

1. Serial Baud Rate Setting

- Baud rate is 9600 bits
- No parity
- 1 start bit
- 8 data bits
- 1 stop bit

2. The mobile phone or host computer

sends commands to the multimeter or
clamp meter packet format:

header	frame function	Key Function	checksum
Byte 0	Byte1	Byte2	Byte3

Frame header: fixed to Byte0=0x5A



Frame function: 0x00=Analogue key; 0x01=Enter
calibration mode; 0x02=Exit calibration mode

Key Function: Byte2

Checksum: Algebraic sum of Byte0 to Byte2.

Analogue keys	Key Function	Meter Response	host computer response	note
5A00015B	SELECT (function selection key)	click (using a mouse or other pointing device)	click (using a mouse or other pointing device)	
5A00025C	MAX/MIN (enter maximum/minimum value) (test mode)	click (using a mouse or other pointing device)	click (using a mouse or other pointing device)	

5A00035D	Exit MAX/MIN (Exit Max/Min) (Value test mode)	long press	click (using a mouse or other pointing device)	
5A00045E	Hz/DUTY (frequency/duty cycle button)	click (using a mouse or other pointing device)	click (using a mouse or other pointing device)	
5A00055F	Hold (data hold button)	click (using a mouse or other pointing device)	click (using a mouse or other pointing device)	
5A000660	Light (backlit button)	long press	click (using a mouse or other pointing device)	
5A000761	Auto (auto range button) default on power up Auto range	long press	click (using a mouse or other pointing device)	
5A000862	Range (manual volume button)	click (using a mouse or other pointing device)	click (using a mouse or other pointing device)	
5A000963	REL (relative value button)	click (using a mouse or other pointing device)	click (using a mouse or other pointing device)	
5A000A64	INRUSH (In/Out Inrush Current Measurement) (Test button) Not available on 86 series	long press	click (using a mouse or other pointing device)	
5A000B65	ZERO (DC current clear button)	click (using a mouse or other pointing device)	click (using a mouse or other pointing device)	
5A000C66	PEAK Max /Min (Enter Peak Max) (Value/Minimum button)	click (using a mouse or other pointing device)	click (using a mouse or other pointing device)	
		other pointing	other pointing device)	

		device)		
5A000D67	Exit PEAK Max/Min (Exit  Peak Press) (button)	long press	click (using a mouse or other pointing device)	
5A000E68	Flight (torch button)	click (using a mouse or other pointing device)	click (using a mouse or other pointing device)	
5A01005B	Entering Calibration Mode			
5A02005C	Back  Calibration Mode			

The above pretty much covers the function keys of the multimeter, and the only actions prevalent for each key are basically the click response and the long press response.

The packet format is displayed as follows:

beginning or end	lengths	demonstrat e	model number	checksum
1 Byte	Byte	xByte	1Byte	1Byte
Msg[0]	Msg[1]	Msg[2]- [2+x]	Msg [3+x]	Msg[4+x]

Header: 0XA5 0XA5

---length: byte length from display to checksum: 0x12 (86DLCD as an example)

Display: Msg[2] - Msg[2+x]in hexadecimal code to the mobile phone or host computer to display the measured

value.

Model: Msg[3+x]

Examples:

model number	Msg[3+x]
DMM1	0x01
DMM2	0x02
DMM3	0x04
DMM4	0x08

Checksum: Sums the displayed values from the beginning to the end, totalling 1 byte. (Hold for the time being, and then