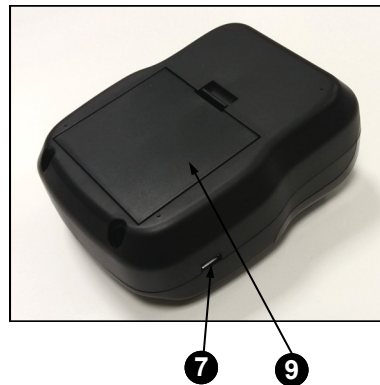
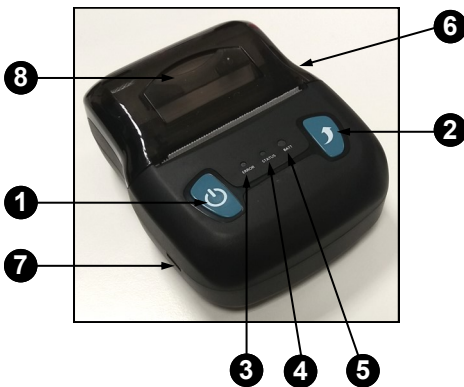




**YELLOW
JACKET**

**COMBUSTION ANALYZER
WIRELESS PRINTER**

OPERATING MANUAL



DESCRIPTION OF COMPONENTS

- 1) On / Off Button / Font size setting
- 2) Paper feed button
- 3) Fault status indicator
- 4) Status indicator
- 5) Battery level indicator
- 6) Front cover
- 7) Battery charger plug
- 8) Lid for the upper cover opening
- 9) Li-ion battery

P/N	DESCRIPTION
68611	Combustion Analyzer Printer
68616	Combustion Analyzer Printer Paper - 5 PK

www.yellowjacket.com

PRECAUTIONS

1. Safety Precautions

Be sure to use the specified battery and power source provided by our company. Use of an improper power source may cause fire, explosion or damage to the printer. Do not throw the battery into fire or water. Do not disassemble, modify or short circuit the battery, otherwise injury or explosion may occur.

If the printer is going to remain unused for an extended period of time, be sure to remove the battery. Failure to do this may result in a leak of corrosive liquid. If improper operation causes the battery to leak and the liquid is spilled on the skin or clothes, please wash with water. If spilled in the eyes, please rinse them with water thoroughly and see a doctor.

Do not open the paper case cover when it is printing or immediately after. Do not touch the print head with bare hands or body. Overheating may cause damages.

2. Operation Precautions

Be sure to not print continuously over 3 feet (1 meter) of paper as it may result in damage to the printing head.

The printer should not be exposed to rain, water, or other liquids, or extreme humidity conditions to prevent damage. Do not open the paper case cover when it is printing, to prevent printer errors. When printing with serial interface, do not unplug the interface cable during printing, or some printing data may be lost. When printing with Bluetooth® interface, the communication distance should be within 33 feet (10 meters), or the printer may experience errors or may fail to print. Too high 122°F (50°C) or too low 14°F (-10°C) temperature and too high (85%) or too low (20%) relative humidity affect the print quality. Poor quality print paper or paper stored for a long period of time may also reduce the print quality or even damage the printer. Be sure to use proper power connections and power supply for battery charging to ensure a long battery life.

3. Storage Precautions

The printer should be placed in such an environment that the temperature is between -4°F (-20°C) and 158°F (70°C), and the relative humidity is between 5% and 95%.

If the printer is intended to be stored for an extended period of time, please be sure to remove the battery to prevent damages to the battery and printer. Normal thermal paper can't be kept for extended periods. If printed tickets are to be kept for a long period of time, please choose long term effective thermal paper. The print paper should be kept away from high temperature environments and direct sun light exposure.

4. Battery Safety Precautions

Be sure to carefully read the user manual before using the product. Ignoring the following instructions could result in the battery overheating, fire, explosion, damage and / or poor performances and reduced product life.

- Do not allow water to enter or to leak inside the battery compartment. If the battery's internal safety device is damaged, abnormal current and/or voltages may occur during recharging and can result in an abnormal chemical reaction. This may lead to the battery overheating, fire and / or explosion.

- Do not use or place the battery near the stove or other high temperature environments. Excessive heat may damage the resin shell and/or the insulation materials, causing short-circuit inside the battery. In this condition the battery may overheat, start on fire and/or explode.
- When recharging, only use the provided power plug. Other conditions (high temperature, high pressure / high current, using a modified battery charger, etc.) not mentioned here may result in over-charging the battery, abnormal current and/or voltages, abnormal chemical reactions, and may cause the battery to overheat, start on fire and/or explode.
- The battery is clearly marked with positive and negative poles. When the battery is connected with the charger and/or printer, be sure to verify the correct battery orientation. Improper installation will cause the reverse charging and may cause abnormal chemical reactions, overheating, ignite and/or explosion.
- Avoid direct contact with the battery to power outlets and/or car cigarette lighter sockets. This may cause high pressure and excessive current, and lead to the battery to overheat, start on fire and/or explode.
- Do not heat the battery or throw it in flames. This may melt the insulation material and/or damage safety devices or safety equipment and ignite the electrolytic solution and cause the battery to overheat, start on fire and/or explode.
- Do not connect the battery with opposite poles (+) and (-). When charging, this will cause the reverse charging and may cause abnormal chemical reactions. When in use, incorrect connections may cause unpredictable current draws and cause the battery to overheat, start on fire and/or explode.
- Avoid contact with metal with the battery poles (+) and (-). Do not carry or store batteries with metal objects, such as necklaces, hair clips, etc. Battery short circuits may cause excessive current and lead to the battery overheating, igniting and/or exploding. Any nearby metallic objects (necklaces, hairpins, etc.) may also melt.
- Do not physically damage the battery. If the internal safety device of the battery burns, the battery may produce abnormal currents and/or voltages, abnormal chemical reactions and may overheat, ignite and/or explode the battery.

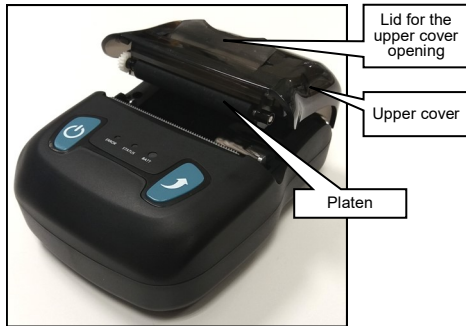
OPERATION

PRELIMINARY OPERATIONS

Li-ion Battery Installation



- Refer to the picture to put the battery in the battery compartment. Pay attention to the correct positive and negative orientation.
- Close the battery case.



Paper loading:

- Use two fingers to press the place shown in the picture and open the upper cover.
- Put the paper into the paper case, pay attention to the direction of the paper. If loaded in reverse, it will not print.
- Pull paper out of paper case.
- Make sure paper is located in the center then close upper cover.

BASIC FUNCTION

Power On

The printer turns on by pressing the power button for 2 seconds; the power indicator lights according to the battery charging status and the buzzer emits a sound. Note: when the battery charge is low, the power indicator light runs red. Charge the battery using the power plug. For details on how to recharge the battery, please refer to the battery charging section.

To Power Off

The printer is switched off by pressing the power button for 2 seconds. All the indicators will turn off when the printer is powered off.

Self-Test

- The self-test checks the printer current settings, status and checks the printer for any problems.
- To start the self-test, with the printer off, press and hold both buttons "FEED" and "POWER" at the same time for about 2 seconds.
- The printer is ready to receive data when it completes the self-test.

Paper Loading

- With the printer turned on, push the FEED button to start feeding. It will stop automatically after feeding about 1" (25mm) of paper. The paper will continue to scroll until the button is released.
- If the special black mark is present on the paper roll (the detecting mark) it will be recognized by the printer and it will stop printing when detecting the black mark. If feeding paper length is 0" (0mm), feeding will not be affected by black marks.

Battery Charging

- When li-ion battery is low on energy (<15%), the "BATT" LED will turn red; if the printer keeps on printing, it will shut down automatically. In this case, it will be necessary to recharge the battery.
- Charging Procedure: Plug in the power cord to a 120V 60 Hz source. The "BATT" LED is red, yellow, or green, depending on the battery charging status. The other two LEDs "ERROR" and "STATUS" indicators will blink. When the battery is fully charged, the "BATT" LED will turn green, and the buzzer will emit a sound.
- The printer is available while charging.

Font Size Setting

- The default size of the printing font is 12x24.
- To change the font size...when pressing the "POWER" button, the following acoustic signals will be heard in sequence:
 1. One brief beep: Printer power on (if it was previously turned off)
 2. Long beep: Printer switching off
 3. Two beeps in fast sequence: Set font to 12x24 (default)
 4. Three beeps in fast sequence: Set font to 9x24
 5. Four beeps in fast sequence: Set font to 9x17
 6. Five beeps in fast sequence: Set font to 8x16



WARNING! If during the self-test phase the font is too small, follow the procedure above to bring back the default size.

INTERFACES: Bluetooth®

Before printing, MPT-II/BL will need to be paired with the CA502 that drives the mobile thermal printer. The pairing process is performed by the CA502.

Pairing is as follows:

1. Power on printer
2. Search, on the CA502 for the Bluetooth® printer
3. If there are several Bluetooth® devices, select the relevant MAC code.

The printer MAC code (LADD) is found on the test ticket; to print that follow this procedure:

- Make sure that the printer is powered off.
- Press and keep pressed the "FEED" and the "POWER" button at the same time, until the printing test is completed.
- Release both keys and read through the printed lines until the label 'LADD' is found—the following code is the MAC address of the printer.

4. Enter password "0000".
5. Finish pairing.

For further notes on how to perform the pairing procedure, refer to the CA502 instruction manual.

During the pairing procedure, the printer must be powered on.

NOTE: During the pairing procedure, only one Bluetooth® printer must be powered on, otherwise it will not be possible to determine which printer the main device is being paired to.

When the pairing phase is complete, other devices may be paired with the same mobile thermal printer. The maximum number of devices that can be connected to each printer is 8. If more than 8 devices are connected to the same printer, the first paired printer addresses will be automatically deleted from the printer pairing list. A new pairing procedure must be performed to add back any deleted devices.

After the devices with virtual Bluetooth® interface (smart phone, pocket PC, palm, notebook) are paired they can drive the mobile thermal printer.

LED Indicator and Buzzer

In order to show the status of the printer, there is one buzzer and three LED indicators.

The LED indicators shows current status and the buzzer signals the changes of status:

ERROR	STATUS	BATT	
Blinks	Blinks	Switched on, color depending on the battery status	Charging
Off	Off	Red	Low battery energy (<15 %)
Off	Off	Yellow	Medium battery energy (40-15%)
Off	Off	Green	High battery energy (100-40%)
On	Blinks	Green	Battery fully charged
Off	Off	Switched on, color based on battery status	Power on
On	Blinks	Green	Out of paper
Off	Off	Blinks	Sleep mode

TECHNICAL FEATURES

- Power supply: 7.4V - 1600mAh
Rechargeable Li-Ion battery
- Battery full charge time: 3 hours
- Battery life: 3 hours
In stand-by mode: >15 days
- Bluetooth® working range: 328ft (100 meters)
- Low battery alarm: when the battery is low, the power indicator "BATT" is lit in red color
- Printing method: Thermal line
- Paper width: 1.8" (56mm)
- Paper thickness: 60 ~ 80µm
- Valid printing width: 1.6" (48 mm)
- Resolution: 8 dot/mm (203 dpi)
- Dot /line: 384 dots
- Printing speed: 2-3 in/s (50-80 mm/s)
- Printing content: GB18030 character set, ASCII characters, user defined characters, bar codes
CODE39, EAN13, EAN8, CODABAR, CODE93, ITF, bitmaps
- Interface: Bluetooth®
- Outer dimension: 3" x 4" x 2" (75 x 103 x 46 mm) (WxHxD)
- Weight: 0.5lb (240g)
- Paper diameter: ≤ 1.6" (40 mm)
- Operation temperature: 14°F (-10°C) .. 122°F (50°C)
- Storage temperature: -4°F (-20°C) .. 158°F (70°C)
- Operation humidity: 20% .. 85%
- Storage humidity: 5% .. 95%
- Paper loading: Drop-in easy loading
- Out-of-paper detection: When the printer runs out of paper, the "STAUS" LED blinks
- Print commands: ESC/POS compatible command set