



Med Vue[®]

**Model MVWIFI
WiFi Option
Operation Manual**



8555-M519-O1 Rev A
03/13

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INTRODUCTION

Thank you for purchasing our MedVue® Model MVWIFI WiFi Option. This option card for the Detecto MedVue® Weight Analyzer was built with quality and reliability at our factory in Webb City, MO USA.

The MVWIFI has been designed for the environment where interfacing through an WiFi network is desired.

The purpose of this manual is to provide you with a guide through installation, setup and operation of the MedVue® Model MVWIFI WiFi Option. Please read it thoroughly before attempting to install the option card in your weight analyzer and keep it handy for future reference.

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All rights reserved. Reproduction or use, without expressed written permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein.

DISCLAIMER

While every precaution has been taken in the preparation of this manual, the Seller assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from use of the information contained herein. All instructions and diagrams have been checked for accuracy and ease of application; however, success and safety in working with tools depend to a great extent upon the individual accuracy, skill and caution. For this reason the Seller is not able to guarantee the result of any procedure contained herein. Nor can they assume responsibility for any damage to property or injury to persons occasioned from the procedures. Persons engaging the procedures do so entirely at their own risk.

PRECAUTIONS

Before using this device, read this manual and pay special attention to all NOTIFICATION symbols:



IMPORTANT



**ELECTRICAL
WARNING**



**STATIC
SENSITIVE**

FCC COMPLIANCE STATEMENT

This equipment generates uses and can radiate radio frequency and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area may cause interference in which case the user will be responsible to take whatever measures necessary to correct the interference.

You may find the booklet “How to Identify and Resolve Radio TV Interference Problems” prepared by the Federal Communications Commission helpful. It is available from the U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 001-000-00315-4.

PROPER DISPOSAL

When this device reaches the end of its useful life, it must be properly disposed of. It must not be disposed of as unsorted municipal waste. Within the European Union, this device should be returned to the distributor from where it was purchased for proper disposal. This is in accordance with EU Directive 2002/96/EC. Within North America, the device should be disposed of in accordance with the local laws regarding the disposal of waste electrical and electronic equipment.

It is everyone’s responsibility to help maintain the environment and to reduce the effects of hazardous substances contained in electrical and electronic equipment on human health. Please do your part by making certain that this device is properly disposed of. The symbol shown to the right indicates that this device must not be disposed of in unsorted municipal waste programs.



INSTALLATION

Mounting the MVWIFI Option Card

NOTE: Should your weight analyzer come with the option card already installed, the following section describing mounting, does not apply. Proceed to the NETWORK CONFIGURATION.



ATTENTION! OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES.



MAKE SURE THE POWER TO THE MEDVUE WEIGHT ANALYZER IS OFF!

If you are operating the weight analyzer using batteries, remove them. If using the optional power supply, unplug the power supply cable from the 12VDC jack on the back of the weight analyzer.

1. With the power off, remove the two (2) screws from the right end cap (as viewed from the front of the weight analyzer) and remove the end cap.

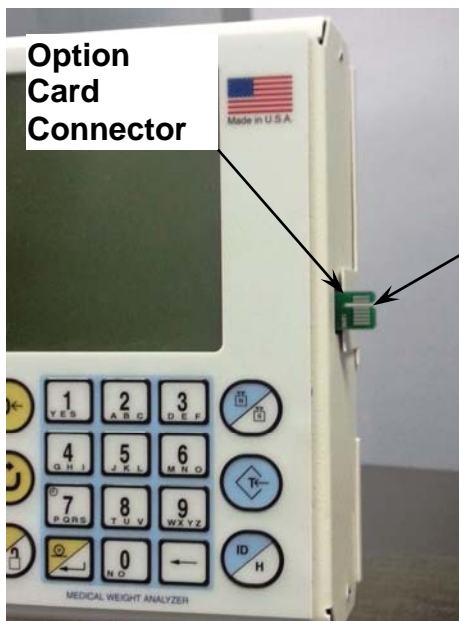


Figure No. 1



Figure No. 2

2. Locate the option card connector protruding out of the side panel. See Figure No. 1.
NOTE: The option card connector protruding out of the side panel is keyed or has a slot in it (see Figure No. 1) and the connector on the option card connector is keyed or divided.
3. To install the MVWIFI option card, carefully align the connector on the MVWIFI option card with option card connector protruding out of the side panel and apply even pressure to the MVWIFI option card. See Figure No. 2.
4. Re-install the end cap and secure with the two (2) screws removed in step 1.
5. Press the **ON/OFF** key to turn the weight analyzer on.
6. The weight analyzer is now ready to configure for the network.

NETWORK CONFIGURATION

From the initial factory settings, the MedVue WiFi option will appear as a wireless access point with the name “MedVue”. In order to connect to the weight analyzer, you can either connect to it as an access point and then open a TCP/IP connection to the weight analyzer, or you can set the WiFi option to connect to an existing network and then make a TCP/IP connection to it. In order to set up the MedVue WiFi option to connect to an existing network, you will first need to connect to it as an access point from a device able to make wireless connections and that can run a web browser. Once your wireless device (i.e. a laptop or smart phone) has connect to the “MedVue” access point, navigate to the following address using a web browser in order to set up the appropriate network configuration settings.

<http://192.168.0.100/iChip>

If your attempt to browse to this page is successful, you will be presented with a password screen in order to change the network configuration settings.

Passwords	
Password required to change parameter values.	
Password (AT+iRPG) :	<input type="text"/>

Submit

Enter “detecto” as the password and click on the “Submit” button.

You should then be presented with a new page which contains a form that can be used to set up the network configuration to either connect to an existing network, or act as a wireless access point.

The following is an image of how this screen will appear as well as functional descriptions of each of the settings.

Network Configuration			
Parameter	Value	Limitations	Description
WIFI			
WLCH	<input type="text" value="11"/>	1..13	Wireless Lan Channel (Ad-Hoc)
WST0	<input type="text" value="0"/>	0-6,105,106	Wireless Security Type
WLK1	<input type="text"/>	32 Chars	Wireless Lan WEP Key
WLPP	<input type="text"/>	8-63 Chars	Wireless Lan WPA Passphrase
EUSN	<input type="text"/>	64 Chars	Enterprise Domain/Username
EPSW	<input type="text"/>	64 Chars	Enterprise Password
	<input type="button" value="upload CA file"/>		
WLSI	<input type="text" value="!MedVue"/>	32 Chars	Wireless Lan SSID
Available APs and Ad-Hoc networks (SSID, ADHOC or AP, BSSID, Security Type, Channel, RSSI)			
MedVue,ADHOC,02:21:71:55:88:50,NONE,11,27			
LAN			
DIP	<input type="text" value="192.168.0.100"/>		Default IP
SNET	<input type="text" value="255.255.255.0"/>		Subnet
IPG	<input type="text" value="0.0.0.0"/>		IP Gateway
Dialup / Cellular			
ISP1	<input type="text"/>	96 Chars	ISP's Primary Phone Number
ATH	<input type="text" value="1"/>	0..2	Authentication
USRN	<input type="text"/>	64 Chars	ISP Username
PWD	<input type="text"/>	63 Chars	ISP Password
MTYP	<input type="text" value="0"/>	0..12,100..112,98	Modem Type
MIS	<input type="text" value="AT&F0V1X4Q0&D2M1L3"/>	126 Chars	Modem Initialization String
PPP	<input type="text" value="0"/>	0..2	PPP ACFC Handling
Misc			
AWS	<input type="text" value="0"/>	0..3, 100	Automatic Web Server activation
LATI	<input type="text" value="0"/>	0..65,535	Listen port to enable remote AT+i

The following is a description of the parameters and appropriate settings:

WLCH (Wireless LAN channel): This sets the default WiFi communication channel. When the MedVue is set to operate in Ad-Hoc mode, this parameter must be given a value between 1-13 that defines the channel to be used for beacon transmission. When set to connect to an existing network, the MedVue WiFi option will adopt that network's channel.

WST0 (Wireless LAN security type): This sets the wireless LAN security type for the SSID that the weight analyzer is to connect to, and does not apply for Ad-Hoc connection. Following are descriptions of valid inputs into this field and what type of security they represent:

0 = no security

1 = WEP 64

2 = WEP 128

3 = WPA-PSK with TKIP encryption

4 = WPA2-PSK with TKIP or AES encryption

7 = EAP-MD5 and static WEP64

8 = EAP-MD5 and static WEP128

105 = WPA-TKIP Enterprise with EAP-TLS or PEAP-MSCHAPv2. RADIUS Certification Verification will be skipped.

106 = WPA2-AES Enterprise with EAP-TLS or PEAP-MSCHAPv2. RADIUS Certification Verification will be skipped.

WLK1 (Wireless LAN WEP Key): Sets the Wireless LAN WEP key. Key must be a hexadecimal representation string where each byte is described by 2 ASCII characters in the range ['0'..'9'], ['A'..'F'] or ['a'..'f']. When using 64-bit WEP key may contain up to 10 characters (defining 5 bytes). When using 128-bit WEP, key may contain up to 26 characters (defining 13 bytes).

WLPP (Personal shared key pass-phrase): Sets the wireless LAN WPA-PSK pass-phrase. When left empty, this WPA security will be disabled. If WLSI (SSID) is not empty, WPA-PSK security is enabled for WiFi connections and the pass-phrase is used in generating the WPA-PSK encryption key. The allowed value for this parameter is an ASCII string containing 8-63 characters.

EUSN (Domain and user name for WiFi Enterprise mode): Sets the login user name to be used for WiFi Enterprise. The parameter takes effect following a power cycle only. A change to this parameter during operation does not affect the current connection.

EPSW (Password for WiFi Enterprise mode): Sets the password to be used for WiFi Enterprise. This parameter takes effect following a power cycle only. A change to this parameter does not affect the current connection.

WLSI (Wireless LAN Service Set Identifier 'SSID'): Sets the destination Wireless LAN SSID string. This parameter is required for communications with a specific WLAN access point and must be configured with the exact SSID of the access point you wish to connect to. A list of available access points and ad-hoc networks can be seen on the webpage just below this prompt. In order to set the MedVue to act as an access point, the SSID must be entered as "!MedVue" with the exclamation point telling the weight analyzer that it will be an access point.

DIP (Default IP address): This will set the option card's default IP address. This should default to the IP address "192.168.0.100", but can be changed to any appropriate address when connecting to an existing network. To use DHCP automatic addressing, this parameter must be set to "0.0.0.0". It is not recommended to set the weight analyzer to DHCP as it could make locating the weight analyzer on the network difficult.

SNET (Subnet mask): Sets the subnet IP mask for the LAN connection. If this parameter is set to "0.0.0.0" it will attempt to calculate the appropriate subnet mask on the next power cycle if the option card is set with a static IP address (see DIP above). If set to connect via DHCP, the subnet mask will be resolved when attempting to connect to the DHCP server.

IPG (IP gateway): Sets the IP Gateway used by the MedVue. The weight analyzer will attempt to resolve the IP gateway by DHCP, but only if the DIP parameter is set to empty (0.0.0.0).

Dialup/Cellular: These settings are not used by the MedVue WiFi option and can be ignored.

AWS (Automatic Web Server activation): This setting sets how the configuration web page will be presented. By default, when viewing this web page, this setting will reset to zero. It is very important to enter the correct setting in order to enable this configuration web page if settings need to be changed. Following are valid settings for this parameter and their descriptions.

1 = Web server will automatically start on next power cycle. This setting will expose ALL of the MedVue WiFi option card parameters and is not recommended for normal use.

100 = HTTPS secure web server will be started automatically (same as '1' but using secure web connection).

200 = HTTPS secure web server will be started automatically (same as '201' below but using secure web connection).

201 = (RECOMMENDED) HTTP web server will start automatically and will show the web pages described in this addendum. This is the recommended setting for this parameter.

LATI (TCP Listening Socket to service remote AT+i commands): This starts a listening port for remote AT+i commands. This is not recommended for normal operation and should be set to '0' to disable this functionality.

Once all settings have been entered, click "Submit" at the bottom of the webpage in order to save the parameters.

It may be necessary after changing parameters to power cycle the weight analyzer for the settings to take effect.



NOTE: It is important to wait at least 20 seconds before attempting the power cycle to ensure all settings have been set in the weight analyzer option card.

OPERATION

Once the weight analyzer network configuration has been set up properly, the weight analyzer should briefly display it's IP address shortly after powering up. To connect to the weight analyzer, you must make a TCP client connection to the weight analyzer's IP address at port 10001. Once connected to this port, you can issue the commands described below to the weight analyzer if it is set to "On Demand" output format (see MedVue operation manual for information on setting this parameter).

<ENQ> - (Hex 05) Character sent to the MedVue weight analyzer will respond with the following weight string:

Pxxxxxx^UU^M^SS^CR (no decimal point in weight)

PxxxxxD^UU^M^SS^CR (decimal point in weight)

Where:

P = polarity (space if positive, - if negative)

xxxxxx = weight with leading spaces

D = decimal point (embedded where necessary)

^ = space (hex 20)

UU = units, upper case (LB, KG, TN, etc.)

M = mode, upper case (G=gross, N=Net)

SS = status, upper case (CZ=center-of-zero,

MO=motion, BZ=gross weight below zero

EE=entry - Input in progress, OC=over capacity)

CR = carriage return (hex 0D)

<LF>W<CR> String sent to the MedVue weight analyzer will respond with the SMA weight string:

<LF>S1GM^DDDDDDDDDDUUU<CR>

Where:

<LF> = Line feed character (hex 0A)

S = Status ('O' = Over Cap, 'Z' = Center Zero, 'U' = Below Zero, 'E' = Error)

1 = The number '1'

G = Mode of operation ('G' = Gross, 'N' = Net, 'T' = Tare)

M = Motion bit ('M' = Motion, ' ' = Settled)

^ = Space

DDDDDDDDDD = Weight with decimal point if necessary

UUU = Units (e.g. 'lb ', 'kg ', 'ton', etc..)

<CR> = Carriage return (hex 0D)

<LF>P<CR> Weight analyzer will respond with all information formatted with each item on its own line.

<LF>J<CR> Weight analyzer will respond with all information formatted with each item separated by commas (comma delimited) followed by a carriage return.

<LF>Z<CR> Zero the scale within the constraints of the zero settings.

<LF>T<CR> Scale attempts to tare itself setting the tare weight to the current gross weight.

<LF>T<xxxxxx.xxx><CR> Scale attempts to set the weight (represented as<xxxxxx.xxx> in the string) to the requested value.

<LF>M<CR> Scale returns the current tare weight.

<LF>U<CR> Scale will toggle between calibration units if conversion units have been set up in scale calibration.

<LF>**A**<CR> Scale will respond with:

<LF>MedVue<CR>

<LF>**XH**<CR> Scale will respond with the current height:

<LF>Height<CR>

<LF>**XB**<CR> Scale will respond with the current BMI:

<LF>BMI<CR>

<LF>**XI**<CR> Scale will respond with the currently entered ID:

<LF>ID<CR>

<LF>**XA**<CR> Scale will respond with current weight, height, BMI, and ID in comma delimited format:

<LF> weight (see <LF>W<CR> above), Height, BMI, ID<CR>

If the MedVue weight analyzer has been set to continuous mode of outputting weight, it will output the weight in the format listed above for <LF>W<CR> every 500 milliseconds.

MVWIFI RESET

If you are having issues connecting to the MVWIFI you may want to try and reset the MVWIFI option card.

With the weight analyzer on and in the Gross weight mode:

1. Press and hold the **CLEAR** (←) key for approximately 3 seconds.
2. The display will change to show **SETUP REVIEW**.
3. Release the **CLEAR** (←) key.
4. The display changes to show **SETUP**.
5. Press the **ID/HEIGHT** key until the **ETHERNET/WIFI** prompt is displayed.
6. Press the **ENTER** key until the **RESET ETHERNET** prompt is displayed.
7. Change this setting to **YES** (press the **1/YES** key) and then press the **ENTER** key.
8. Wait for the MedVue to reset the MVWIFI.
9. Refer to the Network Configuration section of this manual to setup network connection.

STATEMENT OF LIMITED WARRANTY

Detecto Scale warrants its equipment to be free from defects in material and workmanship as follows: Detecto warrants to the original purchaser only that it will repair or replace any part of equipment which is defective in material or workmanship for a period of one **(1) year** from date of shipment. Detecto shall be the sole judge of what constitutes a defect.

During the **first ninety (90) days** Detecto may choose to supply all necessary replacement parts and service during normal week-day working hours at no charge to the buyer.

After the first ninety (90) days Detecto will supply parts and service at the job site provided the owner agrees to pay the Dealer for all travel time, including mileage and test equipment, as well as any expenses incurred over the direct labor of the technician at the job site. This limited warranty honors only labor performed by Detecto authorized dealers.

This warranty does not apply to peripheral equipment not manufactured by Detecto; this equipment will be covered by certain manufacturer's warranty only.

This warranty does not include replacement of expendable or consumable parts. This does not apply to any item which has deteriorated or damaged due to wear, accident, misuse, abuse, improper line voltage, overloading, theft, lightning, fire, water or acts of God, or due to extended storage or exposure while in purchaser's possession. This warranty does not apply to maintenance service. Purchased parts will have a ninety (90) day repair or replacement warranty only.

Detecto may require components be returned to the factory; they must be properly packed and shipping charges prepaid. A return authorization number must be obtained for all returns and marked on the outside of all returned packages. Detecto accepts no responsibility for loss or damage in transit.

Conditions Which Void Limited Warranty

This warranty shall not apply to equipment which:

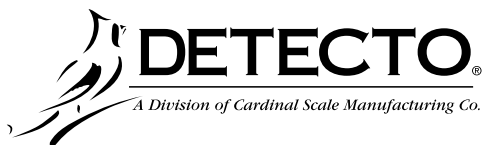
- A.) Has been tampered with, defaced, mishandled or have had repairs and modifications not authorized by Detecto.
- B.) Has had serial number altered, defaced, or removed.
- C.) Has not been grounded according to Detecto's recommended procedure.

Freight Carrier Damage

Claims for equipment damaged in transit must be referred to the freight carrier in accordance with freight carrier regulations.

This warranty sets forth the extent of our liability for breach of any warranty or deficiency in connection with the sale or use of the product. Detecto will not be liable for consequential damages of any nature, including but not limited to, loss of profit, delays or expenses, whether based on tort or contract. Detecto reserves the right to incorporate improvements in material and design without notice and is not obligated to incorporate improvements in equipment previously manufactured.

The foregoing is in lieu of all other warranties, express or implied including any warranty that extends beyond the description of the product including any warranty of merchantability or fitness for a particular purpose. This warranty covers only those Detecto products installed in the forty-eight (48) contiguous continental United States.



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