

# •bOSS Family Hardware Guide



•bOSS

•bOSS mini

Total Connectivity for High Efficiency Control Solutions





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	page
Models and part numbers	4
Connections	5
Main Features	8
Menus and descriptions	9
First access procedure	11
Default IP connection	12
Direct connection via LAN	13
Connection via Wi-Fi	14
Connecting boss to the Internet	15
Service pack upgrades	17
RS-485 Networking	18
Wi-Fi Gateway	21
Plug-in Modules	24
Telegram messaging	25

# Models and Part numbers



**BOSS**

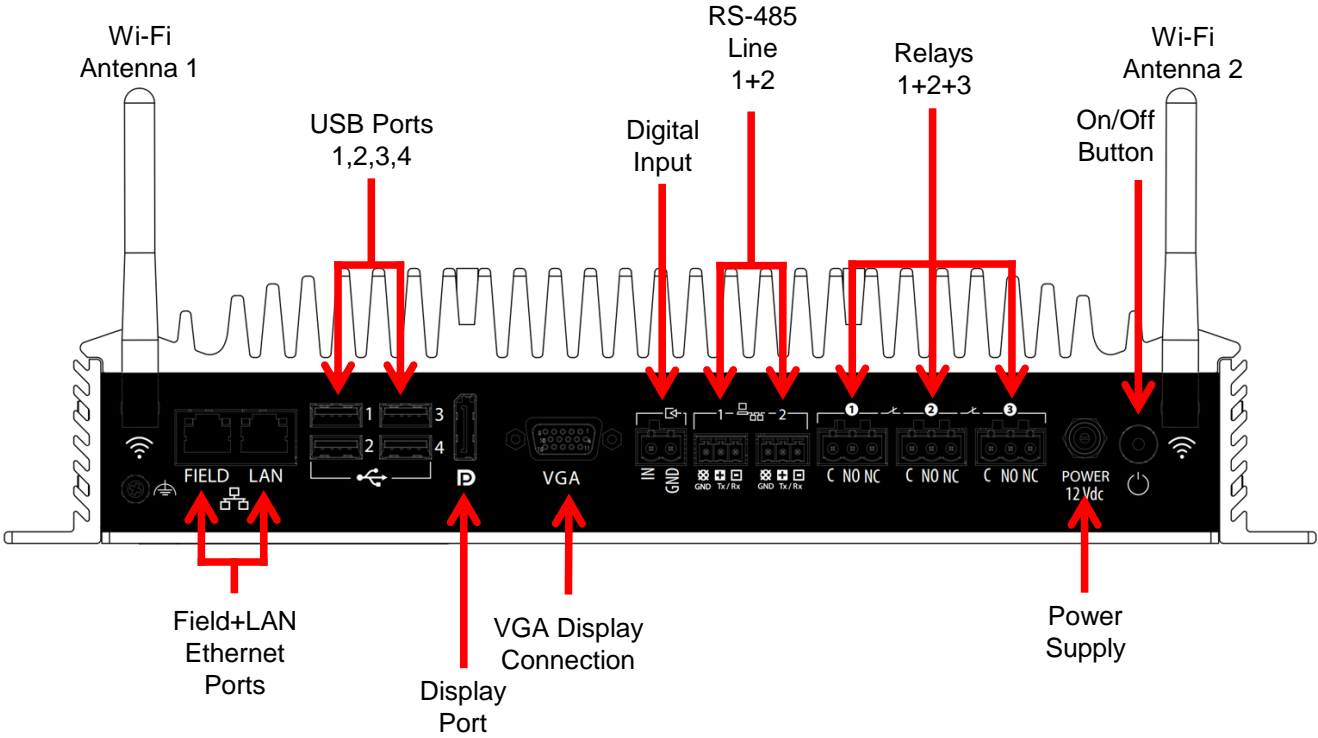
Model	Description
BMHST03XS0	boss 100 device unit with 3 plugin credits
BMHST03XE0	boss 300 device unit with 3 plugin credits
Accessories	
BMHST03P00	3 plugin add on credits for boss
BMHSTMNA00	boss Touch Screen 17"
BMHSTCH05MK	Touch Screen 5m Cable Kit
BMHSTMDA00	boss 3G Modem for SMS



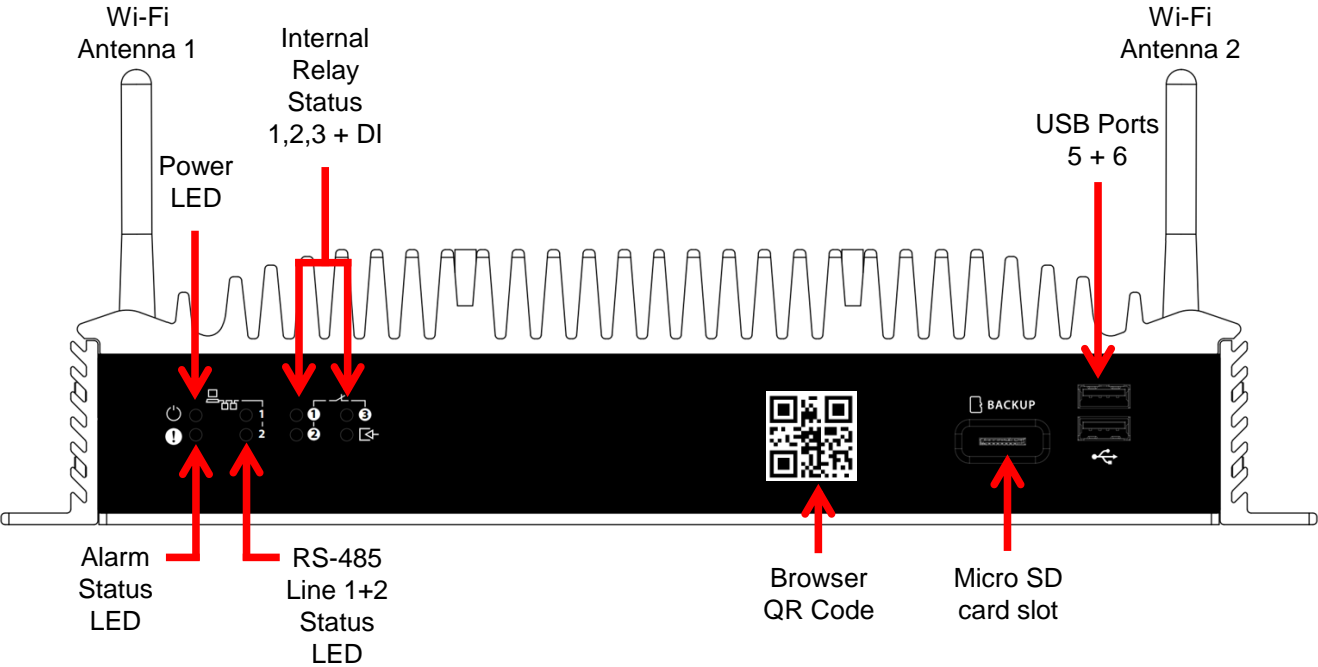
**BOSS mini**

Model	Description
BMEST00RS0	boss mini basic 30 device unit – no plug in credits
BMEST00LE0	boss mini advanced 50 device unit with <b>WI-FI</b> and <b>mini HDMI</b> port no plugin credits
BMEPS00AU	boss mini power supply 24VDC 1.5A
BMESTRLA00	boss mini 3x relay expansion module
BMHSTMDA00	boss / boss mini 3G Modem for SMS
BMETCH00MK	boss mini advanced USB / HDMI adaptor kit
BMHSTMNA00	boss Touch Screen 17" for boss and boss mini advanced
BMHSTCH05MK	Touch Screen 5m Cable Kit

## Top View



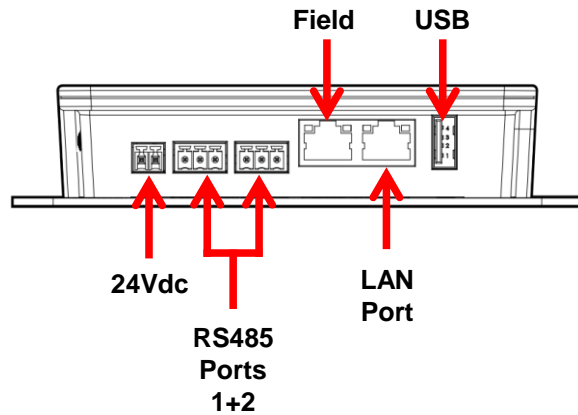
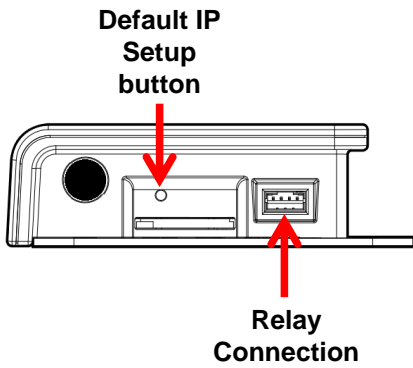
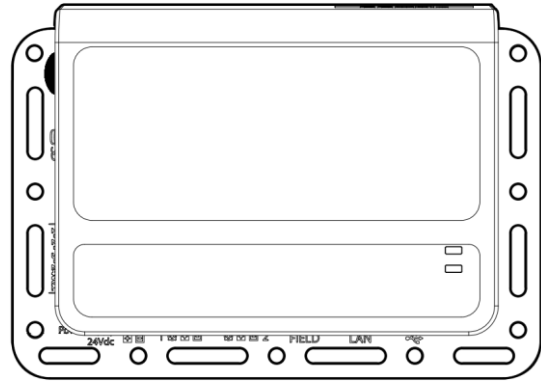
## Underside View



## Basic

BMEST00RS0

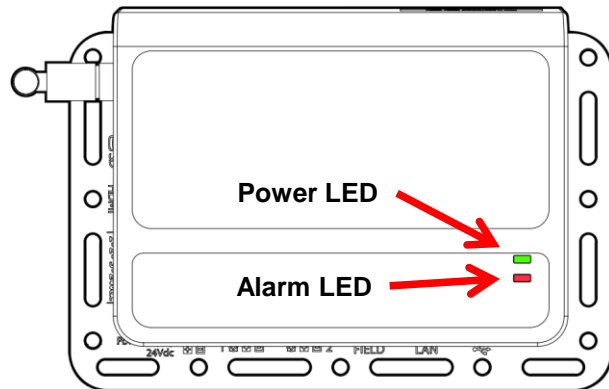
Top view



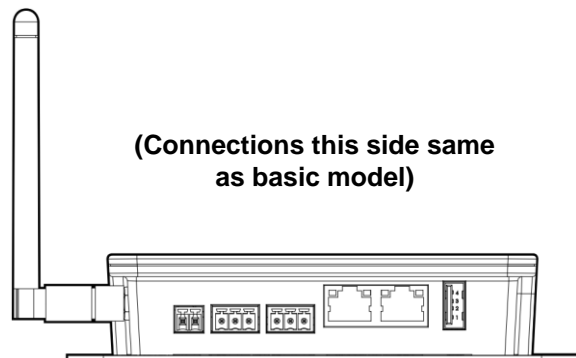
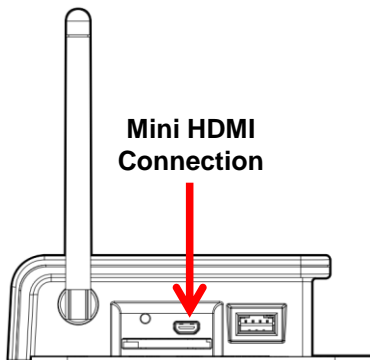
## Advanced

BMEST00LE0

Top view



Wi-Fi Antenna

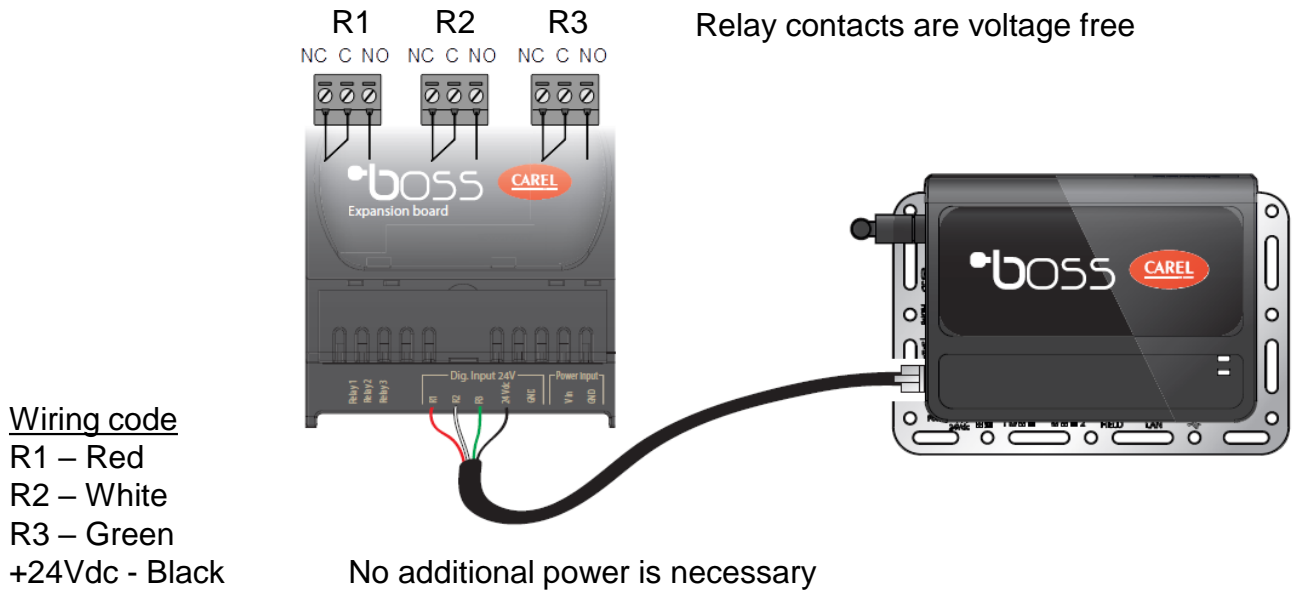


## Boss mini 3x relay expansion

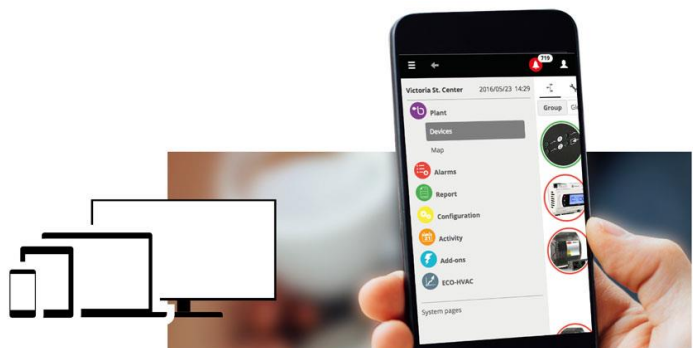
### BMESTRLA00

Optional relay expansion for external alarm notification from boss mini.  
Can be programmed for other uses where relay activation is required.

Connection is made using the supplied wiring harness included in the boss mini accessory kit.



- **Built in Wi-Fi:** Available only on models displayed. Access to **local** mobile devices. Site personnel and service technicians connect to the boss' own Wi-Fi connection and can scan the QR code to access the boss' pages. Connectivity to wireless Modbus Gateway. Further details on page 20
- **Trends:** View detailed graphs of temperatures & status'. Can be printed remotely or saved as pdf. Even observe conditions in Live mode.
- **Monitoring:** Frequency settable from 5s to 1h, log depth settable from 1 week to 2 years (dependent on log frequency).
- **Alarm management:** Have up to the minute notifications through different channels such as email, SMS, relay and the Telegram app available from Google Play and App Store.
- **Reports:** Receive regular reports by email or generate them directly from boss.
- **Maps:** Create interactive site maps in c.web for easy viewing and navigation.
- **Remote connection:** Connect remotely over the web to check the status of the plant, modify parameters and acknowledge alarms. It can save a trip to the site if not entirely necessary.
- **Commissioning report:** an inbuilt function to save the original commissioning parameters of the controllers installed on site.
- **Parameters broadcast:** Copy parameters from one device to others of the same type of controller.
- **Plant calendar:** scheduled actions such as defrost, setpoint changes, on/off and light control.
- **Add on extra features:** Many add-on modules to enhance and customize the boss for your plant's requirements. Installed credits allow for Add-ons such as Bacnet Primary MSTP and TCP/IP, Energy Management, Floating Suction, Parameter control and Safe Restore.





# Menus and Descriptions

Icon	Category	Sub Category	Options	Description
<b>Plant</b>				
	Devices			Displays devices configured on the serial lines.
		Select individual device for details		
			Main	Device's main overview
			Parameters	Access to device's parameters
			Variables	View list of values of available variables
			Alarms	View list of current and reset alarms
			Trend	Displays graph of logged variables
			Notes	To enter and display notes about device.
	Map			Displays custom map if installed.
<b>Alarm/Event</b>				
	Alarms List			
		Active Alarms		Displays all active alarms.
			Acknowledge	Alarm is acknowledged by current user
			Cancel	Deletes alarms from list and cancels notifications
			RST Inhibition	Reset and inhibits alarms
			HTML	View data in new browser page
			PDF	View and export data to PDF
			Search	Search within alarm data
		Reset Alarms		View Reset Alarm History
			HTML	Exports data to browser view
			PDF	Exports data to PDF file
	Events list			Displays all events in history
			HTML	View data in browser
			PDF	View and export data to PDF
			Search	Search within alarm data
	External Alarm			Enable a relay for external alarm
			Relay Configuration	Selection of relay for external alarm
			Snooze Configuration	Select snooze of relay if required
			Priority	Selection of alarm priority
	Relays Reset			Displays current status of inbuilt relays 1,2,3
			Refresh	Refreshes the page
			Save	Saves any changes
<b>Report</b>				
	Report Management			Report creation and management
			Report	Lists configured reports
			Template	Configures reports
			Setting	Adjusts report for editing
	Log Reports Archive			
			All	Lists all archived reports
			HACCP	Lists all HACCP archived reports
			Log	Lists all Log archived reports
	Alarms Reports Archive			Lists all Alarm archived reports
	Commissioning Report			
			Default	Overwrite current configuration with default
			Save	Saves Current Commissioning
			Export All	Exports Commissioning Data
<b>Configuration</b>				
	System Pages			Engine Restart
		Information		
			System Information	Displays the health status of the boss CPU,RAM etc.
			Site Information	Records the name of the site and phone no.
			Registration	Displays IP, MAC, versions, and registered plugins
			Licenses	Displays the software licenses involved with the boss unit
		System		
			Administration Tools	Start,stop,restart engine, variable log maintenance, settings.
			Language	Change language (only on multi language devices)
			Modbus	Alarm priority on/off for Modbus
			Remote PRO connection	Remote PRO login settings
			Import/Export site configuration	Allows saving of configuration local or USB
		Customization		
			Export site configuration	Export site configuration for creating maps and backup
			Import maps	Importing of maps created in c. web
			Devices models management	Import, export and deleting of device templates
			BACnet models management	Import, export and deleting of BACnet device templates
			Import images	Changing of the logo and login pages

**Configuration cont.**

<b>System Pages cont.</b>			
	Support		
		Send all log files to customer service by email	Insert email address and send system logs to customer service
		Export all log files in folder	Saving of log files to system folder or USB
	Guardian	Status	Displays the current status of the Guardian system
		Notifications configuration	Enables channel for guardian notifications
		Variables configuration	Monitors changes in variables
	Site Safety		Displays level of site safety / Guardian connections
		Messages	Displays current Guardian messages
		Active alarms	Displays all active Guardian alarms.
<b>Setup Wizard</b>			
	A stepped guide to configuring the boss unit		
	1-Site Info	Site Information	Records the name of the site and phone no.
		Registration	Displays IP, MAC, versions, and registered plugins
		Licenses	Displays the software licenses involved with the boss unit
	2-Lines configuration		Configuring the site's serial communication lines
	3-Alarms management	Conditions	Defining the alarms communication settings
		Email	Configuring the email's outgoing settings
		Relay	Setting of the relays for alarm configuration
	4-Report	Setting	Report creation and management
	5-Guardian	Status	Displays the current status of the Guardian system
		Notifications configuration	Enables channel for guardian notifications
		Variables configuration	Monitors changes in variables
<b>Site Configuration</b>			
	Site		Displays serial line overview
	Alarms Safety		Alarm management settings
	Copy Config		
		Cross device configuration copy	Allows for device configuration import / copy feature
		Cross profile graph set copy	Customisation of graphs for target profiles
<b>User Config.</b>			
	Users		Create new users for login
	Profiles		Set, create and modify login profiles (access rights to menus and areas)
<b>I/O Configuration</b>			
	Email		Enter the email outgoing settings and email addresses
	Relay		Configure the onboard relays
	Printer		Prints reports or alarm logs to printer if installed
	SMS		Configuration of SMS alert function
	IM		Configures instant messaging service Telegram
<b>Logic group creation</b>			
			Creation of logical groups within devices
<b>Activity</b>			
<b>Plant Calendar</b>			
	Scheduler		Configures the content of the calendar according to categories
	Groups		Configures the groups for the plant calendar
	Categories		Sets up the categories for use in the plant calendar
<b>Alarms and events management</b>			
	Dashboard		Overview of configured alarm and events as configured
	Rules		Displays configured rules
	Alarm Conditions		Displays configured alarm conditions
	Event Conditions		Displays configured event conditions
	Time Ranges		Displays configured time ranges
	Actions		Displays configured actions
<b>Activities scheduler</b>			
	Dashboard		Overview of configured alarm and events as configured
	Rules		Displays configured rules
	Time Ranges		Displays configured time ranges
	Actions		Displays configured actions
<b>Tools</b>			
Device maintenance			Update firmware/software to devices in the serial line
<b>Troubleshooting tools</b>			
	485 Debug		Poll and report data on the RS485 serial lines
	Thermo Debug		Checks and reports main variables of devices
	Modbus Debug		Reports on Modbus data

## Connecting on first start up

### Boss mini Basic

- Connect via LAN ethernet connection
- Apply power to the boss mini basic unit
- Open browser and insert <https://mboss-xxxx> (“xxxx” signifies the last 4 digits of the LAN MAC address.
- Follow the onscreen prompts

### Boss mini Advanced

#### Direct connection:

- Via mini HDMI /USB Keyboard/Mouse
- Once connected power up unit and follow on screen prompts.

#### Over Wi-Fi :

- Power up boss mini
- Search for Wi-Fi connection mboss-xxxx (“xxxx” signifies the last 4 digits of the LAN MAC address.
- No password required on first connection
- Once connected , open a browser and insert <https://boss-xxxx> or <https://192.168.42.1>
- Follow the onscreen prompts

## Default IP connection setup for boss mini basic

This is useful when resetting the network settings

You will need:

- boss mini and **24Vdc** power adapter
- Windows PC or laptop
- Ethernet cable
- Paperclip or similar device.

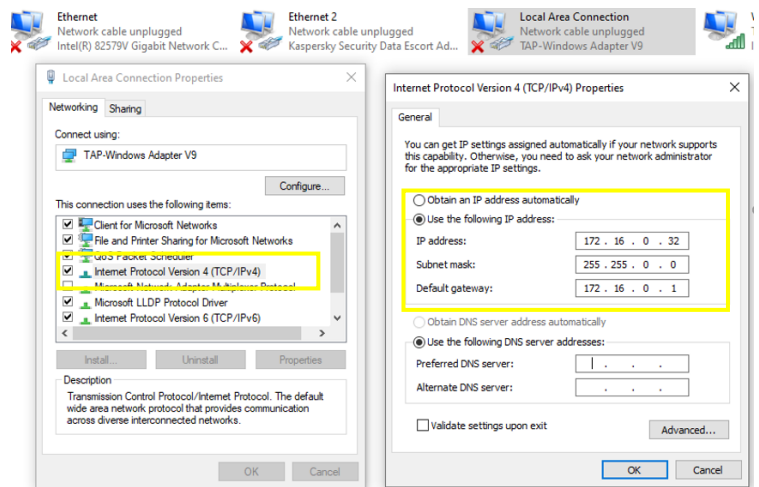
To setup a direct connection on boss mini's LAN, you may need to first setup your PC network to match the path of the default IP address of **172.16.0.33**

To do this, go to:

Settings >> Ethernet >>  
Change adapter options >>  
Select the ethernet device and select  
"Change settings of this connection"

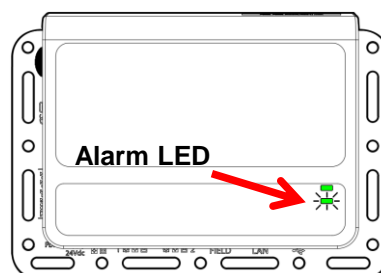
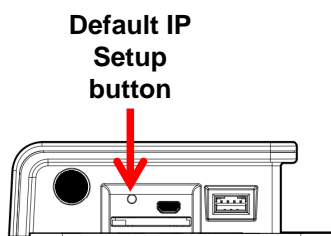
Choose Internet Protocol Version 4 (TCP/IPv4) and go to properties.

Use the following IP address  
IP address        **172.16.0.32**  
Subnet mask     **255.255.0.0**  
Default Gateway **172.16.0.1**



To activate the default IP address, after powering up the unit, wait for approx. 30-40 seconds. Press and hold the recessed button for about 4 seconds. Once released the alarm LED will blink green if successful. (If an alarm is present it is likely to turn red as well).

**Once activated, the default address is active for 1 hour.**



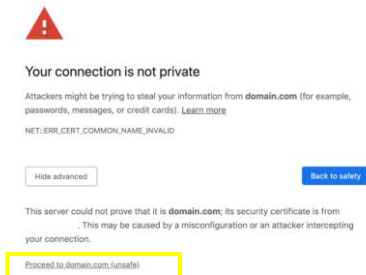
Open an internet browser on your PC /Laptop

Apply the address 172.16.0.33 in the address bar

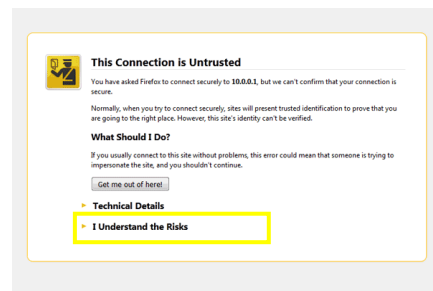


Depending on which browser you are using as to what message appears.

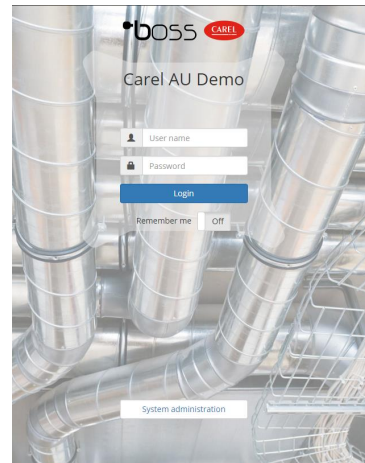
## For Chrome users:



## Firefox:



Following this, the login page will appear as in the example:



In this mode, it will allow you to install the desired IP addressing in the network settings.

Details of this is on page 15  
Connecting boss to the Internet

boss's local Wi-Fi connection is suited for easy connection with local mobile or tablet devices.

Note: This connection is **not** for connecting the boss to the internet.

To connect, scan using your device's Wi-Fi for your unique boss device and connect directly.

By default the SSID is "boss-" followed by a 4 digit/character combination. eg. boss-c10a

Note: the suffix is always the last 4 digits of the MAC address of the boss.

Password for the Wi-Fi connection is :12345678

Once connected, either scan the QR code on the front of the boss

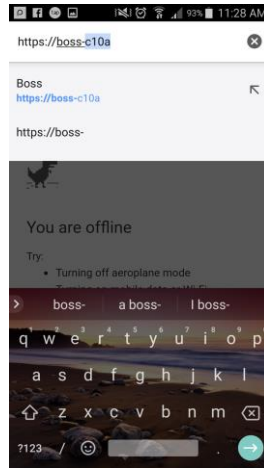


or: open a browser and type <https://www.qraccess/boss>

Alternatively put [https://boss-\\*\\*\\*\\*](https://boss-****) in the address bar and enter.

(where \*\*\*\* represents the last 4 digits of the mac address)

Example: <https://boss-c10a>



Login as normal in the boss program with the username and password that was provided to you.



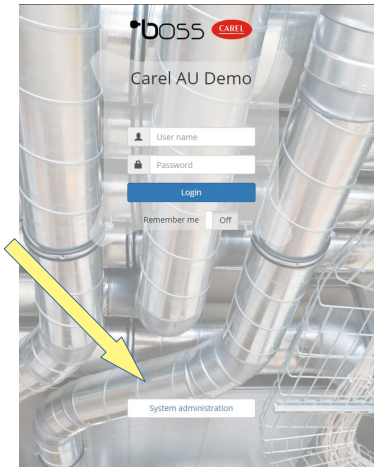
# Connecting boss to the Internet

The following information is intended for the IT professional in order to achieve connectivity of the boss unit to the local network.

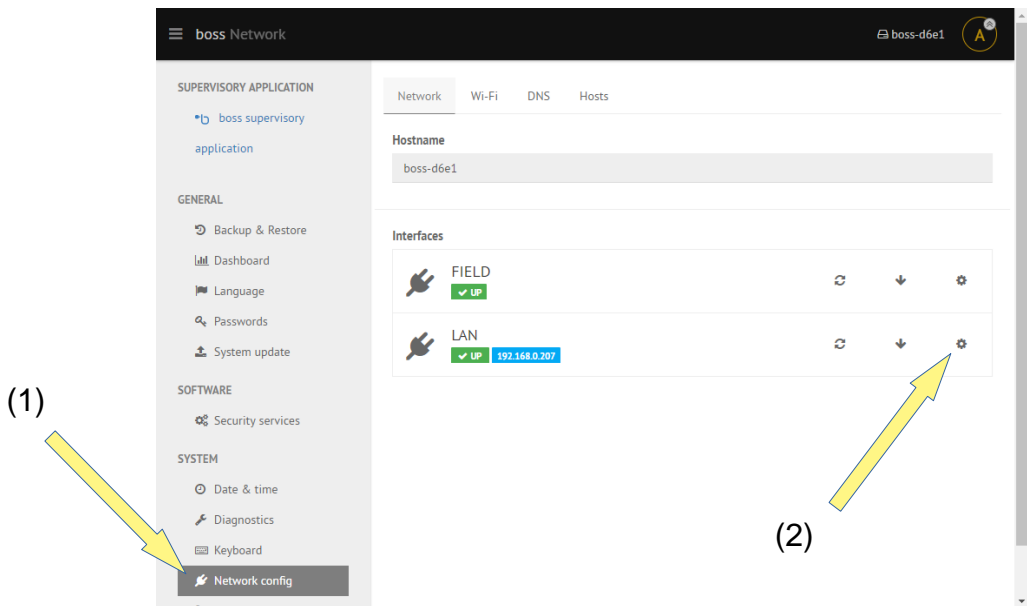
Internet network connection is via standard CAT5/6 ethernet cable.  
(The Wi-Fi on the boss is for local Wi-Fi networking only)

The field ethernet port is for Bacnet/ Modbus communications.

Network settings are accessed via the “System Administration” pages on the local machine.



Login using the administrator username and password of 12345678. IP address settings are found via the **Network config** (1) link and the settings icon (2) for the LAN connection.



By default the LAN address setup is selected for DHCP, so if the network is already connected, a static IP may already be assigned to the local network. eg. 192.168.0.100 (*we will use this IP address as the example in the following descriptions*).

To check local access to the boss once connected it can be accessed by using the following link in an internet browser window.

For example: <https://192.168.0.100/boss>

If you want to be able access the boss unit remotely over the internet then a static IP address from the Internet Service Provider (ISP) is required and port forwarding rules applied to the router to achieve this.

The **boss** needs the following ports for functionality :

**Port 443** (access for the boss main page via browser)

**Port 8443** (optional for shell access)

These ports are **fixed** and cannot be changed.

Once the port forwarding rules have been carried out in the router you should be able to access the boss remotely by replacing the internal IP of the link above, with the external IP in the address bar

**example:** if the router external static IP address is 200.100.50.25 then the link will become: <https://200.100.50.25/boss>

For added security the PING feature is deactivated by default in the “Security services” Section. Please ensure the Firewall is reactivated to security integrity

Please note:

The above information is given as general information to help IT professionals achieve the clients request for connectivity to LAN.

Carel Australia is unable to provide further guidance on how to set up the TCP/IP network, this is the job of the IT personnel.



# Service Pack Upgrades

From time to time the Carel supervisory department may introduce new enhancements and fixes for the boss and boss mini unit. These can be either a minor Hotfix or a new system update.

The current revision of the boss unit can be checked from the following page.

Go to: Configuration > System pages > Registration

Note the current revision.

Download the relevant updates from [ksa.carel.com](http://ksa.carel.com) in the Supervisory / boss section or contact us at [cst.au@carel.com](mailto:cst.au@carel.com)

More than one service pack may be required and must be carried out in sequence.

eg. rev 1.0.0 >> 1.1.0 >> 1.2.0 >> 1.3.0 >> 1.4.0

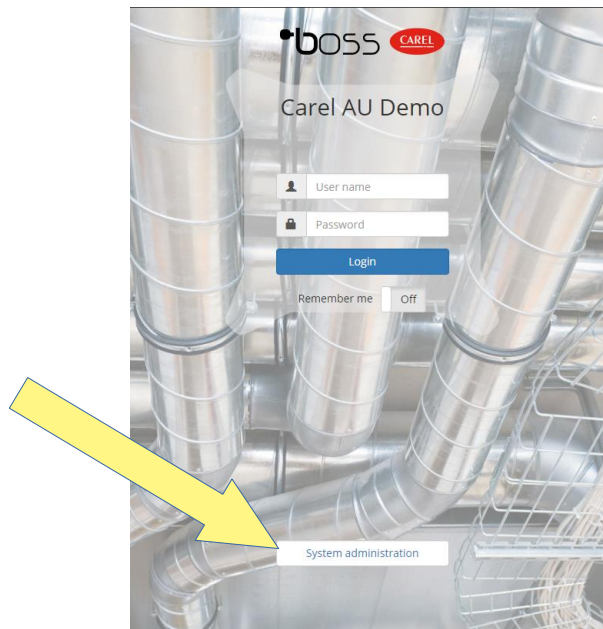
(Revision 1.4.0 is the current version for the boss at the time of this publication)

**To install a service pack to the boss please follow the steps below:**

Copy the unzipped service pack directly to your USB memory stick.

Plug the USB memory stick into the boss.

On the main boss login page, go to “*System Administration*” link at the bottom of the page.



In the boss system area, use the administrator username and password, 12345678.

- Click on “System Update” and select the USB link. Follow the prompts to locate the relevant update file on the USB memory stick.
- “Validate” the file to ensure system integrity, then “Begin update”
- After you have done all the service pack upgrades, carry out another **backup** and save it on your memory stick for safe keeping.

# RS-485 networking

## RS-485:

Is the term given to the type of **communication medium** used for transmitting digital information between multiple locations.

Carel supervisory devices use this type of networking.  
eg. IR33\*, MasterCella\*, MPXPRO, EVD Evo, etc.

\*Some devices **require** the use of serial cards to **enable** the networking connection.

## Cable:

Typically an RS-485 network uses shielded twisted pair cabling.  
This type of cable is chosen due for:

- . It's ability to transmit over long distances. (Up to 1000m)
- . It's immunity to electrical noise

If cabling lengths of over 1000m is required then it is possible to introduce a Carel PC-Gate to be used as a booster for the network.

To create a reliable RS485 supervisory network, use low capacitance twisted pair cable with shield.



BELDEN 8761 cable (AWG22) is recommended for lengths up to 500 metres, or BELDEN 8762 (AWG20) for lengths exceeding 500 metres

## Protocols and Baud rate:

There are two main types of protocols that are used on the Carel supervisory networks.

- .Carel
- .Modbus

Serial lines can only be set for one type of protocol only, so devices of only one type of protocol can occupy the serial line together.

Check the protocol status of each device.

Some are dual protocol, some Carel only and others Modbus only.

- .IR33+, SmartCella units are Carel + Auto Modbus.
- .PJ Easy are Carel protocol only.
- .EVD ice, Emeter and Refrigerant leak detector devices are Modbus only.

Baud rate, is the rate of data transfer and also must be common for all devices on the same serial line. Carel protocol standard is 19200 Baud.

### Connection:

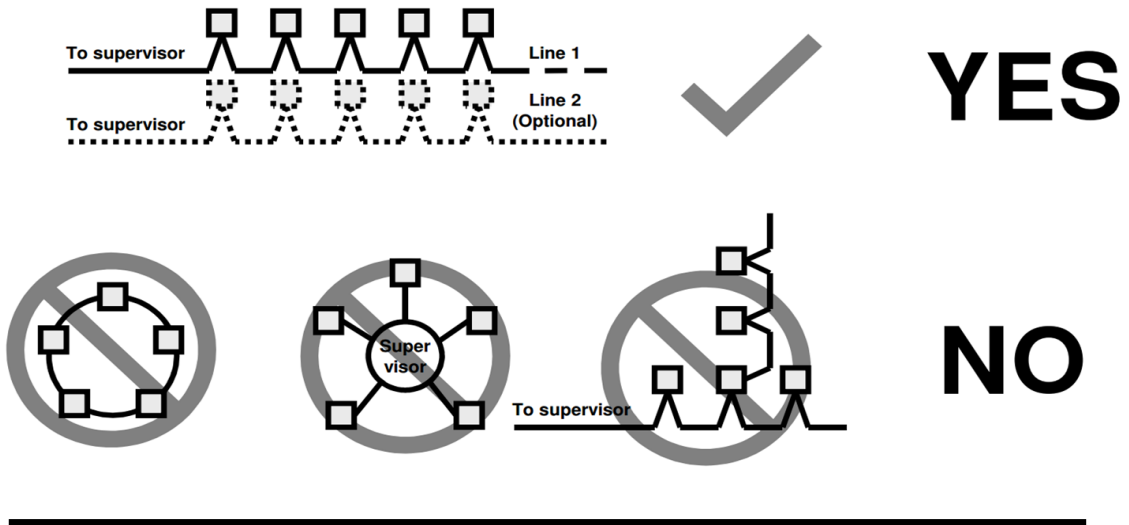
A serial line comprises of a series of connections from device to device on one continuous line.

This is carried out in a “Daisy Chain” type configuration.

Branch offs or star connections will not work, as shown below.

Particular attention to the polarity is an absolute must.

(T+, T-, and GND must ALL be the same along the serial line.)



Each device connected on the network requires it's own allocated address no. This is settable via the supervisor address parameter.

In the case of MasterCella, IR33 @ Pjeasy, parameter H0 is used for setting the unique address.

# RS-485 Networking



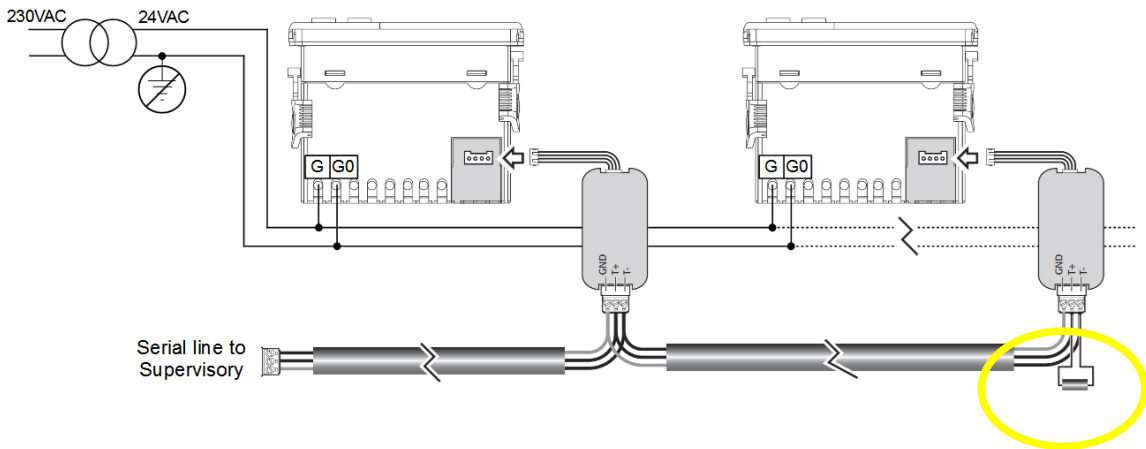
## Power Transformers:

When using power transformers to power up low voltage controllers on a RS485 network, ensure power and serial polarity is maintained between all controls.

**DO NOT** earth the secondary of the power transformer.

It may irreparably damage the controllers and serial cards on the network.

It is advisable to use dedicated transformers for each low voltage controller where possible.



The last device on the serial line should have an “end of line” resistor of 120ohms installed.

## USB-RS485 Serial Converter:

boss has 2 built-in RS485 serial line connections. If additional serial lines are required, it is possible to add more lines using a Carel USB to RS-485 converter with the USB ports on the back of the boss.

Carel part no. CVSTDUMOR0



More detailed information on RS-485 networks can be found in the **RS485 serial lines & easy supervisory commissioning guide**

# Wi-Fi Gateway

## Part No. GTW0000WT0



### Gateway Serial RS485/TTI to Wi-Fi

- Supports up to 10 Modbus devices over 100m of RS-485
- Increase Wi-Fi distance using standard Wi-Fi repeaters
- Configurable using a standard mobile device over Wi-Fi.

## Connecting Gateway for boss units



Connecting the Wi-Fi Gateway is done in 3 phases

1. Configuring the Gateway's Wi-Fi connection to match the boss unit
2. Configuring the Gateway's serial settings.
3. Establishing and confirming the Gateway's connection to the boss unit.

### Phase 1

Assemble and power on the **gateway** unit.

With a Wi-Fi capable device connect to Wi-Fi. This can be a PC or mobile device.

Search the Wi-Fi network for the Gateway device.

The default SSID will look like "CAREL\_GTW\_SERIAL2WIFI\_xxxxxx"  
(Where xxxxxx indicates the last 6 digits of the MAC address.)

There is no default password set at this stage.

Once connected, open a browser eg. Chrome, and enter the in the address:

<http://10.10.100.254> in the address bar.

This will open a login page.

Login using user: **admin** and password: **admin**

to open the configuration page as seen below

System Status	WiFi Mode Select	Help
WiFi Setting	WiFi Work Mode: STA mode	
Trans Setting	STA Mode	
Extra Function	Router SSID: boss-3656 <input type="button" value="Search"/>	<b>• Network Name (SSID):</b> 1-32 characters; Case sensitive
System Setting	STA Password: 12345678	<b>• Password:</b> The AP password is 8-63 bytes (STA password without this restriction), NONE said no encryption; Case sensitive
Firmware Update	DHCP: Disable	<b>• DHCP:</b> Open this feature, will get IP by dhcp; turn off, need to manually enter the IP
	IP Address: 192.168.42.2	
	Mask: 255.255.255.0	
	Gateway: 10.10.100.254	
	DNS: 208.67.222.222	
	<input type="button" value="Save"/>	

# Wi-Fi Gateway

## Connecting Gateway for boss units continued....

The screenshot shows a web-based configuration interface for a WiFi gateway. On the left is a navigation menu with 'WiFi Setting' highlighted. The main area is titled 'WiFi Mode Select' and 'WiFi Work Mode: STA mode'. Below this, the 'STA Mode' configuration fields are visible: Router SSID (boss-xxxx), STA Password (12345678), DHCP (Disable), IP Address (192.168.42.2), Mask (255.255.255.0), Gateway (192.168.42.1), and DNS (192.168.42.1). A 'Save' button is at the bottom. On the right, a 'Help' section provides details for Network Name (SSID), Password, and DHCP. Red circles and boxes highlight the following elements: 1. WiFi Setting menu item; 2. WiFi Work Mode dropdown; 3. Router SSID and STA Password input fields; 4. DHCP dropdown menu; 5. IP Address, Mask, Gateway, and DNS input fields; 6. Save button.

1. Select Wi-Fi setting page.
2. Ensure device is selected for STA (station) mode.
3. Enter the boss' SSID and password. (xxxx is the last 4 digits of the boss' MAC address).
4. Disable DHCP as only static addresses can be used.
5. Assign the gateway using an IP in the range between 192.168.42.2 to 192.168.42.49 (each gateway must have a unique IP address) Mask /Gateway/ and DNS as shown above
6. Click "SAVE" once all done and restart when prompted

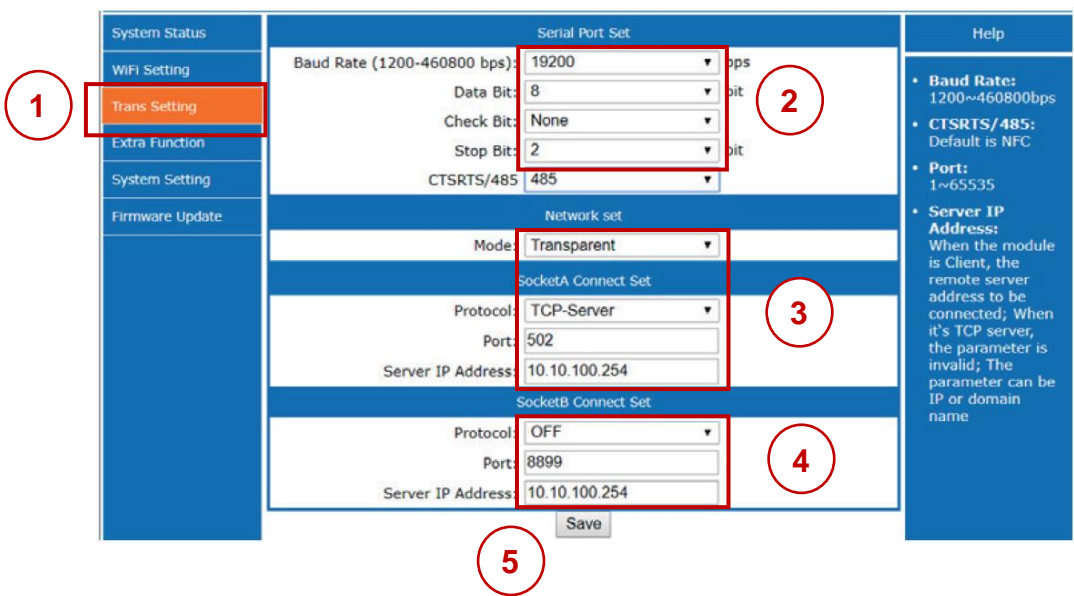
The screenshot shows a 'Save Success' dialog box. The text inside reads: 'Save Success! Configurations will take effect after restart. After restart, you will need to re-login the configuration interface for other settings, so it is recommended to restart after completing all settings. Please click [Restart] to restart now, or click [Back] to continue setting. You can restart after all configuration.' A 'Restart' button is highlighted with a red box at the bottom.

## Phase 2

Connect to the boss Wi-Fi network (one that matches point 3 above)  
Once connected, open a browser page and enter the in the IP address of point 5 above ( <http://192.168.42.x> ) This will open the login page. Enter the same credentials as before (user: **admin** and password: **admin**)

# Wi-Fi Gateway

## Connecting Gateway for boss units continued....

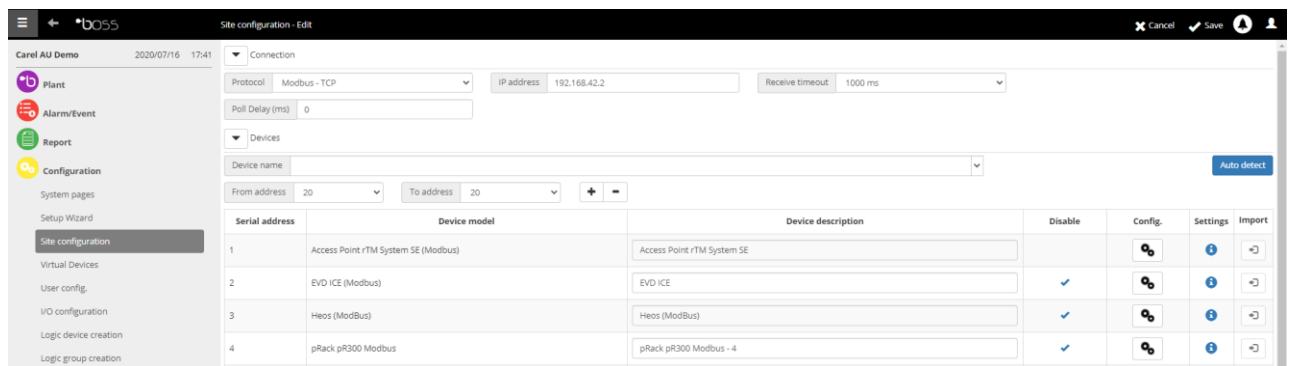


1. Select the Trans setting page.
2. Ensure the Baud rate / Data bit / Check bit (parity) and Stop bit matches the Modbus RTU devices connected on the RS-485 serial line.
3. Socket A Connect Set - Leave these settings on default as shown.
4. Socket B Connect Set - Leave these settings on default as shown.
5. Click "SAVE" once all done and reboot when prompted

### Phase 3

Login to boss as normal and setup a new serial line on the "Site Configuration" page.

1. Select Protocol as Modbus – TCP. Insert the IP address of the new gateway unit. (192.168.42.x)
2. Add the Modbus devices that are connected to the new Wi-Fi Gateway serial line.



The boss contains extra modules to enhance and exploit energy savings based on the site's requirements. These modules are activated by using a credit based system.

Models BMHST03XS0 and BHMST03XE0 contain 3 installed credits.  
Extra credits can be purchased to activate more modules as needed.



### **KPI Management**

Allows the user to be able to analyse individual or groups of units' operational efficiency.



### **Energy Management**

Analyse and monitor energy consumption. Implement actions to reduce energy waste.



### **Floating Suction**

Optimise the refrigeration rack setpoint based on cooling demand saves energy.



### **Dew Point Broadcast**

With the use of a room temperature and humidity probe, boss calculates the the dew point and relays this information to all connected units to optimise connected anti-sweat heaters.



### **Safe Restore**

boss manages the safe and optimum restart of a compressor rack under certain fault Conditions. It is achieved by placing the connected refrigeration units in safety mode.



### **Parameter control**

Monitor key parameter setting changes being made, activate restore logic and send alerts when this occurs.



### **Logical Device/ Logical Variables**

Create logical variables and devices and manage these as if they were real items



### **Algorithm PRO**

Create customised logic using Java programming language. Increase interactivity between the boss and connected devices.



### **HVAC Smart Start**

Optimise activation, shutdown and setpoint adjustment of HVAC units, based on trend information from inside and outside temperatures, system inertia, occupancy and air quality.



### **Geo Lighting**

Switch outdoor lighting based on site latitude and longitude by knowing when the sun rises and sets.



### **Smart High Purge**

Smart use of free cooling for HVAC systems based on outside air and indoor cooling demand.



# Telegram Messaging

The boss system is capable of communicating to a mobile and PC compatible app called Telegram. Signalling alarms via chat notification.



## Step 1. Install Telegram

Download and install the FREE Telegram App. Search the app store or go to Login, enter your Mobile phone number and follow the prompts to easily register to the service.

## Step 2. Create a Bot

Create a 'Bot' for the boss, this is the virtual user within the boss.

(You only have to do this once for the site!)

i) Within the telegram app, search for 'BotFather' and start a conversation by typing: /start

ii) The BotFather will list commands available, enter: /token

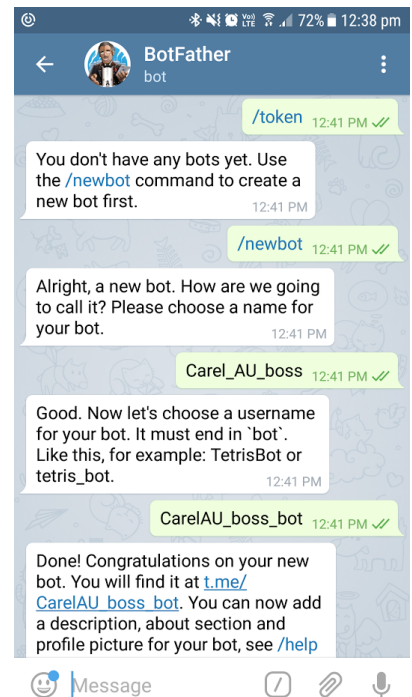
iii) Follow the prompts, enter: /newbot

iv) Name the Bot, ideally something relevant to the installation, eg, 'Customer\_Site'

v) Create a username for the bot, ideally use the previous name, add bot to the end.  
eg 'Customer\_Site\_bot'

vi) The BotFather will generate a message, in this message is a link to view the generated bot profile and a unique Token Code.

*Do not* delete this information. The Token Code is required for Step 3.

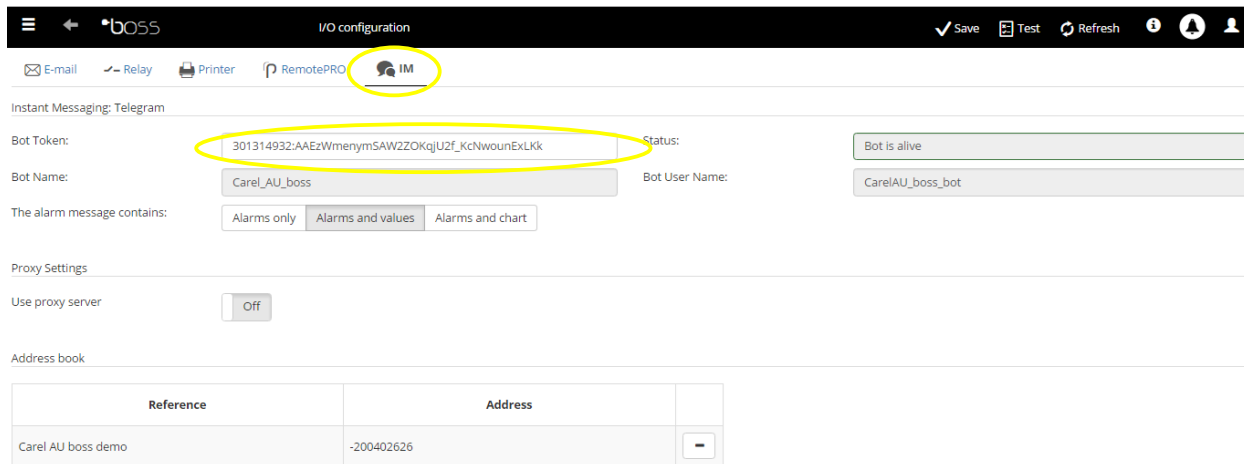


### Step 3. Insert the Token Code.

Enter the Telegram information into the boss pages.

Log in with Administrator credentials, go to Configuration > I/O Configuration > Select the IM tab.

Enter the Token Code and Save.



Given everything is registered and connecting OK, the Bot name and Status will appear.

### Step 4. Link a chat with boss

.Option a) One to One 'chat'.

Using the Telegram interface. Search for the Bot user name, previously generated. Select it and press 'start'.

Return to the boss IM Configuration screen (as per step 3), and you will notice the new Telegram contact appears in the Address book.

.Option b) Group 'chat'

Using the Telegram interface. Create a 'New Group', and add other Telegram members to the chat as well as the Bot previous generated.

Call the group something relevant to the site!

Return to the boss IM Configuration screen (as per step 3), and you will notice the new Telegram group contact appears in the Address book.

**Note:** The rule to send an alarm via Telegram has still not been made at this point!



# Telegram Messaging

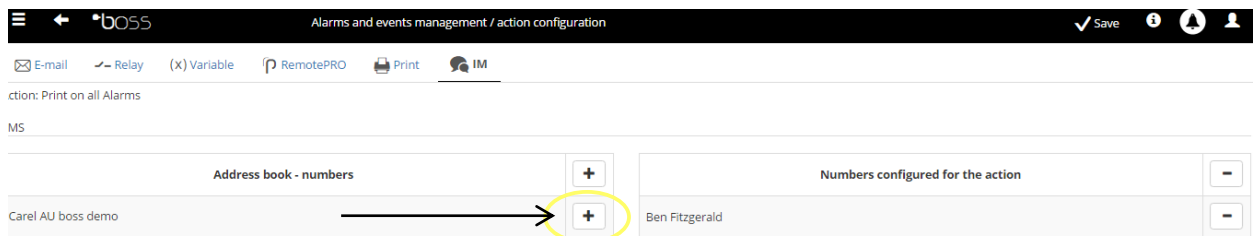
## Step 5. Make a Basic Alarm Rule

Log into the boss using Admin credentials and go to Activity > Alarms & Events

The first screen will be the dashboard, displaying any alarm / event rules created.

### To create or edit an action:


- i) Click on  then 'Add' or select a line and 'modify'
- ii) Enter the description of the Action, keep the description relevant. Then press save.  
Eg, 'Telegram Notification'.
- iii) Now select the tab relevant to the action being made.  
Eg, for Telegram Instant Messaging, select the IM tab. 
- iv) Add or delete names to the action. Press Save.



Note: The names are generated from the I/O Configuration screens.

If they do not exist, check under Configuration > I/O Configuration > Then the relevant tab.

### Create an Alarm Rule:

- i) In the Alarms and Events management screens, select the  Rules tab.
- ii) Select 'Add'
- iii) Combine the components for the rule

Description = Something relevant eg, 'Telegram Alarms'

Enabled = On

Condition = All Alarms Condition

Time Ranges = Always

Action = Action previously generated, eg 'Telegram Notification'

Delay = 10, Prevent false alarms by adding a small delay to the notification sending.

- iv) Save. The Dashboard should now display the rule and it will be ticked.

## Step 6. Test

You can test the Notification by going to Configuration > I/O Configuration

Under each notification type, there is a test function.

It is recommended to test the alarm rule, generate a false alarm on site to confirm its function.



Connected  
Efficiency



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