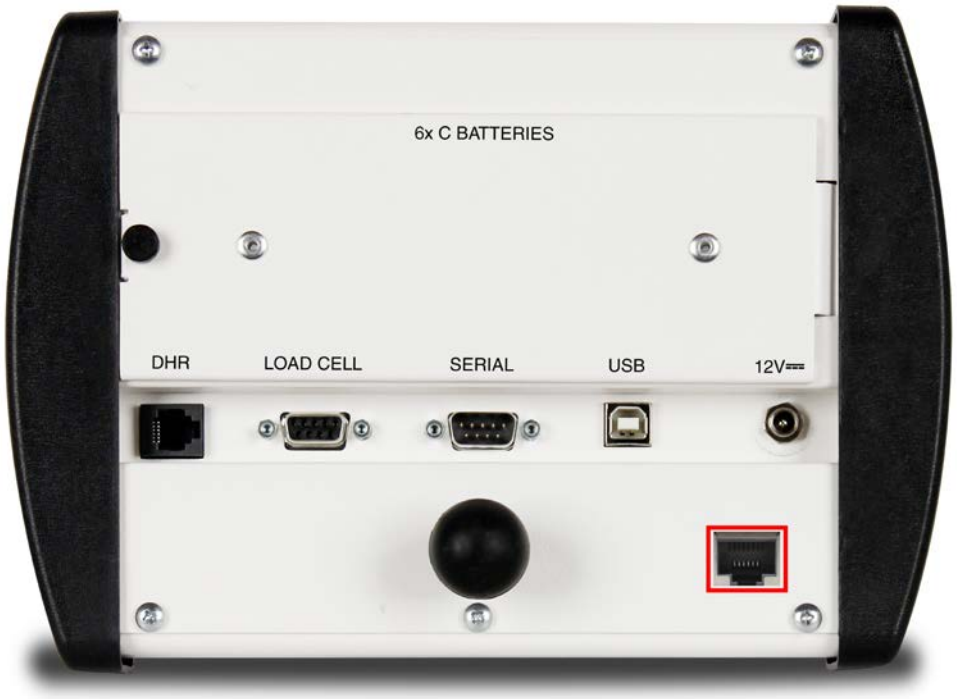
DETECTO®

MedVue®



Model MVIP

Ethernet Option

Setup and Operation Manual

INTRODUCTION

Thank you for purchasing our MedVue® Model MVIP Ethernet Option. This option card for the Detecto MedVue® Weight Analyzer was built with quality and reliability has been designed for the environment where interfacing through an Ethernet network is desired.

The purpose of this manual is to provide you with a guide through installation, setup, and operation of the MedVue® Model MVIP Ethernet Option. Please read it thoroughly before attempting to install the option card in your MedVue Weight Analyzer and keep it available for future reference.

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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 the 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 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 in 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

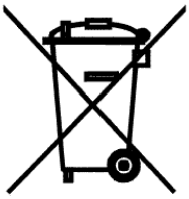
This equipment generates uses and can radiate radio frequency and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 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. The stock no. is 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 MVIP Option Card

NOTE: Should your MedVue 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 MedVue using batteries, remove them. If using the optional power supply, unplug the power supply cable from the 12V DC jack on the back of the MedVue.

1. With the power off, remove the four (4) screws securing both end caps (two (2) screws in each end cap) and remove the end caps.
2. Remove the five (5) screws on the back and the two (2) screws on each side holding the back panel in place.
3. Remove the back-panel assembly from the front panel and unplug the keypad.
4. Remove the four (4) jack screws and lock washers next to the Serial and Load Cell connector using a 3/16 socket.
5. Remove the nut and washer on the DC barrel plug connection using a 3/8 socket.
6. Using a pair of Needle-nose pliers un-twist the posts next to the display and remove the back panel. **NOTE:** Be careful not to damage the display while un-twisting securing posts.
7. Unplug the battery connector from the MedVue PCB.
8. Insert the MVIP option card into the Ethernet connector P10 and fold the flap on the front panel down and out of the way.
9. Reattach the MedVue PCB to the back panel. Make sure the connectors inserted through the holes and mounting posts next to the display are all the way inserted.
10. Using Needle-nose pliers twist mounting posts.
11. Reinstall the four (4) jack screws and washers.
12. Reinstall the nut and washer on the DC barrel plug.
13. Plug keypad back in and insert back panel assembly back into the front panel.
14. Reinstall six (6) screws that hold the back panel to the front panel.
15. Reinstall both end caps and secure with the four (4) screws removed in step 1.
16. Press the **ON/OFF** key to turn the MedVue on.
17. The MedVue is now ready to configure for the network.

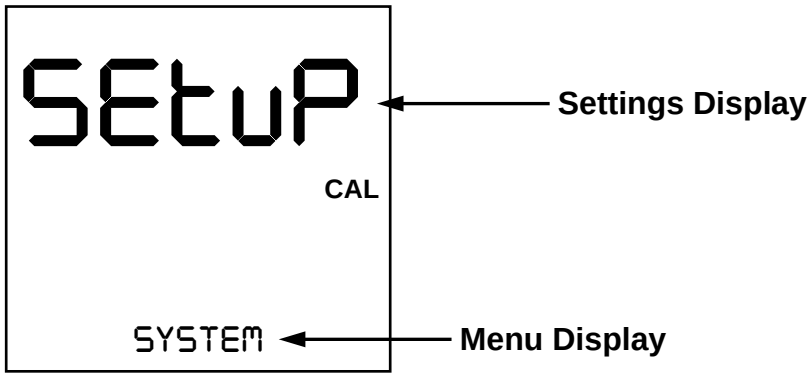
INSTALLATION, CONT.

Enable and Configure Ethernet Networking

The MedVue® Medical Weight Analyzer with the Model MVIP Ethernet Option card allows the network settings to be reviewed and changed as necessary without having to use the calibration switch to enter setup.

To enable and configure the EtherNet networking:

1. With the MedVue turned ON and in the Gross weight mode, 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:



5. Press the **ID/HEIGHT** key until ETHERNET is shown in the Menu area of the display.
6. With ETHERNET displayed, press the **ENTER** key.

ETHERNET MOdE (Ethernet Port Output Mode)

The display will change to show ETHERNET MOdE and the current setting. If the value displayed is acceptable, press the **ENTER** key to save it. Otherwise, using the numeric keys enter a new value, and then press the **ENTER** key to save it.

Allowable values are 0, 1, 2, or 3.

- 0 = Ethernet Port Output Mode is Disabled
- 1 = Ethernet Port Output Mode is set for Weight On Demand
- 2 = Ethernet Port Output Mode is set for Continuous Data
- 3 = Ethernet Port Output Mode is set for a Printer (not for connection to a printer but can output print data to a PC if connected)

INSTALLATION, CONT.

If ETHERNET MOdE = 3, the following parameters, PRINTER TYPE (Set Type of Printer Output), and End OF PRINT (End of Print Line Feeds) will be shown.

PRINTER TYPE (Set Type of Printer Output)

The display will change to show PRINTER TYPE and the current setting. If the value displayed is acceptable, press the **ENTER** key to save it. Otherwise, using the numeric keys enter a new value, and then press the **ENTER** key to save it.

Allowable values are 0, 1, 2, or 3.

0 = Print default ticket
1 = Print journal line
2 = Print label
3 = Print nControl ticket
(must have loaded a ticket format, otherwise will use default ticket)

End OF PRINT (End of Print Linefeeds)

At the end of data sent to a printer, the MV1 can send a number of carriage return/line feeds to space the paper in the printer to the desired position for withdrawal or the next print.

The display will change to show End OF PRINT and the current setting. If the value displayed is acceptable, press the **ENTER** key to save it. Otherwise, using the numeric keys enter a new value, and then press the **ENTER** key to save it.

Allowable values are 0 through 9.

Reset Ethernet Settings to Factory Default Settings

The display will show RESET ETHERNET and the current setting. If the value displayed is acceptable, press the **ENTER** key to save it. Otherwise use the numeric keys **0/NO** or **1/YES** to select a new setting, and then press the **ENTER** key to save it.

Allowable values are YES or no.

YES = Ethernet settings are reset to factory default settings

no = Ethernet settings are <u>not</u> reset to factory default settings

NETWORK CONFIGURATION

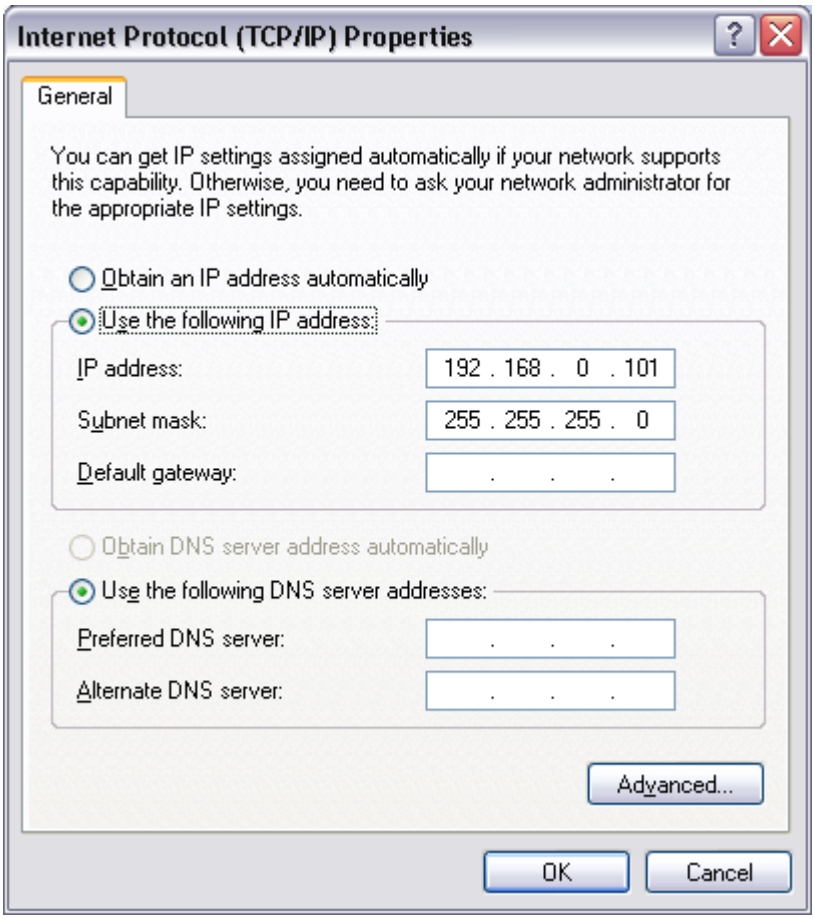
The default settings of the MVIP option will use the following IP address and subnet mask:

IP Address: 192.168.0.100

Subnet Mask: 255.255.255.0

To connect to the MedVue, you must first connect it to a PC through a network switch or router, or directly to the PC using an Ethernet crossover cable. The PC must be set up with a static IP address and a subnet mask that will allow it to communicate to the default settings of the MedVue.

Example of PC network settings that will allow you to connect to the MVIP default setup:



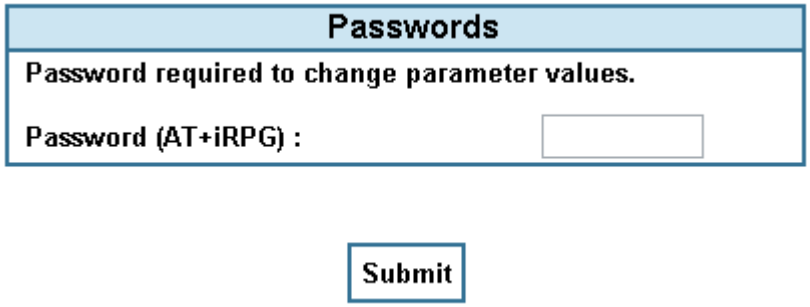
NETWORK CONFIGURATION, CONT.

After setting the network configuration of your PC to be able to communicate to the MVIP, you can then access the configuration web page to set it to connect to an existing network.

Navigate to the following address using a web browser 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 where you must log in to be able to adjust the network settings.



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

You should then be presented with a new page that contains a form that can be used to set up the network configuration to connect to an existing network.

The example on the next page is how the configuration web page will appear.

NETWORK CONFIGURATION, CONT.

Network Configuration			
Parameter	**Value**	**Limitations**	**Description**
		WIFI	
WLCH	11	1..13	Wireless Lan Channel (Ad-Hoc)
WST0	0	0-6,105,106	Wireless Security Type
WLK1		32 Chars	Wireless Lan WEP Key
WLPP		8-63 Chars	Wireless Lan WPA Passphrase
EUSN		64 Chars	Enterprise Domain/Username
EPSW		64 Chars	Enterprise Password
upload CA file			
WLSI	!MedVue	32 Chars	Wireless Lan SSID
Available APs and Ad-Hoc networks (SSID, ADHOC or AP, BSSID, Security Type, Channel, RSSI) MedVue,ADHOC,02:21:71:55:68:50,NONE,11,27			
		LAN	
DIP	192.168.0.100		Default IP
SNET	255.255.255.0		Subnet
IPG	0.0.0.0		IP Gateway
		Dialup / Cellular	
ISP1		96 Chars	ISP's Primary Phone Number
ATH	1	0..2	Authentication
USRN		64 Chars	ISP Username
PWD		63 Chars	ISP Password
MTYP	0	0..12,100..112,98	Modem Type
MIS	AT&FE0V1X4Q0&D2M1L3	126 Chars	Modem Initialization String
PPP	0	0..2	PPP ACFC Handling
		Misc	
AWS	0	0..3, 100	Automatic Web Server activation
LATI	0	0..65,535	Listen port to enable remote AT+i

NETWORK CONFIGURATION, CONT.

The following is a description of the parameters and appropriate settings for the Network Configuration web page:

WIFI
The settings in this section are not used by the MVIP option card and can be ignored.

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 connect using DHCP automatic addressing, this parameter must be set to "0.0.0.0". It is not recommended to set the MedVue to DHCP as it could make locating the MedVue on the network difficult since its assigned IP address may change.

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 MedVue 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
The settings in this section are not used by the MVIP 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 to enable this configuration web page if settings need to be changed. The following are valid settings for this parameter and their descriptions.

- 1 = The web server will automatically start on the next power cycle. This setting will expose ALL of the MedVue MVIP 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 a 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.

NETWORK CONFIGURATION, CONT.

Once all settings have been entered, click "**Submit**" at the bottom of the web page to save the parameters.

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

It is important to wait at least 20 seconds before attempting the power cycle to ensure all settings have been saved in the MedVue MVIP option card.

OPERATION

Once the MedVue network configuration has been set up properly, the MedVue should briefly display its IP address shortly after powering up. To connect to the MedVue, you must make a TCP client connection to the MedVue's IP address at port 10001. Once connected to this port, you can issue the commands described below to the MedVue 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 will respond with the following weight string:

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

PxxxxxxD^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 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 a decimal point if necessary
UUU	=	Units (e.g. 'lb ', 'kg ', 'ton', etc.)
<CR>	=	Carriage return (hex 0D)

OPERATION, CONT.

<LF>P<CR> – MedVue will respond with all information formatted with each item on a line.

<LF>J<CR> – MedVue 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>

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

MVIP RESET

If you are having issues connecting to the MVIP, it may be necessary to reset the MVIP.

With the MedVue 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 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 MVIP.
9. Refer to the Network Configuration section of this manual to set up a network connection.

STATEMENT OF LIMITED WARRANTY

DETECTO 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 **two (2) years 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 replace the product at no charge to the buyer upon inspection of the returned item.

After the first ninety (90) days, upon inspection of the returned item, DETECTO will repair or replace it with a remanufactured product. The customer is responsible for paying for the freight both ways.

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 the product to be returned to the factory; item(s) 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 items lost or damaged in transit.

Conditions Which Void Limited Warranty

This warranty shall not apply to equipment which:
A.) Has been tampered with, defaced, mishandled or has had repairs and modifications not authorized by DETECTO.
B.) Has had serial number altered, defaced, or removed.
C.) Has not been properly 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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