



Kessler-Ellis Application Note F024

Communicating with the Intellect 69 via Modem and Telephone Lines

Requirements

- Hayes compatible modem connected to Intellect 69
- RS232 cable to attach the modem to Intellect 69
- Modem and communications software for your PC

General

The Intellect 69 RS232 interface is a simple 3 wire communication system, pins 2 and 3 carry data and pin 7 is the signal ground. Modems usually require some additional hardware handshaking signals therefore jumpers may have to be added to some of the modem inputs in order to make it fully compatible with the Intellect 69.

The communications protocol used is: 8 data bits, 1 stop bit, no parity, baud rates supported by the Intellect 69 are 300, 1200, 2400, 9600

Cable Connections Between the Modem and the Intellect 69

Modem side 25 pin connector

Intellect 69 side 25 pin connector

TD (pin 3)	connect to	RD (pin 2)
RD (pin 2)	connect to	TD (pin 3)
GND (pin 7)	connect to	GND (pin 7)

RTS (pin 4)--|
CTS (pin 5)--| jumper together

Modem Configuration

The modem must be configured in the following manner in order to work with the Intellect 69.

- Disable data compression if present
- The modem must ignore the Data Terminal Ready signal (DTR)
- The Data Carrier Detect signal (DCD) must be set by the modem when the remote carrier is detected
- Auto Answer must be enabled
- The modem must be in the Answer mode
- Result codes must not be sent

The above setup can be achieved either through the optional switch settings on the modem or by setting up an AT command string. Refer to your Modem Manufacturer's manual for details.

As a guide, the following AT commands should configure the modem in the required manner.

- AT&D0
- AT&C1
- ATSO=1
- ATA
- ATQ1

The modem should be able to save these settings in the event of Power loss. If this is not the case then the modem will have to be reconfigured after every power outage. In order to save the settings use the &W0 command. Note that some modems do not require the ATQ1 setting.