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3. ASCII '1' (49) is the binary channel # 1 converted to ASCII.
4. '\s' is a space (ASCII 32decimal)
5. ASCII '9' (57) is the binary command # 9 (Receive Unit ID) converted to ASCII.
6. ';' (ASCII 59decimal) is a header separator
7. ASCII '132' is the checksum of the command string. It is an ASCII representation of a binary summation of bytes. A checksum is required for all data sent to the unit. It is calculated as follows;

checksum calculation = 50+55+54+32+49+32+57+59=388=184hex → checksum = lower byte only 84hex=132decimal

ASCII String to send the following configuration data to a hypothetical Model 136, unit =1, Channel ALL (0), Command =0 - Send Setup);

Voltage Excitation = 5.0 = 3 (selected from the enumerated type def {0.0,15.0,10.0,5.0})  
 Sensitivity=2.123 (floating Point value )  
 Output Scaling =3.456 (floating Point value )  
 Low Pass Filter = 10.0 = 1 (selected from the enumerated type def {OFF,10.0})  
 Auto Zero = AUTO = 2 (selected from the enumerated type def {OFF,ON,AUTO})  
 Shunt Calibration = RSH- = 1 (selected from the enumerated type def {OFF,RSH-,RSH+ })  
 Monitoring Option = VOUT = 1 (selected from the enumerated type def {OFF,VOUT,EU})  
 ASCII Representation of string;  
 257\s0\s0;3000\s2123\s3456\s1000\s2000\s1000\s1000\s187

Binary Representation of ASCII string (these are the bytes actually transmitted via rs-232 in decimal);

50,53,55, 32,48,32,48,59,51,48,48,48,32,50,49,50,51,32,51,52,53,54,32,49,48,48,48,32,50,48,48,48,32,49,48,48,48,32,49,48,48,48,32,49,53,56,55

Where;

1. ASCII '257' (50,53,55) is the result of the binary operation ((1 << 8) | 1). Where 0=Model 136 and 1 is the unit number (the binary number is then converted to an ASCII string).
2. '\s' is a space (ASCII 32decimal)
3. ASCII '0' (48) is the binary channel # 0 (all channels) converted to ASCII.
4. '\s' is a space (ASCII 32decimal)
5. ASCII '0' (48) is the binary command # 0 (Send Setup) converted to ASCII.
6. ';' (ASCII 59decimal) is a header separator.
7. ASCII '3000' (49,50,51,48,48,48) is the Voltage Excitation option 3 (5.0) multiplied by 1000. This multiplication is done to normalize all of the data. Some values are floating point others are integer. All items in the setup are multiplied by 1000 to scale the floats to a fixed point number with the desired resolution.
8. The next 6 items are processed the same as the input select item.
9. ASCII '187' is an ASCII representation of a binary summation of bytes. A checksum is required for all data sent to the unit. It is calculated as shown above.
10. The response to the string will be an ACK (0x0C)

#### Questions

If you have any questions regarding the use of this or any Endevco product, please contact Endevco Application Engineering at 1-866-363-3826 in North America, or your local sales representative.