

Diagnostix™ ADSTATION™

Modular Diagnostic System

5660T

Instructions for Use



Questions?
Call ADC toll free:
1-800-232-2670

ADC
AMERICAN DIAGNOSTIC CORPORATION

Table of Contents

1. A Special Thank You	3
2. Introduction and Intended Use	3
3. Warnings and Precautions	3-4
4. Symbols	5
5. Installation	5-7
6. Operation and Function	7
7. Locking Instrument Heads	7
8. Switching On and Off	8
9. Cleaning and Disinfection	8
10. Technical Specifications	9
11. Warranty	10
12. Quality Standards	10
13. Electromagnetic Compatibility	11-14
14. How to Contact Us	15

1. A SPECIAL THANK YOU

Congratulations on your purchase of an ADC[®] Diagnostix™ Adstation™.

ADC professional diagnostic products are the instruments of choice where accuracy and dependability are critical.

With proper use and care these physical exam and non-invasive diagnostic instruments will provide many years of dependable service.

Read this booklet thoroughly before using your new unit.

2. INTRODUCTION AND INTENDED USE

This manual is for the Diagnostix Adstation. The wall unit described in these instructions is manufactured for use with various ADC instrument heads and modular components for non-invasive diagnostics and physical exams.

The wall unit provides power to compatible instrument heads and modular components. The connected instruments and extension modules are intended for use by trained physicians and healthcare professionals to support the detection, diagnosis, monitoring, treatment, and alleviation of diseases, injuries, and disabilities.

To learn more, visit our website at: **www.adctoday.com**.

3. WARNINGS AND PRECAUTIONS

Your Diagnostix Adstation has been manufactured to the highest global standards and is subjected to rigorous quality control.

Read these instructions for use carefully before putting the unit into operation and keep them in a safe place.

If you have any questions, call our toll-free number or visit our website. Our contact information can be found on the last page of this booklet.

Please note that all instruments described in these instructions for use are only to be used by suitably trained personnel.

The performance and efficiency of this instrument is only guaranteed when original ADC parts and accessories are used.

Warning: There may be a risk of gases igniting when the instrument is used in the presence of flammable or combustible gases. We recommend working in areas with good ventilation.

Warning: The device housing may only be opened by authorized personnel. Failure to comply may result in a risk of electric shock.

Warning: The device contains sensitive electronic components. Avoid strong electrical or electromagnetic fields in the direct vicinity of the device (e.g., mobile telephones, microwave ovens). This can lead to temporary impairment of the ADC Diagnostix Adstation devices.

Warning: Do not use batteries or electrical cords other than those included with this product. Use only replacement parts supplied by the manufacturer.

Warning: No use in MR environment.

Warning: Risk of damage from falling or high ESD influence — if the device has no function, return to manufacturer for repair.













Warning: Any serious incident related to the device must be reported to the manufacturer and the competent authority of the Member State where the user/patient is established.


















Warning: The device is to determine to be used in a controlled environment. The device must not be exposed to harsh, rough environment conditions.

Caution: Unplug the instrument before cleaning or disinfecting. Be careful that no liquid penetrates into the device.

Attention: Some wall systems may include up to three additional extension modules. Take care that the connecting cable does not get caught behind the extension module. Push the connecting cable into the groove provided on the reverse side of the extension module.

4. SYMBOLS

Symbol	Definition
	Follow instructions for use
	Caution! Important note in these instructions. The caution symbol indicates a potentially dangerous situation that can lead to minor or moderate injuries. It can also be used to warn of unsafe practices.
	Warning! The general warning sign indicates a possible dangerous situation that can lead to serious injuries.
	Not made with natural rubber latex
	Phthalate free
	Consult instructions before use
	Medical Device compliant Regulation (EU) 2017/745
	Authorized representative in the European Union
	Manufacturer
	Date of manufacture
	Type BF Equipment
	Do not dispose of this product as unsorted municipal waste. Prepare this product for reuse or separate collection as specified by Directive 2002/96/EC of the European Parliament and the Council of the European Union on Waste Electronic and Electrical Equipment (WEEE). If this product is contaminated, this directive does not apply.

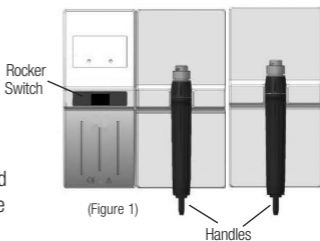
Symbol	Definition
	Protection Class II Unit
	Direct current
	Alternating current
	Batch code
	Catalog Number
	Medical Device
	Unique device identifier
	Non-sterile
	Do not use if the package is damaged
	Importer
	Distributor
	Keep Dry
	Non-ionizing
	Caution! Federal law restricts this device to sale by or on the order of a physician (licensed physician)
	Temperature for transport and storage conditions
	Relative humidity for transport and storage conditions
	Air pressure for transport and storage Air pressure for ambient operating

6. OPERATION AND FUNCTION

Plug device into electrical outlet.

Remove the handle from the cradle by sliding upwards.
(See Figure 1.)

Attach the desired instrument head by placing the two projecting guide cams onto the handle, pressing down lightly, and turning the handle in a clockwise direction until it stops. To remove the instrument head, turn the handle in a counter-clockwise direction.



7. LOCKING INSTRUMENT HEADS

The enclosed allen key can be used to lock instrument head onto power handle. To secure, insert key into slot on head and tighten by turning clockwise. Do not over-tighten. Keep the key in a convenient place in case the head must be removed for cleaning or service.

8. SWITCHING ON AND OFF

Turn on the wall system by using the rocker switch. (See figure 1.) The green control lamp in the rocker switch indicates that the instrument is ready to use. Each handle is automatically ready to operate at 100% light intensity as soon as it is taken out of the cradle, and automatically switches off when replaced back in the cradle.

Light intensity modulation

The modulation of light intensity can be done with the handle; twist the switching ring (see figure 2) in a clockwise or counter-clockwise direction and the light will get stronger or weaker.



(Figure 2)

Attention: The handle switches off automatically when placed in the cradle, or after about two minutes. Make sure that no more than two handles are used at the same time, or the transformer may become overloaded and switch itself off.

9. CLEANING AND DISINFECTION

We recommend disconnecting the power adapter of the Diagnostix Adstation from the power supply before cleaning or disinfection. The Adstation can be cleaned on the outside using a damp cloth until optical cleanliness is achieved. Use disinfection products only in accordance with the manufacturer's instructions. Only disinfectants with proven effectiveness according to national guidelines should be used. After disinfection, wipe the instruments with a damp cloth to remove any residual disinfectant.

Exercise caution when cleaning and disinfecting the wall unit to ensure no liquid enters the interior. Never immerse detachable parts of the Adstation transformer and extension modules (spiral cable, handle, or instrument heads)

in liquid. The instrument heads are supplied non-sterile. DO NOT use ethylene oxide gas, heat, autoclave, or other harsh methods to sterilize the device. The devices are not intended for machine-processed reprocessing or sterilization, as this will cause irreparable damage.

10. TECHNICAL SPECIFICATIONS

Model:	5660TN ADC [®] Diagnostix [™] Adstation [™] Transformer
Power Supply:	Input: 100V~240V AC / 50-60 Hz / 0.6 A Output: 5V DC / 3A / 15W
Diagnostic Station:	Input: 5V DC / 3A / 15W Output 1: 1 x 3.5V dc / 700 mA Output 2: 2 x 5V dc / 2 x 1.15 A
Extension Module:	Input: 5V DC / 3A / 15W Output 1: 1 x 3.5V dc / 700 mA Output 2: 1 x 5V dc / 1 x 1.15 A
Classification:	Application part type B
Operating Conditions:	32°F to 104°F (0°C to 40°C) 10% > 85%, relative humidity
Storage and Transport Conditions:	23°F to 122°F (-5°C to 50°C) 10% > 85%, relative humidity
Air Pressure:	700 to 1050 hPa
Dimensions:	
Diagnostic Station:	7.88" x 7.12" x 2.95" (200 x 180.5 x 75 mm)
Extension Module:	7.88" x 3.94" x 2.95" (200 x 100 x 75 mm)
Weight	
Diagnostic Station:	1.80 lbs (800 g)
Extension Module:	1.10 lbs (500 g)
Switch-On Time:	ON: 1 Min / OFF: 5 Min

11. WARRANTY

This Diagnostix Adstation transformer, extension modules, and instrument heads are warranted for five years from date of purchase. The warranty does not apply to damage caused by improper handling, accidents, improper use, or alterations made to the instrument by third parties. The warranty is only valid after the product is registered online at **www.adctoday.com/support/warranty-registration**.

12. QUALITY STANDARDS

Device fulfills the stipulations of the International standard IEC 60601-1-2

13. ELECTROMAGNETIC COMPATIBILITY

Guidance and manufacture's declaration - Electromagnetic immunity			
The Diagnostic Station is intended for use in the electromagnetic environment specified below. The customer or the user of the Diagnostic station should assure that it is used in such an environment.			
Immunity Test	IEC 60601 test level	Compliance level	Electromagnetic environmental guidance
Electrostatic discharge (ESD) IEC 61000-4-2	Con: ± 8 kV Air: ± 15 kV	Con: ± 8 kV Air: ± 15 kV	Floors should be wood, concrete or ceramic tile. If floor is covered with synthetic material, the relative humidity should be at least 30%. The quality of the supply voltage should be that of a typical business or hospital environment.
Electrical fast transient/burst IEC 61000-4-4	5/50 ns, 100 kHz; ± 2 kV	5/50 ns, 100 kHz; ± 2 kV	
Surge IEC 61000-4-5	1.2/50 (8/20) μ s LtL: ± 1.0 kV LtG: ± 2.0 kV	1.2/50 (8/20) μ s LtL: ± 1.0 kV LtG: ± 2.0 kV	The quality of the supply voltage should be that of a typical business or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0% UT for 0.5 cycle (1 phase) 0% UT for 1 cycle 70% UT for 25/30 cycles (50/60 Hz)	0% UT for 0.5 cycle (1 phase) 0% UT for 1 cycle 70% UT for 25/30 cycles (50/60 Hz)	The quality of the supply voltage should be that of a typical business or hospital environment.
	0% UT for 250/300 cycles (50/60 Hz)	0% UT for 250/300 cycles (50/60 Hz)	
Power frequency (50Hz/60Hz) magnetic field IEC 61000-4-8	30 A/m 50 Hz	30 A/m 50 Hz	Mains frequency magnetic fields should be at a level characteristic of a typical location in a typical commercial hospital environment.
NOTE: UT is the a.c. mains voltage prior to application of the test level.			


Guidance and manufacture's declaration - Electromagnetic emission

The Diagnostic Station is intended for use in the electromagnetic environment specified below. The customer or the user of the Diagnostic station should assure that it is used in such an environment.

Emission Test	Compliance	Electromagnetic environment - guidance
RF-Emission CISPR 11	Group 1	The Diagnostic Station uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF-Emission CISPR 11	Class B	The Diagnostic Station is intended for use in all establishments, including residential areas and those directly connected to a public supply network that also supplies buildings used for residential purposes.
Harmonic emissions IEC 61000-3-2	Pass	
Voltage fluctuations/Flicker emissions IEC 61000-3-3	Pass	

Guidance and manufacturer's declaration - Electromagnetic immunity

The Diagnostic Station is intended for use in the electromagnetic environment specified below. The customer or the user of the Diagnostic station should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	Pass	Pass	Portable and mobile RF communications equipment should not be used closer to any part of the Diagnostic Station, including the cables, than the recommended distance, which is calculated using the equation applicable to the transmitter frequency. Recommended separation distance $d=1.2\sqrt{P}$ 150 KHz to 80 MHz $d=1.2\sqrt{P}$ 80 MHz to 800 MHz $d=1.2\sqrt{P}$ 800 MHz to 2.7 GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, a should be less than the compliance level in each frequency range. b interference may occur in the vicinity of equipment marked with the following symbol: Where P is the maximum output power of the transmitter in watts (W) according to the transmitter manufacturer and the recommended distance is given in meters (m). Field strengths from fixed RF transmitters determined by an electromagnetic site survey a, should be less than the compliance level in each frequency range b. Interference may occur in the vicinity of devices marked with the following symbol. 
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.7 GHz	3 V/m	
Proximity fields from RF wireless communications equipment	Pass	Pass	

NOTE 1: At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations.

Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

- a.) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and landmobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Diagnostic Station is used exceeds the applicable RF compliance level above, the Diagnostic Station should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Diagnostic Station.
- b.) Over the frequency range 150 KHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the Diagnostic Station.

The Diagnostic Station is intended for use in the electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Diagnostic Station can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Diagnostic Station as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter (W)	Separation distance according to frequency of transmitter (m)		
	150 kHz to 80 MHz $a=12\sqrt{P}$	80 MHz to 800 MHz $a=1,2\sqrt{P}$	800 MHz to 2.7 GHz $a=2,3\sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations, Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

14. HOW TO CONTACT US

To register your product and obtain further detailed user information about our products and services visit us at:

www.adctoday.com

and follow the links.

For questions, comments, or suggestions call us toll free at:

1-800-232-2670

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