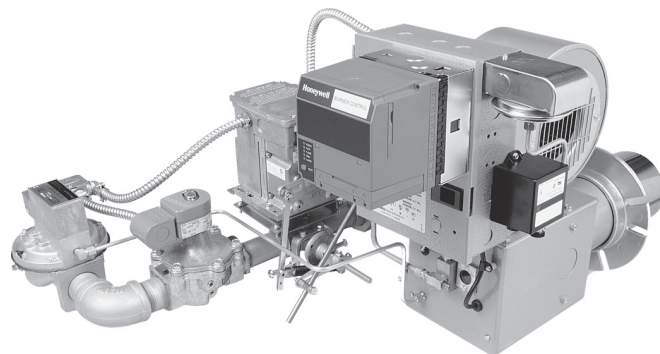


Replacement Parts List Unipower G series



*Installation and Service Manual - 8449-06
Date Code - April 2000*

- First Construction October 1976; date code 4176 (41st week, 1976).
- Push-Pull Input Adjusters first used June 1980; date code 2380 (23rd week, 1980).
- Push-Pull Input Adjusters discontinued approximately June 1989; date code 2489 (24th week, 1989)-See Note 5.



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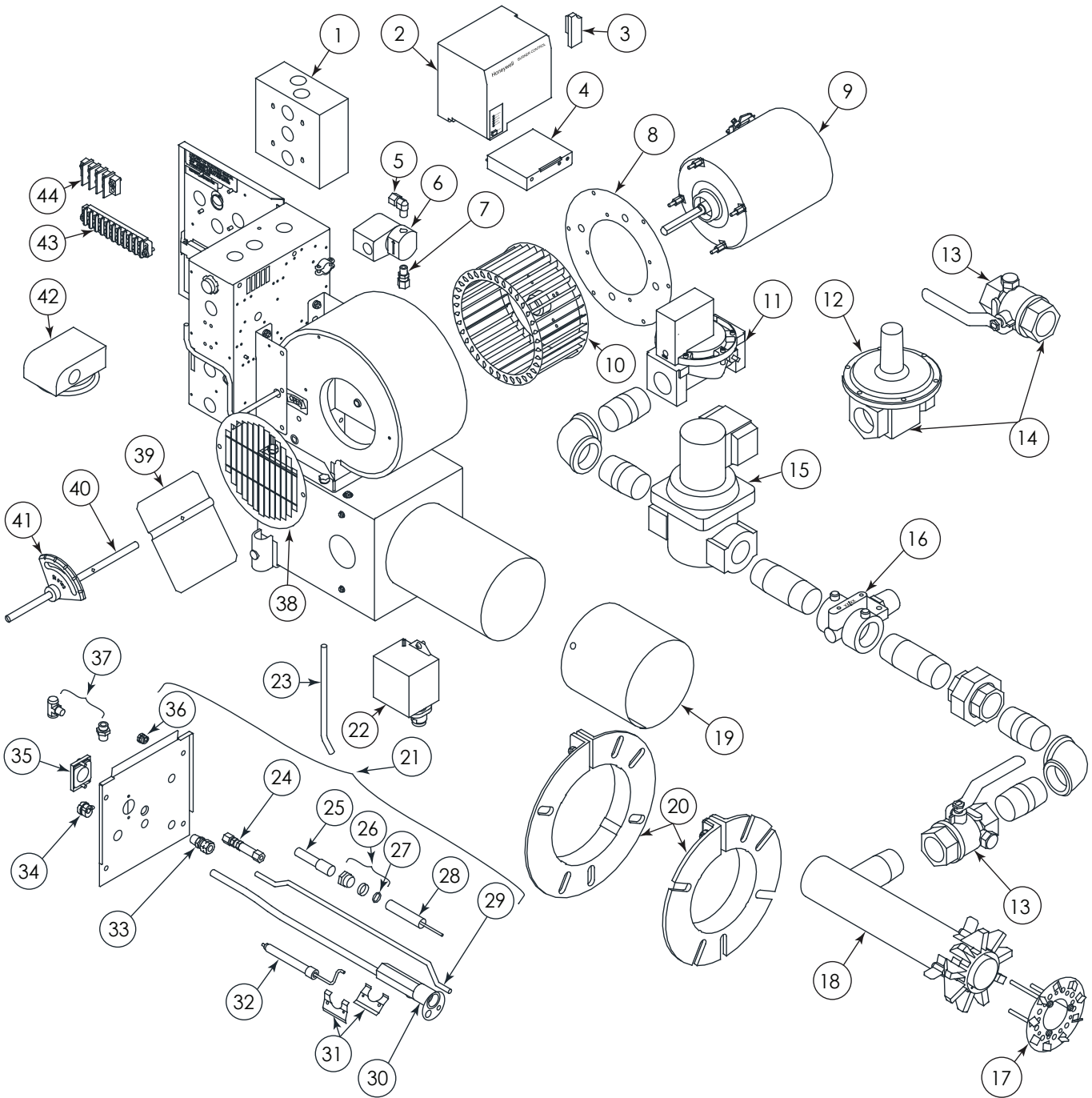
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AVOID ERROR IN PARTS SELECTION. When ordering use complete MIDCO Part Number and Description. Furnish Burner Model Number, Bill of Material Number and Serial Number (if available) from the specification plate found on the product.

IMPORTANT: Availability of parts as well as specifications are subject to change without notice. Please consult factory for item availability.



Exploded View - G Series



Item Part # Description N/S = Not Shown

WIRING BASE (See Note # 8)

| | | |
|----|---------|----------------------------|
| 1A | 8429-16 | Q7800B Sub-Base for RM7895 |
| 1B | 8428-42 | Fireye M Base |

CHASSIS (Order plug-in components separately)

| | | |
|----|---------|-------------------------|
| 2A | 8429-19 | RM7895A 1048 Controller |
| 2B | 8429-17 | RM7840M 1017 Controller |
| 2C | 8429-34 | RM7895C 1012 Controller |

Item Part # Description N/S = Not Shown

PLUG-IN PURGE TIMER (see note # 4 & # 8)

| | | |
|----|---------|------------------------------|
| 3A | 8429-22 | ST7800 for RM7895 30 seconds |
| 3B | 8429-25 | ST7800 for RM7895 90 seconds |

PLUG-IN AMPLIFIER

| | | |
|---|---------|-----------------------|
| 4 | 8429-27 | R7847A Rect Amplifier |
|---|---------|-----------------------|

PILOT SHUT OFF VALVE

| | | |
|---|---------|--|
| 5 | 8483-01 | 1/8" M X 5/16 T Compression Elbow |
| 6 | 8402-00 | Gas Safety Shut-Off Valve-1/8" NPT; 120/1/60 |
| 7 | 8483-30 | 5/16" O.D. Tube X 1/8" NPTM Straight Fitting |

| Item | Part # | Description | N/S = Not Shown | Item | Part # | Description | N/S = Not Shown |
|---|---------|--|-----------------|---|---------|--|-----------------|
| <p>MOTOR MOUNTING PLATE</p> | | | | <p>MAIN GAS TRAIN COMPONENT - On-Off or Hi Lo Off POSITIVE LOW FIRE START - V5055B without "Proof of Closure" Switch</p> | | | |
| 8 | 3197-50 | Motor Mounting Plate—Used on 56C or 66C Frames (ref. Models G57, G58 & G69. Became production item on G56 Models approximately July 1989). | | N/S | 8418-78 | 1" | |
| <p>BLOWER MOTORS - 1-Phase, 48M of J48Y Frame (3450 RPM, 1/2" Shaft) Open Drip Proof</p> | | | | <p>MAIN GAS TRAIN COMPONENT - MOTORIZED VALVE ACTUATOR</p> | | | |
| 9A | 6728-90 | G56 1/6 HP 115/230/1/60/50 | | N/S | 8418-31 | V4055A On-Off w/out "Proof of Closure" Switch | |
| 9B | 8437-31 | G57 1/3 HP 115/230/1/60 | | N/S | 8418-88 | V4055D On-Off with "Proof of Closure" Switch | |
| 9C | 8437-15 | G58 1/2 HP 115/230/1/60 | | N/S | 8418-79 | V4062A Hi-Lo-Off Low Fire Start | |
| 9D | 8437-25 | G69 3/4 HP 115/230/1/60 | | N/S | 8418-97 | V4062D Hi-Lo-Off Low Fire Start with "Proof of Closure" Switch | |
| <p>BLOWER MOTORS - 3-Phase, 56C Frame (3450 RPM, 5/8" Shaft)</p> | | | | <p>MAIN GAS TRAIN COMPONENT - SOLENOID VALVES</p> | | | |
| 9E | 8440-19 | G58 1/2 HP 20/230/460/3/60 TENV Motor | | <p>Vent Valves (normally open)</p> | | | |
| 9F | 8440-20 | G69 3/4 HP 208/230/460/3/60 TENV Motor | | N/S | 8402-30 | 3/4" Solenoid Valves (normally open) | |
| <p>BLOWER WHEELS</p> | | | | N/S | 8402-31 | 1" Solenoid Valves (normally open) | |
| 10A | 6748-00 | G56 5-1/4" dia x 3-1/2" W (1/2" Bore) | | <p>MAIN GAS TRAIN COMPONENT - PRESSURE REGULATORS - Maxitrol RV Series</p> | | | |
| 10B | 3427-50 | G57 6-5/16" dia x 4" W (5/8" Bore) | | 12A | 8416-33 | RV61 1" Maxitrol Gas Pressure Regulator | |
| 10C | 3627-50 | G58 & G69-7" dia x 3-1/2" W (5/8" Bore) | | 12B | 8416-02 | RV61 1-1/4" Maxitrol Gas Pressure Regulator | |
| <p>MAIN GAS TRAIN COMPONENT - V48A DIAPHRAGM VALVES</p> | | | | 12C | 8416-05 | RV81 1-1/2" Maxitrol Gas Pressure Regulator | |
| 11A | 8418-22 | 1-1/4" V48A Diaphragm Valve | | 12D | 8416-08 | RV91 2" Maxitrol Gas Pressure Regulator | |
| 11B | 8418-23 | 1-1/2" V48A Diaphragm Valve | | 12E | 8416-11 | RV111 2-1/2" Maxitrol Gas Pressure Regulator | |
| 11C | 8418-20 | 2" V48A Diaphragm Valve | | <p>MAIN GAS TRAIN COMPONENT - BALL VALVES - Side Taps</p> | | | |
| 11D | 8418-41 | 2-1/2" V48A Diaphragm Valve | | 13A | 8404-23 | 1" NPT Ball Valve with Side Tap | |
| <p>MAIN GAS TRAIN COMPONENT - On-Off or Full Mod MOTORIZED VALVE BODY - V5055A without "Proof of Closure" Switch</p> | | | | 13B | 8404-24 | 1-1/4" NPT Ball Valve with Side Tap | |
| N/S | 8418-32 | 1" | | 13C | 8404-25 | 1-1/2" NPT Ball Valve with Side Tap | |
| N/S | 8418-33 | 1-1/4" | | 13D | 8404-26 | 2" NPT Ball Valve with Side Tap | |
| N/S | 8418-34 | 1-1/2" | | <p>MAIN GAS TRAIN COMPONENT - REGULATOR/COCK KITS</p> | | | |
| N/S | 8418-35 | 2" | | 14A | 6773-60 | Regulator/Cock Kit 1" | |
| N/S | 8418-36 | 2-1/2" | | 14B | 6773-00 | Regulator/Cock Kit 1-1/4" | |
| <p>MAIN GAS TRAIN COMPONENT - On-Off or Full Mod MOTORIZED VALVE BODY - V5055C with "Proof of Closure" Switch</p> | | | | 14C | 6773-10 | Regulator/Cock Kit 1-1/2" | |
| N/S | 8418-90 | 1" | | 14D | 6773-20 | Regulator/Cock Kit 2" | |
| N/S | 8418-91 | 1-1/4" | | | | | |
| N/S | 8418-92 | 1-1/2" | | | | | |
| N/S | 8418-93 | 2" | | | | | |
| N/S | 8418-94 | 2-1/2" | | | | | |

Exploded View

| Item | Part # | Description | N/S = Not Shown | Item | Part # | Description | N/S = Not Shown |
|--|---------|--|-----------------|---|---------|---|-----------------|
| MAIN GAS TRAIN COMPONENT - SAFETY VALVES (Normally closed) | | | | BURNER CHASSIS - NOZZLES | | | |
| 15A | 8418-03 | 1" Solenoid Valve | | 18A | 6735-50 | Manifold Weldment (5x1) Nozzle - G56 and G57 Nat & LP Gas and G58 LP Gas | |
| 15B | 8402-06 | 1-1/4" Solenoid Valve | | 18B | 6735-00 | Manifold Weldment (5x2) Nozzle G58 Nat Gas | |
| 15C | 8402-07 | 1-1/2" Solenoid Valve | | 18C | 6740-00 | Manifold Weldment (6x2) Nozzle G69 Nat Gas | |
| 15D | 8402-18 | 2" Solenoid Valve | | 18D | 6740-05 | Manifold Weldment (6x1) Nozzle G69 LP Gas | |
| 15E | 8402-19 | 2-1/2" Solenoid Valve | | BURNER CHASSIS - SLEEVES & FLANGES | | | |
| FIRING RATE CONTROLS - BUTTERFLY VALVES (see note # 5) | | | | 19A | 6736-00 | Adj Alloy 5"x5" Sleeve- G56, G57 & G58 | |
| 16A | 2933-50 | On-Off Butterfly Valve Assembly 1" | | 19B | 6741-00 | Adj Alloy 6" Sleeve- G69 | |
| 16B | 2933-51 | On-Off Butterfly Valve Assembly 1-1/4" | | 20A | 2020300 | 5" Mounting Flange Kit G56,G57 & G58 | |
| 16C | 2933-52 | On-Off Butterfly Valve Assembly 1-1/2" | | 20B | 2020800 | 6" Mounting Flange Kit G69 | |
| 16D | 2933-53 | On-Off Butterfly Valve Assembly 2" | | BURNER CHASSIS - DRAWER ASSEMBLIES | | | |
| FIRING RATE CONTROLS - MOTORIZED BUTTERFLY VALVES (Contains Modutrol Motor Mounting Plate, Overrunning Linkage and Stop Arm) | | | | 21A | 6755-10 | Drawer Assembly with Pilot and Vent Tube. Vent Tube is required when burner is equipped with a V48A Diaphragm Type Main Gas Valve. Order Pilot Gas and Air Orifices separately. | |
| N/S | 2010200 | 1" | | 21B | 6755-11 | Drawer Assembly with Pilot. Order Pilot Gas and Air Orifices Separately. Used on All UL Burners with Motorized Valve. | |
| N/S | 2010300 | 1-1/4" | | 21C | 6755-13 | Drawer Assembly with Pilot. Used on all CUL Burners with V48A Diaphragm Type Main Gas Valve Order Pilot Gas and Air Orifices separately. | |
| N/S | 2010400 | 1-1/2" | | PILOT COMPONENTS and ACCESSORIES | | | |
| N/S | 2010500 | 2" | | 22A | 8447-22 | Ignition Trans 120/1/60 12,000 V Secondary - Honeywell Q652B | |
| FIRING RATE CONTROLS - MODUTROL MOTORS - (see note # 7) | | | | 22B | 8447-11 | Ignition Transformer -- 120/1/60; 6000 V Secondary - Allanson 1092-S | |
| N/S | 8414-21 | M9484D Full Modulating (no End Switch) | | 23 | 6729-91 | Pilot Air Tube-Blower Housing to Drawer Assembly | |
| N/S | 8414-22 | Q7230A 4-20 mA Control Module for use with M9484 | | 24 | 8483-35 | 1/4" Bulk Head Union | |
| N/S | 8414-19 | M9484F Full Modulating with Two End Switches | | 25 | 8409-10 | Silicone Boot- Orange- for covering Spark Cable to Rod Connection | |
| N/S | 8415-24 | MH 198162EA 24V Transformer for use with M9484 | | 26 | 6764-00 | Sealing Gland Nut Kit - Spark Rod Retainer Assembly with O-Ring Seal - (see note #1) | |
| N/S | 8414-25 | M9484E Full Modulating with One End Switch | | 27 | 8432-07 | Spark Rod Retainer O-Rings ONLY | |
| BURNER CHASSIS | | | | 28 | 6725-50 | Spark Rod and Insulator Assembly | |
| 17A | 6712-05 | Flame Retention Plate 5" w/ Mounting Screws—Models G56, G57 & G58 | | 29 | 6747-00 | Vent Tube (Used w/ Diaphragm Gas Valves) | |
| 17B | 6712-12 | Flame Retention Plate 4.9" w/ Mounting. Screws used on OEM models consult factory for applications | | 30A | 6725-90 | Pilot with Flamerod and Spark Rod Assemblies mounted. All UL burners with Diaphragm Valve and all CUL burners with Motorized Valve. | |
| 17C | 6713-05 | Flame Retention Plate 6" w/ Mounting Screws -- Model G69 | | 30B | 6725-91 | Pilot with Flamerod and Spark Rod Assemblies mounted. All UL burners with Motorized Valve | |

| Item | Part # | Description | N/S = Not Shown | Item | Part # | Description | N/S = Not Shown |
|--|---------|---|-----------------|---|--------|-------------|-----------------|
| 30C | 6725-92 | Pilot with Flamerod and Spark Rod Assemblies mounted. All CUL burners with Diaphragm valve. | | | | | |
| 31 | 6720-90 | Mounting Clamp for Flamerod Assembly | | | | | |
| 32 | 6717-00 | Flamerod and Insulator Assembly | | | | | |
| 33 | 8483-33 | 1/4 MPT X 3/8 Tube Str. Connector | | | | | |
| DRAWER ASSEMBLY COMPONENT | | | | | | | |
| 34 | 8484-72 | Strain Relief SR-4K-1 Straight | | | | | |
| 35 | 7122-90 | Peep Sight Assembly w/ Gasket & Mounting Screws | | | | | |
| 36 | 5616-90 | Strain Relief Bushing for Spark Cable | | | | | |
| N/S | 6717-90 | Flamerod Wire Replacement Kit | | | | | |
| N/S | 8502-05 | Spark Cable | | | | | |
| TEE KITS ** Straight Kits Not Available | | | | | | | |
| 37A | 6766-00 | Nat G56 gas #60 Dr. (.040), air #26 Dr. (.147) | | | | | |
| 37B | 6766-01 | Nat G57 gas #60 Dr. (.040), air #30 Dr. (.128) | | | | | |
| 37C | 6766-02 | Nat G58 gas #55 Dr. (.052), air #26 Dr. (.147) | | | | | |
| 37C | 6766-02 | Nat G69 gas #55 Dr. (.052), air #26 Dr. (.147) | | | | | |
| 37D | 6766-05 | Prop G56 gas #64 Dr. (.036), air #26 Dr. (.147) | | | | | |
| 37E | 6766-06 | Prop G57 gas #64 Dr. (.036), air #30 Dr. (.128) | | | | | |
| 37F | 6766-07 | Prop G58 gas #56 Dr. (.046), air #26 Dr. (.147) | | | | | |
| 37F | 6766-07 | Prop G69 gas #56 Dr. (.046), air #26 Dr. (.147) | | | | | |
| BLOWER HOUSING | | | | | | | |
| 38 | 6724-10 | Blower Inlet Screen | | | | | |
| 39A | 6755-50 | Air Shutter—Models G56 & G57 | | | | | |
| 39B | 3246-08 | Air Shutter—Models G58 & G69 | | | | | |
| 40 | 6734-01 | Air Shutter Shaft | | | | | |
| 41 | 3152-01 | Quadrant—for Air Shutter Adjustment | | | | | |
| N/S | 8400-10 | Pilot Pressure Regulator, 1/4" Natural and Propane (1/2 PSI maximum inlet pressure) | | | | | |
| FLAME SAFEGUARD and ACCESSORIES | | | | | | | |
| OTHER CONTROLS | | | | | | | |
| 42A | 8425-19 | Blower Air Switch (Chicago Safety Prod. #SMP; Tri-delta #FP4039) | | | | | |
| 42B | 8425-22 | Blower Air Switch Canadian Versions | | | | | |
| N/S | 8406-68 | DPST Relay (Aromat: JH2A-W-AC120V- Q, Potter Brumfield: T9S7A22-120) | | | | | |
| N/S | 8425-42 | High Gas Pressure Switch (note # 3) | | | | | |
| N/S | 8425-43 | Low Gas Pressure Switch (see note # 3) | | | | | |
| N/S | 8423-03 | On-Off Toggle Switch (CH7500K14) | | | | | |
| N/S | 6765-95 | High-Low Single Body Gas Pressure Switch (note # 2) | | | | | |
| N/S | 8406-38 | R4222D DPDT Switching Relay | | | | | |
| | | | | TERMINAL STRIPS | | | |
| 43 | 8408-42 | 10 Terminal Strip | | | | | |
| 44 | 8408-78 | 3 Terminal Strip | | | | | |
| | | | | MISCELLANEOUS REPLACEMENT PARTS FOR FIRING RATE CONTROL | | | |
| | | | | MBF VALVE (Motorized Butterfly Valve) | | | |
| | | | | SRBF VALVE (Spring Return Butterfly Valve-- Valve Actuator Operated) | | | |
| N/S | 2926-50 | Overrunning Spring and Rod Assembly -- 1" through 1-1/2" MBF Valve | | | | | |
| N/S | 2926-55 | Overrunning Spring and Rod Assembly -- 2" | | | | | |
| N/S | 2926-00 | MBF Overrunning Spring | | | | | |
| N/S | 2919-01 | Stop Arm for MBF Valve | | | | | |
| N/S | 8414-03 | Crank Arm -- Mod. Motor or Valve Actuator Shaft | | | | | |
| N/S | 8450-94 | Crank Arm -- Air Shutter and MBF Valve Shafts | | | | | |
| N/S | 7180-20 | Connecting Rod -- Air Shutter to MBF Valve or Valve Actuator | | | | | |
| N/S | 8450-18 | Connecting Rod Ball Joint | | | | | |
| N/S | 8432-02 | 3/8" diameter O-Ring for BF Valves and MBF Valves | | | | | |

Unipower G Series Parts Lists

NOTES

1. Starting in July 1980 (Date Code 3080), the one piece Spark Rod Assembly Retainer was superseded by a three piece Retainer Assembly which features an O-Ring seal to compensate for any irregularities in the Spark Rod size or shape. When replacing the Spark Rod, the O-Ring and the one piece Retainer (on burners where it is still in use) should also be replaced.
2. The Chicago Safety Products single body High-Low Gas Pressure Switch, Model HLGP, used through June 22, 1981 (Date Code 2681), has been superseded by an assembly of individual high and low pressure switches mounted on a junction box. For replacement of the single body High-Low Switch, order Kit Number 6765-95, which includes 8449-88 Installation Bulletin.
3. Replacement individual High or Low Gas Pressure Switches may be a different make and have a different physical configuration than that previously supplied, but the mounting and wiring will be the same. Request Bulletin 8449-88 for terminal identification.
4. 30-second minimum pre-ignition purge is used with On-Off burners having the blower air shutter locked in a "fixed" firing rate position. Where the air shutter position is automatically controlled, a 90-second minimum purge or a purge with the air shutter driven to the "high fire" position, is required. Failure to keep pre-purge at its intended timing will VOID the UL listing.
5. Replacement of the unavailable Push-Pull Input Adjusters can be accomplished by substituting a butterfly valve assembly. The BF assembly is a straight line design, whereas the Push-Pull is a right angle design. This will require further replacement adjustments, as valve train pipe fittings will have to be rearranged. Be sure to carry out the same general arrangement: BF assembly between Automatic Safety Valve and burner chassis.
6. Three Phase Arrow-Hart (A-H) Motor Starters and accessories no longer available from MIDCO. Obtain locally.
7. Honeywell discontinued manufacturing their M941 series Modulating Motors mid 1992. MIDCO stock ran out late 1992 when MIDCO switched to Honeywell M9484 Series Motors. The newer M9484 Motors are physically shorter and require an Adaptor Bracket to mount to MIDCO MBF valves. The replacement Mod Motors shown in listing include the necessary Adaptor Bracket. The accessory items used on the newer M9484 Motors and the 24V Transformers are NOT interchangeable with the older M941 Motors. If exact replacements are required for the M941 Motor, consult your local Honeywell distributor for available Tradeline replacement. When ordering 4-20 MA Control Module, Honeywell Q7230A, request MIDCO Blue Print 7503-07 which details revised terminal call outs.
8. Honeywell R4795 discontinued (Nov. 93) construction features Honeywell RM7895 Flame Safeguards (Nov. 93)
9. Dual Main Valves as standard construction April 1, 1994 (UL 795 requirement)



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