CHECKLISTS BY RED SKY VENTURES

These checklists have been developed for use in light aircraft general aviation operations. With the exception of the run-up, these are checklists, that is checks to be completed after completion of normal cockpit actions by way of flow patterns or acronyms.

Checklists are provided in open document format to allow modification to suit your aircraft or operation. Some page formatting may be required for different page and printer settings.

The procedures in the aircraft’s approved flight manual, including all applicable STCs and supplements must be followed!
# Normal Checklist

## Before Start
- Preflight Inspection: Complete
- Tach/Hobbs/Time: Recorded
- Passenger Briefing: Complete
- Seats / Seatbelts: Adjust, Lock
- Fuel Selector Valve: Both
- Cowl Flaps: Open
- Brakes: Set/Hold
- Avionics: Off
- Electrical: Off
- Circuit Breakers: Check In

## Normal Engine Start
- Magneto: Both
- Master: On
- Mixture: Rich
- Propeller: High RPM
- Power: ½ Centimeter
- Carburetor Heat: Cold
- Prime: 1-3 as req’d
- Rotating Beacon: On
- Area: Clear

## After Start
- Mixture: Set for Taxi
- Engine Instruments: Check
- Taxi, Nav. Lights: As Required
- Flaps: Retracted
- Transponder: Standby
- Brakes: Release, Check
- Avionics and Flight Instruments: Check/Set
- Nav instruments: Test
- Parking Brake: Set
- Fuel Selector: Both
- Mixture: Set
- Engine Instruments: Green
- Cowl Flaps: Open
- Power: Set
- Mixture: Set
- Carb Heat: Check
- Magneto: Check Left, Both, Right, Both
- Propeller Governor: Cycle
- Engine Instruments: Check
- Vacuum: Check
- Ammeter: Check with load
- DI: Set to Compass
- Throttle friction lock: Set
- Idle: Check

## Pre-Takeoff
- Trim: Set for takeoff
- Mixture: Set for takeoff
- Magneto: Both
- Propeller Pitch: Full fine
- Flight Controls: Free and Correct
- Autopilot: Off
- Fuel: Correct Tank, Qty, Primer locked
- Flaps: Set for takeoff
- Cowl Flaps: Open
- Instruments: Checked and Set
- Radios: Set for Departure
- Navigation / GPS: Set for Departure
- Hatches: Closed, Locked
- Harnesses: Secure
- Engine Runup: Complete
- Engine Instruments: Check
- Electrics: CB’s Checked
- Emergency & Dep. brief: Completed

## Line Up
(ReRemember What To Do Last)
- Runway Area: Clear
- Engine Parameters: Green
- Wind: Check
- Transponder: Set to altitude
- DI: Aligned with Compass, Rwy
- Landing light, strobes: On

## After Takeoff (above 1000’ AGL)
- Brakes: Check
- Undercarriage: Retracted/Fixed
- Power/Pitch: Set
- Mixture: Adjust
- Fuel: Checked
- Flaps: Up
- Engine Parameters: Green
- Lights: As required

## Cruise
- Power/Prop: Set
- Elevator/Rudder trim: Adjust
- Mixture: Lean for altitude
- Cowl Flaps: Closed/As Req’d

## Descent
- Fuel: Correct Tank, Qty checked
- Radios: Set
- Approach Briefing: Complete
- Cowl Flaps: Closed
- Mixture: Set
- Power/Prop: Set
- Icing: As required
- Lights: On/as req’d
**Reference Information**

**Speeds**

**NORMAL OPERATION**

Unless otherwise stated the following speeds are for MAUW, Sea Level, ISA conditions.

- $V_e$ - Normal approach: [Value]
- $V_*$ - Maneuvering speed: [Value]
- $V_{NO}$ - Top of Green Arc: [Value]
- $V_{NE}$ - Red Line (Never Exceed): [Value]
- $V_{SO}$ - Stall landing configuration: [Value]
- $V_{LS}$ - Stall Clean: [Value]
- $V_{FE}$ - Max. Flap Extension 10-40°: [Value]
- $V_{FE}$ - Max. Flap Extension 0-10°: [Value]

**EMERGENCY OPERATION**

- Best glide Speed: [Value]
- Slow Safe Cruise: [Value]
- Ditching: [Value]
- Engine failure after takeoff: [Value]
- Engine Failure in flight flap up: [Value]
- Engine Failure in flight flap down: [Value]

**Operating Performance**

- Fuel Capacity (useable): [Value] /Hr
- Fuel Consumption Block: [Value] KTAS
- Plan Cruise speed: [Value] KTAS

**Other Information**

**Transponder Codes:**

- Unlawful Interference: 7500
- Loss of Communication: 7600
- Emergency: 7700
- Unassigned: 2000

**Radio Frequencies**

- Emergency Frequencies: 121.5/243
- [Other frequencies listed]

**Loading**

- Maximum TO/Ldg Weight: [Value] lbs
- Standard Empty Weight: [Value] lbs
- Load limits: [Value]

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**Checklist-Piston Generic**

- **Heading:**
  - Check
  - Down/Prop
  - Down/Fixed
  - Set
  - Set
  - Correct Tank

- **Fuel Flap**
  - Open
  - Off
  - Full fine

- **Shutdown and Securing**
  - Idle
  - Off
  - Idle Cutoff
  - Off
  - Off
  - In
  - Fitted

- **Abnormal Maneuvers**
  - (HASELL)
  - Complete prior to conducting stalls, spins and approved aerobatic maneuvers

- **Height**
  - Sufficient for recovery

- **Airframe**
  - Limitations Reviewed

- **Security**
  - Seatbelts/Passengers/Load

- **Engine**
  - Temperatures/Pressures

- **Location**
  - Not over built up areas, airfields or controlled airspace

- **Within proximity of suitable landing areas**

- **Lookout**
  - Complete a lookout turn
EMERGENCIES
ENGINE FAILURE

IMMEDIATE ACTIONS
Airspeed ........................................... Best Glide
Carb Heat ........................................... ON
Field .................................................. Select Approach ...................................... Plan

FAULT FINDING (Altitude permitting):
Carb Heat ........................................... ON
Primer .................................................. IN & Locked
Fuel Shutoff valve .................................. ON
Mixture .................................................. RICH
Ignition .................................................. BOTH (or START)

COMMUNICATE
Mayday .............................................. Transmit on Active or 121.5 Transponder ................. 7700 Passengers .............................................. Brief
SECURE
Mixture .............................................. cutoff
Fuel shutoff valve .................................. off
Ignition .................................................. off

FINAL APPROACH
Flaps .................................................. as required
Master switch ....................................... Off
Doors .................................................. unlatch
Touchdown .......................................... tail low

Note: **Bold Items are immediate recall Items, other times may be followed up by the use of the AFM checklist.** It is recommended that entire engine failure during fight procedures be committed to memory

**Engine Fire During Flight**
Mixture .............................................. IDLE cut-off
Fuel ..................................................... OFF
Master .................................................. OFF
Cabin Air ............................................ OFF
Sideslip ............................................. Initiate if required

Proceed with Engine Failure in Flight Action

**Cabin Fire**
Master Switch ....................................... OFF
Cabin Vents/Air/Heat ................................ Closed
Fire Extinguisher .................................... Activate
Cabin Vents/Windows ................................ Open

If in flight, Once Fire is extinguished:
Electrics/Avionics .................................... Off
Master .................................................. ON
Avionics/Electrics .................................... On, one at a time

Land at the nearest Suitable Airfield

**Electrical Fire**
Unknown Source
Master Switch ....................................... OFF
Avionics and Electrics ................................ OFF
Circuit Breakers ..................................... PULL
If Smoke Ceases:
Master Switch ....................................... ON
Essential Electrical/Avionics............ On, One at a time

**Carburetor Icing**
Carb Heat ........................................... Fully ON
Mixture .................................................. Adjust

Once icing/roughness has cleared;
Carb Heat ............................................ Cold
Mixture .................................................. Reset

**Engine Roughness**
Magnetos ............................................ Check
Mixture .................................................. Adjust
Temperatures/Pressures ......................... Check

If roughness continues, plan to land at nearest suitable airfield.
NORMAL CHECKLIST

Before Start
Preflight Inspection................Complete
Tach/Hobbs/Time..........................Recorded
Passenger Briefing......................Complete
Seats / Seatbelts.........................Adjust, Lock
Fuel Selector Valve......................Both
Cowl Flaps..............................Open
Brakes..................................Set/Hold
Avionics..................................Off
Electrical..................................Off
Circuit Breakers.........................Check In

Normal Engine Start
Magnetos.................................Both
Mixtures..................................On
Propeller.................................Rich
Power......................................½ Centimeter
Carburetor Heat..........................Cold
Prime.....................................1-3 as req’d
Rotating Beacon.........................On
Area........................................Clear

After start
Mixture.................................Set for Taxi
Engine Instruments.....................Check
Taxi, Nav. Lights.........................As Required
Flaps.....................................Retracted
Transponder..............................Standby

Taxi
Brakes..................................Release, Check
Avionics and Flight Instruments....Check/Set
Nav instruments............................Test

Run Up
Parking Brake.............................Set
Fuel Selector.............................Both
Mixture.....................................Set
Engine Instruments.....................Green
Cowl Flaps................................Open
Power........................................Set
Mixture......................................Set
Carb Heat..................................Check
Magnetos.................................Check Left, Both, Right, Both
Propeller Governor.....................Cycle
Engine Instruments......................Check
Vacuum.....................................Check
Ammeter..................................Check with load
DI........................................Set to Compass
Throttle friction lock....................Set
Idle........................................Check

Pre-Takeoff
Trim........................................Set for takeoff
Mixture.................................Set for takeoff
Magnetos.................................Both
Propeller Pitch.........................Full fine
Flight Controls..........................Free and Correct
Autopilot................................Off
Fuel.........................................Correct Tank, Qty, Primer locked
Flaps.....................................Set for takeoff
Cowl Flaps..............................Check
Instruments..............................Open
Radios.................................Set for Departure
Navigation / GPS.........................Set for Departure
Hatches.................................Closed, Locked
Harnesses.................................Secure
Engine Run-up..........................Complete
Engine Instruments..................Check
Electrics.................................CB’s Checked
Emergency & Dep. brief..............Completed

Line Up
(ReMemory What To Do Last)
Runway Area..............................Clear
Engine Parameters.....................Green
Wind.........................................Check
Transponder.........................Set to altitude
Di........................................Aligned with Compass, Rwy
Landing light, strobes.................On

After Takeoff (above 1000' AGL)
Brakes..................................Check
Undercarriage..........................Retracted/Fixed
Power/Pitch..............................Set
Mixture......................................Adjust
Fuel.........................................Checked
Flaps.....................................Up
Engine Parameters.....................Green
Lights......................................As required

Cruise
Power/Prop..............................Set
Elevator/Rudder trim....................Adjust
Mixture.................................Lean for altitude
Cowl Flaps.................................Closed/As Req’d
NORMAL CHECKLIST

Descent
Fuel ........................................... Correct Tank, Qty checked
Radios.............................................Set
Approach Briefing............................Complete
Cowl Flaps .....................................Closed
Mixture ..........................................Set
Power/Prop......................................Set
Icing.............................................As required
Lights ............................................On/as req'd

Downwind
Brakes...........................................Check
Undercarriage.................................Down/Fixed
Power/Prop......................................Set
Mixture ..........................................Set
Fuel ................................................Correct Tank
Flaps .............................................Set
Engine Parameters .........................Green
Lights .............................................As required
Seats / Seatbelts ............................Check Secure
Fuel Selector ....................................Both
Carb Heat ......................................As Required

Final
Cowl Flaps...........................Open
Carb Heat.....................................Off
Undercarriage...............................Down & Locked/Fixed
Propeller Pitch ..........................Full fine

After Landing
Cowl Flaps .........................Open
Trim .........................................Takeoff
Flaps ..........................................Retract
Carb Heat ......................................Off
Land, Strobe lights .........................Off
Transponder .................................Standby

Shutdown and Securing
Power ............................................Idle
Avionics and Switches .................Off
Mixture ........................................Idle Cutoff
Mags ...........................................Off
Master ..........................................Off
Control Lock ..................................In
Hobbs and Tach .............................Record
Tie Downs ....................................Attached

REFERENCE INFORMATION

Speeds
NORMAL OPERATION
Unless otherwise stated the following speeds are for MAUW, Sea Level, ISA conditions.

\[ V_R \] ............................................ 55 KIAS
\[ V_{so} \] – Max performance ..........................60 KIAS
\[ V_X \] – Best Angle of Climb .......................60 KIAS
\[ V_Y \] – Best Rate of Climb ........................VYd 80 KIAS

\[ V_{1,0000} \] .......................................Vy 80 KIAS
Normal approach ................................65-75 KIAS
\[ V_{ref} \] .............................................60 KIAS
\[ V_A \] – Maneuvering Speed .....................80-95 KIAS
Maximum demonstrated crosswind ......15 kts

PLACARD/ASI LIMITATIONS
\[ V_{NO} \] – Top of Green Arc ......................128 KIAS
\[ V_{NE} \] – Red Line (Never Exceed) ............160 KIAS

\[ V_{So} \] – Stall landing configuration ...........45 KIAS
\[ V_S \] – Stall Clean ................................50 KIAS

\[ V_{FE} \] – Max. Flap Extension 0-40º ..........85 KIAS

EMERGENCY OPERATION
Best glide Speed ..............................65 KIAS
Precautionary landing:
Slow Safe Cruise ............................80-95 KIAS
Approach (flaps full) .........................60 KIAS
Ditching ........................................65 KIAS
Engine failure after takeoff ...............65 KIAS
Engine Failure in flight flap up ..........65 KIAS
Engine Failure in flight flap down .......60 KIAS

Operating performance
Plan Block Consumption ...............40lt/hr
Plan Block Cruise speed .................100 KTAS

Other Information
Transponder Codes:
Unlawful Interference .......................7500
Loss of Communication .................7600
Emergency ................................7700
Unassigned .................................2000

Radio Frequencies
Emergency Frequencies ................121.5/243

CAUTION:
Performance and operational figures vary between models of C152, refer to the aircraft's flight manual and use a fine marker pen to indicate any significant differences.
NORMAL CHECKLIST

Descent
Fuel ..................Correct Tank, Qty checked
Radios..........................Set
Approach Briefing..................Complete
Cowl Flaps..........................Closed
Mixture..........................Set
Power/Prop..........................Set
Icing..........................As required
Lights..........................On/as req’d

Downwind
Brakes..........................Check
Undercarriage..................Down/Fixed
Power/Prop..........................Set
Mixture..........................Set
Fuel..........................Correct Tank
Flaps..........................Set
Engine Parameters..................Green
Lights..........................As required
Seats / Seatbelts..................Check Secure
Fuel Selector..........................Both
Carb Heat..........................As Required

Final
Cowl Flaps..........................Open
Carb Heat..........................Off
Undercarriage..................Down & Locked/Fixed
Propeller Pitch..................Full fine

After Landing
Cowl Flaps..........................Open
Trim..........................Takeoff
Flaps..........................Retract
Carb Heat..........................Off
Land, Strobe lights..................Off
Transponder..........................Standby

Shutdown and Securing
Power..........................Idle
Avionics and Switches..............Off
Mixture..........................Idle Cutoff
Mags..........................Off
Master..........................Off
Control Lock..........................In
Hobbs and Tach..................Record
Tie Downs..........................Attached

CAUTION:
Performance and operational figures vary between models of C152, refer to the aircraft’s flight manual and use a fine marker pen to indicate any significant differences.

REFERENCE INFORMATION

Speeds
NORMAL OPERATION
Unless otherwise stated the following speeds are for MAUW, Sea Level, ISA conditions.

\( V_R \)..........................50 KIAS
\( V_{so} \) – Max performance..................55 KIAS
\( V_X \) – Best Angle of Climb............55 KIAS
\( V_Y \) – Best Rate of Climb...............\( V_{Y_{left}} \) 67 KIAS
\( V_{10,000} \)..........................63 KIAS

Normal approach..........................60-70 KIAS
\( V_{ref} \)..........................55 KIAS
\( V_A \) – Maneuvering Speed..............xxxxx KIAS
Maximum demonstrated crosswind.....15kts

PLACARD/ASI LIMITATIONS
\( V_{NO} \) – Top of Green Arc...............KIAS
\( V_{NE} \) – Red Line (Never Exceed)........KIAS

\( V_{SO} \) – Stall landing configuration.........KIAS
\( V_S \) – Stall Clean ..................KIAS

\( V_{FE} \) – Max. Flap Extension 0-40º............KIAS

EMERGENCY OPERATION
Best glide Speed..........................65 KIAS
Precautionary landing:
Slow Safe Cruise..........................70-85 KIAS
Approach (flaps full)..................55 KIAS
Ditching..........................55 KIAS
Engine failure after takeoff............60 KIAS
Engine Failure in flight flap up........65 KIAS
Engine Failure in flight flap down.....60 KIAS

Operating performance
Plan Block Consumption..................25lt/hr
Plan Block Cruise speed..............95 KTAS

Other Information

Transponder Codes:
Unlawful Interference..................7500
Loss of Communication...............7600
Emergency..........................7700
Unassigned.........................2000

Radio Frequencies
Emergency Frequencies...............121.5/243

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Checklist-C152 © Red Sky Ventures 2006
### Normal Checklist

#### Before Start
- Preflight Inspection........................Complete
- Tach/Hobs/Time..............................Recorded
- Passenger Briefing........................Complete
- Seats / Seatbelts............................Adjust, Lock
- Fuel Selector Valve........................Both
- Cowl Flaps..................................Open
- Brakes.......................................Set/Hold Off
- Avionics......................................Off
- Electrical.....................................Off
- Circuit Breakers............................Check In

#### Normal Engine Start
- Magnetos....................................Both
- Master.........................................On
- Mixture............................................Rich
- Propeller......................................High RPM
- Power...........................................½ Centimeter
- Carburetor Heat..............................Cold
- Prime..........................................1-3 as req’d
- Rotating Beacon.............................On
- Area..............................................Clear

#### After Start
- Mixture........................................Set for Taxi
- Engine Instruments........................Check
- Taxi, Nav. Lights.............................As Required
- Flaps...........................................Retracted
- Transponder..................................Standby

#### Taxi
- Brakes.........................................Release, Check
- Avionics and Flight Instruments........Check/Set
- Nav instruments............................Test

#### Run Up
- Parking Brake...............................Set
- Fuel Selector................................Both
- mixture........................................Set
- Engine Instruments.........................Green
- Cowl s..........................................Open

#### Power
-........................................Set
- Mixture........................................Set
- Carb Heat....................................Check
- Magnetos.................................Check Left, Both, Right, Both
- Propeller Governor.........................Cycle
- Engine Instruments.........................Check
- Vacuum.......................................Check
- Ammeter......................................Check with load
- DI....................................................Set to Compass
- Throttle friction lock........................Set
- Idle..............................................Check

#### Pre-Takeoff
- Trim...........................................Set for takeoff
- Mixture........................................Set for takeoff
- Magnetos.....................................Both
- Propeller Pitch.............................Full fine
- Flight Controls.............................Free and Correct
- Autopilot.....................................Off
- Fuel...........................................Correct Tank, Qty, Primer locked
- Flaps...........................................Set for takeoff
- Cowl Flaps....................................Open
- Instruments..................................Check and Set
- Radios.........................................Set for Departure
- Navigation / GPS............................Set for Departure
- Hatches.......................................Closed, Locked
- Harnesses.....................................Secure
- Engine Run-up...............................Complete
- Engine Instruments.........................Check
- Electrics.......................................CB’s Checked
- Emergency & Dep. brief....................Completed

#### Line Up
- (REmember What To Do Last)
- Runway Area.................................Clear
- Engine Parameters........................Green
- Wind............................................Check
- Transponder.................................Set to altitude
- DI.................................................Aligned with Compass, Rwy
- Landing light, strobes........................On

#### After Takeoff (above 1000’ AGL)
- Brakes.........................................Check
- Undercarriage...............................Retracted/Fixed
- Power/Pitch....................................Set
- Mixture........................................Set
- Adjust
- Fuel............................................Check
- Flaps...........................................Up
- Engine Parameters.........................Green
- Lights..........................................As required

#### Cruise
- Power/Prop....................................Set
- Elevator/Rudder trim........................Adjust
- Mixture........................................Lean for altitude
- Cowl Flaps....................................Closed/As Req’d
NORMAL CHECKLIST

Descent
Fuel ........................................... Correct Tank, Qty checked
Radios .......................................... Set
Approach Briefing .............................. Complete
Cowl Flaps ...................................... Closed
Mixture ........................................... Set
Power/Prop ...................................... Set
Icing ............................................. As required
Lights ........................................... On/as req'd

Downwind
Brakes ........................................... Check
Undercarriage ................................. Down/Fixed
Power/Prop ...................................... Set
Mixture ........................................... Set
Fuel ............................................. Correct Tank
Flaps ............................................. Set
Engine Parameters ......................... Green
Lights ........................................... As required
Seats / Seatbelts ......................... Check Secure
Fuel Selector ................................. Both
Carb Heat .................................. As Required

Final
Cowl Flaps ...................................... Open
Carb Heat ...................................... Off
Undercarriage ................................. Down & Locked/Fixed
Propeller Pitch ............................... Full fine

After Landing
Cowl Flaps ...................................... Open
Trim ............................................. Takeoff
Flaps .............................................. Retract
Carb Heat ...................................... Off
Land, Strobe lights ............................ Off
Transponder .................................. Standby

Shutdown and Securing
Power .............................................. Idle
Avionics and Switches ....................... Off
Mixture .............................................. Idle Cutoff
Mags. .............................................. Off
Master ............................................. Off
Control Hobbs .................................. In
Hobbs and Tach ............................. Record
Tie Downs .................................. Attached

CAUTION:
Performance and operational figures vary between models of C172, refer to the aircraft's flight manual and use a fine marker pen to indicate any significant differences.

REFERENCE INFORMATION

Speeds
NORMAL OPERATION

Unless otherwise stated the following speeds are for MAUW, Sea Level, ISA conditions.

\[ \begin{align*}
V_r & \quad \text{(Max performance)} \quad 60 \text{ KIAS} \\
V_s & \quad \text{Best Angle of Climb} \quad 60 \text{ KIAS} \\
V_L & \quad \text{Best Rate of Climb} \quad V_{\text{fl}} \quad 80 \text{ KIAS} \\
V_{10,000} & \quad \text{Maximum demonstrated crosswind} \quad 15 \text{ kts}
\end{align*} \]

NORMAL OPERATION

\[ \begin{align*}
V_{NO} & \quad \text{Top of Green Arc} \quad 128 \text{ KIAS} \\
V_{NE} & \quad \text{Red Line (Never Exceed)} \quad 160 \text{ KIAS} \\
V_s & \quad \text{Stall landing configuration} \quad 45 \text{ KIAS} \\
V_S & \quad \text{Stall Clean} \quad 50 \text{ KIAS} \\
V_{FE} & \quad \text{Max. Flap Extension 0-40°} \quad 85 \text{ KIAS}
\end{align*} \]

EMERGENCY OPERATION

Best glide Speed .............................. 65 \text{ KIAS}
Precautionary landing:
Slow Safe Cruise ............................ 80-95 \text{ KIAS}
Approach (flaps full) ...................... 60 \text{ KIAS}
Ditching ................................. 65 \text{ KIAS}
Engine failure after takeoff .............. 65 \text{ KIAS}
Engine Failure in flight flap up ......... 65 \text{ KIAS}
Engine Failure in flight flap down ...... 60 \text{ KIAS}

Operating performance

Plan Block Consumption ............ 40lt/hr
Plan Block Cruise speed .......... 100\text{KTAS} 

Other Information

Transponder Codes:
Unlawful Interference .................... 7500
Loss of Communication ................. 7600
Emergency ............................... 7700
Unassigned ............................. 2000

Radio Frequencies
Emergency Frequencies ............ 121.5/243

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Red Sky Ventures 2006

Checklist-C172
NORMAL CHECKLIST

**Descent**
- Fuel: Correct Tank, Qty checked
- Radios: Set
- Approach Briefing: Complete
- Cowl Flaps: Closed
- Mixture: Set
- Power/Prop: As required
- Icing: On/as req’d

**Downwind**
- Brakes: Check
- Undercarriage: Down/Fixed
- Power/Prop: Set
- Mixture: Set
- Fuel: Correct Tank
- Engine Parameters: Green
- Lights: As required
- Seats / Seatbelts: Check Secure
- Fuel Selector: Both
- Carb Heat: As Required

**Final**
- Cowl Flaps: Open
- Carb Heat: Off
- Undercarriage: Down & Locked/Fixed
- Propeller Pitch: Full fine

**After Landing**
- Cowl Flaps: Open
- Trim: Takeoff
- Flaps: Retract
- Carb Heat: Off
- Land, Strobe lights: Off
- Transponder: Standby

**Shutdown and Securing**
- Power: Idle
- Avionics and Switches: Off
- Mixture: Idle Cutoff
- Mags.: Off
- Master: Off
- Control Lock: In
- Hobbs and Tach: Record
- Tie Downs: Attached

**CAUTION:**
Performance and operational figures vary between models of C172, refer to the aircraft's flight manual and use a fine marker pen to indicate any significant differences.

REFERENCE INFORMATION

**Speeds**

**NORMAL OPERATION**

Unless otherwise stated the following speeds are for MAUW, Sea Level, ISA conditions.
- $V_R$: 55 KIAS
- $V_{so}$ – Max performance: 60 KIAS
- $V_X$: 60 KIAS
- $V_{Y}$ – Best Rate of Climb: $V_{Y}$
- $V_{Y}$ – Max performance: $V_{Y}^{10,000}$ 70 KIAS
- Normal approach: 65-75 KIAS
- $V_{ref}$: 60 KIAS
- $V_{A}$ – Maneuvering Speed: 80-95 KIAS
- Maximum demonstrated crosswind: 15 kts

**PLACARD/ASI LIMITATIONS**

- $V_{NO}$ – Top of Green Arc: 128 KIAS
- $V_{NE}$ – Red Line (Never Exceed): 160 KIAS
- $V_{SO}$ – Stall landing configuration: 45 KIAS
- $V_{S}$ – Stall Clean: 50 KIAS
- $V_{FE}$ – Max. Flap Extension 0-40°: 85 KIAS

**EMERGENCY OPERATION**

- Best glide Speed: 65 KIAS
- Precautionary landing:
  - Slow Safe Cruise: 80-95 KIAS
  - Approach (flaps full): 60 KIAS
  - Ditching: 65 KIAS
  - Engine failure after takeoff: 65 KIAS
  - Engine Failure in flight flap up: 65 KIAS
  - Engine Failure in flight flap down: 60 KIAS

**Operating performance**

- Plan Block Consumption: 40 lts/hr
- Plan Block Cruise speed: 100 KIAS

**Other Information**

- Transponder Codes:
  - Unlawful Interference: 7500
  - Loss of Communication: 7600
  - Emergency: 7700
  - Unassigned: 2000

- **Radio Frequencies**
  - Emergency Frequencies: 121.5/243
  - ________________
  - ________________
  - ________________
  - ________________
  - __________________
  - __________________
### Normal Checklist

#### Before Start
- Preflight Inspection: Complete
- Tach/Hobbs/Time: Recorded
- Passenger Briefing: Complete
- Seats / Seatbelts: Adjust, Lock
- Fuel Selector Valve: Both
- Cowl Flaps: Open
- Brakes: Set/Hold
- Avionics: Off
- Circuit Breakers: Check In

#### Normal Engine Start
- Magnetos: Both
- Master: On
- Mixture: Rich
- Propeller: High RPM
- Power: 1/2 Centimeter
- Carburetor Heat: Cold
- Prime: 1-3 as req’d
- Rotating Beacon: On
- Area: Clear

#### After Start
- Mixture: Set for Taxi
- Engine Instruments: Check
- Taxi, Nav. Lights: As Required
- Flaps: Retracted
- Transponder: Standby

#### Taxi
- Brakes: Release, Check
- Avionics and Flight Instruments: Check/Set
- Nav instruments: Test

#### Run Up
- Parking Brake: Set
- Fuel Selector: Both
- Mixture: Set
- Engine Instruments: Green
- Cowl: Open

- Power: Set
- Mixture: Set
- Carb Heat: Check
- Magnetos: Check Left, Both, Right, Both
- Propeller Governor: Cycle
- Engine Instruments: Check
- Vacuum: Check
- Ammeter: Check with load
- DI: Set to Compass
- Throttle friction lock: Set

#### Pre-Takeoff
- Trim: Set for takeoff
- Mixture: Set for takeoff
- Magnetos: Both
- Propeller Pitch: Full fine
- Flight Controls: Free and Correct
- Autopilot: Off
- Fuel: Correct Tank, Qty, Primer locked
- Flaps: Set for takeoff
- Cowl Flaps: Open
- Instruments: Checked and Set
- Radios: Set for Departure
- Navigation / GPS: Set for Departure
- Hatches: Closed, Locked
- Harnesses: Secure
- Engine Runup: Complete
- Engine Instruments: Checked
- Electrics: CB’s Checked
- Emergency & Dep. brief: Completed

#### Line Up
- Runway Area: Clear
- Engine Parameters: Green
- Wind: Check
- Transponder: Set to altitude
- Di: Aligned with Compass, Rwy
- Landing light, strobes: On

#### After Takeoff (above 1000' AGL)
- Brakes: Check
- Undercarriage: Retracted/Fixed
- Power/Pitch: Set
- Mixture: Adjust
- Fuel: Checked
- Flaps: Up
- Engine Parameters: Green
- Lights: As required

#### Cruise
- Power/Prop: Set
- Elevator/Rudder trim: Adjust
- Mixture: Lean for altitude
- Cowl Flaps: Closed/As Req’d

#### Descent
- Fuel: Correct Tank, Qty checked
- Radios: Set
- Approach Briefing: Complete
- Cowl Flaps: Closed
- Mixture: Set
- Power/Prop: As required
- Icing: As required
- Lights: On/as req’d
NORMAL CHECKLIST

Tie Downs
Hobbs and Tach
Mixture
Avionics and Switches
Power/Prop
Transponder
Land, Strobe lights
Carb Heat
Flaps
Trim
Cowl Flaps
Propeller Pitch
Undercarriage
Brakes
Seats / Seatbelts
Lights
Engine Parameters

NORMAL OPERATION

Brakes
Undercarriage
Power/Prop
Fuel
Flaps
Engine Parameters
Lights
Seats / Seatbelts
Fuel Selector
Carb Heat

Final
Cowl Flaps
Carb Heat
Undercarriage
Propeller Pitch

After Landing
Cowl Flaps
Trim
Flaps
Carb Heat
Land, Strobe lights
Transponder

Shutdown and Securing
Power
Avionics and Switches
Mags
Master
Control Lock
Hobbs and Tach
Tie Downs

REFERENCE INFORMATION

Speeds
NORMAL CHECKLIST

Downwind
Brakes
Undercarriage
Power/Prop
Fuel
Flaps
Engine Parameters
Lights
Seats / Seatbelts
Fuel Selector
Carb Heat

Final
Cowl Flaps
Carb Heat
Undercarriage
Propeller Pitch

After Landing
Cowl Flaps
Trim
Flaps
Carb Heat
Land, Strobe lights
Transponder

Shutdown and Securing
Power
Avionics and Switches
Mags
Master
Control Lock
Hobbs and Tach
Tie Downs

CAUTION:
Performance and operational figures vary between models of C182, refer to the aircraft's flight manual and use a fine marker pen to indicate any significant differences.

NORMAL OPERATIONS

Unless otherwise stated the following speeds are for MAUW, Sea Level, ISA conditions.

V_R = Best Rate of Climb.........................55 KIAS
V_X = Best Angle of Climb....................65 KIAS
V_Y = Best Rate of Climb....................V_Y \text{ref} 80 KIAS
.............................................V_Y \text{10,000 ft} 75 KIAS
Normal approach..........................70-80 KIAS
V_{\text{ref}} ...........................................65 KIAS
V_A = Maneuvering Speed.............90-110 KIAS
Maximum demonstrated crosswind......15 kts

PLACARD/ASI LIMITATIONS

V_{\text{NO}} = Top of Green Arc..................140 KIAS
V_{\text{NE}} = Red Line (Never Exceed)......167 KIAS
V_{\text{SO}} = Stall landing configuration......52 KIAS
V_S = Stall Clean ..........................58 KIAS
V_{\text{FE}} = Max. Flap Extension 10-40°.....110 KIAS
V_{\text{FE}} = Max. Flap Extension 0-10°.....140 KIAS

EMERGENCY OPERATION

Best glide Speed............................70 KIAS
Precautionary
Slow Safe Cruise.........................90-105 KIAS
Approach (flaps up)......................70 KIAS
Approach (flaps full)......................65 KIAS
Ditching.......................................65 KIAS
Engine failure after takeoff............70 KIAS
Engine Failure in flight flap up........70 KIAS
Engine Failure in flight flap down.....65 KIAS

Operating performance
Plan Block Consumption..............55 lt/hr
Plan Block Cruise speed.............125KIAS

Other Information

Transponder Codes:
Unlawful Interference..................7500
Loss of Communication................7600
Emergency..................................7700
Unassigned...............................2000

Radio Frequencies
Emergency Frequencies...............121.5/243
NORMAL CHECKLIST

**Downwind**
- Brakes.................................................Check
- Undercarriage.................................Down/Fixed
- Power/Prop............................................Set
- Mixture................................................Set
- Fuel....................................................Correct Tank
- Flaps....................................................Set
- Engine Parameters.........................Green
- Lights.................................................As required
- Seats / Seatbelts.........................Check Secure
- Fuel Selector.................................Both
- Carb Heat............................................As Required

**Final**
- Cowl Flaps.............................................Open
- Carb Heat.............................................Off
- Undercarriage.................................Down & Locked/Fixed
- Propeller Pitch.................................Full fine

**After Landing**
- Cowl Flaps.............................................Open
- Trim....................................................Takeoff
- Flaps....................................................Retract
- Carb Heat.............................................Off
- Land, Strobe lights...............................Off
- Transponder.......................................Standby

**Shutdown and Securing**
- Power..................................................Idle
- Avionics and Switches.........................Off
- Mixture................................................Off
- Master................................................Off
- Control Lock.......................................In
- Hobbs and Tach.................................Record
- Tie Downs............................................Attached

**REFERENCE INFORMATION**

**Speeds**

**NORMAL OPERATION**

Unless otherwise stated the following speeds are for MAUW, Sea Level, ISA conditions.

- $V_R$.................................................55 KIAS
- $V_X$ – Best Angle of Climb........65 KIAS
- $V_Y$ – Best Rate of Climb..........80 KIAS
- $V_{10,000}$........................................75 KIAS

Normal approach............................70-80 KIAS

$V_{ref}$................................................65 KIAS

$V_A$ – Maneuvering Speed............90-110 KIAS

Maximum demonstrated crosswind......15 kts

**PLACARD/ASI LIMITATIONS**

- $V_{NO}$ – Top of Green Arc.............140 KIAS
- $V_{NE}$ – Red Line (Never Exceed).....167 KIAS

- $V_{SO}$ – Stall landing configuration...52 KIAS
- $V_S$ – Stall Clean ..........................58 KIAS

- $V_{FE}$ – Max. Flap Extension 10-40º...110 KIAS
- $V_{FE}$ – Max. Flap Extension 0-10º...140 KIAS

**EMERGENCY OPERATION**

- Best glide Speed.............................70 KIAS
- Precautionary
- Slow Safe Cruise.........................90-105 KIAS
- Approach (flaps up).......................70 KIAS
- Approach (flaps full)....................65 KIAS
- Ditching.........................................65 KIAS
- Engine failure after takeoff...........70 KIAS
- Engine Failure in flight flap up........70 KIAS
- Engine Failure in flight flap down.....65 KIAS

**Operating performance**

- Plan Block Consumption..............55 lt/hr
- Plan Block Cruise speed...............125KTAS

**Other Information**

**Transponder Codes:**
- Unlawful Interference......................7500
- Loss of Communication....................7600
- Emergency.................................7700
- Unassigned.................................2000

**Radio Frequencies**
- Emergency Frequencies.................121.5/243

CAUTION:

Performance and operational figures vary between models of C182, refer to the aircraft’s flight manual and use a fine marker pen to indicate any significant differences.
### NORMAL CHECKLIST

**Before Start**
- Preflight Inspection
- Tach/Hobbs/Time
- Passenger Briefing
- Seats / Seatbelts
- Fuel Selector Valve
- Cowl Flaps
- Brakes
- Avionics
- Electrical
- Circuit Breakers

**Normal Engine Start**
- Magnetos
- Mixture
- Propeller
- Undercarriage
- Rotating Beacon
- Master
- Prime
- Power
- Area

**After Start**
- Mixture
- Engine Instruments
- Taxi
- Avionics and Flight Instruments

**Run Up**
- Parking Brake
- Fuel Selector
- Mixture
- Engine Instruments
- Cowls
- Power
- Mixture
- Magneto
- Propeller Governor
- Engine Instruments
- Vacuum
- Ammeter
- DI
- Throttle friction lock
- Idle

**Pre-Takeoff**
- Trim
- Mixture
- Engine Instruments
- Propeller Pitch
- Flight Controls
- Autopilot
- Fuel
- Fuel Pump
- Flaps
- Cowl Flaps
- Instruments
- Radios
- Navigation / GPS
- Hatches
- Harnesses
- Engine Runup
- Engine Instruments
- Electrics
- Emergency & Dep. brief

**Line Up**
- Runway Area
- Engine Parameters
- Wind
- Transponder
- DI
- Cowl Flaps

**After Takeoff (above 1000' AGL)**
- Brakes
- Undercarriage
- Mixture
- Fuel
- Flaps
- Engine Parameters

**Cruise**
- Power/Prop
- Elevator/Rudder trim
- Mixture
- Cowl Flaps

**NOTE FOR MODELS WITH TIPTANKS:**
TIP TANK Operation: Transfer from only one tip tank at a time. Ensure sufficient space is available in main tank prior to transfer (main tank should be not more than approximately half full).
**NORMAL CHECKLIST**

### Descent
- Fuel: Correct Tank, Qty checked
- Radios: Set
- Approach Briefing: Complete
- Cowl Flaps: Closed
- Mixture: Set
- Power/Prop: Set
- Icing: As required
- Lights: On/as req'd

### Downwind
- Brakes: Check
- Undercarriage: Down, Green Light
- Power/Prop: Set
- Mixture: Set
- Fuel: Correct Tank
- Flaps: Set
- Engine Parameters: Green Lights: As required
- Seats / Seatbelts: Check Secure
- Fuel Selector: Both

### Final
- Cowl Flaps: Open
- Undercarriage: Down, One Green Light
- Propeller Pitch: Full fine

### After Landing
- Cowl Flaps: Open
- Trim: Takeoff
- Flaps: Retract
- Land, Strobe lights: Off
- Transponder: Standby

### Shutdown and Securing
- Power: Idle
- Avionics and Switches: Off
- Mixture: Idle Cutoff
- Master: Off
- Control Lock: In
- Tach/Hobbs/Time: Recorded
- Tie Downs: Attached

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**REFERENCE INFORMATION**

### Speeds

**NORMAL OPERATION**

Unless otherwise stated the following speeds are for MAUW, Sea Level, ISA conditions.

- $V_R$: 70 KIAS
- $V_x$: Best Angle of Climb: 80 KIAS
- $V_Y$: Best Rate of Climb: $V_{Y_{sl}}$: 97 KIAS
- $V_{Y_{10,000f}}$: 93 KIAS

Normal approach: 80-85 KIAS

- $V_{NO}$: Top of Green Arc: 195 KIAS
- $V_{NE}$: Red Line (Never Exceed): 165 KIAS
- $V_S$: Stall Clean: 70 KIAS
- $V_{SO}$: Stall landing configuration: 65 KIAS
- $V_{FE}$: Max. Flap Ext 10-30°: 105 KIAS
- $V_{LE}$: Max. Flap Ext 0-10°: 140-165 KIAS
- $V_{LR}$: Min. Gear Retraction: 80 KIAS

*Speed varies significantly between models

**PLACARD/ASI LIMITATIONS**

- $V_{ref}$: 75 KIAS
- $V_A$: Maneuvering Speed: 115-135 KIAS
- Maximum demonstrated crosswind: 15kts

**EMERGENCY OPERATION**

- Best glide Speed: 75-85 KIAS
- Precautionary
- Slow Safe Cruise: 90-110 KIAS
- Approach (flaps up): 85 KIAS
- Approach (flaps full): 75 KIAS
- Ditching: 75 KIAS
- Engine failure after takeoff: 80 KIAS
- Engine Failure in flight flap up: 90 KIAS
- Engine Failure in flight flap down: 85 KIAS

**Operating performance**

- Planning: 65lt/hr
- Plan Cruise speed: 145KTAS

**Other Information**

**Transponder Codes:**
- Unlawful Interference: 7500
- Loss of Communication: 7600
- Emergency: 7700
- Unassigned: 2000

**Radio Frequencies**
- Emergency Frequencies: 121.5/243

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**CAUTION:**

Performance and operational figures vary between models of C210, refer to the aircraft's flight manual and use a fine marker pen to indicate any significant differences.

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NORMAL CHECKLIST

Before Start
Preflight Inspection .................................................. Complete
Tach/Hobbs/Time..................................................... Recorded
Passenger Briefing ................................................... Complete
Seats / Seatbelts .................................................... Adjust, Lock
Fuel Selector Valve .................................................... Open
Cowl Flaps .................................................................. Open
Brakes ....................................................................... Set/Hold
Avionics ................................................................. Check/Secure
Electrical ............................................................... Off
Circuit Breakers .......................................................... Check In

Normal Engine Start
Mixture ........................................................................ Rich
Propeller ................................................................. High RPM
Carburetor Heat .......................................................... ½ Centimeter
Prime ........................................................................ 1-3 as req'd
Rotating Beacon ......................................................... On
Area ............................................................................ Clear

After start
Mixture ........................................................................ Set for Taxi
Engine Instruments ...................................................... Check
Taxi, Nav. Lights .......................................................... As Required
Transponder .............................................................. Standby

Run Up
Parking Brake ............................................................. Set
Fuel Selector ............................................................... Both
Mixture ................................................................. Set
Engine Instruments .................................................... Green
Cowl Flaps ................................................................. Open
Power ......................................................................... Set
Mixture ................................................................. Set
Carb Heat ................................................................. Check
Magneto ................................................................. Check Left, Both, Right, Both
Propeller Governor ..................................................... Cycle
Engine Instruments .................................................... Check
Vacuum ................................................................. Check with load
Ammeter ................................................................. Check with load
Throttle friction lock ............................................... Set
Idle ................................................................. Check

Pre-Takeoff
Trim ............................................................................ Set for takeoff
Mixture ................................................................. Set for takeoff
Magneto ................................................................. Both
Propeller Governor ..................................................... Full fine
Light Controls ............................................................ Free and Correct
Cowl Flaps ................................................................. Open
Engine Instruments .................................................... Checked and Set
Radios ................................................................. Set for Departure
Navigation / GPS ........................................................ Set for Departure
Hatches ................................................................. Closed, Locked
Harnesses .............................................................. Secure
Engine Runup ........................................................... Complete
Engine Instruments .................................................... Checked
Electrics ............................................................... CB's Checked
Emergency & Dep. brief............................................. Perform

Line Up
(remember what to do last)
Runway Area ............................................................ Clear
Engine Parameters .................................................... Green
Wind ........................................................................ Check
Transponder ............................................................. Set to altitude
DI ........................................................................... Aligned with Compass, Rwy
Landing light, strobes ................................................. On

Bravoirs
Cruise
Cowl Flaps ................................................................. Closed/As Req'd
Power/Prop ............................................................... Set
Ammeter ................................................................. Set
Engine Instruments .................................................... Standby

Downwind
Cowl Flaps ................................................................. Open
Carb Heat ................................................................. Set
Power ......................................................................... Set
Mixture ................................................................. Set

Final
Cowl Flaps ................................................................. Open
Carb Heat ................................................................. Set
Power ......................................................................... Set
Mixture ................................................................. Set

After Takeoff (above 1000' AGL)
Brakes ................................................................. Checked/Retracted
Undercarriage .......................................................... Retracted/Fixed
Power/Pitch ............................................................. Set
Engine Parameters .................................................... Green
Lights ........................................................................ On
Cowl Flaps ................................................................. Closed

Takeoff Crew Briefing:
In the event of an emergency during take-off with insufficient runway left we will select a field within 30 degrees of the runway centerline, maintain ____ kts, secure the aircraft and inform ATC/Traffic.
The normal departure will be with:
Takeoff power at _____ rpm, Rotate at ____ kts and climb out at ____ kts, At ____ ft turn L/R to ____ deg magnetic.

REFERENCE INFORMATION
Fill in for your aircraft as required

Speeds
Normal operation
Except where stated the following speeds are for MAUW, Sea Level, ISA conditions.
Vrms ................................................................. KIAS
VREF ............................................................... VYREF
V2 ................................................................. __________ KIAS
Vc ................................................................. __________ KIAS

Emg. operation
Best glide Speed .................................................. __________ KIAS
Slow Safe Cruise ................................................ __________ KIAS
Ditching ................................................................. __________ KIAS
Engine failure after takeoff ................................ __________ KIAS
Engine Failure in flight flap up ................................ __________ KIAS
Engine Failure in flight flap down ......................... __________ KIAS

Operating performance
Fuel Capacity (usable) ....................................... __________ /Hr
Fuel Consumption Block ..................................... __________ KTAS
Plan Cruise speed ................................................ __________ KIAS

Other information
Transponder Codes:
Unlawful Interference ........................................... 7500
Loss of Communication ....................................... 7600
Emergency ......................................................... 7700
Unassigned ......................................................... 2000

Radio frequencies
Emergency Frequencies ........................................ 121.5/243

Loading
Max TO/LOD weight ............................................... __________ lbs
Standard Empty Weight ........................................ __________ lbs

Signals
Signal On Ground In Flight
Green Steady .................................................. Takeoff
Red Steady ...................................................... Stop
Green Flashing .................................................. Taxi
Red Flashing ...................................................... Clear

White Flashing .................................................... Retum to ramp
Red/Green Alternating ......................................... WARNING

### EMERGENCY PROCEDURES

#### Engine Fire

**Takeoff**

**NOTE:** Bold items are immediate recall items, other times may be followed up by the use of the AFM checklist.

| Throttle | Idle.................. | IDLE cut-off
| Brakes | Apply................ |........ |
| Mixture | IDLE cut-off........ |........ |
| Ignition | OFF............................. |........ |
| Master switch | OFF............................. |........ |

#### AFTER TAKEOFF

| Airspeed | KIAS Flaps Up........... |........ |
| Ignition | OFF............................. |........ |
| Fuel shut off valve | OFF............................. |........ |
| Master switch | as required................. |........ |

#### During Flight

**IMMEDIATE ACTIONS**

| Airspeed | Recommended Speed........ |........ |
| Carb Heat | ON........................... |........ |
| Field | Select........................ |........ |
| Approach | Plan........................ |........ |
| FAULT FINDING
| Carb Heat | ON........................... |........ |
| Primer | \( IN \) & Locked............. |........ |
| Fuel Shut off valve | ON........................... |........ |
| Mixture | \( RICH \)........................ |........ |
| Ignition | BOTH (or START)................ |........ |
| COMMUNICATE | Mayday.............................. |........ |
| Transponder | Transmit Active or 121.5 |........ |
| 7700 | Passengers| Brief........ |........ |
| SECURE
| Mixture | cutoff................ |........ |
| Fuel shut off valve | OFF............................. |........ |
| Ignition | OFF............................. |........ |
| FINAL
| Flaps | as required......... |........ |
| Doors | un latch.................... |........ |
| Touchdown | Tail low...... |........ |

#### Engine Fire

**during start**

| Starter | Crank........................ |........ |
| To draw away flames, If Engine Starts: |........ |
| Power | 1700rpm........................ |........ |
| For a few minutes until flames appear to be extinguished, or if engine does not start: |........ |
| Mixture | IDLE cut-off................ |........ |
| Master | OFF............................. |........ |
| Inspect damage | during flight................... |........ |

| Mixture | IDLE cut-off................ |........ |
| Fuel | OFF............................. |........ |
| Master | OFF............................. |........ |
| Cabin Air | OFF............................. |........ |
| Sideslip | Initiate if required............ |........ |
| Proceed with Engine Failure in Flight Actions |........ |

#### Cabin Fire

**On the Ground**

| Master Switch | OFF............................. |........ |
| Cabin Vents/Air/Heat | Closed........ |........ |
| Fire Extinguisher | Activate........ |........ |
| Cabin Vents/Windows | Open........ |........ |

#### Electrical Fire

**Unknown Source**

| Master Switch | OFF............................. |........ |
| Avionics and Electronics | OFF............................. |........ |
| Circuit Breakers | PULL........................ |........ |
| if Smoke Ceases: |........ |
| Master Switch | ON............................. |........ |
| Essential Electrical/Avionics | On, one at a time........ |........ |

#### Short field take-off

| Wing Flaps | \( Takeoff \)................ |........ |
| Brakes | APPLY........................ |........ |
| Mixture | Set for Field Elevation...... |........ |
| Elevator Control | Slightly Tail Low Climb Speed........ |........ |
| Accelerate | Vy, kts................ |........ |
| Wing Flaps | RETRACT................ |........ |
| Power | Set for climb............. |........ |

**Note:** Do not reduce power until wing flaps and landing gear have been retracted.

### Electrical failure/Overload

| Load | Very high................ |........ |
| Alternator | Reduce to minimum........ |........ |
| Alternator CB | Trip&Reset................ |........ |
| Mixture | Cold........................ |........ |
| Temperature/Pressure | Cold........ |........ |

### Engine Roughness

| Mixture | Cold........................ |........ |
| Temperature/Pressure | Cold........ |........ |

### Spin Recovery

| Ailerons | NEUTRAL................ |........ |
| Throttle | IDLE........................ |........ |
| Rudders | FULL OPPOSITE............... |........ |
| Elevator | Forward to break stall...... |........ |
| Pitch | Neutralise when spinning stops........ |........ |
| Pitch | Ease out of dive........ |........ |

### ABNORMAL PROCEDURES

#### Short field landing

| Flaps | Full................ |........ |
| Airspeed | Full................ |........ |
| Touchdown | Positive, Main Wheels First........ |........ |
| Nose Wheel | Lower................ |........ |
| Braking | Maximum Steady Baking........ |........ |

#### Soft field landing

| Flaps | Full................ |........ |
| Airspeed | Full................ |........ |
| Touchdown | Softly Main Wheels First........ |........ |
| Nose Wheel | Lower................ |........ |
| Elevator | Full........ |........ |
| Braking | Gently, minimum required........ |........ |
| Flaps | Leave down until clear of runway........ |........ |

#### Crosswind landing

| Wing Flaps | Minimum for field length....... |........ |
| Approach | ..... (and as required by strength of wind)........ |........ |
| Touchdown | Nose straight, on into wind wheel........ |........ |
| After landing | Ailerons into wind........ |........ |

#### Go-around

| Mixture/Pitch/Throttle | Forward................ |........ |
| Wing Flaps | RETRACT................ |........ |
| Brakes | APPLY........................ |........ |
| Once a Positive Climb is achieved and above Vr: |........ |
| Landing Gear | RETRACT................ |........ |
| After obstacles are cleared and above Vx: |........ |
| Wing Flaps | RETRACT................ |........ |
| Power | Set for climb........... |........ |

**Note:** Do not reduce power until wing flaps and landing gear have been retracted.

### Abnormal Maneuvers

| Height | Sufficient for recovery........ |........ |
| HASSELL: Complete prior to conducting stalls, spins and approved aerobic maneuvers |........ |
| Airframe | Limitations Reviewed........ |........ |
| Airframe | Configuration Reviewed........ |........ |
| Security | Seatbelts/Passengers/Load Engine........ |........ |
| Engine | Temperature/Pressures........ |........ |
| Power/Pitch Mixture Checked |........ |
| Location | Not over built up areas........ |........ |
| Airfields or controlled airspace | High........ |........ |
| In proximity of suitable landing areas |........ |
| Lookout | Complete a lookout turn........ |........ |