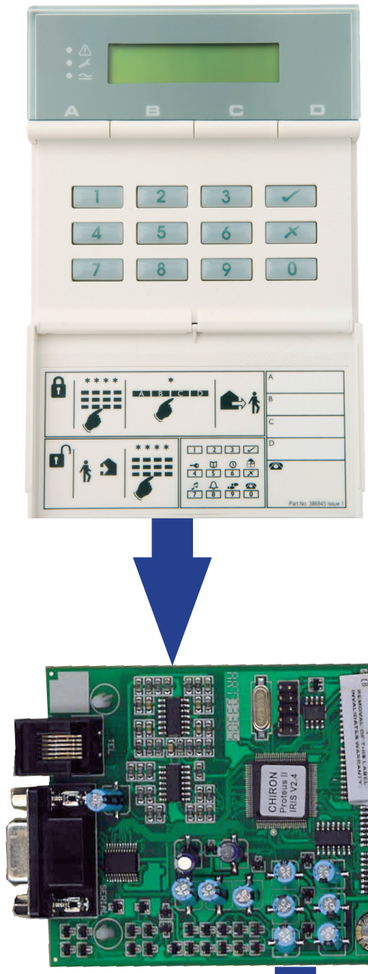
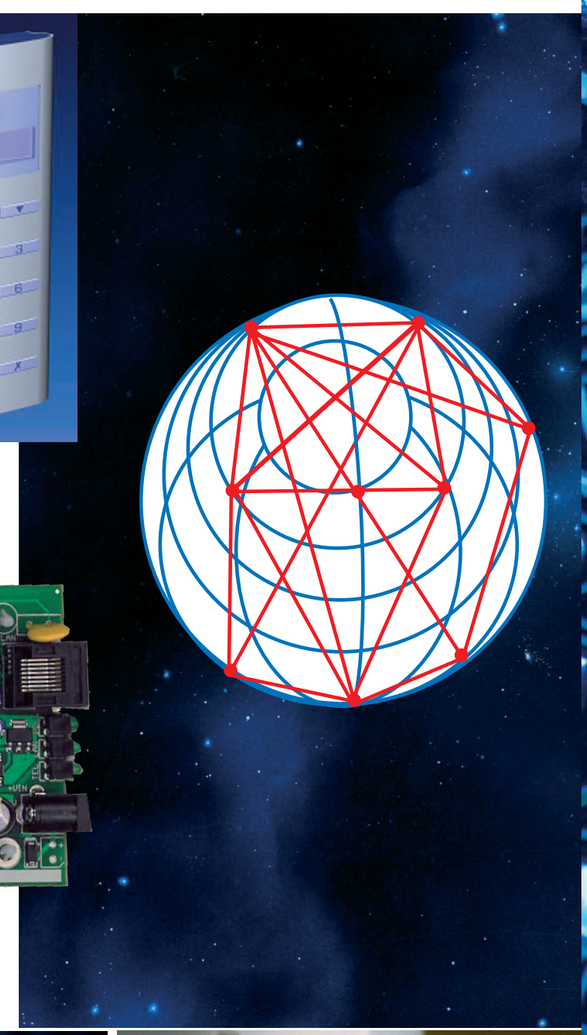
CHIRON

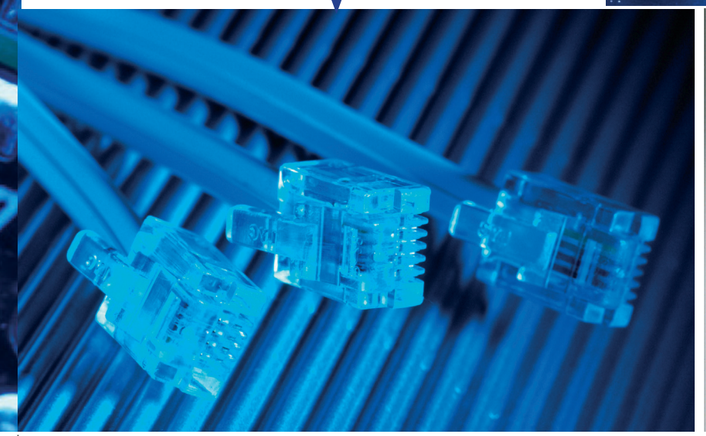
Independently tested and suitable for use on any PD6662:2004 system, up to Grade 4

COOPER Security

IP ADAPTORS FOR SECURITY ALARMS







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IP ADAPTORS FOR SECURITY ALARMS

The **IRIS** range of IP Adaptors is part of Cooper's comprehensive **Alarm-Over IP System**. A wide range of **IRIS** adaptors is available. These offer a cost-effective way to connect any alarm equipment across IP networks. With the **IRIS** units, most alarm systems with a standard PSTN dialler can now be connected across all IP networks, including corporate LAN's, ADSL and GPRS. This simple approach means alarm equipment can be easily migrated away from dial-up links to IP networks, thus offering significant communications cost savings. Within the **IRIS** range, options also exist for alternative backup communication paths, with alarm messages being transmitted over PSTN, ISDN, GSM or GPRS.

An integrated IP Polling mechanism, within the **IRIS** range, provides regular confirmation of integrity of the unit and of the communication paths, including backup communication routes. All the **IRIS** units have this Polling feature, which is a unique part of the total IP system from Cooper Security.
In combination with **IP Management Suite** the **IRIS** offers ARCs (Alarm Receiving Centres) and Security Managers a flexible, easy-to-use and cost-effective migration to IP. The major features of the **IRIS** series of IP Diallers are:-

- All communications across the IP network are protected and secured with a high level of authentication and encryption.
- Support calls for remote alarm system management can be made over the IP network.
- Each unit in the **IRIS** range also has a data port that supports Hayes modem commands.
- Outgoing SMS messages can be generated on alarm panel activity, communications path failures and pin activations. Incoming SMS messages can be used to activate relay outputs (only available on **IRIS 850**).
- Installation and configuration of the **IRIS** range is very simple, in most cases, requiring no special knowledge of IP networks. For more complex installations (e.g. with SMS) configuration console software for a PC is available.

The **IRIS** range is available in a boxed unit or PCB format, for installation within the protected alarm housing where it can benefit from battery backed power supply and tamper protection.

Models

IRIS 800 Ethernet interface plus analogue 2-wire telephone port for connection to the Digicom also has a serial data port.

IRIS 820 - As above, with PSTN and ISDN backup routing for alarm transmission.

IRIS 850 - As above, with GPRS and GSM backup routing for polling and alarm transmission, and SMS messaging.

By connecting to the alarm panel via a standard PSTN dialler interface and with support for several industry standard alarm protocols, the **IRIS** series is compatible with virtually all alarm systems. The range supports Fast Format (Scancom), Contact ID and SIA (up to Level 3) protocols with automatic detection of the protocol in use.

High Reliability

With a wide range of back-up communication paths available, the **IRIS** range allows highly reliable alarm transmission systems to be installed. The installer has complete flexibility in selecting which primary and backup routes to use. End-to-end acknowledgement ensures reliable delivery of alarm messages.

Constant Monitoring

Polling over the IP network, with backup over GPRS if required, can be set from 10 seconds for high security sites down to 40 minutes for less sensitive installations. Polling monitors the integrity of the alarm installation and the status of all communication paths (including backups) in use.

Security

The **IRIS** range uses a unique security key to protect against substitution by other devices and to encrypt the alarm messages transmitted. Key lengths up to 256 bits give a very high level of security and the key management procedure does not require the installer to have any access to the key.

Choice of IP Networks

The **IRIS** range uses Ethernet as the interface to the IP network and is compatible with industry standard routers, switches or xDSL modems etc. Connection can be across a private network, public network and even through gateways between private and public networks. Dynamic IP addressing (DHCP) is supported, so in most cases the user's IT department does not have to make any special network settings and the installer does not need to have any knowledge of IP networks.

SMS Messaging

The **IRIS 850** adds a range of SMS messaging features that can be used in association with the standard alarm transmission. Outgoing messages can be used to give information simultaneously, as the alarms are transmitted to the ARC, or to provide information not normally sent to the ARC. Secure incoming messages can activate relay outputs for control of on-site equipment.

Ease of Installation

The **IRIS** range is designed for anyone familiar with alarm panel installation. No special cabling is required and the installer does not need to have detailed knowledge of IP networks and protocols. In standard installations, no special tools are required.

For more complex installations, e.g. where fixed IP addressing is required or where SMS messaging is in use, Cooper Security can provide configuration console software to run on a lap-top PC. This is connected to the **IRIS** via a standard modem cable.

The **IRIS** adaptors can also be offered as 'desk top' units for applications where there is insufficient room within the main alarm housing.

Technical Details

Analogue POTS Interface to Alarm Dialler
- Standard 2-wire POTS interface via RJ11 socket
- 60V on-hook with 20mA line feed off-hook
- Emulates standard analogue PSTN line with on/off hook detection, local dial and ring tone generation
- DTMF tone recognition
- Ring signal generated on incoming call

Ethernet Interface
- 10Mbps and 100 Mbps (10/100 BaseT) with auto-negotiation
- UTP
- Standard RJ45 socket
- Auto-sensing of Ethernet 802.2, DIX and SNAP formats
- ARP (Address Resolution Protocol) support
- Dynamic IP addressing (DHCP)

PSTN interface (820, 850)
- RJ11 socket to accept existing PSTN wiring
- Interface conforms to European TBR21 specification

ISDN Interface (820, 850)
- Basic rate 2B+D, Q.921 and Q.931 Euro compliant
- Standard RJ45 socket
- 'S' bus compatible, Point-Multipoint or Point-Point
- Conformance to European TBR3 specification
- Voice and data calls supported

GSM and GPRS Interface (IRIS 850)
- Dual band (900/1800 MHz) for compatibility with majority of GSM networks
- MMCX socket for external aerial connection for optimum aerial location
- GPRS data calls for polling and alarm transmission
- Incoming and outgoing SMS messaging

Data interface
- Standard 9-way D type connector
- Control via 'Hayes' commands or configuration software
- Baud rates up to 115200 bps
- RTS/CTS flow control
- Data calls over ISDN and Ethernet supported

Polling
- Configurable polling interval (10secs to 40mins) set by ARC
- IP receiver address and account number automatically picked up from alarm dialler
- Alternative primary and backup numbers can be loaded by ARC
- Status of all communications links reported to ARC

Alarm Transmission
- Routing of alarm calls over IP/GPRS or PSTN/ISDN determined by dialled number from alarm system
- Alarm messages acknowledgement by receiver to ensure reliable transmission
- Fast Format (Scancom), Contact ID and SIA (to Level 3) supported

Security
- Protection against substitution on IP networks by authentication using CHAP/MD5 algorithm
- Alarm messages over IP encrypted with RC4 cyphering
- Key length up to 256 bits
- Key loaded by ARC - installer does not need to see key

Alarm System Management
- Management of attached alarm system via incoming or outgoing modem call over PSTN, ISDN or Ethernet.
- For calls over Ethernet, another **IRIS 800** is used to connect remote modem to the IP network.

coopers ethernet 2005.indd 2
02/11/2005 10:05:57