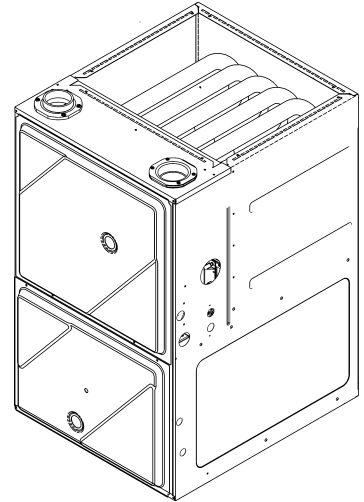

GCEC 96% EEM Counter Flow Furnace

GCEC960403BNAA
GCEC960403BNAB
GCEC960603BNAA
GCEC960603BNAB
GCEC960803BNAA
GCEC960803BNAB
GCEC961005CNAA
GCEC961005CNAB



This manual is to be used by qualified technicians only.

This manual replaces RP-G2310

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Important Information

Index

| | |
|------------------------------|--------|
| Functional Parts List | 3 |
| Illustration and Parts | 4 - 11 |

Views shown are for parts illustrations only, not servicing procedures

Text Codes:

AR - As Required

NA - Not Available

NS - Not Shown

00000000 - See Note

QTY - Quantity Example (QTY 3) (If Quantity not shown, Quantity = 1)

M - Model Example (M1) (If M Code not shown, then part is used on all Models)

Expanded Model Nomenclature:

| |
|---|
| Example M1 - Model#1 M2 - Model#2 M3 - Model#3 |
|---|

Goodman Manufacturing Company, L.P. is not responsible for personal injury or property damage resulting from improper service. Review all service information before beginning repairs.

Warranty service must be performed by an authorized technician, using authorized factory parts. If service is required after the warranty expires, Goodman Manufacturing Company, L.P. also recommends contacting an authorized technician and using authorized factory parts.

Goodman Manufacturing Company, L.P. reserves the right to discontinue, or change at any time, specifications or designs without notice or without incurring obligations.

For assistance within the U.S.A. contact:

Homeowner Support

Goodman Manufacturing Company, L.P.

19001 Kermier Road

Waller, Texas 77484

877-254-4729-Telephone

713-863-2382-Facsimile

For assistance outside the U.S.A. contact:

International Division

Goodman Manufacturing Company, L.P.

19001 Kermier Road

Waller, Texas 77484

713-861-2500-Telephone

713-863-2382-Facsimile

Functional Parts

Part

No: Description:

| | |
|------------|--|
| 20162904 | *PRIMARY LIMIT-TEMPERATURE CONTROL (M5, M6) *Refer to service bulletin SF-054 |
| 0130F00038 | AUX LIMIT - LT BLUE 120° (QTY 2) |
| 0163F00017 | BECKETT BURNER (QTY 2) |
| 0271F00181 | BLOWER HSG ASSY (M1, M2) |
| 0271F00161 | BLOWER SHELL & WHEEL ASSY (M7, M8) |
| 0271F00159 | BLOWER SHELL & WHEEL ASSY (M3, M4, M5, M6) |
| 764740 | BLWR BLK-OFF,10X8 (M1, M2) |
| 0130F00010 | FLAME SENSOR |
| 0151M00027 | GAS VALVE |
| 0257F00429 | HEAT EXCHANGER ASSY (M7, M8) |
| 0257F00419 | HEAT EXCHANGER ASSY (M1, M2) |
| 0257F00420 | HEAT EXCHANGER ASSY (M3, M4) |
| 0257F00421 | HEAT EXCHANGER ASSY (M5, M6) |
| 0130F00008 | IGNITOR-SINI 17 SEC |
| 10123538 | MANUAL RESET R.O.S. LIMIT (M3, M4) |
| 0130F00123 | MANUAL RESET R.O.S. LIMIT (M7, M8) |
| 10123533 | MANUAL RESET R.O.S. LIMIT (M1, M2, M5, M6) |
| 0131F00173 | MOTOR PROGRAMMED (M2) |
| 0131F00174 | MOTOR PROGRAMMED (M4) |
| 0131F00183 | MOTOR PROGRAMMED (M8) |
| 0131F00172 | MOTOR PROGRAMMED (M6) |
| 0131F00048 | MOTOR, BLOWER (M7) |
| 0131F00047 | MOTOR, BLOWER (M3) |
| 0131F00035 | MOTOR, BLOWER (M5) |
| 0131F00046 | MOTOR, BLOWER (M1) |
| 0171M00002 | MOTOR-ID, BLOWER |
| PCBBF139 | PCB IGNITION HSI INTEG |
| 0130F00429 | PRESSURE SWITCH |
| 0130F00434 | PRESSURE SWITCH (M7, M8) |
| 0130F00435 | PRESSURE SWITCH (M1, M2, M3, M4) |
| 0130F00436 | PRESSURE SWITCH (M5, M6) |
| 20162906 | PRIMARY LIMIT - WHITE (M1, M2, M3, M4, M7, M8) |
| 0130M00243 | SWITCH, INTERLOCK |
| 0130M00140 | TRANSFORMER, 120V TO 24V,40VA |
| 0150M00043 | WHEEL, BLOWER (10 X 8) (M1, M2) |

SPECIAL PARTS

0161F00086 NAMEPLATE, GOODMAN

Expanded Model Nomenclature

| |
|---------------------|
| M1 - GCEC960403BNAA |
| M2 - GCEC960403BNAB |
| M3 - GCEC960603BNAA |
| M4 - GCEC960603BNAB |
| M5 - GCEC960803BNAA |
| M6 - GCEC960803BNAB |
| M7 - GCEC961005CNAA |
| M8 - GCEC961005CNAB |

Cabinet Assembly

IMAGE 1

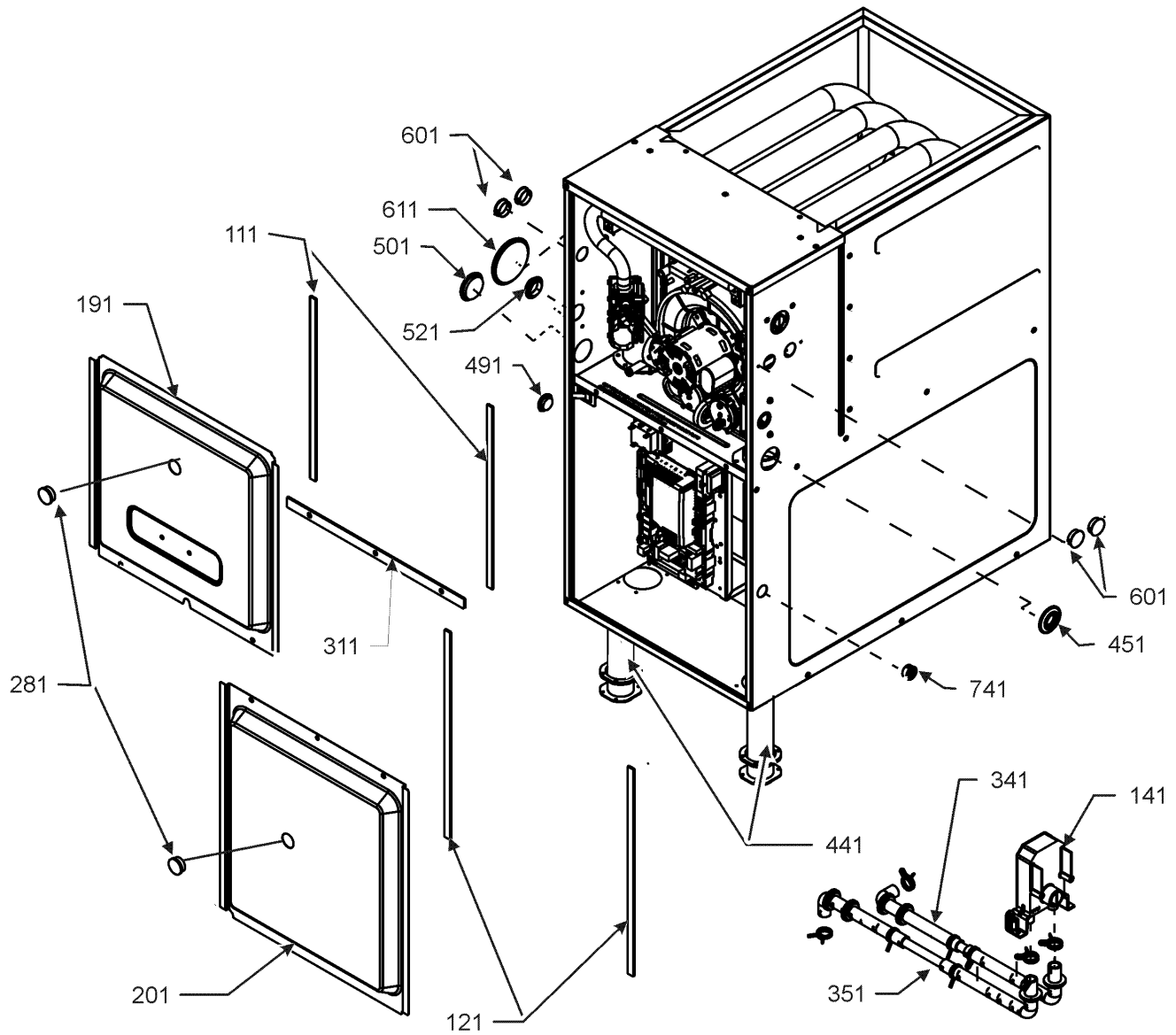
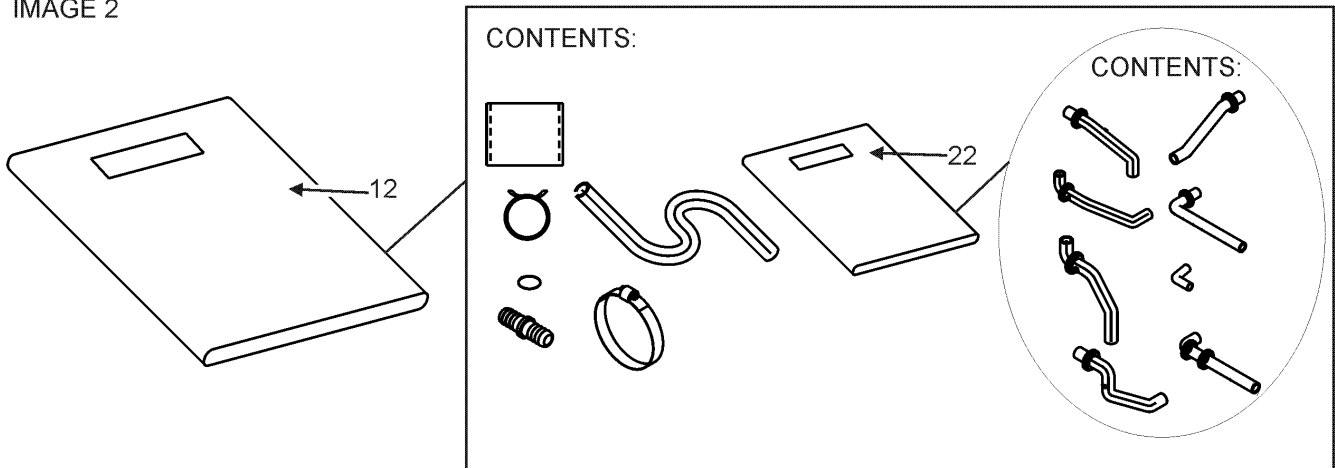


IMAGE 2



Cabinet Assembly

| Ref. Part No: | Part No: | Description: | Ref. Part No: | Part No: | Description: |
|---------------|----------|--------------|---------------|----------|--------------|
|---------------|----------|--------------|---------------|----------|--------------|

Image 1:

| | | | | | |
|-----|--------------|--|--|--|--|
| 111 | 0154F00024 | GASKET (QTY 2) | | | |
| 121 | 0154F00025 | GASKET (QTY 2) | | | |
| 141 | 0161F00046 | DRAIN TRAP | | | |
| 191 | 0121F00291DG | DOOR, ACCESS 17.5 PNT (M1, M2, M3, M4, M5, M6) | | | |
| 191 | 0121F00292DG | DOOR, ACCESS 21 PNT (M7, M8) | | | |
| 201 | 0121F00288DG | DOOR, BLOWER 17.5 PNT (M1, M2, M3, M4, M5, M6) | | | |
| 201 | 0121F00289DG | DOOR, BLOWER 21 PNT (M7, M8) | | | |
| 281 | B1392139 | VIEW PORT BUSHING (QTY 2) | | | |
| 311 | 0154F00020 | DECK GASKET (M1, M2, M3, M4, M5, M6) | | | |
| 311 | 0154F00021 | DECK GASKET (M7, M8) | | | |
| 341 | 0270F03125 | CF DRAIN TUBE ASSY (M1, M2, M3, M4, M5, M6) | | | |
| 341 | 0270F03515 | CF DRAIN TUBE ASSY (M7, M8) | | | |
| 351 | 0270F03126 | CF DRAIN TUBE ASSY (M7, M8) | | | |
| 351 | 0270F03514 | CF DRAIN TUBE ASSY (M1, M2, M3, M4, M5, M6) | | | |
| 441 | 0161F00064 | PIPE, STRAIGHT CF (QTY 2) | | | |
| 451 | M0501301 | PIPE GROMMET | | | |
| 491 | M0570808 | BUTTON PLUG | | | |
| 501 | M0570806 | BUTTON PLUG | | | |
| 521 | 0161M00027 | HOLE PLUG | | | |
| 601 | B1392021 | PLASTIC PLUG, 1" (2713-BLK) (QTY 4) | | | |
| 611 | 0163M00460 | CLAMP-HOSE (QTY 2) | | | |
| 741 | B1392104 | UNIVERSAL BUSHING UB 875 | | | |
| NS | M0310345 | BUTTON PLUG (QTY 2) | | | |
| NS | M0570807 | BUTTON PLUG | | | |
| NS | M0209730 | DECORATIVE SCREW (QTY 3) | | | |
| NS | 0163M00319 | HEX NUT-INSERT (QTY 3) | | | |
| NS | 0161F00086 | NAMEPLATE, GOODMAN | | | |
| NS | M0273904 | RETAINER-SCREW (QTY 3) | | | |

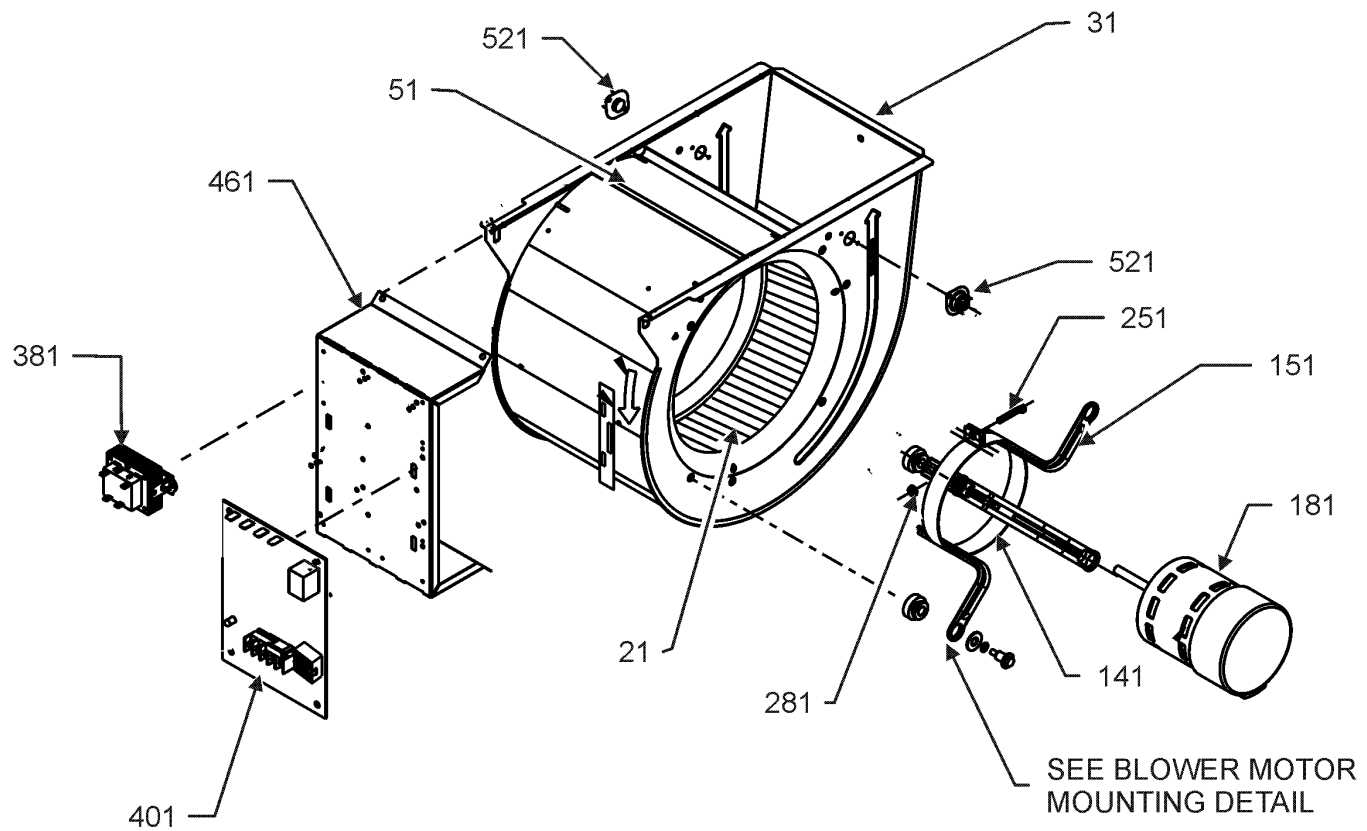
Image 2:

| | | | | | |
|----|------------|----------------|--|--|--|
| 12 | 0270F05249 | DRAIN KIT ASSY | | | |
| 22 | 0270F05249 | DRAIN KIT ASSY | | | |

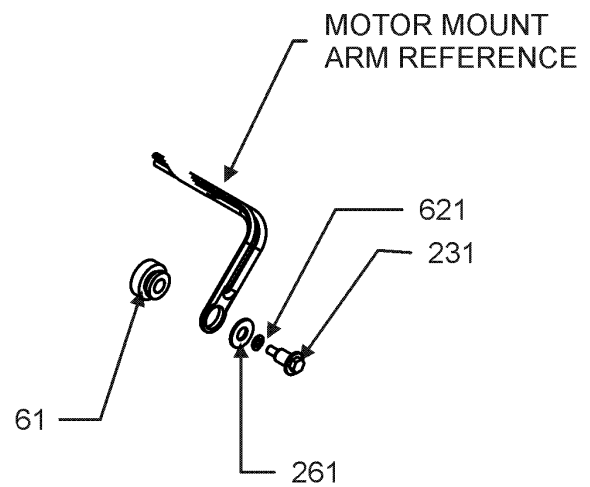
Expanded Model Nomenclature

| |
|---------------------|
| M1 - GCEC960403BNAA |
| M2 - GCEC960403BNAB |
| M3 - GCEC960603BNAA |
| M4 - GCEC960603BNAB |
| M5 - GCEC960803BNAA |
| M6 - GCEC960803BNAB |
| M7 - GCEC961005CNAA |
| M8 - GCEC961005CNAB |

Blower Assembly



SEE BLOWER MOTOR MOUNTING DETAIL



BLOWER MOTOR MOUNTING DETAIL

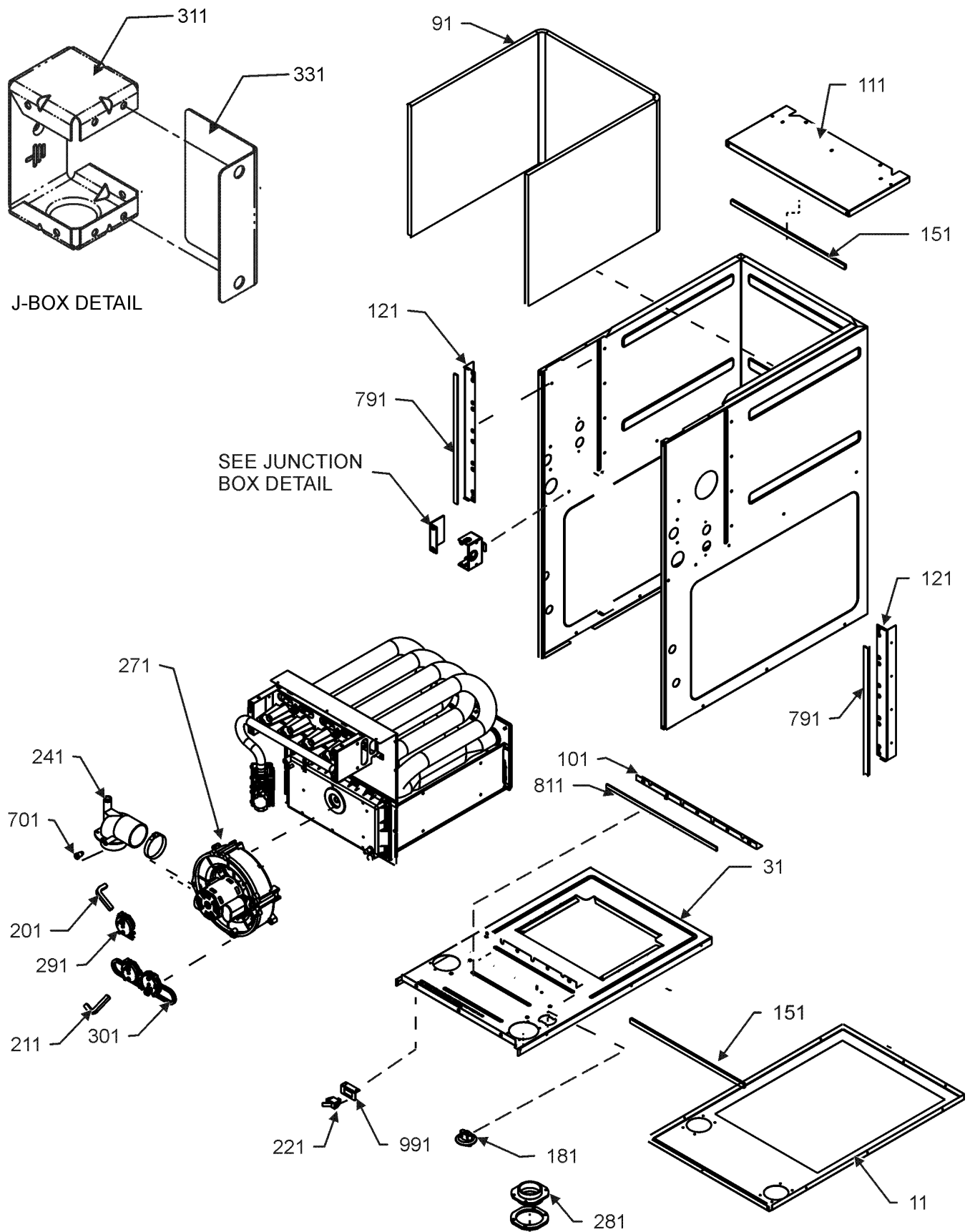
Blower Assembly

| Ref. Part No: | Ref. Part No: | Description: | Description: |
|-----------------|---------------|---|--------------|
| Image 1: | | | |
| 21 | 0150M00043 | WHEEL, BLOWER (10 X 8) (M1, M2) | |
| 31 | 0271F00181 | BLOWER HSG ASSY (M1, M2) | |
| 31 | 0271F00159 | BLOWER SHELL & WHEEL ASSY (M3, M4, M5, M6) | |
| 31 | 0271F00161 | BLOWER SHELL & WHEEL ASSY (M7, M8) | |
| 51 | 764740 | BLWR BLK-OFF, 10X8 (M1, M2) | |
| 61 | A4002702 | GROMMET (M7) | |
| 141 | 10441601 | BAND-MTR MOUNT (M7) | |
| 141 | 0121M00038 | MOUNT BAND, MOTOR (M1, M3, M5) | |
| 141 | 0121M00039 | MOUNT BAND, MOTOR (HEAVY DUTY) (M2, M4, M6, M8) | |
| 151 | 0163M00458 | ARM MOTOR MOUNT (M7) | |
| 151 | B1376857 | MOTOR MOUNT ARM (M1, M3, M5) | |
| 151 | B1376863 | MOUNT ARM, MOTOR (HEAVY DUTY) (M2, M4, M6, M8) | |
| 181 | 0131F00172 | MOTOR PROGRAMMED (M6) | |
| 181 | 0131F00173 | MOTOR PROGRAMMED (M2) | |
| 181 | 0131F00174 | MOTOR PROGRAMMED (M4) | |
| 181 | 0131F00183 | MOTOR PROGRAMMED (M8) | |
| 181 | 0131F00035 | MOTOR, BLOWER (M5) | |
| 181 | 0131F00046 | MOTOR, BLOWER (M1) | |
| 181 | 0131F00047 | MOTOR, BLOWER (M3) | |
| 181 | 0131F00048 | MOTOR, BLOWER (M7) | |
| 231 | 0163F00028 | SCREW (M7) | |
| 231 | M0250565 | TC SCREW 1.25" (M1, M2, M3, M4, M5, M6, M8) | |
| 251 | 0163M00320 | HEX HEAD ALL THREAD TAP BOLT (M2, M4, M6, M8) | |
| 251 | B1393323 | MACHINE SCREW (M1, M3, M5) | |
| 251 | M0267144 | MACHINE SCREW (M7, M8) | |
| 261 | B1392918 | FLAT WASHER (M1, M2, M3, M4, M5, M6, M8) | |
| 261 | M0274008 | FLAT WASHER (M7) | |
| 281 | M0282015 | KEPS NUT (M7) | |
| 281 | B1393800 | LOCKNUT, NYLON, INSERT 1/4, 20 (M1, M2, M3, M4, M5, M6, M8) | |
| 381 | 0130M00140 | TRANSFORMER, 120V TO 24V, 40VA | |
| 401 | PCBBF139 | PCB IGNITION HSI INTEG | |
| 461 | 0121F00464 | CONTROL MOUNTING PLATE | |
| 521 | 0130F00038 | AUX LIMIT - LT BLUE 120° (QTY 2) | |
| 621 | B1392820 | SLIT LOCK WASHER (M7) | |
| NS | B1392021 | 1" PLASTIC PLUG (QTY 4) | |
| NS | 0259F00024 | HARNESS - BLOWER | |
| NS | 0159F00076 | WIRE HARNESS | |
| NS | 0159F00077 | WIRE HARNESS | |

Expanded Model Nomenclature

- | |
|---------------------|
| M1 - GCEC960403BNAA |
| M2 - GCEC960403BNAB |
| M3 - GCEC960603BNAA |
| M4 - GCEC960603BNAB |
| M5 - GCEC960803BNAA |
| M6 - GCEC960803BNAB |
| M7 - GCEC961005CNAA |
| M8 - GCEC961005CNAB |

Chassis Assembly



Chassis Assembly

| Ref. Part No: | Part No: | Description: | Ref. Part No: | Part No: | Description: |
|---------------|----------|--------------|---------------|----------|--------------|
|---------------|----------|--------------|---------------|----------|--------------|

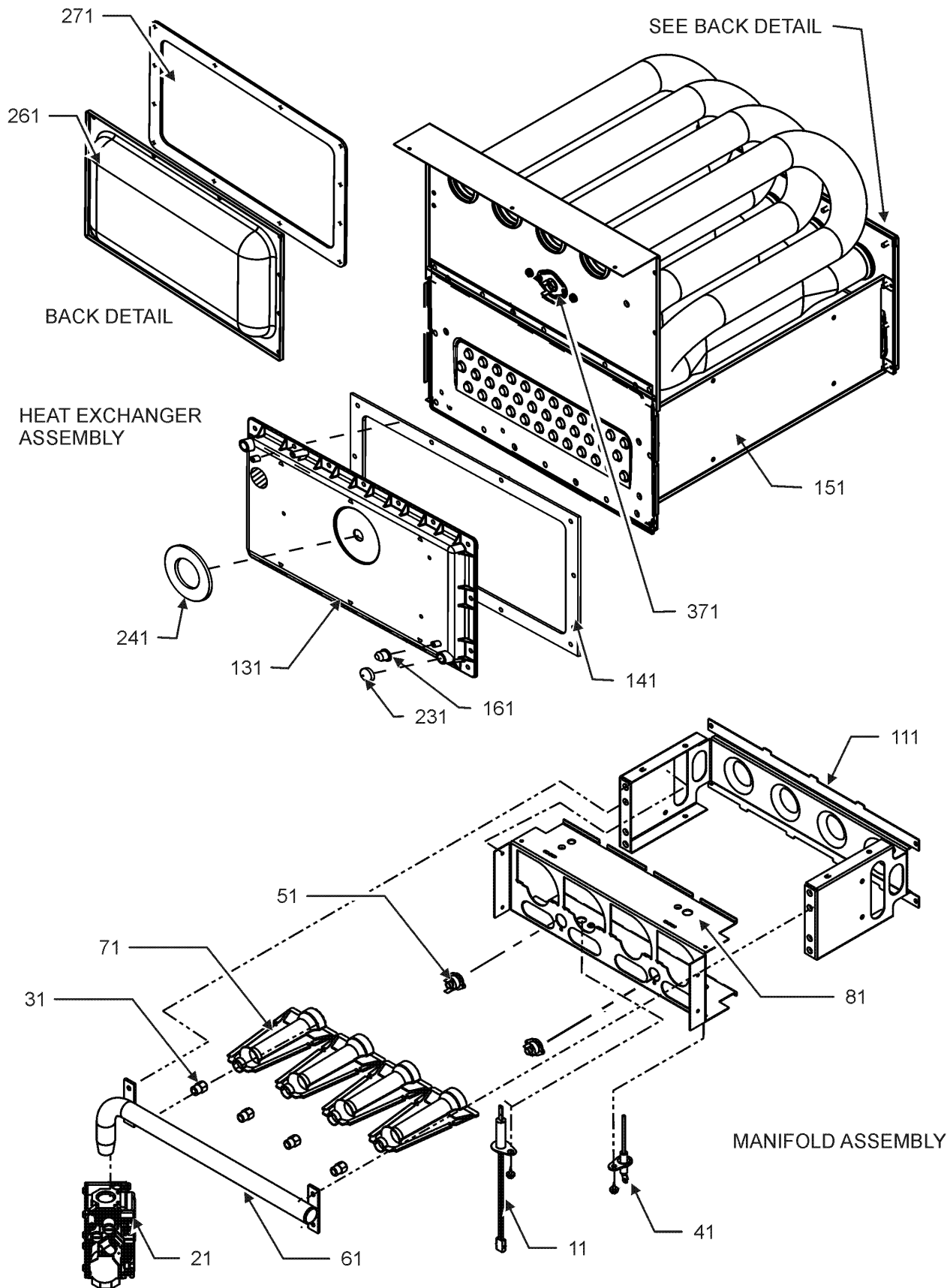
Image 1:

| | | |
|-----|--------------|---|
| 11 | 0121F00548DG | PAINTED BASEPAN, 17.5 CF (M1, M2, M3, M4, M5, M6) |
| 11 | 0121F00549DG | PAINTED BASEPAN, 21 CF (M7, M8) |
| 31 | 0121F00536 | DECK-BLOWER 17.5" CF (M1, M2, M3, M4, M5, M6) |
| 31 | 0121F00537 | DECK-BLOWER 21" CF (M7, M8) |
| 91 | 0160F00015 | INSULATION, HT EXCHANGER 17.5" (M1, M2, M3, M4, M5, M6) |
| 91 | 0160F00016 | INSULATION, HT EXCHANGER 21" (M7, M8) |
| 101 | 0121F00314 | ANGLE, DECK (M1, M2, M3, M4, M5, M6) |
| 101 | 0121F00315 | ANGLE, DECK (M7, M8) |
| 111 | 0121F00426DG | TOP, PAINTED FURNACE 17.5" CF (M1, M2, M3, M4, M5, M6) |
| 111 | 0121F00434DG | TOP, PAINTED FURNACE 21" CF (M7, M8) |
| 121 | 0121F00313 | SIDE ANGLE (QTY 2) |
| 151 | 20179309 | GASKET (M1, M2, M3, M4, M5, M6) |
| 151 | 20179310 | GASKET (M7, M8) |
| 181 | 0159F00077 | HARNESS, WIRING |
| 201 | 0164M00008 | HOSE-PRESSURE SW (M7, M8) |
| 201 | 0164M00019 | HOSE-PRESSURE SW (M1, M2, M3, M4, M5, M6) |
| 211 | 0164M00019 | HOSE-PRESSURE SW 6" |
| 221 | 0130M00243 | SWITCH, INTERLOCK |
| 241 | 0164F00003 | ELBOW-FLUE, 17.5" CFLOW (M1, M2, M3, M4, M5, M6) |
| 241 | 0164F00004 | ELBOW-FLUE, 21" CFLOW (M7, M8) |
| 271 | 0171M00002 | MOTOR-ID, BLOWER |
| 281 | 0161F00037 | COUPLING |
| 291 | 0130F00429 | PRESSURE SWITCH |
| 301 | 0130F00434 | PRESSURE SWITCH (M7, M8) |
| 301 | 0130F00435 | PRESSURE SWITCH (M1, M2, M3, M4) |
| 301 | 0130F00436 | PRESSURE SWITCH (M5, M6) |
| 311 | 0161F00042 | JUNCTION BOX |
| 331 | 0161F00043 | JUNCTION BOX LID |
| 701 | M0326804 | TUBE PLUG |
| 791 | 0154F00015 | GASKET (QTY 2) |
| 811 | 0154F00014 | GASKET (M1, M2, M3, M4, M5, M6) |
| 811 | 0154F00016 | GASKET (M7, M8) |
| 991 | 0121F00389 | BRACKET, DOOR SWITCH |

Expanded Model Nomenclature

| |
|---------------------|
| M1 - GCEC960403BNAA |
| M2 - GCEC960403BNAB |
| M3 - GCEC960603BNAA |
| M4 - GCEC960603BNAB |
| M5 - GCEC960803BNAA |
| M6 - GCEC960803BNAB |
| M7 - GCEC961005CNAA |
| M8 - GCEC961005CNAB |

Heat Exchanger and Manifold Assembly



Heat Exchanger and Manifold Assembly

| Ref. Part No: | Ref. Part No: | Description: | Description: |
|-----------------|---------------|--|---------------------|
| Image 1: | | Expanded Model Nomenclature | |
| 11 | 0130F00008 | IGNITOR-SINI 17 SEC | M1 - GCEC960403BNAA |
| 21 | 0151M00027 | GAS VALVE | M2 - GCEC960403BNAB |
| 31 | 10716005 | ORIFICE (QTY 2) | M3 - GCEC960603BNAA |
| 41 | 0130F00010 | FLAME SENSOR | M4 - GCEC960603BNAB |
| 51 | 0130F00123 | MANUAL RESET R.O.S. LIMIT (M7, M8) | M5 - GCEC960803BNAA |
| 51 | 10123533 | MANUAL RESET R.O.S. LIMIT (M1, M2, M5, M6) | M6 - GCEC960803BNAB |
| 51 | 10123538 | MANUAL RESET R.O.S. LIMIT (M3, M4) | M7 - GCEC961005CNAA |
| 61 | 0163F00007 | MANIFOLD (M1, M2) | M8 - GCEC961005CNAB |
| 61 | 0163F00008 | MANIFOLD (M3, M4) | |
| 61 | 0163F00010 | MANIFOLD (M7, M8) | |
| 61 | 0163F00014 | MANIFOLD (M5, M6) | |
| 71 | 0163F00017 | BECKETT BURNER (QTY 2) | |
| 81 | 0121F00456 | BRACKET-BURNER 2 (M1, M2) | |
| 81 | 0121F00455 | BRACKET-BURNER 3 (M3, M4) | |
| 81 | 0121F00454 | BRACKET-BURNER 4 (M5, M6) | |
| 81 | 0121F00453 | BRACKET-BURNER 5 (M7, M8) | |
| 111 | 0121F00469 | ORIFICE BRACKET-BURNER 2 (M1, M2) | |
| 111 | 0121F00468 | ORIFICE BRACKET-BURNER 3 (M3, M4) | |
| 111 | 0121F00467 | ORIFICE BRACKET-BURNER 4 (M5, M6) | |
| 111 | 0121F00466 | ORIFICE BRACKET-BURNER 5 (M7, M8) | |
| 131 | 0161F00072 | COVER FRONT (M7, M8) | |
| 131 | 0161F00053 | COVER, FRONT (M1, M2) | |
| 131 | 0161F00078 | COVER, FRONT (M3, M4) | |
| 131 | 0161F00079 | COVER, FRONT (M5, M6) | |
| 141 | 0154F00026 | GASKET FRONT COVER (M1, M2, M3, M4, M5, M6) | |
| 141 | 0154F00030 | GASKET FRONT COVER (M7, M8) | |
| 151 | 0257F00419 | HEAT EXCHANGER ASSY (M1, M2) | |
| 151 | 0257F00420 | HEAT EXCHANGER ASSY (M3, M4) | |
| 151 | 0257F00421 | HEAT EXCHANGER ASSY (M5, M6) | |
| 151 | 0257F00429 | HEAT EXCHANGER ASSY (M7, M8) | |
| 161 | M0326804 | TUBE PLUG | |
| 231 | A1781105 | CAP-VINYL .500 | |
| 241 | 0154F00043 | GASKET ID BLOWER | |
| 261 | 0121F00317 | REAR COVER (M1, M2, M3, M4, M5, M6) | |
| 261 | 0121F00318 | REAR COVER (M7, M8) | |
| 271 | 0154F00037 | REAR COVER GASKET (M1, M2, M3, M4, M5, M6) | |
| 271 | 0154F00038 | REAR COVER GASKET (M7, M8) | |
| 371 | 20162904 | *PRIMARY LIMIT-TEMPERATURE CONTROL (M5, M6) *Refer to service bulletin SF-054 | |
| 371 | 20162906 | PRIMARY LIMIT - WHITE (M1, M2, M3, M4, M7, M8) | |
| NS | 0121F00583 | INSULATION, RETAINER (M1, M2, M3, M4, M5, M6) | |
| NS | 0121F00584 | INSULATION, RETAINER (M7, M8) | |
| NS | 0121F00439 | PRIMARY LIMIT-HEAT SHIELD | |
| NS | 0121F00542 | SHIELD, BURNER (M7, M8) | |
| NS | 0121F00355 | SHIELD, COIL (QTY 2) | |