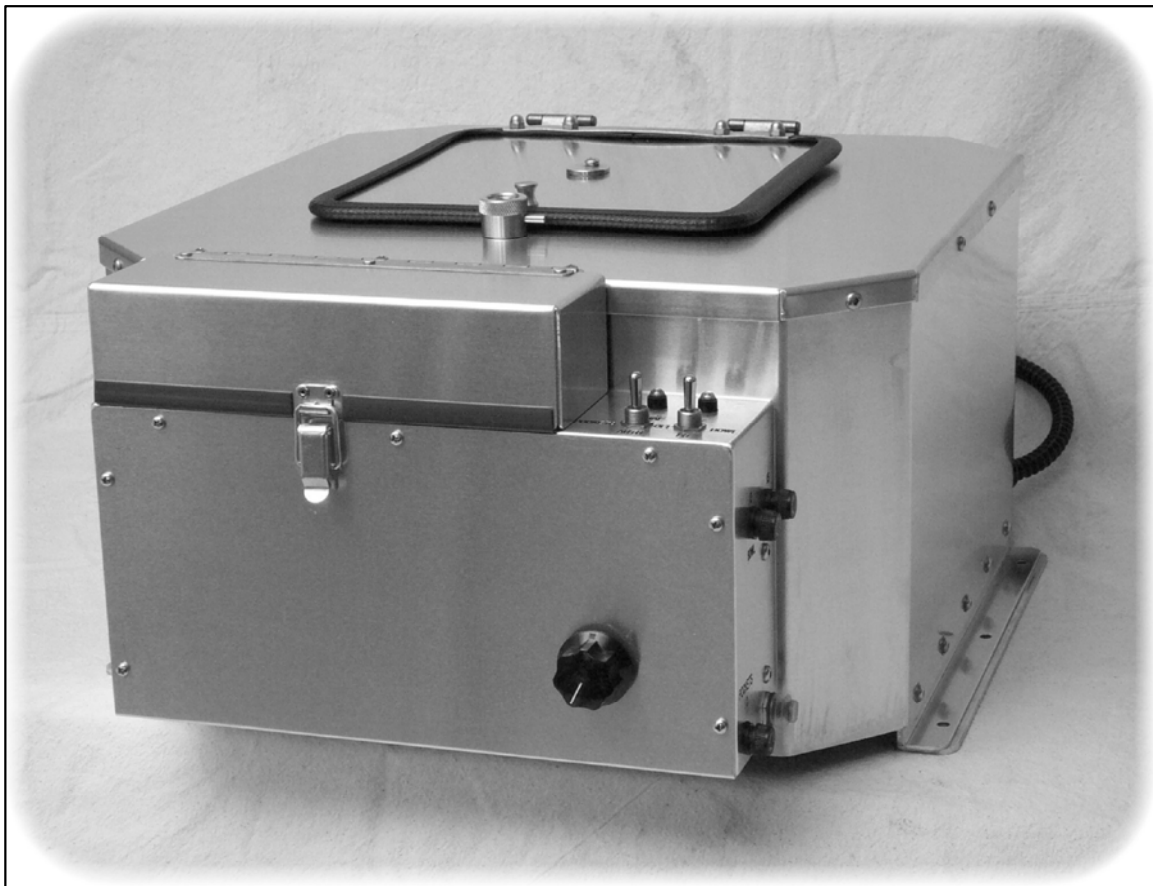


# 18721 & 18724 Centrifuge Manual (12 volt DC)

Installation, Parts and General Operating Information

March 31, 2006



# Index

Page 1) Key Features

Page 2) Specifications

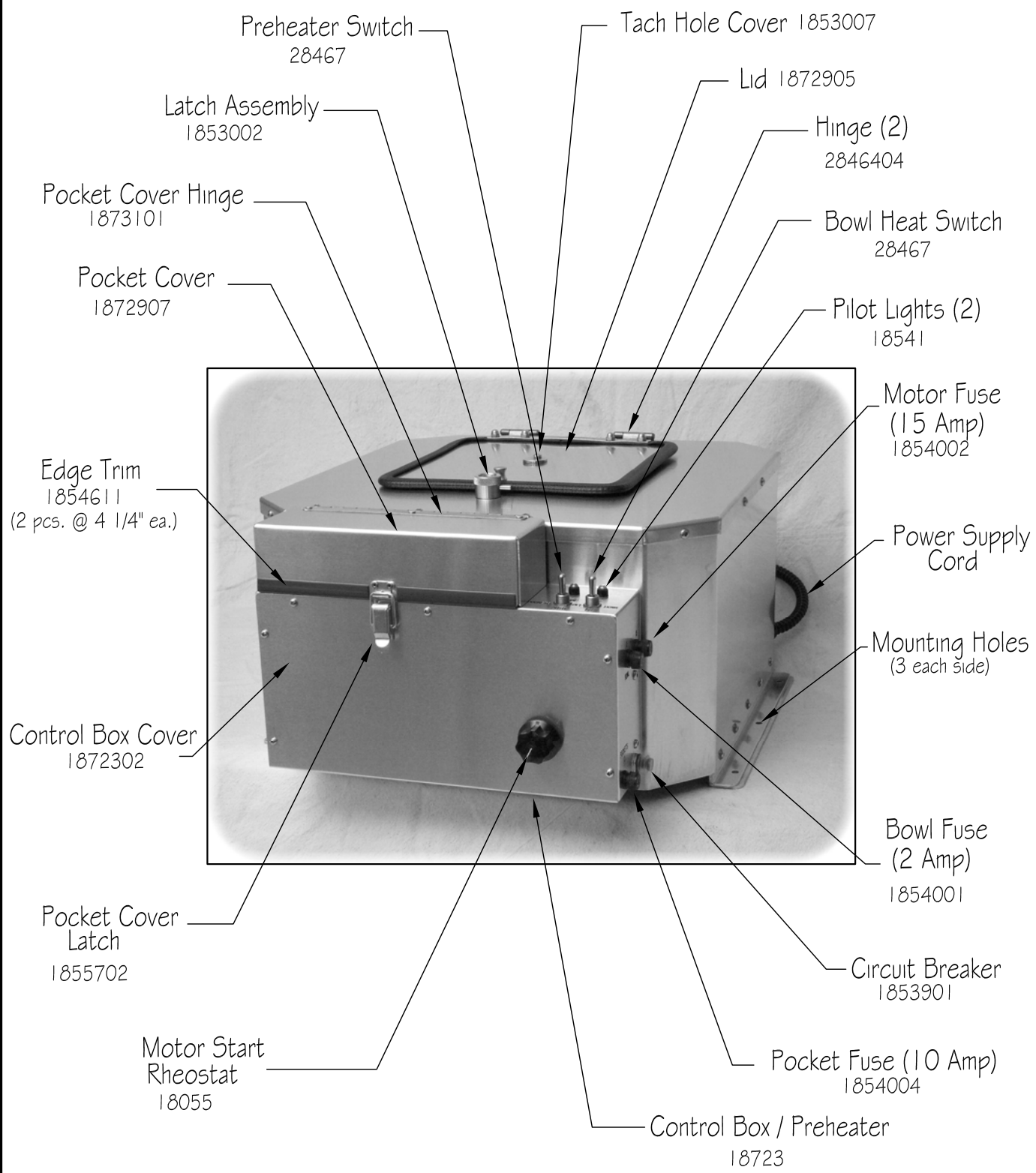
Page 3) Power Requirements and Connections

Page 4) Installation Instructions

Page 5) Basic Operation

Page 6) Wiring Diagram

# Key Features of 18721 & 18724 Centrifuges (12 volt units)



# Specifications

---

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

## Power Requirements:

Voltage: 12 volts DC

Amp draw: 48-50 amps total (typical)

Breakdown of amp draw:

-Motor: 8-9 While running and up to 15+ on startup

-Bowl Heat: 34 (typical)

-Preheater Pockets: 7 (typical)

Weight: 33 lbs. (15 kg)

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

Height: 10.75" (273 mm) Lid closed  
22.75" (578 mm) 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".

## 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 12 volt electric heated centrifuges require a supply line capable of handling 60 amps DC.

Dedicated supply lines of #8 wire direct from the battery are recommended.

Any terminals or lugs attached to the supply line or the input lines of the centrifuge should be crimped and soldered.

A fuse or circuit breaker should be placed in the supply line rated at 60 amp.

Any circuit breaker should be a manual reset type.

## Installation Instruction for 18721 & 18724 Centrifuges

Install and secure the centrifuge in a location on the vehicle where it will receive the least amount of vibration and shock from stopping and starting as possible.

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.

When wiring unit, careful attention to detail can minimize any problems and reduce amp draw to the minimum required. (see page 3)

Install unit where it will receive as little exposure to rain, snow, etc. as possible.

Personnel experienced in the proper installation of 12 volt accessories that pull high amp rates should install or supervise the installation of this equipment.

# Basic Operation

---

Check the shields in the centrifuge head to make sure that all the plastic plugs are in place at the bottom of shields and any felt liners are also in place.

Fill evenly and place samples into preheater pockets located at the front of the centrifuge assembly. After heating, remove samples from the preheater pockets and place them into the shields of the centrifuge head. If running more than one set of samples at a time, note should be made of the number on the arm of the head by each shield.

Note: On the 18721 & 18724 Centrifuge, only the 2 center preheater pockets are actively heater by a heat pad. The outer pockets will usually get warm but may not be capable of quickly heating a sample in colder weather.

Close and latch the lid for safety purposes and to retain heat. The closed and latched lids 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" publication.

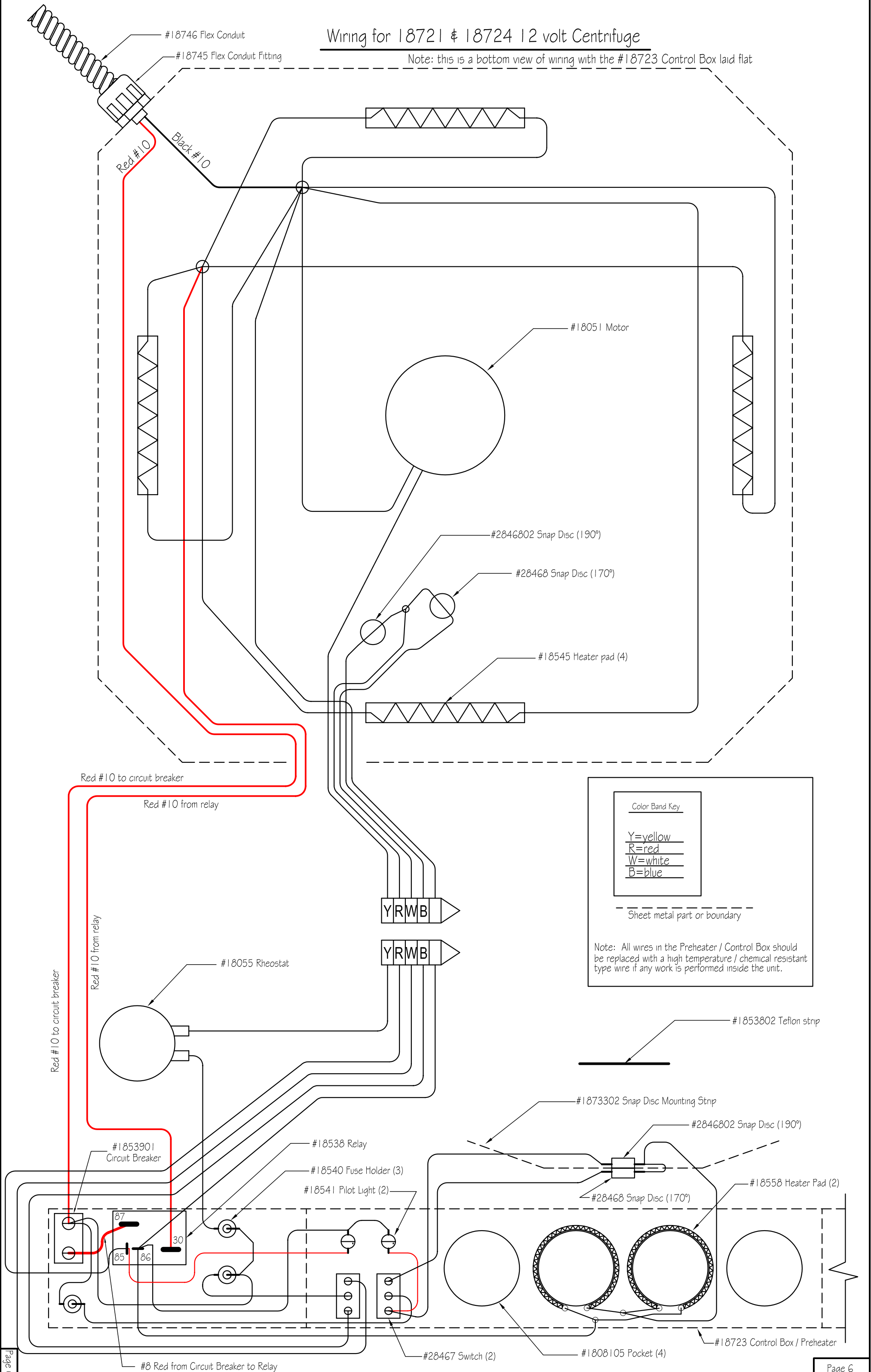
- API MPMS Ch. 10.4

This 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)

# Wiring for 18721 & 18724 12 volt Centrifuge

Note: this is a bottom view of wiring with the #18723 Control Box laid flat



Color Band Key

Y	=	yellow
R	=	red
W	=	white
B	=	blue

--- Sheet metal part or boundary

Note: All wires in the Preheater / Control Box should be replaced with a high temperature / chemical resistant type wire if any work is performed inside the unit.