



# SERVICE MANUAL



## GAS COUNTER SERIES HOT PLATE

C12HT

C24HT

C36HT

C36HT

### - NOTICE -

This Manual is prepared for the use of trained Vesta Service Technicians and should not be used by those not properly qualified.

This manual is not intended to be all encompassing. If you have not attended a Vesta Service School for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained Vesta Service Technician.

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# TABLE OF CONTENTS

SERVICES UPDATES.....	3
SERVICE UPDATES .....	3
TIS DOCUMENT LIST -CHT SERIES .....	3
GENERAL.....	4
INTRODUCTION .....	4
INSTALLATION .....	4
OPERATION .....	4
CLEANING .....	4
SPECIFICATIONS.....	4
TOOLS .....	5
COMPONENT LOCATION .....	5
REMOVAL AND REPLACEMENT OF PARTS .....	6
KNOB AND PANELS .....	6
ADJUSTABLE LEG.....	6
REGULATOR.....	6
PILOT GAS PIPE.....	7
PILOT VALVE .....	7
GAS VALVE AND ORIFICT .....	8
GAS MANIFOLD .....	8
SERVICE PROCEDURES AND ADJUSTMENTS .....	9
PILOT ADJUSTMENT.....	9
GAS PRESSURE MEASUREMENT.....	9
GAS PRESSURE REGULATOR ADJUSTMENT .....	10
BURNER ADJUSTMENT .....	10
TROUBLESHOOTING .....	11
TROUBLESHOOTING.....	11

# SERVICES UPDATES

## SERVICE UPDATES

May, 2024

- New compile

## TIS DOCUMENT LIST - CXXCB-SR SERIES

### SERVICE TAB

Document Title	Document Type
CHT Series Gas Counter Hot Plate Service Manual	Service Manual

### SERVICE TAB (Multimedia)

Document Title	Document Type
CHT Series Gas Counter Hot Plate Operation & Installation Manual	Operator

### PARTS TAB

Document Title	Document Type
CHT Series Gas Counter Hot Plate Parts Catalog	Parts Catalog

# GENERAL

## ⚠ WARNING

The range and its parts are hot. Use care when operating, cleaning or servicing the range.

## INTRODUCTION

Procedures in this manual will apply to all CHT models unless specified. No procedure in this manual will require the removal or raising of the range grate. Pictures and illustrations can be of any model unless the picture or illustration needs to be model specific.

## INSTALLATION

Generally, installations are made by the dealer or contracted by the dealer or owner. Detailed installation instructions are included in the Installation and Operation Manual that is sent with each unit. All models must be installed with an externally mounted regulator.

## OPERATION

To ignite the burner, turn knob to the "ON" position, then back off to the desired flame level. The range of adjustment is virtually infinite between "ON" and "OFF". The space between the legs at the bottom admits combustion air. **DO NOT BLOCK THIS SPACE.**

All burners are lit from a constantly burning pilots. Turning the valve to the desired flame height is all that is required to put the unit in service.

Do not permit fans to blow directly at the unit. Whenever possible, avoid open windows next to the unit's sides or back. Avoid wall type fans will create air crosscurrents within a room.

A properly designed and installed hood will act as the heart of the ventilation system for the room or area in which the unit is installed and will leave the unit independent of changing draft conditions.

**NOTE:** It may be necessary to adjust the balance of gas, volume, and air supply to each burner. This must be done by an authorized service technician.

It is also necessary that sufficient air should be allowed to enter the room to compensate for air removed by any ventilation system. Otherwise, subnormal atmospheric pressure will occur, affecting operation and causing undesirable working conditions.

## CLEANING

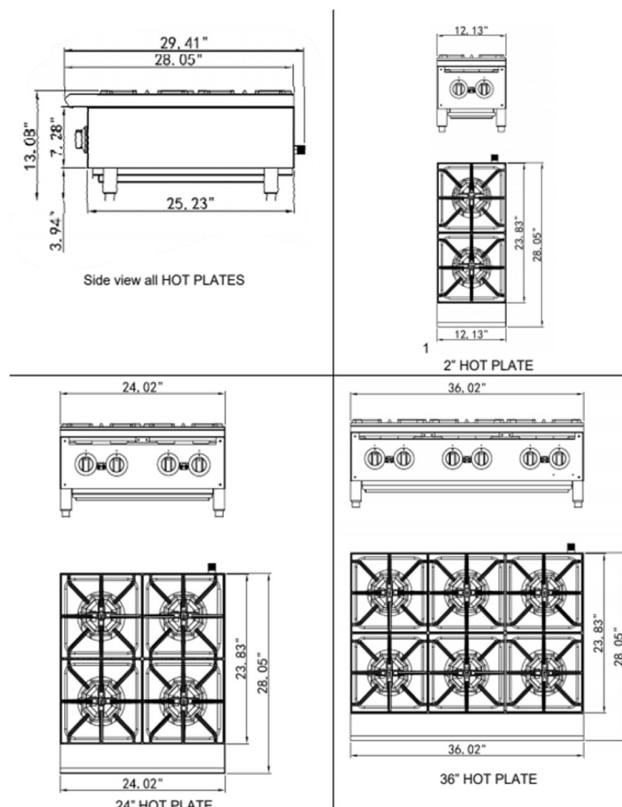
Detailed cleaning procedures are included in the Installation & Operation manual sent with each unit.

## SPECIFICATIONS

Stainless steel front, sides and front top ledge. Fully welded stainless and aluminized steel body frame. 11" low profile cooking height on 4" legs.

A gas pressure regulator supplied with the unit must be installed.

Check and set the gas pressure after the regulator is installed.



### Manifold pressure should be:

Natural Gas 4.0" W.C.

Propane Gas 10.0" W.C.

Incoming pressure should be 4-7" W.C. for Natural Gas and 10.0" W.C. for Propane Gas.

Incoming pressure should not exceed 13.0" W.C.

## TOOLS

- Standard set of hand tools.
- VOM with A/C current tester (any quality VOM with a sensitivity of at least 20,000 ohms per volt can be used).
- Temperature tester (thermocouple type).
- U-Tube or Digital Manometer.
- Thread sealant suitable for use with natural or propane gas.
- Aluminum Foil Tape - McMaster Carr Part No. 7631421 or equivalent.
- Adapter to test thermocouple, Johnstone Supply Part No. H23-226 or equivalent.
- 8mm socket
- Flat screwdriver
- 8mm、11mm、17mm、19mm wrench
- Teflon tape
- HA40 food grade rust proof oil
- Handheld leak detector

## COMPONENT LOCATION

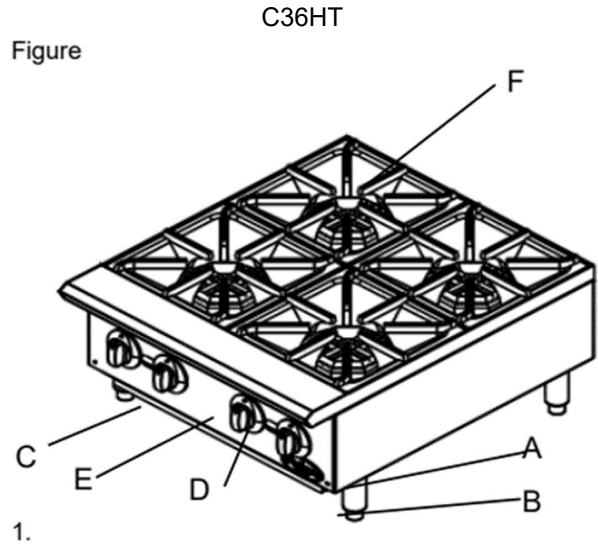


Fig.1

1. A. LEG. Supports the Equipment
- B. ADJUSTABLE FEET. Used to adjust the level of the equipment.
- C. DRIP TRAY. A tray that collect grease and oil. This tray can be removed for cleaning
- D. PILOT LIGHT ACCESS HOLE. Allows access to the pilot light.
- E. GAS CONTROL KNOB. Used to set or adjust the temperature of the grilling surface.
- F. OPEN BURNER PLATE. Cooking Surface

# REMOVAL AND REPLACEMENT OF PARTS

## KNOB AND PANELS



### ⚠ WARNING

Shut off the gas before servicing the unit and follow lockout /tagout procedures.

1. Grasp the knob with your hand and pull it out slightly harder, knob can be removed. (fig.2)  
(Installation process reversed)



Fig. 2

## ADJUSTABLE LEG



### ⚠ WARNING

Shut off the gas before servicing the unit and follow lockout /tagout procedures.

1. Uplift the product and unscrew out the adjustable feet by hand (installation process reversed) (fig.3).

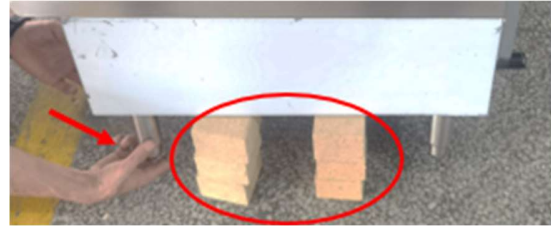


Fig. 3

## REGULATOR



### ⚠ WARNING

Shut off the gas before servicing the unit and follow lockout /tagout procedures.

Regulator Installation:

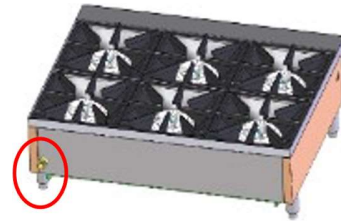


Fig. 4

1. On the back of the product, wrap the manifold pipe in a clockwise reverse direction with teflon tape, it is recommended to wrap 15-20 turns (fig.5).



Fig.5

2. Assemble regulator into manifold pipe and tighten it (fig.6)



Fig.6

3. Turn on the air source and use a handheld leak detector to check whether the regulator valve is leaking (Fig.7) (The disassembly process reversed).



Fig.7

### PILOT GAS PIPE



#### ⚠ WARNING

Shut off the gas before servicing the unit and follow lockout /tagout procedures.

1. Take out the Grate
2. Use the 8mm sleeve to remove the 4 screws shown in the picture and take out the control panel; See (fig.8)



Fig.8

3. Lift out the grate and burner (see fig.9).



Fig.9

4. Use an 11mm wrench to remove the nut of the adjustment valve. (See fig.10)



Fig.10

5. Open the fixing plate with a slotted screwdriver, release the pilot cap, and then remove the pilot gas pipe (fig.11).



Fig.11

6. Continue to install in reverse order.
7. Turn on the air source and use a handheld leak detector to check whether the pilot gas pipe is leaking

### PILOT VALVE



#### ⚠ WARNING

Shut off the gas before servicing the unit and follow lockout /tagout procedures.

1. Take out the grate.
2. Use the 8mm sleeve to remove the 4 screws shown in the picture and take out the control panel (see fig.8)
3. Lift out the burner (see fig.9)
4. Use an 11mmd wrench to remove the nut of the adjustment valve (see Fig.10)

5. Use an 11mm wrench to remove the adjusting valve AP7-1 (see fig.12)

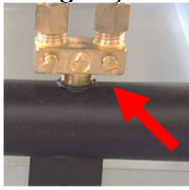


Fig.12

6. Continue to install in reversed order.  
 7. Evenly applied with 542 pipe thread sealant on first three turns of the thread, and then tighten it.  
 8. Turn on the air source and use a handheld leak detector to check whether the gas pipe is leaking.

9. When assemble the nozzle back, HA40 food-grade anti-rust oil should be applied between the nozzle and the gas valve (see fig.16).

10. When assemble the gas valve back, evenly applied with 542 pipe thread sealant on first three turns of the thread, and then tighten it (see fig.17).



Fig.16

Fig.17

### GAS VALVE AND ORIFICT

#### ⚠ WARNING

Shut off the gas before servicing the unit and follow lockout /tagout procedures.;



1. Take out the Grate
2. Use the 8mm sleeve to remove the 4 screws shown in the picture and take out the control panel (see fig.8)
3. Lift out the Burner (see fig.9)
4. Open the fixing plate with a slotted screwdriver, release the pilot cap, and then remove the pilot gas pipe (see fig.11)
6. Use 3mm wrench removes the nozzle of the gas valve (fig.14).



Fig.14

7. Disassemble gas valve (fig.15).



Fig.15

8. Continue to install in reverse order.

11. Turn on the air source and use a handheld leak detector to check whether the gas pipe is leaking.

### GAS MANIFOLD

#### ⚠ WARNING

Shut off the gas before servicing the unit and follow lockout /tagout procedures.;



1. Take out the Grate
2. Use the 8mm sleeve to remove the 4 screws shown in the picture and take out the control panel (see fig.8)
3. Lift out the Burner (see fig.9)
4. Open the fixing plate with a slotted screwdriver, release the pilot cap, and then remove the pilot gas pipe (see fig.11)
5. Place the product vertically, remove the M8 nut from bottom plate with an 8mm wrench, and take out the burner (fig.13)
6. Use an 11mmd wrench to remove the nut of the adjustment valve. (see fig.10).
7. Use a 10mm wrench to remove the 2 nuts shown in the diagram and take out the gas manifold pipe (see Fig.18).
8. Continue to install in reverse order.
9. Turn on the air source and use a handheld leak detector to check whether the gas pipe is leaking.



Fig.18





# SERVICE PROCEDURES AND ADJUSTMENTS

## PILOT ADJUSTMENT

Using a flathead screwdriver, turn the slotted pilot adjustment screw clockwise to decrease the flame, and counterclockwise to increase the flame.

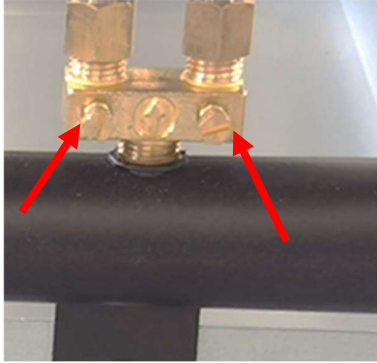


Fig. 19

10. Turn gas supply off, disconnect manometer and reinstall pressure tap plug.



Fig. 20

## GAS PRESSURE MEASUREMENT

### **⚠ WARNING**

All gas joints disturbed during servicing must be checked for leaks. Check with a soap and water solution (bubbles). Do not use an open flame.

1. Turn the gas supply off at a manual shutoff valve.
2. Remove the control panel.
3. Remove the pressure tap plug and attach manometer.
4. Turn gas back on.
5. Light pilot(s).
6. Turn all A18 Gas VALVE on to the maximum setting so that all burners are on.
7. Turn all the equipment on the same supply line on.
8. Check gas pressure.
9. Gas pressure should read 4" W.C. for natural and 10" W.C. for propane gas. If not correct, refer to GAS PRESSURE REGULATOR ADJUSTMENT.

## GAS PRESSURE REGULATOR ADJUSTMENT

A gas pressure regulator is supplied with the char-broiler and must be installed as close to the char-broiler on the gas supply line as possible. Make sure that the arrow on the underside of the regulator is oriented in the direction of gas flow to the char-broiler and the regulator is positioned with the vent plug and adjustment screw upright. Check that vent plug is not clogged by grease and debris.

Check and set the gas pressure after the regulator is installed. The pressure should be set for 4" water column (W.C.) for natural gas and 10" W.C. for propane gas while all burners are on.

The supply pressure (upstream of the regulator) should be 4-7" W.C. for natural gas and 10-13" W.C. for propane gas. At no time should the char-broiler be connected to supply pressure greater than ½ psig (3.45 kPa) or 13" W.C.

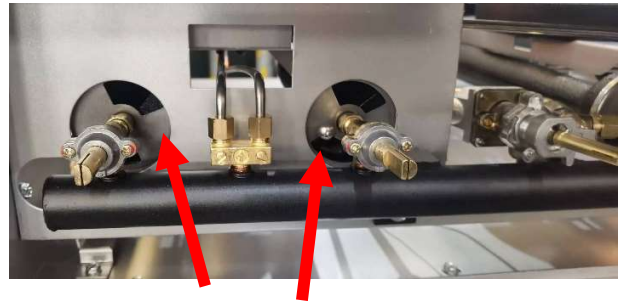


Fig. 21

## BURNER ADJUSTMENT

For efficient burner operation, it is important that a proper balance of gas volume and primary air supply is maintained to give complete combustion.

Insufficient air supply results in a yellow streaming flame. Primary air supply is controlled by the air shutter on the front of the burner venturi. Loosen the screw on the venturi and adjust the air shutter to just eliminate yellow tips on the burner flames. Lock the air shutter in place in place by tightening the screw.

Repeat this procedure as necessary with all burners.

# TROUBLESHOOTING

## TROUBLESHOOTING

SYMPTOMS	POSSIBLE CAUSES	SOLUTION
Burner not lighting	Main gas line is closed. Quick disconnect not inserted all the way. Pilot light is not lit. Cause unknown	Open Valve Check quick disconnect and make sure it is fully inserted into female coupling. Ignite pilot light. Call for service.
Flame is too high or too low	Adjustment knob is turned up or down	Adjust flame with control knob.
Pilot light not staying lit.	Flame is too low Pilot tube clogged.	Adjust pilot light flame height. Replace pilot tube. Call for service.
Strong smell of gas in cooking area.	Main gas line leak. One or more of the pilot may be out and burner knob turned on.	Turn off main gas valve. DO NOT LIGHT FLAME, ignite anything, or turn/switch on anything electrical. Call Fire department if needed and call for service. Check to see if burners and pilots are lit. If not, turn off all burner valves and main gas valve and wait for excess gas to dissipate. Reattempt to light pilots after allowing excess gas to clear.
Cooking surface is heating up slowly.	Carbon buildup on grate and burner surface. Cause unknown	Clean grate and burner surface. Call for service.
Gas type of unit needs to be converted.	Unit ships from the factory Natural gas. Conversion from Natural Gas to L.P. is possible for this unit.	Call for service. This is not considered a warranty issue. Do not attempt conversion on your own.

If problems persist and the assigned solution does not remedy the issue, please call for service.