

PRODUCT BULLETIN

Accessory Option

MICROSCAN

IB-105 Interface Box

Used when you want the convenience of easy connectivity, to multidrop the MS-710 scanner, or to convert signals for long distance transmission (option 5).



IB-105

Specifications:

- ◆ **MECHANICAL:**
Length: 4.5 in. (114.3 mm)
Width: 3 in. (76.2 mm)
Height: 1.5 in. (38.1 mm)
- ◆ **COMMUNICATIONS:**
RS-232, RS-422, RS-485
- ◆ **ENVIRONMENTAL:**
Operating Temperature: 0° to 50°C
Humidity: 90% @ 40°C maximum
- ◆ **ELECTRICAL:**
Supply voltage input: Regulated +5 VDC @ 20 mA
Maximum ripple: 200 mV p-p with MS-710 +5 VDC @ 500 mA

Important ordering information:

The part number for the IB-105 is **99-420001-XX**. Please note which option you are interested in when ordering (-XX indicates options -01 through -05).



MS-710

The IB-105, designed for the MS-710 scanner, is available in five options. It routes signals between the scanner and other devices and accommodates RS-232 and RS-422/485 interface standards.

IB-105 Features

| |
|----------------------------|
| New Master Switch |
| Trigger Connector |
| Internal Relay Contact |
| Default Switch |
| Power Switch |
| Power Connector |
| Mode Switch |
| 25-pin (host) Connector |
| RS-485/422 (LAN) Connector |

IB-105 OPTIONS

Option -01

Use this option to communicate to the host via RS-232 (with RTS/CTS or Aux) or RS-485.

- **Switch OUT:** When the Mode switch is OUT, the host port can be used either for RS-232 with RTS/CTS to the host (**Figure A**) or for communicating with an auxiliary terminal and the host without RTS/CTS (**Figure B**).
- **Switch IN:** When the Mode switch is IN, RS-232 is converted to RS-485 levels which are present at both the RS-422/485 LAN connector and the 25-pin "RS-232" connector (**Figure C**).

Figure A

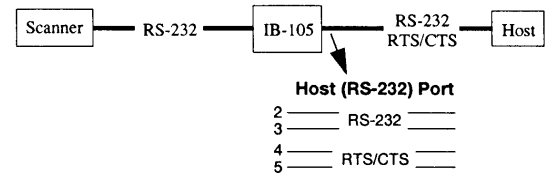


Figure B

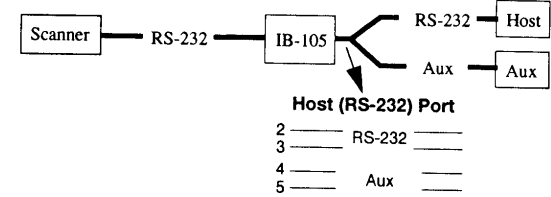


Figure C

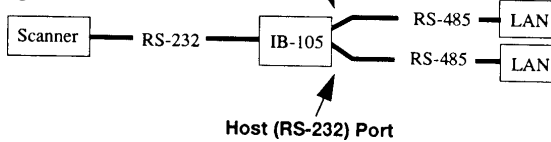


Figure D

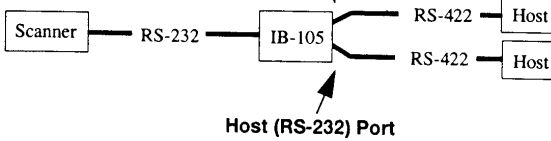


Figure E

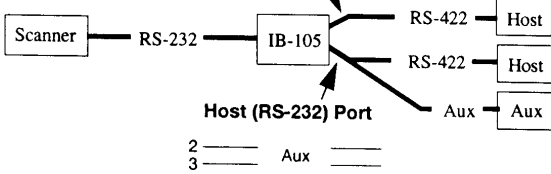


Figure F

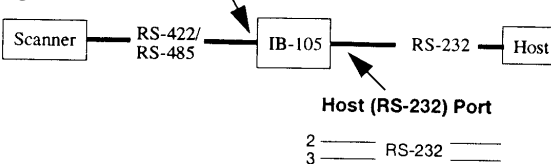
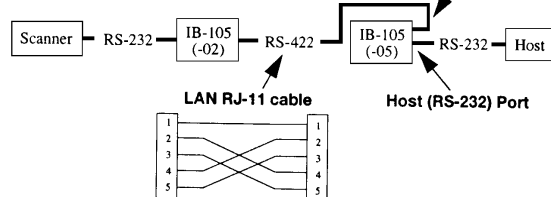


Figure G



With Option -01, switch IN, the scanner must be set up for Multidrop communications. Also, pin 4 of the RS-232 host connector is not available.

With Option -03, the mode switch must be IN for proper operation.

With Option -05, the mode switch, scanner connector, and trigger connector are not used.

Option -02

Use this option to communicate to the host via RS-232 (with RTS/CTS or Aux) or RS-422.

- **Switch OUT:** Same as Switch OUT of Option -01.
- **Switch IN:** When the Mode switch is IN, RS-232 signals (TXD, RXD) are converted to RS-422 levels which are present at both the RS-422/485 (LAN) connector and the 25-pin "RS-232" connector (**Figure D**).

Option -03

This option allows a standard RS-232 cable to connect pins 2 and 3 to the auxiliary port while host communication is handled by RS-422 through the RS-422/RS-485 port (**Figure E**).

Option -04

This option is designed to work with a special MS-710 scanner that has an internal RS-422 chip in place of the standard RS-232 chip. The IB-105 converts RS-422/485 signals to RS-232 for communications to the host. Pins 2 and 3 are the only host (RS-232) port pins that are active in this configuration (**Figure F**).

Option -05

This is a special option to convert RS-422 signals to RS-232. It is typically used in long distance (up to 4000 feet) communications in conjunction with another IB-105. The first IB-105 (an -02 option) converts the scanner signals to RS-422; the second IB-105 (an -05 option) converts them back to RS-232 for communication with the host (**Figure G**).