Installation and User Manual

CommBox Plus



CommBox Plus

Internet Access



CommBox Plus

Installation and User Manual

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This manual for use and maintenance is an integral part of the apparatus together with the attached technical documentation.

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1 Introduction

1.1 Disclaimer

Munters reserves the right to make alterations to specifications, quantities, dimensions etc. for production or other reasons, subsequent to publication. The information contained herein has been prepared by qualified experts within Munters. While we believe the information is accurate and complete, we make no warranty or representation for any particular purposes. The information is offered in good faith and with the understanding that any use of the units or accessories in breach of the directions and warnings in this document is at the sole discretion and risk of the user.

1.2 Introduction

Congratulations on your excellent choice of purchasing a CommBox Plus!

In order to realize the full benefit from this product it is important that it is installed, commissioned and operated correctly. Before installation or using the unit, this manual should be studied carefully. It is also recommended that it is kept safely for future reference. The manual is intended as a reference for installation, commissioning and day-to-day operation of the Munters equipment.

1.3 Notes

Date of release: July 2019

Munters cannot guarantee to inform users about the changes or to distribute new manuals to them.

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2 Introduction to the CommBox Plus

NOTE This manual details how to set up and run the CommBox Plus. The controllers' software programs are documented in separate manuals.

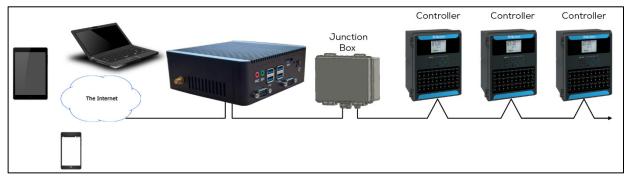


Figure 1: CommBox Plus/Controller Block Diagram

CommBox Plus provides complete access to your Munters controllers, including monitoring and control capabilities, from any device, anywhere. From one computer, tablet, or smartphone, you can manage an entire network.

- Cloud-based access to controllers
 - Multiple, simultaneous users have network access
- Multiple communication pathways
 - o Built-in internet and telephone connectivity
 - Cellular Connectivity
- Local communication via wired or wireless communication
- Status reports provide critical information on house functions and animal statistics
- Push notifications

In addition, CommBox Plus can act as an add-on for users wanting to add web-access to legacy Communicator units.

2.1 Ordering

Each CommBox Plus has one of two software packages:

- Poultry (P/N: 904-07-00016 CommBox Plus-POU-EN-ROT)
- Pigs (P/N: 904-07-00017 CommBox Plus-PIG-EN-ROT)

These software packages are not interchangeable and cannot be converted.

2.2 Junction Box

Connecting a CommBox Plus directly to a controller requires a Junction Box. There are two options:

- RS-232 Network: P/N 904-99-00036 COMMBOX PLUS -POU- JUNCTION BOX RS232
- RS-485 Network: P/N 904-99-00037 COMMBOX PLUS -POU- JUNCTION BOX RS485

2.3 What Comes in the Package



'EPROM for Communicator upgrade. When connecting CommBox Plus directly to Communicator, upgrade the Communicator software using the EPROM supplied.

EPROM supplied.		
Mounting Pieces		
o 4 screws		
 4 mounting bolts 		
 1 mounting bracket 		

2.4 Block Diagrams

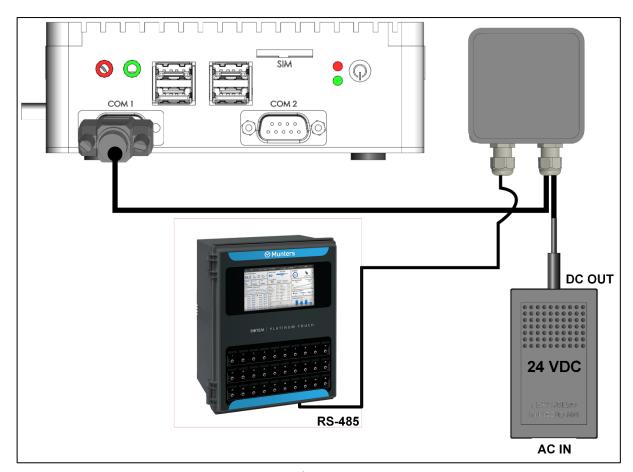


Figure 2: CommBox Plus Block Diagram/Controller & 24 VDC PS

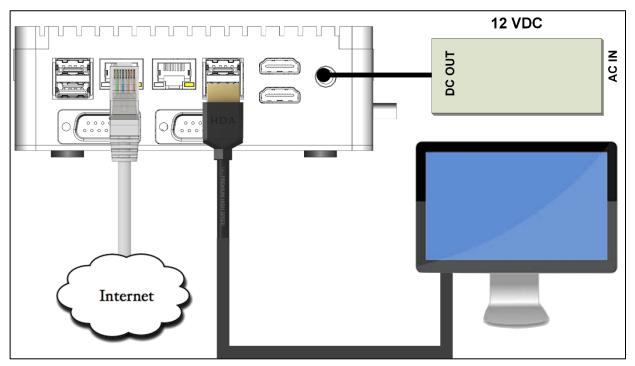


Figure 3: CommBox Plus Block Diagram/Screen & 12 VDC PS

3 Hardware Installation



This document details how to install Munters' CommBox Plus unit. Installation consists of:

- Precautions
- CommBox Plus Ports
- Mounting the CommBox Plus
- Connecting the CommBox Plus to the Internet
- SIM Card Connectivity
- Connecting the CommBox Plus to a Peripheral Device
- Connecting the CommBox Plus to a Communicator
- Connecting the CommBox Plus to a Controller or RLink
- CommBox Plus to Junction Box Wiring
- Wiring Topologies
- Termination

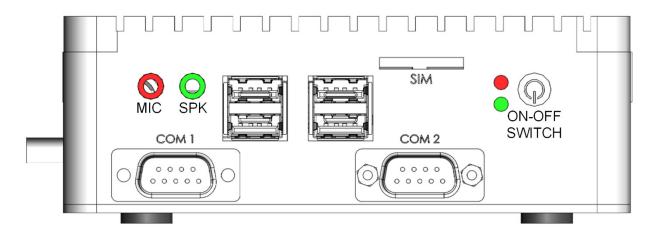
NOTE No software installation is required.

3.1 Precautions

Observe the following precautions when using your unit.

- Keep the CommBox Plus as far as possible from heavy contactor boxes and other sources of electrical interference.
- Do not connect communication wire shields, which go from one house to another at both ends. Connect them at one end only. Connection at both ends can cause ground loop currents to flow, which reduces reliability.
- The COM connection for communications is not the shield wire. The COM, RX and TX wires must connect to each other at all controllers.

3.2 CommBox Plus Ports



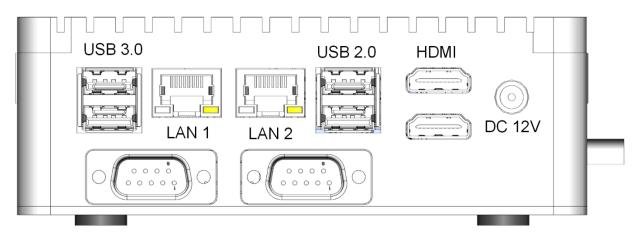


Figure 4: Front and Rear View

3.3 Mounting the CommBox Plus

1. Using the screws provided, place the bracket on a wall.



Figure 5: Bracket Screws

2. On the back of the CommBox Plus, screw in the mounting screws.



Figure 6: Mounting Screws

3. Place the unit on the mounting bracket.

3.4 Connecting the CommBox Plus to the Internet

• Connect the CommBox Plus to your Internet connection/modem.

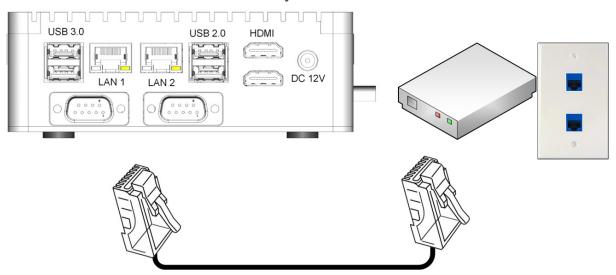


Figure 7: Internet Connection

3.5 SIM Card Connectivity

- CommBox Plus SIM internet connectivity works as a backup to a standard LAN network. However, the SIM card will only function when there is no actual LAN connection (meaning, the LAN service is weak or there is no LAN service in a particular area).
- Munters recommends configuring the SIM card in the dealer office before installing the CommBox Plus in the field. When configuring the SIM card the following information (available from your local cellular service provider) is required:
 - o Cellular provider name = XXXX
 - o o APN = XXXX

Please contact your dealer or Munters' Global Support team for technical assistance. Go to https://munters.zendesk.com/hc/en-us/categories/360001140792-Communication-Hardware to submit a ticket the Global Support team.

3.6 Connecting the CommBox Plus to a Peripheral Device

If required, connect a screen or mouse to the CommBox Plus (via the USB/HDMI ports).

NOTE Connect the screen to the CommBox Plus using an HDMI cable only. Do not use any other type of cable and an HDMI adapter.



Figure 8: Peripheral Devices (Screen)

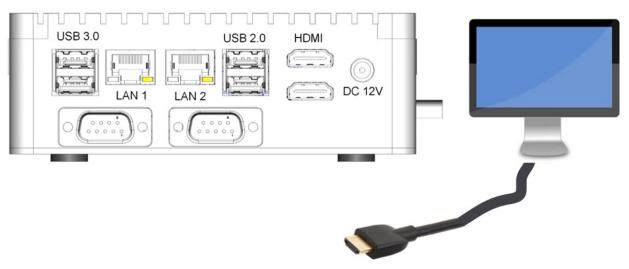
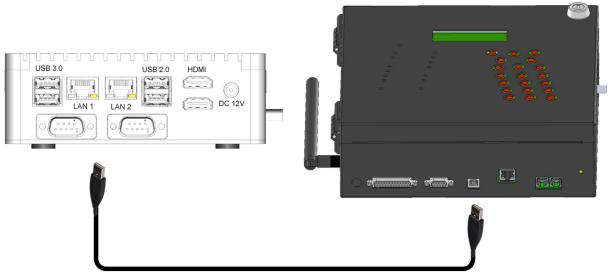


Figure 9: Peripheral Devices (Screen)

3.7 Connecting the CommBox Plus to a Communicator

• Connect the CommBox Plus to a Munters Communicator using a standard USB cable (supplied with the Communicator unit).



NOTE Communicator requires the Communicator Serial Card (P/N: C-COMM-SERIAL) to support the CommBox Plus. Refer to Document #112189 for details on upgrading the Communicator.

3.8 Connecting the CommBox Plus to a Controller or RLink

The only step in installing a CommBox Plus that requires wiring is if the CommBox Plus is connected directly to a controller (instead of a Communicator). In this situation the CommBox Plus must be wired to the controller communication card, via the Junction Box.

- Controller to Junction Box
- RLINK One to Junction Box Wiring

WARNING! Disconnect the power before beginning!

WARNING! Only an authorized electrical technician may perform this procedure!

3.8.1 CONTROLLER TO JUNCTION BOX WIRING

In the controller, connect the CommBox Plus to the controller's communication card. Refer to the following illustrations.

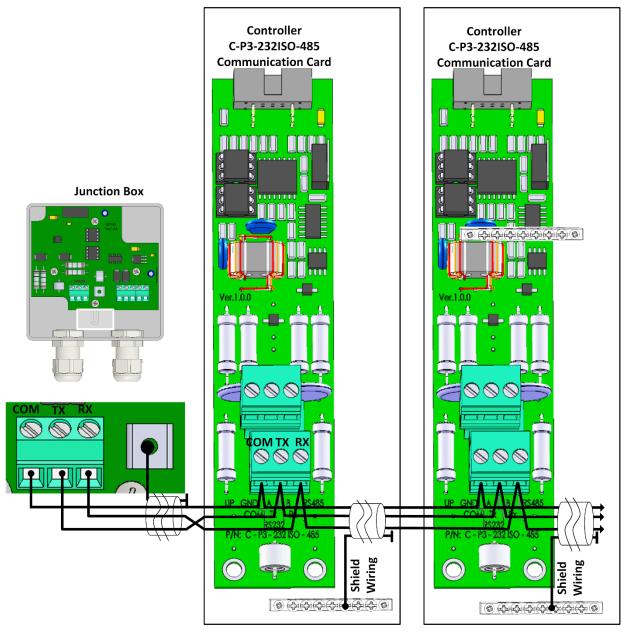


Figure 10: RS-232 Wiring

- Connect the wiring as follows:
 - COM to COM
 - The CommBox Plus TX port is connected to Controller's RX port.
 - The CommBox Plus RX port is connected to Controller's TX port.
- The cable between the CommBox Plus and the controller should be a 3 Wire Shielded Cable (22 AWG minimum).
- Connect the cable shield wire to the controller ground strip.

CAUTION Connect one end of the cable's shield only (the other end must be open). Each controller should be chain connected to the same wire, resulting in a long ground cable without ground loop.

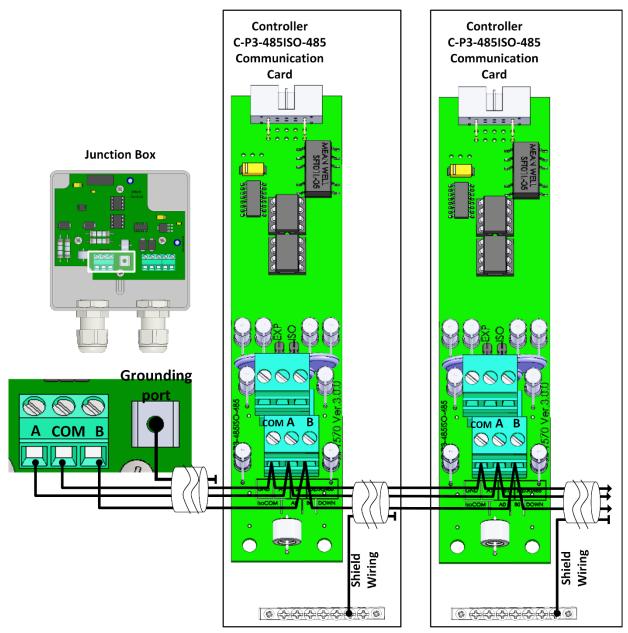


Figure 11: RS-485 Wiring

- The cable between the external connection box and the controllers should be a 3-wire twisted shielded cable (22 or 24 AWG).
- Connect the wiring as follows:
 - COM to COM
 - o CommBox Plus A port is connected to Controller's A port.
 - The CommBox Plus B port is connected to Controller's B port.
- The final controller in any chain or branch may require a 120-ohm terminator. Refer to Termination, page 22.
- Connect the cable shield wire to the controller ground strip.

CAUTION Connect one end of the cable's shield only (the other end must be open)..

Each controller should be chain connected to the same wire, resulting in a long ground cable without ground loop.

3.8.2 RLINK ONE TO JUNCTION BOX WIRING

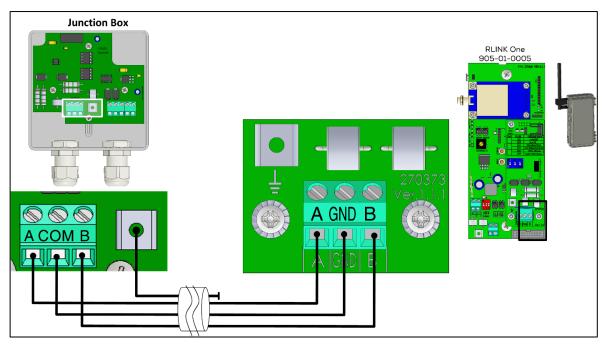


Figure 12: RLink One Wiring

NOTE RLINK One supports RS-485 infrastructure only.

- The cable between the external connection box and the controllers should be a 3-wire twisted shielded cable (22 or 24 AWG).
- Connect the wiring as follows:
 - COM to COM
 - o CommBox Plus A port is connected to Controller's A port.
 - o The CommBox Plus B port is connected to Controller's B port.
- The final controller in any chain or branch requires a 120-ohm terminator. Refer to Termination, page 22.
- Connect the cable shield wire to the controller ground strip.
- Connect the wiring according to the following table:

Port	Color Wire	Port	Color Wire
COM	Brown	+	Red
TX	Green	-	Black
RX	White	СОМ	Shield wire

3.9 CommBox Plus to Junction Box Wiring

Figure 13 illustrates the wiring of a Junction Box supplied to the customer. The Junction Box should come wired to both the 24 DC power supply and to the CommBox Plus cable. Refer to Figure 13 if you need to rewire the unit.

• Plug the cable into the COM 1 port (Figure 14).

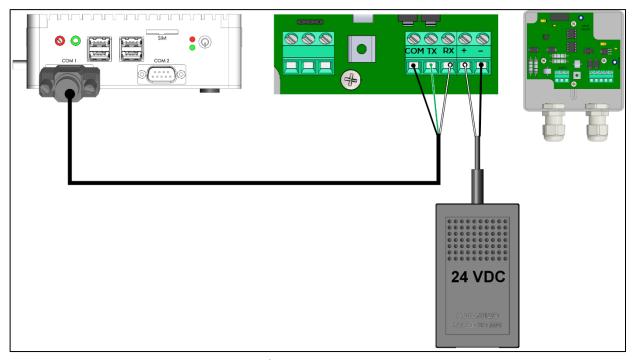


Figure 13: Junction Box to COM Port/Power Supply Wiring

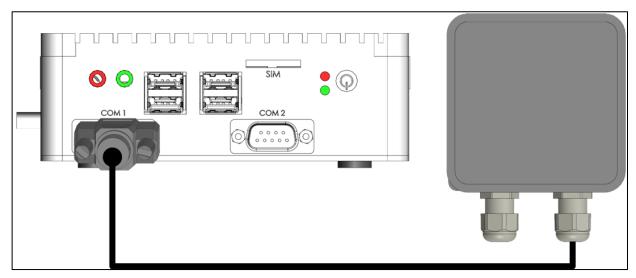


Figure 14: Junction Box to COM Port Cable

3.10 Wiring Topologies

When connecting the CommBox Plus to controllers via an RS-485 infrastructure, use one of the following allowed topologies to ensure signal integrity.

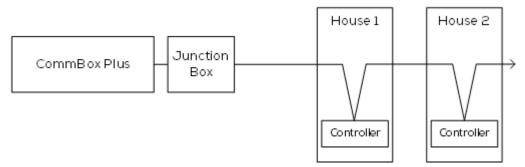


Figure 15: Direct connections

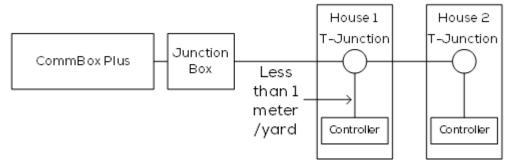


Figure 16: T-Junction (permitted)

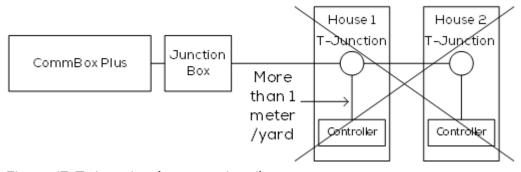


Figure 17: T-Junction (not permitted)

NOTE: When using RS-232, there is no restriction on the distance between the T-Junction and the controller.

3.11 Termination

Termination, installing 120-ohm termination resistors at the beginning and end units of each chain of CommBox Plus and controllers, ensures reliable communication in RS-485 infrastructures. The following illustrations show where to install the resistors. Depending on the topology, install the resistors in the Junction Box, the terminal controller, or the Munters Repeater.

Termination is recommended when the distance between the Junction Box and the final controller is more than 100 meters/330 feet. Munters Junction Box is supplied with a jumper and a 120 ohm resistor that can be installed in those installations (the jumper is placed in the Junction Box (see Figure 23, page 24), the resistor is installed in the controller). Termination may not be required in shorter installations.

- Termination Topologies
- Termination Wiring

3.11.1 TERMINATION TOPOLOGIES

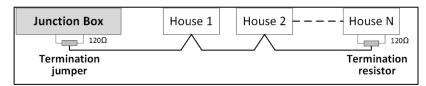


Figure 18: Topology 1: CommBox Plus/House Termination

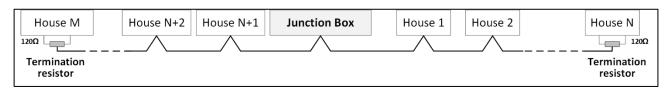


Figure 19: Topology 2: House Termination

The following two topologies require Munters RS-485 Repeaters.

CAUTION Install the repeater within one meter of the CommBox Plus T-Box.

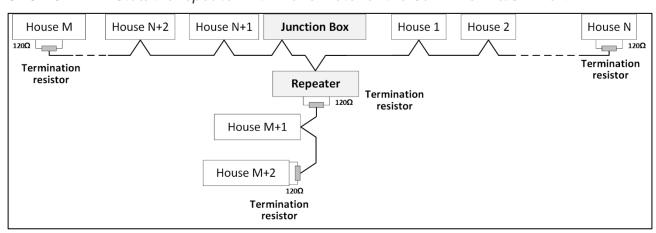


Figure 20: House and Repeater Termination

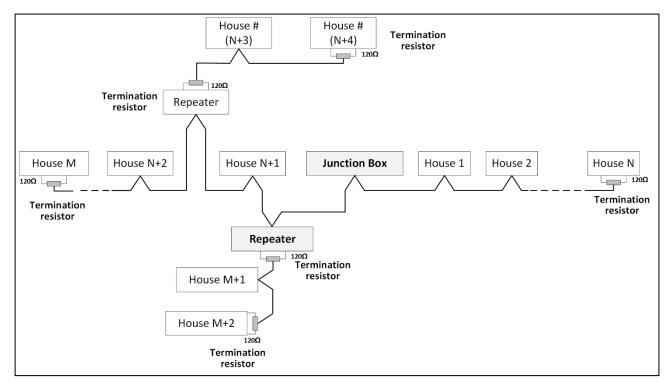


Figure 21: House and Multiple Repeaters Termination

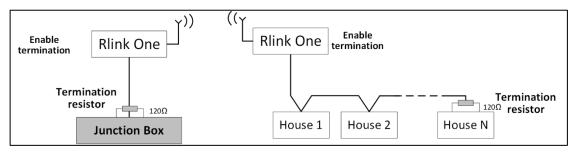


Figure 22: RLink One and House Termination

NOTE When using an RLINK One, refer to the RLINK One Manual for detailed information on RLINK One termination.

3.11.2 TERMINATION WIRING

• CommBox Plus: Place the jumper as shown below.

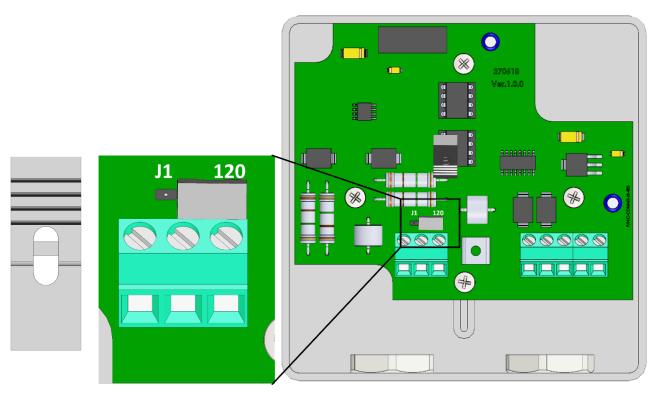


Figure 23: Junction Termination

• Repeaters: Move the S2 dipswitch on the Output card to ON.

RS-485 Repeater Card

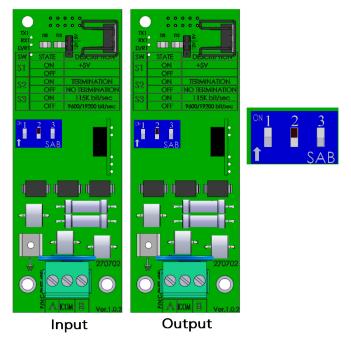


Figure 24: Repeater Termination

4 Technical Data

- CommBox Plus Specifications
- Junction Box Specifications

4.1 CommBox Plus Specifications

Parameter	Detail	
Power Supply		
Power Consumption	 12V DC +/-20% Power Adapter: SC 12VDC, 5A/60W (100 ~ 240V) 	
	be powered by Limited Energy Source per IEC 61010-1 or e per IEC 60950-1 or IEC 62368-1	
Temperature Range		
Operating Temperature Range	-20° to +65° C / -4° to +15	
Storage Temperature Range	-15° to 35° C / 59° to 95° F	
Ethernet		
LAN	Two (2) 10/100/1000/ Mbps Realtek 8111F ports	
SIM Card Requirements		
Cellphone SIM Card	4G (LTE CAT1)	
Cell Package	5 GB minimum	
Environmental Specifica	tions	
 Indoor use only 		
Altitude: -400	m to 2000 m	
 Relative Humid 	ity: 5 – 95%	
 Main supply vo 	ltage fluctuation up to 5%	
 Overvoltage ca 	tegory: OVCII	
 Pollution degre 	e: PD2	
 Ingress Protect 	ion: IPXO	
Housing		
Metal Box Dimensions (W x H x D)	136 x 126 x 39 mm (without wall-mount bracket)	
Weight	1.5 Kg/3.3 lbs.	

Parameter	Detail	
Input/Output:		
COMM	Two RS-232 Ports	
USB	One USB 3.0 port	
Three USB 2.0 ports		
Certification		
	FC (Class A)	

4.2 Junction Box Specifications

Power Supply			
Junction Box Power Input	24 VDC, 30 mA		
CAUTION Unit should be powered by Limited Energy Source per IEC 61010-1 or Limited Power Source per IEC 60950-1 or IEC 62368-1			
Temperature Range			
Operating Temperature Range	0° to +45° C / 32° to 113° F		
Storage Temperature Range	-10° to +70° C / 14° to 158° F		
Environmental Specifications			
Indoor use only			
Altitude: -400 m to 2000 m			
 Relative Humidity: 0 - 90% 			

- Main supply voltage fluctuation up to 5%
- Overvoltage category: OVCII
- Pollution degree: PD2
- Ingress Protection: IP50

5 Group Management

When using the CommBox Plus to connect to your farm(s), you must:

- create a group
- define user rights
- What is a Group?
- Activating the Group
- Log In
- Attaching the Farm to a Group
- Local Log In

5.1 What is a Group?

NOTE A group is the virtual device used to manage your farms. Using the RotemNet Web application, the group manager defines each user's permissions (which farms he can see and what functions he can carry out).

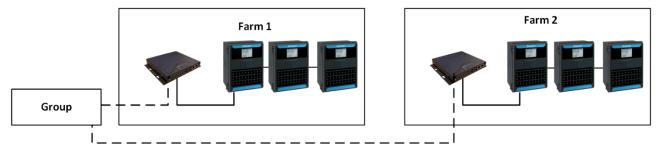


Figure 25: Group Example

As an example, an account manager has sent up two Groups and wants to add three different users to his account.

- 1. User 1 is assigned access rights to Farm 1.
- 2. User 2 is assigned access rights to Farm 2.
- 3. User 3 is assigned access rights to Farm 1 and Farm 2.
- 4. In addition, User 1 is also assigned access rights to Farm 3, which is in an entirely different group.

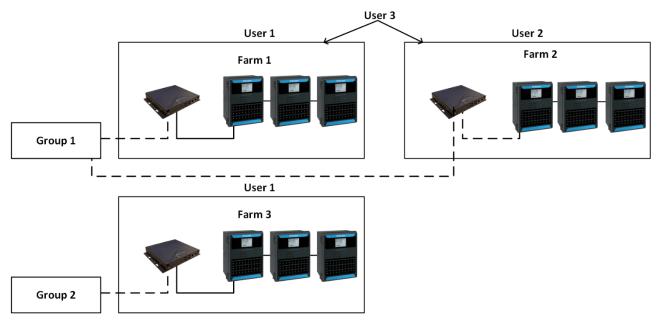


Figure 26: Assigning Farms to Groups

Any combination is possible.

5.2 Activating the Group

The first time that you power up a CommBox Plus, you need to activate a group.

1. Connect the CommBox Plus to a screen, keyboard, and mouse. Apply power. The Farm Activation screen appears.



Figure 27: Activation Screen

- 2. Fill in the fields:
 - o Name: Type in the farm name.
 - o Farm Type: Choose the type from the drop-down list.
 - Baud rate/Com Port: CommBox Plus has default settings of 9600
 BPS/COM Port 1, respectively. If you need to change these settings, click on the pencil and choose a setting from the drop-down list.
- NOTE Verify that the CommBox Plus and controller baud rates are the same.
 - Number of Houses: Select the number from the drop-down list.
- NOTE You can edit all these settings in RotemNet Web.

- 3. Click Activate. A pop up appears asking if you want to scan your farm houses.
 - Click Start Scan if the CommBox Plus is connected to the controllers.
 - Click Cancel if the CommBox Plus isn't connected.
- 4. A second pop-up appears, asking if you want to connect to the Web.
 - Click on the Connect to Web to connect your CommBox Plus to the web.
 This enables remote monitoring and control.
 - If you want, you can be reminded to scan at a later time. (Alternatively, click Don't Remind Me Later).

NOTE If you decide not to connect now, you can always connect by clicking on the RotemNet Web Tab Farm Setting.

As the Group administrator, you can invite other people to join the group as well as define their access rights. This is done in RotemNet Web itself.

5.3 Log In

• If you have a RotemNet Web user name, log in.



Figure 28: Login Screen

1. If you are a new user, click **Sign up now**. The following screen appears.



Figure 29: Create a New User Screen

- 2. Fill in all fields.
- 3. Click Create a User. The following screen appears.



Figure 30: Sign In Screen (Example)

NOTE To disconnect from the web, click the <u>Disconnect</u> button (refer to page 48).

5.4 Attaching the Farm to a Group

After signing in one of the following screens appears:

- No Existing Groups
- Groups Exist

5.4.1 NO EXISTING GROUPS

1. If there are no existing groups for this farm, the following screen appears:



Figure 31: No Existing Group Screen

2. Write the name of the farm group that you want to create and click **Attach to Group**.

5.4.2 GROUPS EXIST

If the farm is part of a group or if the owner has created groups do one of the following:

• Check the radio box next to the group to which you want to attach your farm and click **Attach to Group**.



Figure 32: Attach Farm to Group Screen

• To add an additional group, type in the Group Name and click Add a Group.



Figure 33: Add a Group Screen

5.5 Local Log In

In the event that:

- You restart your system
- CommBox Plus logs off (this can happen automatically if you are not using system)
- Power goes off

you need to log on to the CommBox Plus locally. The username and password of this login are different from the ones used when logging on to the Web.



Figure 34: Farm Settings

- Enter the user name and password. The defaults are:
 - o User name: "Farm Owner"
 - o Password: "admin"

NOTE The user name cannot be changed. You can change the password after logging in.

NOTE After logging in locally, you will need to log in to the Web (Log In, page 29).

6 RotemNet Web

The following sections describe how to use the RotemNet Web functions. Actual controller functions are described in the Platinum Touch/Rotem One manual.

- Sign In
- My Farm Groups
- RotemNet Farm Management
- Software Upgrade
- About Tab

6.1 Sign In

There are two ways to sign in:

- Standard Login
- Private Server

6.1.1 STANDARD LOGIN

1. Go to RotemNetWeb.Com.

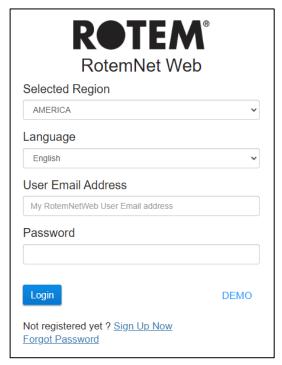


Figure 35: Standard Sign In

2. From the drop-down list, select the region closest to you. Proper selection is required to ensure faster response time.

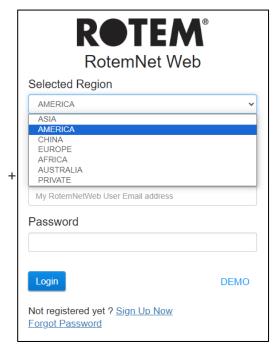


Figure 36: Region Selection

3. Enter the email address and password, and click Login. After signing in, the <u>My Farm Groups</u> screen appears:

6.1.2 PRIVATE SERVER

If your farm is connected to a private server system:

1. Click Private from the Selected Region. The following screen appears.

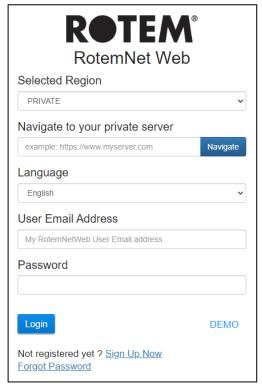


Figure 37: Private Server Sign In

2. Enter the server information.

NOTE Dealers provide this information, if relevant.

• After signing in, the My Farm Groups screen appears:

6.2 My Farm Groups

Click the My Farm Groups to access all groups to which you are participating in, in any capacity.

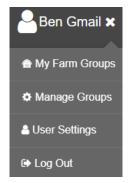


Figure 38: User Group Access

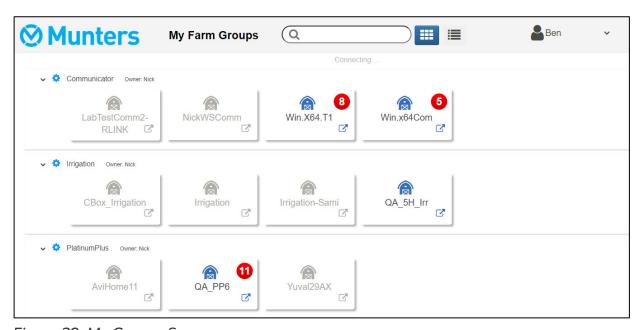


Figure 39: My Groups Screen

The screen shows:

- the groups and their status (on-line/off-line).
- the number of active alarms in each active farm. For example, there are 11 alarms in QA_PP6. Click the icon to see each controller's particular alarms.

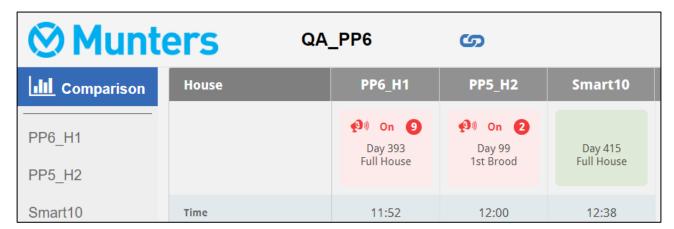


Figure 40: Controller Alarm Information, Comparison Screen

• To find a particular farm group, search for the name in the search bar.

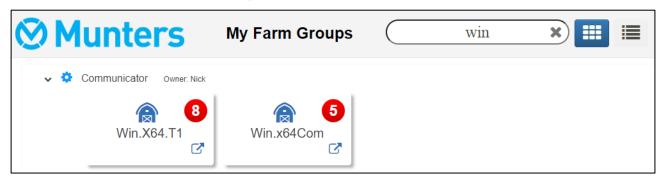


Figure 41: Search Function

• Farms can be displayed in a grid (Figure 42, click) or in a list (Figure 43, click).

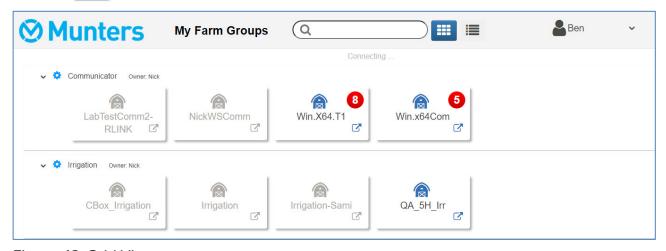


Figure 42: Grid View

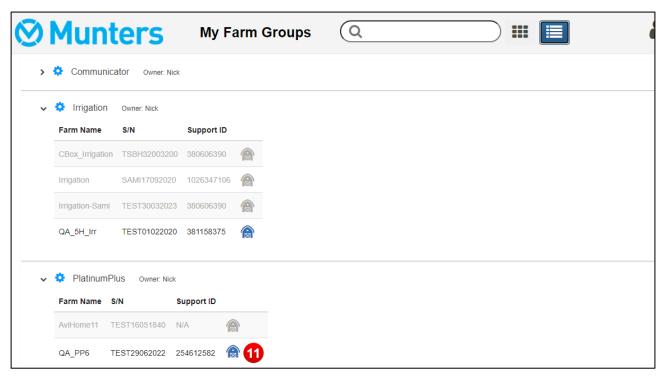


Figure 43: List View

- Click any icon to go to the group's farms (refer to RotemNet Farm Management, page 43).
- Click the settings icon to view and manage the group's users and farms (Manage Groups, page 41).

6.2.1 DETAILS (OPTIONAL)

On each group, click the settings icon and fill in details about the group as required.

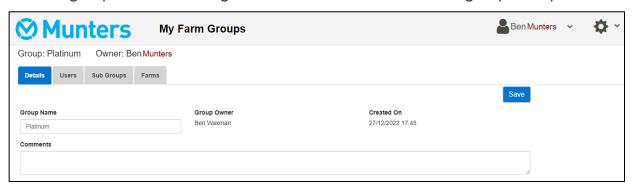


Figure 44: Details Screen

6.2.2 USERS

Click the Users tab to manage all group users.

- Existing Users
- New Users

6.2.2.1 Existing Users

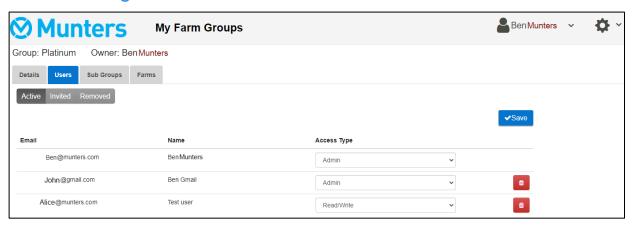


Figure 45: Existing Users Screen

• On this screen, delete users or change the permissions of existing users.

6.2.2.2 New Users

New users who are not part of the system must first sign up before being invited. If the user has an existing email address in the RotemNet Web system, go to Inviting a New User.

6.2.2.2.1 Creating a New User

1. Have the user go to rotemnetweb.com.

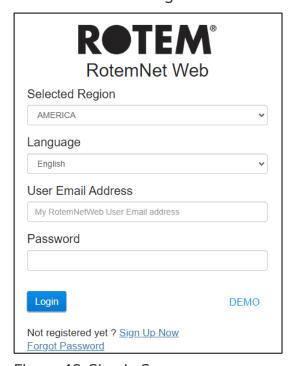


Figure 46: Sign In Screen

2. Click Sign Up Now.

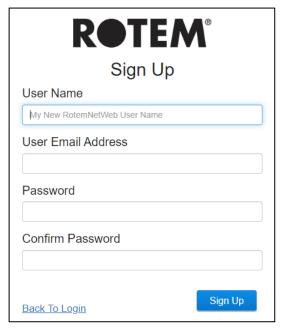


Figure 47: Sign Up Screen

3. Fill in the fields and click Sign Up.

6.2.2.2.2 Inviting a New User

Once the user has created an account, the farm owner goes to the User>Invited screen (only the owner can invite new users).



Figure 48: User Screen

- 1. Click Add.
- 2. In the Email field, enter the new user's email address. This address must be registered. See the following sections for details on creating a user.
- 3. Define the Access Type (permissions).
- CommBox Plus User Rights:
 - Admin: User can edit all unit parameters including functions related to farm settings and farm ownership.
 - Read/Write: User can edit all unit parameters but cannot perform any functions related to farm settings. (Farm Settings does not appear for users having Read/Write access).
 - Read Only: User can only view the CommBox Plus units' parameters; no changes can be made.

- Unauthorized: TBD. (Currently used as read only)
- Support: TBD. (Currently used as read only)

• Web App User Rights:

• Farm Owner/Admin: User can edit all unit parameters including functions related to farm settings (including attaching a farm to a group) and inviting new users.

NOTE Only an owner can invite new users.

- Read/Write: User can edit all unit parameters but cannot perform any functions related to farm settings (not visible).
- Read Only: User can only view the units' parameters; no changes can be made.
- Unauthorized: TBD. (Currently used as read only)
- Support: TBD. (Currently used as read only)

4. Click Invite.

The user will receive an email asking him/her to accept the invitation.

6.2.3 FARMS

The Farms screen lists the farms in this group.

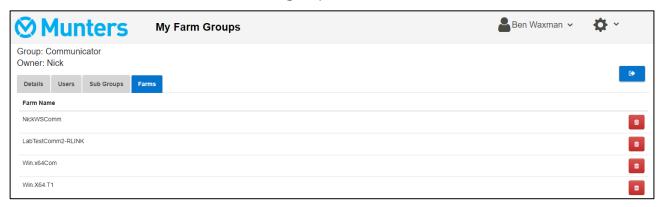


Figure 49: List of Farms Screen

6.3 Manage Groups

Manage Groups enables many of the same functions as the My Farm Groups screen. In addition, you can create new groups from this page.

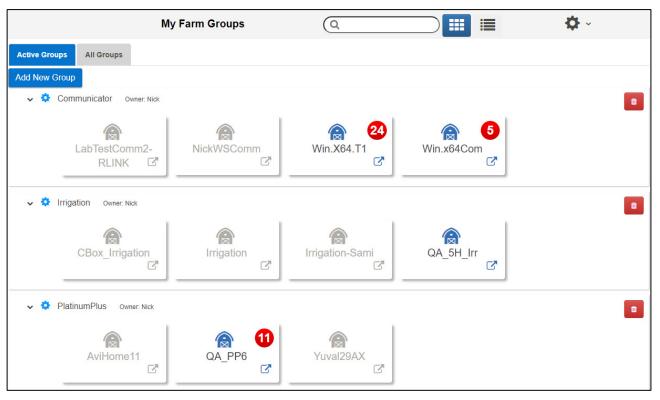


Figure 50: Manage Groups Screen

1. To create a new group, click Add New Group. Fill in the fields.

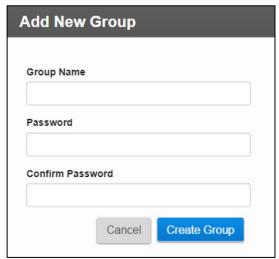


Figure 51: Add New Group screen

2. After creating the group, add farms to the group. Go to the Farm Settings screen. NOTE Only a farm owner/administrator connected to a farm locally can attach the farm to a group.

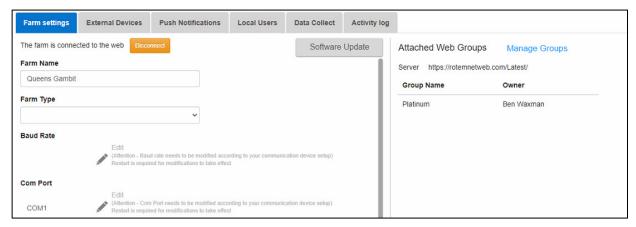


Figure 52: Farm Settings Screen

3. Click Manage Groups and attach the farm to a group (refer to Groups Exist, page 30).

6.4 User Settings

This screen defines how information appears on the screen. In Farm Owner, select

User Settings

. The following screen appears.

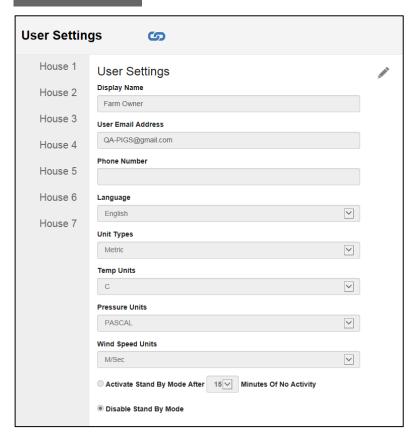


Figure 53: User Settings Screen

- To edit, click . Fill in the following fields as required.
 - o Display name: Name that appears on the User Setting screen.
 - User email address

- Phone number
- Language: Chose from the drop-down list
- Unit types: Metric or English
- o Temp Units: Celsius or Fahrenheit
- Pressure Units
- Wind Speed Units
- Disable or enable standby by mode (if the latter, define the amount of time that needs to pass before the mode is activated).
- Click to save any changes.

6.5 RotemNet Farm Management

- Farm Summary and Comparison
- Comparison Screen
- RotemNet Screen Appearance
- RotemNet Web Functionality

6.5.1 FARM SUMMARY AND COMPARISON

Click Comparison to view a summary of houses' activity.



Figure 54: Comparison Houses Screen

- Version 4.7.2.X supports displaying the Total Water Per Hour.
- Click on House to go to the controller functions.
- Click on to configure RotemNet Web functionality.
- Click on Farm Owner to configure the user definitions.

6.5.2 COMPARISON SCREEN APPEARANCE

Version 4.7.2.X supports defining the background colors of the Status, Sensors, and Devices sections.

NOTE Only owners/administrators can perform this function.

1. In the settings icon, click Customize.

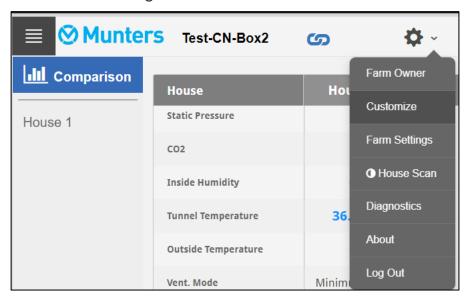


Figure 55: Customize Feature

2. For each section, select the background color.



Figure 56: Comparison Settings Screen

3. The screen displays the background colors.

House	House 1
Daily Water	0
Average Weight	0.000
% CFM	9
Temp 1	99.1 C°
Temp 2	21.9 C°
Temp 3	17.5 C°
Temp 4	41.7 C°
Wind Chill	36.1 C°
Heaters	
Radiant Low	
Radiant High	

Figure 57: Color Selection Screen

6.5.3 ROTEMNET SCREEN APPEARANCE

The screen appearance depends on how the user connects to the CommBox Plus, as a local user or via the internet. Users connected locally have access to additional functionality.

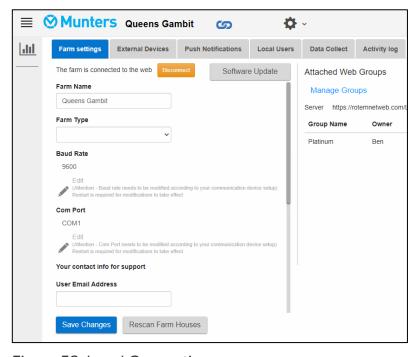


Figure 58: Local Connection

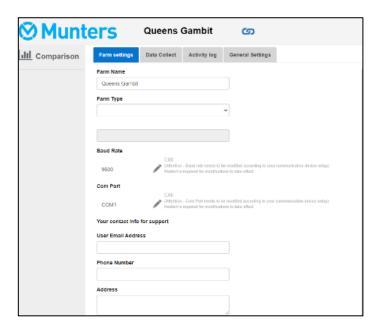
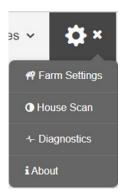


Figure 59: Web Connection



Farm Settings
House Scan
About

Figure 60: Local Connection Settings

Figure 61: Web Connection Settings (administrator)

In addition, when connected via the web, the user has easy access to his/her groups (Refer to My Farm Groups, page 35).

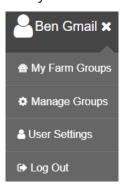


Figure 62: User Group Access

6.5.4 ROTEMNET WEB FUNCTIONALITY

The following section describes the RotemNet Web functions.



- Farm Settings Tab
- House Scan Tab

NOTE Only the farm owner can view the Farm Settings and House Scan tabs.

6.5.4.1 Farm Settings Tab

- Farm Settings
- Push Notifications
- Local Users
- Data Collect
- Activity Log
- General Settings

NOTE The "Local Users" tab appears only on the computer screen connected directly to the CommBox Plus.

6.5.4.1.1 Farm Settings

Use this screen to define functions related to CommBox Plus's connection to your farm.

• This function appears both for local and web access connections.

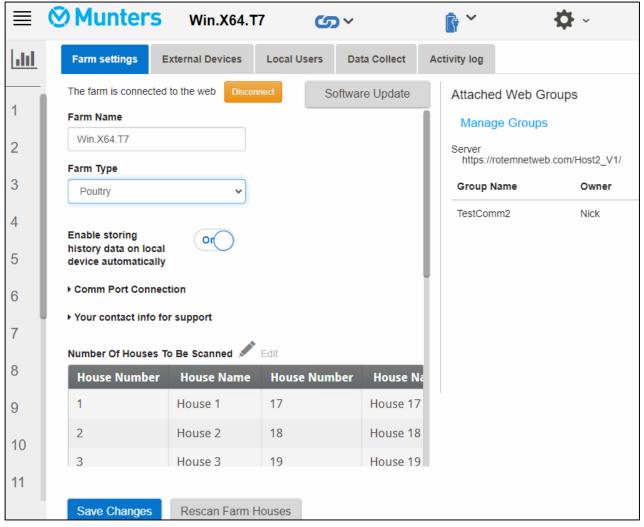


Figure 63: Farm Settings Screen

- Farm Name: This is the name that appears on your screen.
- Connect/Disconnect: This function enables disconnect from the current farm from the internet and reconnecting it via the Log-in screen (refer to Log In, page 29).

NOTE This function only appears on screens locally connected to the CommBox Plus.

- Farm Type: Poultry or Pigs. Make sure that the definition matches the CommBox Plus type!
- (Version 4.7.4.19) Enable storing history data on local drive automatically:
 - When enabled, Comm-Box stores history data automatically in the Comm-Box.
 - When this function is not enabled, data is stored on the controller only when the user views a history page. For example, sensor data is stored when the user views a sensor history screen.
- Com Port Connections
 - Baud rate: This rate must be the same throughout the network. Munters recommends
 - using the default baud rate, 9600, for wired connections.
 - setting the baud rate at 19200 for RLINK connections.

- o Com Port: Define the communication port. Default: COM1
- Contact information (optional): This information will be used by Munters to contact users if there is a need; for example to inform you of an update. The information will not be distributed to any outside parties whatsoever.
- Number of Houses to be Scanned: Scanning tests communication to the houses. If you wish to scan all houses or individual houses, click the relevant house number. Click Rescan farm houses to complete the scan.
 - You can name the houses.
 - In units having the CommBox Plus Pig Software, you can name individual rooms.
- Click Save Changes.
- System Update: Refer to Software Upgrade.

6.5.4.1.2 Push Notifications

CommBox Plus can send push notifications to multiple email addresses. These emails list any current alarms.

• This function appears both for local and web access connections..



Figure 64: Push Notifications Screen

- Enter an address, click Check, Add, and then Save.
 - The CommBox Plus Push Notification system does not provide detailed alarm information. The system is indicative only. To receive real-time alarms along with the ability to configure and manage alarms, contact your dealer about an independent alarms system (for example the Communicator).
 - o If a group of alarms are generated simultaneously (for example, Hi Temperature, CO2, and ammonia) only one email (listing all three alarms) is sent. If any of the issues that caused an alarm to be generated is resolved, a new email is sent out listing the current alarms. For example, if the temperature goes down, an email listing CO2 and ammonia alarms is sent).

6.5.4.1.3 Local Users

This function appears local access connections only.

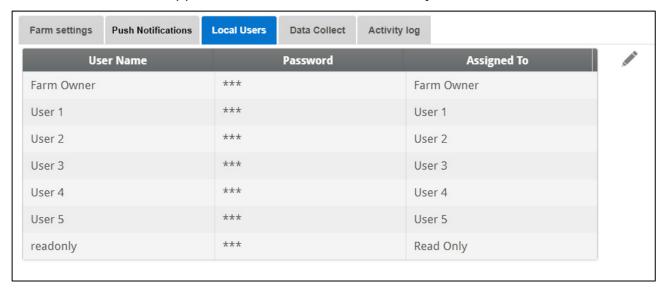


Figure 65: Local Users Screen

This screen lists pre-assigned user names and passwords.

- Username and password are the same. For example, User 1's password is User 1. User 2's password is User 2.
- The Farm Owner can edit these names, passwords, and to whom they are assigned.

6.5.4.1.4 Data Collect

Refer to Appendix B: Data Collection, page 67.

• This function appears both for local and web access connections.

6.5.4.1.5 Activity Log

This screen displays the history of events connected to the CommBox Plus. Under Event, Sub Event, User, and Cmd ID you can select filters to narrow down the results.

• This function appears both for local and web access connections.

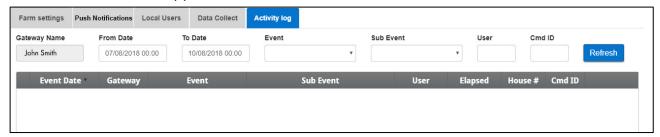


Figure 66: Activity Log Screen

 Refer to Appendix A: Generating an Activity Log, page 53 for detailed information on this function.

6.5.4.1.6 General Settings

Refer to Appendix B: Data Collection, page 67.

• This function appears in web access connections only.

6.5.4.2 House Scan Tab

• This function appears in both local and web access connections.

The House Scan screen:

- Shows the results of the house scan.
- Show the controller type and version used in each house.

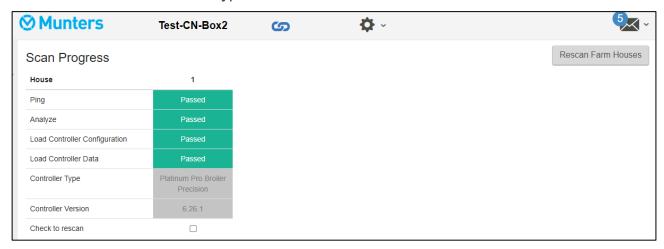


Figure 67: House Scan Screen

6.6 Software Upgrade

• This function appears when connected locally.

You can upgrade certain software programs from the Web application.

- Platinum Touch software
- Web application
- CommBox Plus software

NOTE The CommBox Plus can only be updated locally; it cannot be updated remotely. The System Update button does not appear in remote connections.

NOTE You cannot upgrade product software! Upgrade your product software using the procedures given in the product manuals.

NOTE If you are using a disk on key start here. If you are updating your CommBox Plus via the web, go to step 4.

- 1. Request the software upgrade from your dealer. You will be sent (via email, web transfer, etc.) a UPD file.
 - a. Place the file on a disk on key/flash drive.
 - b. Place the disk on key/flash drive into the CommBox Plus USB port.
- 2. In the web application, click the Farm Settings tab. The following screen appears.



Figure 68: Farm Settings – System Update Button

3. Click System Update. The following screen appears:

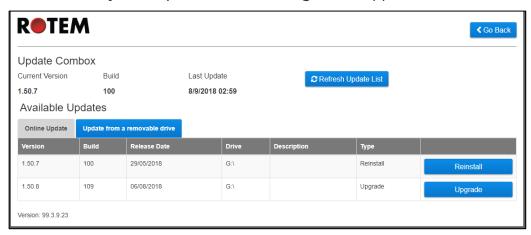


Figure 69: System Update Screen

- Users updating online: Click Online Update and choose the required software version.
- User updating using a flash drive: Click Update from a removable drive and choose the required software version.

NOTE If you did not place the disk on key in the USB port or if the disk does not contain a program, an error message appears.

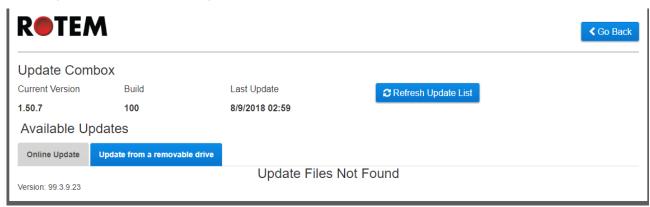


Figure 70: System Update Error

6.7 About Tab

This screen displays the product and software version. Send this information to technical support in the even that you require assistance. The Support ID enables remote technical support from Munters or from your dealer.

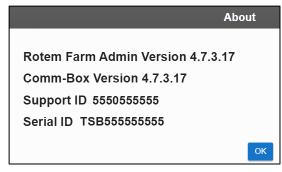


Figure 71: About Screen

7 Diagnostics

CommBox Plus 4.6.0.35 includes a basic diagnostics package.

• This function appears in local access connections only.

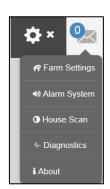


Figure 72: Diagnostics Selection

On the Settings screen click Diagnostics. The following screen appears.

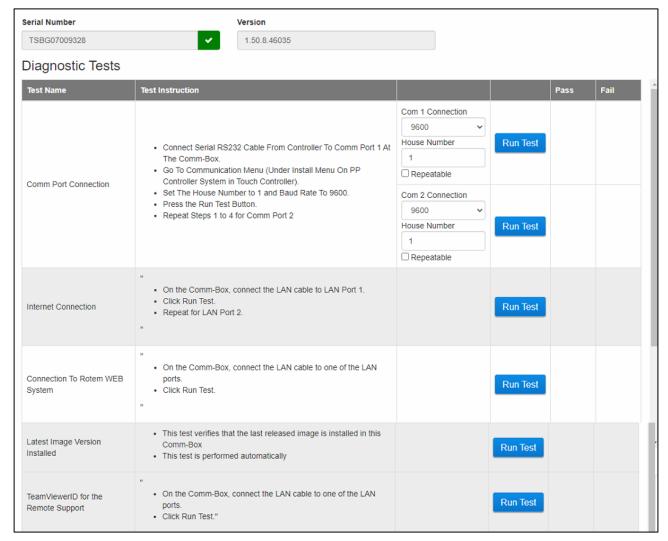


Figure 73: Diagnostic Tests

CAUTION When switching from Diagnostics mode to Normal mode, there could be a System Issue with closing communication port. If there is a service interruption, reboot the CommBox Plus.

- Use this screen and the information it supplies when speaking with technical support.
- Diagnostic Tests enables the following tests:
 - Lan test
 - Internet tests
 - Support tests
 - COM Port test. This option can be used to test the communication between the CommBox Plus and any house. Enter the number of the house to be tested. This test has two options:
 - Standard. This test shows the ping time between the CommBox Plus and the selected controller. Either a number appears or there is a failure.

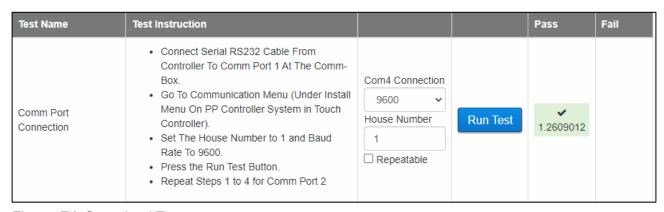


Figure 74: Standard Tests

Repeatable. This test enables verifying that the controller's communication card (RS232 or RS485) is sending and receiving signals. Click the Run Test icon and examine the controller communication card to ensure that its test LEDs are flashing.

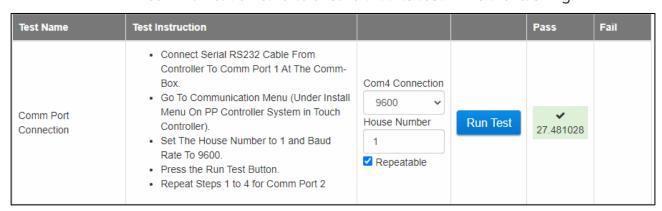


Figure 75: Repeatable Tests

o Enables a speed test.

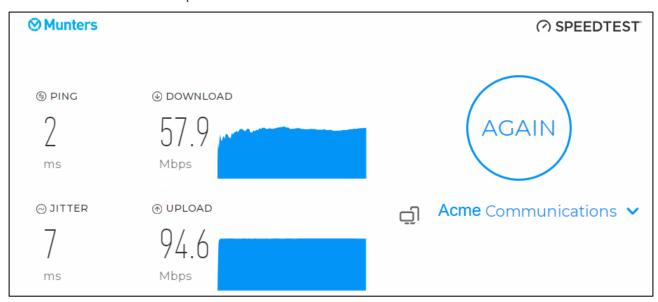


Figure 76: Speed Test (Results, example)

8 Controller Functionality

CommBox Plus Version 4.7.2.X enables controllers additional functionality that is not found when using the keyboard or touch screen.

- Modal
- Bird Inventory
- Growth Day Send to All

8.1 Modal

CommBox Plus Version 4.7.2.10 supports Modal functionality in Platinum Pro/Platinum Touch/Rotem Pro/Rotem One controllers. Modal enables defining the differential temperature in Levels of Ventilation in a range of ventilation levels. The differential level triggers the next level of ventilation according to difference from target temperature (time delays remain in effect).

NOTE Modal only is available when a user is connected to a controller via a CommBox Plus or via the web. It is not available when managing the controller locally.

- In Platinum System > Relays or System > Analog Output, define exhaust fans and tunnel fans as required.
 - 1. Go to System > Levels of Ventilation.

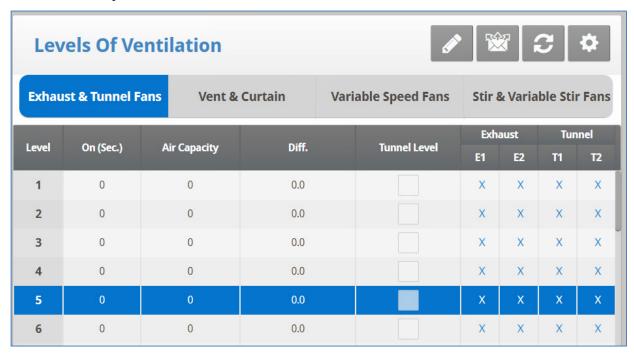


Figure 77: Level of Ventilation Screen

2. Define the On time and the exhaust/tunnels as required (refer to the controller manuals for details). Note: Air Capacity is read-only.

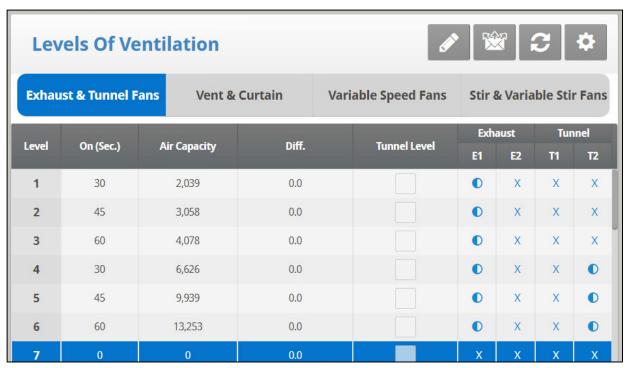


Figure 78: Level of Ventilation Screen (2)

3. Click the edit icon



. The Set Level of Ventilation screen appears.

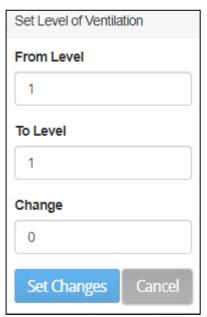


Figure 79: Set Level of Ventilation Pop-up

4. Define the levels at which the differential is changed and the differential. Note: The first several levels normally have differential temperatures set to 0.

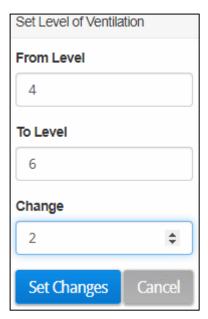


Figure 80: Set Ventilation Screen Defined (example)

The changes appear on the Levels of Ventilation screen.

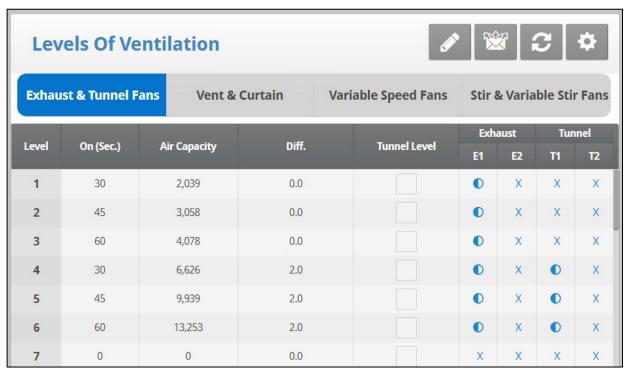


Figure 81: Levels of Ventilation Screen (3)

At levels 4, 5, and 6 ventilation goes to the next level when the temperature is 2 degrees about the tunnel or target temperature (depending on if the level is below or above the tunnel level. Refer to the Platinum manuals for details).

8.2 Bird Inventory

When defining the bird inventory via CommBox Plus, Platinum Pro/Rotem One support up to 140,000 birds (the controllers support up to 99,999 birds when defining this function using the keyboard).

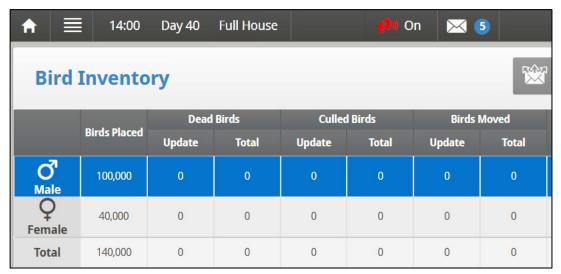


Figure 82: Bird Inventory Screen

8.3 Growth Day Send to All

Version 4.7.2.X enables changing the growth day in selected houses.

1. Go to Management > Growth Day & Flock.



Figure 83: Growth Day & Flock Screen

2. Edit as required and click Send to All.

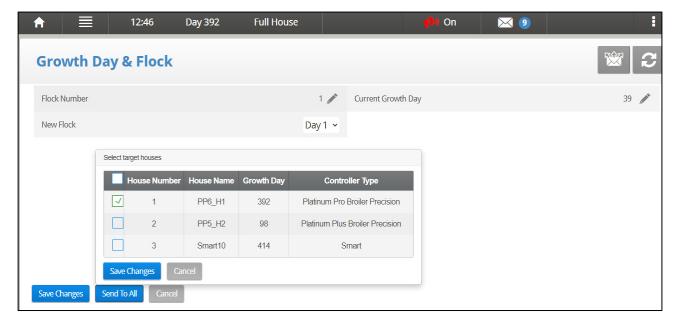


Figure 84: Send to All Function

3. Select the houses in which the change applies and click Save Changes.

9 Appendix A: Generating an Activity Log

The following section details how to use the Activity Log, in particular how to determine who made changes to the controllers' settings. Please note:

- These inquiries can only be made via the web. Local connections or connecting via TeamViewer do not support this function.
- Only changes made via the web are listed! Changes made locally by the farm owner or administrator are not listed.
- Only administrators can perform this function.
- 1. Connect to a farm via <u>www.rotemnetweb.com</u>.

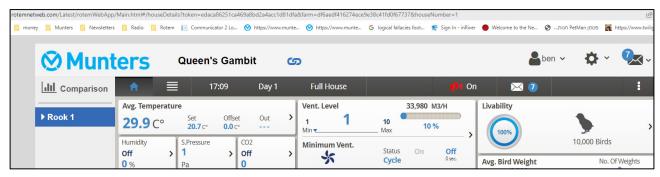


Figure 85: Rotem Net Web Homepage

2. Under the settings icon, click Farm Settings.



3. Click the Activity Log tab.

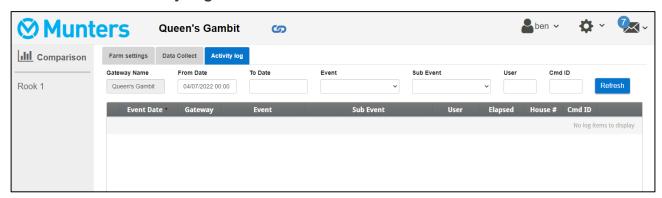


Figure 86: Activity Log Screen

- 4. Define as needed:
- Gateway Name: (farm name that the user chose): Read only.
- From/To: Define the time frame.
- Event:
 - o To see all events, leave this field empty.
 - To see who made changes to the controller settings, choose Save Farm
 Data from the dropdown list.
- Sub Event: Select if required.
- User: If you are looking for a specific person's activities, type in the user name.
- Cmd ID: If you are looking for a specific change in controller settings, type in the command ID. See the list in the following table.

In the following example Event is defined as Save Farm Data. User ben made the following changes:

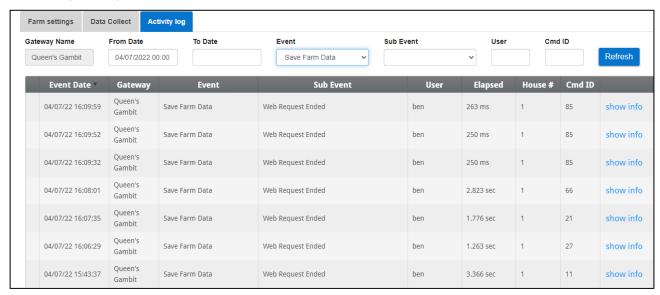


Figure 87: Activity Results (example)

- o 85: History feed
- o 66: Fan air capacity
- o 21: Event DB Property
- o 27: Temp & Timer Setting
- o 11: VOID (Reserved)

CMD IDs and Description		
1: Version Old	3: VOID	4: Signature
7: Active Alarm	9: VOID	11: VOID
12: Bird Inventory - READ	13: VOID	14: VOID
15: VOID	17: CO2 Treatment STD	18: VOID
19: Dosing Pump	20: PCI	21: Event DB Property

CMD IDs and Description		
23: VOID	24: Ammonia Treatment STD	25: Relay Current
27: Temp & Timer Setting	28: STD	29: VOID
30: Stir Fan Level	31: VOID	32: VOID
33: VOID	34: VOID	35: VOID
36: VOID	37: VOID	38: Light Feed
39: Water and Feed	40: Extra System	41: Static Pressure Standard
42: Static Pressure Precision	43: Control Mode	44: Bird Curve
45: History Setup	46: Levels Of Ventilation	47: Feed Calibration
48: Water Calibration	49: Setup	50: Relays Layout
51: Analog Sensors	52: Digital Sensors	53: Temp Definition
54: Curtains Setup	55: Vent And Curtain Level	56: Sys CO2 Treatment STD
57: System Parameters	58: Bird Scale Setting Bre As Bro	59: Alarm Settings
60: Sys Ammonia Treatment STD 9	61: Stir Fan Program	62: VOID
63: VOID	64: Analog Output	65: Temperature Reminder
66: Fan Air Capacity	67: VOID	68: Speed Fan Levels
69: Feed Bin Settings	70: Data Plug	72: Relays Test
73: VOID	74: Daily DB Property	75: Cage
76: EggRoomSetPoint	77: VOID	78: VOID
81: Sys Nest	83: History Temperature	84: History Humidity
85: History Feed	87: History Alarms	88: SSC Plug Play
90: Sys_ControlMode	92: Week Of Flock	93: Time
94: VOID	96: SRP HUB HW	97: Feed Inventory
98: Last 100 Weights	99: Set THI	101: Temp Curve
102: Set Rad Heater	103: Vent Level Set Point	104: Set stir fan

CMD IDs and Description		
105: Static Pressure Set Point	106: Set Cool Pad	107: Set Point Foggers
108: Set Humidity Treatment	109: Set Soft Min/Max Level	110: VentAndCurtainLevels Set Point
111: Light Set parameters	112: Active Silo	113: Emergency Set Point
114: VOID	115: Sys Minimum Vent	116: Set Relay Current
117: Bird Inventory - WRITE	118: VOID	119: Alarm DB Property
120: RDT Table	122: Test Analog Input	123: Test Digital
124: VOID	125: RDT Set Table	126: SSC HD
127: Het Key - Temperature Sensors	128: FeedQuantityUpdate	130: VOID
131: VOID	132: VOID	133: VOID
134: CO2 Set Point	135: Sys Water and Feed	137: VOID
138: VOID	139: VOID	140: VOID
141: History System Events	142: Set Bird Scale Setting BreAsBro	143: WorkRoomControl
144: EggRoom	145: VOID	146: CO2 Treatment
147: Feed Conversion	148: SRP Hub Plug And Play	149: Light No Feed
150: History View DB Property	151: New History View	152: Set Dosing Pump
153: Levels Of Ventilation – Read Only	154: Min/Max Level By Weight	155: Set Point of Min/Max Level By Weight
156: Set Point Scale Layout	157: MinVent & Ramping Set point	158: Fogger Set Point (STD)
159: Fogger STD	160: Variable Speed Fans Setting	162: STD Curtain Set up
163: set.Std_V_Speed_Fans	164: Stir Fan Set program	165: Water On Demand
166: Sys variable heat	194: Feed Scale Program	206: Light No Feed
207: Light Feed	208: Water And Feed	215: Auger Layout

CMD IDs and Description		
216: Water And Feed By Quantity from 5.05	217: Water And Feed By Quantity	218: Set Curve
222: Set Natural Program	224: Natural Program	225: Ammonia Treatment
228: Service Wind Direction	231: Ammonia Treatment SetPoint	235: Feed Line Calibration
236: Set Floor Heat	237: Light Dimmer Comm	238: Water and Feed SetPoint
239: Set Water On Demand	243: Minimum Vent Timer STD	244: Timer Settings STD
247: Temp And Timer Settings STD	248: Sys Humidity TreatmentSTD	249: Sys Curtain Calibration
255: Hot Key Natural	256: Hot Key - Lights	257: Munters Drive
258: Water Meters	260: Web OverView	261: Dash Board
262: Switches Change Confirm	263: Switch Status Array	264: Status Bar
265: Temp Reminder	266: System Security	267: Signatures
270: ReciveOnce	271: EggRoomHistory	272: HK EggRoom
273: HumidityFactorComm	274: WaterAndFeedBreeder	276: History Egg Belt
277: Fast Main Screen	278: Hot Key - Water & Feed	279: History Egg Counter
280: HK Egg Counter	284: History Ammonia	285: Hot Key - Analog Output
286: SetPoint Feed Scale	287: HK Feed Scale	288: Scale Clibration
290: Scale Layout	291: Emergency Set Comm	293: Hot Key – Scales
294: Set Analog Output	295: Feed Scale Program	296: Hot Key Feed Bin
298: Feed Scale Setting	299: HK_FeedScale	300: Hot Key - Temperature & Humidity
301: Hot Key - Curve	302: Water and Feed Set Mem23	303: Hotkey Zoon Inlet
304: Hot Key - Infra Red	305: VOID	306: Nest table

CMD IDs and Description		
307: Hot Key – Curtains	308: Bird Weight Bre As Bro	309: Scale History Bre
311: Bird Weight Bre Auto	312: Web Weight	313: Control Level By Weight Hot Key
314: Scale Test	315: FDQ Tab 1	318: HK Pump Dosing
319: TableWarning	320: Heather Duration	321: Power Consumption
322: History Heaters	323: History Mortality	324: History Water
325: SSC Power Consumption	326: SSC HK	327: FDQ Tab 2
328: History Variable Heaters	329: Hot Key Cool Ramping	330: Dosing Pump
331: Dosing Pump History	332: History Table Of Events	333: History Radiant Heaters
334: Power Meter HK	335: Munters Drive HK	336: Scale History
337: CO2 History	338: SRP Hub	

10 Appendix B: Data Collection

10.1 Centralized Collection

NOTE Only use the Centralized Collection function after consulting with Munters technical support.

- Only the group owner or administrator can define the General Settings. The following tab does appear on any other user's screen.
- The General Settings page is an option. If data upload is to a local server only, leave these fields blank and go to Defining the FTP/SFTP server.
- 1. In the settings icon, select Farm Settings.



Figure 88: Farm Settings Drop Down

2. Go to Farm Settings > General Settings.

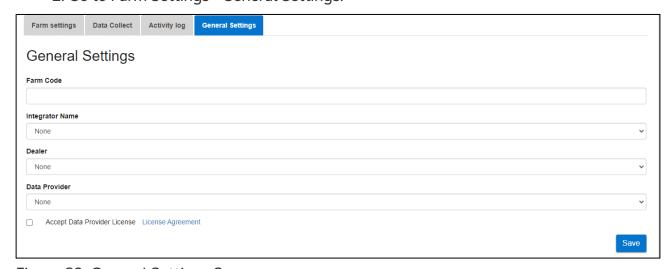


Figure 89: General Settings Screen

- 3. Enter the data as follows:
 - Farm Code: This is a code provided by the integrator used to identify the farm.
 - o Integrator Name: From the drop-down list, select the required name.
 - o Dealer: From the drop-down list, select the required dealer name.
 - o Data Provider: From the drop-down list, select the required data provider.

 Accept Data Provider License. Mark this box. This box must be checked to enable centralized data collection.

NOTE This acceptance is saved.

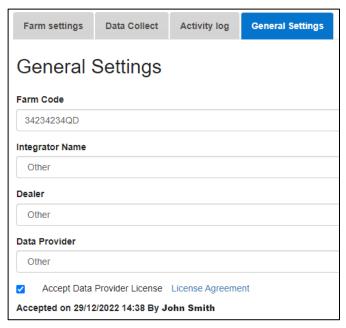


Figure 90: General Settings – Completed (Example)

4. Click the Data Collect Screen. Refer to the following section.

10.2 Defining the FTP/SFTP server

Use this function to enable data collection to your FTP/SFTP site.

NOTE Data Upload Allowed appears if the General Settings fields are filled out and Data Provider License accepted. If the fields are filled out but the license is NOT accepted data, upload is disabled.

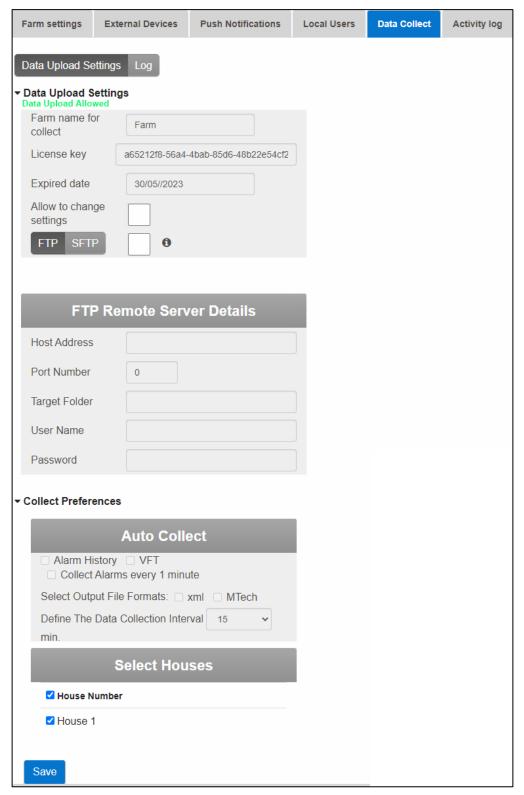


Figure 91: FTP Definition

- Data Upload Settings:
 - Check Allow to change settings to enable editing the page.
 - Select FTP or SFTP and check the box.
 - License key: This is a read-only field. The field is filled in automatically if you fill in the General Settings fields.
- FTP/SFTP Details: Fill in the fields as required.
- Collect Preferences:
 - Under Select Houses, select at least one house to enable changing Auto Collect settings.
 - o Check Alarm History, VFT, and Collect Alarms every 1 minute as required.

CAUTION Only mark the Alarm History, VFT, and Collect Alarms checkboxes if you are uploading data to a centralized collector. Anyone using a private FTP server must leave these boxes unchecked!

- Select the output file format.
- o Define the collection interval.

11Appendix C: Adding a SIM Card/Modem

1. Remove the CommBox Plus cover.





2. Open the clips securing the memory card.



3. Place a working SIM card into the SIM slot. Place the card as shown in the following pictures.

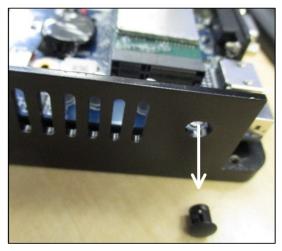




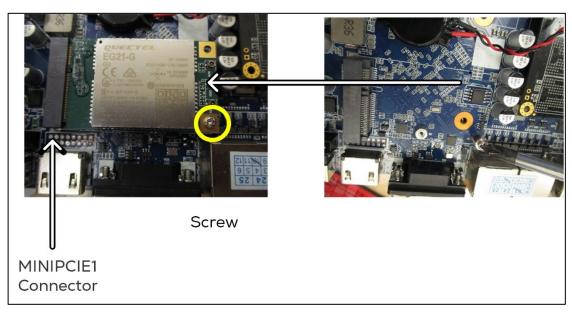
4. Put the memory card back in place.



5. On the right side of the unit is a plastic cover. Remover the cover.



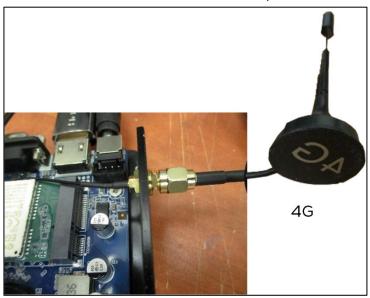
6. Place the modem on the MINIPCIE1 connector and screw it in.



7. Attach the internal antenna to the modem's main connector and to the unit.



8. Attach the external antenna to the port.



12 Warranty

Warranty and technical assistance

Munters products are designed and built to provide reliable and satisfactory performance but cannot be guaranteed free of faults; although they are reliable products they can develop unforeseenable defects and the user must take this into account and arrange adequate emergency or alarm systems if failure to operate could cause damage to the articles for which the Munters plant was required: if this is not done, the user is fully responsible for the damage which they could suffer.

Munters extends this limited warranty to the first purchaser and guarantees its products to be free from defects originating in manufacture or materials for one year from the date of delivery, provided that suitable transport, storage, installation and maintenance terms are complied with. The warranty does not apply if the products have been repaired without express authorisation from Munters, or repaired in such a way that, in Munters' judgement, their performance and reliability have been impaired, or incorrectly installed, or subjected to improper use. The user accepts total responsibility for incorrect use of the products.

The warranty on products from outside suppliers fitted to CommBox Plus, (for example power supplies, cables, etc.) is limited to the conditions stated by the supplier: all claims must be made in writing within eight days of the discovery of the defect and within 12 months of the delivery of the defective product. Munters has thirty days from the date of receipt in which to take action, and has the right to examine the product at the customer's premises or at its own plant (carriage cost to be borne by the customer).

Munters at its sole discretion has the option of replacing or repairing, free of charge, products which it considers defective, and will arrange for their despatch back to the customer carriage paid. In the case of faulty parts of small commercial value which are widely available (such as bolts, etc.) for urgent despatch, where the cost of carriage would exceed the value of the parts, Munters may authorise the customer exclusively to purchase the replacement parts locally; Munters will reimburse the value of the product at its cost price.

Munters will not be liable for costs incurred in demounting the defective part, or the time required to travel to site and the associated travel costs. No agent, employee or dealer is authorised to give any further guarantees or to accept any other liability on Munters' behalf in connection with other Munters products, except in writing with the signature of one of the Company's Managers.

WARNING: In the interests of improving the quality of its products and services, Munters reserves the right at any time and without prior notice to alter the specifications in this manual.

The liability of the manufacturer Munters ceases in the event of:

- dismantling the safety devices;
- use of unauthorised materials:
- inadequate maintenance;
- use of non-original spare parts and accessories.

Barring specific contractual terms, the following are directly at the user's expense:

- preparing installation sites;
- providing an electricity supply (including the protective equipotential bonding (PE) conductor, in accordance with CEI EN 60204-1, paragraph 8.2), for correctly connecting the equipment to the mains electricity supply;
- providing ancillary services appropriate to the requirements of the plant on the basis of the information supplied with regard to installation;
- tools and consumables required for fitting and installation;
- lubricants necessary for commissioning and maintenance.

It is mandatory to purchase and use only original spare parts or those recommended by the manufacturer.

Dismantling and assembly must be performed by qualified technicians and according to the manufacturer's instructions.

The use of non-original spare parts or incorrect assembly exonerates the manufacturer from all liability.

Requests for technical assistance and spare parts can be made directly to the nearest Munters office.

