



Application Note for using the Operator Station HE500TIU050/10X/11X/20X with the Idec FA3S Series PLCs

Protocol File Name

HE500TIU050 = Idec_R?.0xx

HE500TIU1xx = Idec_R?.1xx

HE500TIU2xx = Idec_R?.2xx

(The "?" = the TIU firmware revision)

Configuring the Operator Station

To verify the Automated Equipment type the Operator Station is setup for, watch the screen of the Operator Station on power up. The first screen message details the setup of the Operator Station. To configure the Operator Station for particular Automated Equipment, select the Automated Equipment in the Communication Settings from the Configure menu in **CBREEZE** software. Select the appropriate Manufacturer and the appropriate Remote Equipment Model. Then from the File menu select Update Protocol, the appropriate file name will appear in the file name field. The programmer may need to point to the correct folder name/location. If further information is required see the manual or **CBREEZE** help on update/change protocol.

Serial Port Format

The Idec FA Series PLCs run at a fixed data format of 8 data bits, Even Parity and 1 stop bit. Baud Rate is adjustable but defaults to 9600 baud.

Connection to the FA3S is via the programming port (8 Way Micro Din Connector) which implements a TTL Level Interface or via an add-on Comms module which supports RS485 for multi-drop support..

Node Address.

This should be in the range of 0 to 31.

Register Type Specification

Register Types fall into two categories Word type and Bit type.

Word Types

- Data registers
- Timer Values
- Counter Values

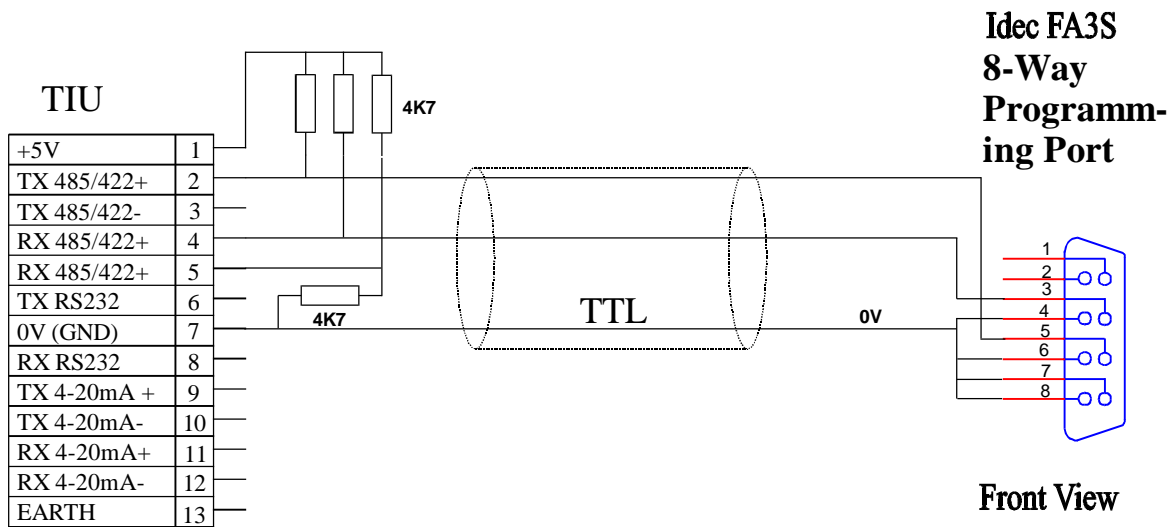
Bit Types

Reads and writes are performed on blocks of sixteen bits with the bits being packed into words at the Operator Station. The size of the block selected is in bits, hence for a block size of forty, forty eight contacts are transferred. For example read three words of inputs starting at X000...

Reads and Writes are supported to the following bit types :-

- Relays (M)
- Inputs
- Outputs
- Timer Status
- Counter Status
- Shift Register

CONNECTING THE OPERATOR STATION TO AN Idec FA3S PLC Programming Port



TIU100/TIU110 to an Idec FA3S RS232 Programming Port

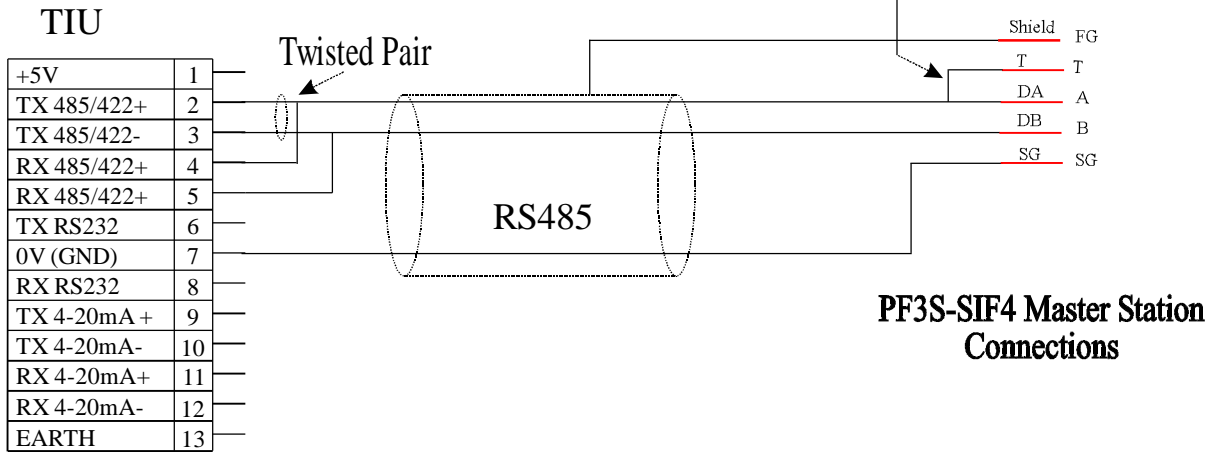
The Programmer Link is a +5V TTL Interface.
The cable must be kept as short as possible .
The recommened length is less than 2Metres.

HORNER
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Date: 03 Dec 2001

Rev	Date	EO #	Description of Change	By
1.0	03/12/01		Initial Release	D.T.

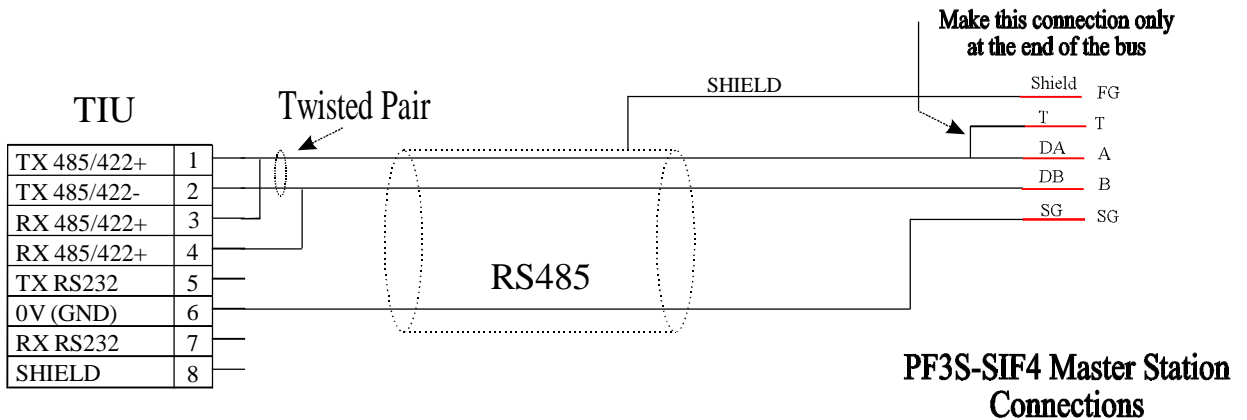
Doc. # APP0397
Title Cable Dwg, TIU - Idec FA3S Programming port
Drawn By: D.T. Rev 1.0
Current EO # Sheet 3 Of 4

CONNECTING THE OPERATOR STATION TO AN Idec FA3S PLC RS485 Port



TIU100/TIU110 to an Idec FA3S

Cable Screened Twisted Multipair Beldon 9503
One Pair Tx/Rx Data, One Pair for 0V
Connect Screen to earth at FA3S end



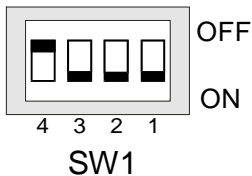
TIU050/TIU20X/TIU1X1/TIU1X2 to Idec FA3S PLC

Configuration Bank

Switch	ON	OFF
1	Pull-up	No Pull-up
2	120 termination	No termination
3	Pull-down	No Pull-down
4	Reserved for future use	

NOTE: Switch 1 and 3 must be used together.

Ensure TIU-PLC Serial Port switch settings reflect any resistors on the TIU side



Rev	Date	EO #	Description of Change	By
1.0	03/12/01		Initial Release	D.T.

 	Unit 1 Centrepoint, Centre Park Rd., Coek, Ireland.
	TEL: +353-21-4321166 FAX: +353-21-4321826 Date: 03 Dec 2001
Doc. # APP0395	
Title Cable Dwg, TIU - Idec FA3S PLC	
Drawn By: D.T.	Rev 1.0
Current EO #	Sheet 4 Of 4