KOSMOS SERIE

PRINTK180

CE

Y2K
OK

PANEL PRINTER

INSTRUCTIONS MANUAL

EDITION: 070200 (PRELIMINAR)
CODE: 30727012

PAPEL RECICLADO 100%

PRINTER English

PANEL PRINTER
PRINTK180

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INTRODUCTION

The printer **PRINTK180** is designed to be used via RS485 (Half duplex) inteface connected to the KOSMOS family meters **ALPHA-C, ALPHA-P, ALPHA-T, ALPHA-D and BETA-M** that have the logical function programming, refer to its specific manual.

Printk180 can be connected to a RS485 line where 31 ALPHA's, or, and BETA's can coexist, and each one with a diferent address that identificates itself can send by the logical function the desired value and if programmed in the KOSMOS meter it will print time and date.

The printer **PRINTK180** is supplied with time and date of Spain , using the supplied software and a PC you can reprogram de time and date.

IT IS NOT POSSIBLE TO PROGRAM THE TICKET HEAD TEXT notwithstanding the first line of each printout shows the indication #nn, where nn is the programmed **id** of the meter.

¡¡¡ WARNING !!!

In order to guarantee a long life of the printer, it is necessary to keep some precautions on PRINTK180 handling. Please read carefully next lines to make a good use of the printer.

- Beware not to invert power supply polarity. This may **irremediably damage** the printer.
- Use power supply voltage within specified range. Overvoltage may **irremediably** damage the printer. Voltage under the specified range may cause incorrect operations.
- Before connecting any input interface, verify the correct operation of PRINTK180 printer with self test feature.
- Avoid using PRINTK180 printer in environments where there are excessive temperatures or moisture.
- Printing without paper or ribbon is prohibited to avoid damaging the printer.

2. INSTALLATION

2.1- PACKAGE CONTENTS

- ❑ English instructions manual.
- ❑ PRINTK180 printer.
- ❑ 4 pins conection wires.
- ❑ Paper installed.
- ❑ Ink
- ❑ Diskette with WRSK software

✓ ***Verify package contents.***

2.2 – INSTALLATION

The situation of the connectors and jumpers of the PRINTK180 printer are detailed in figure 5.1.

BEFORE YOU START USING THE PRINTER THE FOLLOWING STEPS ARE TO BE FOLLOWED:

1. Connect power supply wires to the printer (CN1).
2. Connect interface RS485 wires to the printer (CN2).
3. Configure serial port baud rate (J1 and J2).
4. If the printer is located at the end of a RS485 line put jumper J3 if not keep it out.

The J3 jumper connects 120Ω load to the RS485 line.

Before connecting any data interface, verify the correct function of the autotest. You can enter to the autotest mode by pressing Feed key while you turn on power.

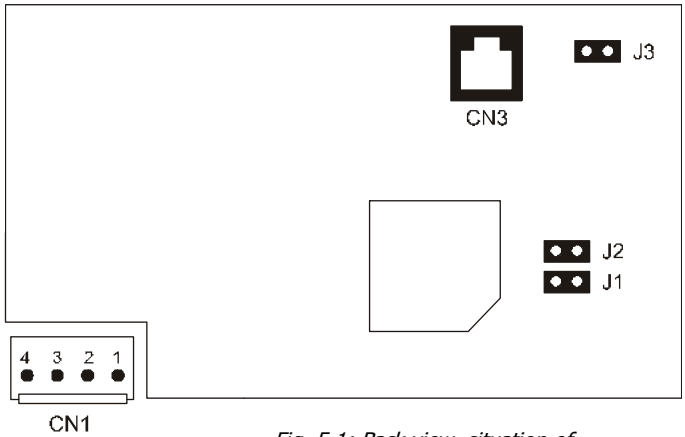


Fig. 5.1: Back view, situation of connectors and jumpers

IMPORTANT: Use the power supply conection with 4 wires, 2 for the negative and 2 for the positive with thick wires in order to decrease the wire resistance, especially if the printer is located far of the power supply.

CN3
PIN 1, 2: NOT CONECTED
PIN 3: Tx/ Rx (B)
PIN 4: Tx/ Rx (A)
PIN 5, 6: NOT CONECTED

2.3 - SUPPLY

Conect supply wires to CN1 (see fig. 5.1). Verify supply voltage before connecting.

PIN DESCRIPTION (CN1)
PIN 1 - GND
PIN 2 - Vp = + 5V DC / 8A
PIN 3 - Vp = + 5V DC / 8A
PIN 4 - GND

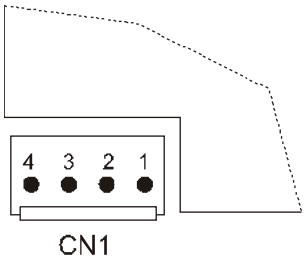


Fig. 5.1: Supply connector detail

ATENTION: Do not invert supply polarity. This may damage seriously the printer.

2.4.- BASIC OPERATIONS

Before roll paper is loading, the ribbon cassette can be easily installed by pushing it down softly. Even if ribbon is tucked up or sags while mounting, it can be tightened and fixed to its proper position by rotating the roller after inserting the cassette frame.
To remove ribbon cassette, push the portion marked PUSH with a finger. The other side of cassette will go up.

Printer has one on-board front button. Main function is to allow user to do paper feeding when paper is loaded. For this we suggest to fold paper as show the picture 5.2.

Guide sharp paper to printer paper input and press button even going out . Be careful to align paper with panel hole perfectly.

It performs the self-test function, too. To enter self-test mode, user must power the printer on with paper feed button pressed. Self-test mode prints a rapport about the PRINTK180 configuration. It also prints the character set in normal format.

A LED is built in the front panel as power supply indicator.

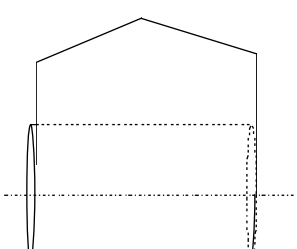


Fig. .5.2: MOUNTING DETAIL

3. CONFIGURACION

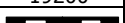
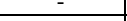
3.1. CONFIGURACION

The configuration of PRINTK180 has been reduced to the max.

The user only has to configure the comunication speed using the jumpers 1 and 2.

4.1- SERIAL PORT PARAMETERS

The serial port configuration is reduced to the Baudrate. **Parity fixed at NONE, stop bit fixed at 1 STOP BIT, and bits/character fixed at 8 bits.** Baudrate is configured using the jumpers J1 y J2 as seen in the table.

Baudrate	19200	9600*	4800	2400
Jumper 2			-	-
Jumper 1		-		-

* Baudrate default 9600.

To change the Baudrate configuration first unplug the printer power supply.

3.2 RS485 interface description.

The interface type corresponds to the standar RS485, but in case of printer PRINTK180 it is only active the reception of data, that means that it only recieves commands and text to print but it doesn't send info or signal of the received data.
The CN3 printer connector is connected using a wire terminal RJ12 to a meter **ALPHA** or **BETA** of the **KOSMOS** family that has **the logical functions** programming using an output option incorporated into the meter, supplied with the requiered wires for this type of connection. Notwithstanding see connection figure in this manual. In case that the printer is the last device in the RS485 line jumper J3 may be active to connect the final line load resistance, other situations keep the jumper open.

3.3 ALPHA'S AND BETA'S CONFIGURATION

!!IMPORTANT¡¡¡

The ALPHA and BETA-M meters that are connected to the printer PRINTK180 may incorporate the output option **RS4**, and may be configured itself, as indicated in their own manual at the same **Baudrate** of the printer, if there is more than one meter per printer they may have a diferent **id** number , delay should be programmed to -**1-**, the protocol should be **DITEL** or **-1-** The function TIME can be activated or not depending on if you want the date and time to be printed after the requested data.

4. SPECIFICATIONS

4.1 GENERAL SPECIFICATIONS

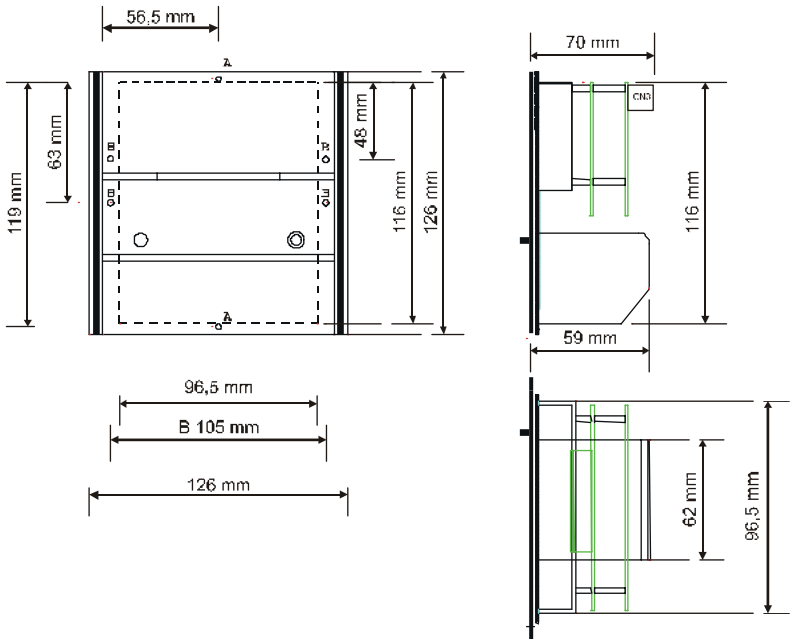
Main characteristics:

- Easy maintenance structure.
- Easy installation procedure.
- Light and compact.
- Data input interface serial RS485
- Real time clock/ calendar with litium battery.
- Power supply +5V DC / 8A.
- Auto interlace .
- Auto-test function.
- Up to 31 ALPHA, or BETA-M meters connection allowed.

4.2 TECHNICAL SPECIFICATIONS

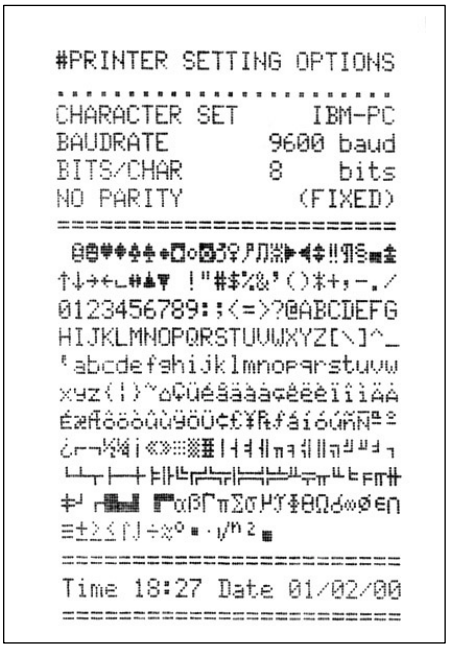
- Print method .....Impact
- Print mechanism ..... EPSON M-180
- Data Interface .....Serial RS485
- Point/ line composition.....144
- Paper width (mm) 57.5
- Print area width (mm)..... 46
- Characters / line.....24
- Power supply.....5 V ± 5% dc / 8A
- Point matrix (character) .....5x7 (IBM PC)
- Dimensions WxDxH (mm).....110x55x126
- Weigth (grs).....500

5. DIMENSIONS

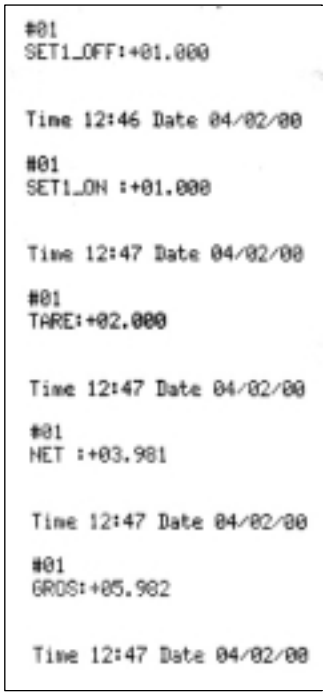


6. TICKET EXAMPLES

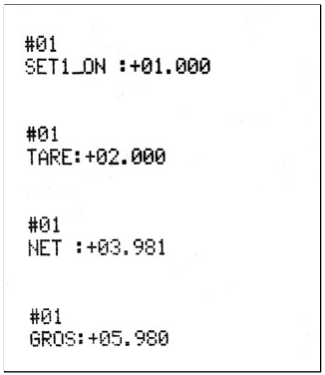
TICKET AUTO-TEST



PRINT SAMPLES
TIME AND DATE



PRINT SAMPLES WITHOUT
TIME AND DATE



7. WARRANTY

All products are warranted against defective material and workmanship for a period of three years from date of delivery.

If a product appears to have a defect or fails during the normal use within the warranty period, please contact the distributor from whom you purchased the product.

This warranty does not apply to defects resulting from action of the buyer such as mishandling or improper interfacing.

The liability under this warranty shall extend only to the repair of the instrument; no responsibility is assumed by the manufacturer for any damage which may result from its use.