

## SAFETY TIPS FOR INSTALLATION

Follow the safety tips below and read the installation manual provided with the unit when planning the installation of your water heater.

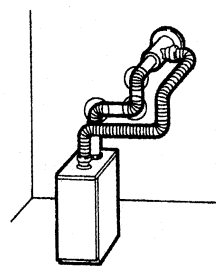
### ⚠ WARNING

1. The flue pipe opening must be fully exposed to outside air. Do not vent into a garage, basement under the floor, or into any enclosed area.
2. Do not install the flue pipe in close proximity to other objects or materials.
3. Before making a hole in your wall for the flue pipe, make sure the area is free of electrical wires, gas pipes and other obstacles.
4. Do not install the flue pipe where it will be exposed to heavy snow, collected leaves, or strong drafts.  
IMPORTANT: In areas of heavy snow fall, ground surface clearance must be increased according to average snow falls.  
In open areas with strong wind, a wind break may be necessary.
5. Do not install the flue pipe below the water heater nor into a chimney.
6. The exhaust pipe should be properly installed and connected. Aluminum tape may be used for sealing exhaust pipe connections.
7. This unit must be installed in accordance with these instructions, local codes, ordinance and/or in the absence of local codes, the latest edition of the national fire protection association (NFPA31) code.
8. Check and comply with all state, local codes and ANSI Z21.22 that may apply to water heater(s) before beginning the installation.  
This unit should be installed by a licensed, authorized person(s) due to the necessity of making electrical, water and fuel connections.

### ⚠ CAUTION

Total length of the extension pipe between the water heater and the flue pipe must be no greater than 10 ft. and three bends may be used.

NOTE: When using extension pipes always cover the exhaust pipe with the insulating cloth cover.



## SELECTING A LOCATION

Select a place to install the water heater where water pipes, electric supply, flue pipe and surrounding surfaces will be at safe and noise prevention distances.

1. Select a place which is free of moisture, water spills, pools or snow.
2. Select a place which draining can be done easily.
3. Select a place where the fuel tank can be installed safely.
4. Select a place where is free of combustible substances.
5. The surrounding walls should be finished with noncombustible materials (concrete block, mortar, or plaster are allowable).
6. The floor on which the water heater is installed must prevent intensive vibrations or shock and must be strong enough to bear the weight of the water heater.
7. Select a place where proper maintenance and control can be provided for the unit after installation.
8. Select a place sheltered from weather.
9. Install the unit on a noncombustible surface in a stable position. In case of installation on combustible floor, the unit should be raised off the floor to prevent contact with combustible materials.
10. It is important to keep enough clearance for the purpose of maintenance, repair and possible servicing.
11. The flue pipe must be free of snow, icing, leaves, bird's nest or strong drafts.
12. Before making a hole in your wall for the flue pipe, make sure the area is free of electrical wires, gas pipes and other obstacles.
13. When installing the horizontal pipe, be careful taken not to have any convexed or concaved portions in the pipings, which may cause abnormal combustion or ignition failure.

## INSTALLATION OF UNIT

1. Install the unit on a noncombustible surface in a stable position. If installing on a combustible floor, the unit should be raised off floor to prevent contact with combustible materials.  
If minimum clearances between the unit and combustible construction are maintained, no ventilation openings are needed in the closet door when installed in a closet.

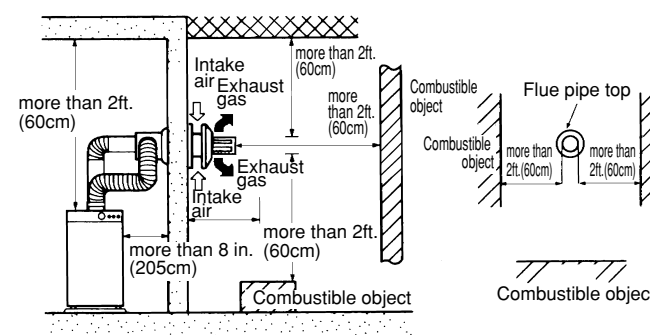
### ● UNIT (INDOOR CLEARANCE)

Left side	8 in. (205 mm)
Right side	8 in. (205 mm)
Rear side	8 in. (205 mm)
From front door to closet	8 in. (205 mm)
Top	2 ft. (600 mm)

Note: It is important to keep enough clearance for the purpose of maintenance, repair and possible servicing.

### ● FLUE PIPE (OUTSIDE CLEARANCE)

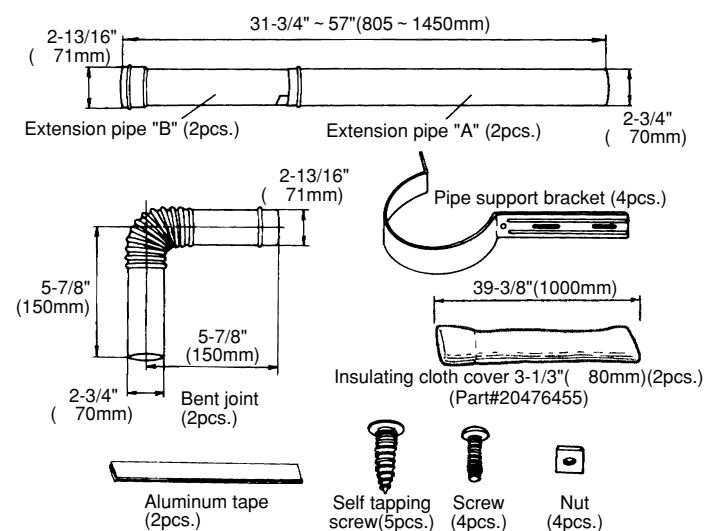
From flue pipe top to combustible surface:	
Vertical	24 in.(600 mm)
From flue pipe top to combustible surface:	
Horizontal	24 in.(600 mm)



2. Check local codes regarding installation of the water heater, water piping and fuel tank.

## UNPACKING

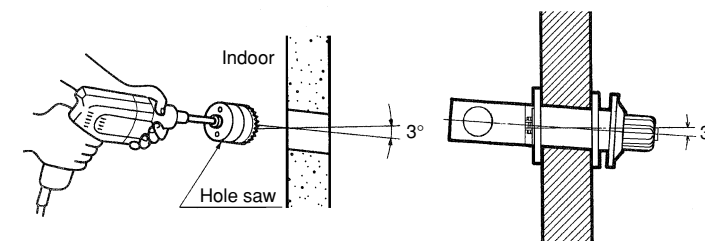
Check the following parts provided before installing.



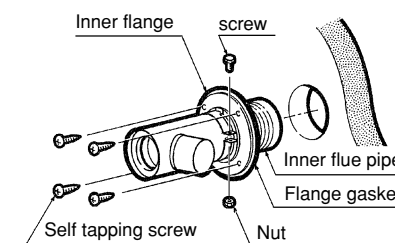
## INSTALLATION OF FLUE PIPE

IMPORTANT: Check and comply with all state and local codes that may apply to water heater before beginning installation.

1. Select unit location. Allow clearances as indicated above between the unit and all other materials.
2. Make sure that the outside area to where the flue pipe will reach is clear of any objects.  
NOTE: Make sure wall thickness is not greater than 10 inches.  
Flue pipe can be installed through any standard building materials. Please ask your local dealer or distributor for more details.
3. Position the hole for the flue pipe.
4. Cut the hole for the flue pipe from inside the room. Use a 4-3/4" diameter hole saw attached to an electric drill. The opening on the inside wall should be slightly higher than the outside opening (approximately 1/4") so that the flue pipe will slope slightly downward (approximately 3 degrees) after it is installed. This will enable condensed moisture to drain from the flue pipe to the outside and prevent rain or snow from entering from outside after installation.

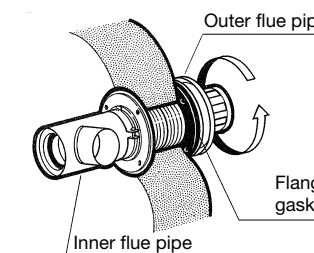


5. Install the inner flange and the flange gasket to the inner flue pipe and insert the inner flue pipe through the wall hole from inside the room. Make sure the arrow on the inner flange is pointing up and secure the securing band with a screw and a nut through two holes of the locking band. Secure the inner flue pipe to the wall with the four screws provided with the unit.

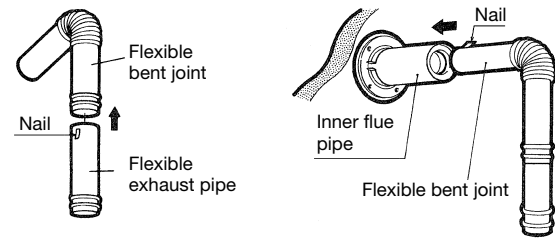


6. Install the flange gasket to the outer flue pipe. Secure the outer flue pipe to the wall by turning it clockwise. This locks the two halves together.

NOTE: Make sure to secure the outer flue pipe well.

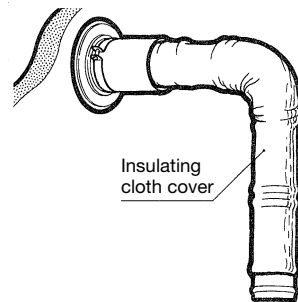


7. Insert the flexible exhaust pipe to the flexible bent joint until it locks. Insert the flexible bent joint to the exhaust mouth of the inner flue pipe until it locks.

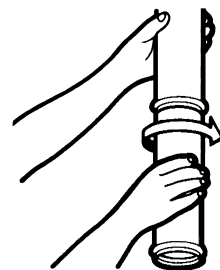


8. Insert the extension pipe "A" into the extension pipe "B" until the tab provided on the end of the former is engaged with the O-ring in the inside of the latter on the side which does not have the tab. Next insert the flexible pipe, which is attached to the unit, into the extension pipe "A" and then connect the extension pipe "B" end of the assembly of these pipes to the exhaust mouth of the Water Heater. And assemble another set of the pipes in the similar manner.

Note: 1. Slide the insulating cloth cover on the extension pipe "B", before connecting the above-mentioned pipe assembly to the Water Heater.

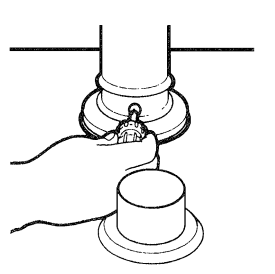


2. When disconnecting the extension pipe (such as flexible pipe and flexible elbow), pull the pipe by turning the pipe clockwise.

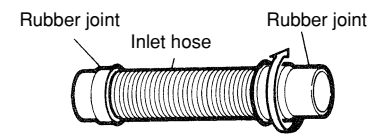


9. Remove the screw from the exhaust mouth of the unit. Insert the flexible exhaust pipe to the exhaust mouth and secure them with the screw.

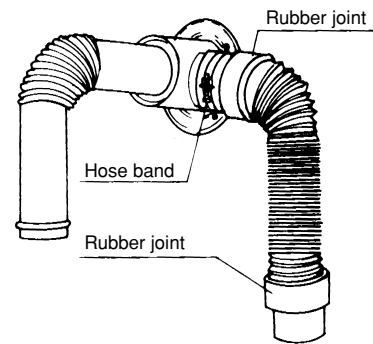
NOTE: Seal all connections of the pipes with the aluminum tape.



10. Connect rubber joints to both ends of the inlet hose.

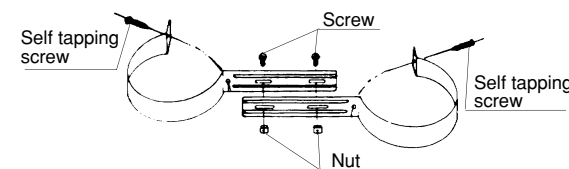


11. Pass the hose band for standard flue pipe set, which is attached to the unit, through one of the rubber joints, next connect the rubber joint into the air intake mouth of the flue pipe, and then secure the piping with the hose band.

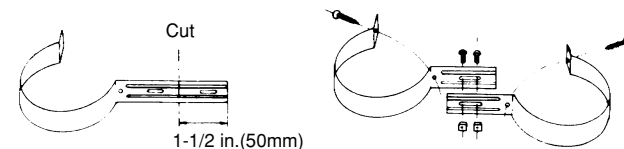


12. Next pass the hose band through the other rubber joint and then secure the extension pipe "A", which has been connected to the air intake mouth of the Water Heater, with the hose band.

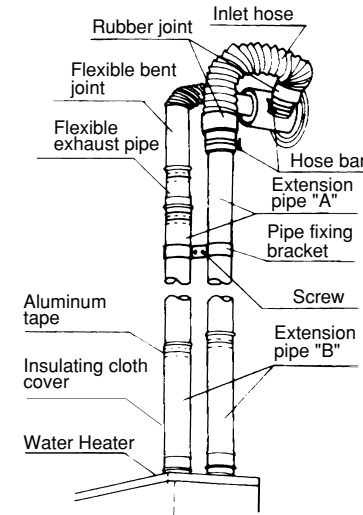
13. Fix the extension pipes with the pipe support brackets. After installing the flue pipe, secure the extension pipes by connecting them with the pipe support brackets. Adjust the pitch of the pipe fixing brackets for flue pipe tops as in the following.



If the clearance between the extension pipe "A" and "B", is too wide, cut the pipe support bracket to the appropriate size.



14. Apply aluminum tape to the joints of the extension pipes "A" and "B", flexible pipe, and the flexible bent joint, in order to prevent emissions.



15. After assembling the parts as above, do a trial operation to the Water Heater and check to see if it works properly and that there are not any emission leaks from the joints.

16. Other installation of flue pipe than above-mentioned can also be made by using the bent joint with the extension pipe kit, depending on the installing location of the Water Heater or of the flue pipe.

# TOYOTOMI

Instantaneous Kerosene Fired Water Heater  
**ACCESSORY**

**INSTRUCTION MANUAL  
FOR EXTENSION PIPE KIT SH-70UFF**

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PART# 20476496

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**TOYOTOMI U.S.A., INC.**  
P.O. Box 176, Brookfield, CT 06804-0176

NOTE: Remote flue pipe installations are possible by using of this extension pipe kit.

**BE SURE TO FOLLOW THE INSTRUCTIONS  
IN THIS MANUAL.**

The instructions which are contained in this manual are classified into the following two types, which are "WARNING" and "CAUTION". These instructions are intended to provide the important information for safe operation.

**"WARNING"** indicates the possibility of causing a fatal accident or serious injury, if handled incorrectly.

**"CAUTION"** indicates the possibility of causing injuries or material damages, if handled incorrectly.