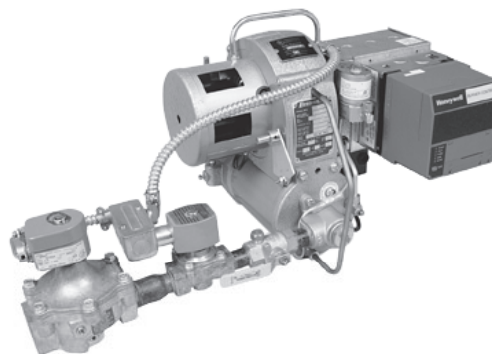


# Replacement Parts List

## Economite Model 400-33



★MADE in the USA★

*Installation and Service Manual - 8449-84  
Date Code - 1769*

- 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- Honeywell R4795A Flame Safeguards superseded by Honeywell RM7895 Flame Safeguards November, 1993.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.
- 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.



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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.

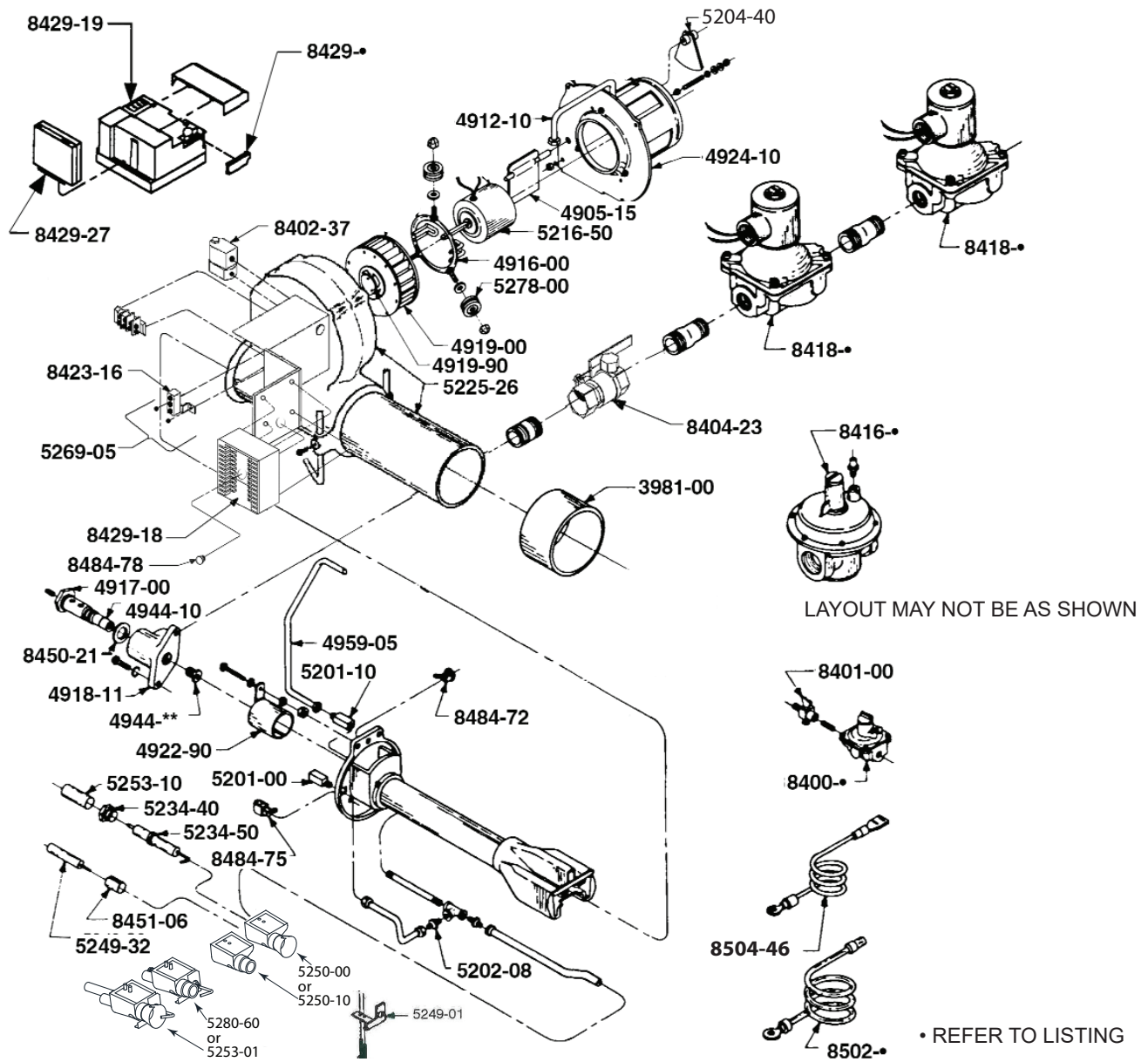
**IMPORTANT:** Availability of parts as well as specifications are subject to change without notice. Please consult factory for item availability.

*Quality Designed for Proven Performance*



219  
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# Economite 400-33 Exploded View



## NOTES

1. See MAMMOTH INDUSTRIES, below - page 2.
2. Some applications, usually O.E.M., require the use of more than one extension. Determine the exact number on 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 on your ECONOMITE before ordering.
7. 3/4" NPT and 1" NPT Main Automatic Valves have been used interchangeably. Determine the size used on 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. **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.**
10. Honeywell R4795A Flame Safeguards were phased out of production November, 1993. Replaced by Honeywell RM7895 Flame Safeguards.

## 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.

# Economite 400-33 Parts List

Item	Part #	Description	Qty	Item	Part #	Description	Qty
3981-00	<sup>1</sup>	4" Diameter Stainless Sleeve		8401-00		1/8" NPT Pilot "B" Cock	
4905-15		Air Shutter - Internal		8402-00		1/8" NPT Pilot Solenoid 120/1/60	
4912-00		Motor Conduit with hardware		8416-01	<sup>6</sup>	3/4" NPT Main Gas Pressure Regulator - NATURAL (Maxitrol RV53)	
4916-00		Motor Mounting Ring less rubber mounts & nuts		8416-33	<sup>6</sup>	1" NPT Main (Gas Pressure Regulator - NATURAL (Maxitrol RV60, RV61)	
4917-00		Main Orifice Holder		8418-01	<sup>7,8</sup>	3/4" NPT Main Automatic Valve 120/1/60	
4918-01		Orifice Elbow (3/4" NPT)		8418-03	<sup>7,8</sup>	1" NPT Main Automatic Valve 120/1/60	
4919-00		Blower Wheel with Centrifugal Actuator		8423-16		Blower Interlock Switch (MICRO BZ-2RQ174-A2)	
4919-90		Centrifugal Actuator Disc		8429-16	<sup>9,10</sup>	Subbase for Flame Safeguard (M-HQ7800B)	
4922-90		Primary Air Shutter Kit		8429-19	<sup>9,10</sup>	RM7895A Controller	
4924-10		Inlet Side Plate		8429-22	<sup>9,10</sup>	30-Second Purge Timing Card (Honeywell ST7800A1039)	
4944-01		Main Spud 11/32" Drill (.343) minimum capacity - NATURAL		8429-25	<sup>9,10</sup>	90-Second Purge Timing Card (Honeywell ST7800A1062)	
4944-02		Main Spud 25/64" Drill (.390) maximum capacity - NATURAL		8429-27	<sup>9,10</sup>	Rectification Amplifier (Honeywell R7847A1033)	
4944-03		Main Spud #21 Drill (.159) minimum capacity - PROPANE - drill for desired capacity per manual		8450-21		Orifice Holder Sealing Gasket	
4944-10	<sup>2</sup>	Main Spud Extension		8451-06		Spark Rod Insulator Sleeve	
4959-05		External Pilot Air Tube Kit		8484-72		Heyco Strain Relief (SR-4K-1) - Flamerod Wire	
5201-00		1/2" sq. Pass Through for 1/4" Tube Fitting (gas line)		8484-75		Heyco Strain Relief (SR-11-2) - Spark Rod Wire	
5201-10		1/2" sq. Pass Through for 5/16" Tube Fitting (air line)		8484-78		Heyco Snap Bushing (B-875-750) - Control Box	
5202-04		Pilot Spud #68 (.031) Drill was #66 (.033) - NATURAL and PROPANE		8502-05		Spark Cable -- 15" Burner Tube	
5204-40		Quadrant - Air Shutter Adjustment		8502-06		Spark Cable -- 5" through 9" Burner Tube	
5216-50	<sup>3</sup>	Motor less mounting ring and rubber mounts 120/1/60 (Universal Electric AAP026N#, AA2G014#, JA2P182N#, JB2P048N#; Fasco 7163-7511)		8504-46		Flame Rod Wire Assembly 19"	
5225-26	<sup>4</sup>	Blower Housing and Burner Tube Assembly 9"		<b>*NOT SHOWN</b>			
5234-40		Flamerod Gland Nut		5201-90		400 Ser Rub Seal Strp	
5234-50		Flamerod Assembly		5225-28	<sup>1</sup>	Blower Housing and Burner Tube Assembly 6-3/8" (Mammoth Industries)	
5249-01		Pilot Air Baffle		8428-07	<sup>10</sup>	Honeywell Q270 Mounting Base -- use RA890 or R4795	
5249-32		Spark Rod Assembly		8428-24	<sup>9,10</sup>	Obsolete - Honeywell R7289 Plug-In Rectification Amplifier (use with R4795A)	
5250-00		Pilot Body with Cone Tip, less Insulators, Rods, Temflex and Baffle		8428-26	<sup>9,10</sup>	Honeywell ST71 Plug-In Prepurge Timer 30 seconds (use with R4795A)	
5250-10		Pilot Body with Ring Tip, less Insulators, Rods, Temflex and Baffle		8429-28		Keyboard Display	
5253-01		Pilot Assembly with Cone Tip, Insulators, Rods, Temflex and Baffle		8432-09		1.512 OD x 1.234 ID O-Ring	
5253-10		PVC Tubing - 7/16" I.D. x 2" long		8433-06		Pilot Spud (.021) - NATURAL (3N4-021, Y90AA- 3221)	
5269-05		Blower Interlock Switch (MICRO Switch) with Bracket (replaces early ACRO Switch) - if only MICRO Switch is desired order 8423 -16		8433-08		Pilot Spud (.012) - PROPANE (2-14L12, Y90AA- 4212)	
5278-00		3 Rubber Mounts and Nuts		8447-22		Honeywell Spark Generator	
5280-60		Pilot Assembly with Ring Tip, Insulators, Rods, Temflex and Baffle		8449-84		Installation and Service Manual	
8400-00	<sup>5</sup>	1/8" NPT Pilot Regulator - 0.5" PSI maximum inlet (Maxitrol RV10, RV12 , RV12LT)		2020100		4" Mounting Flange	
8400-05	<sup>5</sup>	1/8" NPT Pilot Regulator - 1/2 PSI maximum inlet (General Controls V300)		2030300		Kit to convert NATURAL burner to PROPANE - includes minimum spud to be drilled per manual, Main Regulator Spring, Instructions.	
				2020400		4" long Accessory Blast Tube Extension (Service Bulletin 8448-94 is included)	
				2020500		8" long Accessory Blast Tube Extension (Service Bulletin 8448-94 is included)	

## NO LONGER AVAILABLE

5211-20 Motor, Wheel, Side Plate and Cage Assembly 120/1/60<sub>3</sub>

# Economite 400-33 - Pilots

## 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.

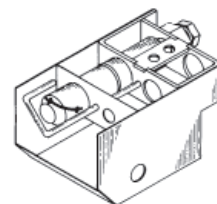
**IMPORTANT:** Frequently the serviceman fails to adequately remark the rating plate with the new pilot designation when a burner is converted. For example, when a Model 400-03 burner is converted to a -33 pilot, the rating plate should be modified to read 400-33. It is critical that you confirm that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

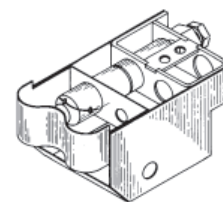


First Production: October 1962  
Discontinued: Date unknown

Used primarily on burners supplied to  
Mammoth Industries

Available Parts:  
8433-04 Pilot Spud .023 NATURAL

**TYPE M3 PILOT**  
Identifiable Feature:  
Formed Baffle

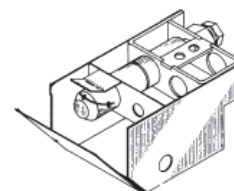


First Production: April 1963  
Discontinued: January 1970

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

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

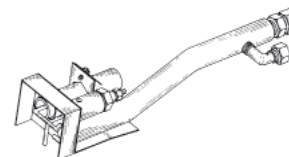
**TYPE -13 PILOT**  
Identifiable Feature:  
2 Flat Baffles



First Production: March 1965  
Discontinued: October 1966

NO PARTS AVAILABLE FOR THIS PILOT

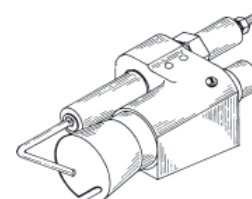
**TYPE -23 PILOT**



First Production: October 1966

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

**TYPE -33 PILOT**  
Identifiable Feature:  
Cast Iron Body



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