Feb. 21, 2002 **ASC-232/V.11 TECHNICAL INFORMATION**

DESCRIPTION

The ASC-232/V.11 Asynchronous to Synchronous Converter is designed to allow RS-232 async start/stop terminal equipment(DTE) to transmit over higher speed RS-530, RS-422, V.35 or X.21 modems(DCE). The ASC-232/V.11 devices are used in pairs, one at each end of the communication link between the Modem and Terminal device. The receiving converter converts incoming sync data to async start/stop character format with start/stop bit insertion as outlined in CCITT recommendation V.22. An option for Extended Signal Rate (Stop Bit Reduction) is provided when the async data rate is faster (1-2%) than the sync data rate.

The ASC-232/V.11 supports async data of 8, 9, 10 and 11 bits, including the start and stop bit. Standard data rates from 1200 to 38.4Kbps and 3/4 rates of 900 to 28.8Kbps are supported for synchronous transmission. The ASC-232/V.11 automatically adjusts the sync data rate to match the DTE's output rate. Selection of standard or ¾ data rates is required before the ASC-232/V.11 automatically adjusts to the clock rate.

The ASC-232/V.11 is supplied with female DB-25 connectors. The RS-232 port is standard pinout conventions. The V.11 port is pinned to RS-530 conventions.

CAUTION: Disconnect Power Before Servicing
ATTENTION: Couper Le Courant Avant l' Entretien
VORSICHT: Befor Deckung Abnehmen Mach Strom Zu

VOLTAGE SELECTION

It is *very* important to check that the unit is set to the correct voltage setting for your application before applying AC power. Located on the rear of the unit you will find a rotary 110/220 VAC switch. Using a coin or small screwdriver, *gently* turn the switch to the appropriate power position as required for your installation (110 or 220 VAC).

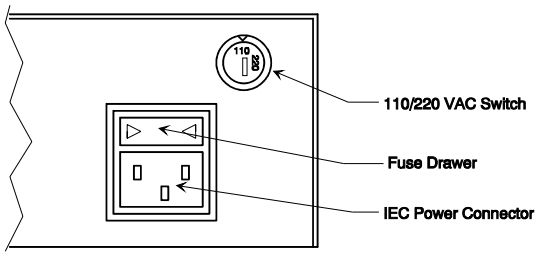
VOLTAGE SELECTION FUSES

Located on the back or rear of the product you will find an IEC Power receptacle. This receptacle contains a fuse drawer. Two (2) fuses are located in this compartment. For 110 VAC +/- 10% operation the unit is equipped with slow blow 5 x 20mm 160ma Fuses, E.C.D. Part # 714000. For 220 VAC +/- 10% operation the unit is equipped with slow blow 5 x 20mm 80ma Fuses, E.C.D. Part # 714001. Spare fuses may be purchased by calling East Coast Datacom or by contacting the fuse manufacturer:
Little Fuse Part #'s are: 160ma = 218.160 and 80ma = 218.080
Shurter, Inc. Part #'s are: 160ma = 034.3109 and 80ma = 034.3106

POWER CONNECTION

Before connecting the unit to an AC power source the top cover should be installed with the supplied #4-40 screws. AC power is supplied to the unit through a 2.3m (6.6 ft) cord terminated by a grounded 3-prong plug. Select an appropriate location accessible to and within four to five feet of an AC outlet. The AC Power source MUST be grounded or the units Warranty will be void.

Power Connection



FRONT PANEL INDICATORS

Located on the front panel of the ASC-232/V.11 are seven LED indicators. The PWR indicator(power) and TXD, RXD, TXC, RXC and RTS, CTS which represent the status of RS-232 control signals.

DATA PORT CONNECTION

Located on the rear panel are two DB-25 female connectors that are labeled RS-232 Async and V.11 Sync. The RS-232 DTE equipment should be terminated to the RS-232 ASYNC port. The V.11 DCE equipment should be terminated to the V.11 SYNC port. The V.11 SYNC port is pinned to the RS-530 standard. If the user has a data interface different from RS-530 an adapter cable may be utilized.

END TO END CONNECTION

The ASC-232/V.11 converters require that the sync DTE data rate be set to match the DCE sync clock rate. Additionally, both converters parity rate must be set to match the DTE parity. Such as 8, N, 1 data would be 10 bit data on the ASC-232/V.11 converters.

SWITCH SETTING GUIDE:

SW-1	EXTENDED SIGNAL RATE
OFF	NORMAL
ON	EXTENDED

SW-2	SW-3	** CHARACTER LENGTH
OFF	ON	8 BIT
ON	ON	9 BIT
OFF	OFF	10 BIT
ON	OFF	11 BIT

** INCLUDES START AND STOP BITS

SW-4	SW-5	BAUD RATE
ON	OFF	FULL RATES TO 38.4K
OFF	ON	3/4 RATES TO 28.8K

Our pinout are as follows:

RS-232 DB-25 PORT PINOUTS:

1,9,10,11,12,13,14,15,16,17,18,19,21,22,23,24,25-NO CONNECT
2-TXD
3-RXD
4-RTS
5-CTS
6 to 20-Looped
7-GND

RS-530/V.11 DB-25 PORT PINOUTS:

1,6,11,18,20,21,22,23,24,25-NO CONNECT

7-GND

2-TXD(a)
14-TXD(b)
3-RXD(a)
16-RXD(b)
15-TXC(a)
12-TXC(b)
17-RXC(a)
9-RXC(b)

Trouble Shooting communication problems:

To help pinpoint the communication problem, the user should confirm the following:
A) Data Cables: If you are using your own data cables, confirm the pinouts to the ASC-232/V.11 Pinouts as shown above.
B) Sync DCE communications link is working error free end to end.
C) Async DTE communications are set to match the ASC-232/V.11 units settings on both ends of the link.
D) If possible, direct connect the two Async DTE devices together using a crossover cable between the devices to confirm that the Async devices are indeed working.
E) Single sided operation using one PC, one ASC-232/V.11 and one DCE device:
Set the PC and ASC-232/V.11 data rate and character length to the same rates and character length, such as 19.2k and 8,N,1(10 bit data). Set the Sync DCE at 19.2k and put the DCE(modem) into Local Loop back. Plug in the data cables. Now exit and restart HyperTerminal. Single sided communications should now work. If the user can establish single sided communications on each side of the Sync communications link, in all probability there is a sync communications problem between the two sync devices.