

# EVR Series User Guide Installation Instructions

Touch-Free Vandal Resistant Faucets

## Overview

Chicago Faucets EVR series faucet features a heavy-duty cast brass spout and high-quality electronic components. The faucet is up and running in minutes without the need for programming. Superior user detection means EVR turns on when user approaches and shuts off when user leaves. It also adjusts for optimal performance, saving water.

## Safety Information

Read this entire user guide to ensure proper installation. Compliance and conformity to local codes and ordinances is the responsibility of the installer.

The following safety notes must always be complied with during handling of this product:

- Make sure there is enough space and lighting available during installation and service.
- Do not modify or convert this Chicago Faucets product yourself. All warranties will be voided.

## Notice to the Installer

- Read this entire instruction sheet before installing to ensure proper installation.
- Installation must comply with local codes and ordinances.
- Do not use pipe dope.
- Care shall be exercised when installing the device to prevent marring the exposed, decorative surfaces.

The supply piping to these devices shall be securely anchored to the building structure to prevent installed device from unnecessary movement when operated by the user.

NOTE: The information in this manual is subject to change without notice.

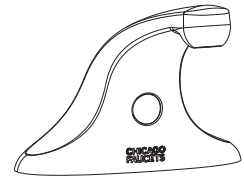
Installation may be performed at different times of construction by different individuals. For this reason, these instructions should be left on-site with the facility or maintenance manager.

NOTE: Before installation, turn off water supplies to existing faucet and remove faucet if replacing. Clean faucet basin and clear away debris. **Flush all supply lines before connecting to faucet.** Failure to do so can result in debris clogging the inlets and/or internal control and mixing valves.

In order to complete the installation, you will need the following tools and supplies:

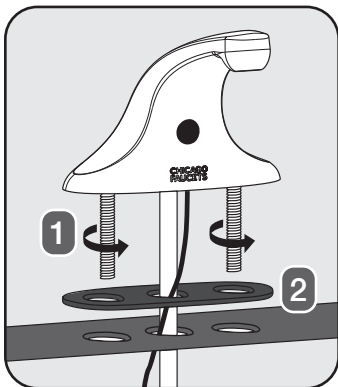
- Phillips Screwdriver, #1, #2, #3
- Adjustable Wrench
- Tape Measure
- Silicone-based Lubricant
- Drill, with 3/16" Bit
- Mallet
- Plumbers Putty
- 1/2" Deep Socket or #3 Flat Head Screwdriver

Operating static pressure: 20-125 PSI (138-862 kPa)  
 Minimum static pressure for mixing: 30 PSI (207 kPa)  
 COLD water inlet temperature range: 40-80°F (4-27°C)  
 HOT water inlet temperature range: 100-180°F (38-82°C)  
 Maximum hot water range outlet from thermostatic mixing valve: 80-120°F (27-49°C)  
 Maximum hot water range outlet from mechanical mixing valve: 40-140°F (4-60°C)  
 Maximum pressure differential between Hot & Cold water supplies: 20%; Minimum inlet water supply temperature differential: 20°F (9°C)



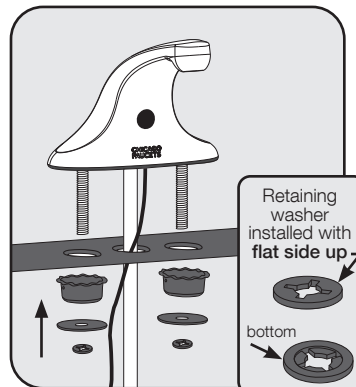
EVR Series

## Mounting Faucet

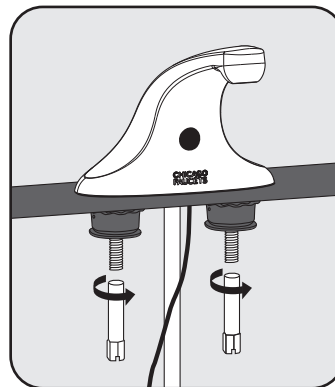


1. Attach the threaded rods to the bottom of the faucet. Position the gasket accordingly on the sink and lower faucet.

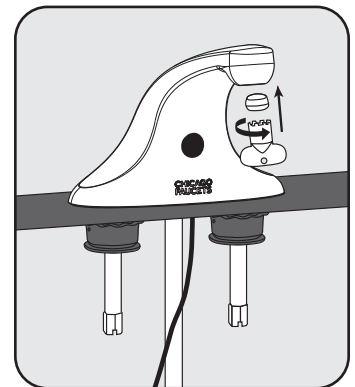
Be sure the gasket has "FRONT" wording facing toward the sink.



2. Below the sink, place the basin washer, flat washer and retaining washer onto threaded rod and push secure. Retaining washer will hold in place while securing nut.

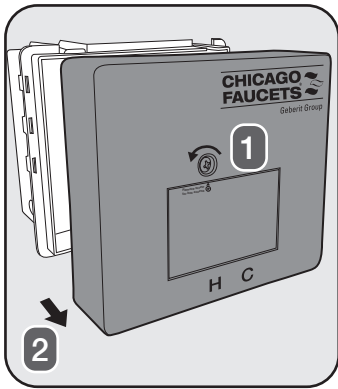


3. Tighten nut onto threaded rod using a screwdriver, wrench, or 1/2" socket.

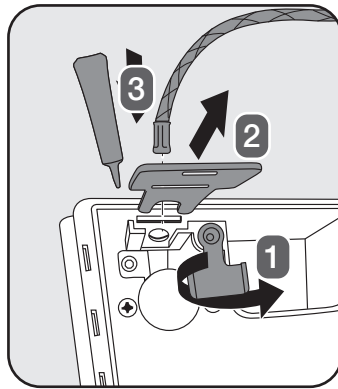


4. After completing control box install, flush lines completely. Then install outlet cache using provided installation key.

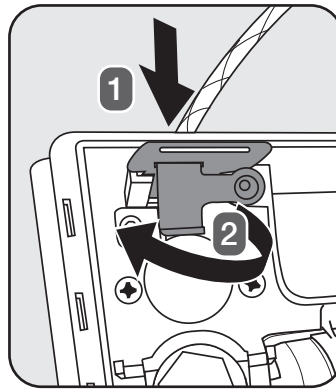
## Mounting Control Box



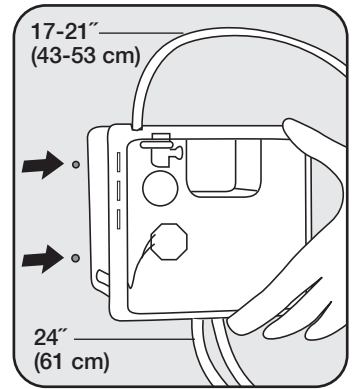
1. Remove the control box cover by using a #2 Phillips screwdriver to loosen the cover screw.



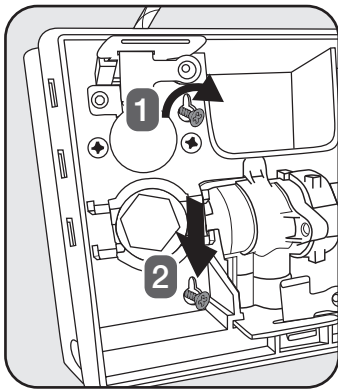
2. Pivot the yellow locking tab and remove the metal key at the top of the control box. Apply silicone-based lubricant to the end of the spout hose and insert it through the hole.



3. Be sure to seat the hose firmly before reinstalling the metal key and securing it with the yellow locking tab.

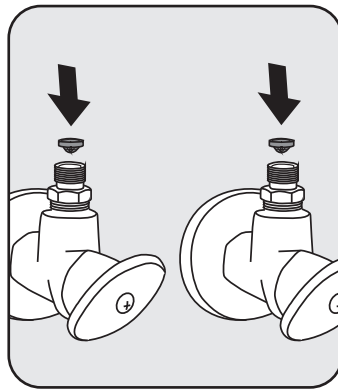


4. Determine the position of the control box under the sink. Hold the control box against the wall and mark the locations of the two mounting holes. Orientation is not critical.



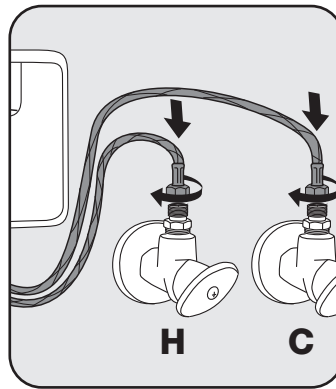
5. Drill 3/16" holes, install wall anchors and mounting screws. Be sure to leave at least 1/2" (12mm) of the screw head exposed. Secure the control box to the wall using a #2 Phillips screwdriver.

## Connecting Water Supply (dual supply unit shown)



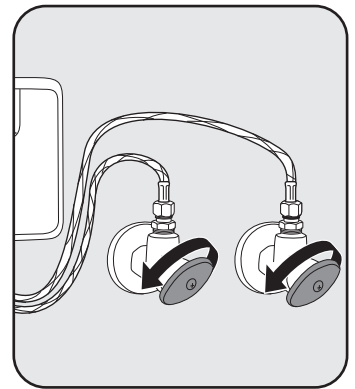
1. Insert the filter screen gaskets into the supply stops.

**IMPORTANT:** The filter screen gaskets seal the connection against leaks and must be installed as shown.



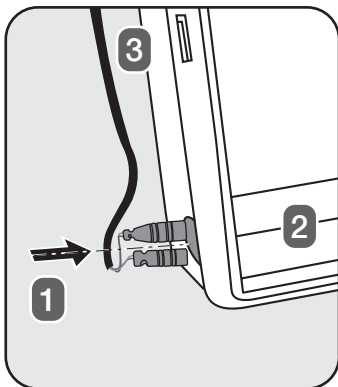
2. Attach the 3/8" female compression supply hoses from the control box to the supply stops. Use a wrench to tighten the nuts to the supply stops.

**IMPORTANT:** Remove any debris or hardware from the sink before opening the supplies and testing the faucet.

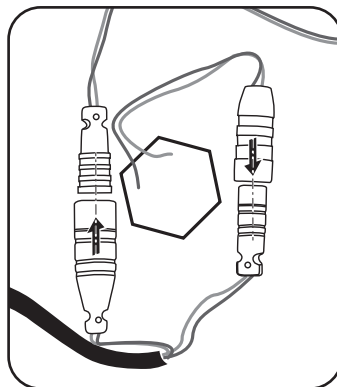


3. Open the supply stops and check for leaks. Note: water may run through spout.

## Connecting Power and Solenoid



1. Bring wire into box. Use length of box for measurement. Snap into holder on side.



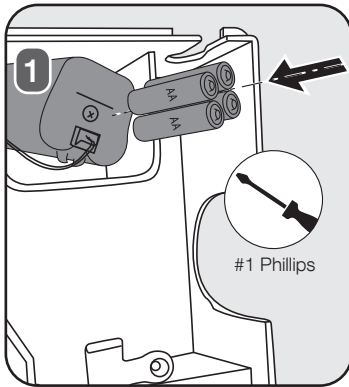
2. Attach power connections as shown in the following sections.

### WARNING!

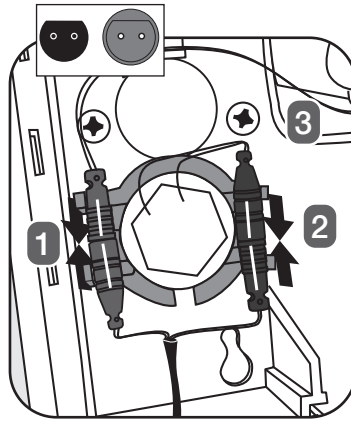
Delivery of water to fixtures intended for hand washing is recommended to be controlled by valves listed to ASSE 1070. This fitting is NOT factory preset and can be adjusted to deliver water at temperatures exceeding 110°F (43°C). Further, mechanical mixing valves DO NOT provide automatic control of water temperature. Due to effects of various water conditions, periodic verification of outlet water temperature is required.

Spout hose (865.963.00.0) is not to be used as a pressurized supply line and is only for connecting faucet to the control box.

## Battery (DC) Power

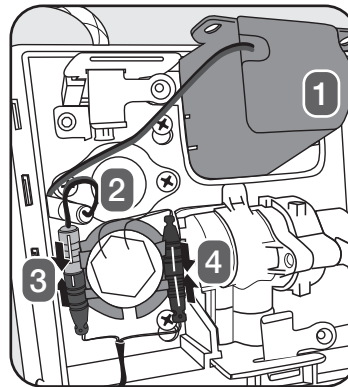


i. Open the yellow battery housing and insert 4 'AA' batteries according to the diagram inside the housing. NOTE: Make sure the batteries are oriented properly before testing the faucet.

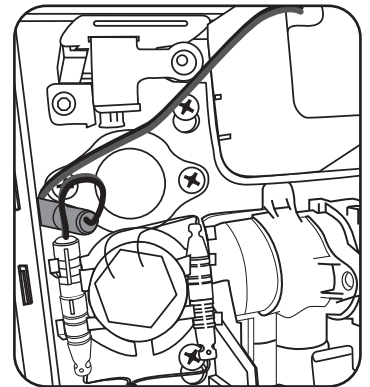


ii. Attach the wiring connectors (gray to gray, black to black). Note: Connectors are keyed for proper installation as shown. Snap completed connections, into the wiring harness as shown.

## LTPS (DC) Power

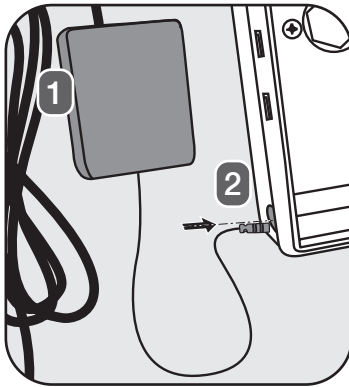


i. Insert LTPS into upper compartment of box, aligning slots with compartment ribs. Attach LTPS adapter wiring connectors (green to green). First green to green, then gray to gray. Note: the connectors are keyed for proper installation.

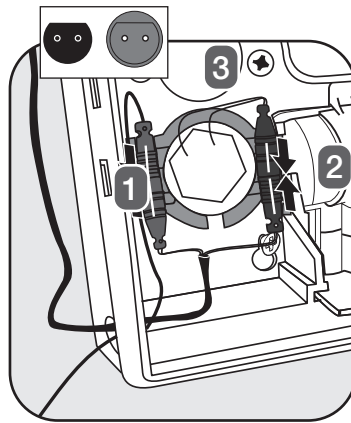


ii. Connect wiring connectors, first gray to gray, then black to black. (Note: the connectors are keyed for proper installation) Snap the completed connections, into the wiring harness as shown. Tuck the completed green connection into the space as shown.

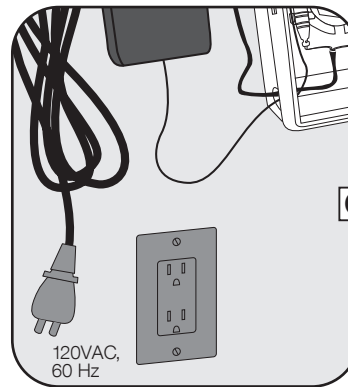
## (AC) Power



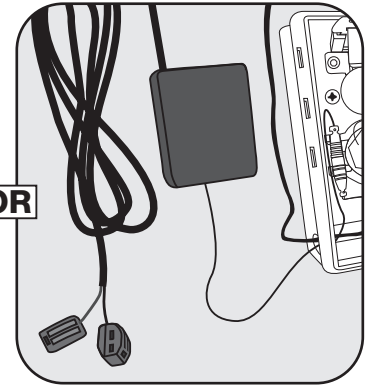
i. Choose a location and mount the transformer. Run the cable from the transformer through the opening in the control box.



ii. Attach the wiring connectors (gray to gray, black to black). Note: Connectors are keyed for proper installation as shown. Snap completed connections, into the wiring harness as shown.

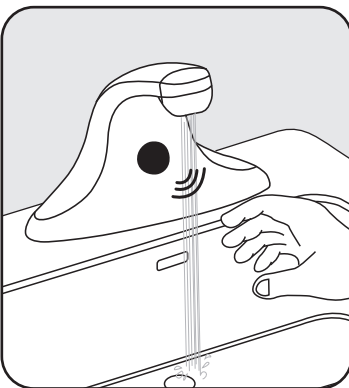


iii. Plug the transformer into the wall.

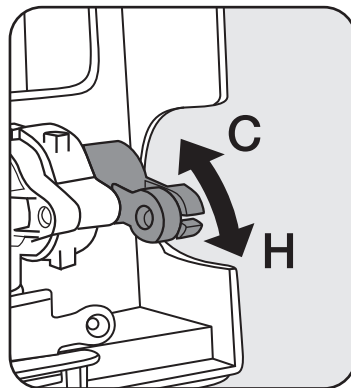


iv. Wire up the transformer to the main line.

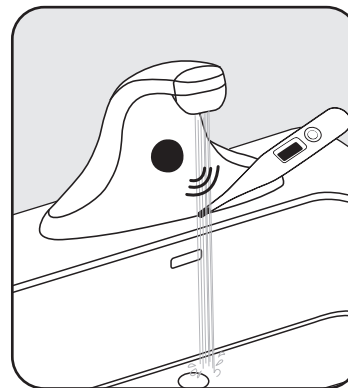
## Completing Installation: Testing and Adjustment



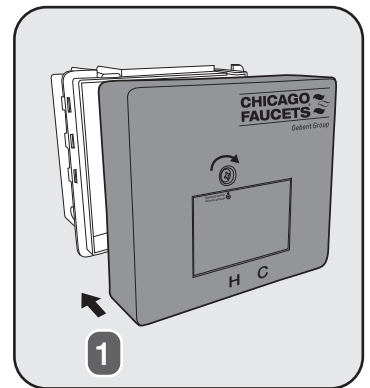
1. Once wiring is complete, the red sensor light at the faucet outlet will glow continuously for 5 seconds. After the light switches off, place your hands in front of the faucet. The faucet should activate and water should flow.



2. Adjusting the Water Temperature  
a. The yellow mixer handle inside control box is used to adjust water temperature in dual-supply installations. Turn the handle clockwise to decrease temperature or counter-clockwise to increase temperature.



b. Mixed water temperature must be checked at the point of use and the CFC mixing valve adjusted to ensure delivery of water at a safe temperature no exceeding 110°F (43°C). Water temperatures in excess 110°F (43°C) are dangerous and may cause scalding, severe injury or death!



3. Reinstall the control box cover and secure it with the #2 Phillips screw.

## Commander Handheld Programming Unit

Use the Commander™ Handheld Programming Unit to change settings quickly and easily on your Chicago Faucets touch-free products (EQ Series not included). The Commander™ Handheld Programming Unit lets you program, maintain, and monitor our electronic faucets from the palm of your hand. Commander features a ruggedized housing, infrared communications, and touch-screen technology. Refer to the *Commander Quick Start Guide* to get started.



## Faucet Adjustment Overview

Operating modes and sensor ranges can be adjusted with a manual operation through the infrared sensor. A traditional lavatory faucet is shown as an example. Faucet adjustment operations apply to all models. Alternatively, operating modes and sensor ranges can be adjusted with the Chicago Faucets Commander™ Handheld Programming Unit. For more information, visit [chicagofaucets.com/commander](http://chicagofaucets.com/commander).

Operating Modes	Description
<b>Cleaning Mode</b>	The faucet is inactive for 90 seconds.
<b>Normal Mode</b>	The faucet is activated if it senses a hand presence. This is the default operating mode of the faucet.
<b>Metering Mode (10 s)</b>	The faucet will shut off after 10 seconds regardless of hand presence detected.
<b>Scrub Mode (60 s)</b>	The faucet will shut off 60 seconds after the detection of the last hand presence.
<b>Scrub Mode (180 s)</b>	The faucet will shut off 180 seconds after the detection of the last hand presence.
<b>Sensor Range Adjustment</b>	Change the detection distance of the infrared sensor. The default sensor range is approximately 1" beyond the spout.
<b>Reset</b>	All settings will be reset to original factory settings.

In order to set the operating modes, the faucet needs to be placed into "Manual Setting" mode. At this time, operating modes can be changed within the next 30 minutes. If you do not have a Commander Programming Unit and would like to manually change modes, contact 1-800-832-8783 for instructions.

### QUICK TROUBLESHOOTING

Follow the steps below to fix common problems. For detailed troubleshooting, visit [chicagofaucets.com](http://chicagofaucets.com). Before troubleshooting, remove any objects in detection zone and make sure sensor is clear of debris. Ensure power is applied and solid red light appears during first 5 seconds after power-up.

#### The faucet is leaking:

From outlet – tighten or replace outlet insert using included key.

From supply stops – install or replace filter screen gaskets (see diagram on pg. 1).

#### No water flow or flow is limited:

Make sure supply hoses are connected and supply stops are fully open. Clean or replace filter screen gaskets or outlet insert.

#### Water flow does not stop:

If water flows continuously but stops when hand enters detection zone, reverse solenoid electrical connections.

#### Faucet does not properly detect user:

Remove and reapply power or run faucet to maximum run time. This will cause automatic recalibration of sensing field. Recalibration is complete when solid red light disappears.

If the steps above do not solve the problem, you may need to replace the spout assembly or control box. For additional information contact Chicago Faucets customer service at 800/832-8783.

## Care and Maintenance

Periodic inspection and yearly maintenance by a licensed contractor is required for all thermostatic mixing elements. Corrosive water conditions and/or unauthorized adjustments or repair could render the thermostatic valve ineffective for service intended. Regular checking and cleaning of the valve's internal components and check stops helps assure maximum life and proper product function. Frequency of cleaning and inspection depends on local water conditions. All Chicago Faucets fittings are designed and engineered to meet or exceed industry performance standards. Care should be taken when cleaning this product. Do not use abrasive cleaners, chemicals, or solvents as they can result in surface damage. Use mild soap with warm water for cleaning and protecting the surface of Chicago Faucets fittings.

*For additional technical assistance, call 800/TEC-TRUE (800-832-8783) or visit our website at [chicagofaucets.com](http://chicagofaucets.com).*

## CHICAGO FAUCETS LIMITED WARRANTY

**TO WHOM DOES THIS WARRANTY APPLY?** — The Company extends the following limited warranty to the original user only.

### WHAT DOES THIS WARRANTY COVER AND HOW LONG DOES IT LAST?

This warranty covers the following Commercial Products:

**LIFETIME FAUCET WARRANTY** — The "Faucet," defined as any metal cast, forged, stamped or formed portion of the Product, not including electronic or moving parts or other products separately covered by this Limited Warranty or water restricting components or other components, is warranted against material manufacturing defects for the life of the Product.

**FIVE YEAR FAUCET WARRANTY** — Certain Products and portions of the Product are warranted against material manufacturing defects for a period of five (5) years from the date of Product purchase. Products warranted against material manufacturing defects for a period of five (5) years from the date of Product purchase are referred to by the product numbers 42X, 43X, 15XX and E-Tronic® - 4X, 5X, 6X, 7X, 8X and 9X. All zinc die cast portions of Product are warranted against material manufacturing defects for a period of five (5) years from the date of Product purchase.

**THREE YEAR ELECTRONICS WARRANTY** — Electronic components, including the solenoid, are warranted for three (3) years from the date of installation.

**FIVE YEAR CARTRIDGE WARRANTY** — The "Cartridge", defined as the metal portion of any Product typically referred to by the product numbers containing 1-099, 1-100, 377X, 217X and 274X, excluding any rubber or plastic components, is warranted against material manufacturing defects for a period of five (5) years from the date of Product purchase. All Cartridges included in the Company's Single Control or Shower Products also are warranted against material manufacturing defects for a period of five (5) years from the date of Product purchase.

**ONE YEAR FINISH WARRANTY – COMMERCIAL** — For Products used in commercial applications, the finish of the Product is warranted against material manufacturing defects for a period of one (1) year from the date of Product purchase.

**OTHER WARRANTIES** — All other Products not covered above are warranted against material manufacturing defects for a period of one (1) year from the date of Product purchase.

Other restrictions and limitations apply. For complete warranty details, call Chicago Faucets Customer Service at 847-803-5000 or visit [chicagofaucets.com](http://chicagofaucets.com).

### LTPS End of Life Directives

**(Recycling)** In an effort to produce environmentally conscious products, the LTPS contains materials that are required to be recycled by specialized companies. Please ensure you dispose of your LTPS according to local regulations. Follow applicable laws and regulations for transport, shipping, and disposal of batteries. For details on, and locations for recycling lithium based batteries, please contact a government recycling agency, your waste-disposal service, or visit reputable on-line recycling sources such as [www.call2recycle.org](http://www.call2recycle.org).

The Chicago Faucet Company  
2100 South Clearwater Drive  
Des Plaines, IL 60018  
Phone: 847/803-5000  
Fax: 847/803-5454  
Technical: 800/832-8783  
[www.chicagofaucets.com](http://www.chicagofaucets.com)