

DIP SWITCH SETTINGS

Top Bank of 10 Switches

Switches 1-5 - BAUD

Select the appropriate baud rate. This adjusts the time delay for the automatic RS485 driver controller. Only one of the baud switches should be in the ON position.

Switches 6-7 - PULL UP / PULL DOWN

These switches connect 4.7 K Ω biasing resistors to the A and B lines of the 485 receiver. To minimize loading of the network, these should only be used if no other device in the system provides biasing.

Switches 8-9 - OFF 4 WIRE / ON 2 WIRE

These switches can be used to internally jumper the A and B lines of the RS485 driver and receiver together. This allows 2-wire operation without the use of external jumper wires. To use the RJ-11 connector, the ICM5 must be in 2-wire mode. Both switches should be in the same position.

Switch 10 - 120 Ω TERMINATION

This switch connects a 120 Ω resistor across the A and B lines of the RS485 receiver. The use of the resistor prevents signal reflection, or echoing, at high baud rates, over long distances. This should only be turned on if the ICM5 is the first, or last, device in a multi-drop network that is experiencing reflection due to long cable distances.

Bottom Bank of 7 Switches

Switches 1-2 - OFF 422 / ON 485

These switches enable and disable the automatic RS485 driver control. In the 422 position, the driver is always enabled, allowing 4-wire full duplex operation. In the 485 position, the driver is enabled as soon as characters are received on the RS232 side. When the RS485 driver has transmitted the last character, it waits one character time (at the selected baud rate), and then enters a high-impedance state. The receiver is also enabled and disabled in a similar fashion to prevent transmitted characters from being echoed back. This allows 2-wire, half-duplex operation, without the use of handshake lines. Both switches should be in the same position.

Switch 3 - N/C

No Connection

Switches 4-7 - OFF DCE / ON DTE

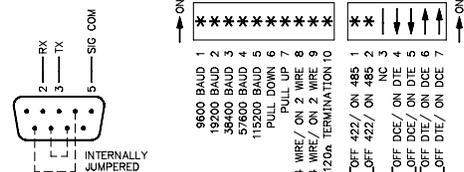
These switches configure the RS232 port to act as a DCE or DTE device. With all of the switches in the DCE position, pin 2 of the DB-9 connector is the RS-232 receiver, and pin 3 is the RS232 transmitter. DTE configures pin 2 as the transmitter, and pin 3 as the receiver. These switches allow the use of modem or null-modem cables. All of these switches should be in the DCE or DTE position. No other combinations are valid.

DEFAULT SETTINGS

BAUD RATE 9600
DCE
2 WIRE \ RS485
NO TERMINATION
NO PULL-UP OR PULL DOWN

TYPICAL RS232 CONNECTIONS

DCE

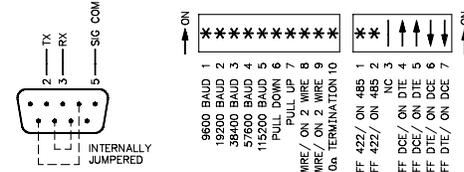


Note:

Connect shield (drain wire) to earth ground.

* - Application Dependent

DTE

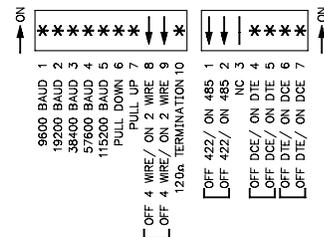
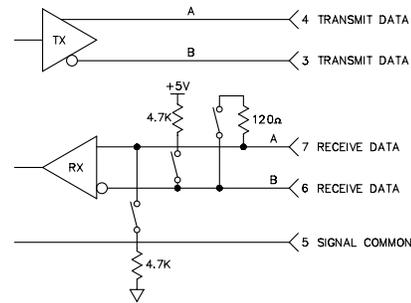


Note:

Connect shield (drain wire) to earth ground.

* - Application Dependent

TYPICAL RS422 CONNECTIONS

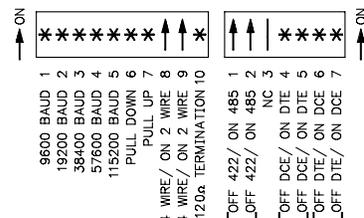
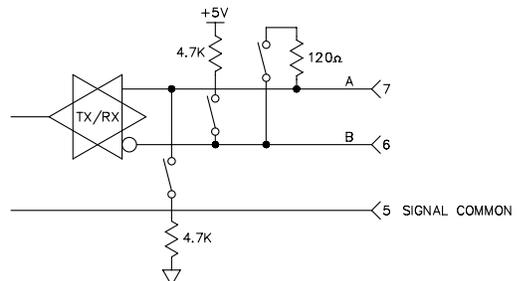


Notes:

1. Connect shield (drain wire) to earth ground.
2. RS422 polarity: Terminal "A" is negative with respect to Terminal "B" in the mark (logic 1) condition.

* - Application Dependent

TYPICAL RS485 CONNECTIONS

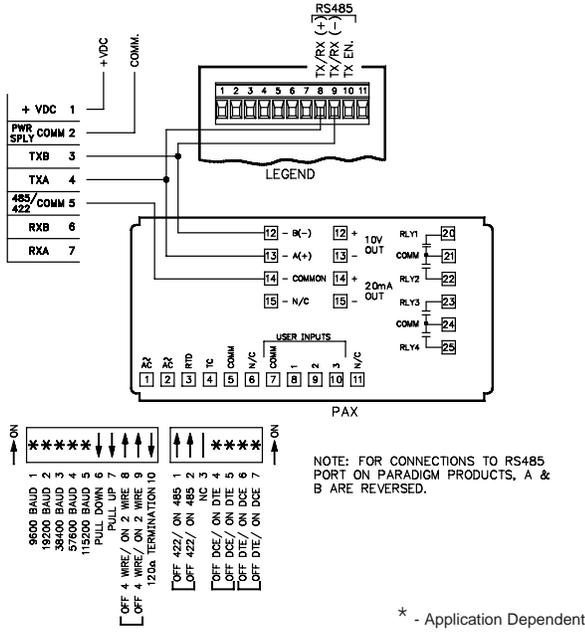


Note:

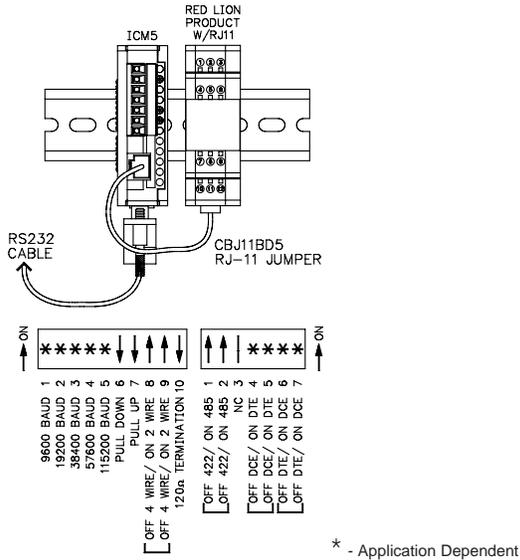
Connect shield (drain wire) to earth ground.

* - Application Dependent

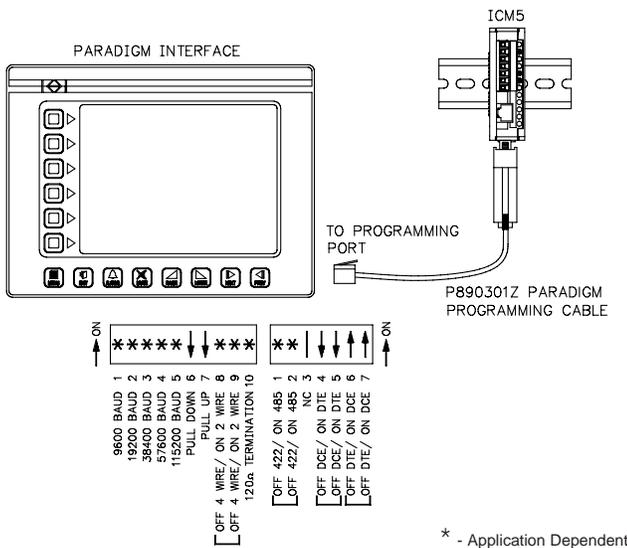
TYPICAL CONNECTION FOR RS485 DEVICES



TYPICAL RS485 CONNECTIONS USING RJ-11



CONNECTING TO PARADIGM INTERFACE

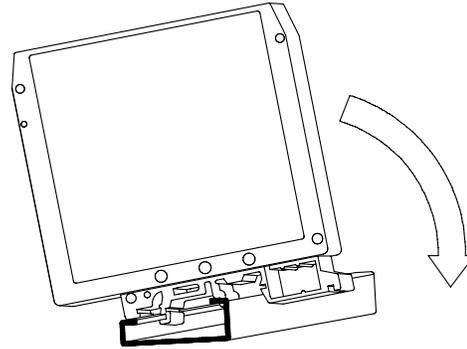


INSTALLATION

The unit is equipped with a universal mounting foot for attachment to standard DIN style mounting rails, including G profile rail according to EN50035 - G32, and top hat (T) profile rail according to EN50022 - 35 x 7.5 and 35 x 15. The unit should be installed in a location that does not exceed the maximum operating temperature and provides good air circulation. Placing the unit near devices that generate excessive heat should be avoided.

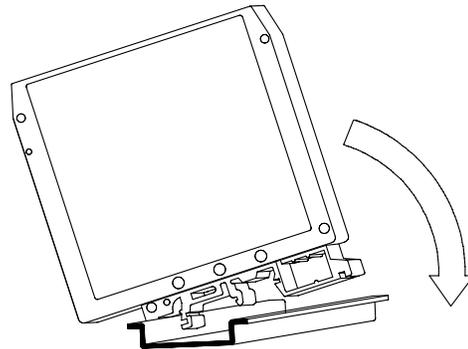
G Rail Installation

To install the ICM5 on a "G" style DIN rail, angle the module so that the upper groove of the "foot" catches under the lip of the top rail. Push the module toward the rail until it snaps into place. To remove a module from the rail, push up on the bottom of the module while pulling out away from the rail.



T Rail Installation

To install the ICM5 on a "T" style rail, angle the module so that the top groove of the "foot" is located over the lip of the top rail. Push the module toward the rail until it snaps into place. To remove a module from the rail, insert a screwdriver into the slot on the bottom of the "foot", and pry upwards on the module until it releases from the rail.



ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PART NUMBER
ICM5	RS232/RS485 Converter Module	ICM50000
CBJ	6" RJ-11 Jumper Cable	CBJ11BD5

TROUBLESHOOTING

For further technical assistance, contact technical support at the appropriate company numbers listed.