# DELTA

2014-11-18

5012611105-B705

# DOP-*B07*

**High Color · Wide Screen · User-Friendly HMI Products**

## Instrunction Sheet

### ❶ Preface

Thank you for purchasing DELTA's DOP-B series. This instruction sheet will be helpful in the installation, wiring and inspection of Delta HMI. Before using the product, please read this instruction sheet to ensure correct use. You should thoroughly understand all safety precautions before proceeding with the installation, wiring and operation. Place this instruction sheet in a safe location for future reference. Please observe the following precautions:

■ Install the product in a clean and dry location free from corrosive and inflammable gases or liquids.

■ Ensure that all wiring instructions and recommendations are followed.

■ Ensure that HMI is correctly connected to a ground. The grounding method must comply with the electrical standard of the country (Please refer to NFPA 70: National Electrical Code, 2005 Ed.).

■ Do not disassemble HMI, modify or remove wiring when power is applied to HMI.

■ Do not touch the power supply during operation. Otherwise, it may cause electric shock.

If you have any questions during operation, please contact our local distributors or Delta sales representatives.

The content of this instruction sheet may be revised without prior notice. Please consult our distributors or download the most updated version at http://www.delta.com.tw/ia.

### ❷ Pin Definition of Serial Communication

**B07S410 COM Port**



| COM Port | Pin | MODE1 | MODE2 | MODE3 |
| --- | --- | --- | --- | --- |
| | | RS-232 | RS-422 | RS-485 |
| PIN1 | 1 | | TXD+ | D+ |
| | 2 | RXD | | |
| | 3 | TXD | | |
| | 4 | | RXD+ | |
| | 5 | GND | GND | GND |
| | 6 | | TXD- | D- |
| | 7 | RTS | | |
| | 8 | CTS | | |
| | 9 | | RXD- | |

Note1: Blank = To avoid malfunction, it must be left unconnected.

### ❸ Parts Names

**DOP-B07S410 (Front View)**
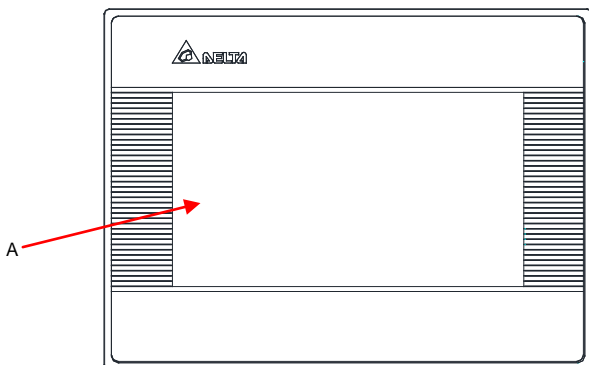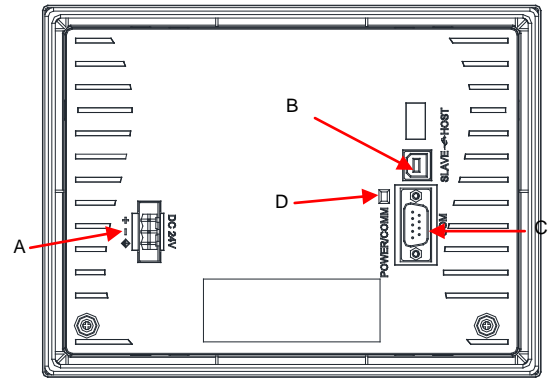


| A | Touch Screen / Display |
| --- | --- |

Please note DOP-B07S410 model has not system key, user could press at blank space for a while to enter system menu.
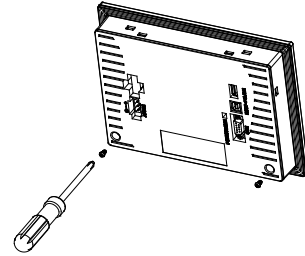
**DOP-B07S410 (Rear View)**



| A | Power Input Terminal | B | USB Slave |
| --- | --- | --- | --- |
| C | COM | D | Power and Communication LED Light. |

### ❹ DOP-B07S410 Battery change notice

**Please do not use other company battery in DOP-B07S410. If users need to buy the battery, please look for Delta suppliers.**
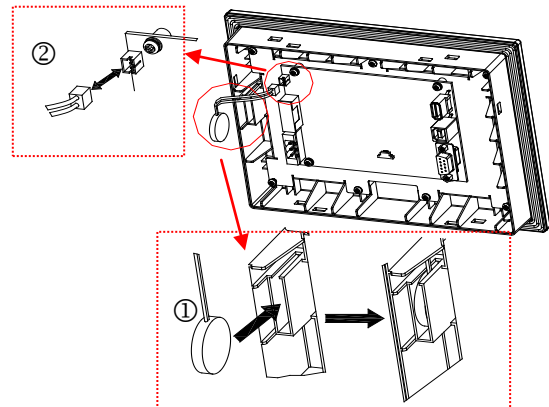
Step1. Please dismantle a screw of back cover.



Step2. Use the implement to dismantle the back cover with tenon-mortise like as arrow figures out.
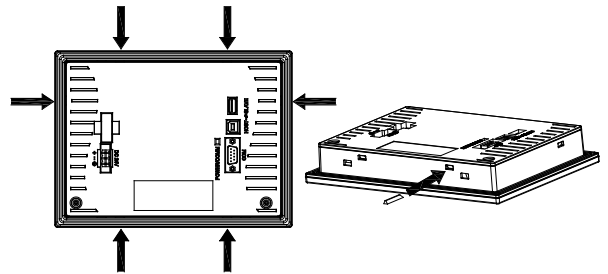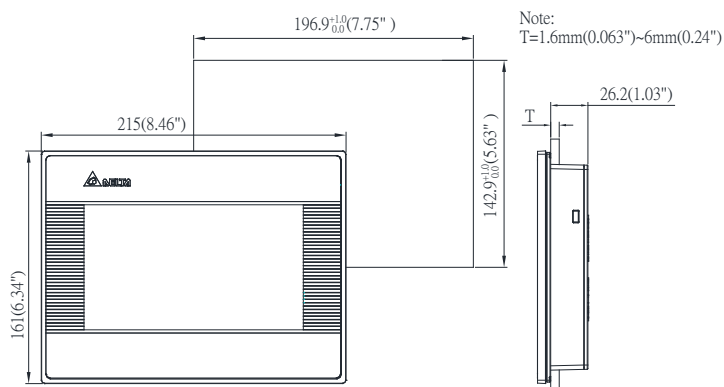


Step3. Please follow as below figure to change(①) and install the battery(②)

## ❺ Dimensions

### DOP-B07S410



Note:
T=1.6mm(0.063")~6mm(0.24")

196.9⁺¹·⁰₀.₀(7.75")
215(8.46")
142.9⁺¹·⁰₀.₀(5.63")
161(6.34")
26.2(1.03")
T

## ❻ Specifications

| Model Name | | DOP-B07S410 |
|---|---|---|
| LCD MODULE | Display Type | 7" TFT LCD (65536 colors) |
| | Resolution | 800 x 480 pixels |
| | Backlight | LED Back Light (less than 20,000 hours half-life at 25$^{\circ}$C) (Note 1) |
| | Display Size | 154.08 x 85.92mm |
| Operation System | | Delta Real Time OS |
| MCU | | 32-bit RISC Micro-controller |
| NOR Flash ROM | | Flash ROM 4 MB ( OS System: 2MB / User Application: 2MB ) |
| SDRAM | | 64Mbytes |
| Backup Memory | | 32Kbytes |
| Buzzer | | Multi-Tone Frequency（2K ~ 4K Hz） / 85dB |
| USB | | 1 USB Slave Ver 2.0 |
| Serial COM Port | COM1 | RS-232 (supports hardware flow control) / RS-422 / RS-485 |
| Perpetual Calendar (RTC) | | Built-in |
| Cooling Method | | Natural air circulation |
| Safety Approval | | CE |
| Waterproof Degree | | IP65 |
| Operation Voltage (Note2) | | DC +24V（-10% ~ +15%） (please use isolated power supply) |
| Voltage Endurance | | AC500V for 1 minute (between charging (DC24V terminal) and FG terminals) |
| Power Consumption (Note 2) | | 3.5W |
| Backup Battery | | 3V lithium battery CR2032 x 1 |
| Backup Battery Life | | It depends on the temperature used and the conditions of usage, about 3 years or more at 25$^{\circ}$C. |
| Operation Temperature | | 0$^{\circ}$C ~ 50$^{\circ}$C |
| Storage Temperature | | -20$^{\circ}$C ~ +60$^{\circ}$C |
| Ambient Humidity | | 10% ~ 90% RH [0 ~ 40$^{\circ}$C], 10% ~ 55% RH [41 ~ 50$^{\circ}$C] Pollution Degree 2 |
| Vibration | | IEC 61131-2 compliant 5Hz≦f < 8.3Hz = Continuous: 3.5mm, 8.3Hz≦f≦150Hz = Continuous: 1.0g |
| Shock | | IEC 60068-2-27 compliant 15g peak for 11 ms duration, X, Y, Z directions for 6 times |
| Dimensions (W) x (H) x (D) mm | | 215 x 161 x 35.3 |
| Panel Cutout (W) x (H) mm | | 196.9 x 142.9 |
| Weight | | Approx.700g |

## 📝 NOTE

1) The half-life of backlight is defined as original luminance being reduced by 50% when the maximum driving current is supplied to HMI. The life of LED backlight shown here is an estimated value under 25$^{\circ}$C normal temperature and humidity conditions.

2) The value of the power consumption indicates the electrical power consumed by HMI only without connecting to any peripheral devices. In order to ensure the normal operation, it is recommended to use a power supply which the capacity is 1.5 ~2 times the value of the power consumption.

3) The content of this instruction sheet may be revised without prior notice. Please consult our distributors or download the most updated version at http://www.delta.com.tw/ia