11. HOW TO CONTACT US
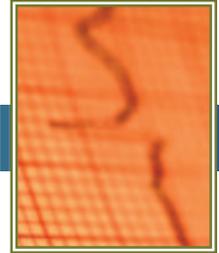
Detailed user information about our products
as well as services can be found at:
www.adctoday.com

Electronic
Blood Pressure
Printer

For use with ADvantage™ Advanced Automatic
Blood Pressure Monitors; Models 6014 and 6016.

6014P
Instruction Manual

PLEASE NOTE:
THIS MEDICAL INSTRUMENT MUST BE
USED ACCORDING TO INSTRUCTIONS
TO ENSURE ACCURATE READINGS.

Questions?
Call ADC® toll free at 1-800-232-2670

American Diagnostic Corp.

Diagnostic Printer
Instruction Manual

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8. WARRANTY

The diagnostic printer 6014P is guaranteed for **2 years** from date of purchase. The warranty does not apply to damage caused by improper handling, accidents, improper use, or alterations made to the device by third parties.
Batteries or damage from batteries are not covered under warranty.

9. INTERNATIONAL QUALITY STANDARDS

Meets the requirements of MDD 93/42/EEC (Europe) and U.L. (USA).

10. TECHNICAL SPECIFICATIONS

Weight:	255g (with batteries) / .88lb
Size:	143mm (L) x 81mm (W) x 51mm (H)
	2.75" x 5.25" x 6.25"
Storage temperature / Humidity:	-20°C to +50°C / 15% to 90% relative humidity maximum
Operation temperature / Humidity:	10°C to 40°C / 15% to 90% relative humidity maximum
Print system:	Thermal serial dot system
Print direction:	Left to right
Printer head model no.:	SII MTP102-16B
Printer head dimension:	48mm (L) x 31mm (W) x 13.8mm (L)
Printing timing:	Synchronized with the tachogenerator
Home position detection:	Mechanical switching system
Printing speed:	Approx. 1.5 (lines/sec.)
Number of columns:	26 (columns)
Character matrix (HxW):	7x5 (dot)
Printing width / Paper width:	29.0 / 38.0 (mm)
Reliability:	500,000 (lines)
Paper roll:	1" 25mm (standard size)
Power source:	1.5V (AA) alkaline batteries x 4
Low battery:	As battery is < 5.0V, LED will flash continuously with 3 Hz
Accessories:	a) 100cm cable
	b) PAPER, 5/Pkg
Optional:	AC/DC adapter 6V DC, 600mA, 50-60 Hz (6013ZAC)
	Batteries sold separately

* Technical alterations reserved!

Malfunction	Remedy
The LED remains flashing while the printer is switched on although the batteries are good.	1. Check whether the batteries are installed with the correct polarity. 2. If the LED is unusually flashing, remove the batteries and re-install them or exchange them for new ones.
Press the PRINT button on the monitor, but nothing prints	1. Check whether the cable is connected with the monitor and printer. 2. Examine whether the paper is positioned properly and is ready for printing.
There's no response for paper feeding	1. Examine whether the paper is positioned properly. 2. Check if the paper roll has been exhausted and needs to be replaced by a new one.

7. CARE AND MAINTENANCE

a) Do not expose the device to extreme temperatures, humidity, dust, or direct sunlight.

b) Clean the device with a soft, dry cloth. Do not use gasoline, thinners, or similar solvent.

c) Do not drop the device or treat it roughly in any way. Avoid strong vibrations.

d) **Never open the device!**
   The manufacturer warranty is invalid once the device is opened.

1. INTRODUCTION

The diagnostic printer 6014P is a compact unit for ADC® Advantage™ Advanced Automatic Blood Pressure Monitors. The enhanced printer covers both character and graphic print. High-reliability and high-quality print is assured due to the ultra simple design and practicability. Key features include:
- Compact and lightweight design
- High-quality components
- Battery-powered operation
- Designed for versatile applications
- Simple mechanism ensures high-reliability

2. PRINTER PARTS

a) Front View

Top Cover
Bottom Cover
Paper Cutter
Paper Feed
LED
Paper Roll
ON/OFF Switch

b) Back View

AC/DC adapter socket
Printer port socket

(AC/DC adapter sold separately)
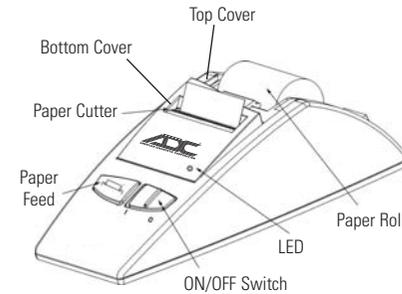
3. SETTING UP THE PRINTER

3.1. Inserting the Batteries

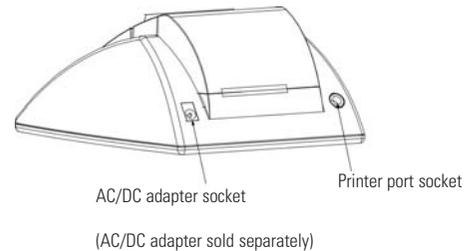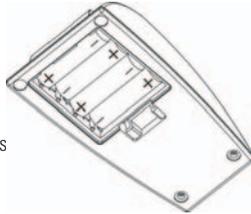The battery compartment is located on the underside of the device (See illustration).

a) Remove cover as illustrated.
b) Insert the batteries (4 x size "AA"), thereby observing the indicated polarity.
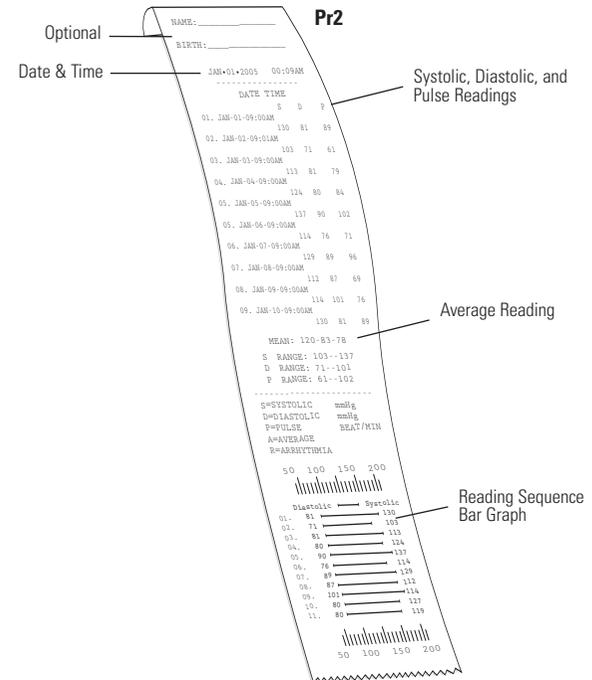c) If the green LED starts flashing, the batteries are discharged and must be replaced.

Attention!

- If the green LED starts flashing, the device will not function until the batteries have been replaced.
- Use 'AA' Long-Life or Alkaline 1.5V Batteries. Do not use rechargeable batteries.
- If the printer is left unused for long periods, remove the batteries from the device.

LED flashing
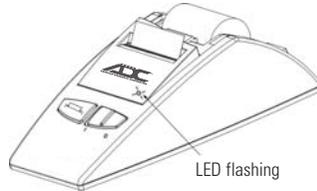
5.1. How to Print a Chart and all Readings

a) Connect the printer to the monitor and switch the printer ON.

b) Press the PRINTER button of the monitor and hold it for at least 3 seconds. The display will change from "Pr1" followed by "Pr2". Release the PRINTER button and the printer will print all stored measurements with a corresponding chart.

Optional

Date & Time

Pr2

```
NAME:_____
BIRTH:_____
----------------
   JAN•01•2005  00:09AM
----------------
     DATE TIME
             S   D   P
01. JAN-01-09:00AM
             130  81  89
02. JAN-02-09:01AM
             103  71  61
03. JAN-03-09:00AM
             113  81  79
04. JAN-04-09:00AM
             124  80  84
05. JAN-05-09:00AM
             137  90  102
05. JAN-06-09:00AM
             114  76  71
06. JAN-07-09:00AM
             129  89  96
07. JAN-08-09:00AM
             112  87  69
08. JAN-09-09:00AM
             114  101  76
09. JAN-10-09:00AM
             130  81  89

  MEAN: 120-83-78
  S  RANGE: 103--137
  D  RANGE: 71--101
  P  RANGE: 61--102
------------------------
S=SYSTOLIC     mmHg
D=DIASTOLIC    mmHg
P=PULSE        BEAT/MIN
A=AVERAGE
R=ARRHYTHMIA

  50  100  150  200
  |||||||||||||||||
Diastolic ── Systolic
01.  81  ────────  130
02.  71  ──────  103
03.  81  ────────  113
04.  80  ─────────  124
05.  90  ──────────  137
06.  76  ────────  114
07.  89  ─────────  129
08.  87  ────────  112
09.  101  ────────  114
10.  80  ──────────  137
11.  80  ─────────  119

  |||||||||||||||||
  50  100  150  200
```

Systolic, Diastolic, and Pulse Readings

Average Reading

Reading Sequence Bar Graph

6. TROUBLESHOOTING

If problems occur when using the printer, the following points should be checked and if necessary, the corresponding remedies taken:
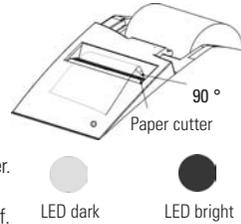
4.6. Cutting Paper

Once you finish the printing job, check the paper to see if it is easy to tear off.

- If it is not long enough to tear off, depress the PAPER FEED button to lengthen the paper.
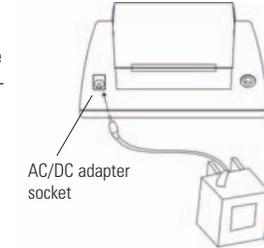
Note:

- Don't pull out the paper if you would like to cut it.
- To cut the paper, pull it forward over the paper cutter.
- The paper has to be vertical (90°) with the paper cutter; otherwise, the paper will be difficult to tear off.
- The print on the paper does not last forever. It fades over time. This is normal for thermal printers such as the ADC® diagnostic printer. The readability lasts longer the less the print is in contact with light. If you file the printed paper in a folder, the print will last longer. If you would like to store the values forever, we recommend you photocopy them or transfer the data to another media.

90 °
Paper cutter

LED dark   LED bright

5. HOW TO PRINT THE LAST STORED MEASUREMENT (One Reading)

a) Connect the printer to the monitor and switch the printer ON.

b) Press the PRINTER button of the monitor once. The display will show "Pr1" and the printer will print last stored measurement for the active User (User1 or User 2)

Pr1

Optional ——— NAME:_____
BIRTH:_____

Single or Average Mode,
Date & Time

AVERAGE MODE
JAN•01•2005 00:09AM

SYS   119 mmHg
DIA   80 mmHg
PULSE 68 BEAT/MIN

Systolic, Diastolic, and
Pulse Readings

3.2. Using an AC Adapter

It is possible to operate this printer through the ADC® AC adapter (output 6V DC / 600mA with DIN plug). Make certain that you use an AC adapter which fulfills the legal requirements.

a) Plug the DIN plug into the socket at the back left of the instrument. (as shown in diagram)

b) Plug the AC adapter into a 110V power socket. Test that power is available by sliding the 0/I (ON/OFF) switch.
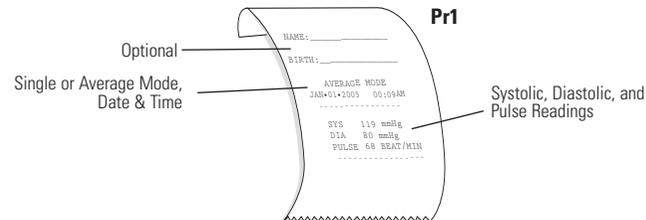
AC/DC adapter
socket

Note:

- No power is taken from the batteries while the AC adapter is connected to the instrument.
- If the power is interrupted during the measurement (e.g. by removal of the AC adapter from the socket), the instrument must be reset by removing the DIN plug from its socket.
- Consult ADC® if you have questions relating to the AC adapter.

3.3. Cable Connection

Insert one end of the cable into the printer port socket at the back right of the instrument (as shown in the diagram).

Connect the other end with the blood pressure monitor (both connectors are identical).

Printer port
socket
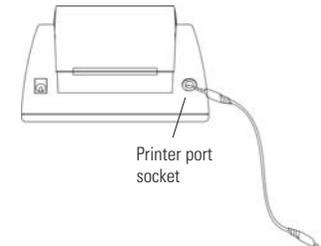
3.4. Inserting the Paper Roll

- Switch the printer on by sliding the I/O (ON/OFF) switch to the left.

- Lift the top cover by squeezing the sides with your fingers and pulling up.

- Insert the "under" end of paper roll into the slot of the internal compartment.

- Push the paper as deep as possible into the slot.

- Press the PAPER FEED button until paper appears at the Paper Cutter.

- Put paper roll into the compartment and close the lid.

Paper roll

There is only 1 kind of paper roll used in this unit. ADC® sells extra paper rolls, contact our Customer Service Department for more details.

Note:
- The paper roll is 1" thick (25mm-standard package) and 38mm wide.

- If there are problems when inserting the paper, cut the edge so that the corners of the paper are square (90°, see below).

4. CARRYING OUT A PRINTING OPERATION

4.1. Power On
Before powering the printer, check that the batteries are inserted properly.
- Push the O/I ON/OFF switch to the left side in order to power the printer.
- The green LED will light.
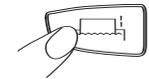
LED bright

4.2. Paper Feeding
Before you start the printing operation, check that the paper is installed properly in the correct position. If it is not, press the PAPER FEED button to feed additional paper into the printer.
Note:
- Press the button once to advance 1 line.
- Continually depressing the button will advance multiple lines.

LED bright

4.3. Printing
- Connect the printer with the monitor as explained in Section 3.3.
- Push the print button on the monitor (for details, refer to the manual of the related monitor).

4.4. Low Voltage Indication
When the LED is flashing under power-on operation, it indicates that new batteries are needed.
- When the batteries are replaced the printer will operate properly.
Note:
- If the printer is connected with an AC adapter, the low voltage indicator will not occur.

LED flashing

4.5. Power Off
After you are done printing, push the O/I (ON/OFF) switch to the right side in order to turn off the printer.
- The LED will become dark.