



Air Conditioning & Heating

# GMH95 & GCH95

## MULTI-POSITION, TWO-STAGE, MULTI-SPEED GAS FURNACES

### UP TO 96% AFUE



#### Standard Features

- Dual-diameter tubular heat exchanger
- Two-stage gas valve convertible technology allows installer to activate the two-stage valve with the flip of a dipswitch
- 110V Silicon Nitride igniter designed for long igniter life
- Furnace control board with self-diagnostics, color-coded low-voltage terminals, and provisions for electronic air cleaner and 24-volt humidifiers
- Control board stores the last five diagnostic codes in memory; simple push-button activation outputs the fault history to a flashing red LED
- Low constant fan allows homeowner to activate the low heat speed to efficiently circulate air throughout the home
- Self-adjusting feature automatically adjusts to high- or low-stage operation based on outside temperature without an outdoor temperature sensor
- Dual-certified for sealed combustion direct vent (2-pipe) or non-direct vent (1-pipe) applications
- All models comply with California NOx emissions standards

#### Cabinet Features

- Fully insulated, heavy-gauge steel cabinet with durable baked-enamel finish
- Foil-faced insulation lines the heat exchanger
- Designed for multi-position installation:  
GMH95: upflow, horizontal left or right;  
GCH95/GCH9: downflow, horizontal left or right
- Easy-to-install top venting is standard; alternate flue/vent located on the right (GMH95)
- Airtight solid bottom for side-return applications and easy-cut tabs for effortless removal in bottom air inlet applications
- Convenient left or right connection for gas and electric service
- Coil and furnace fit flush for most installations

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\* Complete warranty details available from your local dealer or at [www.goodmanmfg.com](http://www.goodmanmfg.com). To receive the Lifetime Heat Exchanger Limited Warranty (good for as long as you own your home), 10-Year Unit Replacement Limited Warranty and 10-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Online registration is not required in California or Québec.

# NOMENCLATURE

|                          | G                                                                                                            | M | H | 95  | 045   | 4 | B  | X  | A                                                                             |  |
|--------------------------|--------------------------------------------------------------------------------------------------------------|---|---|-----|-------|---|----|----|-------------------------------------------------------------------------------|--|
|                          | 1                                                                                                            | 2 | 3 | 4,5 | 6,7,8 | 9 | 10 | 11 | 12                                                                            |  |
| <b>Brand</b>             | G Goodman® Brand<br>or Distinctions™                                                                         |   |   |     |       |   |    |    | Revisions<br>A Initial Release<br>B 1st Revision<br>C 2nd Revision            |  |
|                          |                                                                                                              |   |   |     |       |   |    |    |                                                                               |  |
| <b>Airflow Direction</b> |                                                                                                              |   |   |     |       |   |    |    | NOx<br>N Natural Gas<br>X Low NOx                                             |  |
|                          |                                                                                                              |   |   |     |       |   |    |    |                                                                               |  |
| C Downflow/Horizontal    |                                                                                                              |   |   |     |       |   |    |    | Cabinet Width<br>A 14"<br>B 17½"<br>C 21"<br>D 24½"                           |  |
| D Dedicated Downflow     |                                                                                                              |   |   |     |       |   |    |    |                                                                               |  |
| H High Airflow           |                                                                                                              |   |   |     |       |   |    |    |                                                                               |  |
| K Dedicated Upflow       |                                                                                                              |   |   |     |       |   |    |    |                                                                               |  |
| M Upflow/Horizontal      |                                                                                                              |   |   |     |       |   |    |    |                                                                               |  |
| <b>Description</b>       | V Two-Stage/Variable-speed<br>H Two-Stage/Multi-speed<br>S Single-Stage/Multi-speed<br>E Two-Stage/EEM Motor |   |   |     |       |   |    |    | Maximum CFM @ 0.5" ESP<br>3 1200<br>4 1600                                    |  |
|                          |                                                                                                              |   |   |     |       |   |    |    |                                                                               |  |
| <b>AFUE</b>              |                                                                                                              |   |   |     |       |   |    |    | MBTU/h<br>045: 45,000 115: 115,000<br>070: 70,000 140: 140,000<br>090: 90,000 |  |
|                          |                                                                                                              |   |   |     |       |   |    |    |                                                                               |  |
| 95 95%                   |                                                                                                              |   |   |     |       |   |    |    |                                                                               |  |
| 9 93%+                   |                                                                                                              |   |   |     |       |   |    |    |                                                                               |  |
| 8 80%                    |                                                                                                              |   |   |     |       |   |    |    |                                                                               |  |



# SPECIFICATIONS FOR GMH95

|                                             | GMH95<br>0453BXA | GMH95<br>0703BXA | GMH95<br>0704CXA | GMH95<br>0904CXA | GMH95<br>0905CXA | GMH95<br>1155DXA |
|---------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>HEATING CAPACITY</b>                     |                  |                  |                  |                  |                  |                  |
| Input <sup>1</sup>                          | 46,000           | 69,000           | 69,000           | 92,000           | 92,000           | 115,000          |
| Natural Gas Output <sup>1</sup>             | 44,200           | 66,300           | 66,300           | 88,400           | 88,400           | 110,500          |
| LP Gas Output <sup>1</sup>                  | 39,800           | 59,700           | 59,700           | 79,600           | 79,600           | 99,500           |
| AFUE <sup>2</sup>                           | 96.1             | 96.1             | 96.1             | 96.1             | 96.1             | 96.1             |
| Available AC @ 0.5" ESP                     | 3                | 3                | 4                | 4                | 5                | 5                |
| Temperature Rise Range (°F)                 | 35 - 65          | 30 - 60          | 35 - 65          | 30 - 60          | 30 - 60          | 35 - 65          |
| <b>CIRCULATOR BLOWER</b>                    |                  |                  |                  |                  |                  |                  |
| Size (D x W)                                | 10" x 8"         | 10" x 8"         | 10" x 10"        | 10" x 10"        | 11" x 10"        | 11" x 10"        |
| Horsepower @ 1075 RPM                       | ⅓                | ⅓                | ½                | ½                | ¾                | ¾                |
| Speed                                       | 4                | 4                | 4                | 4                | 4                | 4                |
| Vent Diameter <sup>3</sup>                  | 2"               | 2"               | 2"               | 2"               | 3"               | 3"               |
| No. of Burners                              | 2                | 3                | 3                | 4                | 4                | 5                |
| <b>FILTER SIZE (IN<sup>2</sup>)</b>         |                  |                  |                  |                  |                  |                  |
| Permanent <sup>4</sup>                      | 290              | 288              | 385              | 385              | 480              | 480              |
| Disposable                                  | 580              | 580              | 770              | 770              | 960              | 960              |
| <b>ELECTRICAL DATA</b>                      |                  |                  |                  |                  |                  |                  |
| Min. Circuit Ampacity <sup>5</sup>          | 9.4              | 9.4              | 13.8             | 13.8             | 13.2             | 13.2             |
| Max. Overcurrent Device (amps) <sup>6</sup> | 15               | 15               | 15               | 15               | 15               | 15               |
| <b>SHIP WEIGHT (LBS)</b>                    | 120              | 123              | 125              | 144              | 146              | 163              |

<sup>1</sup> Natural Gas BTU/h. For altitudes above 2,000', reduce input rating 4% for each 1,000' above sea level.

<sup>2</sup> DOE AFUE based upon Isolated Combustion System (ICS)

<sup>3</sup> Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.

<sup>4</sup> Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

<sup>5</sup> Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

## NOTES

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.

## SPECIFICATIONS FOR GCH95

|                                             | GCH95<br>0453BX | GCH95<br>0703BX | GCH95<br>0704CX | GCH95<br>0904CX | GCH95<br>0905DX | GCH93<br>1155DX |
|---------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>HEATING CAPACITY</b>                     |                 |                 |                 |                 |                 |                 |
| Input <sup>1</sup>                          | 46,000          | 69,000          | 69,000          | 92,000          | 92,000          | 115,000         |
| Natural Gas Output <sup>1</sup>             | 44,200          | 66,300          | 66,300          | 88,400          | 88,400          | 106,500         |
| LP Gas Output <sup>1</sup>                  | 39,800          | 59,700          | 59,700          | 79,600          | 79,600          | 96,255          |
| AFUE <sup>2</sup>                           | 96.1            | 96.1            | 96.1            | 96.1            | 96.1            | 93.0            |
| Available AC @ 0.5" ESP                     | 3               | 3               | 4               | 4               | 5               | 5               |
| Temperature Rise Range (°F)                 | 25-55           | 35-65           | 25-55           | 40 - 70         | 35-65           | 40 - 70         |
| <b>CIRCULATOR BLOWER</b>                    |                 |                 |                 |                 |                 |                 |
| Size (D x W)                                | 10" x 8"        | 10" x 8"        | 10" x 10"       | 10" x 10"       | 11" x 10"       | 11" x 10"       |
| Horsepower @ 1075 RPM                       | ½               | ½               | ½               | ½               | ¾               | ¾               |
| Speed                                       | 4               | 4               | 4               | 4               | 4               | 4               |
| Vent Diameter <sup>3</sup>                  | 2"              | 2"              | 2"              | 2"              | 2"              | 2"              |
| No. of Burners                              | 2               | 3               | 3               | 4               | 4               | 5               |
| Disposable Filter Size (in²)                | 576             | 564             | 564             | 752             | 752             | 940             |
| <b>ELECTRICAL DATA</b>                      |                 |                 |                 |                 |                 |                 |
| Min. Circuit Ampacity <sup>4</sup>          | 9.8             | 9.8             | 12.9            | 12.9            | 13.4            | 13.2            |
| Max. Overcurrent Device (amps) <sup>5</sup> | 15              | 15              | 15              | 15              | 15              | 15              |
| <b>SHIP WEIGHT (LBS)</b>                    | 120             | 123             | 123             | 144             | 146             | 160             |

<sup>1</sup> Natural Gas BTU/h. For altitudes above 2,000', reduce input rating 4% for each 1,000' above sea level.

<sup>2</sup> DOE AFUE based upon Isolated Combustion System (ICS)

<sup>3</sup> Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run and installation (1 or 2 pipes). The optional Combustion Air Pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.

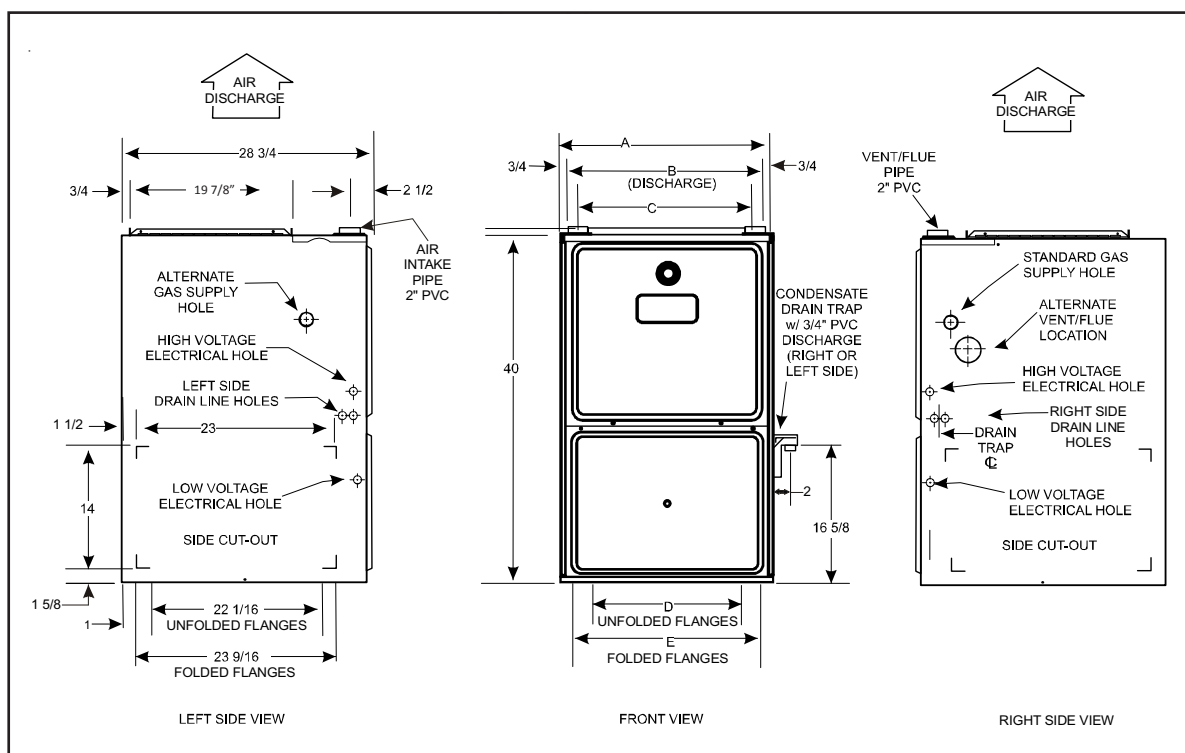
<sup>4</sup> Minimum Circuit Ampacity = (1.25 x Circulator Blower Amps) + ID Blower amps. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.

<sup>5</sup> Maximum Overcurrent Protection Device refers to maximum recommended fuse or circuit breaker size. May use fuses or HACR-type circuit breakers of the same size as noted.

### NOTES

- All furnaces are manufactured for use on 115 VAC, 60 Hz, single-phase electrical supply.
- Gas Service Connection ½" FPT
- Important: Size fuses and wires properly and make electrical connections in accordance with the National Electrical Code and/or all existing local codes.

## GMH95 DIMENSIONS



| MODEL        | A    | B    | C    | D    | E    |
|--------------|------|------|------|------|------|
| GMH950453BXA | 17½" | 16"  | 13⅝" | 12⅝" | 13⅝" |
| GMH950703BXA | 17½" | 16"  | 13⅝" | 12⅝" | 13⅝" |
| GMH950704CXA | 21"  | 19½" | 16⅝" | 16"  | 17½" |
| GMH950904CXA | 21"  | 19½" | 16⅝" | 16"  | 17½" |
| GMH950905CXA | 21"  | 19½" | 20⅝" | 19⅝" | 20⅝" |
| GMH951155DXA | 24½" | 23"  | 20⅝" | 19⅝" | 20⅝" |

### NOTES:

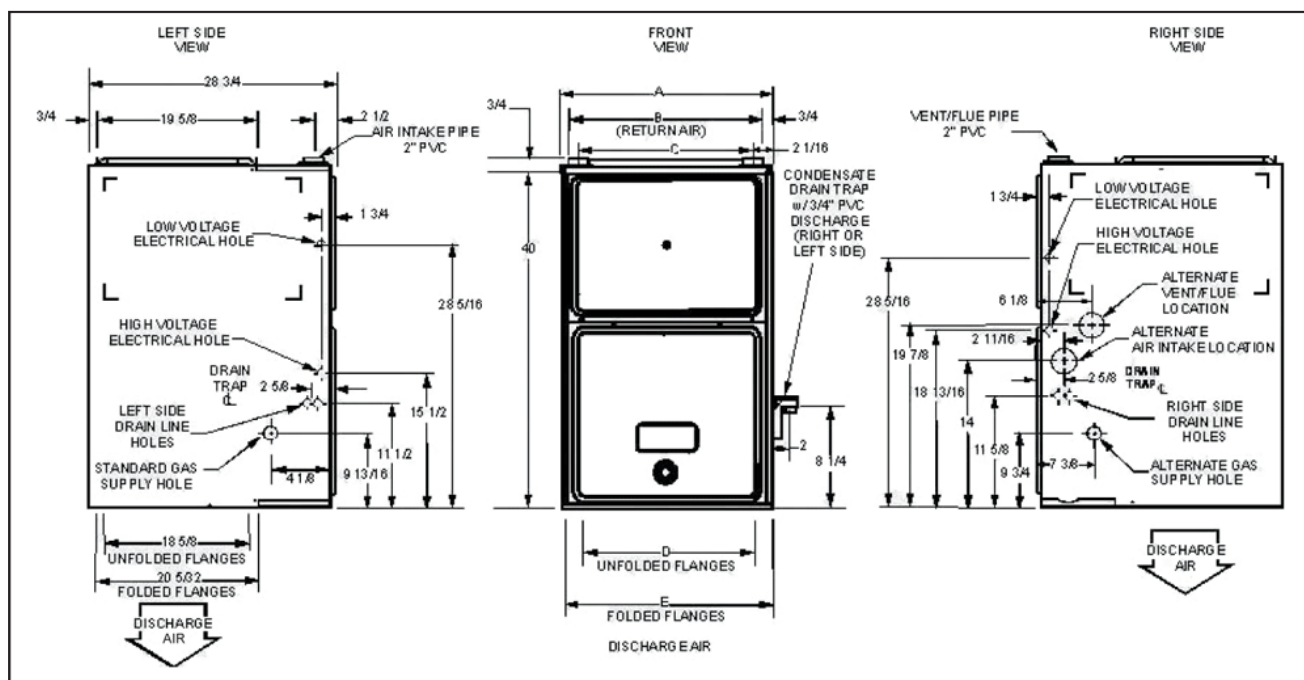
- Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run, and installation (1 or 2 pipes). The optional combustion air pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.
- Line voltage wiring can enter through the right or left side of furnace. Low-voltage wiring can enter through the right or left side of furnace.
- Conversion kits for high-altitude natural gas operation are available. Contact your Goodman distributor or dealer for details.
- Installer must supply the following gas line fittings, according to which entrance is used:  
Left: One 90° street elbow; one 2½" pipe nipple; one 90° elbow; straight pipe; one ground joint union  
Right: Straight pipe to reach gas valve
- Installations using a bottom return: Failure to unfold duct flanges will reduce airflow area by approximately 18%. This could result in performance and noise issues.

### MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

| POSITION   | SIDES | REAR | FRONT | BOTTOM | FLUE | TOP |
|------------|-------|------|-------|--------|------|-----|
| Upflow     | 0"    | 0"   | 1"    | C      | 0"   | 1"  |
| Horizontal | 6"    | 0"   | 1"    | C      | 0"   | 4"  |

- C = If placed on combustible floor, the floor MUST be wood ONLY.
- For servicing or cleaning, a 24" front clearance is recommended.
- Unit connections (electrical, flue, and drain) may necessitate greater clearances than the minimum clearances listed above.
- In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.**
- Approved for line contact in the horizontal position

## GCH95 DIMENSIONS



| MODEL       | A    | B    | C    | D    | E    |
|-------------|------|------|------|------|------|
| GCH950453BX | 17½" | 16"  | 12¾" | 14½" | 16"  |
| GCH950703BX | 17½" | 16"  | 12¾" | 14½" | 16"  |
| GCH950704CX | 21"  | 19½" | 16¾" | 18"  | 19½" |
| GCH950904CX | 21"  | 19½" | 16¾" | 18"  | 19½" |
| GCH950905DX | 24½" | 23"  | 20¾" | 21½" | 23"  |
| GCH91155DX  | 24½" | 23"  | 20¾" | 21½" | 23"  |

### NOTES:

- Installer must supply one or two PVC pipes: one for combustion air (optional) and one for the flue outlet (required). Vent pipe must be either 2" or 3" in diameter, depending upon furnace input, number of elbows, length of run, and installation (1 or 2 pipes). The optional combustion air pipe is dependent on installation/code requirements and must be 2" or 3" diameter PVC.
- Line voltage wiring can enter through the right or left side of furnace. Low-voltage wiring can enter through the right or left side of furnace.
- Conversion kits for high-altitude natural gas operation are available. Contact your Goodman distributor or dealer for details.
- Installer must supply the following gas line fittings, according to which entrance is used:  
Left: One 90° street elbow; one 2½" pipe nipple; one 90° elbow; straight pipe; one ground joint union  
Right: Straight pipe to reach gas valve
- Installations using a bottom return: Failure to unfold duct flanges will reduce airflow area by approximately 18%. This could result in performance and noise issues.

## MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS

| POSITION   | SIDES | REAR | FRONT | BOTTOM | FLUE | TOP |
|------------|-------|------|-------|--------|------|-----|
| Downflow   | 0"    | 0"   | 1"    | NC     | 0"   | 1"  |
| Horizontal | 6"    | 0"   | 1"    | C      | 0"   | 4"  |

C = Combustible: If placed on combustible floor, the floor MUST be wood ONLY.

NC = Non-Combustible: A combustible floor sub-base must be used for installation on combustible flooring

### NOTES:

- For servicing or cleaning, a 24" front clearance is recommended.
- Unit connections (electrical, flue and drain) may necessitate greater clearances than the minimum clearances listed below.
- In all cases, accessibility clearance must take precedence over clearances from the enclosure where accessibility clearances are greater.

# GMH95 AIRFLOW DATA

(CFM & TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE)

| MODEL         | MOTOR SPEED | TONS AC <sup>1</sup> | EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN) |      |       |      |       |      |       |      |       |      |       |       |       |
|---------------|-------------|----------------------|-------------------------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|-------|-------|
|               |             |                      | 0.1                                             |      | 0.2   |      | 0.3   |      | 0.4   |      | 0.5   |      | 0.6   | 0.7   | 0.8   |
|               |             |                      | CFM                                             | RISE | CFM   | RISE | CFM   | RISE | CFM   | RISE | CFM   | RISE | CFM   | CFM   | CFM   |
| GMH95 0453BXA | High        | 3                    | 1,352                                           | 29   | 1,318 | 30   | 1,260 | 31   | 1,202 | 33   | 1,128 | 35   | 1,044 | 955   | 853   |
|               | Med         | 2.5                  | 1,214                                           | 32   | 1,172 | 34   | 1,123 | 35   | 1,064 | 37   | 1,012 | 39   | 938   | 859   | 741   |
|               | Med-Lo      | 2                    | 997                                             | 40   | 994   | 40   | 960   | 41   | 923   | 43   | 884   | 45   | 817   | 741   | 611   |
|               | Low         | 1.5                  | 757                                             | 52   | 753   | 52   | 734   | 54   | 704   | 56   | 674   | 59   | 620   | 524   | 438   |
| GMH95 0703BXA | High        | 3                    | 1,449                                           | 41   | 1,409 | 42   | 1,326 | 45   | 1,273 | 47   | 1,201 | 49   | 1,194 | 1,136 | 1,018 |
|               | Med         | 2.5                  | 1,192                                           | 50   | 1,172 | 51   | 1,141 | 52   | 1,094 | 54   | 1,046 | 57   | 973   | 904   | 793   |
|               | Med-Lo      | 2                    | 981                                             | 61   | 962   | 62   | 943   | 63   | 917   | 65   | 888   | 67   | 830   | 764   | 665   |
|               | Low         | 1.5                  | 750                                             | 79   | 730   | 81   | 714   | 83   | 692   | 86   | 657   | 90   | 620   | 570   | 502   |
| GMH95 0704CXA | High        | 4                    | 2,069                                           | 29   | 1,965 | 30   | 1,871 | 32   | 1,756 | 34   | 1,661 | 36   | 1,549 | 1,415 | 1,275 |
|               | Med         | 3.5                  | 1,752                                           | 34   | 1,724 | 34   | 1,667 | 36   | 1,603 | 37   | 1,488 | 40   | 1,402 | 1,290 | 1,082 |
|               | Med-Lo      | 3                    | 1,437                                           | 41   | 1,437 | 41   | 1,417 | 42   | 1,369 | 43   | 1,320 | 45   | 1,256 | 1,140 | 984   |
|               | Low         | 2.5                  | 1,184                                           | 50   | 1,177 | 50   | 1,161 | 51   | 1,132 | 52   | 1,095 | 54   | 1,047 | 928   | 837   |
| GMH95 0904CXA | High        | 4                    | 1,970                                           | 40   | 1,874 | 42   | 1,757 | 45   | 1,667 | 48   | 1,566 | 51   | 1,431 | 1,334 | 1,182 |
|               | Med         | 3.5                  | 1,713                                           | 46   | 1,650 | 48   | 1,572 | 50   | 1,510 | 52   | 1,418 | 56   | 1,313 | 1,211 | 1,079 |
|               | Med-Lo      | 3                    | 1,439                                           | 55   | 1,412 | 56   | 1,370 | 58   | 1,327 | 60   | 1,260 | 63   | 1,166 | 1,078 | 956   |
|               | Low         | 2.5                  | 1,183                                           | 67   | 1,155 | 69   | 1,122 | 71   | 1,108 | 72   | 1,062 | 75   | 1,011 | 931   | 816   |
| GMH95 0905CXA | High        | 5                    | 2,147                                           | 37   | 2,114 | 37   | 2,057 | 39   | 2,030 | 39   | 1,978 | 40   | 1,889 | 1,784 | 1,713 |
|               | Med         | 4                    | 1,675                                           | 47   | 1,686 | 47   | 1,640 | 48   | 1,623 | 49   | 1,557 | 51   | 1,501 | 1,455 | 1,360 |
|               | Med-Lo      | 3.5                  | 1,489                                           | 53   | 1,470 | 54   | 1,436 | 55   | 1,409 | 56   | 1,361 | 58   | 1,318 | 1,243 | 1,130 |
|               | Low         | 3                    | 1,307                                           | 61   | 1,265 | 63   | 1,234 | 64   | 1,203 | 66   | 1,168 | 68   | 1,096 | 1,053 | 991   |
| GMH95 1155DXA | High        | 5                    | 2,134                                           | 46   | 2,103 | 47   | 2,029 | 48   | 1,941 | 51   | 1,906 | 51   | 1,818 | 1,733 | 1,625 |
|               | Med         | 4                    | 1,678                                           | 58   | 1,643 | 60   | 1,643 | 60   | 1,577 | 62   | 1,527 | 64   | 1,489 | 1,423 | 1,339 |
|               | Med-Lo      | 3.5                  | 1,453                                           | 68   | 1,440 | 68   | 1,426 | 69   | 1,363 | 72   | 1,349 | 73   | 1,314 | 1,253 | 1,205 |
|               | Low         | 3                    | 1,259                                           | 78   | 1,239 | 79   | 1,220 | 80   | 1,181 | 83   | 1,159 | 85   | 1,118 | 1,082 | 1,015 |

<sup>1</sup> @0.5" ESP

## NOTES:

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling & heating speed as needed.
- For most applications, about 400 CFM per ton when cooling is desirable.
- INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.
- The chart is for information only. For satisfactory operation, external static pressure should not exceed value shown on the rating plate.
- The above chart is for furnaces installed at 0-2000 feet. At higher altitudes, a properly de-rated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower.

# GCH95 AIRFLOW DATA

**(CFM & TEMPERATURE RISE VS. EXTERNAL STATIC PRESSURE)**

| MODEL        | MOTOR SPEED | TONS AC <sup>1</sup> | EXTERNAL STATIC PRESSURE, (INCHES WATER COLUMN) |      |       |      |       |      |       |      |       |      |       |       |       |
|--------------|-------------|----------------------|-------------------------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|-------|-------|
|              |             |                      | 0.1                                             |      | 0.2   |      | 0.3   |      | 0.4   |      | 0.5   |      | 0.6   | 0.7   | 0.8   |
|              |             |                      | CFM                                             | RISE | CFM   | RISE | CFM   | RISE | CFM   | RISE | CFM   | RISE | CFM   | CFM   | CFM   |
| GCH95 0453BX | High        | 3                    | 1,415                                           | 28   | 1,352 | 30   | 1,290 | 31   | 1,196 | 34   | 1,127 | 36   | 1,035 | 936   | 825   |
|              | Med         | 2.5                  | 1,221                                           | 33   | 1,178 | 34   | 1,127 | 36   | 1,073 | 38   | 1,007 | 40   | 932   | 834   | 733   |
|              | Med-Lo      | 2                    | 1,034                                           | 39   | 1,000 | 40   | 976   | 41   | 935   | 43   | 881   | 46   | 818   | 733   | 662   |
|              | Low         | 1.5                  | 860                                             | 47   | 845   | 48   | 812   | 50   | 783   | 51   | 740   | 54   | 682   | 619   | 534   |
| GCH95 0703BX | High        | 3                    | 1,431                                           | 42   | 1,368 | 44   | 1,296 | 47   | 1,228 | 49   | 1,150 | 53   | 1,055 | 962   | 860   |
|              | Med         | 2.5                  | 1,212                                           | 50   | 1,182 | 51   | 1,138 | 53   | 1,091 | 55   | 1,019 | 59   | 944   | 871   | 769   |
|              | Med-Lo      | 2                    | 1,002                                           | 60   | 978   | 62   | 956   | 63   | 921   | 66   | 878   | 69   | 825   | 738   | 647   |
|              | Low         | 1.5                  | 813                                             | 74   | 805   | 75   | 790   | 76   | 759   | 80   | 726   | 83   | 689   | 644   | 605   |
| GCH95 0704CX | High        | 4                    | 1,755                                           | 34   | 1,674 | 36   | 1,632 | 37   | 1,510 | 40   | 1,423 | 42   | 1,325 | 1,241 | 1,116 |
|              | Med         | 3.5                  | 1,656                                           | 36   | 1,585 | 38   | 1,536 | 39   | 1,429 | 42   | 1,355 | 45   | 1,268 | 1,145 | 1,059 |
|              | Med-Lo      | 3                    | 1,551                                           | 39   | 1,488 | 41   | 1,427 | 42   | 1,353 | 45   | 1,290 | 47   | 1,195 | 1,100 | 1,017 |
|              | Low         | 2.5                  | 1,286                                           | 47   | 1,258 | 48   | 1,241 | 49   | 1,185 | 51   | 1,112 | 54   | 1,067 | 983   | 886   |
| GCH95 0904CX | High        | 4                    | 1,734                                           | 46   | 1,652 | 49   | 1,578 | 51   | 1,508 | 53   | 1,413 | 57   | 1,336 | 1,248 | 1,154 |
|              | Med         | 3.5                  | 1,642                                           | 49   | 1,558 | 52   | 1,487 | 54   | 1,418 | 57   | 1,336 | 60   | 1,243 | 1,164 | 1,039 |
|              | Med-Lo      | 3                    | 1,522                                           | 53   | 1,458 | 55   | 1,396 | 58   | 1,321 | 61   | 1,253 | 64   | 1,182 | 1,101 | 986   |
|              | Low         | 2.5                  | 1,287                                           | 63   | 1,244 | 65   | 1,184 | 68   | 1,148 | 70   | 1,098 | 73   | 1,034 | 953   | 849   |
| GCH95 0905DX | High        | 5                    | 2,189                                           | 37   | 2,109 | 38   | 2,025 | 40   | 1,948 | 41   | 1,862 | 43   | 1,757 | 1,644 | 1,537 |
|              | Med         | 4                    | 1,885                                           | 43   | 1,831 | 44   | 1,776 | 45   | 1,711 | 47   | 1,637 | 49   | 1,539 | 1,453 | 1,346 |
|              | Med-Lo      | 3.5                  | 1,665                                           | 48   | 1,627 | 50   | 1,584 | 51   | 1,524 | 53   | 1,462 | 55   | 1,400 | 1,323 | 1,220 |
|              | Low         | 3                    | 1,474                                           | 55   | 1,440 | 65   | 1,401 | 57   | 1,356 | 59   | 1,310 | 61   | 1,255 | 1,193 | 1,109 |
| GCH93 1155DX | High        | 5                    | 2,134                                           | 46   | 2,103 | 47   | 2,029 | 48   | 1,941 | 51   | 1,906 | 51   | 1,818 | 1,733 | 1,625 |
|              | Med         | 4                    | 1,678                                           | 58   | 1,643 | 60   | 1,643 | 60   | 1,577 | 62   | 1,527 | 64   | 1,489 | 1,423 | 1,339 |
|              | Med-Lo      | 3.5                  | 1,453                                           | 68   | 1,440 | 68   | 1,426 | 69   | 1,363 | 72   | 1,349 | 73   | 1,314 | 1,253 | 1,205 |
|              | Low         | 3                    | 1,259                                           | 78   | 1,239 | 79   | 1,220 | 80   | 1,181 | 83   | 1,159 | 85   | 1,118 | 1,082 | 1,015 |

<sup>1</sup> @0.5" ESP

**NOTES:**

- CFM in chart is without filter(s). Filters do not ship with this furnace, but must be provided by the installer.
- All furnaces ship as high-speed cooling and medium-speed heating. Installer must adjust blower cooling & heating speed as needed.
- For most applications, about 400 CFM per ton when cooling is desirable.
- INSTALLATION IS TO BE ADJUSTED TO OBTAIN TEMPERATURE RISE WITHIN THE RANGE SPECIFIED ON THE RATING PLATE.
- The chart is for information only. For satisfactory operation, external static pressure should not exceed value shown on the rating plate.
- The above chart is for furnaces installed at 0-2000 feet. At higher altitudes, a properly de-rated unit will have approximately the same temperature rise at a particular CFM, while ESP at the CFM will be lower.



**24V THERMOSTAT CONNECTIONS**

24V THERMOSTAT  
24 VAC HUMIDIFIER  
24 VAC  
115 VAC  
40 VA TRANSFORMER

**INTEGRATED CONTROL MODULE**

ON OFF  
2ND STAGE DELAY  
MODE  
HEAT OFF DELAY  
\*FACTORY SETTINGS SHOWN  
DIAGNOSTIC LED  
115 VAC HOT AND PANE TERMINALS  
COOL-H  
HEAT-H  
LMB-H

**BLOWER COMPARTMENT**

CIRCULATOR BLOWER  
CAPACITOR

**BURNER COMPARTMENT**

INDUCED DRAFT BLOWER  
AUTO RESET PRIMARY LIMIT CONTROL

**MANUAL RESET ROLLOUT LIMIT CONTROL(S)**  
(1) IN UPFLOW BLOWER DECK  
(2) IN CFLOW BLOWER HOUSING

**FRONT COVER PRESSURE SWITCH**

**GAS VALVE (MONEY WELL)**

**INTEGRATED CONTROL MODULE**

TR (8)  
GND (9)  
MVC (9)  
MVL (12)  
MVL (2)  
PB (10)  
PBC (4)  
HLI (7)  
HLO (1)  
ROZ (11)  
RO1 (9)  
TH (3)

**24V TRANSFORMER**

**40V TRANSFORMER**

**INTEGRATED CONTROL MODULE**

XFMR-H  
FLAME SENSOR  
HOT SURFACE IGNITER  
IGN  
IND  
LO HEAT-H  
COOL-H  
H HEAT-H  
EACH-H  
LMB-H

**INTEGRATED CONTROL MODULE**

DOOR SWITCH  
JUNCTION BOX  
DISCONNECT

**WARNING: DISCONNECT POWER BEFORE SERVICING. WIRING TO UNIT MUST BE PROPERLY POLARIZED AND GROUNDED.**

**TO 115VAC/1 Ø 60 HZ POWER SUPPLY WITH OVERCURRENT PROTECTION DEVICE**

**WARNING: DISCONNECT POWER BEFORE SERVICING. WIRING TO UNIT MUST BE PROPERLY POLARIZED AND GROUNDED.**

**JUNCTION BOX**

**FLAME SENSOR**

**LEGEND**

LOW VOLTAGE (24V) ———  
LOW VOLTAGE FIELD - - -  
HI VOLTAGE (115V) ———  
HI VOLTAGE FIELD - - -  
JUNCTION ●  
TERMINAL ○  
INTERNAL TO INTEGRATED CONTROL ———  
PLUG CONNECTION □

**EQUIPMENT GND** ———  
**FIELD GND** ———  
**FIELD SPICE** ———  
**SWITCH (TEMP.)** ———  
**IGNITER** ———  
**SWITCH (PRESS.)** ———  
**OVERCURRENT PROT. DEVICE** ———

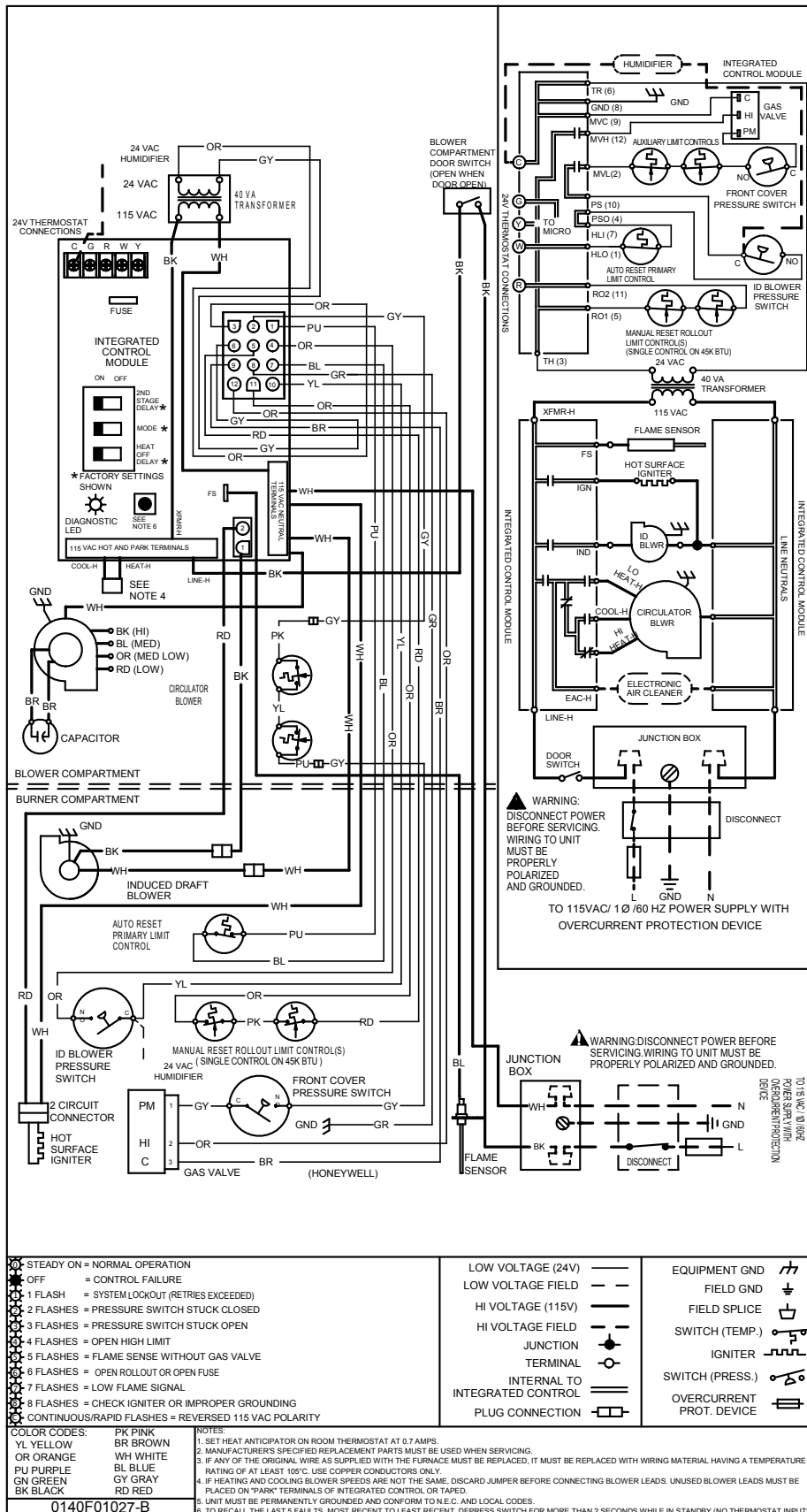
**COLOR CODES:**  
YL YELLOW  
OR ORANGE  
PU PURPLE  
GN GREEN  
BK BLACK

**PK PINK**  
**BR BROWN**  
**WH WHITE**  
**BL BLUE**  
**GY GRAY**  
**RD RED**

**NOTES:**  
1. SET HEAT ANTICIPATOR ON ROOM THERMOSTAT AT 0.7 AMPS.  
2. MANUFACTURER'S SPECIFIED REPLACEMENT PARTS MUST BE USED WHEN SERVICING.  
3. IF ANY OF THE ORIGINAL WIRE AS SUPPLIED WITH THE FURNACE MUST BE REPLACED, IT MUST BE REPLACED WITH WIRING MATERIAL HAVING A TEMPERATURE RATING OF AT LEAST 105 °C. USE COPPER CONDUCTORS ONLY.  
4. IF HEATING AND COOLING BLOWER SPEEDS ARE NOT THE SAME, DISCARD JUMPER BEFORE CONNECTING BLOWER LEADS. UNUSED BLOWER LEADS MUST BE PLACED ON "PANE" TERMINALS OF INTEGRATED CONTROL OR TAPE D.  
5. UNIT MUST BE PERMANENTLY GROUNDED AND CONFORM TO N.E.C. AND LOCAL CODES.  
6. TO RECALL THE LAST 8 FAULTS, MOST RECENT TO LEAST RECENT, DEPRESS SWITCH FOR MORE THAN 2 SECONDS WHILE IN READY AND THERMOSTAT MODES.

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

# WIRING DIAGRAM — GCH95 / GMH950905C



**High Voltage:** Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury, or death.

**WARNING**

Wiring is subject to change. Always refer to the wiring diagram or the unit for the most up-to-date wiring.

## ACCESSORIES — GMH95

| ACCESSORY   | DESCRIPTION                                  | GMH95<br>0453BXA | GMH95<br>0703BXA | GMH95<br>0704CXA | GMH95<br>0904CXA | GMH95<br>0905CXA | GMH95<br>1155DXA |
|-------------|----------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| LPM-06      | LP Conversion Kit (Springs & Orifice)*       | ✓                | ✓                | ✓                | ✓                | ✓                | ✓                |
| LPLP03      | LP Gas Low-Pressure Kit                      | ✓                | ✓                | ✓                | ✓                | ✓                | ✓                |
| GSAS        | Electronic Air Cleaners (-10, -11, -12, -18) | ✓                | ✓                | ✓                | ✓                | ✓                | ✓                |
| GMU         | Media Air Cleaners (1620, 2020, 1625, 2025)  | ✓                | ✓                | ✓                | ✓                | ✓                | ✓                |
| HANG11      | High Altitude Natural Gas Kit                | 1                | 1                | 1                | 1                | 1                | 1                |
| HANG12      | High Altitude Natural Gas Kit                | 2                | 2                | 2                | 2                | 2                | 2                |
| HALP10      | High Altitude LP Gas Kit                     | 3                | 3                | 3                | 3                | 3                | 3                |
| HAPS27      | High Altitude Pressure Switch Kit            | 3                | 3                | 3                | 3                | 3                | 3                |
| FTK04       | Twinning Kit                                 | ✓                | ✓                | ✓                | ✓                | ✓                | ✓                |
| EFR01       | External Filter Rack                         | ✓                | ✓                | ✓                | ✓                | ✓                | ✓                |
| DCVK-20     | Horizontal/Vertical Concentric Vent Kit (2") | ✓                | ✓                | ---              | ---              | ---              | ---              |
| DCVK-30     | Horizontal/Vertical Concentric Vent Kit (3") | ✓                | ✓                | ✓                | ✓                | ✓                | ✓                |
| 0170K00000S | Flush-mount Vent Kit                         | ✓                | ✓                | ✓                | ✓                | ✓                | ✓                |

\* White-Rodgers and Honeywell valves

✓ Indicates accessories available for this model

1 Indicates 7,001' to 9,000' altitude

2 Indicates 9,001' to 11,000' altitude

3 Indicates 7,001' to 11,000' altitude

### NOTES

- All installations above 7,000' require a pressure switch change. For installation in Canada, furnaces are certified only to 4,500'.
- Downflow Floor base: When the GCH9 model is installed directly on a wood floor, a downflow floor base must be used. Those model numbers are: CFB17, CFB21 and CFB24.

## ACCESSORIES — GCH95

| ACCESSORY   | DESCRIPTION                                  | GCH95<br>0453BXA | GCH95<br>0703BXA | GCH95<br>0704CXA | GCH95<br>0904CXA | GCH95<br>0905CXA | GCH9<br>1155DXA |
|-------------|----------------------------------------------|------------------|------------------|------------------|------------------|------------------|-----------------|
| LPM-06      | LP Conversion Kit (Springs & Orifice)*       | ✓                | ✓                | ✓                | ✓                | ✓                | ✓               |
| LPLP03      | LP Gas Low-Pressure Kit                      |                  |                  |                  |                  |                  | ✓               |
| GSAS        | Electronic Air Cleaners (-10, -11, -12, -18) | ✓                | ✓                | ✓                | ✓                | ✓                | ✓               |
| GMU         | Media Air Cleaners (1620, 2020, 1625, 2025)  | ✓                | ✓                | ✓                | ✓                | ✓                | ✓               |
| HANG11      | High Altitude Natural Gas Kit                | 1                | 1                | 1                | 1                | 1                | 1               |
| HANG12      | High Altitude Natural Gas Kit                | 2                | 2                | 2                | 2                | 2                | 2               |
| HALP10      | High Altitude LP Gas Kit                     | 3                | 3                | 3                | 3                | 3                | 3               |
| HAPS27      | High Altitude Pressure Switch Kit            | 3                | 3                | 3                | 3                | 3                | 3               |
| EFR01       | External Filter Rack                         | ✓                | ✓                | ✓                | ✓                | ✓                | ✓               |
| DCVK-20     | Horizontal/Vertical Concentric Vent Kit (2") | ✓                | ✓                | ---              | ---              | ---              | ---             |
| DCVK-30     | Horizontal/Vertical Concentric Vent Kit (3") | ✓                | ✓                | ✓                | ✓                | ✓                | ✓               |
| 0170K00000S | Flush-mount Vent Kit                         | ✓                | ✓                | ✓                | ✓                | ✓                | ✓               |

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✓ Indicates accessories available for this model

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