VariFlame™ EDGE Connect Heater

FlowChart

Boot

Validate ROM, AC Frequency, reboot cause

All inputs in the right state?

Start Fan?

Turn Fan Relay ON

Air Flow detected?

Turn Igniter Relay ON

Wait 4 seconds

Test valve relays for short circuit

Heat requested?

Flame ON?

Energize Valve

Wait up to 4 seconds for flame ON?

Flame strength OK?

Measure flame strength for 6 seconds.

Burner is ON

Still need heat?

Open Valve

Valve Open and Flame OFF?

Cooldown / post purge

Still need air

Turn fan OFF, wait for air switch to open

Air switch opened?

True

False

Flame Loss?

Set Retry Flag

Increase retry count

Enter lockout

Third retry?

False

False

False

True

Enter lockout

True

False

False

False

A waiting call for heat

Awaiting call for heat

AP is a part of GSI, a worldwide brand of AGCO Corporation

VariFlame Heater Parts List

Ref # Part # Description

1 3001-1740 Switch Micro with Sail Lever V/SL

2 3005-0111 TSTAT TDISC 60T15 280D Airstream

3 VF1-1011 VF3-1025-OA VariFlame Variable Rate Heater Control with Wiring Harness

4 VF1-2004 Hot Surface Igniter Assembly

5 VF1-2002 Flame Probe Assembly

6 VF3-1055 VariFlame Variable Rate Replacement Display

7 VF3-1054 VariFlame Variable Rate Replacement Heater Control Board

8 VF3-1016 Rocker Switch, Panel Mount, On-Off, CSA/UL

9 20-1009D Motor, 1/3HP, 1 Ph, 120V, 60 Hz

10 20-5011X Wheel, Blower / Large - 50 Hz

11 VF3-1008 VariFlame Heater Burner Casting

12 VF3-1080 3/8 NPT Square Head Pipe Plug

13 VF3-1091 1/4 FPT X 3/8 NPT Flush Bushing

14 VF3-1040 Nickel, 1/4 Fully Threaded SCH40

15 VF2-1020 VariFlame Variable Rate, Propane

16 VF3-1022 Elbow, 90Deg, 3/8 x 1/2, SCH40

17 VF3-1013 Ball Valve, 1/4 MNPT X 1/4 FNPT, Compact

18 1021-1495 Fitting Pipe 1/2 to 1/4 Reducer

19 VF3-1022 Gas Valve, VariFlame Variable Rate, LP

20 VF3-1024 Gas Valve, VariFlame Variable Rate, NG