



Key Lime Air

FAIRCHILD AIRCRAFT

SA227 Series

Pilot's Flight Checklist

REVISION: 18
DATE: 06/15/2010
FORM 86-020

FAA Accepted By:



Christopher A. Lang
Aviation Safety Inspector (OPS)

Date: 06-16-2010



Key Lime Air

SA227 Series

EMERGENCY PROCEDURES

Engine Fire—Ground:

Affected Engine:

1. Engine Stop and Feather Pull
2. Engine Stop Button Press
3. Fuel Shutoff Closed
4. Hydraulic Shutoff Closed
5. Fire Extinguisher Switch Press
6. Generator Switch Off
7. Starter Test Engage
8. Boost Pump Off
9. Ignition Switch Off
10. Engine Cleared

Cargo or Cabin Door Warning (Ground):

1. Do not take off.

Takeoff Abort:

1. Power Levers Ground Idle
2. Brakes As Required
3. Nosewheel Steering As Required
4. Reverse Thrust As Required
5. CAVI Off

Engine Failure—Takeoff Aborted:

1. Power Levers Ground Idle
2. Brakes As Required
3. Nosewheel Steering As Required
4. Reverse Thrust—Operating Engine As Required
5. Engine Stop and Feather Pull
6. Failed Engine Cleanup:
 - a. Fuel Shutoff Closed
 - b. Hydraulic Shutoff Closed
 - c. Boost Pump Off
 - d. Generator Off
 - e. Bleed Air Off
 - f. Ignition Switch Off
7. CAVI Switch Off

Engine Failure—Takeoff Continued:

1. Takeoff Power Set
 2. V_R Speed Rotate (Climb at V_2 Speed)
 3. Landing Gear (After Liftoff) Up
 4. Engine Stop and Feather Pull
- After obstacles are cleared:
5. Flaps (At $V_2 + 5$ KIAS) Up
 6. Max Continuous Power (at V_{YSE}) Set (Climb at V_{YSE})
 7. Failed Engine Cleanup:
 - a. Fuel Shutoff Closed
 - b. Hydraulic Shutoff Closed
 - c. Boost Pump Off
 - d. Generator Off
 - e. Bleed Air Off
 - f. Ignition Switch Off
 8. Trim As Required
 9. Generator (as appropriate) 300 (200) amps max
 10. Prop Sync Takeoff-Landing
 11. CAVI Switch As Required

Engine Fire—Flight:

Affected Engine:

1. Engine Stop and Feather Pull
2. Fuel Shutoff Closed
3. Hydraulic Shutoff Closed
4. Fire Extinguisher Press
5. Failed Engine Cleanup:
 - a. Boost Pump Off
 - b. Generator Off
 - c. Bleed Air Off
 - d. Ignition Switch Off
6. Power (Good Engine) As Required
7. Bleed Air (Good Engine) As Required
8. Trim As Required
9. Generator (Operating Engine) 300 (200) amps max
10. Prop Sync Takeoff-Landing
11. Reserve Power (If installed) As Req'd

Engine Failure—Flight:

Affected Engine:

1. Engine Stop and Feather Pull
2. Failed Engine Cleanup:
 - a. Fuel Shutoff Closed
 - b. Hydraulic Shutoff Closed
 - c. Boost Pump Off
 - d. Generator Off
 - e. Bleed Air Off
 - f. Ignition Switch Off
3. Power (Good Engine) As Required
4. Bleed Air (Good Engine) As Required
5. Trim As Required
6. Generator (Operating Engine) 300 (200) amps max
7. Prop Sync Takeoff-Landing
8. Reserve Power (If installed) As Req'd

Double Engine Failure (Restarts Unsuccessful):

1. Airspeed Maintain Best Glide
2. Gear Up
3. Flaps Up
4. Complete engine failure-flight checklist.

Glide Airspeed				
Weight (Pounds)	16,000	14,000	12,000	10,000
Airspeed (KIAS)	180	150	140	130

- Best glide airspeed is approximately 1.5 V_{VS} on the SAS Indicator.
- Glide ratio at best glide airspeed is approximately 10:1 (2NM/1,000 FT AGL).

Wheelwell & Wing Overheat Light—Steady:

1. Bleed Air (affected side) Off
2. Landing Gear Down
Leave gear extended at least three (3) minutes allow cooling of overheated brakes in order to preclude a brake/tire fire and tire explosion.
3. Generator Switch (affected side) Off
If warning light extinguishes, retract landing gear after three (3) minutes cooling and continue flight with the bleed air OFF; the generator may be RESET/ON. If the light reilluminates STEADY, extend the gear. A diversion and precautionary landing may be necessary. If the light changes to a FLASHING mode complete the Wheelwell & Wing Overheat Light—Flashing items.

If the warning light does not extinguish within three minutes, the affected engine should be shut down. The landing gear may have to be retracted to sustain flight until arriving at a suitable landing field.

Wheelwell & Wing Overheat Light—Flashing:

1. Bleed Air (affected side) Off
2. Generator (affected side) Off
If warning light extinguishes, the generator may be RESET/ON and bleed air turned back on. If warning light does not extinguish within three minutes, the affected engine should be shut down. If light changes to STEADY, extend the gear and complete the Wheelwell & Wing Overheat Light—Steady.

Stabilizer Trim Runaway:

1. Master Disconnect (if installed) Press and Hold
2. Trim Selector Off
3. Master Disconnect Button Release
4. Trim Selector Opposite Position
5. Retrim As Required

SAS Malfunction—Nose Down:

1. Master Disconnect (if installed) Press and Hold
2. SAS Servo Switch Off
3. Master Disconnect Release

Without Master Disconnect

1. Elevator Control Overpower
2. SAS Clutch or Servo Switch Off
3. SAS Circuit Breakers (four) Pull

AURAL STALL WARNING AT SPEEDS WELL IN EXCESS OF NORMAL STALL WARNING SPEEDS:

1. SAS Clutch or Servo Switch Off
2. SAS Circuit Breakers (four) Pull

Smoke In The Airplane:

1. Crew Oxygen Masks Don
2. If smoke or fire from electrical source:
 - a. Smoke or fire from essential bus:
 1. Bus Tie Switch Off
 2. Bus Transfer Switches Opposite
 - b. Smoke or fire from nonessential bus:
 1. Bus tie switch Off
3. If smoke is from bleed air source, turn bleed air switches off one at a time to identify side with malfunction. If unsuccessful, turn off both sources.
4. If smoke is in rear of the airplane, select the manual pressurization control and select full decrease. When differential pressure is zero, select CABIN DUMP.
5. If the smoke is in the cockpit, select CABIN DUMP.
6. Emergency Descent As Required
7. Airspeed 175 KIAS max
8. Landing Gear Down
9. Fresh Air Fan Override

Emergency Descent:

1. Crew Oxygen Masks Don
2. Passenger Oxygen Control On
3. Passenger Oxygen Masks Don
4. Speed Levers High RPM
5. Power Levers Flight Idle
6. Airspeed 175 KIAS max
7. Landing Gear Down
8. Flaps One-Half
9. Altitude As Required



Key Lime Air

SA227 Series

NORMAL PROCEDURES

Items marked with ♦ are to be performed on the first flight of day

(Can be Completed Prior to Engine Start)

Before Starting Engines:

1. Exterior Preflight Completed
2. Weight & Balance Computed
3. Takeoff Data Computed & Set
4. Nav & Comm Instruments Set
5. Passenger Briefing Complete

Engine Start:

(1 thru 11 Flow Backed by Checklist)

1. Battery Switches On
2. Cargo & Cabin Door Warning Lights Out
3. Cargo & Baggage Secure
4. Seatbelt & Shoulder Harness Secure
5. Exterior Lights Set (Beacon & Nav)
6. Control Lock Off
7. Power Levers Set
8. Speed Levers Low
9. Boost Pumps Prime (6 seconds) & Off
10. Inverters Check Both & On
11. Propeller Clear, Flat, Capped
Start right engine first (Recommended)

12. Engine Start Button Press & Hold
13. EGT Monitor (770°C Max)
14. RPM & EGT Stabilized
15. Boost Pump On
16. Fuel & Oil Press Yellow / Green Arcs
17. Bleed Air Switch On (High / Low)
18. Generator As Required

Repeat Steps 11 thru 17 for other engine

19. GPU Disconnected
20. Generators Reset / On
21. Generator Volt / Ammeters Check
22. Current Limiters Check
23. SRL / Temp Limiter Check (periodically)
24. Overspeed Governors Check
(Prior to any flights with intentional airtarts)

Before Taxi:

(1 thru 15 Flow Backed by Checklist)

1. Ignition Switches Auto
2. Nose Wheel Steering On
3. Wing Ice Light On
4. Propeller Start Locks Release
5. ♦ NTS Check ♦
6. Trim Set
7. Boost Pumps On
8. SAS On
9. CAWI Check
10. ♦ Flaps Down (cruise test) ♦
11. Flaps ¼ Set
12. Prop Sync Takeoff & Landing
13. Avionics On
14. Cabin Signs On
15. Suction / Deice / Hyd Press Check

Taxi:

1. Taxi & Recog Light On
2. Brakes Check
3. Passenger Briefing As Required

Before Takeoff:

1. Engine Instruments Check
2. Flight & Nav Instruments Check & Review
3. Fuel Quantity & Balance Check
4. Flight Controls Check
5. Takeoff Data Confirm / Bugs Set
6. Crew Briefing Complete

LINE ITEMS (Memory Items)

7. Ice Protection As Required
8. Exterior Lights Set
9. Heading Confirm Takeoff Runway
10. Altimeter Check
11. Transponder On (ALT)
12. Time Note
13. Bleed Air Switches Off
14. Speed Levers High
15. CAWI As Required
16. Nose Wheel Steering Off

After Takeoff (Silent/As Required):

(500' After T/O 1 thru 10 Flow Backed by Checklist)

1. Landing Gear Up (after liftoff)
2. Ice Protection As Required
3. Exterior Lights Set
4. Climb Power Set (640°C or Max TQ)
5. RPM 100%
6. Prop Sync Climb & Cruise
7. Flaps Retracted
8. CAWI Off
9. Bleed Air Switches On (High / Low)
10. Cabin Pressure Check (pressurizing)

Climb (FL180 and Above):

1. Altimeters Set 29.92 (left & right)
2. Recog & Wing Ice Light Off

Cruise:

1. Cruise Power Set (630°C or Max TQ)
2. Cabin Pressure Set (500 ft. + field elev.)
3. RPM 100%
4. Recog & Wing Ice Light Off

In-Range:

1. Cabin Pressure Set (500 ft. + field elev.)
2. Landing Data Confirm / Bugs Set
3. Crew Briefing Complete

Descent & Approach:

1. Altimeters Set (left & right)
2. Ice Protection As Required
3. Recog & Wing Ice Light On
4. Fuel Quantity & Balance Check
5. Fuel Crossflow Switch Closed
6. GPWS (if Installed) Flap Override On
7. Cabin Pressure Monitor
8. Crew Briefing Review Changes

Before Landing (Silent/As Required):

(1 thru 5 Landing Flow Backed by Checklist)

1. Landing Gear Down
2. Nose Wheel Steering Off

(Memory Items)

3. Exterior Lights Set
4. Prop Sync Takeoff & Landing
5. Speed Levers High

V_{REF} Approach Speeds—KIAS 10,000 # - 13,000 #

WT (1000#)	10.0	10.5	11.0	11.5	12.0	12.5	13.0
FULL FLAPS	99	101	103	104	106	108	109
1/2 FLAPS	103	105	107	108	110	111	113
NO FLAPS	110	112	114	116	118	120	122

V_{REF} Approach Speeds—KIAS 13,500 # - 18,000 #

WT (1000#)	13.5	14.0	14.5	15.0	15.5	16.0	
FULL FLAPS	110	112	113	115	117	118	
1/2 FLAPS	114	116	118	119	121	122	
NO FLAPS	124	126	128	130	132	134	

Balked Landing & Missed Approach:

1. Climb Power Set (650°C or Max TQ)
2. Climb Speed Attain
3. Flaps Retract to ¼
4. Landing Gear (positive rate) Up
5. Airspeed 125 KIAS (minimum)
6. Flaps Up

After Landing (Silent/As Required):

(1 thru 6 Flow Backed by Checklist)

1. Ice Protection Off
2. Exterior Lights Set
3. Trim Set
4. Flaps Up
5. Transponder Standby
6. Radar Off

Stopping Engines:

(1 thru 12 Flow Backed by Checklist)

1. Bleed Air Switches Off
2. Avionics Off
3. Inverter On
4. SAS Off
5. Boost Pumps Off
6. Exterior Lights Set (Beacon and Nav)
7. Generator Switches Reset & Off
8. Nose Wheel Steering Off
9. Engine Stop Buttons Press & hold
10. Power Levers Reverse @ 40% RPM
Hold stop buttons & reverse until 20% RPM
11. Control Lock On
12. Battery Switches Off



Key Lime Air

SA227 Series

PREFLIGHT INSPECTION

Items marked with ♦ are to be performed on the first flight of day

A. Cockpit Preparation:

1. Battery Switches On
2. Battery Voltages Check
3. Battery Disconnects Check
4. Landing Gear Handle Down
5. Landing Gear Position Indicator Test/Adjust Brightness
6. Inverter Check On
7. Exterior Lights On
8. Exterior Lights Check/Off
9. Fuel Quantity Check/Balance
10. Crossflow Switch Closed
11. Fuel Counter Zero
12. Annunciator Panel Check
(All Lights Illuminated, Wing Overheat/Flashing)
13. ♦ Fire Detect Test ♦
14. Control Lock Off
15. Controls Free/Correct
16. ♦ Out Of Trim Warning Check ♦
17. Trim Check /Set
18. Control Lock Engage
19. ♦ SAS Check ♦
20. ♦ GPWS Check ♦
21. ♦ TCAS (If installed) Check ♦
22. ♦ CVR (If installed) Check ♦
23. Landing Gear Pump Valve Handle ... Aft/Pip pin Installed

Pilot's Console:

24. Left Essential Bus Tie Switch On
25. Bus Transfer Switches Left Bus
26. All CB's In
27. Cabin Pressure Selector Lever Auto
28. Cabin Pressure Manual Control Knob Clockwise
29. Auto/Cont Ignition Switches Auto
30. Starter Test Switch Centered
31. Speed Switch Select Switches Auto
32. Start Mode Switch As Required
33. Nose Wheel Steering Switch Off
34. SRL—Δ P/P Power Switches Normal
35. Temp Limiter Test Switch Centered
36. Light Control Knobs As Required
37. Feather Valve / Fuel Shutoff Valve Check
(Prior to any flights with intentional engine shutdowns)
38. Unfeather Test Switch Centered

Instrument Panel:

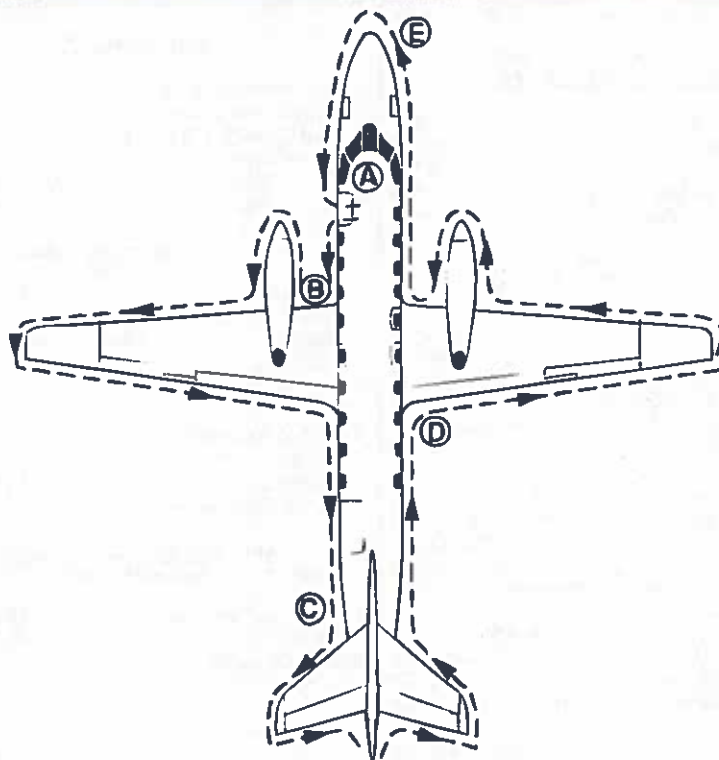
39. Static Selector Normal
40. Cockpit Air Controls As Required
41. Cabin Alt and Rate Indicators/Controls Checked/Set
42. Rocker Switches (Except Batteries/Lights as Req'd) .. Off

Pedestal:

43. Control Lock As Required
44. Trim Select Switch Pilot
45. Fuel Boost Pumps Check/Off
46. Fuel Shutoff Switches Open
47. Parking Brake As Required
48. Light Control Knobs As Required
49. Trims Set
50. Auxiliary Trim Switch Off
51. SAS Servo Switch Off
52. Hyd Shutoff Switches Open
53. Engine Stop and Feather Controls In
54. CAVI Switch Off
55. Speeds Low
56. Flaps Control Up
57. Sync Off

Instrument Panel:

58. Avionics Off
59. Temperature Controls As Required
60. Cabin Pressure Dump Switch Normal
61. Interior Lights/Signs Off
62. Bleed Air Switches Off
63. Fresh Air Switch Off
64. Windshield Defog Switch Off
65. Air-conditioning As Required
66. Oxygen Pressure Check
67. PAX Oxygen Toggle Control Off
68. CAVI Quantity Gauge Check



Cockpit's Console:

69. Cargo Door Aux Warning Light Test/Check
70. Light Control Knobs As Required
71. All CB's In
72. Nonessential Bus Tie Switch On
73. Right Essential Bus Tie Switch On
74. Battery Switches Off

B. Left Wing:

1. Fuel Tank Sumps Drain
2. Lower Antennas and Anti-Collision Light Condition
3. Leading Edge Ram Air Scoop Clear
4. Gear Doors Open
5. Landing Gear, Brakes, Tires, and Wheel well Condition
6. Generator Voltmeter and Control CB's In
7. Gear Doors Closed
8. Chocks Remove
9. Cowling and Doors Secure
10. Fire Extinguisher Bottle Pressure Check
11. Oil Cooler Inlet Clear/Condition
12. Engine Inlet and Sensors Clear/Condition
13. Propeller and Propeller Deicers Free Rotation/Condition
14. Oil Pop-Out Pin (-12 Engines) Check/Flush
15. Engine Oil Quantity and Filler Cap Check/Secure
16. Hydraulic Reservoir Sight Glasses Check
17. Wing Ice Detector Light Check
18. Fuel Sump Drain
19. Wing Deice Boots Condition
20. Fuel Vent Clear
21. Landing & Recognition Lights and Shield Check
22. Navigation Lights Check
23. Aileron and Tab Condition
24. Wing Fuel Cap Secure
25. Flaps Condition
26. Exhaust Clear

C. Tail Section:

1. Cargo Door Secure
2. Static Sources Clear
3. Deice Boots Condition

4. Stabilizer Setting. Check in agreement w/ cockpit indicator
5. Control Surfaces and Rudder Tab Condition
6. Navigation Lights Check
7. Upper Antennas and Anti-Collision Light Condition
8. Tie Down Remove
9. Oxygen Bottle Thermal Relief Disc Condition

D. Right Wing:

1. Flaps Condition
2. Exhaust Clear
3. Wing Fuel Cap Secure
4. Aileron and Tab Condition
5. Navigation Lights Check
6. Landing and Recognition Lights and Shield Check
7. Fuel Vent Clear
8. Wing Deice Boots Condition
9. Wing Ice Detector Light Check
10. Fuel Sump Drain
11. Chocks Remove
12. Fire Extinguisher Bottle Pressure Check
13. Oil Cooler Inlet Clear/Condition
14. Engine Inlet and Sensors Clear/Condition
15. Propeller and Propeller Deicers Free Rotation/Condition
16. Oil Pop-Out Pin (-12 Engines) Check/Flush
17. Engine Oil Quantity and Filler Cap Check/Secure
18. Cowling and Doors Secure
19. Gear Doors Open
20. Landing Gear, Brakes, Tires and Wheel well Condition
21. Generator Voltmeter and Control CB's In
22. Gear Doors Closed
23. Leading Edge Ram Air Scoop Clear
24. Fuel Tank Sumps Drain

E. Nose Section

1. Outside Air Temperature Sensor Clear
2. Static Sources Clear
3. Baggage Doors Secure
4. SAS Vane Check
5. Windshield Wipers Condition
6. Nose Gear, Tires, Wheel well, Gear Doors Condition



Key Lime Air

SA227 Series

ABNORMAL PROCEDURES

Boost Pump Failure:

1. Both auxiliary pumps Selected
2. Refer to AFM for no boost pumps required envelope.

Fuel Transfer Pump Caution Light On:

1. Auxiliary boost pumps On
- If light remains illuminated:
2. Do not take off.

Left or Right Fuel Filter Light On (SA227-BC):

Fuel is bypassing due to blockage. Monitor engine indications for abnormalities (i.e. fluctuations in fuel pressure or fuel flow). (See page 6B-49 Fuel Control System in the AFM.)

Excessive Ammeter Indication:

1. Battery Switches Off
- If indication continues:
2. Battery Switches On
3. Disconnect bus tie switches individually to find the bus with the overload.
4. Isolate the malfunctioning circuit.
5. See the Aircraft Flight Manual.

Battery Fault Light On:

1. Both battery switches Off
 2. Left battery switch Reset/On
- If light comes on again:
3. Left battery switch Reset/Off
 4. Right battery switch On
- If light comes on again:
5. Right battery switch Reset/Off
 6. Left battery switch On

Generator Fail Light On:

1. Generator Switch Off/Reset/On
- If generator switch will not reset:
2. Generator switch Off

Circuit Breaker Tripped:

1. Affected CB Reset (One time only)

Inverter Inoperative:

1. Select other inverter.

Left Essential Bus Failure:

1. Stby Insr Pwr Sw Verify Armed/ Stby Pwr Light On
2. Left Essential Bus Tie Switch Off
3. Bus Transfer Switches Right Bus
4. Inverter Switch No. 2
5. Trim Select Copilot
6. Left Avionics Aux Pwr Sw (If installed) On
7. Left Fuel Boost Pump Sw Auxiliary

Right Essential Bus Failure:

1. Right Essential Bus Tie Switch Off
2. Bus Transfer Switches Left Bus
3. Inverter Switch No. 1
4. Trim Select Pilot
5. Right Avionics Aux Pwr Sw On
6. Right Fuel Boost Pump Sw Auxiliary

Nonessential Bus Failure:

1. Nonessential Bus Tie Switch Off
- Prior to takeoff Do not take off

Chip Detector Light On:

- In Flight, Engine Operation Normal:
1. Monitor affected engine closely.
 2. Continue flight to first intended landing and determine cause.
- In Flight, Engine Operation Abnormal:
1. Affected Engine Shut Down
(Refer to Engine Failure—Flight)
 2. Accomplish single engine landing.

Severe Icing Encounter:

- Avoid abrupt and excessive maneuvering.
- If unusual roll response or uncommanded roll control movement is observed, reduce angle of attack.
- Do not extend flaps.
- If the flaps are extended, do not retract them until the airframe is clear of ice.

Inadvertent Icing Encounter (Ice Protection Off):

1. Ignition Switches Cont
2. IGN Lights Check On
3. Left Engine Heat Switch Engine and Prop Heat
4. Pitot Heat/SAS Heat Pilot and SAS
5. Windshield Heat Switch High
6. Deice Boots Switch Auto (At the first sign of ice formation anywhere on the aircraft)
7. Right Engine Heat Switch Engine and Prop Heat

Instrument Static Pressure Malfunction:

1. Static Source Selector Valve Alternate

Landing Gear Squat Switch Malfunction:

- To Retract Gear:
1. Override Release Lever Down
 2. Landing Gear Control Lever Up

Nose Wheel Steering Malfunction:

1. Directional Control Maintain w/ rudder/brakes/power
2. NWS Arm Switch Off

Manual Ground Start Procedures:

- Use Normal Procedures with the following exceptions:
1. Speed Switch Select Switch Manual at 10% RPM
 2. Start Fuel Enrichment As Req'd 10% - 60% RPM
 3. Speed Switch Select Switch Auto When RPM and EGT stabilized @ 71%

Refer to Airplane Flight Manual Abnormal procedures for complete manual starting procedures.

Operations With Temp Limiter Inop:

1. Do not advance power lever rapidly beyond 50% travel.
2. Adjust power carefully.
3. Monitor EGT when operating near the EGT limit.

Fuel Bypass Valve Failed Open:

- Before takeoff Do not takeoff
- In Flight:
1. Temperature Limiter Circuit Breaker Pull
 2. Refer to AFM.

Fuel Bypass Valve Failed Closed:

- Before takeoff:
- If the fuel bypass malfunction is suspected during ground operations, the system may be checked as follows:
1. Speed Levers High RPM
 2. Power Levers Set 350 PPH Fuel Flow
 3. Temp Limiter Test Switch Hold L then R
- Note that respective fuel bypass lights illuminate and that fuel flow for each engine drops to approx 260 PPH. No drop means inoperative system.

- Takeoff:
1. Takeoff Power Set
 2. EGT Do Not Exceed 650°C

SRL Computer Failure:

1. Temp Limiter CB Pull
2. Engine Power Set (Match torque of opposite engine or refer to AFM for EGT limit)
3. Refer to AFM for takeoff with SRL inoperative. Refer to AFM Abnormal Procedures for max continuous and cruise power limits with SRL inoperative.

Simulated SRL Computer Failure:

- Failure of the SRL computer may be simulated in flight as follows:
1. Power Reduce to extinguish bypass open light
 2. SRL Switch SRL Off
 3. EGT Control manually to appropriate AFM limits

Preplanned Engine Shutdown:

1. Bleed Air Switch Off
2. Prop Sync Takeoff-Landing
3. Power Lever (Sel. Engine) 1/4 inch fwd of flight idle (horn silenced)
4. Speed Levers 100% RPM
5. Current Limiter Check Complete
6. Generator Switch (Sel. Eng.) Off
7. Engine Stop and Feather:
 - a. Pull only until fuel shuts off.
 - b. At 30% RPM or 60 seconds whichever occurs first, pull to feather.
8. Engine Cleanup:
 - a. Fuel Shutoff Closed
 - b. Hydraulic Shutoff Closed
 - c. Boost Pump Off
 - d. Generator Off
 - e. Bleed Air Off
9. Power Lever (Good Engine) As Required
10. Trim As Required
11. Generator 300 (200) amps max
12. Engine Stop and Feather Forward



Key Lime Air

SA227 Series

ABNORMAL PROCEDURES

Airstart:

1. Speed Lever 100% RPM
2. Power Lever 1/4 inch forward of flight idle
3. EGT Below 200 C
4. RPM 10% or less
5. Altitude 20,000' Max
6. Airspeed 100-180 KIAS
7. Engine Stop and Feather Forward
8. Fuel Shutoff Open
9. Hydraulic Shutoff Open
10. Boost Pump On
11. Generator Switch Off
12. Bleed Air Off
13. Ignition Switch Auto
14. Start Button Press and hold until lightoff
15. Propeller Observe Unfeathering
(If Unfeathering is not Observed; Unfeather Pump Test as Required Until wind milling is Observed and continue from #14 above)
16. Fuel Flow Should start at 10% RPM
17. EGT Should increase at 10-25% RPM
If not increasing by 25% RPM,
pull engine stop and feather control.
18. Fuel and Oil Pressure Green Arc
19. Generator Reset/On
20. Bleed Air On

Airstart With SRL Computer Inoperative:

This procedure is essentially identical to the Airstart procedure except that the Speed Switch Select Switch is placed in MANUAL before pressing the start button. It is not necessary to hold the start button. Ignition and fuel flow occur immediately after the start button is pressed. The Speed Switch Select Switch should be returned to AUTO when RPM increases above 60%. Refer to the AFM for detailed procedures.

Aborted Airstart:

1. Engine Stop and Feather Pull
2. Altitude Reduce before attempting another start

Warm or Hot Air From Cold Air Outlets:

Bleed Air Switch (Affected Side) Off

Automatic Temperature Controller Failure:

Switch to MANUAL control.

Unpressurized Flight:

1. Cabin Dump Switch Dump
2. Bleed Air Switches As Desired

Low Suction Light On:

Less than 4.4 in. Hg suction is being produced.

Pressurization—Monitor operation in automatic mode. If abnormalities are noted revert to manual operation.

Vacuum Powered Instruments—Check suction gauge. Cross check instruments against non-vacuum instruments.

Deice Boots—Monitor deflation cycle. Incomplete deflation will effect their ability to shed ice. Exit icing conditions as soon as possible.

High Oil Temperature:

On the ground:

If the maximum oil temperature limit is exceeded, do not takeoff.

In Flight:

1. High oil temperature can be an indication of low oil quantity or impending engine failure.
2. If the oil temperature exceeds the maximum limit, reduce power on the affected engine.
3. If the oil temperature remains out of limits and there are any other indications of pending engine failure, the engine should be shutdown.



Key Lime Air

SA227 Series

EMERGENCY PROCEDURES

Engine Control Malfunction:

Upon indication of improper operation of a fuel control or propeller control, it is recommended that the affected engine be shut down and a single engine landing accomplished.

No Response to Power Lever Movement:

1. Ignition Switches Cont
 2. Engine Heat Switch(es) Engine & Prop Heat
- After condition has cleared and normal operation is observed:
3. Engine Heat Switch(es) As Required
 4. Ignition Switches Auto

Inflight Relight:

1. Power Lever 1/4" fwd of full idle
2. Speed Lever Approx 100%
3. Airspeed 180-100 KIAS
4. Engine Start Button Press Momentarily
5. EGT Monitor (770°C Max)
6. RPM Check Stabilized
7. SRL OFF Light Check Off
8. Power Reset as Required

Left or Right Oil Pressure Warning:

If low oil pressure is confirmed by the oil pressure gauge, the engine should be shut down by applying the Engine Failure—Flight checklist.

If the oil pressure gauge indicates normal pressure (70—120 PSI) monitor engine parameters. However, if any abnormal indications appear (i.e. uncommanded RPM fluctuations, rising oil temperatures, etc.), shut down the engine by applying the Engine Failure—Flight checklist.

Single Engine After Touchdown:

1. Brakes As Required
2. Nose Wheel Steering As Required
3. Power Levers Ground Idle
4. Reverse Thrust As Required

Partial Flap Landings:

Make landing approach at 1.3 V_{stall} for existing configuration. Refer to the following table or the flight manual for approach speeds.

Approach Speeds—KIAS (1.3 V _{stall}) 10,000 # - 13,000 #							
WT (1000#)	10.0	10.5	11.0	11.5	12.0	12.5	13.0
3/4 FLAPS	101	103	105	106	108	110	111
1/2 FLAPS	103	105	107	108	110	111	113
1/4 FLAPS	108	110	112	113	115	116	118
Approach Speeds—KIAS (1.3 V _{stall}) 13,500 # - 16,000 #							
WT (1000#)	13.5	14.0	14.5	15.0	15.5	16.0	
3/4 FLAPS	112	114	116	117	119	120	
1/2 FLAPS	114	116	118	119	121	122	
1/4 FLAPS	120	121	123	125	127	128	

Compute flap-up landing distances by adding 72% to the AFM two engine landing distance.

Landing Gear Emergency Extension:

1. Airspeed 175 KIAS max
2. Landing Gear Handle Down
3. Emergency Release Lever Rotate Aft
4. Hand Pump Valve Handle Pull Pin/
Rotate valve handle 90 degrees forward
5. Emergency Hand Pump Pump as Required
 - a. Gear Indicators All down and locked
 - b. Hydraulic Press. Gauge 500 to 800 psi.
6. Nose Wheel Steering Off

If above procedure is unsuccessful, perform the following:

1. Retract the gear.

2. Use full flaps and slow to just above flight idle stall speed.
3. Landing Gear Handle Down
4. Repeat steps 1, 2, and 3 if unsuccessful.
5. If necessary, repeat steps 1, 2, and 3 of this procedure again and use the emergency gear release lever instead of the landing gear handle.

Landing With All 3 Gear Up:

1. Use full flaps.
2. Approach at 5—10 KIAS above normal approach speed.
3. Do not feather propellers until landing on the runway is assured.
4. Shut off electrical power just prior to touchdown. Leave batteries on at night to permit use of landing lights.
5. Touch down in flat attitude on runway centerline.
6. Use rudder for directional control.

Approach Speeds—KIAS (1.3 V _{stall}) 10,000 # - 13,000 #							
WT (1000#)	10.0	10.5	11.0	11.5	12.0	12.5	13.0
FULL FLAPS	99	101	103	104	106	108	109
1/2 FLAPS	103	105	107	108	110	111	113
NO FLAPS	110	112	114	116	118	120	122
Approach Speeds—KIAS (1.3 V _{stall}) 13,500 # - 16,000 #							
WT (1000#)	13.5	14.0	14.5	15.0	15.5	16.0	
FULL FLAPS	110	112	113	115	117	118	
1/2 FLAPS	114	116	118	119	121	122	
NO FLAPS	124	126	128	130	132	134	

Compute flap-up landing distances by adding 72% to the AFM two engine landing distance.

Landing With Nose Gear Up:

1. Use normal approach technique and flap configuration.
2. Feather propellers and shut off electrical power after main wheels have touched the runway. Leave batteries on at night to permit use of landing lights.
3. Hold nose of aircraft off as long as pitch control is available, then lower nose gently.

Landing With Nose Gear and One Main:

1. Attempt to retract landing gear and use procedure for landing with all gear up. If unsuccessful, continue with the steps below.
2. Select the best runway.
3. Feather propellers after landing is assured.
4. Shut off electrical power just prior to touchdown. Leave batteries on at night to permit use of landing lights.
5. Hold the wing with the unextended gear off the runway as long as possible. Use brakes and rudder for aircraft directional control. Expect the aircraft to turn into the low wing.

Aural Out-Of-Trim Warning:

1. Power Levers Ground Idle
2. Brakes As Required
3. Nose Wheel Steering As Required
4. Reverse Thrust As Required
5. CAWI Off

Pilot's Trim System Inoperative:

1. Trim Selector Copilot
2. Pilot's Aux Trim Switch or
Copilot's Trim Switches Trim as required.

Copilot's Trim System Inoperative:

1. Trim Selector Pilot
2. Pilot's Trim Switches Trim as required.

Pilot's and Copilot's Trim System Inoperative:

1. Trim Selector Off
2. Airspeed As required
3. SAS Servo Switch Off
4. Flaps (on approach) As required
5. Landing Gear Down when required.

Go-Around With Stabilizer Trim Inop:

1. Power As Required
2. Flaps Retract in increments
3. Airspeed As Required
4. Landing Gear Retract

Low Cabin Pressure:

1. Check controller setting and cabin dump switch.
2. Check CAVI/water injection switch OFF.

If Necessary:

3. Change to manual operation.
4. Descend or use oxygen.

High Cabin Pressure:

1. Change to manual operation.
If malfunction persists, below 12,000 feet, prior to landing:
2. Bleed Air Switches Off
3. Depressurize cabin to below 1 psi.
4. Cabin dump switch Dump
5. Bleed Air Switches As Required
6. Proceed unpressurized to airport.

Excessive Rate of Pressurization:

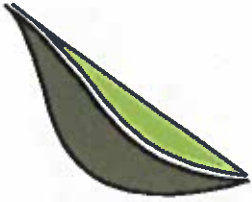
1. Bleed air switches Off
2. Cabin dump switch Dump (If Required)

Cargo or Cabin Door Warning (Takeoff):

1. Initial Part of Roll Abort
2. Final Part of Roll Continue
3. Bleed Air Switches Off
4. Crew and PAX Clear of Door
5. Land as soon as practicable.

Cargo or Cabin Door Warning (Flight):

1. Seat Belt Signs On
2. Crew and PAX Clear of affected door
3. Cabin differential pressure Reduce until light out
4. Descent As required
5. Land as soon as practicable.



Key Lime Air

SA227 Series

EMERGENCY PROCEDURES

Double Generator Failure:

1. Both generator switches Off
2. Electrical load Reduce
3. Generator and start control CB's Check
4. Left Generator Switch Reset/Voltage Checked
5. Left Generator Switch On
If left generator will not go on line, turn it OFF and try the right generator.
6. Right Generator Switch Reset/Voltage Checked
7. Right Generator Switch On

Total Electrical Failure:

1. Entrance Light Switch As Required
2. Stby Instrument Power (if installed) Verify Armed/Light On
3. Stby Attitude Indicator, Airspeed Indicator and altimeter (if installed) Verify powered and lit.
4. Avionics aux power switches (if installed) On
5. Battery and Generator Switches Off
6. Battery Switches (Individually) Reset/On
7. Generator Switches (Individually) Reset/On

Left or Right Hydraulic Pressure Warning:

If normal pressure is indicated (1700—2100 PSI) continue normal operation. No further in-flight action is required.

If an abnormally low pressure is indicated and/or both HYDR PRESS lights are illuminated, assume a hydraulic system failure.

DO NOT CLOSE THE HYDRAULIC SHUT OFF VALVE(S) EXCEPT FOR ENGINE FIRE.

Hydraulic System Failure:

1. Prepare for emergency extension of landing gear.
2. Prepare for landing with existing flap configuration.
3. Nose Wheel Steering Off

SAS Fault Light On In Flight:

1. SAS Clutch or SAS Servo Off
2. SAS Circuit Breakers (four) Pull

Emergency Exit Operation:

1. Cabin Depressurize
2. Release handle Pull