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SAFETY WARNING

Always observe standard safety precautions during installation, operation and maintenance of this product. To avoid the possibility of electrical shock, be sure to disconnect the power cord from the power source before you remove the IEC power fuses or perform any repairs.

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PUBLICATION NOTICE

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CHAPTER 1 - DESCRIPTION

GENERAL DESCRIPTION

The TTL-530 Interface Converter is designed to provide signal level conversion between TTL Clock and Data signal levels (Telemetry Equipment) and RS-530 (V.11) DTE (Terminal) equipment.

The TTL-530 accepts TTL signal levels into the Input Ports via BNC connectors. The TTL signal levels are converted to ITU V.11 (Balanced) voltage levels and are then transmitted on the RS-530 Output Port. The Output Port is a DB-25-P (Female) connector with RS-530 pin assignments. The TTL-530 is capable of data and clock transmission at rates up to 10Mbps. A second set of BNC connectors is provided for remote DTE loop back testing.

The unit has two separate TTL to RS-530 converters designed in the same chassis. The chassis is made of sturdy aluminum and may be used as a table top or rackmount unit at 1U (1.75 inches) high. The device is shipped with rack mount ears for standard 19 inch cabinets.

The TTL-530 operates on 115/230VAC switch selectable power. A voltage selection switch is located on the rear of the device. An IEC power connector is provided for power cord connection. A standard three prong (grounded) continental US power cord is provided with the device. Two ten foot long DB-25 data cables are also included with the TTL-530 converter.

The unit has a three year, return to factory warranty. For safety reasons, in the event of operational failure, Do Not Attempt to repair the TTL-530 unit, contact East Coast Datacom technical support toll free at (800) 240-7948. Web Site: www.ecdata.com
FRONT PANEL INDICATORS

The Power indicator, marked **POWER** on the front panel is green and illuminates when AC voltage is applied to the box. Two sets of adjacent Green LED indicators illuminate in conjunction with **Data** and **Clock** control signals.

REAR PANEL CONNECTORS

The rear panel of the TTL-530 has a 110/220VAC switch for selection of the linear power supply and an IEC connector for applying AC power. The unit has two converters designed on the printed circuit card, therefore you will find two sets of connectors marked **PORT 1** and **PORT 2**. Each port has input and output BNC connectors and a DB-25 female RS-530 port that is a DCE interface. The RS-530 port is designed for a RS-530 DTE device to connect into the port.

INVERTED SIGNALS

The TTL-530 has internal strap options for inverting Data and Clock signals. A **Strap Chart** is provided at the end of this manual for reference.

DB-25 DATA CABLES

The TTL-530 is shipped with 10 foot long male to male DB-25 shielded data cables. A cable drawing is attached at the end of this manual for reference.

STRAP CHART

A **Strap Chart** is provided at the end of this manual for reference.
CHAPTER 2 - SETUP AND INSTALLATION

INSTALLATION

Confirm that the 110/220VAC voltage selection switch is set to 110 or 220 for your AC power source. Select an appropriate location accessible to and within six feet of an AC power outlet. The outlet must have a ground pin receptacle for product warranty.

Operation of the TTL-530 is accomplished by first applying AC power to the device and confirming that the POWER indicator is illuminated. The unit has two separate converters on the Printed Circuit Card labeled Port 1 and Port 2. Both TTL and RS-530 input and output signals pertain to either port independently.

Connect either end of the supplied DB-25 cable into the female DB-25 connector marked, PORT 1, RS-530 PORT. Connect the other end of the cable into the RS-530 Data Terminal Equipment (DTE).

You may now connect your TTL input and output signals into the PORT 1 BNC connectors. Connection is as follows: CLOCK IN and DATA IN are the inputs from the device that are generating the TTL data and clock signal levels (Telemetry Equipment ect..). DATA OUT and CLOCK OUT are TTL data and clock signals that have been generated from the attached DTE via a loop back command and are connected back into the Telemetry equipment for testing purposes.
TECHNICAL SPECIFICATIONS

Application
TTL to RS-530 (V.11) Interface and Signal Level Conversion

Capacity
Two (2) TTL independent Inputs and Two (2) RS-530 Output ports

Interface
TTL and RS-530 (ITU V.11)

Data Rates
Up to 10Mbps

Data Format
Data transparent at all data rates

Switches
Signal to Chassis GND option
Clock and Data Inverted Straps

TTL Physical Interface
Female BNC Connectors

RS-530 Physical Interface
Female DB-25 Connector

Power Source
90-120 to 200-240VAC @10%, 50/60Hz,
0.32/0.16A, external 110/220 volt select switch,
IEC Power Inlet, (2) 5mm Fuses

Environmental
Operating Temperature....32º to 122º F (0º to 50º C)
Relative Humidity............5 to 95%
Non-Condensing
Altitude.........................0 to 10,000 feet

Dimensions
Height ........ 1.75 inches (4.44 cm)
Width .......... 17.00 inches (43.18 cm)
Length ........ 9.00 inches (22.86 cm)

Weight
4.5 pounds (2.1Kg)

Warranty
Three Years, Return To Factory

ORDERING INFORMATION
Model: TTL-530
Description: TTL to RS-530 Converter

INCLUDED WITH EACH UNIT:
1) Installation Guide
2) Two(2) 10 foot DB-25 M/M Cables
3) Rackmount Kit

For further detailed technical information on this product, contact East Coast Datacom Technical Assistance at (407) 637-9922.