HoneyBee Air

VH-FTU

Piper Warrior II

PA28-161

Quick Reference Handbook

Version 1.0 / April 2026

Serial Number : 28-7916592

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Content

Normal Checklists

BEFORE START

1. Wheel chocks / Tie Downs / Pitot Cover ..... REMOVED
2. Maintenance Release / AFM ..... ON BOARD
3. Seat & Harnesses ..... ADJUSTED & LOCKED
4. Fuel Tank Selector ..... LEFT or LEAST
5. Trims x 2 ..... SET FOR TAKEOFF
6. Flaps .....RETRACTED
7. Park Brake ..... TEST & SET
8. Circuit Breakers ..... CHECKED IN
9. Carb Heat .....OFF
10. Battery Master ..... ON
11. Alternator Switch ..... ON
12. Avionics Master ..... OFF
13. Strobe Light ..... FIN

>> --------- Proceed to Start Procedure (Cold or Hot) ---------<<

AFTER START

1. Throttle ..... SET 1000
2. Oil Pressure ..... CHECK (GREEN < 30 s)
3. Mixture ..... LEAN AS REQ'D
4. Alternator Output ..... CHARGING
5. Circuit Breakers ..... IN
6. Fuel Pump ..... OFF / PRESSURE CHECKED
7. Avionics Master ..... ON / SET / CHECKED
8. Avionics Fan ..... ON
9. Fuel On Board ..... (GTN650 / MFD) SET
10. CAS Message ..... (G3X / GTN650) CONSIDERED

TAXI

1. Brakes ..... CHECKED
2. Steering .....CHECKED
3. Flight Instruments ..... G3X / BACK UP
4. Radios / Navaids ..... CHECK DATABASE / ADF / VHF NAV

---------- **CAUTION** ----------

Do not operate Engine at High RPM when
Running up or Taxying over Loose Ground
due to the Potential Damage for Propeller Damage

RUN-UP

1. Park Brake ..... SET ON
2. Fuel Selector ..... FULLEST TANK
3. Primer ..... IN & LOCKED
4. Engine Instruments ..... CHECKED
5. Mixture ..... FULL RICH

>> --------- Conduct Run-up Procedure ---------<<

6. Engine Instruments ..... CHECKED
7. Alternator Load ..... CHECKED
8. Carb Heat ..... CHECKED & OFF
9. Magnetos ..... CHECKED & BOTH ON
10. Slow Idle ..... CHECKED

BEFORE TAKE-OFF

1. Flight Instruments ..... CHECKED
2. Radios & NAVAIDS ..... SET & CHECKED
3. Fuel Pump ..... ON / PRESSURE CHECKED
4. Fuel Tank ..... FULLEST TANK
5. Primer ..... IN & LOCKED
6. Throttle Friction ..... SET & CHECKED
7. Seatbelts & Harnesses ..... SECURE
8. Trim x 2 ..... SET FOR TAKEOFF
9. Flaps ..... SET FOR TAKEOFF
10. Flight Controls ..... FREE / FULL MOVEMENT
11. Door ..... LATCHED

>> --------- Conduct Departure Briefing ---------<<
>> ------- Conduct Takeoff Safety Briefing -------<<

LINE-UP

1. Fuel Pump ..... ON / PRESSURE CHECKED
2. Flight Instruments ..... CHECKED
3. Strobes / Landing Lights ..... ON
4. Transponder ..... ON / ALT

AFTER TAKE-OFF (300ft)

1. Flaps ..... UP
2. Engine Instruments ..... GREEN
3. Landing Lights ..... OFF
4. Power ..... CHECKED

CRUISE

1. Power ..... SET / Mixture LEANED
2. Engine Instruments ..... GREEN
3. Fuel (Quantity & Balance) ..... CHECKED
4. Fuel Pump ..... OFF / ON at high ALT
5. HSI / Compass ..... ALIGNED
6. Altimeter ..... QNH SET

DESCENT & APPROACH

1. Mixture ..... RICH
2. Altimeter ..... QNH SET
3. Radios & NAVAIDS ..... SET
4. Transponder ..... SET
5. Seatbelts & Harnesses ..... SECURED
6. Landing Lights .....ON
7. Approach Briefing ..... COMPLETED

PRE - LANDING

1. Brakes ..... PRESSURE CHECKED & OFF
2. Undercarriage ..... FIXED
3. Mixture .....FULL RICH
4. Fuel Pump ..... ON
   QTY & Balance ..... Sufficient & FULLEST TANK
5. Instruments ..... GREEN
6. Switches (Landing Lights / Magnetos)..... ON
7. Harnesses ..... SECURED

FINAL APPROACH

>> ----- Stable by 300ft ----- <<

1. Flaps ..... UP
2. Carburettor Heat ..... OFF

AFTER LANDING

1. Transponder ..... Ground / OFF
2. Strobes ..... FIN
3. Pitot Heat ..... OFF
4. Landing Lights ..... OFF
5. Fuel Pump ..... OFF
6. Trim x 2 ..... Neutral
7. Flaps ..... RETRACTED

AFTER SHUTDOWN

1. Park Brake ..... SET
2. Alternator ..... OFF & CHECKED
3. Avionics Fan ..... OFF
4. Avionics ..... OFF
5. Mixture ..... IDLE CUT OFF
6. Magnetos ..... BOTH OFF
7. All switches ..... OFF
8. Battery Master ..... OFF
9. Cabin ..... CLEANED

Normal Procedures

PREFLIGHT

Initial

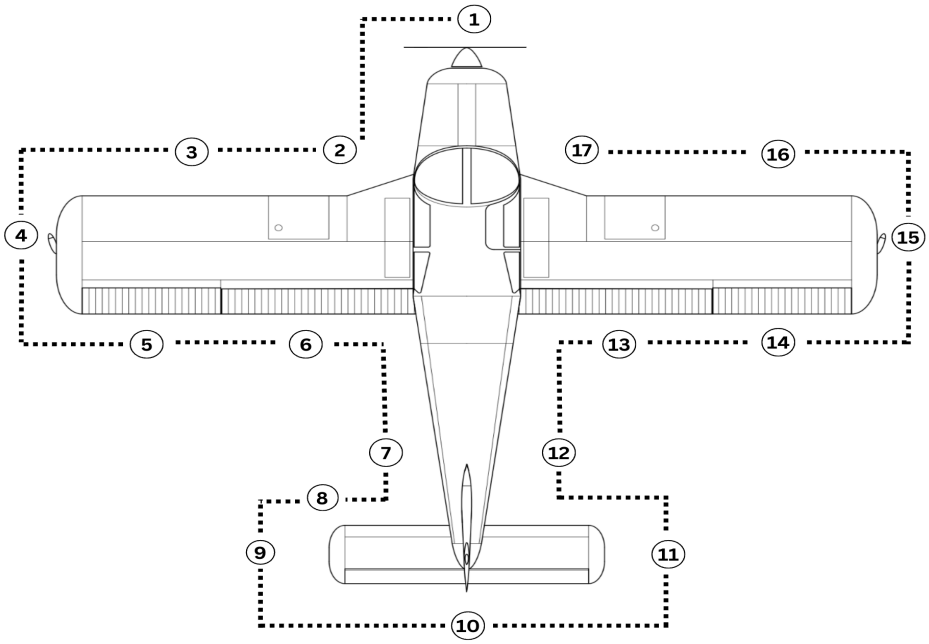
1. General Appearance..... CHECKED
2. Position & Taxi Path ..... CHECKED
3. Tie Downs, Locks, Chocks & Covers ..... REMOVED & STOWED

Cockpit

4. Controls ..... UNLOCKED
5. Flight Manual ..... CHECKED & STOWED
6. Interior ..... TIDY & EQUIPMENT STOWED
7. Windscreen..... CHECK CLEAN
8. Park Brake ..... CHECK & SET ON
9. ELT .....AUTO
10. Heater / Demister ..... OFF
11. Magnetos .....BOTH OFF
12. Throttle ..... CLOSED
13. Mixture .....IDLE CUT OFF
14. NAV Lights & Instrument Lights ..... OFF
15. Overhead Cabin Light ..... OFF
16. Master Switch..... ON
17. Fuel Gauges .....CONTENTS CHECKED
18. Stall Warning ..... CHECK
19. Landing & Navigation Lights/ Strobes / Beacon ..... CHECK
20. Master Switch ..... OFF
21. Flaps ..... SET FLAP 40 DEG

>> --------- Conduct External Inspection ---------<<

22. Flaps ..... RETRACTED
23. Oil Quantity (range 5 – 7 Quarts) ..... CHECKED
24. Fuel Drains (3x)..... CONTAMINATES CHECKED
25. Fuel Quantity ..... VISUALLY CHECKED
26. VDO Card ..... START NUMBERS RECORDED
27. Maintenace Release..... RELEASED & SIGNED



EXTERNAL CHECK

1. Prop Spinner - Condition
   Prop Blade - Condition
   Nose Gear Struct / Tyre
2. Engine Cowling - Brake Fluid Level
   Gear Struct
   Tyres - Condition / Inflation
   Nose Gear Tyre
3. Wing leading edge
   Wing Surface
   Stall warning
   Pitot tube - Cover / Condition
4. Wing Tip Condition
   Nav lights / Strobe
5. Ailerons Condition & movement
   Wing Surface
6. Flaps Condition & Movement
7. Empennage
   Radio Aerials Secure
8. Stabilator Condition
9. Stabilator Movement
10. Stabilator Trim - Anti Servo Tab
    Underside Fuselage
11. Stabilator Movement
12. Empennage
    Remove Chocks
    Baggage Door
13. Flaps Condition & Movement
    Wing Surface
14. Ailerons Condition & Movement
15. Wing Tip Condition
    Nav lights / Strobe
16. Wing leading edge
    Wing Surface
17. Gear Struct
    Tyres - Condition / Inflation
    Nose Gear Tyre
    Engine Cowling

START PROCEDURE (COLD)

1. Throttle ..... 1 cm OPEN
2. Fuel Pump ..... ON / Pressure CHECKED
3. Mixture ..... FULL RICH
4. Primer ..... PRIME x 3 - 4
5. Magnetos ..... BOTH ON
6. Outside ..... CLEAR
7. Starter button ..... PUSH

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8. Throttle ..... SET 1000 RPM
9. Oil Pressure (rising < 30 s) ..... CHECK RISING

START PROCEDURE (HOT)

1. Throttle ..... 1 cm OPEN
2. Fuel Pump ..... ON / Pressure CHECKED
3. Mixture ..... FULL RICH
4. Primer ..... PRIME x 0 (very hot) - 2 (warm)
5. Magnetos ..... BOTH ON
6. Outside ..... CLEAR
7. Starter button ..... PUSH

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8. Throttle ..... SET 1000 RPM
9. Oil Pressure (rising < 30 s) ..... CHECK RISING

START PROCEDURE (FLOOD)

1. Throttle ..... FULL OPEN
2. Fuel Pump ..... OFF
3. Mixture ..... IDLE CUT OFF
4. Magnetos ..... BOTH ON
5. Outside ..... CLEAR
6. Starter button ..... PUSH
7. Mixture ..... ADVANCED TO FULL RICH

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8. Throttle ..... SET 1000 RPM
9. Oil Pressure (rising < 30 s) ..... CHECK RISING

EXTERNAL POWER ENGINE START

1. Battery Master ..... OFF
2. All Electrical Equipment ..... OFF
3. Battery Cart Power ..... ON
4. External Power Plug ..... INSERT IN FUSELAGE
5. Battery Master ..... ON

>> --------- Proceed with normal start ---------<<

6. Battery Master ..... OFF
7. Throttle ..... IDLE
8. External Power Plug ..... DISCONNECT FROM FUSELAGE
9. Battery Master ..... ON
10. Ammeter ..... CHECK CHARGE

DO NOT ATTEMPT FLIGHT IF THERE IS NO ALTERNATOR OUTPUT

RUN-UP PROCEDURE

>> ----Aeroplane positioned into wind & clear behind----<<

1. Throttle ..... 2000 RPM

>> --------- Confirm Aircraft not Moving ---------<<

2. Engine Instruments ..... GREEN
3. Alternator ..... POSITIVE CHARGE
4. Carburettor Heat ..... OPERATION CHECKED
5. Magnetos (L/Both/R/Both)..... CHECK / MAX DROP 175 RPM
   MAX DIFFERENCE 50RPM
6. Slow Idle ..... CHECKED > 600 - 800 RPM
7. Throttle ..... 1000 RPM

---------- CAUTION ----------

If engine is cold, increase RPM slowly above 1200 RPM and Ensure Oil Pressure does not exceed the Maximum RED Line limit.

Operation on one Magnetos SHOULD NOT EXCEED 10 seconds.

If RPM drop is excessive, lean the mixture at 2000RPM, run for 1 min and recheck.

Avoid Prolonged Ground Operation with Carb Heat "ON" Due to unfiltered air.

CLIMBING

>> ----Every 1000 feet on Climb----<<

1. Engine Instruments ..... GREEN
2. Lower the nose or clear airspace (traffic) ..... COMPLETED

BEFORE TAKE-OFF PROCEDURE (GENERAL FLOW)

1.
- 1.1. Flight Controls ..... FREE, FULL MOVEMENT & CORRECT
- 1.2. Seatbelts ..... SECURE
- 1.3. Door ..... LATCHED

2.
- 2.1. Trim (x 2) ..... SET FOR T/O
- 2.2. Flaps ..... SET FOR T/O
- 2.3. Fuel Selector ..... RIGHT OR FULLEST

3.
- 3.1. Circuit Breakers ..... CHECK
- 3.2. Carb Heat ..... OFF
- 3.3. Mixture ..... RICH
- 3.4. Propeller Lever ..... FULL FINE
- 3.5. Magnetos ..... BOTH ON
- 3.6. Battery Switch ..... ON
- 3.7. Alternator Switch ..... ON
- 3.8. Landing Lights ..... ON
- 3.9. Strobe Lights ..... ON

4.
- 4.1. Standby Flight Instruments ..... CHECK
- 4.2. Flight Instruments ..... CHECK
- 4.3. Engine Instruments ..... CHECK
- 4.4. Ammeter & Voltmeter ..... CHECK
- 4.5. COMs ..... SET
- 4.6. NAVs ..... SET
- 4.7. Transponder ..... SET

CLIMBING

>> ----Every 1000 feet on Climb----<<

3. Engine Instruments ..... GREEN
4. Lower the nose or clear airspace (traffic) ..... COMPLETED

CLEAROFF CHECKS (10 - 20 MIN)

1. Compass / HSI ..... ALIGNED
2. Flight Log ..... COMPLETED & REVIEWED
3. Engine Instruments ..... GREEN
4. Altitude / Airspace ..... CONSIDERED
5. Radios & NAVAIDS ..... SET
6. Orientation ..... CONSIDERED
7. Fuel (QTY / Balance / Log) ..... CHECKED
8. Force Landing Area / Diversion ..... CONSIDERED

BEFORE MANOEUVRES (H A S E L)

1. **H** eight ..... SUFFICIENT
2. **A** rea ..... SUITABLE
3. **S** ecurity ..... CABIN SECURE / SEAT / HARNESSES
4. **E** ngine Instruments ..... GREEN
   FUEL CONTENT CHECKED
   POWER & MIXTURE CHECKED
   FUEL PUMP ON / PRESSURE CHECKED
5. Lookout ..... AREA CLEAR 360°

PARKING & SHUTDOWN

1. Park Brake ..... SET
2. Throttle ..... SET 1000 RPM
3. Alternator ..... CHECK
4. Avionics Master ..... OFF
5. Avionics Fan ..... OFF
6. Magnetos ..... CHECKED
7. Mixture ..... IDLE CUT OFF
8. Throttle (After Engine Stops) ..... IDLE
9. Magnetos ..... BOTH OFF
10. All Switches ..... OFF
11. Battery Master ..... OFF

POST FLIGHT ACTIONS

1. VDO / Airswitch Record Book .....COMPLETED
2. Seat ..... FULLY AFT
3. Cabin ..... TIDY / Rubbish Removed
4. Controls ..... SECURED
5. Seatbelts ..... DRESSED
6. Aeroplane Door & Windows ..... CLOSED & SECURED
7. Fuel Tanks ..... DIPPED / QTY CHECKED

LAST FLIGHT OF THE DAY

8. Throttle Lock ..... INSTALLED IF OUTSIDE
9. Aeroplane ..... TIED DOWN / CHOCKED

PASSENGER BRIEF

- Location of
- Seat adjustment
- Seat belt usage / When seat belts are to worn
- Stowage of loose items
- Ventilation Outlets & Controls
- Remain clear of flight controls
- Emergency equipment & how to use
- No smoking policy
- How to exit aeroplane during an emergency
- Flight detail

DEPARTURE BRIEF

- **C** harts / Departure procedure
- **T** errain / obstacles
- **W** eather / ATIS / TAF
- **O** perations / Take-off performance & speed
- **+ O** ther Enviromental factors / Threats associated with the flight

APPROACH BRIEF

- **C** harts / Arrival & Approach procedure
- **T** errain / obstacles
- **W** eather / ATIS / TAF
- **O** perations / Take-off performance & speed
- **+ O** ther Enviromental factors / Threats associated with the flight

TAKE-OFF SAFETY BRIEF

- If the engine fails on the runway, I will close the throttle, apply full and even braking and stop.
- If the engine fails after take-off with runway or overrun remaining, I will close the throttle, lower the nose, land and stop the aeroplane on the available surface.
- If the engine fails after take-off with no runway remaining, I will lower the nose, adopt a **73kt glide**, select a field 30° either side of the nose and carry out the remaining Engine Failure After Take-off checklist actions.
    - Above 300ft AGL I will select a field 60° either side of the nose. I will not consider turning back to the runway unless I am above 1,000ft or established on the downwind leg.

Aeroplane Type Information

ENGINE & SYSTEMS

Power Plant

- Engine Type ..... Lycoming O-320-E3D
- Max power output ..... 160 HP @ 2700 RPM MSL / ISA
- Take-off & Max. Continuous Power ..... Full Throttle / 2700 RPM
- Normal RPM Range..... 500 - 2700 RPM
- RPM Limitations..... 2700 RPM Red line

Fuel System & Specifications

- Minimum Grade ..... AVGAS 100LL or 100 / 130
- Total Capacity..... 189 LTS / 50 USG
- Usable Capacity..... 181 LTS / 48 USG
- Tabs Capacity ..... 129 LTS / 34 USG
- Fuel Pressure Green Arc ..... 0.5 - 8 PSI
- Fuel Pressure Red Line ..... 0.5 PSI (MIN) / 8 PSI (MAX)

Propeller

- Propeller Manufacturer .....
- Type .....
- Diameter .....
- Static RPM (at 160 hp) ..... 2400 (± 75) RPM

Electrical

- Alternater ..... 14V / 60 Amp
- Battery ..... 12 V / 25 Ampere Hour

ENGINE & SYSTEMS

Oil System and Specification

- Oil Quantity ..... MIN 5 QTS / MAX 8 QTS
- Oil Grade ..... SAE 50 / AERO 100
- Oil Temp / Green Arc ..... 75°F - 245°F
- Oil Temp / Red Line ..... MAX 245°F
- MIN Oil Temp Take-off ..... 75°F
- Oil Pressure / Green Arc ..... 60 - 90 PSI
- Oil Pressure / Yellow Arc (Idle RPM) ..... 25 - 60 PSI
- Oil Pressure / Red Line (MIN) ..... 25 PSI
- Oil Pressure / Red Line (MAX) ..... 90 PSI
- Oil Pressure (GRD Run-up only < 1200 RPM) .....100 PSI

Undercarriage

- Main Gear Struct ..... Oil / Air Oleo / Extension 4.5” (± 0.25”)
- Main Gear Wheels ..... 24 PSI Inflation
- Nose Gear Struct ..... Oil / Air Oleo / Extension 3.25” (± 0.25”)
- Nose Gear Wheels ..... 30 PSI Inflation

AIRSPEEDS - NORMAL OPERATIONS

- V_{NE} ..... 160 KIAS
- V_{NO} ..... 126 KIAS
- V_A (@ 1055kg) ..... 111 KIAS
  (@ 700kg) ..... 88 KIAS
- V_{FE} ..... 103 KIAS
- V_{s1} ..... 56 KIAS
- V_{s0} ..... 50 KIAS
- V_R ..... 60 KIAS
- V_{TOSS} (Flaps 0) ..... 67 KIAS
- V_{TOSS} (Flaps 25) ..... 64 KIAS
- Vx ..... 64 KIAS
- Vy ..... 7x KIAS
- Max Demonstrated Crosswind Component .....17 KIAS

AIRSPEEDS - NON NORMAL OPERATIONS

- V GLIDE MAX RANGE (CLEAN)..... 73 KIAS
- V Short Field Approach ..... 65 KIAS
- V Closing Door Inflight..... 86 KIAS

STALLING SPEEDS

Flaps Settings	Gross Weight		
	825kg	925kg	1055kg
0°	56 KIAS	53 KIAS	50 KIAS
40°	50 KIAS	47 KIAS	43 KIAS

AEROPLANE WEIGHT & FLIGHT LOAD LIMITS

Aeroplane Weights General

- Max Ramp Weight ..... 1055 KG
- Max Take-Off Weight ..... 1055 KG
- Max Landing Weight ..... 1055 KG
- Max Weight Utility Category (T/O & Landing) ..... 885 KG
- Max Baggage Compartment ..... 91 KG
- Max Load on a Seat ..... 77 KG

Maneouvre Load Factor

- Maximum (Normal Category) ..... + 3.8 g
- Maximum (Utility Category) ..... + 4.4 g

Negative Manoeuvre Load Factor

- Maximum ..... NO INVERTED MANOEUVRES APPROVED

Permitted Manoeuvres - Normal Category

Operations Shall be Limited to Normal Flying Manoeuvres
But may Include Straight & Steady Stalls & Level Turns in which the
Angle of Bank does not exceed 60°

---------- WARNING ----------

**ALL AEROBATIC MANOEUVRES INCLUDING
INTENTIONAL SPINS ARE PROHIBITED**

AEROPLANE WEIGHT & FLIGHT LOAD LIMITS

Permitted Manoeuvres - Utility Category ONLY

Approved Manoeuvres for Bank Angles Exceeding 60° AOB

- Steep Turns ..... ENTRY SPEED 108 KIAS
- Lazy Eights .....ENTRY SPEED 108 KIAS
- Chandelles ..... ENTRY SPEED 108 KIAS

---------- **WARNING** ----------

NO OTHER AEROBATIC MANOEUVRES OR SPINS ARE PERMITTED
IN THE UTILITY CATEGORY

Permitted Manoeuvres - Utility Category ONLY

The datum used is 1991 mm ahead of the wing leading edge at the inboard intersection of the straight & level tapered section

Centre of Gravity - Normal Category ONLY

- Forward Limit ..... 1055 KG : 2210 mm Aft of Datum
  885 KG : 2108 mm Aft of Datum
- Rear Limit ..... 1055 KG (or less) : 2362mm Aft of Datum

Centre of Gravity - Utility Category ONLY

- Forward Limit ..... 885 KG : 2108 mm Aft of Datum
- Rear Limit ..... 885 KG : 2197 mm Aft of Datum

Non - Normal Procedures

ENGINE FIRE DURING START

1. Engine Starter ..... CONTINUE CRANKING ENGINE
2. Mixture ..... IDLE CUT OFF
3. Throttle ..... FULL OPEN
4. Fuel Pump ..... OFF
5. Fuel Selector ..... OFF

>> Abandon Aeroplane if Fire Continues & Use Extinguisher <<

ENGINE FIRE IN FLIGHT

1. Fuel Selector ..... OFF
2. Throttle ..... CLOSED
3. Mixture ..... IDLE CUT OFF
4. Fuel Pump ..... OFF
5. Heater & Defroster ..... OFF

---------- WARNING ----------

>> IF FIRE NOT OUT - LAND IMMEDIATELY <<
Sideslip where necessary to avoid smoke and fumes
Consider Emergency Descent to a suitable field ASAP

>> Follow the applicable engine failure procedures after engine shutdown and land <<

ELECTRICAL SMOKE OR FIRE

1. Alternator Switch ..... OFF
2. Battery Switch ..... OFF
3. Cabin Vents ..... OPEN
4. Cabin Heat ..... OFF

---------- NOTE ----------

To aid in Smoke Evacuation,
Open Pilot's Storm Window if required

>> LAND AS SOON AS PRACTICAL <<

ENGINE FAILURE - GROUND ROLL (RTO)

1. **Throttle** ..... **IDLE**
2. If Airborne ..... MANOEUVRE AS REQUIRED TO LAND
3. Flaps ..... AS SITUATIONS REQUIRES
4. Toe Brakes ..... MAX (After landing)
5. If Insufficient Runway Remains ..... EMERGENCY SHUTDOWN

ENGINE FAILURE AFTER TAKE-OFF

When Runway / Over-run Available

1. Engine Failure - Ground Roll (RTO) ..... EXECUTE

When NO Runway / Over-run Available

2. Control the Aeroplane and Establish Glide ..... 73 KIAS
3. Force landing Area ..... SELECT

If Time Permits

4. Emergency Restart ..... ATTEMPT

If Restart Unsuccessful

5. Mayday Call ..... TRANSMIT
6. Emergency Engine Shutdown ..... EXECUTE
7. Flaps ..... SET

EMERGENCY ENGINE SHUTDOWN

1. Fuel Selector ..... OFF
2. Mixture ..... IDLE CUT OFF
3. Magnetos .....BOTH OFF
4. Alternator Switch ..... OFF
5. Battery Switch ..... OFF (AFTER Mayday Call)
6. Seatbelts & Harnesses ..... SECURE

ENGINE FAILURE IN FLIGHT

PHASE 1 - IMMEDIATE MEMORY ACTIONS

1. **Control the Aeroplane & Establish the Glide**
2. IF Fire or Smoke ..... EMERGANCY ENGINE SHUTDOWN
3. IF NO Fire or Smoke ..... ENERGENCY RESTART (IN-FLIGHT)

IF Emergency Re-start unsuccessful

4. Wind Direction..... ASCERTAIN & CONFIRM
5. Force Landing Area ..... SELECT
6. Transponder ..... CODE 7700
7. ELT ..... MANUALLY SET ON
8. Mayday Call ..... TRANSMIT

Trouble Checks (ONLY IF TIME PERMITS)

9. (**F**) Fuel Selection & Quantity ..... CHECKED
10. (**M**) Mixture ..... OPERATE THROUGH RANGE
11. (**O**) Engine Instruments ..... CHECKED
12. (**S**) Magentos ..... CHECK / L / BOTH / R / BOTH
13. (**T**) Throttle ..... OPERATE THROUGH RANGE

Safety Check (When Committed to Force Landing)

14. PAX Safety Briefing..... CONDUCT IF TIME PERMITS
15. Emergency Engine Shutdown..... EXECUTE

---------- NOTE ----------

During practice forced landings, to prevent shock cooling of the engine & plug fouling, smoothly operate the throttle momentarily (to normal power settings) at least every 1,000ft on descent.
This will also confirm that the engine is operating normally.

EMERGENCY RESTART (IN-FLIGHT)

PHASE 2 - FOLLOW UP ACTIONS

1. Carburettor Heat ..... FULL HOT POSITION
2. Fuel Pump ..... ON
3. Fuel Selector ..... CHANGE TANK
4. Mixture ..... FULL RICH
5. Primer ..... CHECK IN & LOCKED
6. Magnetos ..... CHECK L / Both / R / BOTH

>> IF engine re-starts proceed to nearest suitable aerodrome <<

>> IF engine does NOT re-starts,
Execute the remainder of
Engine Failure in Flight Checklist <<

PASSENGER SAFETY BRIEFING

- We are experiencing a technical problem, we will be landing _____ (location)
- Please fasten our seat belts tightly
- Remove sharp objects from your pockets, glasses and dentures
- Stow loose items in the back for safe keeping
- Your exit is this main door
- Once we have landed, and come to a complete stop, do not wait for me, get out & I will meet you behind the back of the aeroplane

LOSS OF FUEL PRESSURE

1. Fuel Pump ..... ON
2. Mixture ..... FULL RICH
3. Fuel Selector ..... CONFIRM FULLEST TANK

---------- WARNING ----------

If problem is not an empty tank, land as soon as
Practicable and have the fuel system checked.
Prepare for power off landing.

LOSS OF OIL PRESSURE

1. Oil Pressure Gauge & Annunciator ..... CROSS CHECKED
2. Oil Temperature ..... CHECKED
3. Power ..... REDUCE TO MINIMUM
4. **Anticipate ENGINE FAILURE IN FLIGHT**

>> LAND AS SOON AS POSSIBLE <<

ENGINE OIL TEMPERATURE HIGH

1. Oil Pressure Gauge & Annunciator ..... CROSS CHECKED
2. Power ..... REDUCE TO MINIMUM
3. Airspeed ..... INCREASE IF POSSIBLE
4. **Anticipate ENGINE FAILURE IN FLIGHT**

>> LAND AS SOON AS POSSIBLE <<

DOOR OPEN IN FLIGHT

To close Door in flight

1. Airspeed ..... REDUCE TO BELOW 86 KIAS
2. Cabin Vent ..... CLOSED
3. Storm Window ..... OPEN
4. Lower Door Latch ..... CONFIRM CLOSED

If lower latch is open - then open top latch push door further open, and then close rapidly.

5. Upper Door Latch ..... CLOSED
   PULLING ARMREST at same time
5. Power ..... REDUCE TO MINIMUM
6. IF **UNSUCCESSFUL** ..... LAND ASAP

---------- NOTE ----------

If BOTH Latches are open, Latch LOWER then UPPER Latch

---------- WARNING ----------

Pilots should be aware that the aeroplane can be safely landed with the door ajar. Therefore, in many situations, the best course of action would be to land the aeroplane and rectify the situation on the ground

CARBURETTOR ICING

1. Carburettor Heat ..... HOT
2. Mixture .....ADJUST FOR MAX SMOOTHNESS

SPARK PLUG FOULING - GROUND

---------- NOTE ----------

If engine runs smooth on both while run rough
when conducting magento checks, likely it is caused by
Sparking plug fouling due cold engine

1. Magnetos ..... BOTH ON
2. Throttle ..... 2000 RPM
3. Mixture ..... LEAN TILL ROUGH THEN SLIGHTLY RICHEN

>> ALLOW ENGINE TO RUN FOR (1) ONE MINUTE <<

4. Magnetos ..... CHECK L / BOTH / R / BOTH
5. Mixture ..... FULL RICH

---------- WARNING ----------

If engine continues to run rough, **TERMINATE** the flight

ENGINE ROUGHNESS - IN FLIGHT

6. Carburettor Heat ..... HOT
7. Primer ..... CONFIRM IN & LOCKED

>> IF ROUGHNESS CONTINUES AFTER (1) ONE MINUTE <<

8. Carburettor Heat ..... COLD
9. Mixture .....ADJUST FOR MAX SMOOTHNESS
10. Throttle .....ADJUST FOR MAX SMOOTHNESS
11. Fuel Pump ..... ON
12. Fuel Selector ..... Switch Tanks
13. Engine Instruments ..... CHECK
14. Magnetos .....,..... CHECK L / BOTH / R / BOTH

---------- NOTE ----------

If situation stabilises on one magneto continue on that magneto
with mixture FULL RICH to the nearest suitable airport
if situation deteriorates further prepare for power off landing

ALTERNATOR WARNING

IN THE EVENT OF ALTERNATOR WARNING

1. Ammeter ..... CHECK TO VERIFY ALTERNATOR INOPERATIVE
2. If ammeter reads 0 ..... ALT SWITCH OFF
3. Electrical load ..... REDUCE TO MINIMUM
4. ALT Circuit Breaker ..... CHECK & RESET ONCE
5. ALT Switch ..... ON
6. In Power is not restored ..... ALT SWITCH OFF
7. Electrical load ..... KEEP AT MINIMUM

---------- WARNING ----------

The battery is the only remaining source of electrical power

>> Anticipate Complete Loss of Electrical Power <<

>> LAND AS SOON AS POSSIBLE <<

ELECTRICAL OVERLOAD

---------- NOTE ----------

This procedure is to be used when the ALTERNATOR is outputting OVER 20 AMPS (or more) above the known Electrical Load

1. ALT Switch ..... ON
2. Battery Switch ..... OFF

If ALT load is reduced this indicates a malfunction of the Battery and / or Electrical Wiring:

1. Electrical load ..... REDUCE TO MINIMUM

>> LAND AS SOON AS PRATICAL <<

---------- WARNING ----------

Due to increased System voltage & Radio Frequency Noise, operation with the ALT switch ON & BATTERY switch OFF should be made only when required by an electrical failure.

If ALT load is reduced this indicates a malfunction of the Battery and / or Electrical Wiring:

1. ALT Switch ..... OFF
2. Battery Switch ..... AS REQUIRED
3. Electrical load ..... REDUCE TO MINIMUM

---------- WARNING ----------

The battery is the only remaining source of electrical power

>> Anticipate Complete Loss of Electrical Power <<

>> LAND AS SOON AS POSSIBLE <<

COMPLETE LOSS OF ELECTRICAL POWER

1. ALT Switch ..... OFF
2. Battery Switch ..... OFF
3. ALT Switch ..... OFF
4. Electrical load ..... REDUCE TO MINIMUM

>> LAND AS SOON AS POSSIBLE <<

---------- WARNING ----------

Since the battery is off line when this procedure is used, large changes in electrical load should be minimised to reduce the possibility of damage to electrical components

PFD OR MFD DISPLAY FAILURE

1. Manual Reversion Button ..... ON

AHRS FAILURE

A failure of the AHRS is indicated by removal of the sky/ground presentation along with a yellow 'ATTITUDE FAIL' text shown on the PFD and a red X through the text. The digital heading will be replaced with yellow 'HDG' text and a red X through the text. The compass rose digits will be removed. The course pointer will indicate straight up and the course may be set using the digital window.

1. Use standby instruments

>> LAND AS SOON AS POSSIBLE <<

POST LOST OF CONTROL CHECKS

1. Safe Altitude ..... CONFIRM & CLIMB IF REQUIRED
2. Airframe ..... CHECK FOR DAMAGE
3. Flaps ..... CONFIRM RETRACTED - NO DAMAGE
4. Engine Instruments ..... GREEN
5. Orientation ..... POSITION CHECKED

---------- NOTE ----------

These Checks Should Be Performed
Following Recovery from Unusual Attitudes (Including Training)
or Following Recovery From an Inadvertent Spin

SPIN RECOVERY

1. Throttle ..... CLOSED
2. Aileron ..... NEUTRALISE
3. Rudder ..... OPPOSITE OF SPIN DRIECTION
4. Elevator ..... FULL FORWARD

When rotation stops ..... CONTROLS CENTRAL

>> CONDUCT POST LOST OF CONTROL CHECKS <<

EMERGENCY DESCENT

1. Throttle ..... CLOSED
2. Airspeed ..... WHITE ARC
3. Flaps ..... SET 40°
4. Airspeed ..... 95 KIAS

Intentionally Blank