FG085 Function Generator

## **Assembly Guide**

Applicable Model: 08503K

#### Tools required

- 1. Soldering iron (20 25W)
- 2. Thin raisin-core solder of ideally 0.8mm diameter
- 3. Diagonal flush cutter
- 4. Screw driver

#### **Important Notes**

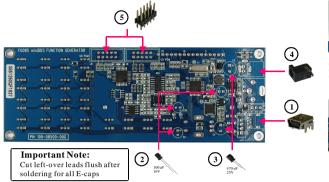
- 1. Follow the numbered order to install.
- 2. Only install parts given in the part list.
- 3. Pay special attention to polarity and orientation for electrolytic capacitors, headers, switches, and connectors (see detailed photos).

#### **Part List**

| Descriptions                  | Qty    | Ref.        |
|-------------------------------|--------|-------------|
| Connector, USB mini-B         | 1      | J10         |
| E-cap, 100uF/16V              | 3      | C5, C9, C10 |
| E-cap, 470uF/25V              | 2      | C3, C4      |
| Connector, DC005, 2mm core    | 1      | J1          |
| Header, 5 X 2, 2.54mm         | 2      | J6, J8      |
| Header, 16 X 1, 2.54mm        | 1      |             |
| LCD, 1602A, white-in-blue     | 1      | LCD1        |
| Pushbutton, lockable          | 1      | SW1         |
| Pushbutton, non-lockable      | 20     | SW2-21      |
| Rotary encoder, w/ pushbutton | 1      | SW22        |
| BNC connector, panel mount    | 1      | J4          |
| Metal lead                    | 1      |             |
| Knob cap                      | 1      |             |
| Panels, front and back        | 1 each |             |
| Standoff, M3 x 12             | 4      |             |
| Standoff, M3 x 12 + 6         | 4      |             |
| Screw, M3 x 5                 | 8      |             |
| PCB, SMD pre-soldered         | 1      |             |

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#### A. Install Components at Back



Short ends go into **PCB** 





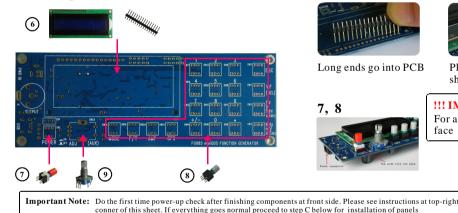
goes into sq. pad

#### Powering up the first time -

- 1. Check and make sure part polarity and soldering are correct and good.
- 2. Connect 15V DC power supply (current capacity > 200 mÅ) to J1. Push SW1 to turn the unit on.
- 3. You should see LCD backlight up. The screen may appear blank due to incorrect contrast setting. You need to adjust the trimmer POT1 (see photo) for correct contrast.
- 4. Use keypad to test various functions.



#### **B.** Install Components at Front





Long ends go into PCB



Place LCD and solder short ends at top



Turn over and solder long ends at back

#### 7, 8



#### !!! IMPORTANT NOTE:

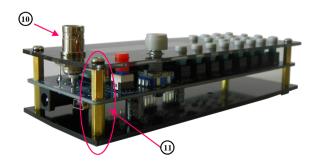
For all the push-buttons, the side with two dips must face the end where power connector locates.

Installed with this side facing power connecter at left

#### **WARNING:**

Reversed installation will cause keypad no function!

#### C. Mount Panels



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10a



BNC connector



washer



Cut wing off spring Solder metal lead and bend to shape



Mount to panel with lead at edge

11

DN085-06v01



Standoff mounting (4 places)



Install panels and solder up at back

FG085 Function Generator

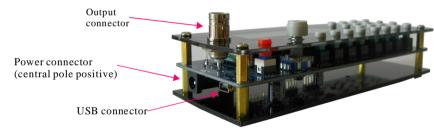
## Quick Use Guide Rev. 02

Applicable Model: 08503, 08503K, and 08504K

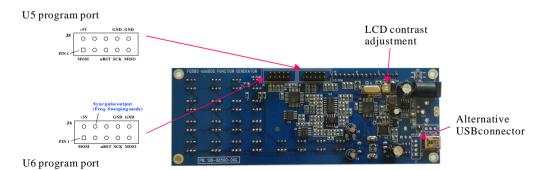
Visit <u>www.jyetech.com</u> for detailed and updatoed documents

#### — Panel & Connectors -





### - Headers & Adjustment -



#### Operating -

#### 1. Constant Waveform (CW) Mode

| Function                   | Operations  |
|----------------------------|---|
| Set Frequency<br>or Period | [F/T] + [Data Entry Keys *] + [Unit Key]  |
| Set Amplitude              | [AMP] + [Data Entry Keys *] + [Unit Key]  |
| Set Offset                 | [OFS] + [Data Entry Keys *] + [Unit Key]  |
| Incremental<br>Adjustment  | Select parameter and turn [ADJ] dial (Incremental step size can be set to any value). |
| Select Waveform            | Press [WF] key  |

<sup>\*</sup> Note: Use [ESC] to correct or cancel input

#### 2. Frequency Sweeping Mode

| Function                | Operations  |
|-------------------------|---|
| Set sweep<br>parameters | Turn [ADJ] to select parameter. Press [F/T] to change. Use buttons [1], [2], [3], and [4] for quick access. |
| Set Amplitude           | [AMP] + [Data Entry Keys *] + [Unit Key]  |
| Set Offset              | [OFS] + [Data Entry Keys *] + [Unit Key]  |
| Select Waveform         | Press [WF] key  |

#### 3. Servo Position Mode

| Function                  | Operations                               |
|---------------------------|--|
| Set Pulse Width           | [F/T] + [Data Entry Keys *] + [Unit Key] |
| Set Amplitude             | [AMP] + [Data Entry Keys *] + [Unit Key] |
| Incremental<br>Adjustment | Select parameter and turn [ADJ] dial     |
| Change Settings           | Push [ADJ] (refer to detailed manual)    |

<sup>\*</sup> Note: Use [ESC] to correct or cancel input

#### 4. Servo Run Mode

Use [WF] key to start and hold servo running.

#### 5. Mode Selection

[MODE] + {Turn [ADJ] to select} + [WF]

#### Tips

# (1) Under CW mode [ADJ] incremental step can be changed to any value To do this type in the step size you need and end with [Hz] or [mS] buttons. [Hz] sets the step for frequency adjustment. [mS] sets the step for time adjustiment.

#### (2) Quick access parameters in Frequency Sweeping mode

Under frequency sweeping mode you can use digit buttons [1], [2], [3], and [4] to access Start Frequency, Stop Frequency, Sweep Time, and Time Step Size respectively.

## mini DDS kit (FG085)[K-06298] 押しボタンスイッチ取付の注意



押しボタンスイッチはこの面が DC ジャック側に向くように取 付けてください。逆に取り付け ると動作しません。



