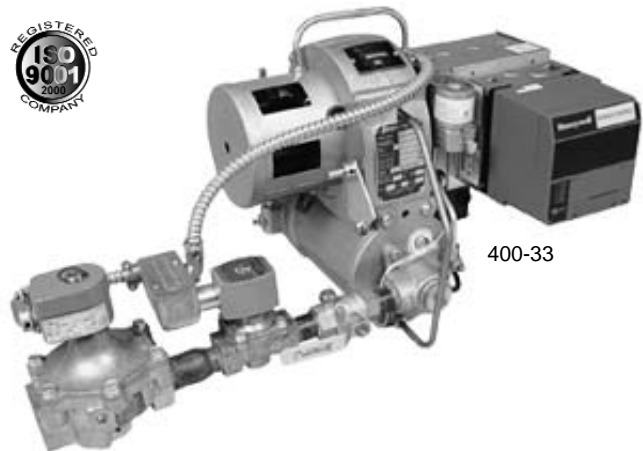


Replacement Parts List

Economite Model 400-33

For manufacturing dates and manual availability, refer to historical data below and on page 2.



Supersedes EC88, EC131

This burner has been manufactured since 1961 and has been relatively unchanged except for various pilot styles described on page 4. Pilot styles can be determined by the double digit suffix following "Model 400" on the rating plate.

- . Serial number discontinued April 1969 with 94,000.
- . Date coding started April 1969 with 1769 (17th week, 1969).
- Pressure tap moved from "B" cock assembly to pilot solenoid February 26, 1986 (date code 986).
- Motors featuring permanently lubricated bearings used for the first time January, 1987 (date code 487).
- Honeywell R4795A Flame Safeguards superseded by Honeywell RM7895 Flame Safeguards November, 1993. R4795A Flame Safeguard is not available.

Manuals:

400-33 Installation and Service Manual 8449-84 for 400-33.

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

- Construction required Dual Main Valves (UL 795 Requirement) April 1, 1994 (date code 1394)
- Maxitrol phased out their RV10 and RV60 Regulators February and March 1992 and replaced them with Models RV12 and RV61. Refer to notes 5 and 6 page 2.



Midco[®]
INTERNATIONAL

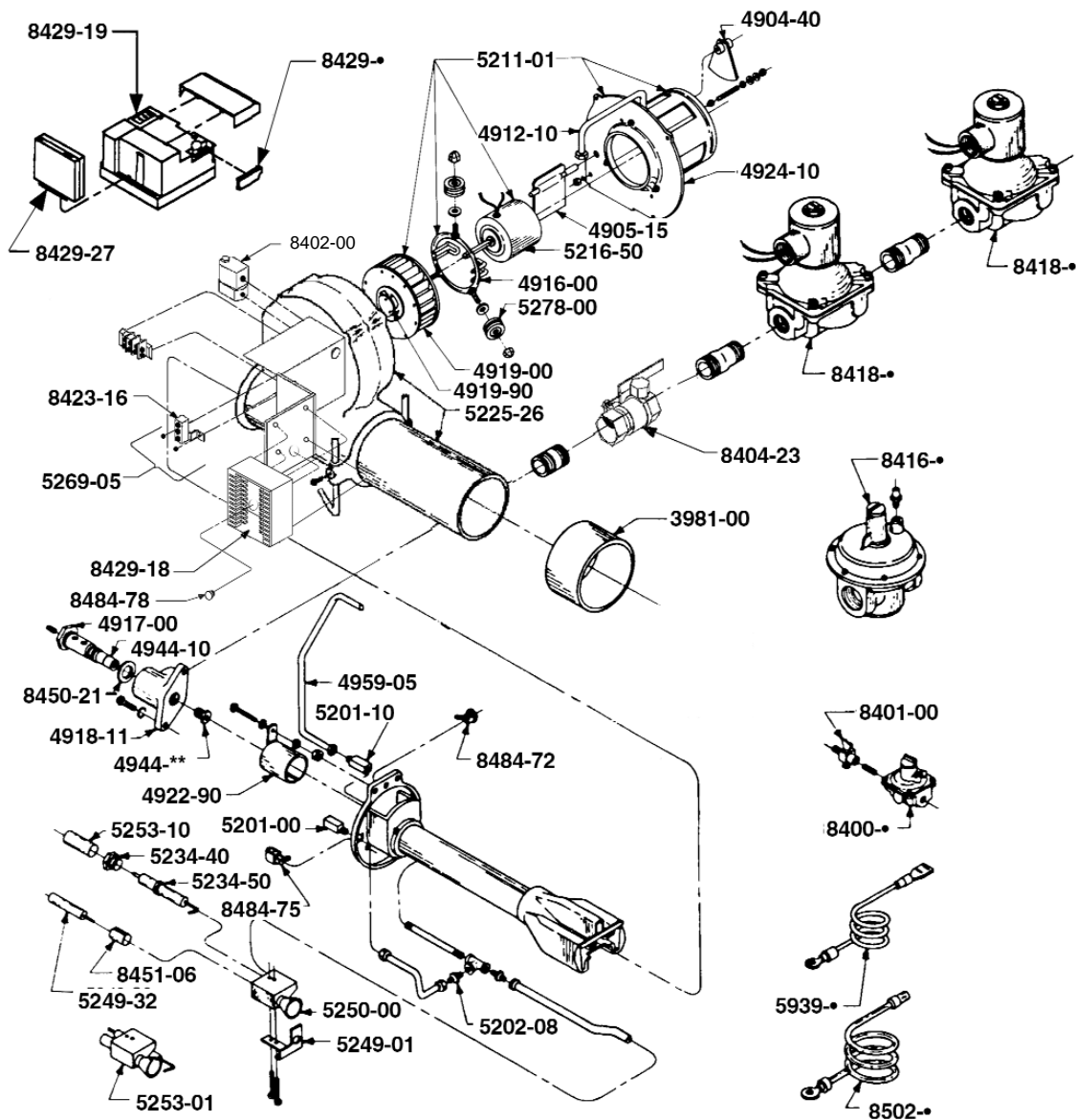
Midco[®] International Inc.

4140 West Victoria Street
Chicago, Illinois 60646
tel 773.604.8700
fax 773.604.4070
web www.midcointernational.com
sales@midcointernational.com

Quality Designed for Proven Performance

802
8472 01
Printed in USA

Economite 400-33 Exploded View



LAYOUT MAY NOT BE AS SHOWN

• REFER TO LISTING

AVOID ERROR IN PARTS SELECTION. When ordering use complete MIDCO Part Number and Description. Furnish burner model number, bill of material number and date code (if available) from rating plate.

NOTES

1. See MAMMOTH INDUSTRIES, page 3.
2. Some applications, usually O.E.M., require the use of more than one extension. Determine the exact number in your ECONOMITE before ordering.
3. Motors featuring permanently lubricated ball bearings were used for the first time in production January 1987 (date code 487).
4. 5" and 15" Blower Housing and Blast Tube Assemblies are NOT available. A 5" assembly can be fabricated by hack sawing 4" off of a 9" assembly. A 15" assembly can be made by assembling a 9" assembly with 2020500 (8" long Accessory Blast Tube Extension).
5. Maxitrol and General Controls Pilot Regulators have been used interchangeably. For exact replacement, determine the model used in your ECONOMITE before ordering. If regulating PROPANE, select 8400-00 (Maxitrol RV-12), as the RV-12 responds better to PROPANE regulation.
6. 3/4" NPT and 1" NPT Main Regulators have been used interchangeably. Determine the size used in your ECONOMITE before ordering.
7. 3/4" NPT and 1" NPT Main Automatic Valves have been used interchangeably. Determine the size used in your ECONOMITE before ordering. Several brands have been used, depending on price and availability. MIDCO will provide whatever is currently in stock. If you desire exact replacement, obtain locally. NOTE: MIDCO stocks only complete valve assemblies. Obtain operator heads or bodies locally.
8. When replacing Fluid Power Valves, obtain exact valve number and brand from valve rating plate, as well as the bill of material number from the ECONOMITE rating plate. Contact MIDCO for price and availability.
9. Contact MIDCO for availability of early EC manuals.
10. **WARNING:** Explosion hazard. Can cause serious injury or death. This device can malfunction if it gets wet. Never try to use a device that has been wet -- replace it.
11. Honeywell R4795A Flame Safeguards were phased out of production November, 1993. Replaced by Honeywell RM7895 Flame Safeguards. Determine which version is required before ordering.

Economite 400-33 Parts List

Part #	Description	Part #	Description
3981-00 ¹	4" Diameter Stainless Sleeve	8400-00 ⁵	1/8" NPT Pilot Regulator -- 0.5" PSI maximum inlet (Maxitrol RV10, RV12, RV12LT)
4904-45	Quadrant -- Air Shutter Adjustment	8400-05 ⁵	1/8" NPT Pilot Regulator -- 1/2 PSI maximum inlet (General Controls V300)
4905-15	Air Shutter -- Internal	8401-00	1/8" NPT Pilot "B" Cock
4912-10	Motor Conduit with hardware	8402-00	1/8" NPT Pilot Solenoid 120/1/60
4916-00	Motor Mounting Ring less rubber mounts & nuts	8416-01 ⁶	3/4" NPT Main Gas Pressure Regulator -- NATURAL (Maxitrol RV53)
4917-00	Main Orifice Holder	8416-33 ⁶	1" NPT Main (Gas Pressure Regulator -- NATURAL (Maxitrol RV60, RV61)
4918-01	Orifice Elbow (3/4" NPT)	8418-01 ^{7,8}	3/4" NPT Main Automatic Valve 120/1/60
4919-00	Blower Wheel with Centrifugal Actuator and Disc	8418-03 ^{7,8}	1" NPT Main Automatic Valve 120/1/60
4919-90	Centrifugal Actuator Disc	8423-16	Blower Interlock Switch (MICRO BZ-2RQ174-A2)
4922-90	Primary Air Shutter Kit	8428-07 ^{11,*}	Honeywell Q270 Mounting Base -- use RA890 or R4795
4924-10	Inlet Side Plate	8428-24 ^{10,11,*}	Honeywell R7289 Plug-In Rectification Amplifier (use with R4795A)
4944-01	Main Spud 11/32" Drill (.343) minimum capacity - NATURAL	8428-26 ^{10,11,*}	Honeywell ST71 Plug-In Prepurge Timer--30 seconds (use with R4795A)
4944-02	Main Spud 25/64" Drill (.390) maximum capacity - NATURAL	8429-16 ^{10,11}	Subbase for Flame Safeguard (M-HQ7800B)
4944-03	Main Spud #21 Drill (.159) minimum capacity -- PROPANE -- drill for desired capacity per manual	8429-19 ^{10,11}	RM7895A Controller
4944-10 ²	Main Spud Extension	8429-22 ^{10,11}	30-Second Purge Timing Card (Honeywell ST7800A1039)
4959-05	External Pilot Air Tube Kit	8429-25 ^{10,11}	90-Second Purge Timing Card (Honeywell ST7800A1062)
5201-00	1/2" sq. Pass Through for 1/4" Tube Fitting (gas line)	8429-27 ^{10,11}	Rectification Amplifier (Honeywell R7847A1033)
5201-10	1/2" sq. Pass Through for 5/16" Tube Fitting (air line)	8429-28*	Keyboard Display
5201-90*	400 Ser Rub Seal Strp	8432-09*	1.512 OD x 1.234 ID O-Ring
5202-04	Pilot Spud #68 (.031) Drill was #66 (.033) -- NATURAL and PROPANE	8433-06*	Pilot Spud (.021) -- NATURAL (3N4-021, Y90AA-3221)
5211-01	Motor, Wheel, Side Plate and Cage Assembly 120/1/60	8433-08*	Pilot Spud (.012) -- PROPANE (2-14L12, Y90AA-4212)
5216-50 ³	Motor less mounting ring and rubber mounts 120/1/60 (Universal Electric AAP026N#, AA2G014#, JA2P182N#, JB2P048N#; Fasco 7163-7511)	8447-22*	Honeywell Spark Generator
5225-26 ⁴	Blower Housing and Burner Tube Assembly -- 9"	8449-84 ^{3*}	Installation and Service Manual
5225-28 ^{1*}	Blower Housing and Burner Tube Assembly -- 6 3/8" (Mammoth Industries)	8450-21	Orifice Holder Sealing Gasket
5234-40	Flamerod Gland Nut	8451-06	Spark Rod Insulator Sleeve
5234-50	Flamerod Assembly	8484-72	Heyco Strain Relief (SR-4K-1) -- Flamerod Wire
5249-01	Pilot Air Baffle	8484-75	Heyco Strain Relief (SR-11-2) -- Spark Rod Wire
5249-32	Spark Rod Assembly	8484-78	Heyco Snap Bushing (B-875-750) -- Control Box
5250-00	Pilot Tip with Cone less Insulators, Rods, Temflex and Baffle	8502-05	Spark Cable -- 15" Burner Tube
5253-01	Pilot Assembly with Insulators, Rods, Temflex and Baffle	8502-06	Spark Cable -- 5" through 9" Burner Tube
5253-10	PVC Tubing — 7/16" I.D. x 2" long	2020100*	4" Mounting Flange
5269-05	Blower Interlock Switch (MICRO Switch) with Bracket (replaces early ACRO Switch) -- if only MICRO Switch is desired order 8423-16	2030300*	Kit to convert NATURAL burner to PROPANE -- includes minimum spud to be drilled per manual, Main Regulator Spring, Instructions, etcetera
5278-00	3 Rubber Mounts and Nuts	2020400*	4" long Accessory Blast Tube Extension (Service Bulletin 8448-94 is included)
5939-01	Flamerod Wire -- 5" through 9" Burner Tube	2020500*	8" long Accessory Blast Tube Extension (Service Bulletin 8448-94 is included)
5939-02	Flamerod Wire -- 15" Burner Tube		* NOT SHOWN

MAMMOTH INDUSTRIES

A flame spreader or target, welded to MIDCO's 4" diameter Stainless Sleeve, was manufactured at MIDCO and supplied to Mammoth Industries (first production October 1962). Mammoth Industries ultimately manufactured the spreader themselves. Contact Mammoth Industries for flame spreader replacements.

Early (1962 through 1965) Mammoth Inverted Blower Housing and 6 3/8" Burner Tube Assembly included a welded mounting flange. The welded Mammoth flange is no longer available. For field substitution, order 5225-28 Blower Housing and Burner Tube Assembly and 2020100 4" Accessory Mounting Flange.

PILOTS

The current MIDCO -33 Spark Ignited Pilot has evolved through a number of designs since MIDCO built its first 400 Series burner with spark ignition and flamerod electronic safety. Listed below are brief descriptions of each design, approximate production dates and parts availability. Many Burners have been converted to the current production -33 Pilot.

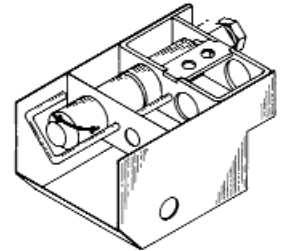
IMPORTANT: Frequently the serviceman fails to adequately remark the rating plate with the new pilot designation when a burner is converted. For example, when a Model 400-03 burner is converted to a -33 pilot, the rating plate should be modified to read 400-33. It is critical that you confirm that the rating plate reflects the actual pilot designation before ordering parts.

Production dates overlap considerably, as some O.E.M. accounts chose not to change pilot models until their next A.G. A. or U.L. recertification review.

First Production: 1961
Discontinued: November 1964

Available Parts:
8433-06 Pilot Spud .021 NATURAL
8433-08 Pilot Spud .012 PROPANE

TYPE -03 PILOT
Identifiable Feature:
Hook Shaped Ground Rod

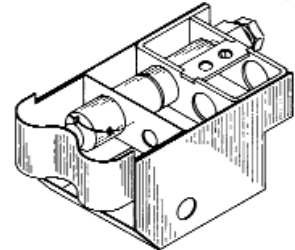


First Production: October 1962
Discontinued: Date unknown

Used primarily on burners supplied to
Mammoth Industries

Available Parts:
8433-04 Pilot Spud .023 NATURAL

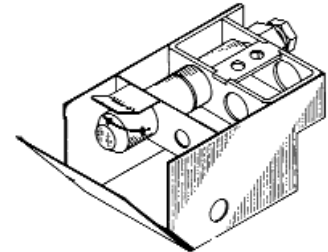
TYPE M3 PILOT
Identifiable Feature:
Formed Baffle



First Production: April 1963
Discontinued: January 1970

Available Parts:
8433-06* Pilot Spud .021 NATURAL
8433-08 Pilot Spud .012 PROPANE

TYPE -13 PILOT
Identifiable Feature:
2 Flat Baffles

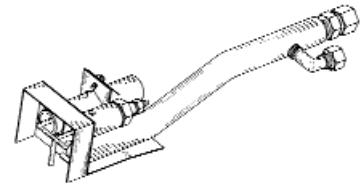


*In rooftop or high draft (particularly I.D. fan)
installations, install 8433-04 Pilot Spud .023 NATURAL

First Production: March 1965
Discontinued: October 1966

NO PARTS AVAILABLE FOR THIS PILOT

TYPE -23 PILOT



First Production: October 1966

ALL PARTS ARE AVAILABLE FOR THIS
PILOT -- REFER TO LISTING

TYPE -33 PILOT
Identifiable Feature:
Cast Iron Body

