



**Basic
Technical Information
For
2006 Chigo
Mini splits**

CHIGO USA WEST COAST

TEL : 1-877-CHIGO NA x 1

CHIGO USA EAST COAST

TEL : 1-877-CHIGO NA x 2

WEB : www.chigousa.com



QCIC-09A Cooling Only Mini Split

Indoor Unit : **QCIC-09A**

Outdoor Unit : **QCOH-09A**

Power

| | |
|---------------------|---------------------|
| Power Voltage : | 115V – 1 Ph – 60 Hz |
| Control Voltage : | 115V – 1 Ph – 60 Hz |
| Main Breaker Size : | 15 A |

Line Sizes :

| | |
|------------------------------|------|
| “Liquid” (expanded gas) line | ¼” |
| Suction | 1/2” |

BOTH LINES MUST BE INSULATED SEPARATELY

Interconnect Length

| | |
|----------------|---------|
| Maximum Length | 45 feet |
| Vertical lift | 20 feet |

Note condenser can be above or below evaporator)

Charging

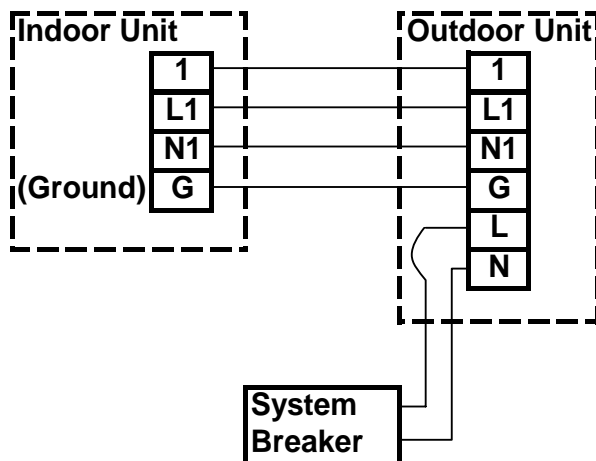
| | |
|----------------------------|---------------------|
| Unit is charged for | 25 ft |
| Additional Charge of R410A | 0.3 oz/ft over 25ft |

Charge for Line Run lengths

| | | | | | |
|-------------------------|----|-----|-----|-----|-----|
| Length | 25 | 30 | 35 | 40 | 45 |
| Added R410A Charge (oz) | 0 | 1.5 | 3.0 | 4.5 | 6.0 |

Field Interconnecting Wiring

| | |
|---------------------------------|---|
| Gauge | 14 AWG Power & Control |
| Number of Interconnecting Wires | 3x14 AWG Power & 1x14 AWG Control = 4 Total |





QCIH-09A Heat Pump Mini Split

Indoor Unit : **QCIH-09A**

Outdoor Unit : **QCOH-09A**

Power

| | |
|---------------------|---------------------|
| Power Voltage : | 115V – 1 Ph – 60 Hz |
| Control Voltage : | 115V – 1 Ph – 60 Hz |
| Main Breaker Size : | 15 A |

Line Sizes :

| | |
|------------------------------|------|
| “Liquid” (expanded gas) line | 1/4” |
| Suction | 1/2” |

BOTH LINES MUST BE INSULATED SEPARATELY

Interconnect Length

| | |
|----------------|---------|
| Maximum Length | 45 feet |
| Vertical lift | 20 feet |

Note condenser can be above or below evaporator)

Charging

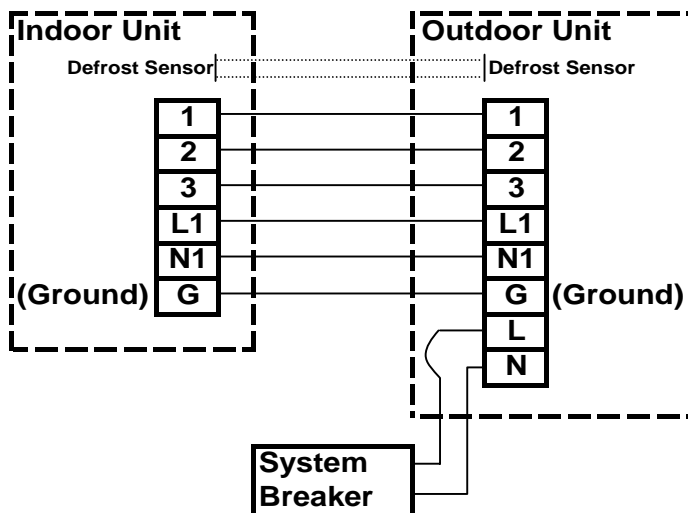
| | |
|----------------------------|---------------------|
| Unit is charged for | 25 ft |
| Additional Charge of R410A | 0.3 oz/ft over 25ft |

Charge for Line Run lengths

| | | | | | |
|-------------------------|----|-----|-----|-----|-----|
| Length | 25 | 30 | 35 | 40 | 45 |
| Added R410A Charge (oz) | 0 | 1.5 | 3.0 | 4.5 | 6.0 |

Field Interconnecting Wiring

| | |
|---------------------------------|---|
| Gauge | 14 AWG Power & Control |
| Number of Interconnecting Wires | 3x14 AWG Power & 3x14 AWG Control = 6 field installed plus the 2 Wire Defrost Sensor (factory provided) which must be connected |





QCIC-12A Cooling Only Mini Split

Indoor Unit : **QCIC-12A**

Outdoor Unit : **QCOH-12A**

Power

| | |
|---------------------|---------------------|
| Power Voltage : | 115V – 1 Ph – 60 Hz |
| Control Voltage : | 115V – 1 Ph – 60 Hz |
| Main Breaker Size : | 15 A |

Line Sizes :

| | |
|------------------------------|----|
| “Liquid” (expanded gas) line | ¼” |
| Suction | ½” |

BOTH LINES MUST BE INSULATED SEPARATELY

Interconnect Length

| | |
|----------------|---------|
| Maximum Length | 45 feet |
| Vertical lift | 20 feet |

Note condenser can be above or below evaporator)

Charging

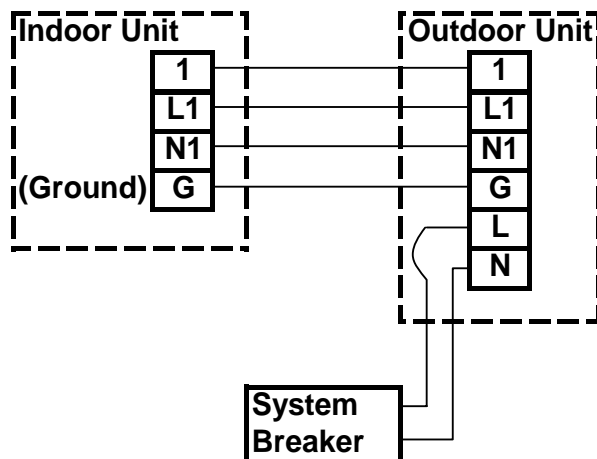
| | |
|----------------------------|---------------------|
| Unit is charged for | 25 ft |
| Additional Charge of R410A | 0.3 oz/ft over 25ft |

Charge for Line Run lengths

| | | | | | |
|-------------------------|----|-----|-----|-----|-----|
| Length | 25 | 30 | 35 | 40 | 45 |
| Added R410A Charge (oz) | 0 | 1.5 | 3.0 | 4.5 | 6.0 |

Field Interconnecting Wiring

| | |
|---------------------------------|---|
| Gauge | 14 AWG Power & Control |
| Number of Interconnecting Wires | 3x14 AWG Power & 1x14 AWG Control = 4 Total |





QCIH-12A Heat Pump Mini Split

Indoor Unit : **QCIH-12A**

Outdoor Unit : **QCOH-12A**

Power

| | |
|---------------------|---------------------|
| Power Voltage : | 115V – 1 Ph – 60 Hz |
| Control Voltage : | 115V – 1 Ph – 60 Hz |
| Main Breaker Size : | 15 A |

Line Sizes :

| | |
|------------------------------|------|
| “Liquid” (expanded gas) line | 1/4” |
| Suction | 1/2” |

BOTH LINES MUST BE INSULATED SEPARATELY

Interconnect Length

| | |
|----------------|---------|
| Maximum Length | 45 feet |
| Vertical lift | 20 feet |

Note condenser can be above or below evaporator)

Charging

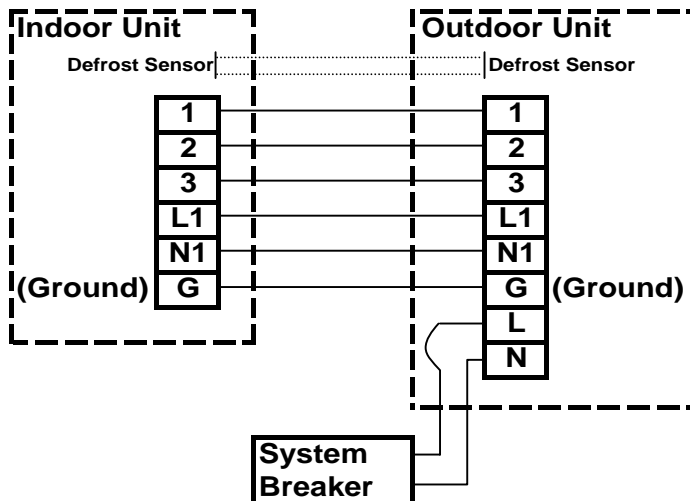
| | |
|----------------------------|---------------------|
| Unit is charged for | 25 ft |
| Additional Charge of R410A | 0.3 oz/ft over 25ft |

Charge for Line Run lengths

| | | | | | |
|-------------------------|----|-----|-----|-----|-----|
| Length | 25 | 30 | 35 | 40 | 45 |
| Added R410A Charge (oz) | 0 | 1.5 | 3.0 | 4.5 | 6.0 |

Field Interconnecting Wiring

| | |
|---------------------------------|---|
| Gauge | 14 AWG Power & Control |
| Number of Interconnecting Wires | 3x14 AWG Power & 3x14 AWG Control = 6 field installed plus the 2 Wire Defrost Sensor (factory provided) which must be connected |





QCIC-18A Cooling Only Mini Split

Indoor Unit : **QCIC-18A**

Outdoor Unit : **QCOH-18A**

Power

| | |
|---------------------|-------------------------|
| Power Voltage : | 208/230V – 1 Ph – 60 Hz |
| Control Voltage : | 208/230V – 1 Ph – 60 Hz |
| Main Breaker Size : | 15 A |

Line Sizes :

| | |
|------------------------------|------|
| “Liquid” (expanded gas) line | 3/8” |
| Suction | 5/8” |

BOTH LINES MUST BE INSULATED SEPARATELY

Interconnect Length

| | |
|----------------|---------|
| Maximum Length | 45 feet |
| Vertical lift | 20 feet |

Note condenser can be above or below evaporator)

Charging

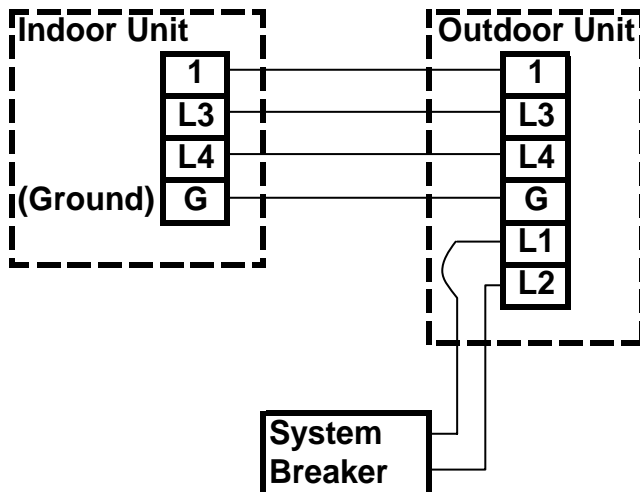
| | |
|----------------------------|---------------------|
| Unit is charged for | 25 ft |
| Additional Charge of R410A | 0.5 oz/ft over 25ft |

Charge for Line Run lengths

| | | | | | |
|-------------------------|----|-----|-----|-----|------|
| Length | 25 | 30 | 35 | 40 | 45 |
| Added R410A Charge (oz) | 0 | 2.5 | 5.0 | 7.5 | 10.0 |

Field Interconnecting Wiring

| | |
|---------------------------------|---|
| Gauge | 14 AWG Power & Control |
| Number of Interconnecting Wires | 3x14 AWG Power & 1x14 AWG Control = 4 Total |





QCIH-18A Heat Pump Mini Split

Indoor Unit : **QCIH-18A**

Outdoor Unit : **QCOH-18A**

Power

| | |
|---------------------|-------------------------|
| Power Voltage : | 208/230V – 1 Ph – 60 Hz |
| Control Voltage : | 208/230V – 1 Ph – 60 Hz |
| Main Breaker Size : | 15 A |

Line Sizes :

| | |
|------------------------------|------|
| “Liquid” (expanded gas) line | 3/8” |
| Suction | 5/8” |

BOTH LINES MUST BE INSULATED SEPARATELY

Interconnect Length

| | |
|----------------|---------|
| Maximum Length | 45 feet |
| Vertical lift | 20 feet |

Note condenser can be above or below evaporator)

Charging

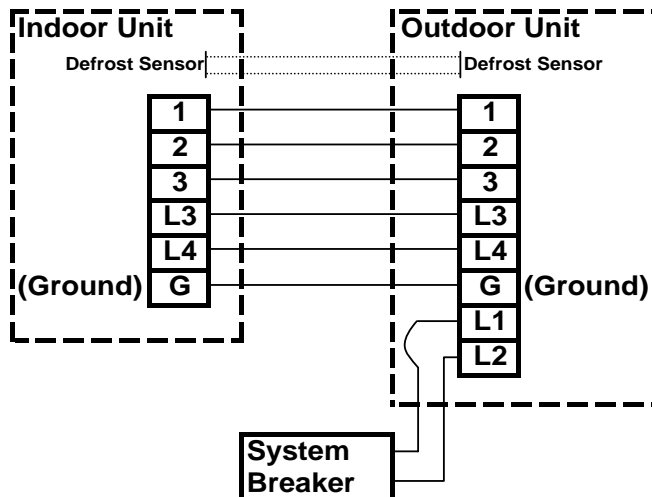
| | |
|----------------------------|---------------------|
| Unit is charged for | 25 ft |
| Additional Charge of R410A | 0.5 oz/ft over 25ft |

Charge for Line Run lengths

| | | | | | |
|-------------------|----|-----|-----|-----|------|
| Length | 25 | 30 | 35 | 40 | 45 |
| Added Charge (oz) | 0 | 2.5 | 5.0 | 7.5 | 10.0 |

Field Interconnecting Wiring

| | |
|---------------------------------|---|
| Gauge | 14 AWG Power & Control |
| Number of Interconnecting Wires | 3x14 AWG Power & 3x14 AWG Control = 6 field installed plus the 2 Wire Defrost Sensor (factory provided) which must be connected |





QCIC-24A Cooling Only Mini Split

Indoor Unit : **QCIC-24A**

Outdoor Unit : **QCOH-24A**

Power

| | |
|---------------------|-------------------------|
| Power Voltage : | 208/230V – 1 Ph – 60 Hz |
| Control Voltage : | 208/230V – 1 Ph – 60 Hz |
| Main Breaker Size : | 20 A |

Line Sizes :

| | |
|------------------------------|------|
| “Liquid” (expanded gas) line | 3/8” |
| Suction | 5/8” |

BOTH LINES MUST BE INSULATED SEPARATELY

Interconnect Length

| | |
|----------------|---------|
| Maximum Length | 45 feet |
| Vertical lift | 20 feet |

Note condenser can be above or below evaporator)

Charging

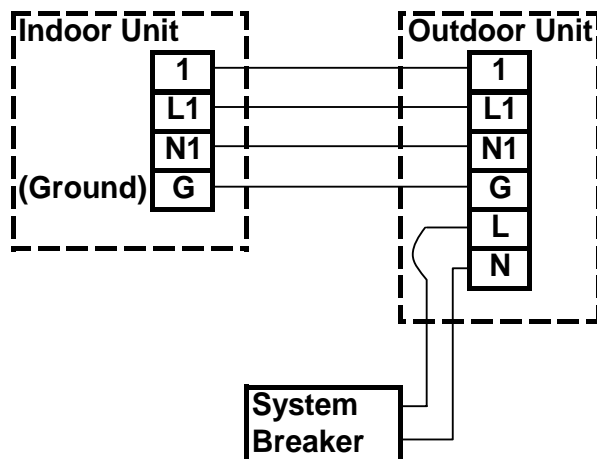
| | |
|----------------------------|---------------------|
| Unit is charged for | 25 ft |
| Additional Charge of R410A | 0.5 oz/ft over 25ft |

Charge for Line Run lengths

| | | | | | |
|-------------------------|----|-----|-----|-----|------|
| Length | 25 | 30 | 35 | 40 | 45 |
| Added R410A Charge (oz) | 0 | 2.5 | 5.0 | 7.5 | 10.0 |

Field Interconnecting Wiring

| | |
|---------------------------------|---|
| Gauge | 14 AWG Power & Control |
| Number of Interconnecting Wires | 3x14 AWG Power & 1x14 AWG Control = 4 Total |





QCIH-24A Heat Pump Mini Split

Indoor Unit : **QCIH-24A**

Outdoor Unit : **QCOH-24A**

Power

| | |
|---------------------|-------------------------|
| Power Voltage : | 208/230V – 1 Ph – 60 Hz |
| Control Voltage : | 208/230V – 1 Ph – 60 Hz |
| Main Breaker Size : | 20 A |

Line Sizes :

| | |
|------------------------------|------|
| “Liquid” (expanded gas) line | 3/8” |
| Suction | 5/8” |

BOTH LINES MUST BE INSULATED SEPARATELY

Interconnect Length

| | |
|----------------|---------|
| Maximum Length | 45 feet |
| Vertical lift | 20 feet |

Note condenser can be above or below evaporator)

Charging

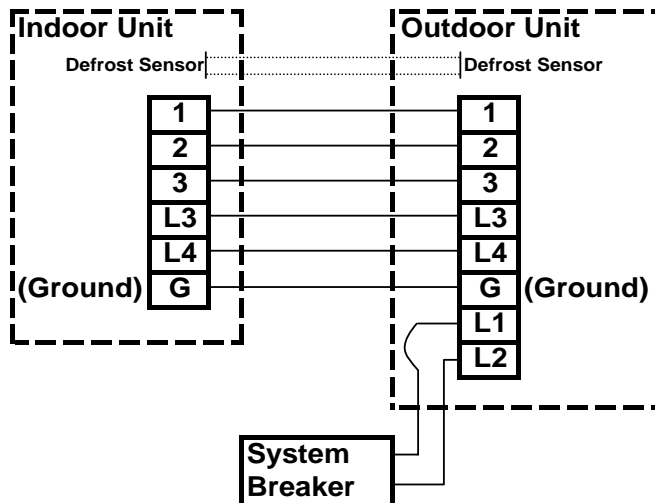
| | |
|----------------------------|---------------------|
| Unit is charged for | 25 ft |
| Additional Charge of R410A | 0.5 oz/ft over 25ft |

Charge for Line Run lengths

| | | | | | |
|-------------------------|----|-----|-----|-----|------|
| Length | 25 | 30 | 35 | 40 | 45 |
| Added R410A Charge (oz) | 0 | 2.5 | 5.0 | 7.5 | 10.0 |

Field Interconnecting Wiring

| | |
|----------------------------|---|
| Gauge | 14 AWG Power & Control |
| # of Interconnecting Wires | 3x14 AWG Power & 3x14 AWG Control = 6 field installed plus the 2 Wire Defrost Sensor (factory provided) which must be connected |





Basic Installation Tips

Sizing

Computer/Data Rooms : Basic sizing is 200-250 sqft per 12,000 Btu/h

Commercial/Retail : Basic sizing is 400-450 sqft per 12,000 Btu/h

Residential : Basic sizing is 550-600 sqft per 12,000 Btu/h

Low Ambient Cooling

Computer/Data Rooms and Commercial : These applications will require cooling below 65 DegF Outside temperature, therefore a low ambient kit of an ICM326H fan speed control and a crankcase heater will be required for operation down to 32DegF outdoor temperature. If operation is required below 32 DegF, down to 0 DegF then wind baffles on the condenser coil and fan outlet are required.

R410A Refrigerant

Higher pressures (close to double) than R22, but the operating temperatures are very similar to those with R22, for example

R410A A saturated suction temp of 45 DegF = Suction Pressure of 130 Psig R22
 A saturated suction temp of 45 DegF = Suction Pressure of 76 Psig

R410A uses a different oil compared to the mineral oil used with R22, this oil absorbs more moisture than mineral oil so it is very important to :

Minimize the time that the system is open to the atmosphere
Ensure that a deep vacuum is pulled on the system, 200 microns or less
Do not install any sight glasses or filter driers in the line set

The gauge connection on the Chigo units is a 5/16” male, so an adaptor, which is Quietside Part # R410A-ADPT is required to connect a standard North American set of R410A gauges to the Chigo unit.

Unit location

Indoor unit : High Wall location, minimum of 4ft from the ground. Ensure that no obstacles are directly in front of the unit for a minimum distance of 10-12ft on the QSCE/HE09 & 12 and 20-25ft on the QSCE/HE18 & 24 so that bounce back of the conditioned air is prevented.

Outdoor unit : Ensure line set runs are adhered to (do not upsize line set sizes) and clearances of 6” behind and 24” in front of the unit are maintained.



Warranty

Basic Warranty Period

5 Years Compressor

1 Year Parts

30 Day Limited Labor Policy

Parts are shipped subject to a completed warranty claim form.

Completing the Warranty Claim form is easy, the information the is required is as follows :

What do you want to do? : Credit for a part or do you require a replacement part

For credit Chigo USA requires the original purchase order information

HVAC Distributor Information : This must be filled out – this allows tracking of the unit and of the warranty, so that quick service can be provided

Ship to Info : Where does the part need to be shipped?, we can ship to either the Servicing Contractor or the HVAC Distributor, but not to the End User

End User : This is the customer who has the unit installed – this is useful for our records

Servicing Contractor : This is the contractor who installed the unit, we require this information should our Warranty processing team have questions regarding the warranty or the nature of the failure. Therefore a phone number is very important, as is a name of the technician involved in this repair

Model Number : The complete model number is also very important, so that the correct part can be identified and provided, also if you require a part for the Outdoor unit, please provide the Outdoor unit model, and vice versa if the part is for an Indoor unit.

Serial Number : This is the most important piece of information, without a Serial number the unit cannot be correctly identified or the correct part selected, therefore no serial number = no action on the warranty claim form.

Installation Date : A very important date – must be provided, this will allow us to calculate (together with the Serial Number) the period of warranty remaining on the unit, or if the unit is still in warranty

30 Day Labor Policy : If the failure was inside 30 Days of Installation (Warranty Registration is required to validate) then check this box to start labor policy payment process

Explanation of Failure : What went wrong with the unit, this helps to provide the correct parts. "It doesn't work" is not a valid explanation

Freight Claim : Did the warranty occur due to a freight claim, if so fill out this section

Part Numbers : All Part Numbers are available in the Service Manuals supplied with the units – please provide if possible. Room for 3 parts is provided. Also Part numbers, and descriptions are available on our website at www.chigousa.com

Approvals : For Chigo USA use only

