Application Note for Using the Operator Station HE500TIU050/10X/11X/20X with the ABB Procontic PLC's

Protocol File Name

HE500TIU050 = ABB_R?.0xx
HE500TIU1xx = ABB_R?.1xx
HE500TIU2xx = ABB_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.

The Horner APG ABB Procontic protocol supports read and write of: -

- Data (MW)
- Relays (M)
- Inputs (E)
- Outputs (A)
- Analogue Inputs (EW)
- Analogue Outputs (AW)
- Steps (S)
- Constants (KW)

Block Start

The block start is entered omitting the dividing comma hence to specify Input E62,4 enter 6204.

Block Size

For Bit Types (M, E, A, S) the block size refers to individual bits. The bits are subsequently packed into sixteen bit words in the Operator Station, hence 20 bits are packed into two registers and this (20) should be used as the size of the transfer block.
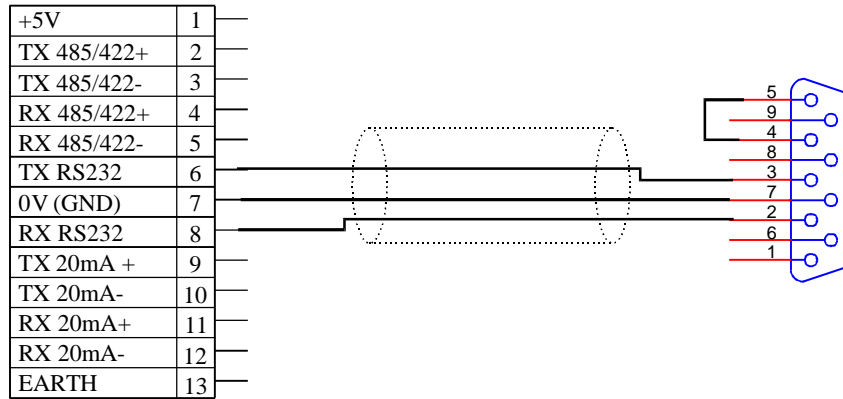For Word Types (MW, EW, AW, KW) the block size refers to sixteen bit words.

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Page 1 of 3

Serial Port Format

The PLC defaults to using 9600 baud, 8 data bits, one stop bit and no parity. Handshaking is not typically required. It may advisable to enable parity checking on the Operator Station and on the PLC due to the fact that the protocol packets do not include checksums and thus are open to corruption in noisy situations.

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Page 2 of 3

CONNECTING AN OPERATOR STATION
AN ABB PROCONTIC PLC

TIU

+5V	1
TX 485/422+	2
TX 485/422-	3
RX 485/422+	4
RX 485/422-	5
TX RS232	6
0V (GND)	7
RX RS232	8
TX 20mA +	9
TX 20mA-	10
RX 20mA+	11
RX 20mA-	12
EARTH	13

TIU100/TIU110 TO AN ABB PROCONTIC PLC

**9 Pin Male
D type (Front)**

TIU

TX 485/422+	1
TX 485/422-	2
RX 485/422+	3
RX 485/422-	4
TX RS232	5
0V (GND)	6
RX RS232	7
SHIELD	8

SHIELD
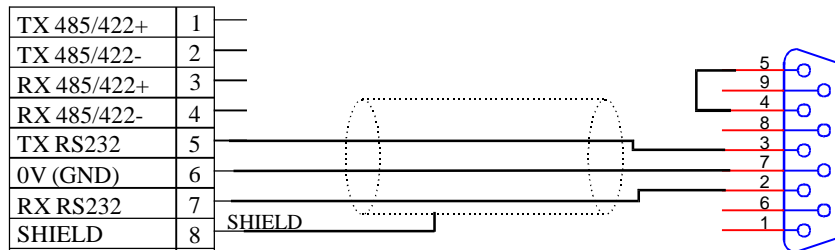
TIU050/TIU200/TIU101/TIU102/TIU111/ TIU 112 TO AN ABB PROCONTIC PLC