

# Installation/ Technical Manual

Residential/Commercial Generator Sets



## OnCue® Plus

Generator Management System  
for Kohler® Residential/Light Commercial Generator Sets  
equipped with the following controllers:

**RDC/DC**  
**RDC2/DC2**  
**VSC**

**KOHLER**  
Power Systems

**9001**  
**KOHLER**  
POWER SYSTEMS  
NATIONALLY REGISTERED

TP-7007 4/16



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# Notes

# Safety Precautions and Instructions

IMPORTANT SAFETY INSTRUCTIONS. Electromechanical equipment, including generator sets and accessories, can cause bodily harm and pose life-threatening danger when improperly installed, operated, or maintained. To prevent accidents be aware of potential dangers and act safely. Read and follow all safety precautions and instructions. **SAVE THESE INSTRUCTIONS.**

This manual has several types of safety precautions and instructions: Danger, Warning, Caution, and Notice.

## DANGER

Danger indicates the presence of a hazard that **will cause severe personal injury, death, or substantial property damage.**

## WARNING

Warning indicates the presence of a hazard that **can cause severe personal injury, death, or substantial property damage.**

## CAUTION

Caution indicates the presence of a hazard that **will or can cause minor personal injury or property damage.**

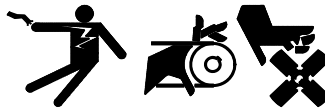
## NOTICE

Notice communicates installation, operation, or maintenance information that is safety related but not hazard related.

Safety decals affixed to the equipment in prominent places alert the operator or service technician to potential hazards and explain how to act safely. The decals are shown throughout this publication to improve operator recognition. Replace missing or damaged decals.

## Accidental Starting

### WARNING



**Accidental starting.  
Can cause severe injury or death.**

Disconnect the battery cables before working on the generator set. Remove the negative (-) lead first when disconnecting the battery. Reconnect the negative (-) lead last when reconnecting the battery.

**Disabling the generator set. Accidental starting can cause severe injury or death.** Before working on the generator set or equipment connected to the set, disable the generator set as follows: (1) Press the generator set off/reset button to shut down the generator set. (2) Disconnect the power to the battery charger, if equipped. (3) Remove the battery cables, negative (-) lead first. Reconnect the negative (-) lead last when reconnecting the battery. Follow these precautions to prevent the starting of the generator set by the remote start/stop switch.

## Hazardous Voltage/ Moving Parts

### DANGER



**Hazardous voltage.  
Will cause severe injury or death.**

Disconnect all power sources before opening the enclosure.

**Short circuits. Hazardous voltage/current can cause severe injury or death.** Short circuits can cause bodily injury and/or equipment damage. Do not contact electrical connections with tools or jewelry while making adjustments or repairs. Remove all jewelry before servicing the equipment.

## NOTICE

**Electrostatic discharge damage.** Electrostatic discharge (ESD) damages electronic circuit boards. Prevent electrostatic discharge damage by wearing an approved grounding wrist strap when handling electronic circuit boards or integrated circuits. An approved grounding wrist strap provides a high resistance (about 1 megohm), *not a direct short*, to ground.

# Notes

This manual provides installation and technical troubleshooting instructions for the OnCue® Plus Generator Management System. OnCue Plus is a web application that does not require the installation of software on your computer. OnCue Plus allows remote monitoring and control of your generator set using a computer, tablet, or smart phone from any location that provides web access.

OnCue Plus applies to Kohler® Residential and Light Commercial generator sets equipped with the following controllers:

- RDC/DC
- RDC2/DC2
- VSC

**Note:** The RDC2, DC2, and VSC controllers require an activation code, which is supplied with the OnCue Plus kit.

**Note:** The RDC and DC controllers must be equipped with the Ethernet option board kit GM62465-KP1. See TT-1566, provided with the kit, for installation instructions.

Information in this publication represents data available at the time of print. Kohler Co. reserves the right to change this publication and the products represented without notice and without any obligation or liability whatsoever.

Read this manual and carefully follow all procedures and safety precautions to ensure proper equipment operation and to avoid bodily injury. Read and follow the Safety Precautions and Instructions section at the beginning of this manual. Keep this manual with the equipment for future reference.

## List of Related Literature

Figure 1 lists related literature.

Literature Type	Part Number
OnCue Plus Specification Sheet	G6-140
OnCue Plus User Guide	TT-7006
Ethernet Option Board Installation Instructions (RDC/DC only)	TT-1566
USB Utility Instructions	TT-1636

**Figure 1** Related Literature

# Service Assistance

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For professional advice on generator set power requirements and conscientious service, please contact your nearest Kohler distributor or dealer.

- Consult the Yellow Pages under the heading Generators—Electric.
- Visit the Kohler Power Systems website at KOHLERPower.com.
- Look at the labels and decals on your Kohler product or review the appropriate literature or documents included with the product.
- Call toll free in the US and Canada 1-800-544-2444.
- Outside the US and Canada, call the nearest regional office.

## **Headquarters Europe, Middle East, Africa (EMEA)**

Kohler Power Systems Netherlands B.V.  
Kristallaan 1  
4761 ZC Zevenbergen  
The Netherlands  
Phone: (31) 168 331630  
Fax: (31) 168 331631

## **Asia Pacific**

Power Systems Asia Pacific Regional Office  
Singapore, Republic of Singapore  
Phone: (65) 6264-6422  
Fax: (65) 6264-6455

## **China**

North China Regional Office, Beijing  
Phone: (86) 10 6518 7950  
(86) 10 6518 7951  
(86) 10 6518 7952  
Fax: (86) 10 6518 7955

East China Regional Office, Shanghai  
Phone: (86) 21 6288 0500  
Fax: (86) 21 6288 0550

## **India, Bangladesh, Sri Lanka**

India Regional Office  
Bangalore, India  
Phone: (91) 80 3366208  
(91) 80 3366231  
Fax: (91) 80 3315972

## **Japan, Korea**

North Asia Regional Office  
Tokyo, Japan  
Phone: (813) 3440-4515  
Fax: (813) 3440-2727

## **Latin America**

Latin America Regional Office  
Lakeland, Florida, USA  
Phone: (863) 619-7568  
Fax: (863) 701-7131



# Section 1 System Information and Installation

## 1.1 Kohler OnCue Plus

A device such as a personal computer (PC), smart phone, or tablet running the Kohler® OnCue® Plus application can communicate with the generator set models listed in the Introduction section to monitor the generator set from any location with Internet access. You can also use your device to signal the generator set controller to start or stop the engine or to reset a fault. High speed or broadband internet service is recommended for optimal user experience.

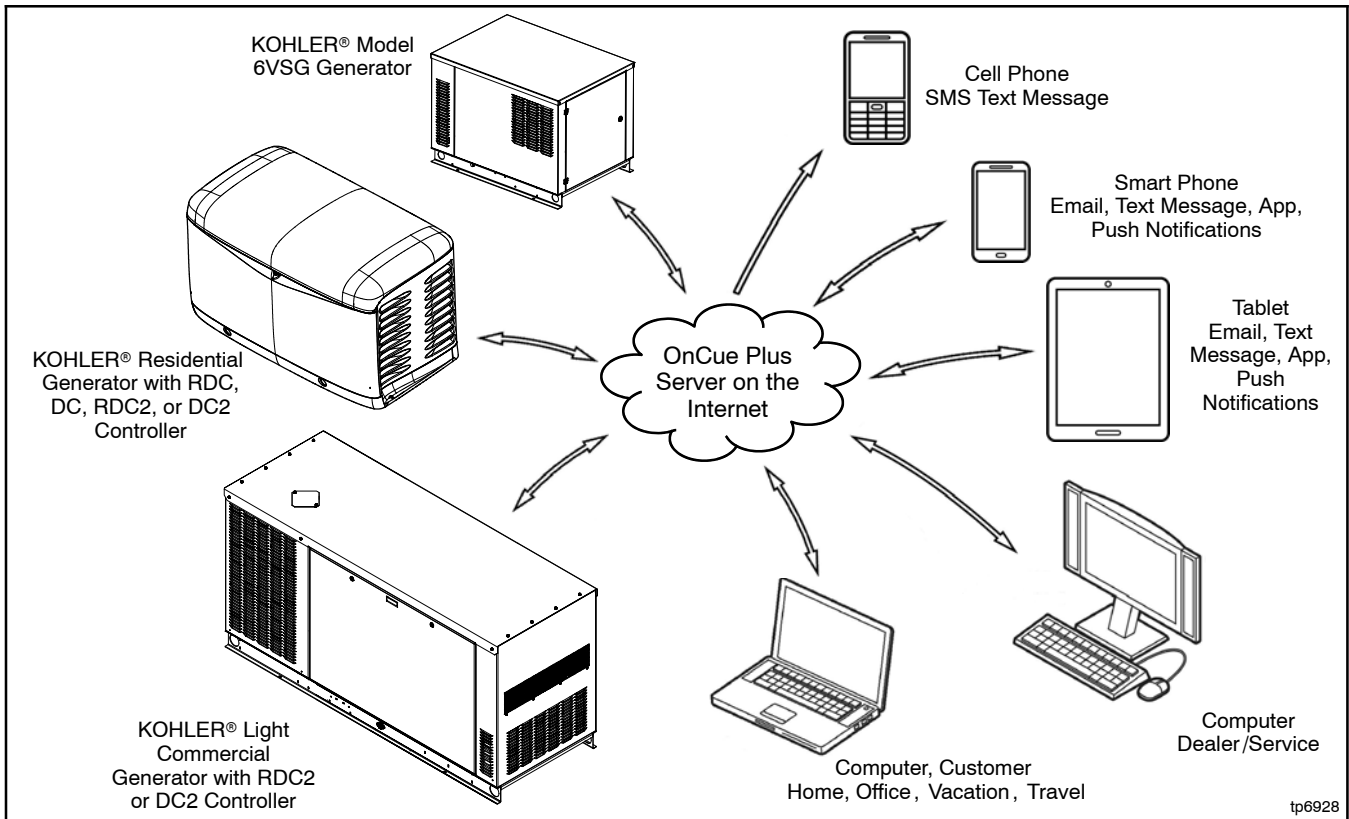
Once OnCue Plus has been purchased and activated for a specific generator set, that generator can be monitored from multiple devices and locations. The Kohler OnCue Plus application can be used on one or more personal computers (PCs), smart phones, or tablets, allowing monitoring and control of your Kohler generator set from any location with Internet access. Use OnCue Plus to monitor your generator set from home, at work, or on vacation. The generator serial number, controller password, and OnCue Plus account password provide security and prevent unauthorized access to your generator set.

OnCue Plus also provides the ability to automatically send email, text messages, or push notifications to notify selected recipients of generator set activity, faults, and maintenance reminders.

Kohler® OnCue® Plus monitors the generator set and generates messages continually. After the application has been configured to send email and/or text messages, the OnCue Plus server will continue to send messages when the PC is turned off or disconnected from the Internet.

### 1.1.1 Mobile Apps

OnCue Plus is available as a web version and as an app for iPhone®, iPad® and Android™ devices. For smart phones or tablets, obtain the Kohler OnCue Plus app from the App Store<sup>SM</sup> (for Apple devices) or Google Play™ (for Android™ devices). Mobile app operation is similar to the web application operation described in this manual. For instructions to use the app, refer to the Quick Start guide for the app.



**Figure 1-1** Kohler® OnCue® Plus Generator Management System

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Android and Google Play are trademarks of Google Inc.

### 1.1.2 PIM and LCM

If the power system includes a programmable interface module (PIM), load control module (LCM) or load shed kit, OnCue Plus also allows remote control of electric items in your home. See the OnCue Plus User Guide and the instructions for the PIM, LCM, or load shed kit for more information.

## 1.2 Connect and Monitor Multiple Generator Sets

If you own more than one generator set, or if you are a dealer monitoring numerous customer systems, you may use Kohler OnCue® Plus to monitor multiple generator sets. Purchase one OnCue Plus kit for **each** generator set that you want to monitor and control remotely.

To connect to each generator set, enter the serial number, password, and activation code (if required) for the generator set as described in Section 2.5. Each generator set needs to be added to your account only once.

Generator sets can also be removed from your account. See the OnCue Plus user Guide for instructions to delete a generator from your account.

## 1.3 Kohler OnCue Plus Server

Kohler Power Systems operates an Internet server system used to connect Kohler generator sets to the Kohler® OnCue Plus application.

All connections to the Kohler OnCue Plus Server are fully encrypted for your protection. See Section 1.4, Terms of Service.

## 1.4 Terms of Service

Click on the Terms of Service link and review the OnCue terms and conditions of use when you set up your OnCue Plus account. See Section 2.4. By accepting the OnCue terms and conditions of use, you are acknowledging that you have read the OnCue terms and conditions of use and agreeing to be bound by the OnCue terms and conditions of use.

If you have questions or concerns about the OnCue terms and conditions of use, please contact Kohler Co. by email at [privacy@kohler.com](mailto:privacy@kohler.com), or call 1-800-544-2444. Kohler Co. may update the OnCue terms and conditions of use at any time.

## 1.5 System Requirements

The following items are the minimum requirements and recommendations for connecting your generator to the Internet.

- “Always-on” Internet service for generator set connection (for example, cable, DSL, or phone line modem connected 24 hours)
- Unused Ethernet port on a switch, router, or modem
- An uninterruptible power supply (UPS) for the modem and router is recommended.
- OnCue Plus requires a customer-supplied network cable for connection of the generator set to the customer’s Ethernet router
- Controller firmware versions shown in Section 1.7. It may be necessary to update the firmware on the controller. Contact your Kohler distributor or dealer, or use the Kohler USB Utility to update the firmware yourself. Visit [www.KohlerGenerators.com/usb](http://www.KohlerGenerators.com/usb) to obtain the USB Utility.
- USB cable, male USB A to male mini-B, for updating the controller firmware
- **RDC2, DC2, or VSC only:** The generator set serial number, password, and OnCue Activation Code found on the decal, included with the OnCue Plus kits.
- **RDC or DC only:** The generator set serial number, password, and Ethernet option board installed on the generator set controller, included with the OnCue Plus kits.

## 1.6 Internet Configuration and Security (Firewalls)

When the generator set is connected to an intranet network behind a firewall, for example in a commercial or industrial setting, it may be necessary to configure the firewall to open port 5253 to permit an outbound connection. Contact the network administrator for assistance if necessary. If there is no network administrator, contact the internet service provider.

## 1.7 Controller Firmware Download and Installation

It may be necessary to update the firmware on your generator set controller. See Figure 1-2 for the firmware version required for your device. Use the version shown or a later version, if available. Refer to the generator set documentation for instructions to find the version number installed on your controller.

**Note:** The Kohler OnCue® Plus application cannot be used to update controller firmware. Controller firmware can be updated by a Kohler authorized distributor or dealer using a personal computer and Kohler® SiteTech™ software or the Kohler USB Utility. If you would like to upgrade the firmware yourself, use the USB utility. Visit [www.KohlerGenerators.com/usb](http://www.KohlerGenerators.com/usb) to obtain the USB utility and instructions and refer to TT-1636, USB Utility instructions.

### Firmware Version Numbers

Software and firmware version numbers consist of three parts separated by periods (or dots) as follows:

[Major version number].[Minor version number].[Build number]

For example, if the version number is 2.3.17, the major version number is 2, the minor version number is 3 and the build number is 17. The build number is typically not shown on the controller display, but is included in the firmware file name.

**Note:** Preceding zeros may be dropped from version numbers for software and firmware. For example, firmware version 2.3 is the same as version 2.03. However, version 2.1 (two point one) is *not* the same as 2.10 (two point ten).

Model	Controller	Firmware Version Number *	Firmware File Name †
6VSG	VSC (green board)	1.02 or higher	VSC_#_#_#.bin
	VSC (blue board)	1.03 or higher	VSC_#_#_#.bin
14/20RES	RDC	3.18 or higher	RDC_#_#_#.bin
14/20RESL	DC	3.18 or higher	RDC_#_#_#.bin
14/20RESA	RDC2	5.07 or higher	RDC2_#_#_#.bin
	RDC2 with APM	105.5 or higher	RDC2_#_#_#.bin
14/20RESAL	DC2	5.07 or higher	RDC2_#_#_#.bin
20RESB	RDC2	5.07 or higher	RDC2_#_#_#.bin
	RDC2 with APM	105.5 or higher	RDC2_#_#_#.bin
20RESC/D	RDC2	5.07 or higher	RDC2_#_#_#.bin
	RDC2 with APM	105.6 or higher	RDC2_#_#_#.bin
20RESCL	RDC2	5.07 or higher	RDC2_#_#_#.bin
24RCL	RDC2	6.01 or higher	RDC2_#_#_#.bin
30RCL	RDC2	6.11 or higher	RDC2_#_#_#.bin
38RCL	RDC2	5.07 or higher	RDC2_#_#_#.bin
38RCLB	RDC2	6.11 or higher	RDC2_#_#_#.bin
48RCL	RDC2	5.07 or higher	RDC2_#_#_#.bin
60RCL	RDC2	5.10 or higher	RDC2_#_#_#.bin

\* This firmware version number or higher is required for monitoring with OnCue Plus. See Note about version numbers, above.  
† #\_#\_# in the file name is the firmware version number.

**Figure 1-2** Controller Firmware Version Numbers and File Names

## 1.8 Controller Password and Serial Number

The generator serial number and the controller password for the RDC2 or VSC controller are required for the OnCue Plus application. **Perform the password reset procedure before connecting the generator set's Ethernet cable to the router.**

**Note:** A new password is generated each time the reset password procedure is performed. If the password reset procedure is performed *after* the controller is connected to OnCue Plus, the connection will be lost. See Section 1.8.4.

The password can be changed via SiteTech or OnCue Plus. If the password is changed, other users will lose the OnCue Plus connection to that generator. See the OnCue Plus User Guide for instructions to change the password using the software.

### 1.8.1 RDC2 and VSC Controller Password and Serial Number

Be ready to write down the serial number and password. The serial number (S/N) and password are displayed for 10 seconds. Follow this procedure to obtain the serial number and password:

1. Press the controller's down arrow button to navigate to the Networking Information menu as shown in Figure 1-3.
2. Use the Select and Arrow buttons as shown in Figure 1-3 to reset the password. Write down the serial number (S/N) and password when they are displayed on the controller.

See the generator set operation manual for more information, if necessary.

### 1.8.2 DC2 Controller Password and Serial Number

Be ready to write down the serial number and password. The serial number (S/N) and password are displayed for 10 seconds. Follow this procedure to set the OnCue Plus password on the DC2 controller:

1. Press the OFF button and verify that the generator set is not running.

2. Press and hold the Exercise button until Press Again to Reset OnCue Plus PW is displayed.

3. Release the Exercise button and press it again within 5 seconds.

**Note:** If the Exercise button is not pressed within 5 seconds, the controller exits the password reset mode.

4. Write down the serial number (S/N) and password.

### 1.8.3 RDC/DC Controller Password

The password may have been recorded during the installation of the Ethernet option board on the generator set controller. See TT-1566 or the procedure below.

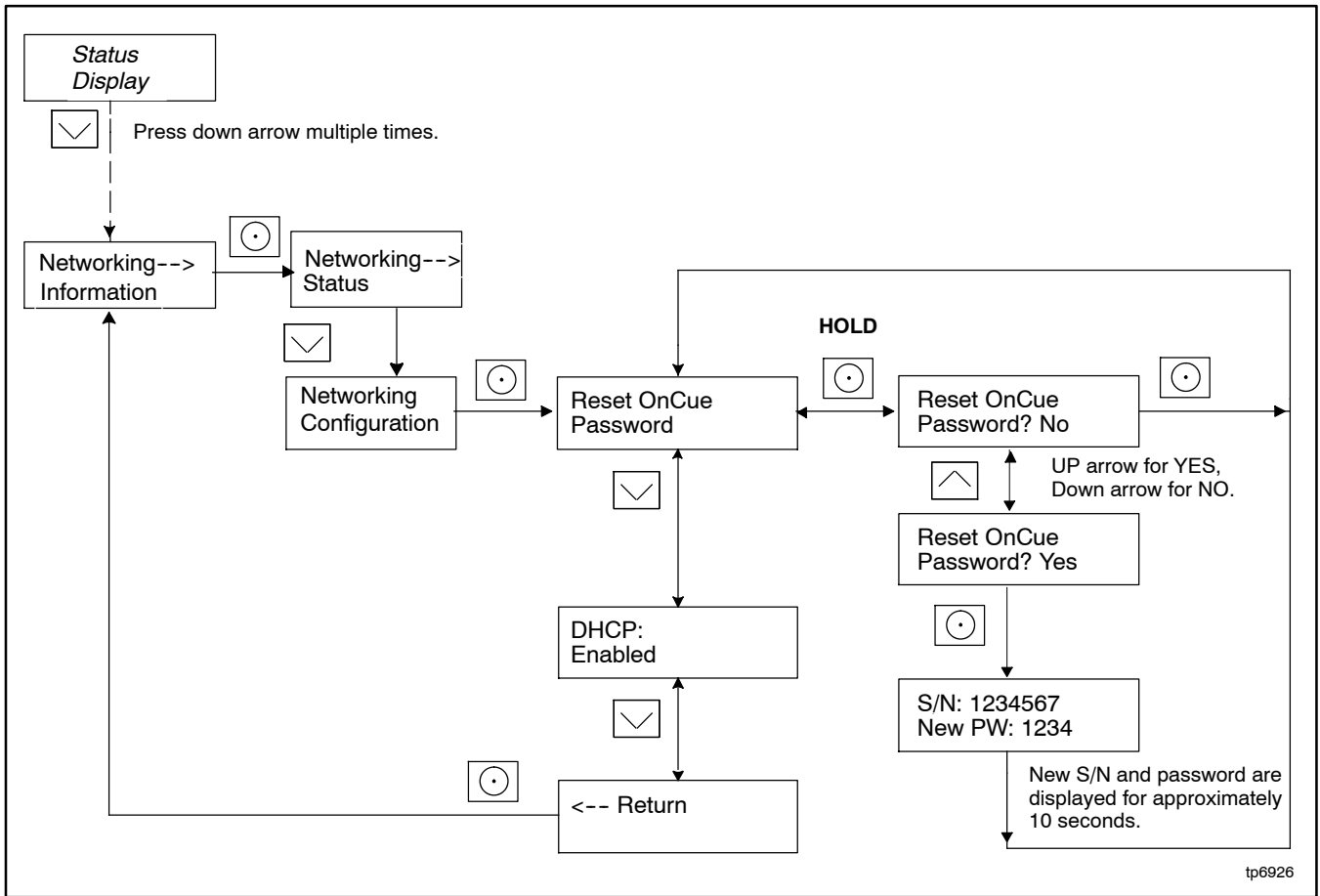
Be ready to write down the password. The four-digit password will be displayed for 10 seconds. Follow this procedure to obtain the serial number and password:

1. Press the OFF button to place the controller into OFF mode.
2. Press the down arrow button (RDC) or exercise button (DC) 5 times. Note the four-digit code displayed on the controller. This is the controller password.
3. Write down the password to enter into OnCue Plus.
4. Press OFF to clear the display.

### 1.8.4 Password Reset After Connection

If the generator set is connected to the Internet before the password is set at the controller or if the password is reset after the OnCue Plus system has been set up, the connection will be lost. You will need to cycle power to the controller, leaving the Ethernet cable plugged in. See Section 3.5 for instructions to cycle power to the controller.

Cycling power and/or updating the firmware does not change the controller password. After reconnecting the power, OnCue Plus will prompt you to re-enter the controller password.



**Figure 1-3** Finding the Serial Number and Password, RDC2 and VSC Controllers

### 1.8.5 Nameplate Serial Number

Verify that the serial number shown on the controller display matches the serial number on the generator set nameplate. A typical nameplate is shown in Figure 1-4. Refer to the service views in the generator Operation Manual for the location of the nameplate, if necessary. If the serial numbers on the controller display and the generator nameplate do not match, contact your distributor or dealer.

The activation code is only required the first time you connect a generator set to the OnCue Plus system. See Section 2.6.

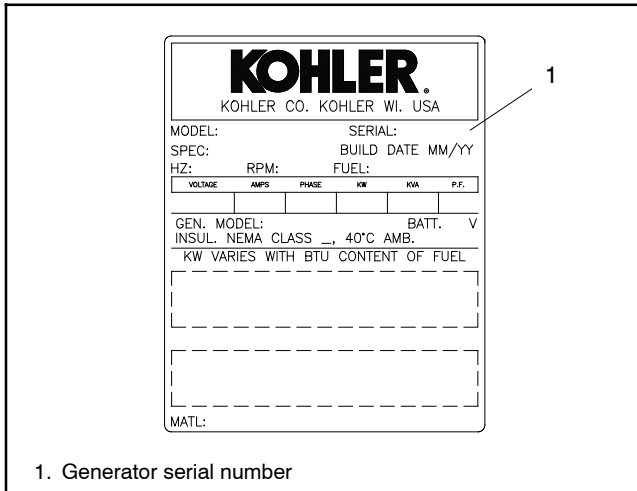


Figure 1-4 Generator Nameplate, Typical

### 1.8.6 Activation Code

The RDC2/DC2/VSC generator set controllers require a unique 12-digit activation code. The code is on the decal included with the OnCue Plus kit. See Figure 1-5.

Kohler OnCue Plus will prompt the user to enter the activation code the first time the controller connects to Kohler OnCue Plus Server and a user attempts to connect to it. Affix the activation decal to the generator near the controller as shown on the drawing provided with the OnCue Plus kit.

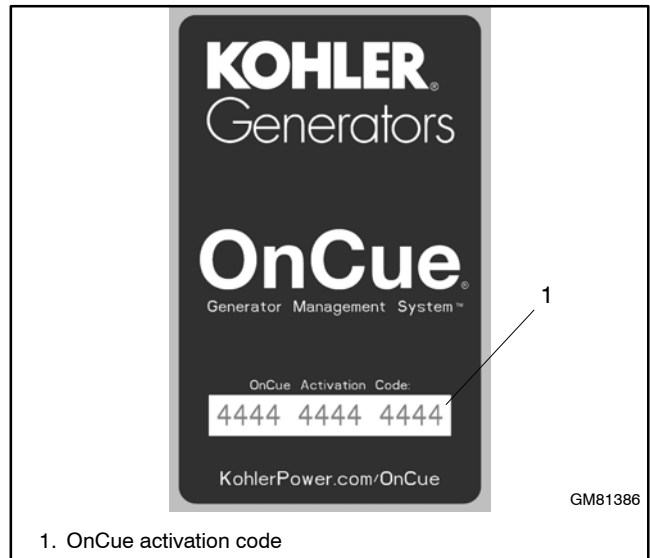


Figure 1-5 OnCue Activation Code Decal

## 1.9 Check the Network Connection

1. Use a laptop computer to verify the network connection before connecting to the generator.
2. Check for and turn off any wireless connections to the laptop.
3. Connect the network cable to the laptop. Connect the other end of the network cable to the customer's router or modem.
4. Verify the internet connection by opening your web browser and going to [www.kohlerpower.com](http://www.kohlerpower.com) or any known website.
5. After verifying the connection through the network, disconnect the network cable from the laptop and turn the laptop wireless connections back on.

## 1.10 Connect the Generator to the Internet

**Note:** Record the controller password and serial number from the controller as described in Section 1.8 **before** connecting the generator to the Internet.

---

**⚠ WARNING**



**Accidental starting.  
Can cause severe injury or death.**

Disconnect the battery cables before working on the generator set. Remove the negative (-) lead first when disconnecting the battery. Reconnect the negative (-) lead last when reconnecting the battery.

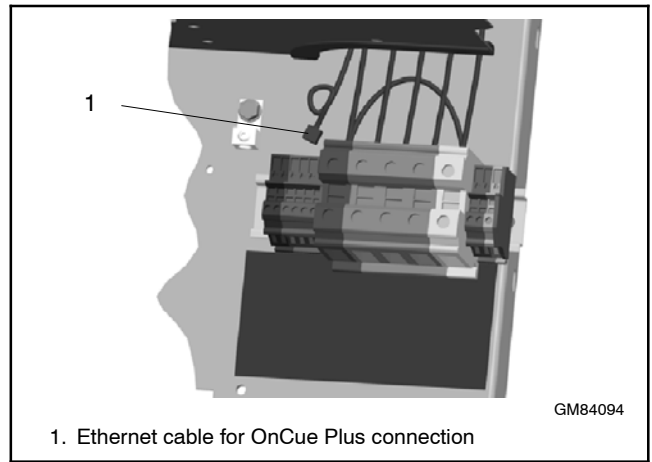
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**Disabling the generator set. Accidental starting can cause severe injury or death.** Before working on the generator set or equipment connected to the set, disable the generator set as follows: (1) Press the generator set off/reset button to shut down the generator set. (2) Disconnect the power to the battery charger, if equipped. (3) Remove the battery cables, negative (-) lead first. Reconnect the negative (-) lead last when reconnecting the battery. Follow these precautions to prevent the starting of the generator set by the remote start/stop switch.

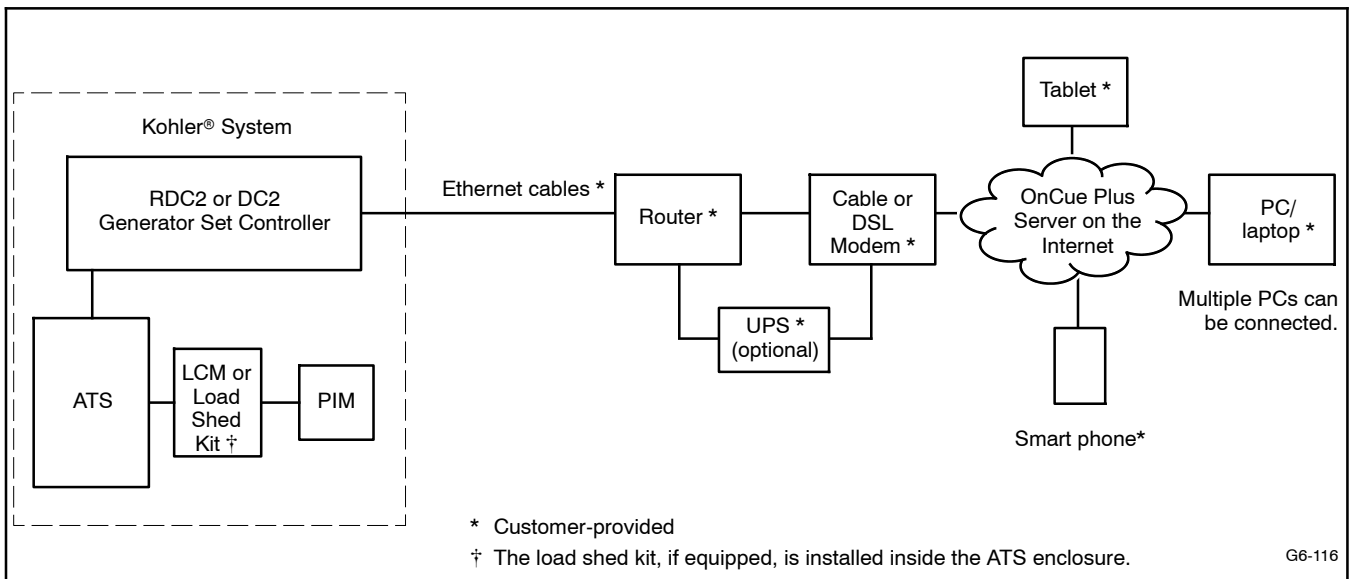
### 1.10.1 OnCue Plus for RDC2/DC2/VSC

The RDC2, DC2, and VSC generator set controllers are equipped with an Ethernet cable for connection to the Internet. The Ethernet cable is connected to the controller and routed into the customer connection area inside the generator enclosure.

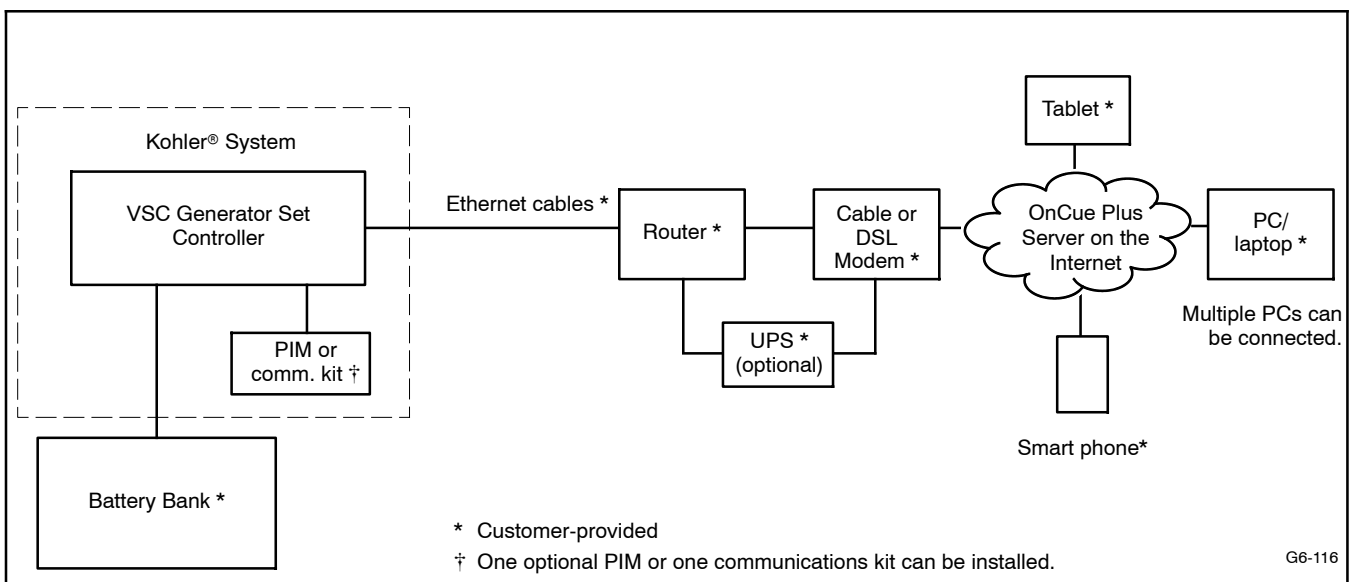
After setting the controller password, connect the RJ45 inline connector included in the OnCue Plus kit to the Ethernet cable inside the generator enclosure. See Figure 1-6 or the generator set installation manual. Then connect one end of the customer-provided network cable to the RJ45 connector, and connect the other end of the cable to the customer's router or modem. See Figure 1-7 or Figure 1-8.



**Figure 1-6** Ethernet Connection, RDC2/DC2 (Model 20RESA Shown)



**Figure 1-7** Typical Wired Connections for RDC2/DC2 Controller - OnCue Plus Kit



**Figure 1-8** Typical Wired Connections for VSC Controller - OnCue Plus Kit



## 1.10.2 OnCue Plus for RDC/DC

The RDC/DC generator set controller must be equipped with the Ethernet option board, which allows connection of the generator set to the Internet through a broadband Internet connection. The Ethernet option board is included in the OnCue Plus kit for the RDC/DC controller. See instruction sheet TT-1566, included with the kits, for Ethernet option board installation and connection instructions.

When the Ethernet board is installed, update the RDC/DC controller firmware and follow the instructions in Section 1.8.3 or TT-1566 to record the controller password and generator set serial number for entry into the OnCue Plus application.

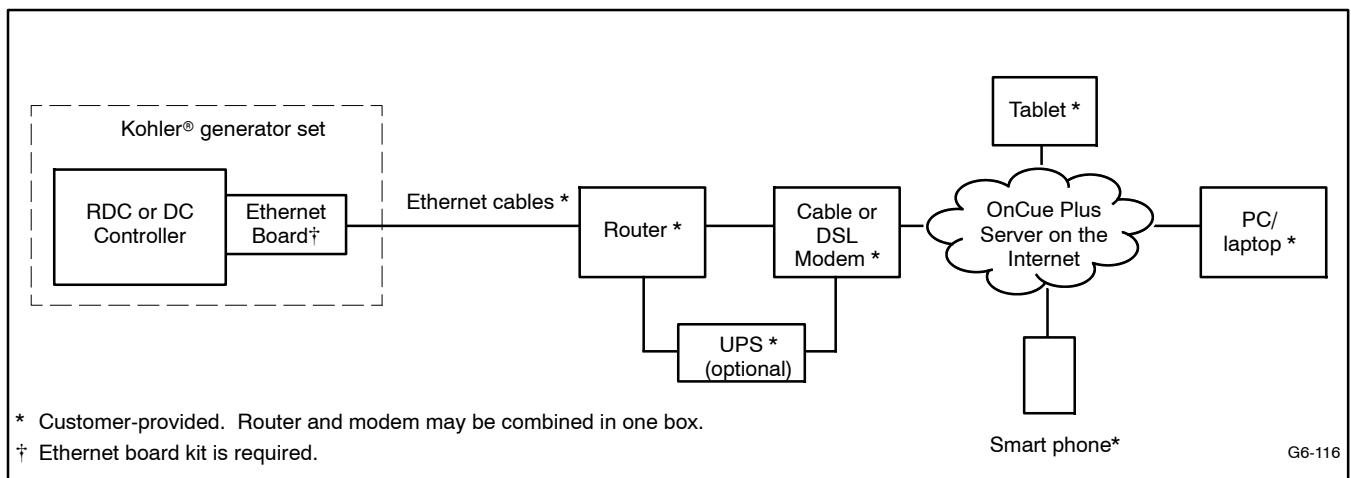
In most cases, once the new firmware is uploaded to the controller and the Ethernet board is connected to the

customer's router or modem, the controller will automatically connect to the Kohler OnCue Plus server. Controller settings and network router adjustments are usually not required. The Internet connection between the controller and the Kohler OnCue Plus server is fully encrypted for your protection.

### RDC/DC Connection

1. Install the Ethernet option board on the generator set controller. See TT-1566, provided with the OnCue® Plus kit, for instructions.
2. Connect the generator set to the Internet using a network cable connected from the Ethernet board to your router or modem.

See Figure 1-9 for typical OnCue Plus wired connections.



**Figure 1-9** Typical Connections for RDC/DC Controller - OnCue Plus Kit

## 1.11 Verify the Connection

Before proceeding to activate OnCue Plus, please test the internet connection to OnCue Plus with the steps below or by using the communications test within the USB utility.

### RDC2 Controller

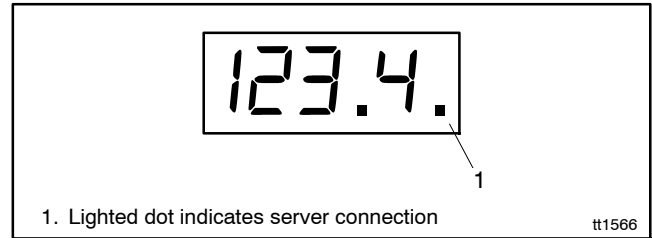
To verify connection, check the networking information menu. Under the networking status sub menu, the OnCue status should state "connected." If it does not, please review section 1.10 from the beginning or consult the troubleshooting instructions in Section 3.

### DC2 Controller

To verify connection, wait for the display to show "OnCue:Connected." If this is not displayed, please review section 1.10 from the beginning or consult the troubleshooting in section 3

### RDC or DC Controllers

Check for a dot in the lower right corner of the RDC or DC controller display to verify that the controller is connected to the Kohler® OnCue® Plus server. See Figure 1-10.



**Figure 1-10** Controller Display with Server Connection Indicator

## Section 2 Account Setup and Activation

### 2.1 Introduction

After connecting the generator set to the Internet as described in Section 1, follow the instructions in this section to set up an OnCue Plus account and activate the generator.

**Note:** Sample screens are shown in this document. The actual screens may vary.

### 2.2 Information Required

You will need to enter some information when you create your OnCue Plus account and activate your generator set. To set up an account, provide your full name and email address, and create a username and account password. To add a generator to the account, you will need other information from the generator set and the OnCue Plus kit. Required information is listed in Figure 2-1.

Item	Description	Set Up Account	Add Generator	Can Change in Settings View?
Full Name	Enter your full name when setting up your account.	•		NO
Username	Create your username when setting up your account.	•		NO
Email Address	Enter your email address when setting up your account.	•		YES
Password	Create a password when setting up your account.	•		NO
Serial Number	For adding new generator, get from genset controller nameplate or controller. See Section 1.8.		•	NO
Genset Password	For adding new generator, get from genset controller. See Section 1.8.		•	YES
OnCue Plus Activation Code	From OnCue decal, provided with OnCue Plus kit. See Section 2.6.		•	NO
Genset Displayname	Create a name that identifies the generator set.		•	YES
Genset Location	Enter address or other location information for the generator set.		•	YES

**Figure 2-1** Required Information

## 2.3 Start OnCue Plus

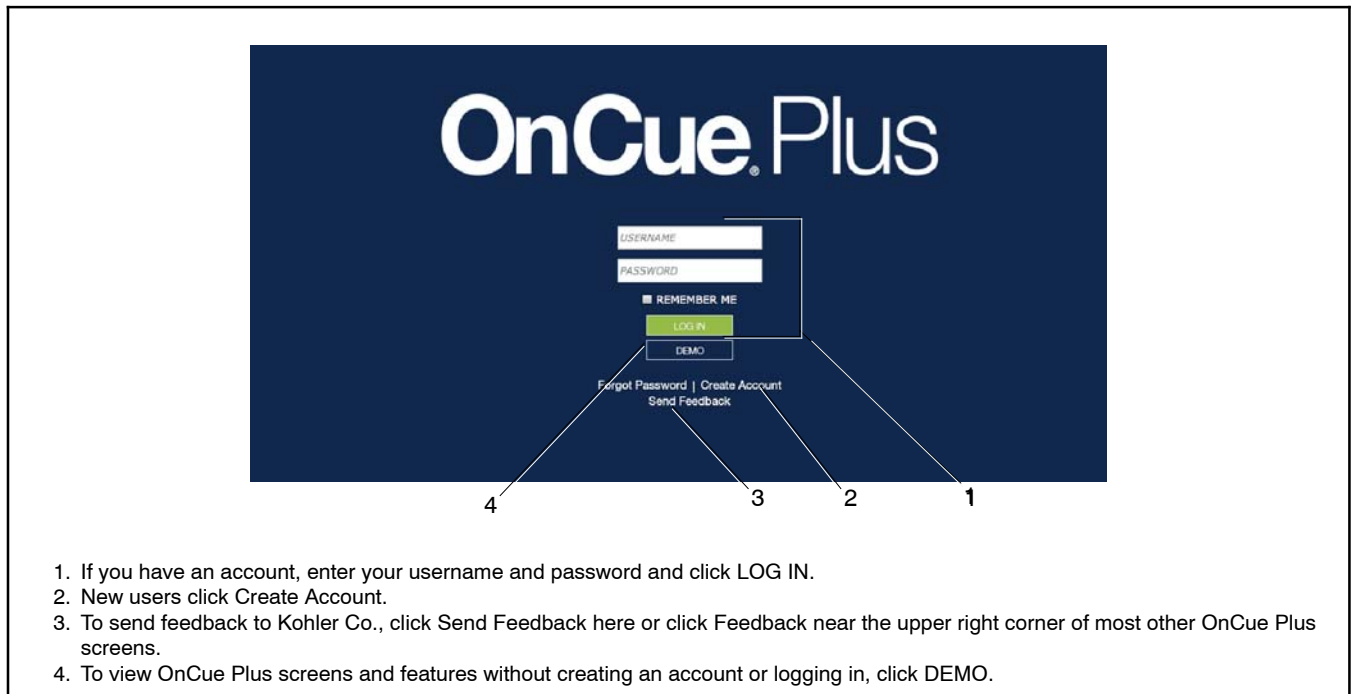
### On your PC or Laptop

To use the OnCue Plus web application, use your computer to navigate to the OnCue Plus website [www.kohlergenerators.com\oncue](http://www.kohlergenerators.com\oncue). The OnCue Plus log-in window opens. When you start OnCue Plus for the first time, click on Create Account. See Figure 2-2. Instructions in the following sections explain how to set up an account and add your generator to OnCue Plus.

### On your Smart Phone or Tablet

For smart phones or tablets, obtain the Kohler OnCue Plus app from the App Store<sup>SM</sup> (for Apple devices) or Google Play<sup>TM</sup> (for Android devices). Follow the Quick Start instructions in the app to set up an account and add your generator to OnCue Plus. Operation of the app is similar to using the web application as described in this manual.

OnCue Plus will remember your generator set and connect to it each time you use OnCue Plus.



**Figure 2-2** OnCue Plus Sign In Screen

## 2.4 Create an Account

The first time that you use OnCue Plus, you will need to set up an account. A user name, email address and password will be required. Create a username with 6 to 25 characters (no spaces) and a password for your account, and keep them in a safe place.

Click on Terms of Service near the bottom of the screen and read the OnCue terms and conditions of use. Then click on the box next to “I accept the OnCue Plus terms

and conditions of use” to indicate your acceptance of the OnCue terms and conditions of use.

Click on Create Account.

An email will be sent to the email address given for the account. Follow the instructions in the email to activate your account. An account must be activated in order to log in for the first time. Internet access is required to activate your account.

The screenshot shows a mobile application interface for creating an account. At the top right, it says "CREATE ACCOUNT". Below this is a series of input fields: "Full Name\*", "Username\*", "Email Address\*", "Password\*", "Confirm Password\*", "Address", "City", "State", and "Zip Code". Below the fields is a "Terms of Service" section with a checkbox and the text "I accept the OnCue Plus terms and conditions of use." At the bottom center is a "CREATE ACCOUNT" button. A large "SAMPLE" watermark is overlaid diagonally across the form.

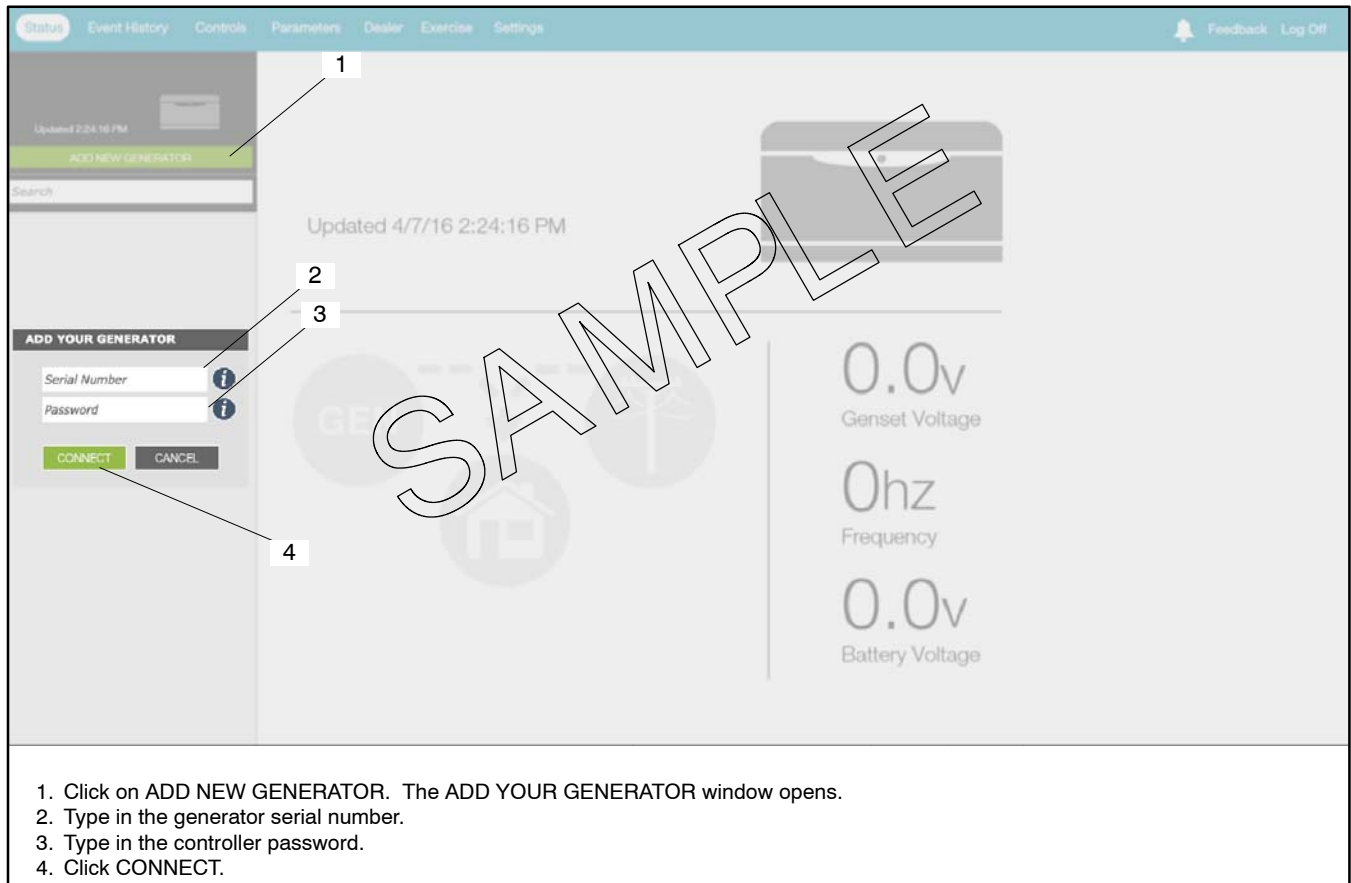
**Figure 2-3** Create an Account

## 2.5 Add New Generator

In order to monitor and control a generator using OnCue Plus, you must add the generator to your OnCue Plus account. Multiple generators can be added to one account. If you own more than one generator set, or if you are a dealer monitoring numerous customer

systems, you may add them to your account using this screen.

Click on ADD NEW GENERATOR as shown in Figure 2-4. The generator set serial number and controller password are required. See Section 1.8 for instructions to obtain the serial number and password.



**Figure 2-4** Add New Generator

## 2.6 Activate Your Generator

To authorize remote monitoring of your generator set, you will need the generator set serial number, OnCue activation code (not required for RDC/DC controllers), and controller password. Obtain the serial number from the controller when setting the controller password as described in Section 1.8, or find the serial number on the generator set's nameplate.

Find the activation code on the decal provided with OnCue Plus. See Figure 2-5. Attach the OnCue activation code decal to the generator set.

In the generator selection list on the left side of the screen, click on Activate Your Generator. See Figure 2-6. Then type your activation code into the Activate Generator window shown in Figure 2-7 and click on Activate. If activation fails, refer to Section 3 Troubleshooting.

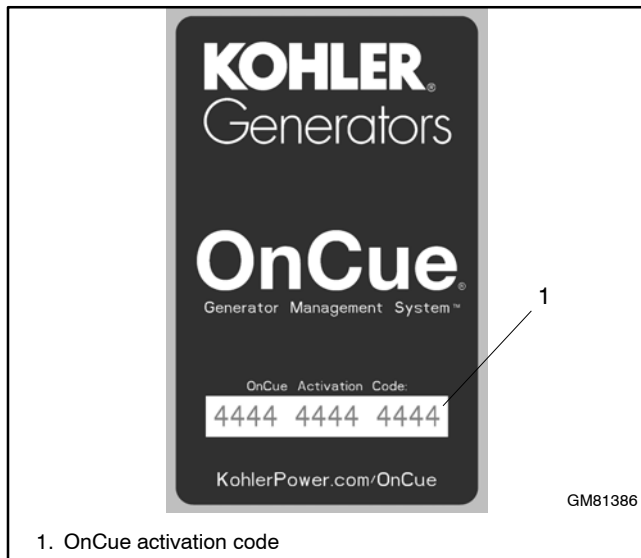


Figure 2-5 OnCue Activation Code Decal

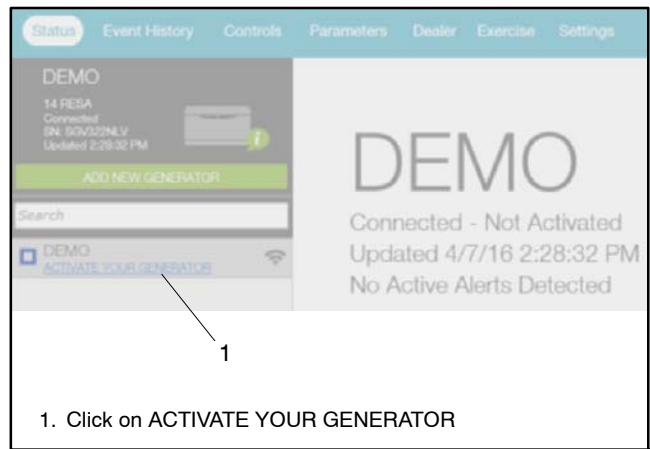


Figure 2-6 Activate Your Generator

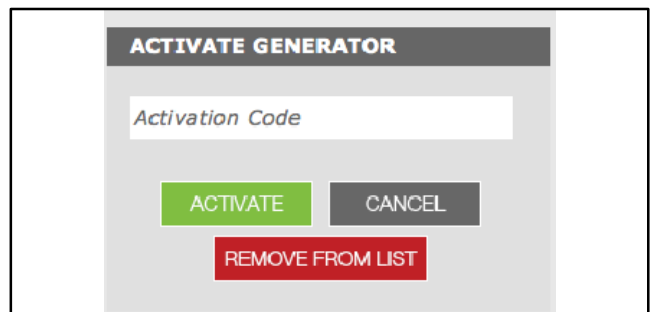


Figure 2-7 Activate Generator

# Notes



### 3.1 Introduction

This section provides instructions for troubleshooting issues related to connection of the generator to the homeowner's network. Many of these issues and connection problems are caused by incorrect controller or router setup. This section provides instructions to troubleshoot problems with the generator connection to the OnCue® Plus server.

Because of the many different types of network equipment and configurations that are used in the field, this section can not address every type of setup that is available. Please refer to the documentation provided for the router and contact the customer's Internet Service Provider (ISP), if necessary.

Refer to the generator set service manual when troubleshooting the generator set and connected equipment.

### 3.2 Generator Set Serial Number

Incorrect serial numbers will prevent connection to the OnCue® Plus server. Compare the genset serial number programmed into the controller with the serial number on the generator set nameplate. See Section 1.8 for instructions to find the serial number in the controller. If the S/Ns do not match, Kohler® SiteTech™ software is required to change the genset serial number programmed in the controller to match the nameplate. SiteTech software is only available to Kohler-authorized distributors and dealers. Contact a Kohler-authorized distributor/dealer for service.

### 3.3 Verify Power to the Controller

Verify that there is power to the generator set's controller. Check that the controller display is on or at least one LED on the controller is lit.

### 3.4 Check Controller's Ethernet Connection

**RDC2/DC2 or VSC Controller.** Check the Ethernet cable and RJ45 inline connector to the controller.

**RDC/DC Controller.** Make sure that the Ethernet board is installed correctly with the board-to-board connector in place. See TT-1566, Installation Instructions.

Check the firewall on the local router. Verify that router firewall port 5253 is configured to permit an outbound connection. Refer to the instructions provided with the router.

### 3.5 Power Cycling the Controller

The four digit password is only communicated to the OnCue® Plus Server when the controller powers up. Power cycle the controller, leaving the Ethernet cable plugged in. Power cycling can be done in one of two ways:

1. Disconnect *all* input power for two minutes (to allow capacitors to discharge):
  - a. Battery power: remove the battery negative (-) cable or disconnect P1 from the back of the controller.
  - b. Battery charger input power: disconnect the 120 VAC input power supply or disconnect P5 from the back of the controller.
  - c. Unplug the USB mini-B connector from the front of the controller (if plugged in).
  - d. Wait two minutes, then reconnect power, connecting the battery power (P1) first.

OR:

2. Re-install the controller firmware. This will force a controller reboot.

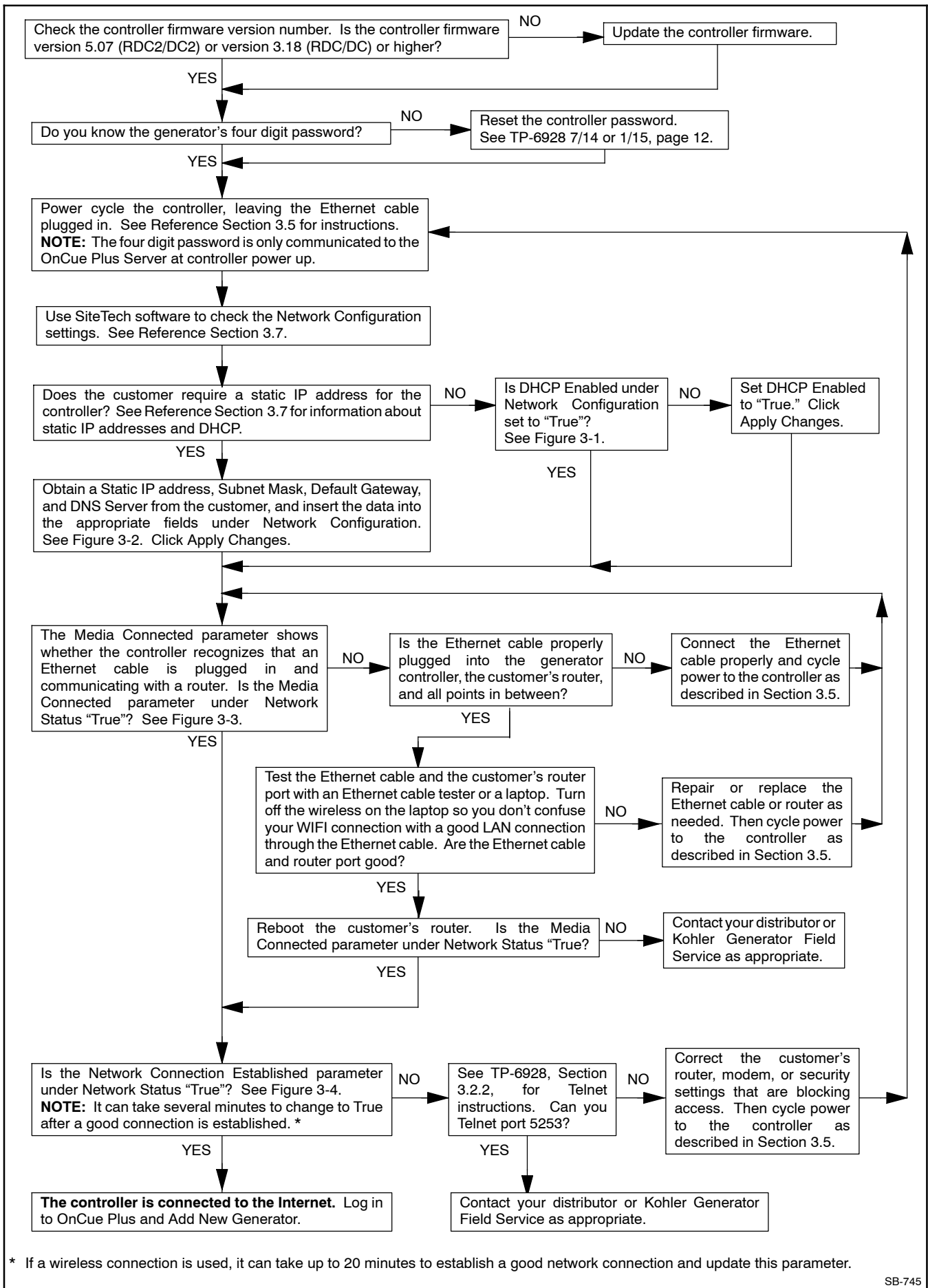
### 3.6 Troubleshooting Flowchart

Follow the steps in the troubleshooting procedure on the next page.

#### Equipment Required

The following items are necessary:

- Service laptop computer with Kohler® SiteTech™ software installed. SiteTech software is available to Kohler authorized distributors and dealers.
- USB cable, male USB A to male mini-B.
- Current (or appropriate) version of controller firmware.



\* If a wireless connection is used, it can take up to 20 minutes to establish a good network connection and update this parameter.

### 3.7 Network Configuration and Status

When instructed in the procedure, use your laptop and Kohler® SiteTech™ software to check the Network Configuration and Network Status settings shown in Figure 3-1 through Figure 3-4.

**Dynamic Host Connection Protocol (DHCP):** Most network setups use DHCP, which allows the server to assign an IP address automatically. Some sites require a static IP address that must be requested from the Internet Service Provider (ISP). The customer will know if the controller requires a static IP address. (If the customer doesn't know, he most likely does not require a static IP address.)

If a static IP address is used, obtain the IP address, subnet mask, default gateway, and DNS server from the customer and enter the data into the appropriate fields under Network Configuration. Click Apply Changes after entering the data.

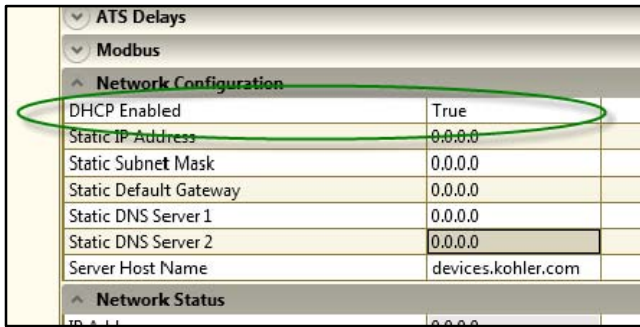


Figure 3-1 DHCP Enabled Setting

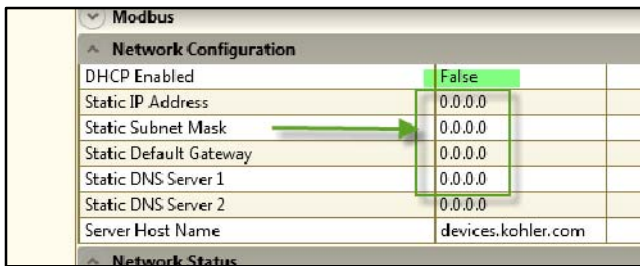


Figure 3-2 Static Settings (enter only if customer has a static IP address)

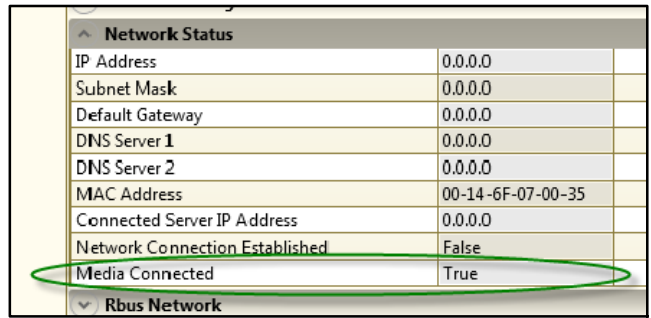


Figure 3-3 Media Connected Status = True if Controller is Connected

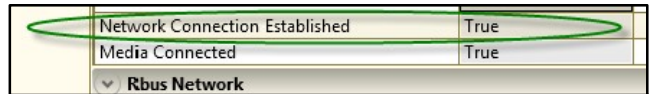


Figure 3-4 Network Connection Established (may take several minutes)

### 3.8 Check for Server Connection

#### 3.8.1 RDC or DC Controllers

Check for a dot in the lower right corner of the RDC or DC controller display to verify that the controller is connected to the Kohler® OnCue® Plus server. See Figure 3-5.

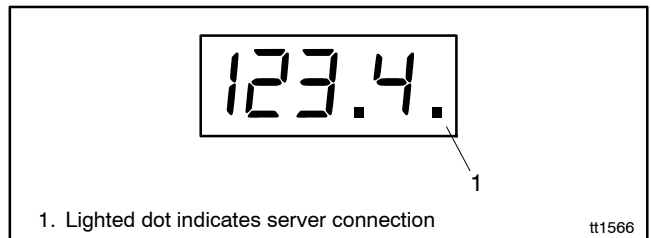


Figure 3-5 Controller Display with Server Connection Indicator

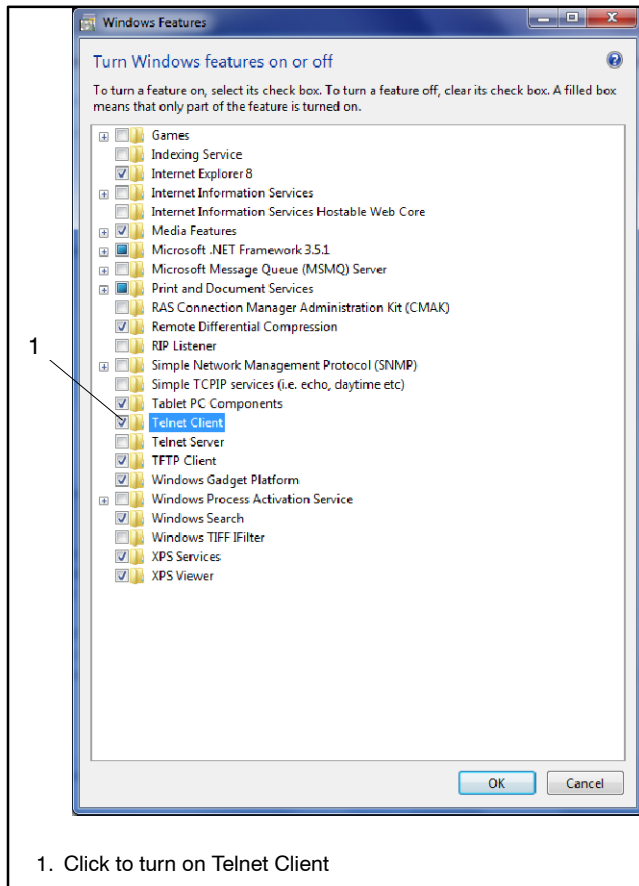
#### 3.8.2 RDC2, DC2, or VSC Controller

If it is necessary to check the server connection to an RDC2, DC2, or VSC controller, use telnet on your PC. See Section 3.9 for instructions.

## 3.9 Using Telnet

### Activate Telnet on your computer

Telnet is not activated by default on the Microsoft® Windows® 7 operating system. To activate Telnet on the PC, open the Control Panel, select Programs, and then select Programs and Features. Select Turn Windows Features On or Off. Find the Telnet Client and click on the box so that the box is checked. See Figure 3-6. Click OK and wait while Windows makes the adjustments.



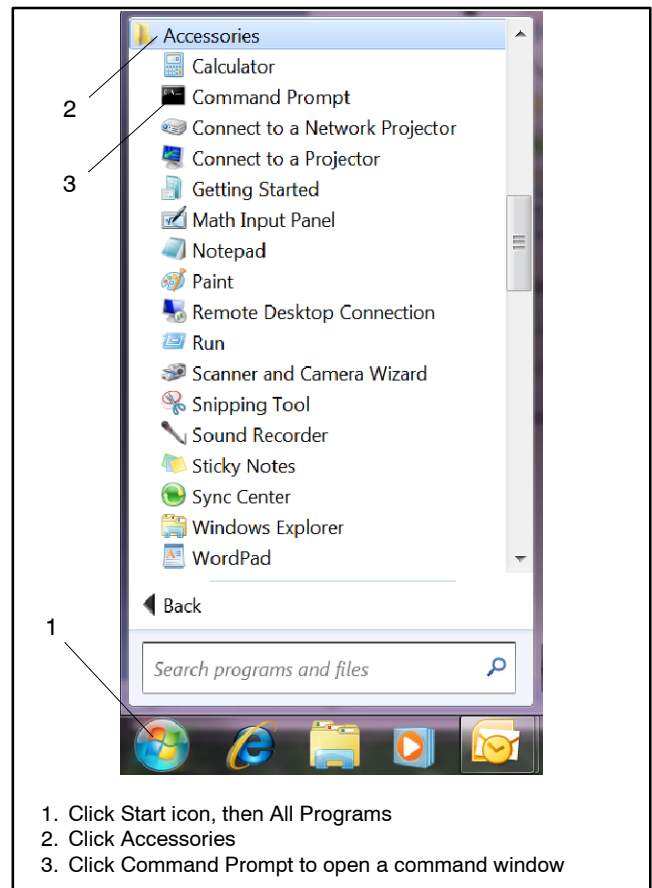
**Figure 3-6** Telnet Activation, Microsoft® Windows® 7

Now use Telnet to check the server connection to OnCue Plus.

### Telnet Procedure

1. Open a command prompt window on the PC by selecting Start, All Programs, Accessories, Command Prompt. See Figure 3-7.

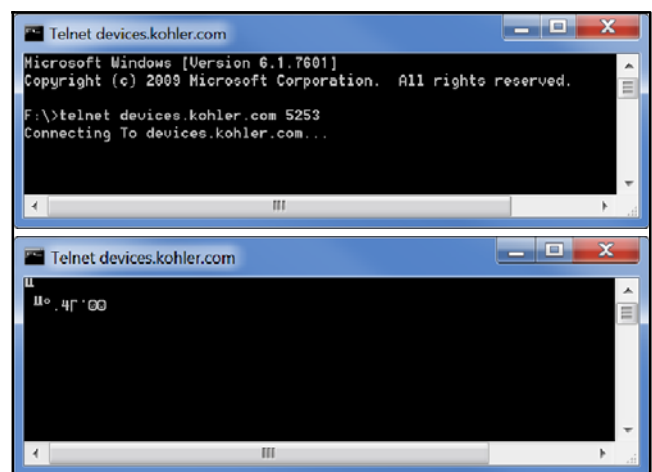
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**Figure 3-7** Opening a Command Prompt Window

2. Using the command prompt window, try to telnet to the OnCue Plus server by entering the following:  

```
c:\> telnet devices.kohler.com 5253
```
3. If the connection was successfully established, you will see the symbols shown in Figure 3-8.



**Figure 3-8** Telnet Command to Confirm OnCue® Plus Server Connection

### 3.10 Other Issues

Figure 3-9 lists some additional things to check when troubleshooting connection problems.

Possible Cause of Connection Problem	Suggested Solution
Internet service is down	Verify that Internet service is available by navigating to <a href="http://www.KOHLERPower.com">www.KOHLERPower.com</a> or any website.
No power to controller	Verify power to the generator set controller by checking that the controller display is on or one LED is illuminated or flashing on the controller. Check the connection to the generator set's engine starting battery. <b>RDC/DC controller.</b> Check the condition of the controller's F3 fuse, and replace the fuse if necessary.
No connection to the server	<b>RDC2/DC2/VSC controller.</b> Test server connection using telnet. See Section 3.8.2. <b>RDC/DC controller.</b> Check that the server connection indicating LED on the controller is lit. See Sections 3.3 and 3.8.
Cable or modem/router problem	<b>Note: RDC2/DC2/VSC controller.</b> Disconnect the utility power to the generator set before disconnecting the Ethernet cable. Follow the safety precautions in this document and in the generator set service manual.  <b>Note: RDC/DC controller.</b> Remove the controller's F3 fuse and disconnect power to the generator set before disconnecting the Ethernet cable. Follow the safety precautions in this document and in the generator set service manual. See TT-1566, Ethernet Board Installation Instructions, for connection details.  Isolate the problem by disconnecting the Ethernet cable from the generator controller and plugging it into a laptop PC. Disable wireless on the laptop. Check Internet access by trying to connect to <a href="http://www.KOHLERPower.com">www.KOHLERPower.com</a> or any website.  <ul style="list-style-type: none"> <li>● If no connection, try to connect the laptop PC to the modem/router using a different cable.</li> <li>● If there is no connection with either cable, the problem may be with the modem/router. Contact your Internet Server Provider for assistance.</li> </ul>
Long network cables may cause excessive signal loss	If the network cable is longer than 100 meters (328 ft.), install a repeater or switch.
Password error	Reset the password at the controller, if necessary, and enter the new password in OnCue Plus. See Section 2.5.
Generator set serial number mismatch	See Section 3.2.
Firewall blocking access	On the generator set side, configure the router firewall to open port 5253 to permit an outbound connection.  Contact your system administrator or Internet service provider for assistance, if necessary.
Other	Contact your Internet Server Provider for assistance.

**Figure 3-9** Other Possible Causes of Connection Problems

# Notes

# Appendix A Abbreviations

The following list contains abbreviations that may appear in this publication.

A, amp	ampere	cfm	cubic feet per minute	exh.	exhaust
ABDC	after bottom dead center	CG	center of gravity	ext.	external
AC	alternating current	CID	cubic inch displacement	F	Fahrenheit, female
A/D	analog to digital	CL	centerline	FHM	flat head machine (screw)
ADC	advanced digital control; analog to digital converter	cm	centimeter	fl. oz.	fluid ounce
adj.	adjust, adjustment	CMOS	complementary metal oxide substrate (semiconductor)	flex.	flexible
ADV	advertising dimensional drawing	com	communications (port)	freq.	frequency
Ah	amp-hour	coml	commercial	FS	full scale
AHWT	anticipatory high water temperature	Coml/Rec	Commercial/Recreational connection	ft.	foot, feet
AISI	American Iron and Steel Institute	conn.	connection	ft. lb.	foot pounds (torque)
ALOP	anticipatory low oil pressure	cont.	continued	ft./min.	feet per minute
alt.	alternator	CPVC	chlorinated polyvinyl chloride	ftp	file transfer protocol
Al	aluminum	crit.	critical	g	gram
ANSI	American National Standards Institute (formerly American Standards Association, ASA)	CSA	Canadian Standards Association	ga.	gauge (meters, wire size)
AO	anticipatory only	CT	current transformer	gal.	gallon
APDC	Air Pollution Control District	Cu	copper	gen.	generator
API	American Petroleum Institute	cUL	Canadian Underwriter's Laboratories	genset	generator set
approx.	approximate, approximately	CUL	Canadian Underwriter's Laboratories	GFI	ground fault interrupter
APU	Auxiliary Power Unit	cu. in.	cubic inch	GND, ⊕	ground
AQMD	Air Quality Management District	cw.	clockwise	gov.	governor
AR	as required, as requested	CWC	city water-cooled	gph	gallons per hour
AS	as supplied, as stated, as suggested	cyl.	cylinder	gpm	gallons per minute
ASE	American Society of Engineers	D/A	digital to analog	gr.	grade, gross
ASME	American Society of Mechanical Engineers	DAC	digital to analog converter	GRD	equipment ground
assy.	assembly	dB	decibel	gr. wt.	gross weight
ASTM	American Society for Testing Materials	dB(A)	decibel (A weighted)	H x W x D	height by width by depth
ATDC	after top dead center	DC	direct current	HC	hex cap
ATS	automatic transfer switch	DCR	direct current resistance	HCHT	high cylinder head temperature
auto.	automatic	deg., °	degree	HD	heavy duty
aux.	auxiliary	dept.	department	HET	high exhaust temp., high engine temp.
avg.	average	dia.	diameter	hex	hexagon
AVR	automatic voltage regulator	DI/EO	dual inlet/end outlet	Hg	mercury (element)
AWG	American Wire Gauge	DIN	Deutsches Institut fur Normung e. V. (also Deutsche Industrie Normenausschuss)	HH	hex head
AWM	appliance wiring material	DIP	dual inline package	HHC	hex head cap
bat.	battery	DPDT	double-pole, double-throw	HP	horsepower
BBDC	before bottom dead center	DPST	double-pole, single-throw	hr.	hour
BC	battery charger, battery charging	DS	disconnect switch	HS	heat shrink
BCA	battery charging alternator	DVR	digital voltage regulator	hsg.	housing
BCI	Battery Council International	E <sup>2</sup> PROM, EEPROM	electrically-erasable programmable read-only memory	HVAC	heating, ventilation, and air conditioning
BDC	before dead center	E, emer.	emergency (power source)	HWT	high water temperature
BHP	brake horsepower	ECM	electronic control module, engine control module	Hz	hertz (cycles per second)
blk.	black (paint color), block (engine)	EDI	electronic data interchange	IBC	International Building Code
blk. htr.	block heater	EFR	emergency frequency relay	IC	integrated circuit
BMEP	brake mean effective pressure	e.g.	for example ( <i>exempli gratia</i> )	ID	inside diameter, identification
bps	bits per second	EG	electronic governor	IEC	International Electrotechnical Commission
br.	brass	EGSA	Electrical Generating Systems Association	IEEE	Institute of Electrical and Electronics Engineers
BTDC	before top dead center	EIA	Electronic Industries Association	IMS	improved motor starting
Btu	British thermal unit	EI/EO	end inlet/end outlet	in.	inch
Btu/min.	British thermal units per minute	EMI	electromagnetic interference	in. H <sub>2</sub> O	inches of water
C	Celsius, centigrade	emiss.	emission	in. Hg	inches of mercury
cal.	calorie	eng.	engine	in. lb.	inch pounds
CAN	controller area network	EPA	Environmental Protection Agency	Inc.	incorporated
CARB	California Air Resources Board	EPS	emergency power system	ind.	industrial
CAT5	Category 5 (network cable)	ER	emergency relay	int.	internal
CB	circuit breaker	ES	engineering special, engineered special	int./ext.	internal/external
CC	crank cycle	ESD	electrostatic discharge	I/O	input/output
cc	cubic centimeter	est.	estimated	IP	internet protocol
CCA	cold cranking amps	E-Stop	emergency stop	ISO	International Organization for Standardization
ccw.	counterclockwise	etc.	et cetera (and so forth)	J	joule
CEC	Canadian Electrical Code			JIS	Japanese Industry Standard
cert.	certificate, certification, certified			k	kilo (1000)
cfh	cubic feet per hour			K	kelvin
				kA	kiloampere
				KB	kilobyte (2 <sup>10</sup> bytes)
				KBus	Kohler communication protocol
				kg	kilogram

kg/cm <sup>2</sup>	kilograms per square centimeter	NC	normally closed	RTU	remote terminal unit
kgm	kilogram-meter	NEC	National Electrical Code	RTV	room temperature vulcanization
kg/m <sup>3</sup>	kilograms per cubic meter	NEMA	National Electrical Manufacturers Association	RW	read/write
kHz	kilohertz	NFPA	National Fire Protection Association	SAE	Society of Automotive Engineers
kJ	kilojoule	Nm	newton meter	scfm	standard cubic feet per minute
km	kilometer	NO	normally open	SCR	silicon controlled rectifier
kOhm, kΩ	kilo-ohm	no., nos.	number, numbers	s, sec.	second
kPa	kilopascal	NPS	National Pipe, Straight	SI	<i>Systeme international d'unites</i> , International System of Units
kph	kilometers per hour	NPSC	National Pipe, Straight-coupling	SI/EO	side in/end out
kV	kilovolt	NPT	National Standard taper pipe thread per general use	sil.	silencer
kVA	kilovolt ampere	NPTF	National Pipe, Taper-Fine	SMTP	simple mail transfer protocol
kVAR	kilovolt ampere reactive	NR	not required, normal relay	SN	serial number
kW	kilowatt	ns	nanosecond	SNMP	simple network management protocol
kWh	kilowatt-hour	OC	overcrank	SPDT	single-pole, double-throw
kWm	kilowatt mechanical	OD	outside diameter	SPST	single-pole, single-throw
kWth	kilowatt-thermal	OEM	original equipment manufacturer	spec	specification
L	liter	OF	overfrequency	specs	specification(s)
LAN	local area network	opt.	option, optional	sq.	square
L x W x H	length by width by height	OS	oversize, overspeed	sq. cm	square centimeter
lb.	pound, pounds	OSHA	Occupational Safety and Health Administration	sq. in.	square inch
lbm/ft <sup>3</sup>	pounds mass per cubic feet	OV	overvoltage	SMS	short message service
LCB	line circuit breaker	oz.	ounce	SS	stainless steel
LCD	liquid crystal display	p., pp.	page, pages	std.	standard
LED	light emitting diode	PC	personal computer	stl.	steel
Lph	liters per hour	PCB	printed circuit board	tach.	tachometer
Lpm	liters per minute	pF	picofarad	TB	terminal block
LOP	low oil pressure	PF	power factor	TCP	transmission control protocol
LP	liquefied petroleum	ph., ∅	phase	TD	time delay
LPG	liquefied petroleum gas	PHC	Phillips® head Crimpite® (screw)	TDC	top dead center
LS	left side	PHH	Phillips® hex head (screw)	TDEC	time delay engine cooldown
L <sub>wa</sub>	sound power level, A weighted	PHM	pan head machine (screw)	TDEN	time delay emergency to normal
LWL	low water level	PLC	programmable logic control	TDES	time delay engine start
LWT	low water temperature	PLC	programmable logic control	TDNE	time delay normal to emergency
m	meter, milli (1/1000)	PMG	permanent magnet generator	TDOE	time delay off to emergency
M	mega (10 <sup>6</sup> when used with SI units), male	pot	potentiometer, potential	TDON	time delay off to normal
m <sup>3</sup>	cubic meter	ppm	parts per million	temp.	temperature
m <sup>3</sup> /hr.	cubic meters per hour	PROM	programmable read-only memory	term.	terminal
m <sup>3</sup> /min.	cubic meters per minute	psi	pounds per square inch	THD	total harmonic distortion
mA	milliampere	psig	pounds per square inch gauge	TIF	telephone influence factor
man.	manual	pt.	pint	tol.	tolerance
max.	maximum	PTC	positive temperature coefficient	turbo.	turbocharger
MB	megabyte (2 <sup>20</sup> bytes)	PTO	power takeoff	typ.	typical (same in multiple locations)
MCCB	molded-case circuit breaker	PVC	polyvinyl chloride	UF	underfrequency
MCM	one thousand circular mils	qt.	quart, quarts	UHF	ultrahigh frequency
meggarr	megohmmeter	qty.	quantity	UIF	user interface
MHz	megahertz	R	replacement (emergency)	UL	Underwriter's Laboratories, Inc.
mi.	mile	rad.	radiator, radius	UNC	unified coarse thread (was NC)
mil	one one-thousandth of an inch	RAM	random access memory	UNF	unified fine thread (was NF)
min.	minimum, minute	RBUS	RS-485 proprietary communications	univ.	universal
misc.	miscellaneous	RDO	relay driver output	URL	uniform resource locator (web address)
MJ	megajoule	ref.	reference	US	undersize, underspeed
mJ	millijoule	rem.	remote	UV	ultraviolet, undervoltage
mm	millimeter	Res/Coml	Residential/Commercial	V	volt
mOhm, mΩ	milliohm	RFI	radio frequency interference	VAC	volts alternating current
MOhm, MΩ	megohm	RH	round head	VAR	voltampere reactive
MOV	metal oxide varistor	RHM	round head machine (screw)	VDC	volts direct current
MPa	megapascal	rly.	relay	VFD	vacuum fluorescent display
mpg	miles per gallon	rms	root mean square	VGA	video graphics adapter
mph	miles per hour	rnd.	round	VHF	very high frequency
MS	military standard	RO	read only	W	watt
ms	millisecond	ROM	read only memory	WCR	withstand and closing rating
m/sec.	meters per second	rot.	rotate, rotating	w/	with
mtg.	mounting	rpm	revolutions per minute	WO	write only
MTU	Motoren-und Turbinen-Union	RS	right side	w/o	without
MW	megawatt	RTDs	Resistance Temperature Detectors	wt.	weight
mW	milliwatt			xfmr	transformer
μF	microfarad				
N, norm.	normal (power source)				
NA	not available, not applicable				
nat. gas	natural gas				
NBS	National Bureau of Standards				



# Notes

# Notes



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in the US and Canada:  
Call 1-800-544-2444 or visit  
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