



Township Archives
Township of Brick, NJ
401 Chambers Bridge Rd, Brick, NJ 08723

***This File Contains Personal Identifiable
Information of Private Citizen(s).***

Certain information contained in this file is ***Exempt from Release*** under the Open Public Records Act (OPRA) (Public Law 2001, CHAPTER 404 (N.J.S.A. 47:1A-1 et seq.)) and Executive Orders issued by the Governor of New Jersey. The following information ***MUST*** be redacted prior to release:

- Social Security Numbers
- Drivers' License Numbers
- Unlisted Phone Numbers
- Credit Card Numbers
- Bank Account Numbers and Balances

For further information, consult with the Township Clerk, Township Archivist or Township Attorney prior to release.

A handwritten signature in black ink, appearing to read "Bryan J. Dickerson".

Bryan J. Dickerson, CA, CMR
Township Archivist

Issued: 8 January 2020

BLOCK 1385.04 LOT 13 QUALIFICATION CODE _____ ADDRESS (SITE) 548 Albermarle Rd PERMIT NO. 20-2913



CONSTRUCTION PERMIT APPLICATION

Applicant Completes: Sections I, II, III (optional), IV, VI, and VII

C-20-004060

I. IDENTIFICATION

1. Proposed Work Site at: 548 Albermarle Rd, Brick NJ 08724

2. Name of Owner in Fee: Laura Bayard
Tel: [REDACTED] e-mail: [REDACTED]
Address 548 Albermarle Rd, Brick NJ 08724
street municipality zip code

3. Ownership in Fee: Public ☐ Private ☒

4. Principal Contractor: Dash Mechanical LLC Tel. 848-241-3789
Address 613 Preston St, Brick NJ 08723 e-mail: _____

License No. OR, if new home, Builder Reg. No. 19HC00259000 Exp. Date 6/2022

Home Improvement Contractor Registration No. or Exemption Reason _____

Federal Emp. ID No. 46-5274449 FAX: _____

5. Architect or Engineer _____ Contact _____
Address _____ e-mail _____
Tel. _____ FAX: _____

6. Responsible Person in Charge once Work has Begun _____
Tel. _____ FAX: _____

V. FEE SUMMARY (for office use only)

	Update	Update
1. Building	\$ <u>150</u>	
2. Electrical		
3. Plumbing		
4. Fire Protection		
5. Elevator Devices <u>Mechanical</u>	\$ <u>200</u>	\$ <u>75</u>
6. Subtotal		
7. Less 20% for State Plan Review		
8. Subtotal		
9. State Permit Surcharge Fee	\$ <u>6</u>	\$ <u>2</u>
10. Subtotal		
11. Cert. of Occupancy		
12. Other		
13. TOTAL	\$ <u>356</u>	\$ <u>77</u>

VI. BUILDING/SITE CHARACTERISTICS

1. Number of Stories _____

2. Height of Structure _____ ft.

3. Area — Largest Floor _____ sq. ft.

4. New Building Area _____ sq. ft.

5. Volume of New Structure _____ cu. ft.

6. Max. Live Load _____

7. Max. Occupancy Load _____

8. If Industrialized Building: State Approved _____ HUD _____

9. Total Land Area Disturbed _____ sq. ft.

11. Flood Hazard Zone _____

11. Base Flood Elevation _____ ft.

12. Wetlands yes _____ no _____

(office use only)

IIa. PROPOSED WORK

- ☐ Minor Work ☐ New Building ☐ Addition ☐ Demolition
- ☐ Repair ☐ Alteration ☐ Renovation ☐ Reconstruction
- ☐ Asbestos Abat. -Subch. 8 ☐ Lead Hazard Abatement ☐ Radon Remediation ☐ Annual Permit

IIb. SUBCODES

(Check all that apply)

- ☐ Building
- ☐ Electrical
- ☐ Plumbing
- ☐ Fire Protection
- ☐ Elevator

FOR OFFICE USE ONLY (Optional)

Est. Cost	Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates	Re-viewer
		<u>11/20/20</u>					

TOTAL COST \$0

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

4. No. of dwelling units: Total Units Income-restricted

Gained, Sale _____

Gained, Rental _____

Lost, Sale _____

Lost, Rental _____

B. NON-RESIDENTIAL (primary use)

1. State Specific Use: _____

2. Use Group, Proposed: _____

3. Change in Use Group, Indicate Present: _____

C. MIXED USE -List secondary use(s): _____

D. Construct. Classification: Present _____
Proposed _____

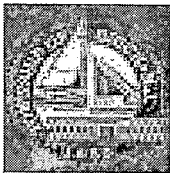
III. PLAN REVIEW (optional)

DO YOU WANT:

1. ☐ Partial Releases
2. ☐ Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. ☐ Elevators/Escalators/Lifts/
Dumbwaiters/Moving Walks
2. ☐ High Pressure Boilers
3. ☐ Pressure Vessels
4. ☐ Refrigeration Systems
5. ☐ Cross-Connections/Backflow Preventers
6. ☐ Hazardous Uses/Places of Assembly
7. ☐ Sprinklers/Standpipes
8. ☐ Smoke Control Systems in Open Wells
9. ☐ Underground Storage Tanks
10. ☐ Swimming Pools, Spas and Hot Tubs
11. ☐ LPGas Tanks
12. ☐ Fire Alarm



Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 02/23/2021
Control Number C-20-004060
Permit Number 20-2913
Permit Issue Date 12/17/2020
Certificate Number 20-2913

Certificate

Construction Code Division
(Certificate of Approval)

Identification

Work Site Location: 548 ALBERMARLE RD Brick Township, NJ Block: 1385.04 Lot: 13 Qual: _____
Owner in Fee: BAYARD, LAURA T
Owner Address: 548 ALBERMARLE RD BRICK NJ 08724
Telephone: [REDACTED]
Contractor DASH MECHANICAL LLC
Address 613 Preston Street BRICK NJ 08723
Telephone: (609) 558-6634 Fax: (732) 477-0345 Federal Emp. Number: 465274449
License Number or Builders Registration Number: _____
Home Warranty Number: _____ Type of Warranty Plan: ☐ State ☐ Private
Use Group: R-5 Construction Classification: _____
Maximum Live Load: 0 Maximum Occupancy Load: 0
Description of Work/Use: ALTERATION - RESIDENTIAL - ...REPLACE A/C & FURNACE

Certificate Comments:

☐ **Certificate of Occupancy**

This serves notice that said building or structure has been constructed in accordance with the New Jersey Uniform Construction Code and is approved for occupancy.

☒ **Certificate of Approval**

This serves notice that the work completed has been constructed or installed in accordance with the New Jersey Uniform Construction Code and is approved. If the permit was issued for minor work, this certificate was based upon what was visible at the time of inspection.

☐ **Certificate of Continued Occupancy**

This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **Temporary Certificate of Compliance**

The following conditions must be met no later than or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

☐ **Certificate of Clearance - Lead Abatement 5:17**

This serves notice that based on written certification, lead abatement was performed as per NJAC5:17 to the following extent.

- ☐ Total removal of lead-based paint hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Clearance - Asbestos Abatement**

This serves notice that based on written certification, asbestos abatement was performed to the following extent.

- ☐ Total removal of asbestos hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Compliance**

This serves notice that said potentially hazardous equipment has been installed and/or maintained in accordance with the New Jersey Uniform Construction Code and is approved for use until

☐ **Temporary Certificate of Occupancy**

The following conditions must be met no later than: or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

Daniel P. Newman Jr.

Construction Official

Date Printed: 02/23/2021

U.C.C. F260 (rev. 08/05)

Fee: \$0.00

Check Number: _____

Collected By: _____



MECHANICAL INSPECTOR TECHNICAL SECTION



Date Received
Control #

Date Issued
Permit #

12/17/20
12/17/20
20-2913

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1385.04 Lot 13 Qualification Code _____
Work Site Location 548 Albermarle Rd, Brick 08724

Owner in Fee: Laura Bayard

Tel. _____ e-mail _____

Address: 548 Albermarle Rd, Brick 08724

Contractor: Dash Mechanical LLC Tel. 848 241-3789

Address: 613 Preston St e-mail daveash22@msn.com
Brick 08723

Contractor License No. or Builder Registration No. 19HC00259000 Exp. Date 6/2022

Home Improvement Contractor Registration No. or Exemption Reason _____

Federal Emp. ID No. 46-5274449 FAX: _____

B. MECHANICAL CHARACTERISTICS

Use Group Present: R-3 or R-5

Heating System work: ☐ New OR ☐ Modification to Existing OR ☐ Conversion OR ☐ Replacement

Type: ☐ Hydronic ☐ Hot Air

Fuel Type: ☐ Gas ☐ Oil ☐ Electric ☐ Solar ☐ Other _____

Estimated Cost of Mechanical Work \$ 3000.

JOB SUMMARY (Office Use Only)		INSPECTIONS		DATES		
PLAN REVIEW		Type:	Failure	Failure	Approval	Initial
☐ No Plans Required		Gas Piping				
☐ Mechanical Plans Approved		Appliance				
Date: _____ Approved by: _____		Chimney/Vent				
Joint Plan Review Required: _____		Oil Piping				
☐ Bldg. ☐ Elec. ☐ Plumb. ☐ Fire		Oil Tank				
☐ Elev.		LPG Tank				
SUBCODE APPROVAL for PERMIT		Hydronic Piping				
Date: _____		Fireplace				
Approved by: _____		Chimney Cert.				
SUBCODE APPROVAL for CERTIFICATE		Other <u>Final</u>				
Date: <u>1-8-20</u>						
Approved by: <u>[Signature]</u>						

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Sign here:

Print name here:

D.A.R.
David Ashenfelter

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

Replace furnace & A/C

NO.	FIXTURE/EQUIPMENT
_____	Water Heater
_____	Fuel Oil Piping Connections
_____	Gas Piping Connections
_____	Steam Boiler
_____	Hot Water Boiler
_____	Hot Air Furnace
_____	Oil Tank
_____	LPG Tank
_____	Fireplace
_____	Other <u>A/C</u>

FEE (Office Use Only)

Administrative Surcharge \$ _____
Minimum Fee \$ _____
State Permit Surcharge Fee \$ _____
TOTAL FEE \$ _____



Mechanical
PLUMBING SUBCODE
TECHNICAL SECTION



Update +A

Date Received
Control # 121317120

Date Issued
Permit # 202913-A

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1365.04 Lot 13 Qualification Code _____

Work Site Location 548 Albermarle Rd. Brick NJ 08724

Owner in Fee: Laura Bayard

Tel _____ e-m _____

Address 548 Albermarle Rd Brick NJ 08724

street municipality zip code

Contractor: Stephen Nawalik Tel. 973 513-1640

Address 19 Red Bank Ln. Wilford, NJ 07460 e-mail _____

Contractor License No. NJIMPL #12818 Exp. Date 6/21

Home Improvement Contractor Registration No. or Exemption Reason _____

Federal Emp. ID No. _____ FAX: _____

B. PLUMBING CHARACTERISTICS

Use Group Present _____ Proposed _____

Building Sewer Size _____ Public Sewer _____ Private Septic _____

Water Service Size _____ Public Water _____ Private Well _____

Est. Cost of Plumbing Work \$ 1000

JOB SUMMARY (Office Use Only)						
PLAN REVIEW		INSPECTIONS				
		Dates (Month/Day)				
		Type	Failure	Failure	Approval	Initial
☐ No Plans Required		Slab				
☐ Partial - Underslab Utilities Approved		Rough				
Date: _____ Approved by: _____		Water				
☐ Plumbing Plans Approved		Sewer				
Date: _____ Approved by: _____		Fixtures				
Joint Plan Review Required:		Gas Equipment				
☐ Bldg. ☐ Elec. ☐ Fire ☐ Elev.		Gas Piping				
SUBCODE APPROVAL for PERMIT		LP Gas Tank				
Date: _____ Approved by: _____		Fuel Oil Piping				
SUBCODE APPROVAL for CERTIFICATE		Solar				
☐ CO ☐ CCO ☒ CA		TCO				
Date: <u>1-8-21</u>		Final				<u>1-7-21</u>
Approved by: _____						

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here: _____

Print name here: Stephen A. Nawalik

☒ Licensed Contractor

☐ Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK

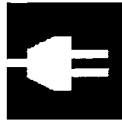
Repl. furnace + A/C Upgrade water heater

QTY.	FIXTURE/EQUIPMENT	FEE (Office Use Only)
_____	Water Closet	\$ _____
_____	Urinal/Bidet	\$ _____
_____	Bath Tub	\$ _____
_____	Lavatory	\$ _____
_____	Shower	\$ _____
_____	Floor Drain	\$ _____
_____	Sink	\$ _____
_____	Dishwasher	\$ _____
_____	Drinking Fountain	\$ _____
_____	Washing Machine	\$ _____
_____	Hose Bibb	\$ _____
_____	Water Heater	\$ _____
_____	Fuel Oil Piping	\$ _____
_____	Gas Piping	\$ _____
_____	LP Gas Tank	\$ _____
_____	Steam Boiler	\$ _____
_____	Hot Water Boiler	\$ _____
_____	Sewer Pump	\$ _____
_____	Interceptor/Separator	\$ _____
_____	Backflow Preventer	\$ _____
_____	Greasetrap	\$ _____
_____	Sewer Connection	\$ _____
_____	Water Service Connection	\$ _____
_____	Stacks	\$ _____
_____	Other	\$ _____

Administrative Surcharge \$ _____
Minimum Fee \$ _____
State Permit Surcharge Fee \$ _____
TOTAL FEE \$ _____



ELECTRICAL SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1355.04 Lot 13 Qualification Code _____
Work Site Location 548 Albermarle Rd, Brick 08724

Owner in Fee: Laura Bavard
Tel: _____ e-mail: _____

Address 548 Albermarle Rd Brick 08724

Contractor: Dash Mechanical LLC Tel. 848 241-3789

Address 613 Preston St e-mail dave.ash22@msn.com
Brick NJ 08723

Contractor License No. 19HC00259000 Exp. Date 6/2022

Home Improvement Contractor Registration No. or Exemption Reason _____

Federal Emp. ID No. 46-5274449 FAX: _____

B. ELECTRICAL CHARACTERISTICS

Use Group Present _____ Proposed _____

[] Pole/Pad # _____ [] Temporary [] Other _____

Building Occupied as _____ Utility Co. _____

Est. Cost of Elec. Work \$ 200

JOB SUMMARY (Office Use Only)		INSPECTIONS		Dates (Month/Day)	
PLAN REVIEW		Type:	Failure	Failure	Approval
[] No Plans Required		Rough			
[] Partial -Underslab Utilities Approved		Barrier-Free			
Date: _____ Approved by: _____		Trench			
[] Electric Plans Approved		Temp. Serv.			
Date: _____ Approved by: _____		Constr. Serv.			
Joint Plan Review Required:		TCO			
[] Bldg. [] Plumb. [] Fire. [] Elev.		Other			
SUBCODE APPROVAL for PERMIT		Service			
Date: _____		Final		<u>1-8-21</u>	<u>(Signature)</u>
Approved by: _____		Barrier-Free			
SUBCODE APPROVAL for CERTIFICATE		Temp. Cut-in-Card	Date Issued		
[] CO [] CCO [] CA		Final Cut-in-Card	Date Issued		
Date: <u>1-8-21</u>		Annual Pool Inspection			
Approved by: <u>(Signature)</u>		Date of Grounding and Bonding			
		Certification			

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here: DJR

Print name here: David Ashenfetter

[] Licensed Elec. Contractor [] Certif'd Landscape Irrigation Contr'r [] Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK:

Replace furnace & A/C

QTY.	SIZE	ITEMS	FEE (Office Use Only)
_____	_____	Lighting Fixtures	_____
_____	_____	Receptacles	_____
_____	_____	Switches	_____
_____	_____	Detectors	_____
_____	_____	Light Poles	_____
_____	_____	Motors—Fract. HP	_____
_____	_____	Emergency & Exit Lights	_____
_____	_____	Communications Points	_____
_____	_____	Alarm Devices/F.A.C. Panel	_____
_____	_____	TOTAL NUMBERS	\$ _____
_____	_____	Pool Permit/with UW Lights	_____
_____	_____	Storable Pool/Spa/Hot Tub	_____
_____	_____	KW Elec. Range/Receptacle	_____
_____	_____	KW Oven/Surface Unit	_____
_____	_____	KW Elec. Water Heater	_____
_____	_____	KW Elec. Dryer/Receptacle	_____
_____	_____	KW Dishwasher	_____
_____	_____	HP Garbage Disposal	_____
<u>1</u>	<u>2.5</u>	KW Central A/C Unit	_____
_____	_____	HP/KW Space Heater/Air Handler	_____
_____	_____	KW Baseboard Heat	_____
_____	_____	HP Motors 1/+ HP	_____
_____	_____	KW Transformer/Generator	_____
_____	_____	AMP Service	_____
_____	_____	AMP Subpanels	_____
_____	_____	AMP Motor Control Center	_____
_____	_____	KW Elec. Sign/Outline Light	_____
<u>1</u>	<u>80K</u>	<u>Furnace</u>	_____

Administrative Surcharge	\$ _____
Minimum Fee	\$ _____
State Permit Surcharge Fee	\$ _____
TOTAL FEE	\$ _____



PERMIT UPDATE

12/17/20
Date Update Issued
Control # C-20-004060+A
Permit # 20-2913+A

IDENTIFICATION Block: 1385.04 Lot: 13 Qualifier
Work Site Location: 548 ALBERMARLE RD. Brick Township, NJ Contractor DASH MECHANICAL LLC
Owner in Fee BAYARD, LAURA T Address 613 Preston Street BRICK NJ 08723
548 ALBERMARLE RD. BRICK NJ 08724 Telephone: (609) 558-6634
Telephone: [REDACTED] Lic. No. or Bldrs. Reg. No. 13VH08009000 19HC00259000
Federal Employee No. 465274449

Is hereby granted permission to perform the following work:

- ☐ BUILDING ☐ PLUMBING ☐ LEAD HAZARD ABATEMENT
☐ ELECTRICAL ☐ FIRE PROTECTION ☐ DEMOLITION
☐ ELEVATOR DEVICES ☐ ASBESTOS ABATEMENT (Subchapter 8 only) ☒ OTHER

DESCRIPTION OF WORK:

ALTERATION - RESIDENTIAL ... UPDATE +A - REPLACE WATER HEATER

Note: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$1,000

Daniel Newman Jr.
Construction Official

12/17/20
Date

U.C.C. F170
equiv (rev 1/04)

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

4 GOLD - APPLICANT

PAYMENTS (Office Use Only)

Building	\$0
Electrical	\$0
Plumbing	\$0
Fire Protection	\$0
Elevator Devices	\$0
Other	\$75.00
DCA Training Fee	\$2
CO Fee	
Other	\$0
Total	\$77
Check No.	1719
Cash	\$0
Credit	\$0
Collected By	[Signature]

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

☒ Required inspections for all subcodes for one- and two-family dwellings are as follows:

1. The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
2. Foundations and all walls up to grade level prior to back filling.
3. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and /or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
4. Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

☒ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☐ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask.

12/17/20 1:03PM 00155845960
375.00
12.00
\$77.00



CONSTRUCTION PERMIT

Date Issued
Control #
Permit #

C-20-004060

12/17/20
12/17/20
20-2413

IDENTIFICATION Block: 1385.04 Lot: 13 Qualifier
Work Site Location: 548 ALBERMARLE RD Brick Township, NJ Contractor: DASH MECHANICAL LLC
Owner in Fee: BAYARD, LAURA T Address: 613 Preston Street BRICK NJ 08723
Telephone: 548 ALBERMARLE RD BRICK NJ 08724 Telephone: (609) 558-6634
Lic. No. or Bldrs. Reg. No. 13VH08009000 19HC00259000
Federal Employee No. 465274449

Is hereby granted permission to perform the following work:

- ☐ BUILDING ☐ PLUMBING ☐ LEAD HAZARD ABATEMENT
☒ ELECTRICAL ☐ FIRE PROTECTION ☐ DEMOLITION
☐ ELEVATOR DEVICES ☐ ASBESTOS ABATEMENT (Subchapter 8 only) ☒ OTHER

DESCRIPTION OF WORK:

ALTERATION - RESIDENTIAL - REPLACE A/C & FURNACE

Note: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.
Estimated Cost of Work \$3,200

Construction Official

Date

U.C.C. F170
equiv (rev 1/04)

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

4 GOLD - APPLICANT

PAYMENTS (Office Use Only)

Building	\$0
Electrical	\$150
Plumbing	\$0
Fire Protection	\$0
Elevator Devices	\$0
Other	\$200.00
DCA Training Fee	\$6
CO Fee	
Other	\$0
Total	\$356
Check No.	7119
Cash	\$0
Credit	\$0
Collected By	BB

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

☒ Required inspections for all subcodes for one- and two-family dwellings are as follows:

- The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
- Foundations and all walls up to grade level prior to back filling.
- All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and /or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
- Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

☐ Required special inspections: The applicant by accepting the permit will be deemed to have consented to these requirements:

☒ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

☐ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask.

ELECTRIC \$150.00
MECH \$0.00
CHECK \$356.00



CHIMNEY VERIFICATION FOR REPLACEMENT OF FUEL-FIRED EQUIPMENT

BLOCK 1385.04 LOT 13 QUALIFICATION CODE _____ PERMIT # _____
WORK SITE ADDRESS 548 Albermarle Rd, Brick NJ 08724
Owner in Fee Laura Bayard
Verifying Individual Dave Ashenfetter Company Dash Mechanical LLC
Address 613 Preston St. Brick NJ 08723
Tel: (848) 241-3789 Fax: () _____

Check the Appropriate Box(es):

Type of Replacement:

- ☐ Oil to Gas Conversion
☐ Gas to Oil Conversion
☒ Gas Appliance Replacement
☐ Oil to Oil Replacement
☐ Other _____

Existing Vent/Chimney:

- ☐ "B" Label Vent
☐ "L" Label Vent
☐ Flexible Liner
☐ Power Vent/Exhauster

Size

- ☐ Chimney-Interior
☐ Chimney-Exterior
☐ Masonry Chimney-Tile Lined
☐ Masonry Chimney-Unlined
☐ Other _____

Type

Appliance 1: Furnace

Fuel Type

Oil ☒ Gas / Other: _____

BTU Rating (input/hour)

80,000 / 76,000

Appliance 2: _____ Oil / Gas / Other: _____

Appliance 3: _____ Oil / Gas / Other: _____

CHIMNEY LINER

If a chimney liner is being installed, all documentation on the liner must accompany the Permit application.

Manufacturer: _____ Model: _____ UL Listing: _____

Material of Liner: Stainless Steel _____ Aluminum _____

Size of Appliance Vent: _____ Size of Liner: _____ Height of Chimney: _____

Length of Connector: _____ Vent Connector Rise: _____

How does the appliance vent? ☐ Natural Draft ☐ Fan-assisted ☐ Other: _____

PLEASE SIGN ONE OF THE FOLLOWING VERIFICATION STATEMENTS

For Oil or Coal to Gas Conversions:

I have verified that the chimney/vent is in good repair and clear of obstruction and is substantially clean of residue from its previous use serving an oil or coal appliance. I have verified that the chimney/vent is appropriately lined and sized for the appliance(s) being installed.

Signature

Date

Oil to Oil or Gas to Gas Replacements or New/Additional Appliances:

I have verified that the existing chimney/vent is in good repair and clear of obstruction. I have verified that the existing chimney/vent is appropriately lined and sized for the appliance(s) being installed and/or remaining.

Signature

Date

Direct Vent Appliance:

I hereby verify that the appliance(s) being installed is a direct vent appliance. I further verify that the existing chimney/vent is appropriately lined and sized for any remaining appliances.

Signature

Date

Verification Not Submitted:

I choose not to submit verification. I understand that I will be required to be present for the inspection to remove and reinstall the chimney vent connector.

Signature

Date

FOR MINOR AND EMERGENCY WORK, THIS FORM MUST BE PROVIDED WITH YOUR PERMIT APPLICATION. FOR ALL OTHER WORK, THIS FORM MUST BE PRESENTED TO THE CODE OFFICIAL PRIOR TO FINAL INSPECTION.

All applicable information requested on this form must be supplied.

This form may not be submitted by a homeowner in lieu of the required inspection.

State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Board of Examiners of HVACR Contractors

HAS LICENSED

David R. Ashenfelter
613 Preston Street
Brick NJ 08723

FOR PRACTICE IN NEW JERSEY AS A(N): Master HVACR Contractor

06/10/2020 TO 06/30/2022

VALID

19HC00259000

LICENSE/REGISTRATION/CERTIFICATION #

Signature of Licensee/Registrant/Certificate Holder

ACTING DIRECTOR

New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Board of Examiners of HVACR Contractors
HAS LICENSED

David R. Ashenfelter
Master HVACR Contractor

06/10/2020 TO 06/30/2022
VALID

19HC00259000
License/Registration/Certificate #

SIGNATURE

ACTING DIRECTOR

PLEASE DETACH HERE
IF YOUR LICENSE/REGISTRATION/
CERTIFICATE ID CARD IS LOST
PLEASE NOTIFY:

Board of Examiners of HVACR Contractors
P.O. Box 47031
Newark, NJ 07101

PLEASE DETACH HERE

David R. Ashenfelter

EXPIRATION DATE 2022

YOUR LICENSE/REGISTRATION/CERTIFICATE NUMBER IS 19HC 00259000 . PLEASE USE IT IN ALL
CORRESPONDENCE TO THE DIVISION OF CONSUMER AFFAIRS. USE THIS SECTION TO REPORT ADDRESS
CHANGES. YOU ARE REQUIRED TO REPORT ANY ADDRESS CHANGES IMMEDIATELY TO THE ADDRESS NOTED
BELOW.

Board of Examiners of HVACR Contractors

P.O. Box 47031

Newark, NJ 07101

PRINT YOUR NEW ADDRESS OF RECORD BELOW.

YOUR ADDRESS OF RECORD IS THE ADDRESS THAT WILL PRINT ON
YOUR LICENSE/REGISTRATION/CERTIFICATE AND IT MAY BE MADE
AVAILABLE TO THE PUBLIC.

HOME ☐

BUSINESS ☐

TELEPHONE
INCLUDE AREA CODE

PRINT YOUR NEW MAILING ADDRESS BELOW.

YOUR MAILING ADDRESS IS THE ADDRESS THAT WILL BE USED BY
THE DIVISION OF CONSUMER AFFAIRS TO SEND YOU ALL
CORRESPONDENCE.

HOME ☐

BUSINESS ☐

TELEPHONE
INCLUDE AREA CODE

If the law governing your profession requires the current license/registration/certificate to be displayed, it should be
within reasonable proximity of your original license/registration/certificate at your principal office or place of business.



HEATING & AIR CONDITIONING



Coleman® LX Series Split System Air Conditioners

13 - 17 SEER/1.5-5 TONS



Quality is home grown



Coleman® air conditioners and heaters are adaptable to even the most punishing climates – and we prove it right here in our North American factories. We put our systems through extreme weather temperatures and corrosive environments to ensure that your system is built for the long haul. But don't just take our word for it. Take the word of those who have trusted the Coleman® name for decades.

LX Series Split System Air Conditioners



* 10-Years parts limited warranty requires online registration within 90 days of installation. Otherwise, the warranty reverts to the standard 5-Years parts limited warranty.

** 1-Year labor limited warranty requires registration within 90 days of installation.

LX Series TC3 Split System Air Conditioners 208/230-1-60

MODEL	TONS	EER	SEER	COOLING BTUH (nominal)
TC3B1821SA	1.5	11.0	13	17,500
TC3B2421SA	2.0	11.0	13	23,600
TC3B3021SA	2.5	11.0	13	29,000
TC3B3621SA	3.0	11.0	13	34,400
TC3B4221SA	3.5	11.0	13	41,000
TC3B4821SA	4.0	11.0	13	46,000
TC3B6021SA	5.0	11.0	13	55,000

LX Series TC4 Split System Air Conditioners 208/230-1-60

MODEL	TONS	EER	SEER	COOLING BTUH (nominal)
TC4B1821HA	1.5	11.7	14	18,600
TC4B2421HA	2.0	11.7	14	23,000
TC4B3021HA	2.5	11.7	14	29,400
TC4B3621HA	3.0	11.7	14	34,600
TC4B4221HA	3.5	11.7	14	40,500
TC4B4821SA	4.0	11.7	14	47,500
TC4B6021SA	5.0	11.7	14	56,000

LX Series TF4 Split System Air Conditioners 208/230-1-60

MODEL	TONS	EER	SEER	COOLING BTUH (nominal)
TF4B1821SA	1.5	11.7	14	17,800
TF4B2421SA	2.0	11.7	14	24,000
TF4B3021SA	2.5	11.7	14	29,000
TF4B3621SA	3.0	11.7	14	35,000
TF4B4221SA	3.5	11.7	14	40,000
TF4B4821SA	4.0	11.7	14	46,500
TF4B6021SA	5.0	11.7	14	56,000

LX Series TW4 Split System Air Conditioners 208/230-1-60

MODEL	TONS	EER	SEER	COOLING BTUH (nominal)
TW4B1821SA	1.5	12.2	14	18,000
TW4B2421SA	2.0	12.2	14	24,000
TW4B3021SA	2.5	12.2	14	28,800
TW4B3621SA	3.0	12.2	14	35,000
TW4B4221SA	3.5	12.2	14	40,000
TW4B4821SA	4.0	11.7	14	46,500
TW4B6021SA	5.0	11.7	14	56,000

* TW4B models meet California requirements for central split system air conditioners of 12.2 EER for capacities smaller than 45,000 Btu/hr and 11.7 EER for larger capacities.

LX Series CC7 Split System Air Conditioners 208/230-1-3-60

MODEL	TONS	EER	SEER
CC7	1.5 – 5	Up to 13.5	Up to 17



©2016 The Coleman Company, Inc., Coleman, and are registered trademarks of The Coleman Company, Inc., used under license. All rights reserved. Subject to change without notice. www.colemanac.com Form PUBL-7694-D-0416. Supersedes: PUBL-7694-C-0116. Printed in USA.



USER'S INFORMATION MANUAL

OUTDOOR SPLIT-SYSTEM AIR CONDITIONING OR HEAT PUMP MODELS: SINGLE PHASE & THREE PHASE



TABLE OF CONTENTS

CONTACT INFORMATION	1	ELECTRONIC THERMOSTAT	3
SAFETY	1	TO MAXIMIZE OPERATING EFFICIENCY	3
HOW YOUR SYSTEM WORKS	1	HEATING CONSERVATION	3
COOLING CYCLE	1	COOLING CONSERVATION	3
HEATING CYCLE (HEAT PUMPS)	1	CARE OF SYSTEM	3
SETTING THE THERMOSTAT	1	COIL CARE	3
THERMOSTATS	2	SERVICE CALLS	3
YOUR KEY TO COMFORT	2	FILTER CARE	4
COOLING ONLY	2	CLEARANCES	4
COOLING AND HEATING (HEAT PUMP)	2	PARTS INFORMATION	4
MANUAL CHANGE-OVER	2	EXTENDED WARRANTY	4
PROGRAMMABLE ELECTRONIC THERMOSTATS	2	SOME EFFICIENCY DO'S & DON'TS	4
FAN OPERATION SELECTION	2	CHARACTERISTICS OF HEAT PUMPS	4
START-UP	2	A CONSTANT HEAT	4
POWER FAILURE	3	WATER RUN-OFF	4
SYSTEM OPERATION	3	OUTDOOR COIL DEFROSTING	4
MANUAL CHANGE-OVER THERMOSTAT	3	Limited Warranty	5

CONTACT INFORMATION

- Go to website at www.york.com, then click on "Contact Us" and follow the instructions.
- Contact us by mail:

Johnson Controls Unitary Products
Consumer Relations
5005 York Drive
Norman, OK 73069

We recommend that the user read all sections of this manual and keep the manual for future reference.

WARNING

Cancer and Reproductive Harm – www.P65Warnings.ca.gov

SAFETY

WARNING

This product must be installed and serviced by a qualified installer or service agency. Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage.

HOW YOUR SYSTEM WORKS

COOLING CYCLE

If your hand is wet and you blow on it, it feels cool because some of the moisture is evaporating and becoming a vapor. This process requires heat. The heat is being taken from your hand, so your hand feels cool. That's what happens with an air conditioner. During the cooling cycle, your system will remove heat and humidity from your home and will transfer this heat to the outdoor air.

HEATING CYCLE (HEAT PUMPS)

During the heating cycle, your system will remove heat and humidity from the outdoor air and will transfer this heat to your home. This is possible because even 0 °F outdoor air contains a great deal of heat. Remember that your heat pump doesn't generate much heat, it merely transfers it from one place to another.

System Operation

Your thermostat puts full control of the comfort level in your home at your fingertips. DO NOT switch your thermostat rapidly ON and OFF or between HEAT to COOL. This could damage your equipment. Always allow at least 5 minutes between changes.

SETTING THE THERMOSTAT

CAUTION

The main power to the system must be kept ON at all times to prevent damage to the outdoor unit compressor. If necessary, the thermostat control switch should be used to turn the system OFF. Should the main power be disconnected or interrupted for 8 hours or longer, DO NOT attempt to start the system for 8 hours after the power has been restored to the outdoor unit. If heat is needed during this 8 hour period, use emergency heat.

THERMOSTATS

YOUR KEY TO COMFORT

Although thermostats may vary widely in appearance, they are all designed to perform the same basic function: to control the operation of your air conditioning or heat pump system. Regardless of size or shape, each thermostat will feature a temperature indicator; a dial, arm, or push button for selection of the desired temperature; a fan switch to choose the indoor fan operation; and a comfort switch for you to select the system mode of operation.

Only approved thermostats have been tested and are fully compatible with this equipment. *Please be aware that many different thermostats operate on batteries or "power stealing" principals. These types of thermostats can not be supported as trouble free when used with this product.*

If your system has been designed to allow both cooling and heating operation, you may have either a manual change-over type, or a programmable electronic type thermostat.

Manual change-over simply means that the comfort switch must be manually positioned every time you wish to switch from the cooling to heating or heating to cooling modes of operation.

A complete operating instruction is provided by the manufacturer for each thermostat. Familiarize yourself with its proper operation to obtain the maximum comfort with minimum energy consumption.

The computerized electronic thermostat is actually a sophisticated electronic version of a manual change-over type. This thermostat includes features which allow "set-back" temperature variations for periods of sleep, or while you are away during the day, and means energy savings for you. The thermostat also features a digital clock.

COOLING ONLY

If your air conditioning system is designed to provide cooling only (AC), with no capability for heating operation (heat pump), a two-stage cooling only thermostat, with a manual, one-position "Cool" and "Off" comfort switch is all that is required for system operation.

COOLING AND HEATING (HEAT PUMP)

If your system has been designed to allow both cooling and heating operation, you may have either a manual change-over type, or a programmable electronic type thermostat with 2-stages of cooling and 2-stages of heat.

MANUAL CHANGE-OVER

Manual change-over simply means that the comfort switch must be manually positioned every time you wish to switch from the cooling to heating or heating to cooling modes of operation.

PROGRAMMABLE ELECTRONIC THERMOSTATS

The computerized electronic thermostat is actually a sophisticated electronic version of a manual change-over type. This thermostat includes features which allow "set-back" temperature variations for periods of sleep, or while you are away during the day, and means energy savings for you. The thermostat also features a digital clock.

FAN OPERATION SELECTION

A multi-position fan switch allows you to choose the type of fan operation of the indoor fan.

AUTO

With the thermostat fan switch set to "AUTO", the fan will run intermittently as required for either heating or cooling. This position will provide the lowest operating cost. If you purchased one of our thermostats, they have an Intelligent fan mode which continually circulates the air during occupied modes or when you are at home, and can cycle the fan during unoccupied mode or during the night while you sleep to further conserve energy.

ON

CONTINUOUS FAN OPERATION: With the thermostat fan switch set to "ON", the indoor fan will not shut off. However, the cooling (AC) or heating (heat pump) systems will still operate as required by room temperatures. This provides continuous air filtering and more even temperature distribution to all conditioned spaces.

FAN ONLY OPERATION: On moderate days, usually during spring and fall, when neither heating nor cooling is required, you may want to run only the fan to ventilate, circulate and filter the air in your home or building. Set the comfort control switch to "OFF" and the fan switch to "ON". Be sure to return the switches to their original positions for normal operation.

START-UP

The maximum and minimum conditions for operation must be observed to assure a system that will give maximum performance with minimum service.

TABLE 1: Application Limitations¹

Model	Air Temperature at Outdoor Coil, °F				Air Temperature at Indoor Coil, °F			
	Min.		Max.		Min.		Max.	
	DB Cool	DB Heat	DB Cool	DB Heat	WB Cool	DB Heat	WB Cool	DB Heat
1φ All 13 SEER AC	55	—	115	—	57	—	72	—
3φ All 13 & 17 SEER AC	55	—	125	—	57	—	72	—
All 13 SEER Horizontal AC	55	—	115	—	57	—	72	—
All 14 SEER Horizontal AC	55	—	120	—	57	—	72	—
All 14 + SEER AC & HP	55	-10	125	75	57	50 ¹	72	80
All Inverter AC & HP	50	-20	125	75	57	50	72	80
All 2-Stage AC	35-54 ² 55 ³	—	125	—	57	—	72	—
All 2-Stage HP	35-54	-20	125	75	57	50	72	80

¹. Operation below this temperature is permissible for a short period of time during morning warm-up.

². With Crankcase Heater Kit.

³. Without Crankcase Heater Kit.

The comfort control switch is assumed to be in the "OFF" position. If the main power supply to the outdoor and indoor units is off, turn the appropriate disconnects to the "ON" position. Place the system into operation as follows.

1. Set temperature adjustment to the desired temperature on your thermostat.

COOLING - The higher the setting, the lower the amount of energy consumed. Federal Guidelines recommend a setting of 78 °F.

HEATING - The lower the setting, the lower the amount of energy consumed. Federal guidelines recommend a setting of 65 °F or lower.

NOTICE

If your cooling and heating temperature adjustments are separate, be sure to set both.

2. After considering "Fan Operation Selection" above, select and set the fan operation mode you desire.
3. Move the comfort control switch to the desired mode of operation (Cooling or Heating) found on your particular thermostat.

POWER FAILURE

When accidents, wind storms, etc. disrupt electrical power supply to your house, switch thermostat to "OFF" position.

SYSTEM OPERATION

MANUAL CHANGE-OVER THERMOSTAT

COOLING YOUR HOME: With the comfort control switch in the "COOL" position, the system will operate as follows: When the indoor temperature rises above the level indicated by the temperature adjustment setting, the system will start. The outdoor unit will operate and the indoor fan will circulate the cooled, filtered air. When the room temperature is lowered to the setting selected, the system will shut off.

HEATING YOUR HOME: If your system includes a heating unit and the comfort control switch is in the "HEAT" position, the system will operate as follows: When the indoor temperature drops below the level indicated by the temperature adjustment setting, the system will start. The heating system will operate and the indoor fan will circulate the filtered air. When the room temperature rises to the setting selected, the system will shut off. Whether heating or cooling, the fan will continue to operate if the fan switch was set in the "ON or Intelligent" position. The "AUTO" setting on the fan switch will allow the fan to shut off when your system does.

ELECTRONIC THERMOSTAT

The computerized electronic thermostat, when programmed, will function automatically to operate the system as follows: When the indoor temperature rises above the higher (COOL) setting, the outdoor unit will operate and the indoor fan will circulate the cooled, filtered air. When the room temperature is lowered to the selected level, the system will shut off. The indoor fan will either shut off or run continuously, depending upon your choice of fan switch setting. When the indoor temperature drops below the lower (HEAT) setting, the heating system will operate, and the indoor fan will circulate the heated, filtered air. When the indoor temperature rises to the selected setting, the system will shut off. The indoor fan will either shut off or run continuously, depending upon your choice of fan switch setting.

TO MAXIMIZE OPERATING EFFICIENCY

HEATING CONSERVATION

For the most efficient operation, keep storm windows and doors closed all year long. They not only help insulate against heat and cold, but they also keep out dirt, pollen, and noise.

Closing drapes at night, keeping fireplace dampers closed when not in use, and running exhaust fans only when necessary will help you to retain the air you have already paid to heat.

Keep lamps, televisions, or other heat producing sources away from the thermostat. The thermostat will sense this extra heat and will not be able to maintain the inside temperature to the desired comfort level.

COOLING CONSERVATION

To comfortably cool your home, your air conditioner must remove both heat and humidity. Don't turn your system off even though you will be away all day. On a hot day, your system may have to operate between 8 to 12 hours to reduce the temperature in your home to a normal comfort level.

Keep windows closed after sundown. While the outdoor temperature at night may be lower than indoors, the air is generally loaded with moisture which is soaked up by furniture, carpets, and fabrics. This moisture must be removed when you restart your system.

The hotter the outside temperature, the greater the load on your system. Therefore do not be alarmed when your system continues to run after the sun has set on a hot day. Heat is stored in your outside walls during the day and will continue to flow into your home for several hours after sunset.

Use your kitchen exhaust fan when cooking. One surface burner on "HIGH" requires one ton of cooling. Turn on your bathroom exhaust fan while showering to remove humidity. However, exhaust fans should not be run excessively. It would decrease efficiency by removing conditioned air.

You can also help your system in the summer by closing drapes or blinds and by lowering awnings on windows that get direct sunlight.

CARE OF SYSTEM

It is strongly recommended that regular periodic preventative maintenance be performed on this equipment. The person most familiar with the equipment in your H.V.A.C. system is a dealer. The dealer can ensure your maintenance program meets the conditions of the Warranty, maximize the efficiency of the equipment, and service your unit within the federally mandated guidelines with regard to unlawful discharge of refrigerants into the atmosphere.

COIL CARE

Keep the outdoor unit free of foliage, grass clippings, leaves, paper, and any other material which could restrict the proper air flow in and out of the unit. The coil may be vacuumed to remove any debris from between the fins. If the coil becomes excessively dirty, turn the main disconnect switch to "Off" and wash the coil with your garden hose. Avoid getting water into the fan motor and control box. Flush dirt from base pan after cleaning the coil.

SERVICE CALLS

There are a few instances where the user can avoid unnecessary service calls. If unit stops functioning properly check the following items before calling your servicing dealer:

1. Indoor section for dirty filter.
2. Outdoor section for leaf or debris blockage. Eliminate problem, turn off the thermostat for 10 seconds and attempt start. Wait 5 minutes. If system does not start, call your servicing dealer.

WARNING

Your system contains environmentally friendly refrigerant R-410A, which operates at high pressures. You may be in danger if you try to make an attempt to repair your unit. Please contact your local dealer.

FILTER CARE

Inspect the air filter(s) at least once a month. If they are dirty, wash reusable filters with a mild detergent per manufacturer's recommendations. Replace disposable filters with new filters. Install the clean filters with "air flow" arrow in the same direction as the air flow in your duct. Filters should be clean to assure maximum efficiency and adequate air circulation.

TABLE 2: Outdoor Unit Clearances

Model	Coil Clearance Area	Overhead Clearance	Service Panel Access	Unit to Unit Distance
All 13 SEER AC	10"	48"	18"	24"
13 & 14 SEER Horizontal AC	6"	N/A	18"	18" ¹
All 14 + SEER AC & HP	10"	48"	18"- 24" ²	24"
All Inverter AC & HP	10"	48"	18"	24"

¹. Distance is for Coil face to Coil face installations only. It is not recommended to install discharge air of one unit towards the inlet air side of another in multi-unit installations.

². Refer to installation manual for specific model details.

PARTS INFORMATION

Replacement parts are available from local contractor/dealer.

EXTENDED WARRANTY

Special warranty packages (called York Care Performance Promise) are available through your contractor. These packages reduce the potential cost of service calls following the first year of operation on your cooling (or heating/cooling) system.

SOME EFFICIENCY DO'S & DON'TS

DON'T heat or cool unused household area. Reduce supply and return air flow to a minimum in areas which are not living spaces (storage rooms, garages, basements, etc).

DON'T be a "thermostat juggler". Moving your thermostat setting will not make your system heat or cool any faster. Adjust your thermostat to a comfortable setting and leave it there.

DON'T restrict air circulation. Placing furniture, rugs, etc. in such a way that they interfere with air vents will make your system work harder to achieve a comfortable temperature level. This requires more energy, which means greater cost to you.

DON'T locate lamps or other heat-producing appliances (radios, TV's, heaters, etc.) near your thermostat. The heat from these items will give your thermostat "false information" about the temperature in the room.

DO select a comfortable thermostat setting, but keep in mind that moderation in temperature selection will save energy.

DO turn on your kitchen exhaust fan when cooking and your bathroom exhaust fan when showering. Also, make sure your clothes dryer is properly vented. If these items are neglected, an excess heat and humidity condition may be created, causing your air conditioning system to run longer.

DO set your thermostat a few degrees lower than normal several hours before entertaining a large group of people in a relatively small area. People give off a considerable amount of heat and moisture in a closed area.

CLEARANCES

The minimum clearances shown below must be maintained should any patio or yard improvements be done around the outdoor unit.

DO keep drapes and venetian blinds closed when practical. These items provide insulation against heat loss/gain.

DO contact a qualified service person to make repairs or adjustments to your system. He has been trained to perform this service.

CHARACTERISTICS OF HEAT PUMPS

A CONSTANT HEAT

Heat pumps have a noticeable cooler supply air temperature than furnaces. The common practice of over-sizing furnaces contributes to an "off-and-on again" operation with short blasts of hot supply air. The heat pump system is sized more closely to the heating needs of your home. Heat is supplied at a lower temperature over a longer period of time to provide a more constant heat, and it may give you the impression that your system "never stops running".

WATER RUN-OFF

During the heating cycle, in mild weather you may notice water running off the outdoor coil. Moisture from the air is condensed on the outside surface of the coil where it gathers and runs off. No need for alarm, your unit has not sprung a leak!

OUTDOOR COIL DEFROSTING

At certain outdoor conditions (low temperature, high humidity), frost may build up on the coil of the outdoor unit. In order to maintain heating efficiency, the system will automatically defrost itself. Steam rising from the outdoor unit is normal and is an indication of proper operation. The vapor cloud will only last for a few minutes. When the defrost cycle is completed, the system will automatically switch back to heating. Auxiliary heat is automatically energized to maintain comfort during defrost.



HEATING & AIR CONDITIONING

TECHNICAL GUIDE

FOR INSTALLATION IN ALL US REGIONS AND CANADA

LX SERIES

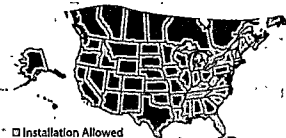
SPLIT SYSTEM

AIR CONDITIONERS

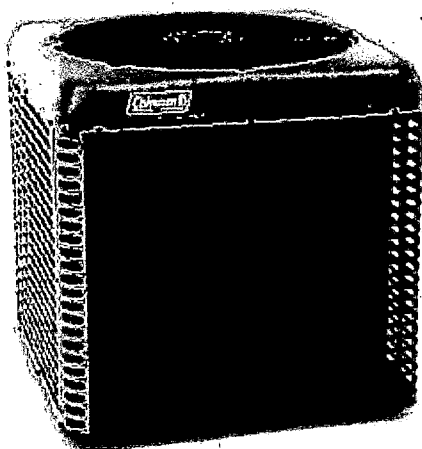
17 SEER – R-410A – 1 PHASE

1.5 THRU 5 NOMINAL TONS

MODELS: CC7B18 THRU 60



Installation Allowed



Certified Quality
Management System



Due to continuous product improvement, specifications are subject to change without notice.

Visit us on the web at

www.upgnet.com and www.colemanac.com

Additional rating information can be found at

www.ahridirectory.org

WARRANTY SUMMARY*

Extended 10-Years limited parts warranty.

Standard 10-year limited compressor warranty.

Extended 10-Years limited parts warranty requires online registration within 90 days of purchase for replacement or closing for new home construction.

*Does not apply to R-22 models, 3-Phase models, or internet sales.

See Limited Warranty certificate in User's Information Manual for details.

DESCRIPTION

The CC7B models are the newest addition to our successful LX Series split system air conditioner lineup. Optimized for tax credit and utility rebate efficiency levels, these ENERGY STAR labeled outdoor units are specifically designed to be matched with York indoor coils, furnaces, and air handlers to provide a complete system solution.

FEATURES

- **High System Efficiency** - Optimized system designs provide ENERGY STAR coil-only ratings in all tonnages. Targeted furnace and air handler matches meeting Federal Tax Credit efficiencies are available for almost all tonnages and markets.
- **Easier Installation** - Independent panels provide quick access for unit setup. Installation time is reduced by easy power and control wiring access. The factory installed filter-drier and factory charge for a 15-Ft lineset means less time spent brazing and charging the system.
- **Accessible Information** - QR code on unit provides quick access to technical documents and warranty information.
- **Durable Finish** - The coated steel wire fan guard, coated external fasteners, and pre-treated G90-equivalent galvanized steel chassis components resist corrosion and rust creep. Titanium and black colored powdercoat paint further protects external panels.
- **Quality Coils** - The high efficiency microchannel aluminum coil is manufactured using an improved material system providing reliable performance and smaller unit size.
- **Rugged Coil Protection** - Coils are protected from mechanical damage by a proven stamped steel coil guard design.
- **Protected Compressor** - Compressors are protected internally by a high pressure relief valve and a temperature sensor, and externally by the system high and low pressure switches. The liquid line filter-drier is factory installed to protect the compressor against moisture and debris.
- **Reliable Operation** - ECM ball bearing fan motors provide superior performance in extreme temperatures.
- **Environmentally Friendly** - CFC-free R-410A refrigerant delivers environmentally friendly performance with zero ozone depletion.
- **Top Discharge** - Warm air is blown up, away from the structure and any landscaping and allows compact location on multi-unit applications.
- **Low Operating Sound Levels** - Specific sound and vibration development tests provide a design sound performance of 74 dBA or lower. Swept-wing fan blades are featured on units 2.5-Tons and higher. Compatible accessories for further sound reduction are also available.
- **Better Service Access** - Diagonal base valves with open access for low-loss fittings, single panel access to the electrical controls, swing out control box for full corner access, and removable fan guard allow easy access for unit maintenance.
- **Agency Listed** - Safety certified by CSA to UL 1995 / CSA 22.2. Performance certified to ANSI/AHRI Standard 210/240 in accordance with the Unitary Small Equipment certification program.

FOR DISTRIBUTION USE ONLY - NOT TO BE USED AT POINT OF RETAIL SALE

LIST OF SECTIONS

DESCRIPTION	1
FEATURES	1
NOMENCLATURE	2
PHYSICAL AND ELECTRICAL DATA	3
DIMENSIONS	3
SYSTEM CHARGE FOR VARIOUS MATCHED SYSTEMS	4
COOLING CAPACITY - With Air Handler Coils	5
COOLING CAPACITY - Upflow, Downflow & Horizontal Furnaces and Coils (Coil Only Ratings)	9
COOLING CAPACITY - With High Efficiency Motor Furnaces ..	11
APPLICATIONS AND ACCESSORIES	39
SOUND POWER RATINGS	39
MECHANICAL SPECIFICATIONS	40
TYPICAL INSTALLATION	41
TYPICAL FIELD WIRING	42
ALTERNATIVE INSTALLATION CLEARANCES	42
PERFORMANCE DATA - 1.5 TON	43
PERFORMANCE DATA - 2 TON	46
PERFORMANCE DATA - 2.5 TON	50
PERFORMANCE DATA - 3 TON	54
PERFORMANCE DATA - 3.5 TON	59
PERFORMANCE DATA - 4 TON	63
PERFORMANCE DATA - 5 TON	67

NOMENCLATURE

BRAND	C	C = Coleman
PRODUCT TYPE	C	C = Air Conditioner (US Northern or Southeast Region)
NOMINAL SERIES EFFICIENCY AND STAGING	7	7 = 17 SEER / 1-Stage
REFRIGERANT	B	B = R-410A
NOMINAL UNIT CAPACITY (MBH)	36	18 = 1.5 Ton 42 = 3.5 Ton 24 = 2 Ton 48 = 4 Ton 30 = 2.5 Ton 60 = 5 Ton 36 = 3 Ton
VOLTAGE (Voltage-Phase-Hertz)	2	2 = 208/230-1-60
GENERATION (MAJOR REVISION)	1	1 = 1st Gen 2 = 2nd Gen etc
FACTORY OPTION	S	S = Standard (No Options)
STYLE LETTER (Minor Revision) Not Used for Ordering	A	A = Style A B = Style B

PHYSICAL AND ELECTRICAL DATA

MODEL		CC7B1821S	CC7B2421S	CC7B3021S	CC7B3621S	CC7B4221S	CC7B4821S	CC7B6021S
Unit Supply Voltage		208-230V, 1 ϕ , 60Hz						
Normal Voltage Range ¹		187 to 252						
Minimum Circuit Ampacity		14.0	16.4	18.8	22.0	23.6	25.9	32.4
Max. Overcurrent Device Amps ²		20	25	30	35	40	40	50
Min. Overcurrent Device Amps ³		15	20	20	25	25	30	35
Compressor Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Compressor	Rated Load	9.0	10.9	12.8	15.4	16.6	18.5	23.7
	Locked Rotor	47.5	62.9	67.8	83.9	109.0	124.0	152.5
Crankcase Heater		No	No	No	No	No	No	No
Factory External Discharge Muffler		No	No	No	No	No	No	No
HS Kit Required with TXV		No	No	No	No	No	No	No
Fan Diameter Inches		22	22	24	24	26	26	26
Fan Motor	Rated HP	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Rated Load Amps	2.80	2.80	2.80	2.80	2.80	2.80	2.80
	Nominal RPM	917	917	682	682	875	875	834
	Nominal CFM	2575	2575	3000	3000	4100	4100	4275
Coil	Face Area Sq. Ft.	13.83	13.83	21.06	21.06	25.28	25.28	27.40
	Rows Deep	1	1	1	1	1	1	1
	Fins / Inch	23	23	23	23	23	23	23
Liquid Line Set OD (Field Installed)		3/8	3/8	3/8	3/8	3/8	3/8	3/8
Vapor Line Set OD (Field Installed) ⁴		3/4	3/4	3/4	3/4	7/8	7/8	1-1/8 [‡]
Unit Charge (Lbs. - Oz.) ⁵		3 - 10	3 - 10	4 - 11	4 - 9	6 - 6	6 - 11	7 - 14
Charge Per Foot, Oz.		0.62	0.62	0.62	0.62	0.67	0.67	0.75
Operating Weight Lbs.		150	150	165	175	220	220	265

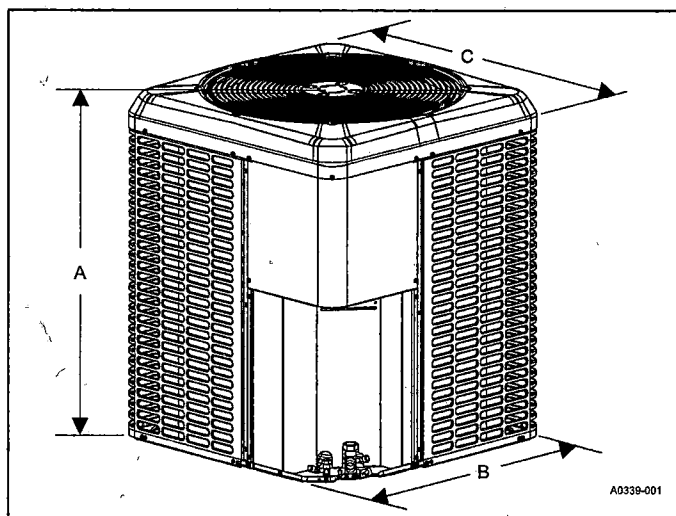
1. Rated in accordance with AHRI Standard 110-2012, utilization range "A".

2. Dual element fuses or HACR circuit breaker. Maximum allowable overcurrent protection.

3. Dual element fuses or HACR circuit breaker. Minimum recommended overcurrent protection.

4. For applications with non-standard vapor line sizes, see the "Applications & Accessories" section of this Technical Guide.

5. The Unit Charge is correct for the outdoor unit, smallest matched indoor unit, and 15 feet of refrigerant tubing. For tubing lengths other than 15 feet, add or subtract the amount of refrigerant, using the difference in actual lineset length (not the equivalent length) multiplied by the per foot value.



DIMENSIONS

Unit Model	Dimensions (Inches)			Refrigerant Connection Service Valve Size	
	A	B	C	Liquid	Vapor
CC7B1821S	30	29-1/4	29-1/4	3/8	3/4
CC7B2421S	30	29-1/4	29-1/4		
CC7B3021S	36-1/4	35-1/4	31-3/4		
CC7B3621S	36-1/4	35-1/4	31-3/4		
CC7B4221S	39-1/2	38	34-1/4	7/8	7/8
CC7B4821S	39-1/2	38	34-1/4		
CC7B6021S	42-3/4	38	34-1/4		

‡ Adapter fitting must be field installed for the required 1-1/8" line set.

All dimensions are in inches and are subject to change without notice.

Overall height is from bottom of base pan to top of fan guard.

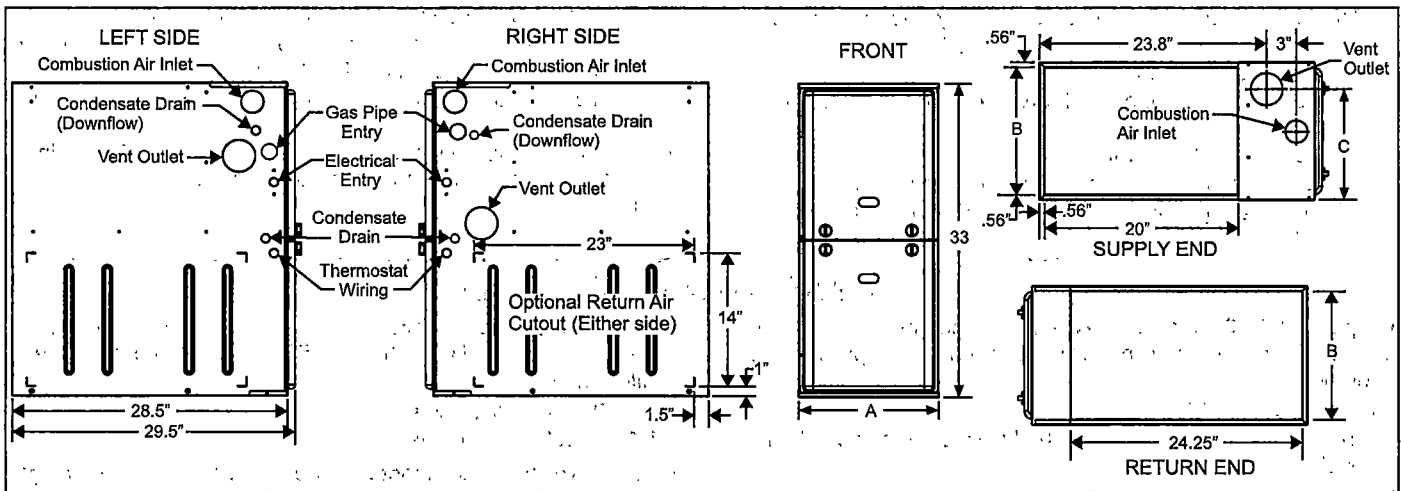
Overall length and width include screw heads.

SUBMITTAL DATA SHEET

95.0% + SINGLE STAGE GAS-FIRED RESIDENTIAL MULTI-POSITION GAS FURNACES MODELS: TM9E

JOB NAME:		LOCATION:	
PURCHASER:		ORDER NO:	
ENGINEER:			
SUBMITTED TO:	FOR:	REF:	APPROVAL:
SUBMITTED BY:		DATE:	
UNIT DESIGNATION:		SCHEDULE NO.	MODEL NO.

DIMENSIONS - INCHES



Models	Nominal CFM (m ³ /min)	Cabinet Size	Cabinet Dimensions (Inches)			Approximate Operating Weights Lbs.
			A	B	C	
TM9E040A10MP12	1000	A	14-1/2	13-3/8	11-3/4	113
TM9E060A10MP12	1200	A	14-1/2	13-3/8	11-3/4	118
TM9E060B12MP12	1200	B	17-1/2	16-3/8	13-1/4	122
TM9E080B12MP12	1200	B	17-1/2	16-3/8	14-3/4	126
TM9E080C16MP12	1600	C	21	19-7/8	16-1/2	136
TM9E080C20MP12	2000	C	21	19-7/8	18-1/4	139
TM9E100C16MP12	1600	C	21	19-7/8	18-1/4	142
TM9E100C20MP12	2000	C	21	19-7/8	18-1/4	145
TM9E120D20MP12	2000	D	24-1/2	23-3/8	21-3/4	156

Due to continuous product improvements, specifications are subject to change without notice. Installation and conversions of these furnaces must be made by qualified distributor, dealer, or contractor personnel.

PRODUCT DATA

Heating Performance

Input Capacity _____ MBH

Output Capacity _____ MBH

Air Temp. Rise _____ °F

Supply Air Blower Performance

Total Supply Air _____ CFM

Total External Static Pressure _____ IWG

Blower Speed (circle) 1 2 3 4 5

Motor Rating _____ HP

Electrical Data

Power Supply _____ / _____

Total Unit Ampacity _____ AMPS

Minimum Wire Size _____ AWG

Maximum Overcurrent Device

☐ Fuses ☐ Circuit

Breaker _____ AMPS

Unit Weight

Total Unit Weight _____ LBS



INSTALLATION MANUAL

SINGLE STAGE ECM RESIDENTIAL GAS FURNACES

MODELS: TM9E Series
(95% AFUE Multi-Position)



LIST OF SECTIONS

SAFETY	2	COMBUSTION AIR AND VENT SYSTEM	19
DUCTWORK	5	START-UP AND ADJUSTMENTS	27
FILTERS	8	SAFETY CONTROLS	33
GAS PIPING	9	NORMAL OPERATION AND DIAGNOSTICS	33
ELECTRICAL POWER	11	REPLACEMENT PARTS LIST	35
TWINNING AND STAGING	13	WIRING DIAGRAM	36
CONDENSATE PIPING AND FURNACE VENTING CONFIGURATION	13	START UP SHEET	37

LIST OF FIGURES

Duct Attachment	5	Downflow Configuration	16
Furnace and Coil Attachment	6	Horizontal Left Configuration	17
Combustible Floor Base Accessory	6	Horizontal Right Configuration	18
Horizontal Application	6	Elbow Dimensions	21
Typical Attic Installation	7	Home Layout	22
Typical Suspended Furnace/Crawl Space Installation	7	Termination Configuration - Single Pipe	23
Downflow Venting	7	Termination Configuration - Two Pipe	23
Dimensions	8	Termination Configuration - Two Pipe Basement	23
Side Return Cutout Markings	9	Double Horizontal Combustion Air Intake and Vent Termination	24
Gas Valve	9	Double Vertical Combustion Air Intake and Vent Termination	24
Left Side Supply Gas Pipe Arrangement	9	Downward Venting	24
Gas Piping	10	Direct Vent Air Intake Connection and Vent Connection	24
Electrical Wiring	11	Combustion Airflow Path Through the Furnace Casing	25
Thermostat Chart - 1H/1C - Single Stage Furnace (STD-ECM)	11	Ambient Combustion Air	26
Single Stage Air Conditioner	12	Attic and Crawl Space Combustion Air Termination	27
Thermostat Chart - 1H/2C - Single Stage Furnace (STD-ECM)	12	Gas Valve	30
Two Stage Air Conditioner	12	Reading Gas Pressure	30
Twinned Furnaces	13	Furnace Control Board	31
Typical - Condensate Drain, Vertical Installation	13	Wiring Diagram	36
Upflow Configuration	15		

LIST OF TABLES

Unit Clearances to Combustibles	4	Combustion Air Intake and Vent Connection Size at Furnace (All Models)	21
Cabinet and Duct Dimensions - TM9E	8	Estimated Free Area	25
Recommended Filter Sizes (High Velocity 600 FPM)	8	Unconfined Space Minimum Area	25
Nominal Manifold Pressure - High Fire	10	Free Area	25
Ratings and Physical/Electrical Data - TM9E	11	Gas Rate (CU FT/HR) at Full Input	29
Maximum Equivalent Pipe Length - TM9E	20	Inlet Gas Pressure Range	29
High Altitude Pressure Switches - TM9E	21	Nominal Manifold Pressure	30
Elbow Dimensions	21	Default Blower Speeds	30
Equivalent Length of Fittings	21	Blower Performance CFM - Any Position (Without Filter)	32

These high efficiency, compact units employ induced combustion reliable hot surface ignition and high heat transfer aluminized tubular heat exchangers. The units are factory shipped for installation in upflow or horizontal applications and can be converted for downflow applications.

These furnaces are designed for residential installation in a basement, closet, alcove, attic, recreation room, or garage, and are also ideal for commercial applications. All units are factory assembled, wired, and tested to ensure safe, dependable, and economical installation and operation.

These units are Category IV listed and can not be common vented with another gas appliance as allowed by the National Fuel Gas Code.

SECTION I: SAFETY



This is a safety alert symbol. When you see this symbol on labels or in manuals, be alert to the potential for personal injury.

Understand and pay particular attention to the signal words **DANGER**, **WARNING**, or **CAUTION**.

DANGER indicates an **imminently** hazardous situation, which, if not avoided, **will result in death or serious injury**.

WARNING indicates a **potentially** hazardous situation, which, if not avoided, **could result in death or serious injury**.

CAUTION indicates a potentially hazardous situation, which, if not avoided **may result in minor or moderate injury**. It is also used to alert against unsafe practices and hazards involving only property damage.

⚠ WARNING

Improper installation may create a condition where the operation of the product could cause personal injury or property damage.

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. **Failure to carefully read and follow all instructions in this manual can result in furnace malfunction, death, personal injury and/or property damage.** Only a qualified contractor, installer or service agency should install this product.

SPECIFIC SAFETY RULES AND PRECAUTIONS

1. Only Natural gas or Propane (LP) gas are approved for use with this furnace.
2. Install this furnace only in a location and position specified in these instructions.
3. A gas-fired furnace for installation in a residential garage must be installed as specified in these instructions.
4. Provide adequate combustion and ventilation air to the furnace space as specified in these instructions.
5. Combustion products must be discharged outdoors. Connect this furnace to an approved vent system only, as specified in SECTION VIII: COMBUSTION AIR AND VENT SYSTEM.
6. Test for gas leaks as specified in these instructions.

⚠ WARNING

FIRE OR EXPLOSION HAZARD

Failure to follow the safety warnings exactly could result in serious injury, death or property damage.

Never test for gas leaks with an open flame. Use a commercially available soap solution made specifically for detection of leaks to check all connections. A fire or explosion may result causing property damage, personal injury or loss of life.

7. Always install the furnace to operate within the furnace's intended temperature rise range. Only connect the furnace to a duct system which has an external static pressure within the allowable range, as specified on the furnace rating plate.
8. When a furnace is installed so that supply ducts carry air circulated by the furnace to areas outside the space containing the furnace, the return air must also be handled by duct(s) sealed to the furnace casing and terminating outside the space containing the furnace.
9. It is permitted to use the furnace for heating of buildings or structures under construction where the application and use comply with all manufacturer's installation instructions including the following:
 - Proper vent installation
 - Furnace operating under thermostatic control
 - Return air duct sealed to the furnace
 - Air filters in place
 - Set furnace input rate and temperature rise per rating plate marking

- Means for providing outdoor air required for combustion
- Return air temperature maintained between 55°F (13°C) and 80°F (27°C)
- The **air filter must be replaced** upon substantial completion of the construction process
- Clean furnace, duct work, and components upon substantial completion of the construction process, and verify furnace operating conditions including ignition, input rate, temperature rise, and venting according to the manufacturer's instructions.

10. When installed in a non-HUD-Approved Modular Home or building constructed on-site, combustion air must not be supplied from occupied spaces.
11. The size of the unit must be based on an acceptable heat loss calculation for the structure. ACCA, Manual J or other approved methods can be used.
12. When moving or handling this furnace prior to installation, always leave the doors on the furnace to provide support and prevent damage or warping of the cabinet. When lifting the furnace by the cabinet, support the ends of the furnace rather than lifting by the cabinet flanges at the return air openings' (bottom or sides) or supply air opening.
13. When lifting the furnace, it is acceptable to use the primary heat exchanger tubes as a lifting point, provided that the tubes are lifted at the front of the heat exchangers where attached to the vestibule panel. Do not use the top return bend of the heat exchangers as lifting points as the tubes may shift out of position or their location brackets/baffles.

IMPORTANT: During installation, doors must remain on the furnace when moving or lifting the furnace.

SAFETY REQUIREMENTS

⚠ CAUTION

This product must be installed in strict compliance with the installation instructions and any applicable local, state, and national codes including, but not limited to building, electrical, and mechanical codes.

- Refer to the unit rating plate for the furnace model number, and then see the return air plenum dimensions in Figure 8. The plenum must be installed according to the instructions.
- Provide clearances from combustible materials as listed in Table 1.
- Provide clearances for servicing, ensuring that service access is allowed for both the burners and blower.
- These models **ARE NOT** CSA listed or approved for installation into a **HUD Approved Modular Home** or a **Manufactured (Mobile) Home**.
- This furnace is not approved for installation in trailers or recreational vehicles.
- Furnaces for installation on combustible flooring must not be installed directly on carpeting, tile or other combustible material other than wood flooring.
- Check the rating plate and power supply to ensure that the electrical characteristics match. All models use nominal 115 VAC, 1 Phase, 60 Hz power supply. **DO NOT CONNECT THIS APPLIANCE TO A 50 Hz POWER SUPPLY OR A VOLTAGE ABOVE 130 V.**
- The furnace must be installed so the electrical components are protected from water.
- Installing and servicing heating equipment can be hazardous due to the electrical components and the gas fired components. Only trained and qualified personnel must install, repair, or service gas heating equipment. Untrained service personnel can perform basic maintenance functions such as cleaning and replacing the air filters. When working on heating equipment, observe precautions in the manuals and on the labels attached to the unit and other safety precautions that apply.

COMBUSTION AIR QUALITY (LIST OF CONTAMINANTS)

⚠ WARNING

The furnace area must not be used as a broom closet or for any other storage purposes, as a fire hazard may be created. Never store items such as the following on, near or in contact with the furnace.

1. Spray or aerosol cans, rags, brooms, dust mops, vacuum cleaners or other cleaning tools.
2. Soap powders, bleaches, waxes or other cleaning compounds; plastic items or containers; gasoline, kerosene, cigarette lighter fluid, dry cleaning fluids or other volatile fluid.
3. Paint thinners and other painting compounds.
4. Paper bags, boxes or other paper products

Never operate the furnace with the blower door removed. To do so could result in serious personal injury and/or equipment damage.

The furnace requires **OUTDOOR AIR** for combustion when the furnace is located in any of the following environments:

- Buildings with indoor pools
- Chemical exposure
- Commercial buildings
- Hobby or craft rooms
- Laundry rooms
- Near chemical storage areas
- Restricted environments

The furnace requires **OUTDOOR AIR** for combustion when the furnace is located in an area where the furnace is exposed to the following substances and/or chemicals.

- Antistatic fabric softeners for clothes dryers
- Carbon tetrachloride
- Cements and glues
- Chlorine based swimming pool chemicals
- Chlorinated waxes and cleaners
- Cleaning solvents (such as perchloroethylene)
- Deicing salts or chemicals
- Halogen type refrigerants
- Hydrochloric acid
- Masonry acid washing materials
- Permanent wave solutions
- Printing inks, paint removers, varnishes, etc.
- Water softening chemicals

When outdoor air is used for combustion, the combustion air intake duct system termination must be located external to the building and in an area where there will be no exposure to the substances listed above.

CODES AND STANDARDS

Follow all national, local codes and standards in addition to this installation manual. The installation must comply with regulations of the serving gas supplier and local building, heating, plumbing, and other codes. In absence of local codes, the installation must comply with the national codes listed below and all authorities having jurisdiction.

In the United States and Canada, follow all codes and standards for the following, using the latest edition available.

STEP 1 - Safety

- US: National Fuel Gas Code (NFGC) NFPA 54/ANSI Z223.1 and the Installation Standards, Warm Air Heating and Air Conditioning Systems ANSI/NFPA 90B
- CANADA: CAN/CGA-B149.1 National Standard of Canada. Natural Gas and Propane Installation Codes (NSCNGPIC)

STEP 2 - General Installation

- US: Current edition of the NFGC and NFPA 90B. For copies, contact:

National Fire Protection Association Inc.
Batterymarch Park
Quincy, MA 02269

or for only the NFGC, contact:
American Gas Association,
400 N. Capital, N.W.,
Washington DC 20001

or www.NFPA.org

- CANADA: NSCNGPIC. For a copy, contact:
Standard Sales, CSA International
178 Rexdale Boulevard
Etobicoke, (Toronto) Ontario Canada M9W 1R5

STEP 3 - Combustion and Ventilation Air

- US: Section 5.3 of the NFGC, air for Combustion and Ventilation
- CANADA: Part 7 of NSCNGPIC, Venting Systems and Air Supply for Appliances

STEP 4 - Duct Systems

- US and CANADA: Air Conditioning Contractors Association (ACCA) Manual D, Sheet Metal and Air Conditioning Contractors Association National Association (SMACNA), or American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) 1997 Fundamentals Handbook Chapter 32.

STEP 5 - Acoustical Lining and Fibrous Glass Duct

- US and CANADA: Current edition of SMACNA and NFPA 90B as tested by UL Standard 181 for Class 1 Rigid Air Ducts

STEP 6 - Gas Piping and Gas Pipe Pressure Testing

- US: NFGC; chapters 2, 3, 4, and 9 and National Plumbing Codes
- CANADA: NSCNGPIC Part 5

STEP 7 - Electrical Connections

- US: National Electrical Code (NEC) ANSI/NFPA 70
- CANADA: Canadian Electrical Code CSA C22.1

These instructions cover minimum requirements and conform to existing national standards and safety codes. In some instances, these instructions exceed certain local codes and ordinances, especially those that do not reflect changing residential and non-HUD modular home construction practices. These instructions are required as a minimum for a safe installation.

INSPECTION

On receiving a unit, inspect the unit for possible damage during transit. If damage is evident, note the extent of the damage on the carrier's freight bill. Make a separate request for inspection by the carrier's agent in writing. Before installation, check the unit for screws or bolts that may have loosened in transit. There are no shipping or spacer brackets that need to be removed from the interior of this unit.

FURNACE LOCATION AND CLEARANCES

The furnace must be located using the following guidelines:

- Where a minimum amount of air intake/vent piping and elbows is required
- As centralized with the air distribution as possible
- Where adequate combustion air is available (particularly when the appliance is not using outdoor combustion air)
- Where it does not interfere with proper air circulation in the confined space

- Where the outdoor vent terminal is not blocked or restricted. See Vent Clearances in SECTION VIII: COMBUSTION AIR AND VENT SYSTEM. These minimum clearances must be maintained in the installation.
- Where the unit is installed in a level position with no more than 1/4 in. (6.4 mm) slope side-to-side and front-to-back to provide proper condensate drainage.

Installation in freezing temperatures:

- The furnace must be installed in an area where ventilation facilities provide for safe limits of ambient temperature under normal operating conditions. Ambient temperatures must not fall below 32°F (0°C) unless the condensate system is protected from freezing.

FOR FURNACES INSTALLED IN THE COMMONWEALTH OF MASSACHUSETTS ONLY

For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

- 1. INSTALLATION OF CARBON MONOXIDE DETECTORS.** At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gasfitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gasfitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors
 - a. In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.
 - b. In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.
- 2. APPROVED CARBON MONOXIDE DETECTORS.** Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.
- 3. SIGNAGE.** A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, "GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS".
- 4. INSPECTION.** The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

⚠ WARNING

Improper installation in an ambient below 32°F (0.0°C) could create a hazard, resulting in damage, injury or death.

- Do not allow return air temperature to be below 55°F (13°C) for extended periods. To do so may cause condensation to occur in the main heat exchanger, leading to premature heat exchanger failure.
- If this furnace is installed in an unconditioned space and an extended power failure occurs, there is potential for damage to the internal components. Following a power failure, do not operate the unit until inspection and repairs are performed.

⚠ WARNING

Liquid anti-freeze will cause damage to internal plastic parts of this furnace. **DO NOT attempt to winterize the furnace using liquid anti-freeze.**

Clearances for access/service:

Provide ample clearances to permit easy access to the unit. The following minimum clearances are recommended:

- Twenty-four (24) in. (61 cm) between the front of the furnace and an adjacent wall or another appliance, when access is required for servicing and cleaning
- Eighteen (18) in. (46 cm) at the side where access is required for passage to the front when servicing or for inspection or replacement of flue/vent connections

In all cases, accessibility clearances take precedence over clearances for combustible materials where accessibility clearances are greater.

Installation in a residential garage:

A gas-fired furnace for installation in a residential garage must be installed so the burner(s) and the ignition source are located not less than 18 in. (46 cm) above the floor, and the furnace must be located or protected to avoid physical damage by vehicles.

Table 1: Unit Clearances to Combustibles

Application	Upflow	Downflow	Horizontal
Top	1 in.	0 in.	0 in.
Vent	0 in.	0 in.	0 in.
Rear	0 in.	0 in.	0 in.
Side	0 in.	0 in.	1 in.
Front ¹	0 in.	0 in.	0 in.
Floor	Combustible	Combustible ²	Combustible
Closet	Yes	Yes	Yes
Line Contact	No	No	Yes

1. 24 in. clearance in front and 18 in. on side is recommended for service access.
2. A special sub-base is required for downflow applications on combustible floors.

Note: All furnaces are approved for alcove and attic installation.