

# 18581, 18586, 18566, 18571, 18576, Centrifuge Manual (115 volt AC)

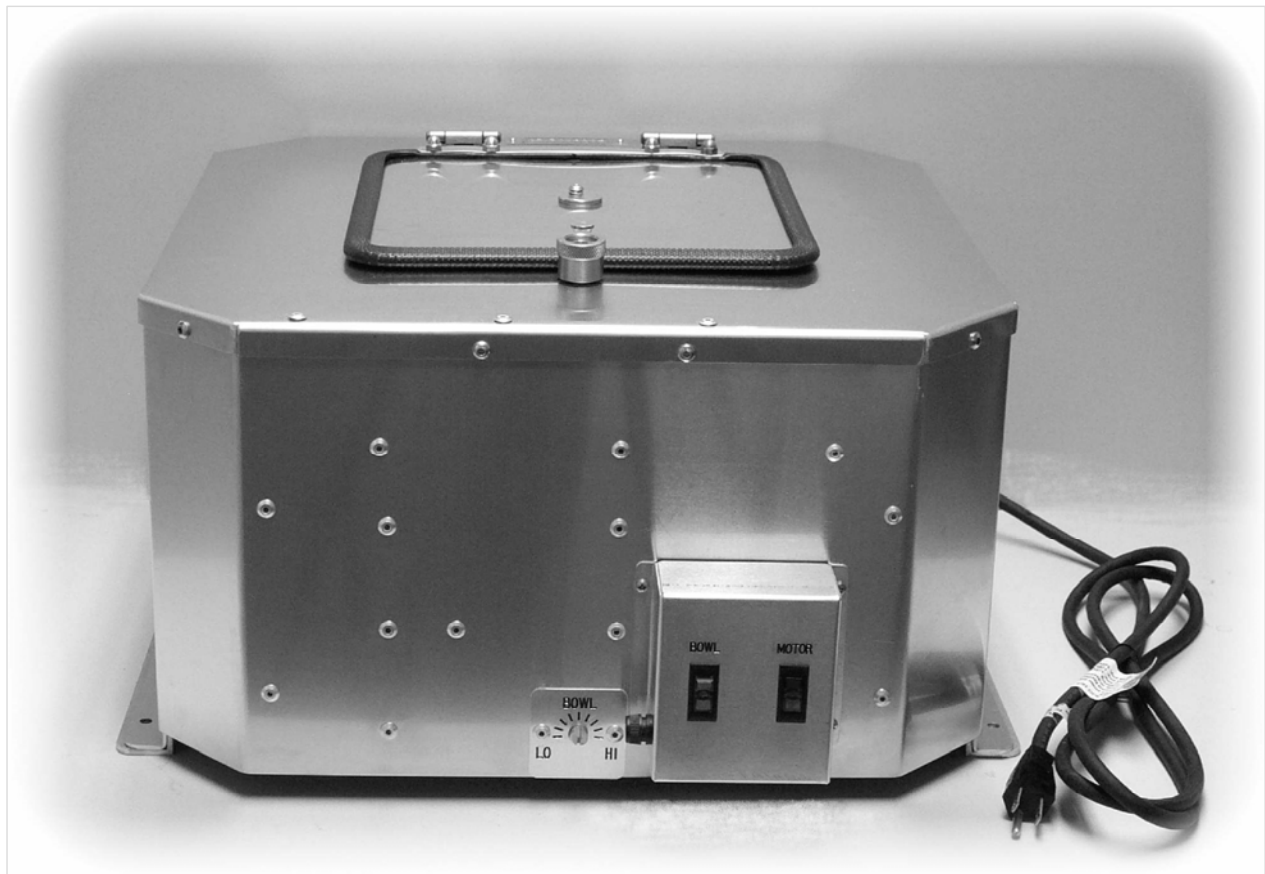
## Installation, Parts and General Operating Information

March 17, 2008

The following Centrifuge models are covered by this manual with only the head style, shields and glassware being different:

- 18581 Two Place Short Cone Head
- 18586 Four Place Short Cone Head
- 18566 Four Place 12.5 Head
- 18571 Two Place Pear Shaped Head
- 18576 Four Place Pear Shaped Head

Note: The models listed above may be referred to as "18581 Style Centrifuge" in this manual.



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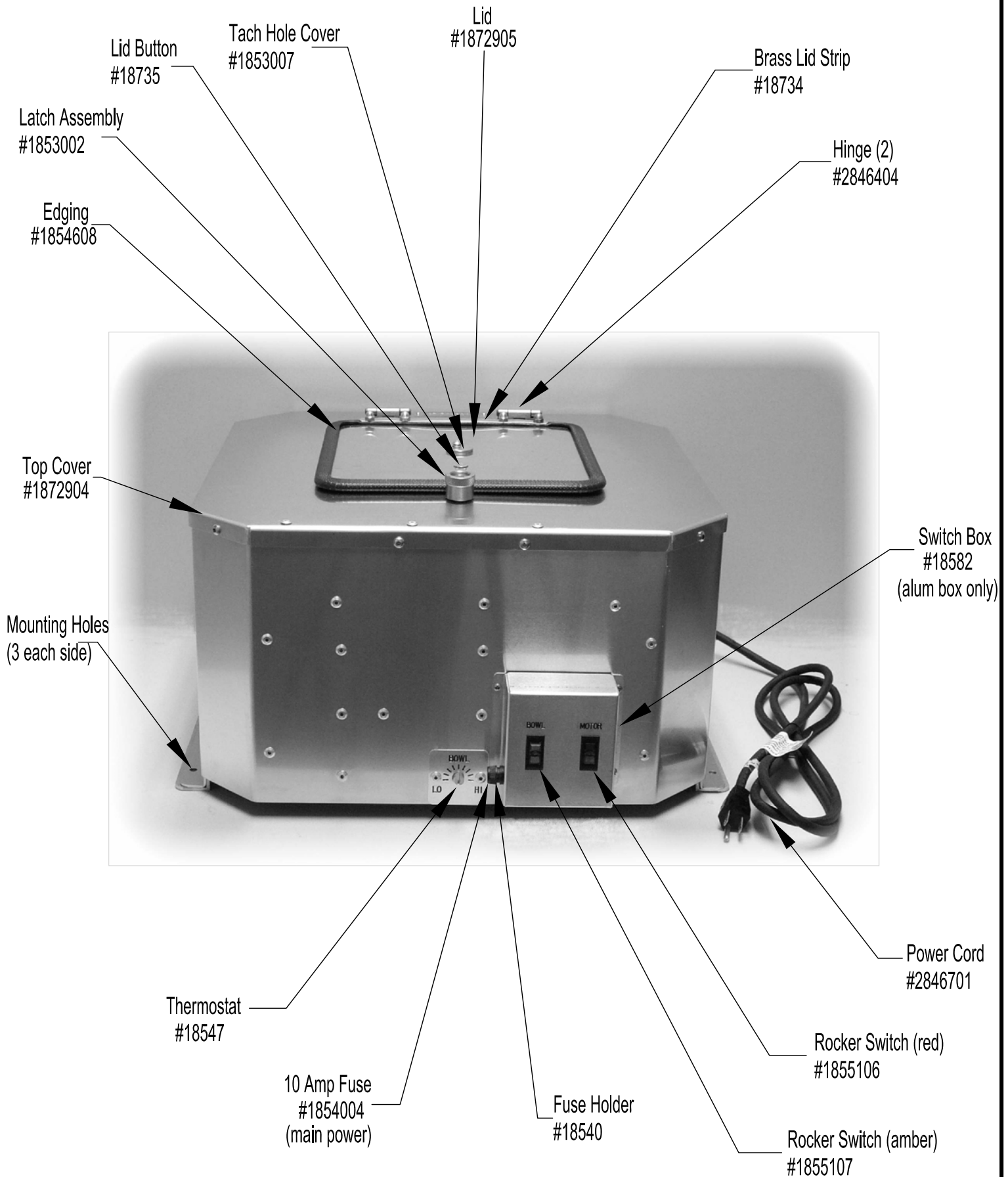
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# Key Features of 18581 Style Centrifuges (115 volt AC)



# Specifications

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Notice: All specifications, drawing details and misc. information are subject to change without notice. Contact W. L. Walker Co. Inc. for the latest information before ordering parts or making any repairs.

## Power Requirements:

Voltage: 115 Volts AC 60 Hertz

Amp draw: 6.3 total amps (momentary higher on motor startup)

Breakdown of amp draw by machine components:

- Motor: 1.9 running (momentary higher on startup)
- Bowl Heat: 4.4

Note: detail of amp draw is typical and can vary depending on actual line voltage along with the load and balance of head.

RPM: 1625

RCF: (Relative Centrifugal Force) @ 1625 RPM = 534 (approx)

Weight: 33 lbs. (15 kg)

Footprint: 20" (508 mm) Wide  
22.5" (571 mm) Front to back

Height: 10.75" (273 mm) With lid closed  
22.75" (578 mm) With lid open

API Criterion: Meets or exceeds the requirements of the API MPMS Chapter 10.4 "Determination of Water and Sediment in Crude Oil by the Centrifuge Method".  
(Field Procedure)

## Contact Information:

W.L. Walker Co. Inc. 1009 S. Main St. Tulsa, Okla. 74119

Phone: (918) 583-3109 Fax (918) 583-9255

Web: [www.wlwalker.com](http://www.wlwalker.com)

## Power Requirements and Connections

The 115 volt AC electric heated centrifuges require a standard 115 volt grounded outlet.

The power cord should be inspected regularly for any sign of damage or wear and replaced as needed.

A 10 amp fuse is incorporated into the centrifuge wiring and is located on the side of the control box.

The 18581 style centrifuges are designed for indoor use in areas protected from rain, snow and any other sources of water that could cause an electrical short.

The 18581 style centrifuges are NOT designed for use in hazardous locations.

No modifications should be made to the power supply cord or any internal wiring.

## Installation Instructions for the 18581 Style Centrifuges

Install and secure the centrifuge onto a table or workbench that is capable of supporting the units weight along with any other materials or tools that will be used in conjunction with the machine.

Vibration to centrifuge can be reduced by mounting the unit on a shock absorbing material such as W. L. Walker part #18549 'Shock Mount Cushions'. Note that one cushion is required under each of the 6 mounting holes located on each side of the centrifuge unit. (3 on each side)

All fasteners used to secure the unit should be of the 'locking' type and or a 'locking' compound should be applied to prevent any fastener 'back off' due to vibration.

Note that some vibration of the machine is considered normal under typical operating conditions although care should be taken to keep vibration to a minimum so as to extend to life of the motor and related components.

Note: see page 5 'Basic Operation' for more information on reducing vibration.

# Basic Operation

Check the shields in the centrifuge head to make sure that and plastic plugs and or felt liners are in place and properly positioned.

Note: Short Cone shields will have a plastic plug and felt liner.

Pear Shaped shields will have only a felt liner.

Shields for 12.5 tubes have an integral plastic bottom and no felt.

Fill sample tubes evenly and place into the shields of the centrifuge head.

Samples that require preheating may be heated to desired temperature in one of W. L. Walker Co. preheater assemblies (sold separately) before placing into Centrifuge.

Close and latch the lid for safety purposes and to retain heat. The closed and latched lid will also allow the motor to operate more efficiently.

Turn the motor on and run for the necessary length of time.

Turn the motor off and allow the head to come to a complete stop.

Unlatch the lid and remove samples for inspection.

For complete details as to proper methods of testing, we suggest the use of the following "American Petroleum Institute" publications.

- API MPMS Ch. 10.3
- API MPMS Ch. 10.4
- API MPMS Ch. 10.6

These and other publications are available from

"American Petroleum Institute"  
1220 L. Street, Northwest  
Washington, D.C. 20005-4070

202-682-8000

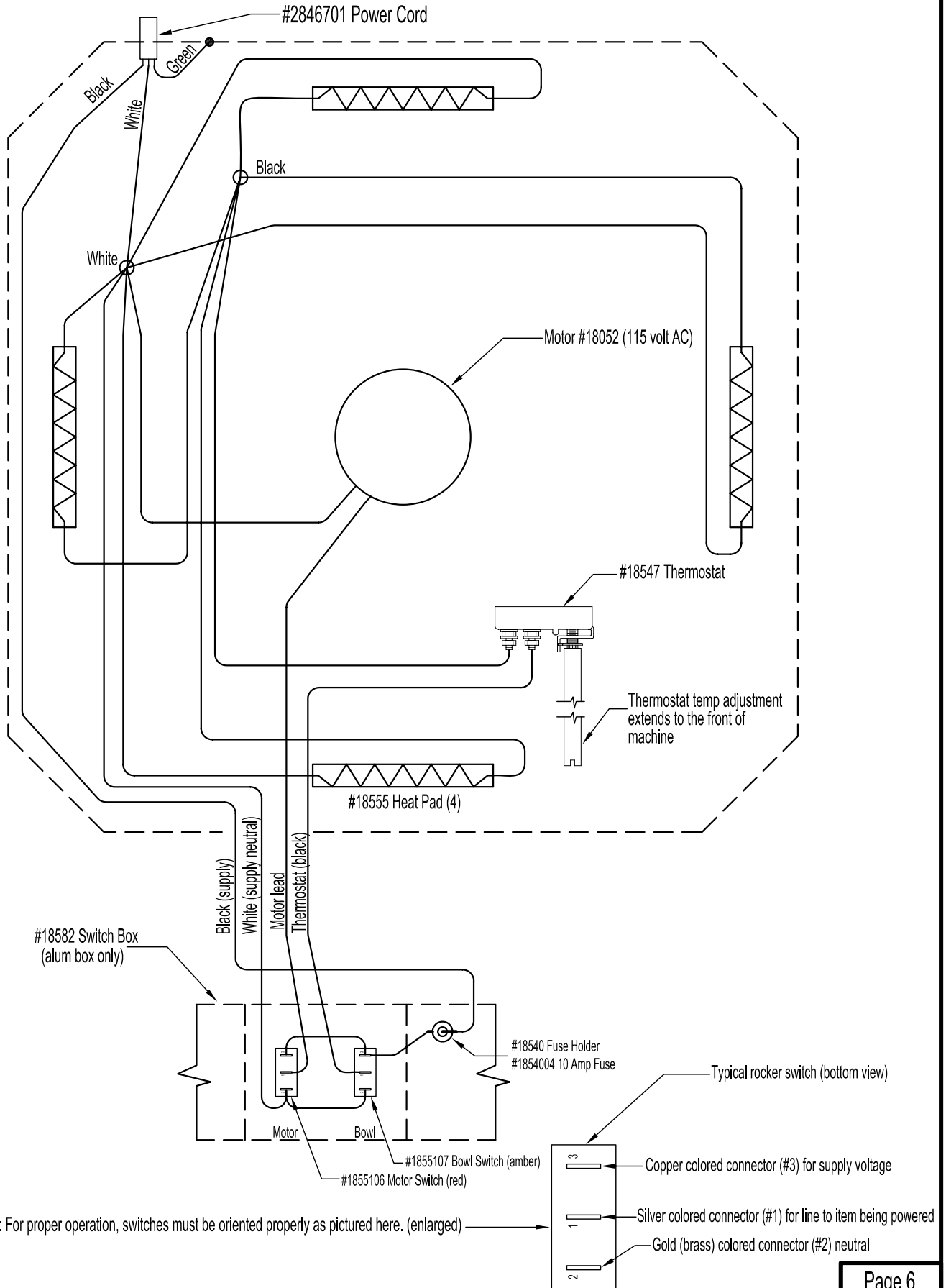
[www.api.org](http://www.api.org)

Notes on wiring:

- A) This wiring is for machines mfg. after mid August 2002, which use lighted rocker switches for the Motor and Bowl
- B) For machines mfg. before mid August 2002 which use a non-lighted style toggle switch with an indicator light, please contact W. L. Walker Co. for information on wiring.
- C) A sheet metal part or boundary is represented by this dashed line - - - - -

Wiring for 18581 Style 115 volt AC Centrifuge

Note: this is a bottom view of wiring with the Switch Box laid flat



Note: For proper operation, switches must be oriented properly as pictured here. (enlarged)