

QUEST PELLET STOVE

Mountain View Hearth Products
manuals.stove-parts-unlimited.com

QUEST PELLET STOVE CUT-A-WAY DIAGRAM PARTS LIST



Description

- .Door Assembly - Brown
- Door Assembly - Black
- Door Assembly - Slate
- A. Top Window Clip
- B. Window Wash Bracket
- C. Side Window Clip
- D. Lower Window Clip
- E. Door Gasket, 1/2 diam. 6'
- F. Side Glass
- G. Center Glass
- H. Hinge Pin

- . Door Handle Assembly Brown
- Door Handle Assembly Black
- Door Handle Assembly Slate
- Door Latch
- Wood Door Handle
- Shoulder Bolt
- Wave Washer
- Fiat Washer

- . Ash Pan
- . Ultra Grate
- . Brick Clip (pkg. of 2)
- . Louvers (Gold - option)

- .Heat Exchanger Baffle
- .Brick Panel
- .Door Hinge Bracket
- 0.Heat Exchange Scraper Rod
- 1.Shoulder Bolt with Roller

- 2.Comb. Fan Mounting Gasket
- 3.Comb. Fan (Freestanding) ---
Combustion Fan (Insert)
- 4.Combustion Fan Motor Only
- 5.Low Limit Snap Switch
- 6.Hopper Lid Support Bracket

Description

- 17.Hopper Lid - Black
- Hopper Lid - Brown
- Hopper Lid - Slate

- 18.Pedestal - Black
- Pedestal - Brown
- Pedestal - Slate

- 19.Right Side Panel - Black
- Right Side Panel - Brown
- Right Side Panel - Slate

- 20.Left Side Panel - Black
- Left Side Panel - Brown
- Left Side Panel - Slate

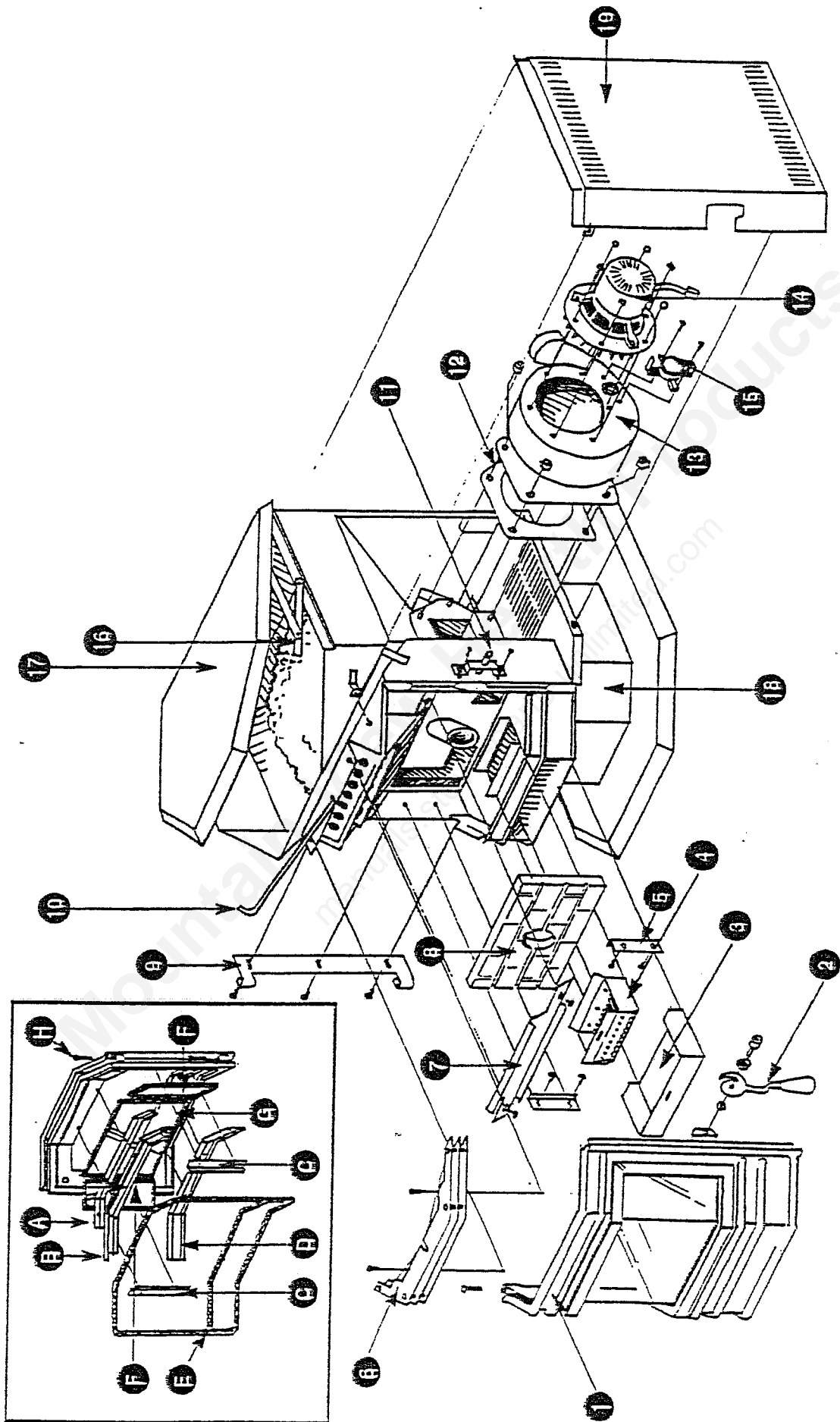
- 21.Control Board
- 22.Control knobs

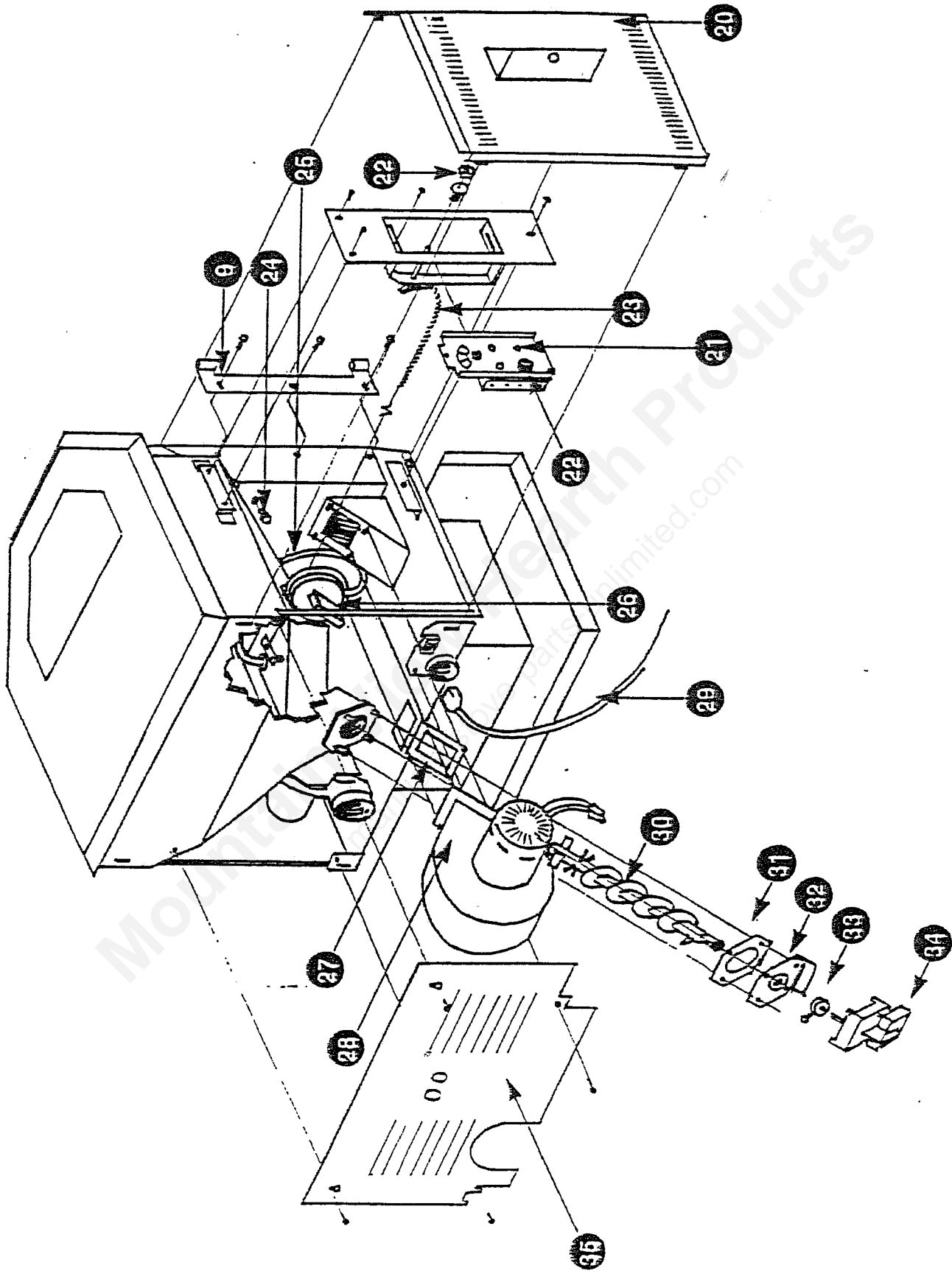
- 23.Damper Cable (Freestanding)
- * Damper Cable (Insert)
- * Cable Clamp

- 24.High Limit Snap Switch
- 25.Pressure Switch Hose
- 26.Pressure Switch
- 27.Conv. Fan Mounting Gasket
- 28.Convection Fan
- 29.Power Cord

- 30.Auger
- 31.Auger Retention Plate Gasket
- 32.Auger Retention Plate
- 33.Auger Colar & Set Screw
- 34.Auger Motor

- 35.Rear Inspection Panel - Black
- Rear Inspection Panel - Brown
- Rear Inspection Panel - Slate





WIRING HARNESS / HOOKUP DIAGRAM

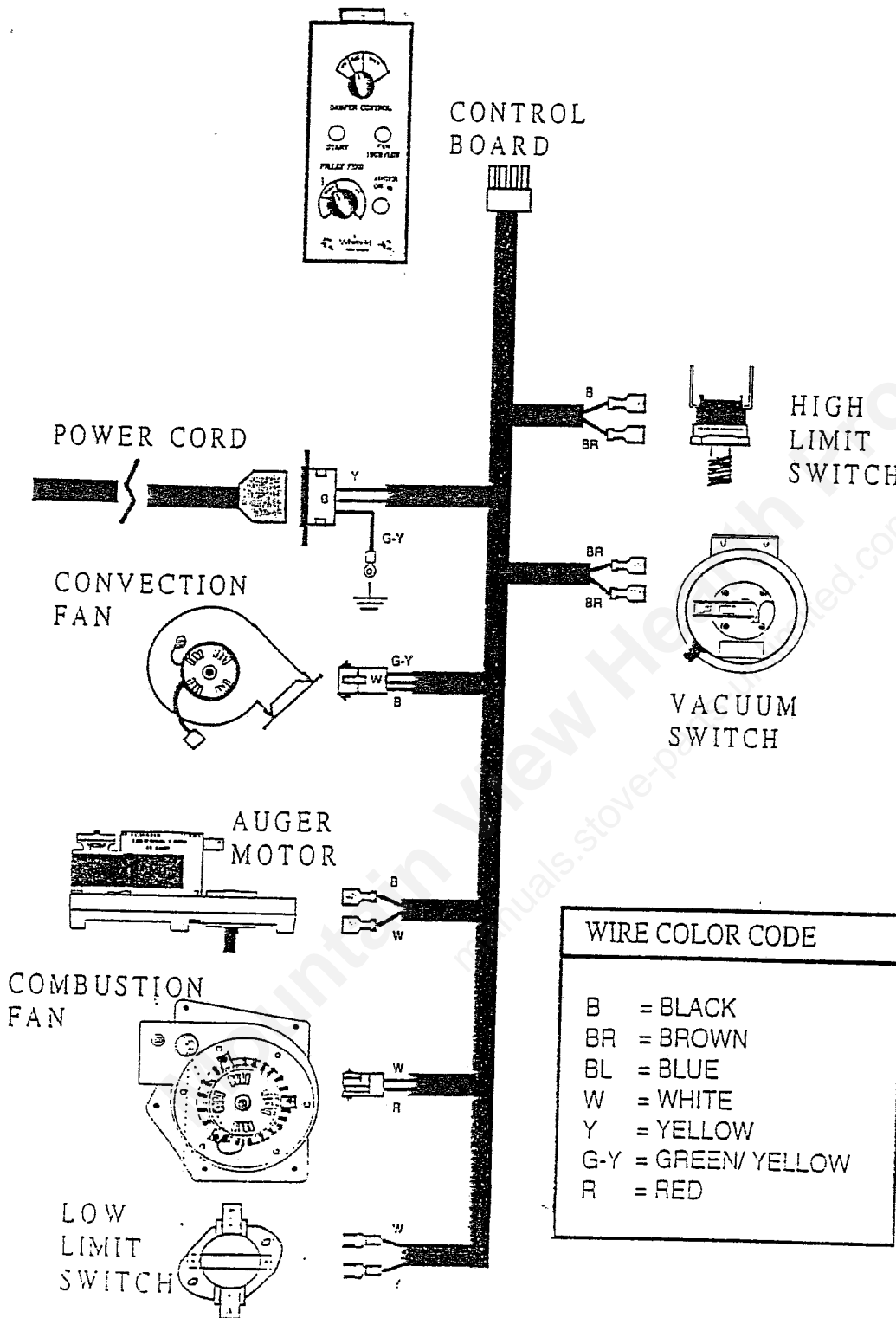
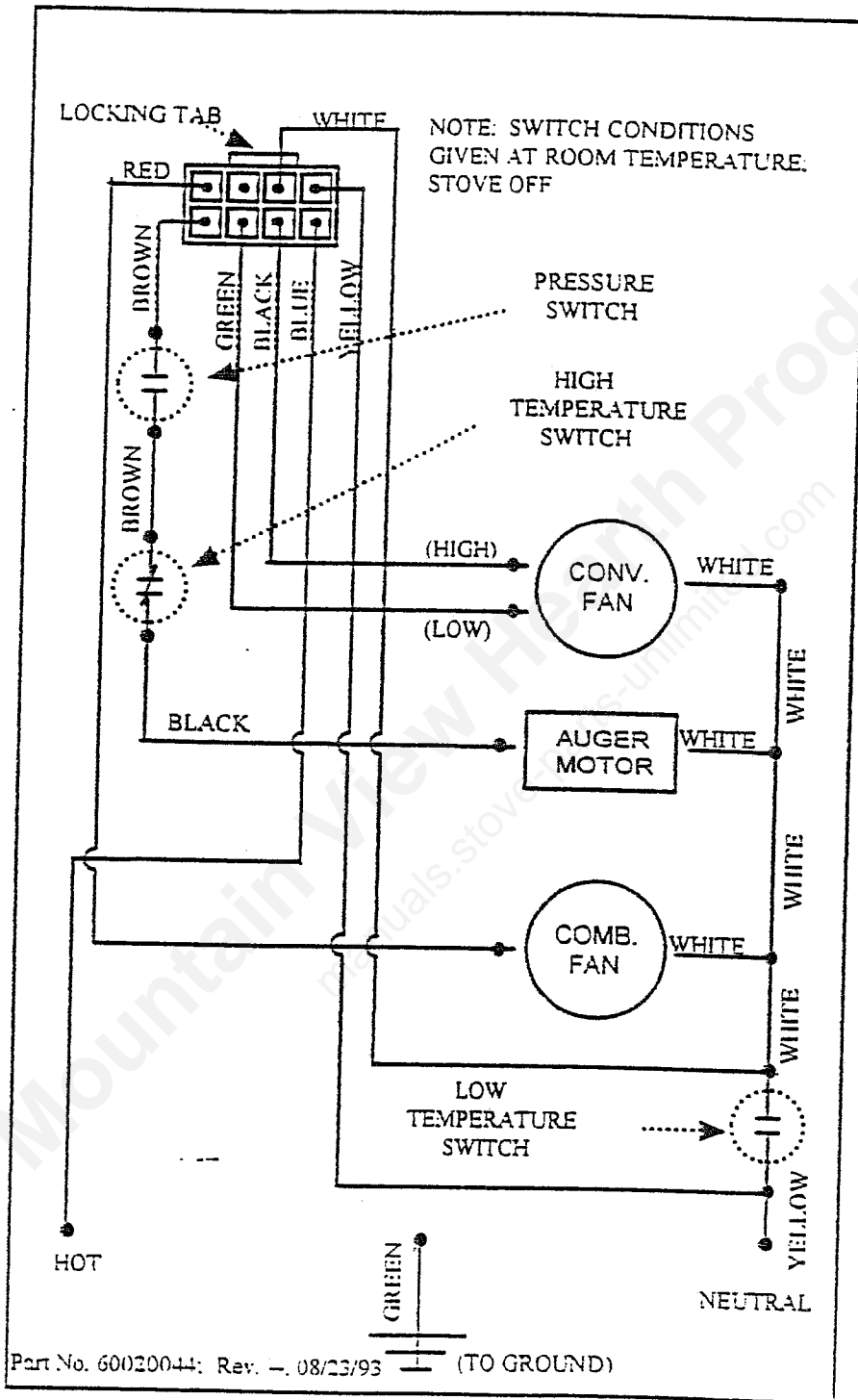


Figure 29 - Electrical Component Wiring Diagram

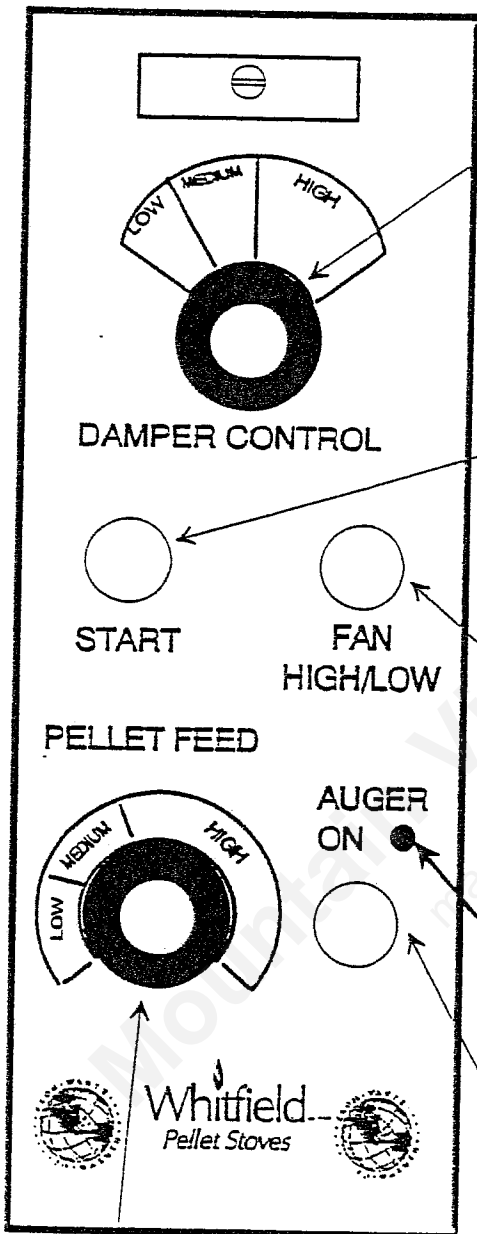
QUEST WIRING DIAGRAM



QUEST CONTROL BOARD

PN # 13655900 (BASIC CONTROL BOARD)

PN # 13645900 (CONTROL BOARD KIT - INCLUDES BUSHING, NUT, ETC.)



DAMPER CONTROL:

Controls combustion air via cable linkage to the damper.

START SWITCH:

The push button START SWITCH activates the 30 min. timer supplying power to the stove.

HIGH/LOW FAN:

Convection fan
Two position fan control. Once changes the fan speed, twice returns to original setting. NOT AN ON/OFF SWITCH.

AUGER ONLIGHT:

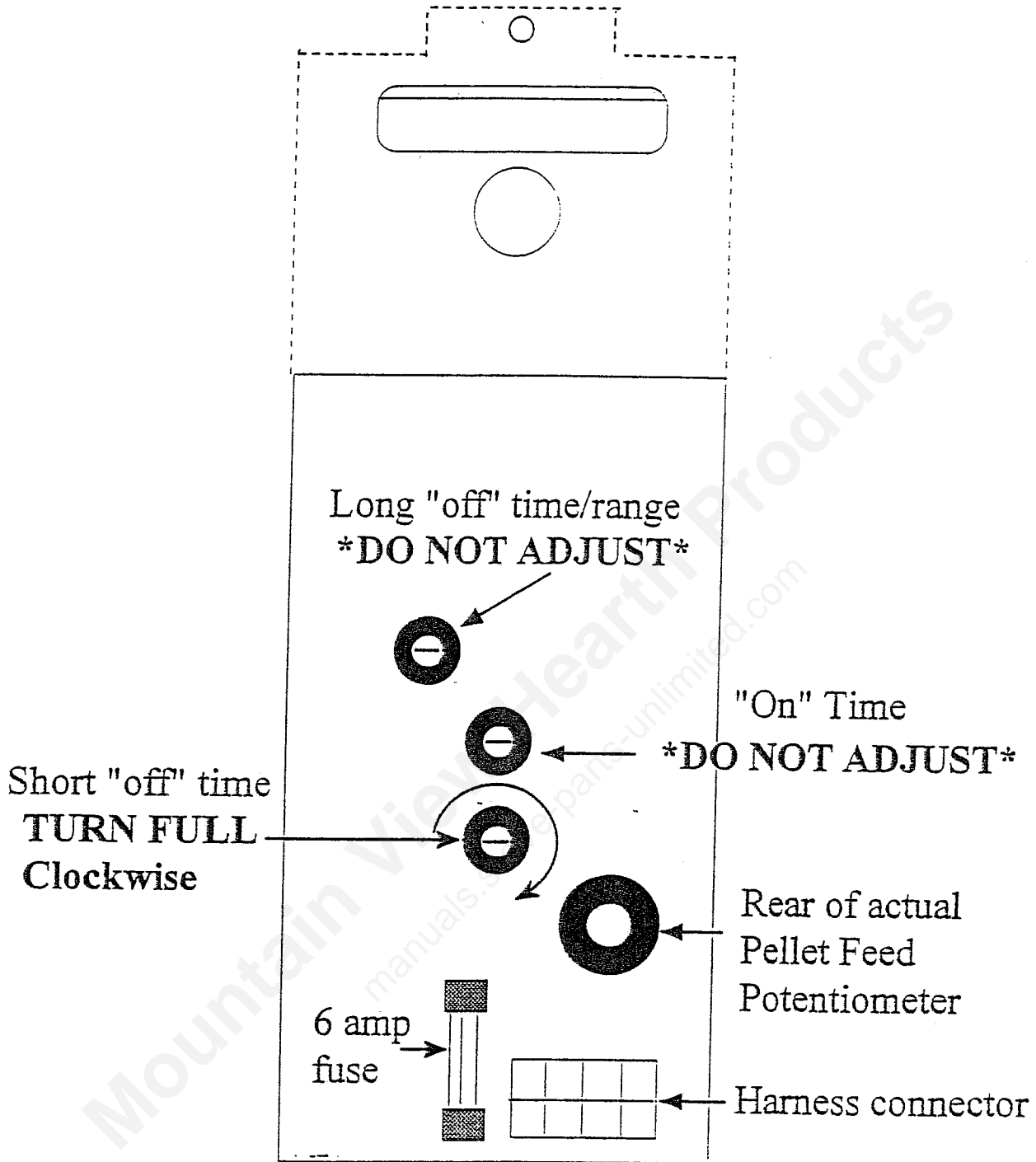
Indicates the actual "ON" time of the auger motor.

AUGER ON TOUCH BUTTON:

Provides power to the auger feed timer that controls the duty cycle of the auger motor

PELLET FEED:

Controls fuel feed rate. This is done by controlling the "OFF" time of the auger motor.



REAR VIEW OF QUEST CONTROL BOARD

NOTE: Control Board Back Pictured with the VALOX Cover removed and most components not shown for clarity.

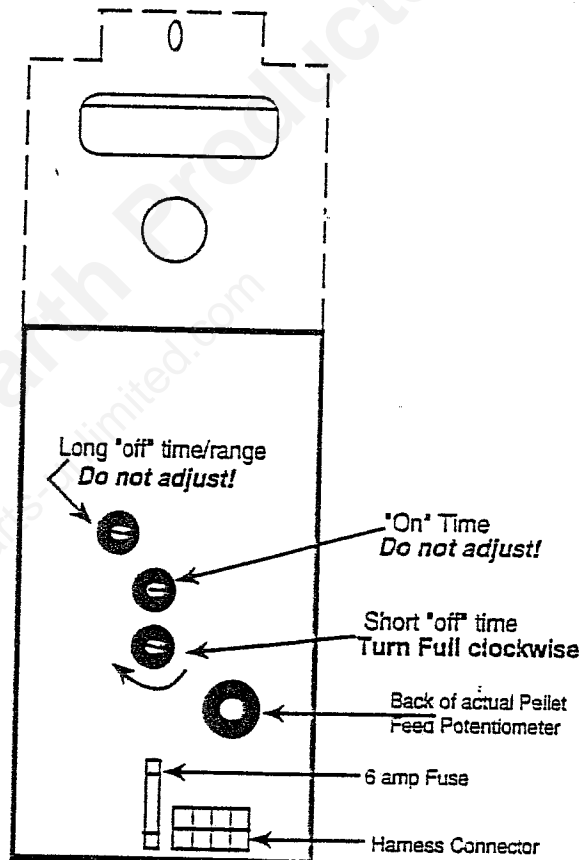
QUEST SERVICE MANUAL

Appendix B

Control Board Adjustment

WARNING: The following procedure for reducing High End feed rate is to be used only when all other steps have been taken to eliminate fuel "piling" in the grate.

1. Unplug the power cord from the wall or the back of the stove.
2. a). Disconnect the control board cable connector. b). Loosen the set screw on the Damper Control Knob with the 1/16" hex head wrench, supplied. c). Using a 1/4" socket or nut-driver, remove the #8 Tek screw at the top of the control board and take the board out of the stove.
3. Carefully remove the valox cover from the back of the board.
4. a). Take a moment to identify the four potentiometers on the back of the board. There are three small ones and one larger (which is the back of the Pellet Feed Knob). b). Go to the third small potentiometer from the top (see figure) and remove the pink protective coating with a small screw driver or knife blade.
5. Using a small screwdriver, turn the adjustment screw on this potentiometer clockwise through its full rotation. This adjustment will reduce high end fuel feed rate by 1/4 to 1/2 pound per hour. Pile-up with the particular brand of fuel should be eliminated. **NOTE: Do not adjust the top two potentiometers!**
6. Replace the valox cover and re-install the Control board into the stove. Turn the damper actuation rod and then verify that the damper knob is properly indexed for a full open or full closed setting.



Rear View of
Quest Control Board

NOTE: Control Board Back Pictured with VALOX Cover removed and most components not shown for clarity

Figure 31 -- Control Board Adjustment

QUEST SERVICE MANUAL

Appendix C

1. In Trouble shooting a Quest Stove, the following negative pressure (MAGNEHELIC) readings measured at the firebox may be used:

<u>Damper Full Open</u>	<u>Damper Closed</u>
-0.17 Cold	-0.04 Cold
-0.10 Hot	-0.02 Hot

The access port for taking the readings is found on the front side of the stove, just above the door latch. Be sure your Magnehelic Gauge is hooked up on the "low pressure" (Vacuum) side.

2. Feed Rates on a factory specification control board should be as follows:

Lowest Feed Rate:

On Time: 1.5 seconds

Off Time: 9.5 seconds

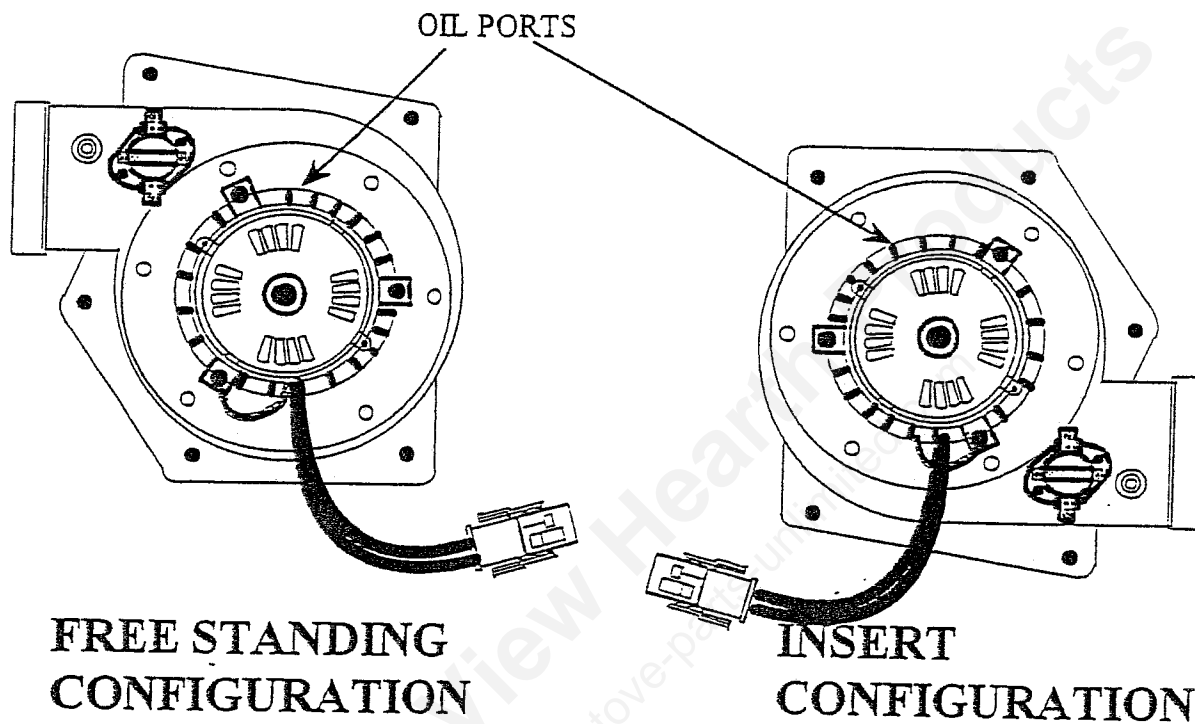
Highest Feed Rate:

On Time: 1.5 seconds

Off Time: 1.7 seconds *

*The procedure detailed on the previous page allows an increase in the High End "off time" to approximately 2.1 seconds. This change results in less High End feed rate.

QUEST COMBUSTION FAN :



FASCO PN # 7021- 8843

TYPE U21B

HP 1/70

115 V

60 HZ

.95 AMP

CLASS "B"

74 CFM @ FREE AIR

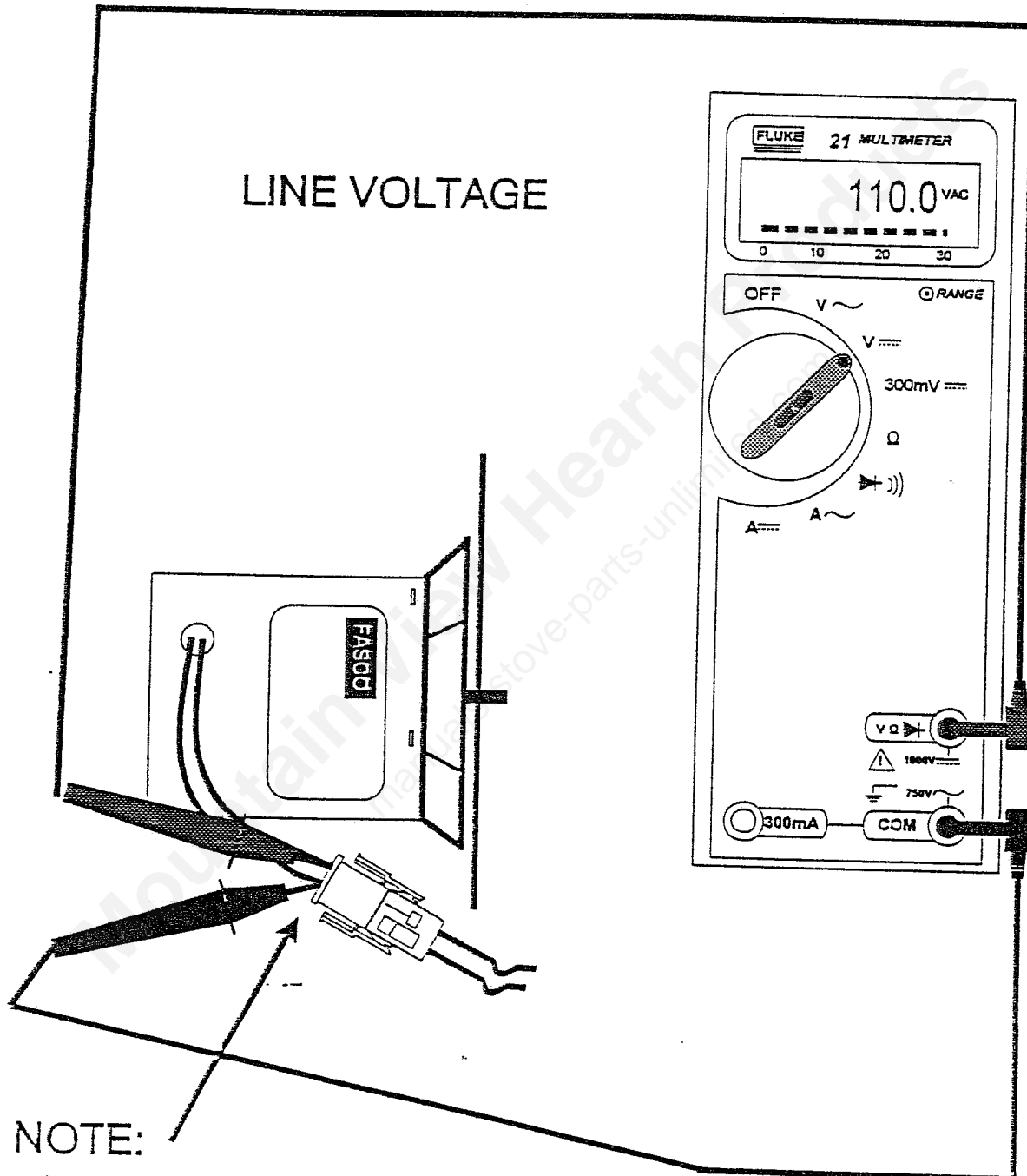
or 42 CFM @ 0.6 in WC static pressure and 400 deg. F

3000 RPM (nominal)

THERMALLY PROTECTED

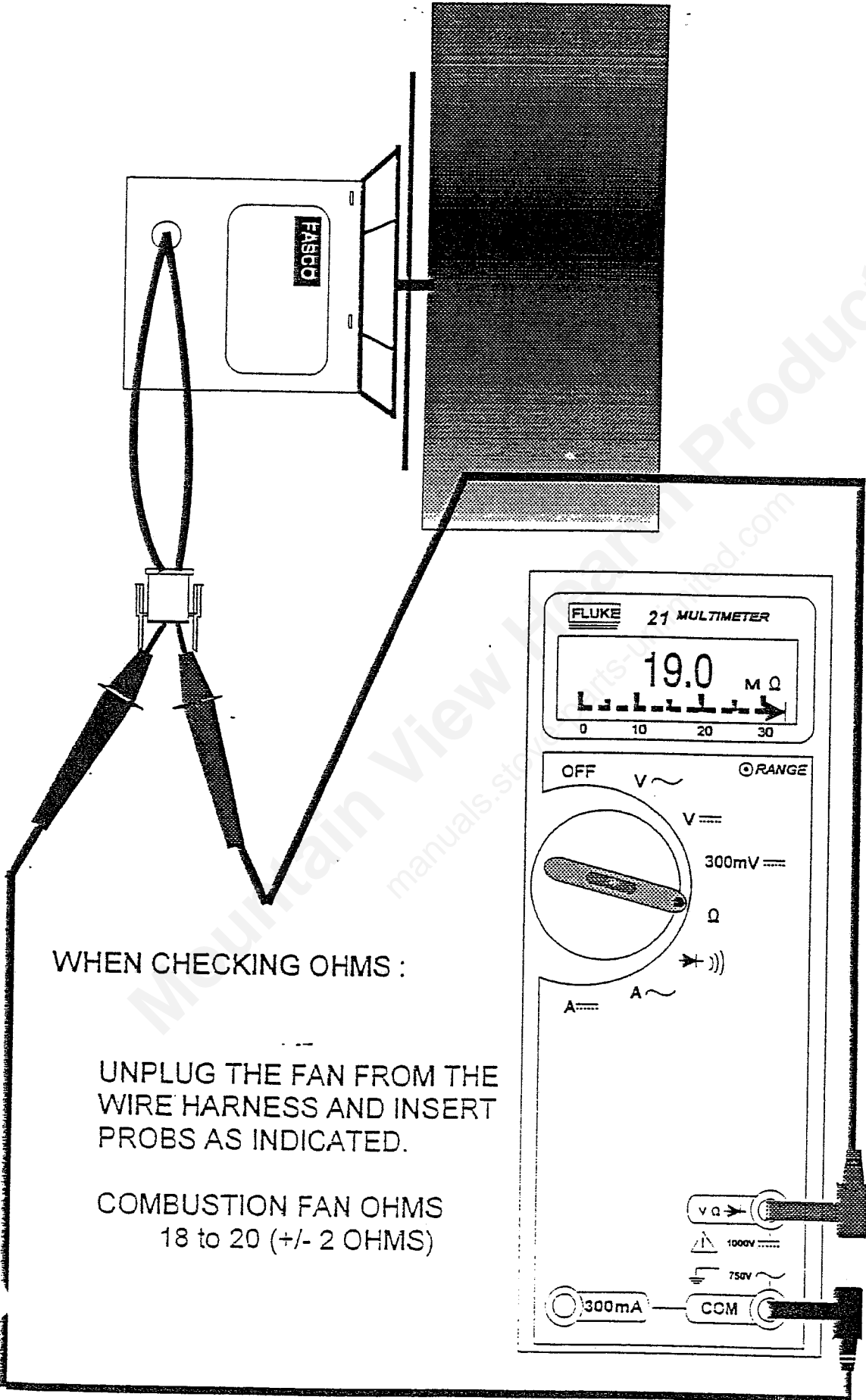
(Non-variable speed)

VOLTAGE READING TAKEN AS SHOWN -94'



NOTE:

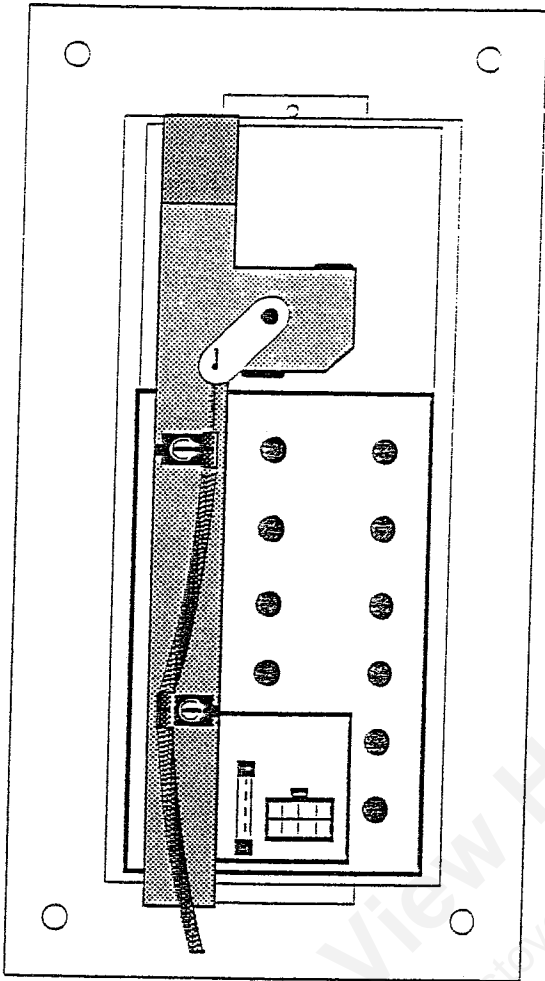
INSERT METER PROBS FROM THE MOTOR SIDE OF THE PLUG!
(YOU DO NOT NEED TO UNPLUG FROM THE WIRE HARNESS)



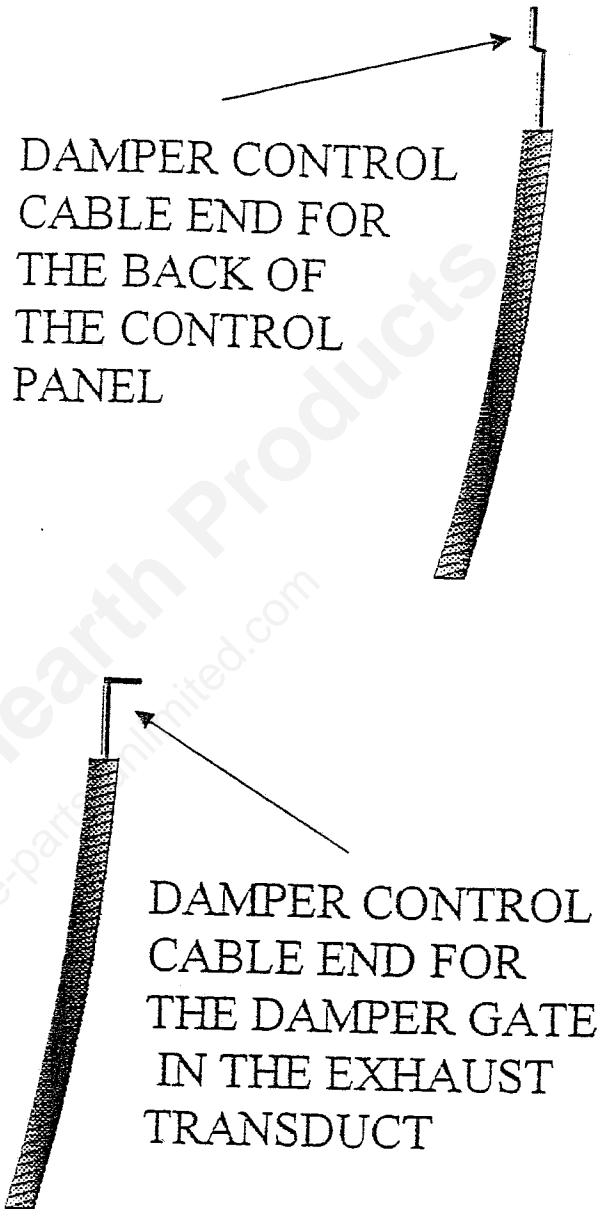
WHEN CHECKING OHMS :

UNPLUG THE FAN FROM THE WIRE HARNESS AND INSERT PROBS AS INDICATED.

COMBUSTION FAN OHMS
18 to 20 (+/- 2 OHMS)

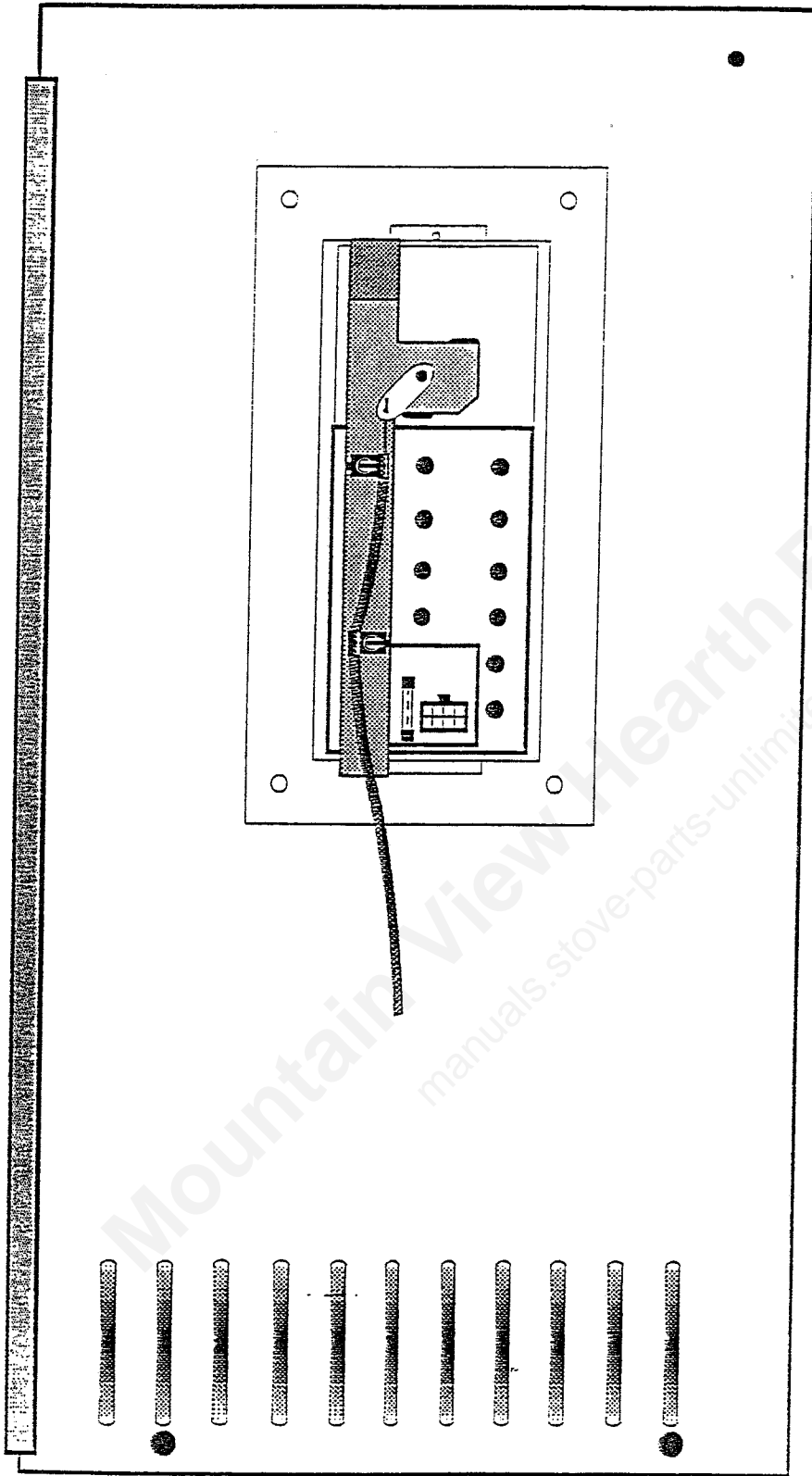


REAR VIEW OF THE
CONTROL PANEL
BRACKET WITH THE
DAMPER CABLE IN
PLACE

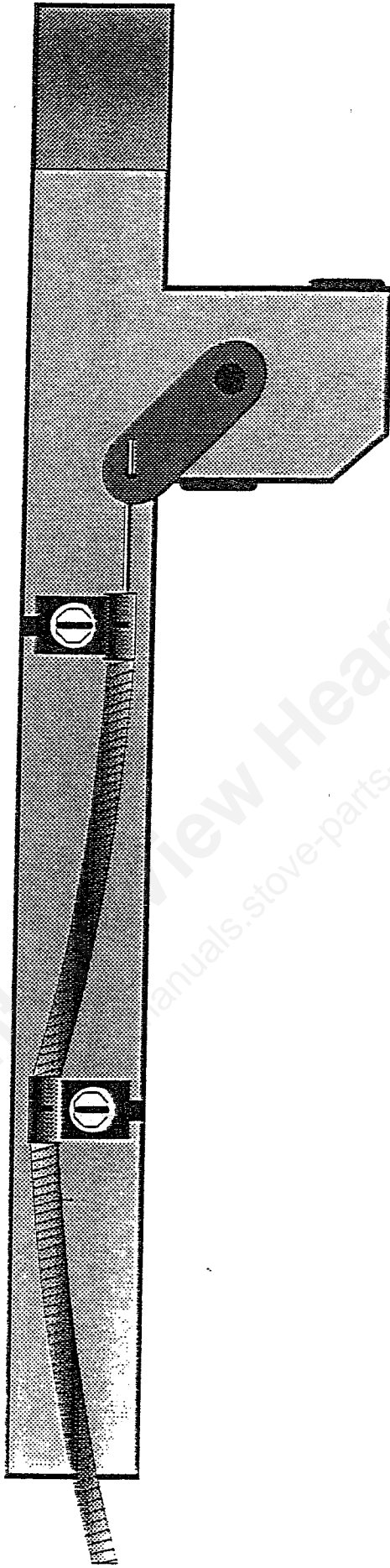


DAMPER CONTROL
CABLE END FOR
THE BACK OF
THE CONTROL
PANEL

DAMPER CONTROL
CABLE END FOR
THE DAMPER GATE
IN THE EXHAUST
TRANSDUCT

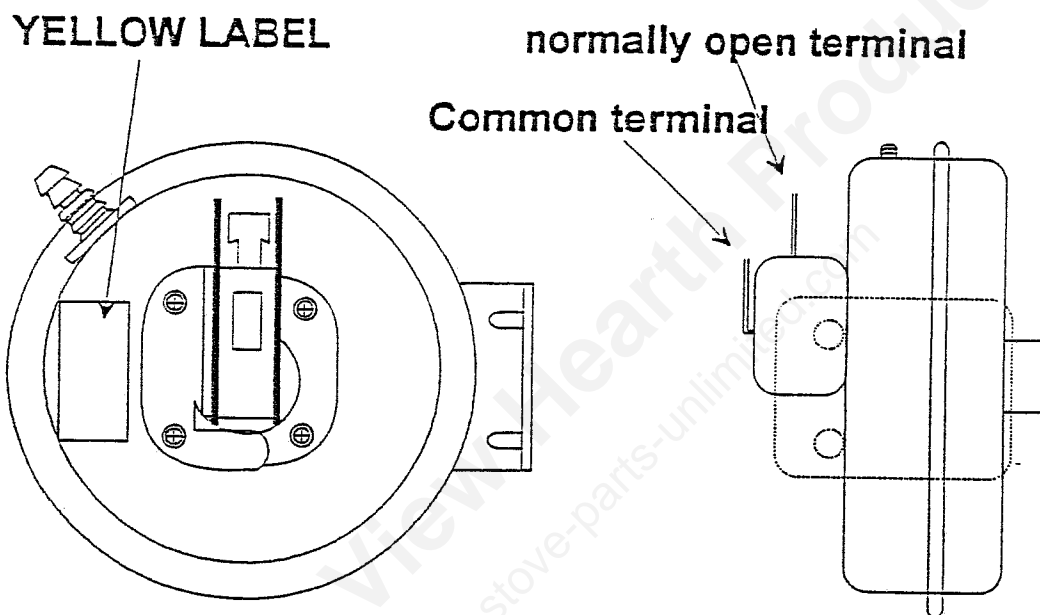


REAR VIEW OF THE QUEST CONTROL PANEL MOUNTED ON THE LEFT SHROUD.



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VACUUM SWITCH - (Negative Pressure)

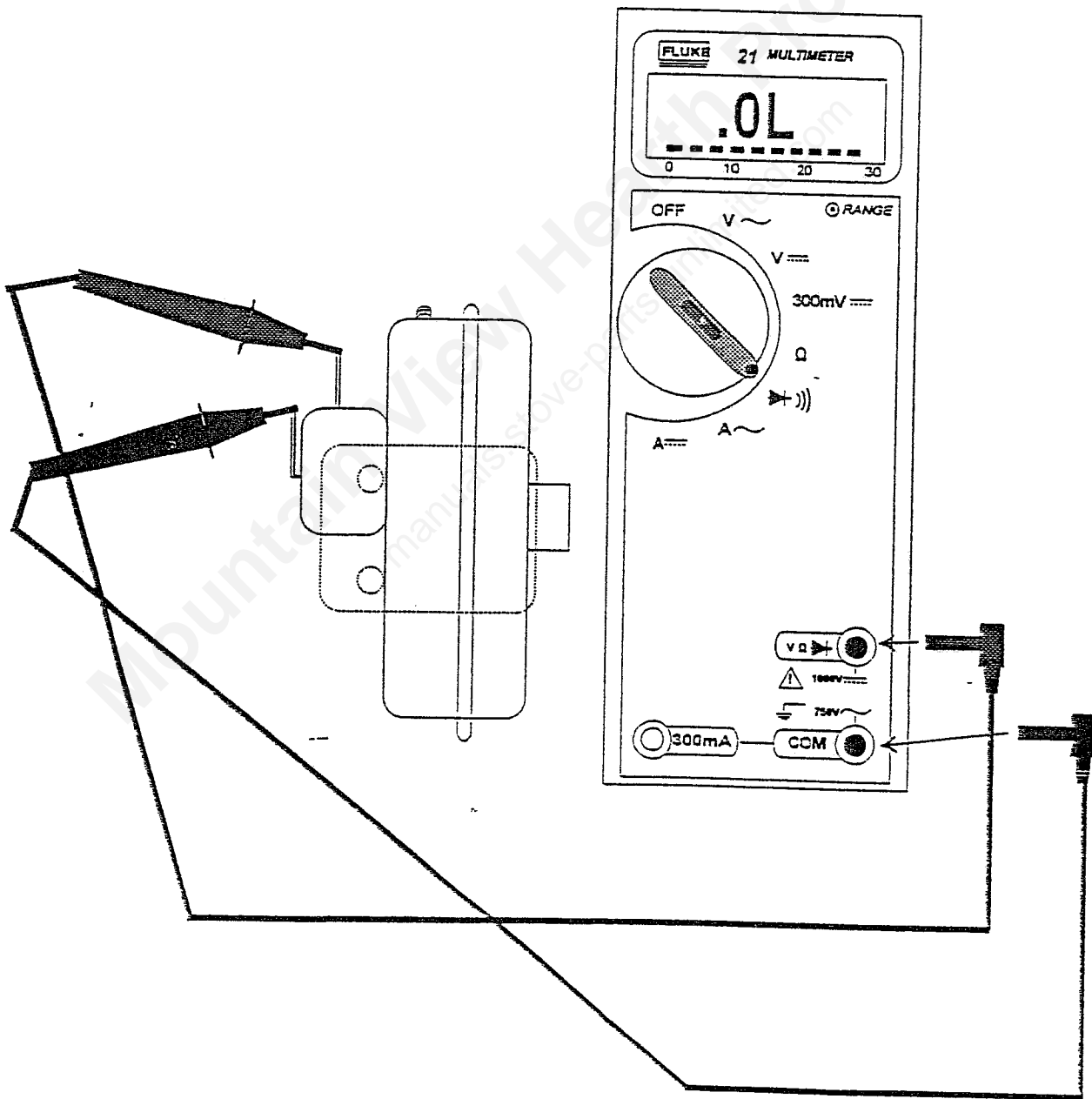


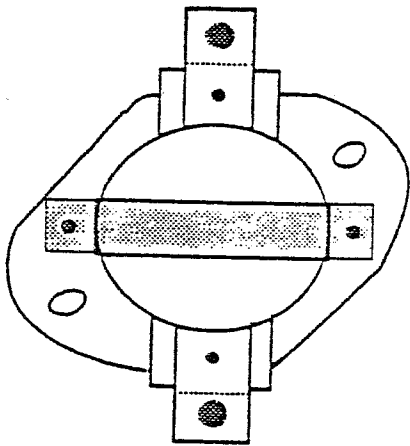
YELLOW LABEL

PN# 13620014

ELECTRICAL SWITCH: Single pole, normally open, snap acting contacts. Contacts change on pressure rise @ -0.15" W.C.

Normally open switch will read as indicated





LOW LIMIT SNAP SWITCH

PN # 12057601 (CERAMIC)

LOCATED ON THE COMBUSTION FAN
IF EXHAUST TEMPERATURES EXCEED
140 degrees F, THE SWITCH CLOSSES.

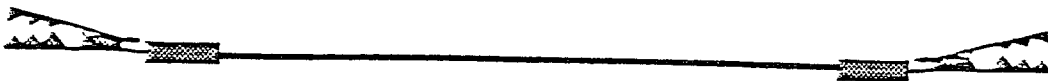
THE SWITCH REMAINS CLOSED UNTIL
EXHAUST TEMPERATURES DROP BELOW
120 degrees F.

NOTE:

TWO WAYS THIS SWITCH FAILS:

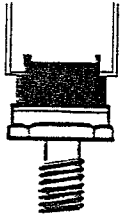
STUCK CLOSED = POWER TO UNIT IS ALWAYS
ON. THE STOVE MUST BE UNPLUGGED TO SHUT
IT OFF.

STUCK OPEN = THE STOVE WILL SHUT OFF WITHIN
30 MIN. FROM START UP.



(SAMPLE JUMPER WIRE USED TO BY PASS)

HIGH LIMIT SNAP SWITCH



BRASS
SCREW-IN
BODY

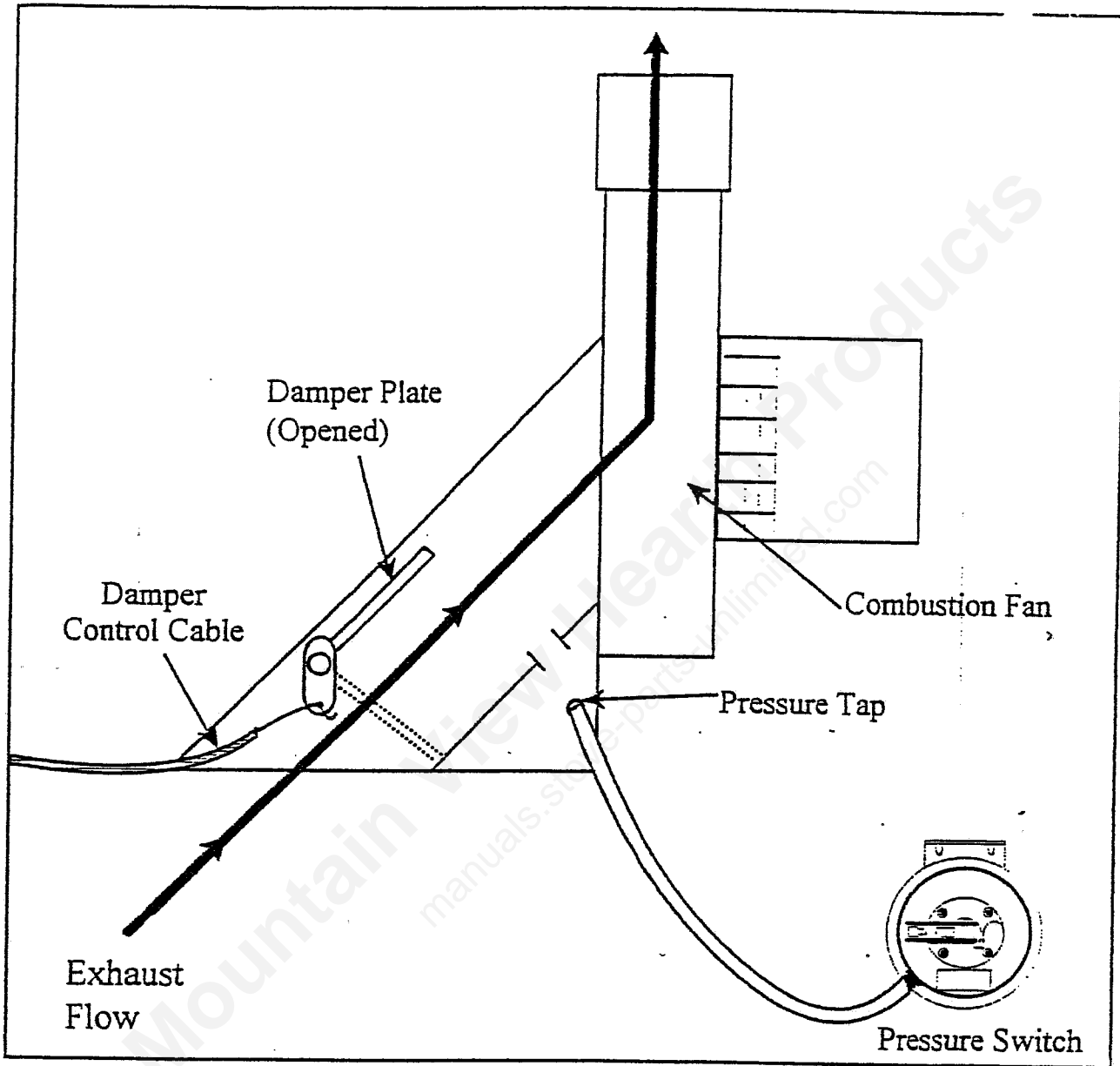
PN # 13027801 - 250 degree F

Therm-O-Disc 36TM31

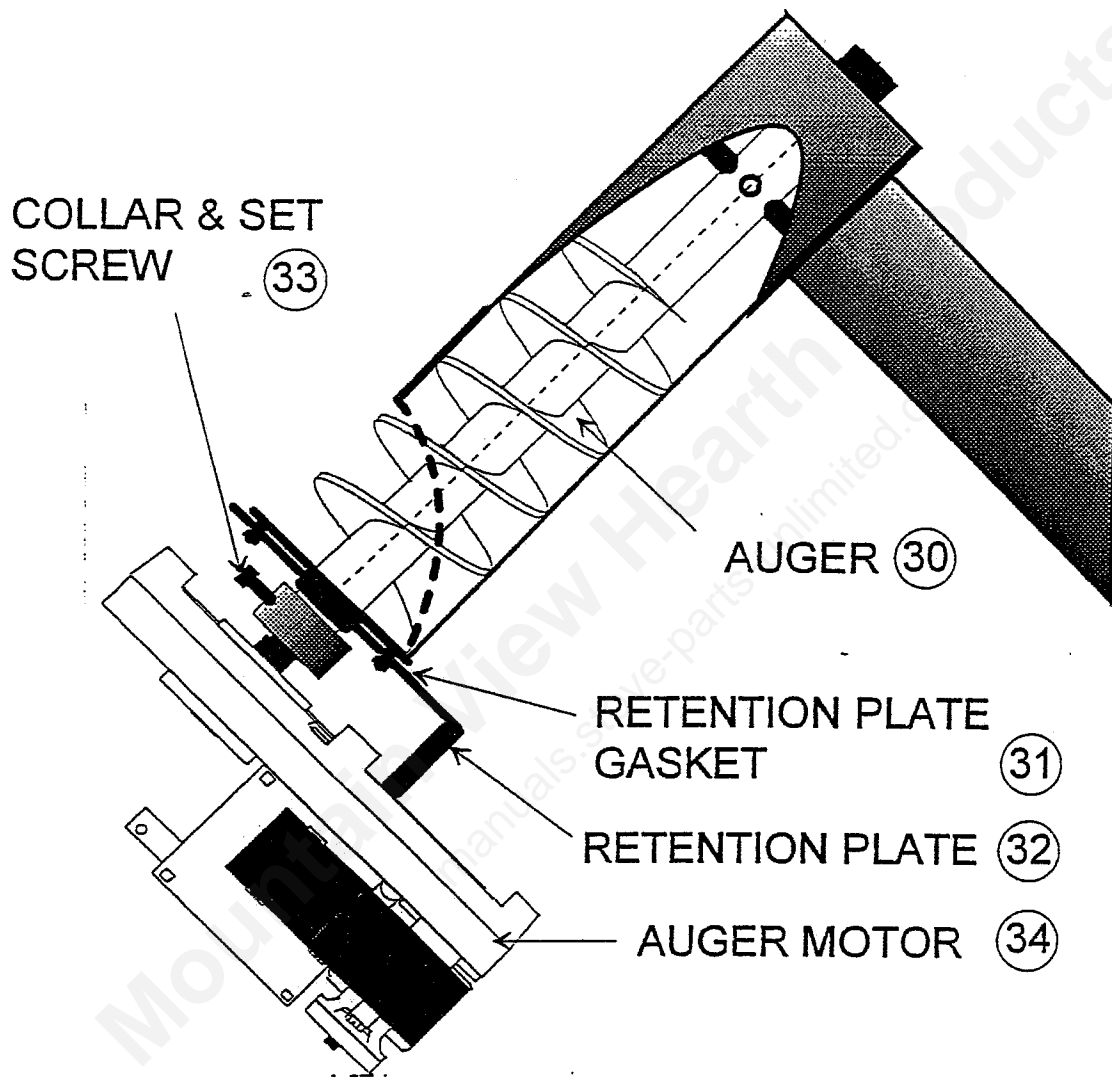
Normally closed switch. Opens when stove body temperature RISES above 250 degrees F. Resets when temperature drops below 230 degrees F.

Removable with a 5/8" wrench.

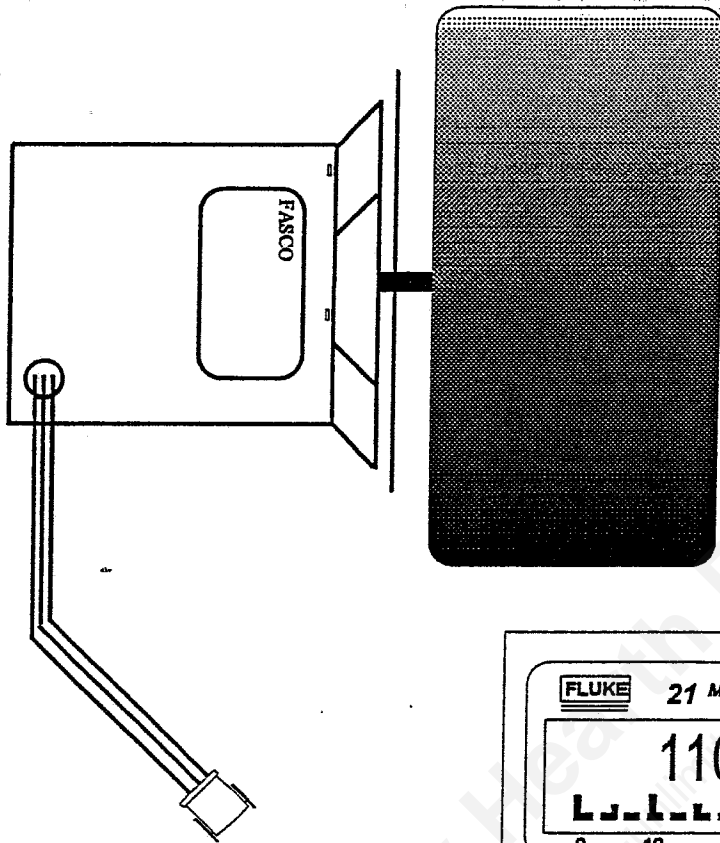
Top View of Exhaust Flow Through Damper Assembly and Combustion Fan.



QUEST AUGER SYSTEM CUT-A-WAY VIEW



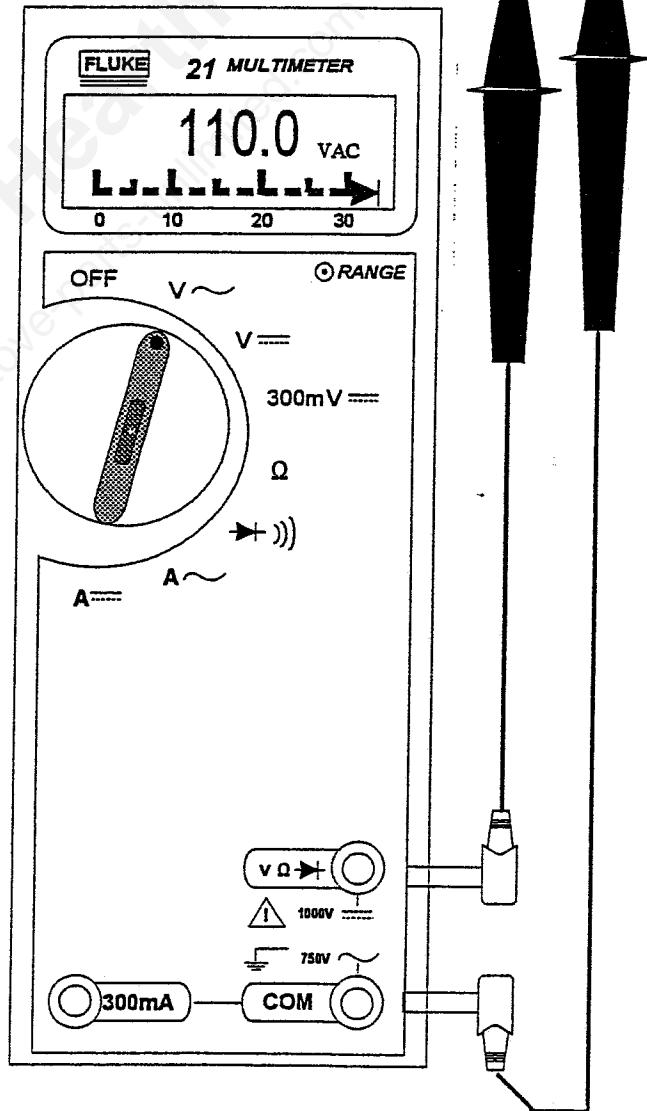
③0	AUGER	13652100
③1	AUGER RETENTION PLATE GASKET	61050003
③2	AUGER RETENTION PLATE	13640072
③3	AUGER COLLAR & SET SCREW	12041300
③4	AUGER MOTOR	12046300

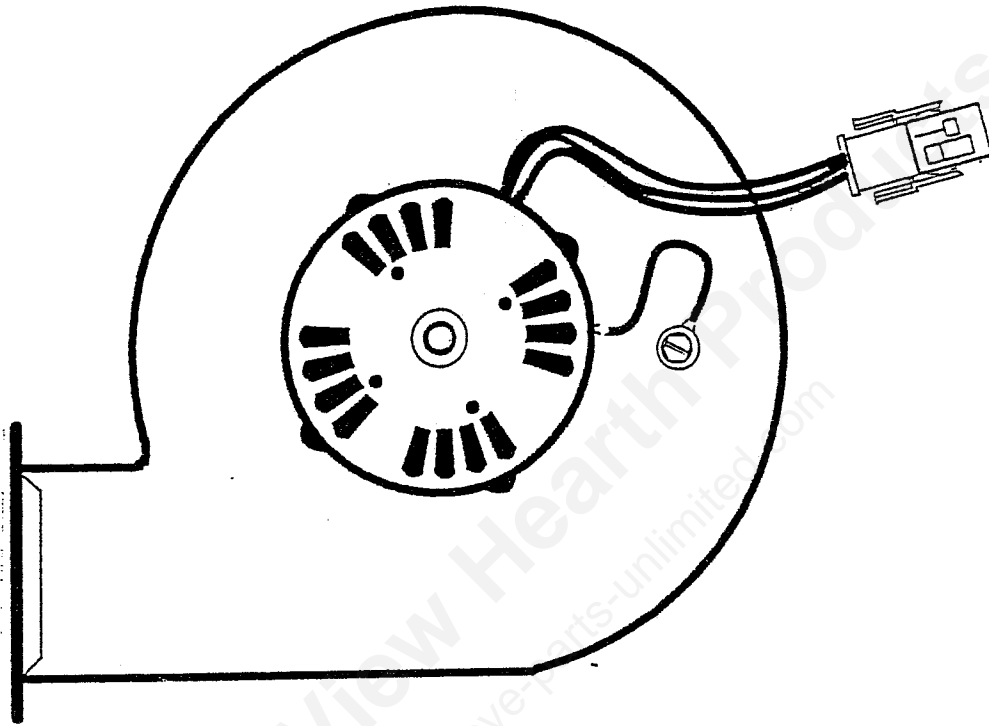


VOLTAGE READINGS

NOTE:

INSERT METER PROBES FROM THE MOTOR SIDE OF THE PLUG!
(YOU DO NOT NEED TO UNPLUG FROM THE WIRE HARNESS)





CONVECTION FAN : PN# 13646109

FASCO # 7021-8699 TYPE U21B HP 1/35

115 V — 60 HZ 1.2 AMP CLASS "B"

2000 and 1400 RPM. NOMINAL

THERMALLY PROTECTED