BT Communication Setting

1. **RS232 Transmit agreement:**

   [9600 Baud rate] [None Party] [8 Bit data] [1 Bit stop]

   Note: The above is for BP and Bluetooth communication format, no need for customers.

   BLE UUID:

   Receive: Service UUID: 0xFFF0, Characteristic UUID: 0xFFF1

   Send: Service UUID: 0xFFF0, Characteristic UUID: 0xFFF2

2. **Data Protocol:**

   2.1 About one complete instruction：

   2.1.1 begin with 0xFD,0xFD; end with 0x0D,0x0A。

   2.1.2 follow 0xFD is command code:

   2.2Command define (Normal measure model)

   > After pressing the power button on the BP monitor, the monitor will send [0xA5] per 0.5 seconds; Which means waiting for the connection with the cellphone and the LCD screen will flash "bt" at the same time.
   >
   > Note: If no need of the bluetooth function, just press any button and the monitor will start to measure.

   > When successfully connect the BP monitor with the cellphone by bluetooth, the cellphone will send [0xFD,0xFD,0xFA,0x05,0X0D, 0x0A] to inform the BP monitor of the connection and ready to measure.
   >
   > At the same time, the BP monitor reply: [0xFD,0xFD,0x06, 0x0D, 0x0A], and begin to measure.
   >
   > Note: If the cellphone did not receive the response from the BP monitor, it would send the command [0xFD,0xFD,0xFA,0x05,0X0D, 0x0A] repeatedly for 5 times. Or please turn off the BP monitor and re-connect.
   >
   > Note: If the BP monitor did not receive the connect instruction
   > [0xFD,0xFD,0xFA,0x05,0X0D, 0x0A] within 180 seconds, it will start to measure without bluetooth function.

   > During the measurement, the BP monitor sends pressure signal:
   >
   > [0xFD,0xFD,0xFB,PressureH, PressureL,0X0D, 0x0A]
   >
   > Note: Pressure signal is 2 bytes, so the pressure is PressureH*256+PressureL, it will be sent 4 time every seconds.

When finish the measurement, the BP monitor send the below result:

[0xFD,0xFD,0xFC, SYS,DIA,PUL, 0X0D, 0x0A]   ;test result

[0xFD,0xFD,0xFD,0x0E, 0X0D, 0x0A]   ;E-E   EEPROM Abnormal   (The BP monitor is abnormal, pls contact the provider)

[0xFD,0xFD,0xFD,0x01, 0X0D, 0x0A]   ;E-1   the heart rate signal is too weak or the pressure fall suddenly

[0xFD,0xFD,0xFD,0x02, 0X0D, 0x0A]   ;E-2   other signal disturb

[0xFD,0xFD,0xFD,0x03, 0X0D, 0x0A]   ;E-3 inflation time too long

[0xFD,0xFD,0xFD,0x05, 0X0D, 0x0A]   ;E-5 test result abnormal

[0xFD,0xFD,0xFD,0x0C, 0X0D, 0x0A]   ;E-C correction abnormal

wrong way to measure, pls follow the manual and wear the cuff correctly, keep quiet and retest. (available for above 5 errors)

[0xFD,0xFD,0xFD,0x0B, 0X0D, 0x0A]   ;E-B low voltage (low power, pls change batteries)

Note: SYS means systolic pressure, DIA means diastolic pressure. The BP monitor will transmit this date 5 time continuously.

E-1,E-2,E-3,E-4,E-E,E-B mean codes for errors.
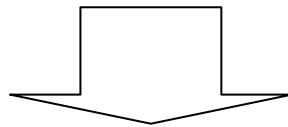
When finish the measurement, cellphone can send power off command to turn off the bp monitor:	When finish the measurement, cellphone can also send "start" command:
[0xFD,0xFD,0xFE, 0x06, 0X0D, 0x0A]	[0xFD,0xFD,0xFA,0x05,0X0D, 0x0A]
The BP monitor will reply:	The BP monitor will reply:
[0xFD,0xFD,0x07, 0x0D, 0x0A]	[0xFD,0xFD,0x06, 0x0D, 0x0A]
Note: If the cellphone did not receive the reply command [0xFD,0xFD,0x07, 0x0D, 0x0A], it will send [0xFD,0xFD,0xFE, 0x06, 0X0D, 0x0A] repeatedly 5 times. When the BP monitor receive this command, it will be power off.	Then begin the next measurement.