Introduction

The limitations included in this Section of the Pilot's Operating Handbook (POH) are approved by the Federal Aviation Administration.

This section provides operating limitations, instrument markings and basic placards required by regulation and necessary for the safe operation of the SR22 and its standard systems and equipment. *Refer to Section 9* of this handbook for amended operating limitations for airplanes equipped with optional equipment. Compliance with the operating limitations in this section and in Section 9 is required by Federal Aviation Regulations.

Certification Status

The Cirrus SR22 is certificated under the requirements of Federal Aviation Regulations (FAR) Part 23 as documented by FAA Type Certificate TC A00009CH.

Airspeed Limitations

The indicated airspeeds in the following table are based upon Section 5 Airspeed Calibrations using the normal static source. When using the alternate static source, allow for the airspeed calibration variations between the normal and alternate static sources.

Speed	KIAS	KCAS	Remarks
V_{NE}	201	204	**Never Exceed Speed** is the speed limit that may not be exceeded at any time.
V_{NO}	178	180	**Maximum Structural Cruising Speed** is the speed that should not be exceeded except in smooth air, and then only with caution.
V_O 3400 Lb	133	135	**Operating Maneuvering Speed** is the maximum speed at which full control travel may be used. Below this speed the airplane stalls before limit loads are reached. Above this speed, full control movements can damage the airplane.
V_{FE} 50% Flaps 100% Flaps	 119 104	 120 104	**Maximum Flap Extended Speed** is the highest speed permissible with wing flaps extended.
V_{PD}	133	135	**Maximum Demonstrated Parachute Deployment Speed** is the maximum speed at which parachute deployment has been demonstrated.

Figure 2-1
Airspeed Limits

Airspeed Indicator Markings

The airspeed indicator markings are based upon Section 5 Airspeed Calibrations using the normal static source. When using the alternate static source, allow for the airspeed calibration variations between the normal and alternate static sources.

Marking	Value (KIAS)	Remarks
White Arc	59 - 104	Full Flap Operating Range. Lower limit is the most adverse stall speed in the landing configuration. Upper limit is the maximum speed permissible with flaps extended.
Green Arc	70 - 178	Normal Operating Range. Lower limit is the maximum weight stall at most forward C.G. with flaps retracted. Upper limit is the maximum structural cruising speed.
Yellow Arc	178 - 201	Caution Range. Operations must be conducted with caution and only in smooth air.
Red Line	201	Never exceed speed. Maximum speed for all operations.

Figure 2-2
Airspeed Indicator Markings

Power Plant Limitations

Engine

Teledyne Continental IO-550-N

Power Rating ..... 310 hp @ 2700 rpm

Maximum RPM ..... 2700 rpm

Oil:

Oil Temperature..... 240° F (115° C) maximum

Oil Pressure:

Minimum..... 10 psi

Maximum..... 100 psi

Approved Oils:

Engine Break-In: For first 25 hours of operation or until oil consumption stabilizes use straight mineral oil conforming to MIL-L-6082. If engine oil must be added to the factory installed oil, add only MIL-L-6082 straight mineral oil.

After Engine Break-In: Use only oils conforming to Teledyne Continental Specification MHS-24 (Ashless Dispersant Lubrication Oil) or MHS-25 (Synthetic Lubrication Oil). *Refer to Section 8 - Oil Servicing.* Oil viscosity range as follows:

All Temperatures ..... 15W-50, 20W-50 or 20W-60

Below 40 °F (4° C) ..... SAE 30

Above 40 °F (4° C) ..... SAE 50

Fuel Grade ..... Aviation Grade 100 LL (Blue) or 100 (green)

• Note •

Refer to General Limitations – Fuel Limits in this section for operational limitations regarding fuel and fuel storage.

Propeller

Hartzell

Propeller Type .....Constant Speed, Three Blade

Model Number.....PHC-J3YF-1RF/F7694

Diameter.....78.0” (76.5” Minimum)

Model Number.....PHC-J3YF-1RF/F7693DF

Diameter.....78.0" (76.5" Minimum)

or

McCauley

Propeller Type .....Constant Speed, Three Blade

Model Number..... D3A34C443/78CYA-0

Diameter.....78.0" (76.5" Minimum)

Instrument Markings

Instrument (Range)	Red Line	Green Arc	Yellow Arc	Red Line
	Minimum	Normal	Caution	Maximum
Power Plant Instruments				
Tachometer (0 - 3500 RPM)	—	500 - 2700	—	2700
Cylinder Head Temperature (200° F - 500° F)	—	240° - 420° F	420° - 460° F	460° F
Exhaust Gas Temp. (1250° - 1650° F)	—	—	—	—
Manifold Pressure (10 – 30 Inches Hg)	—	15 - 29.5 in. Hg	—	—
Fuel Flow (0 – 30 U.S. Gal./Hr.)	—	10 - 20 GPH	—	—
Oil Temperature (50° - 240° F)	—	100° - 240° F	—	240° F
Oil Pressure (0 - 100 PSI)	10 psi (Idle)	30 - 60 psi	10 - 30 psi 60 - 100 psi	100 psi (Cold)
Fuel Quantity (0 – 90 U.S. Gallon)	0 gal.	—	0 - 14 gal.	—
Miscellaneous Instruments				
Voltmeter (16 - 32 Volts)	—	24 - 30 Volts	—	32 Volts

Figure 2-3
Instrument Markings

General Limitations

Weight Limits

Maximum Takeoff Weight ..... 3400 lb (1542 Kg)

Maximum Weight in Baggage Compartment..... 130 lb (59 Kg)

Center of Gravity Limits

Reference Datum .....100 inches forward of firewall

Forward ..... *Refer to Figure 2-4*

Aft ..... *Refer to Figure 2-4*

Altitude Limits

Maximum Takeoff Altitude .....10,000 Feet MSL

Maximum Operating Altitude .....17,500 Feet MSL

The operating rules (FAR Part 91 and FAR Part 135) require the use of supplemental oxygen at specified altitudes below the maximum operating altitude. *Refer to Oxygen System Limitations in this Section*.

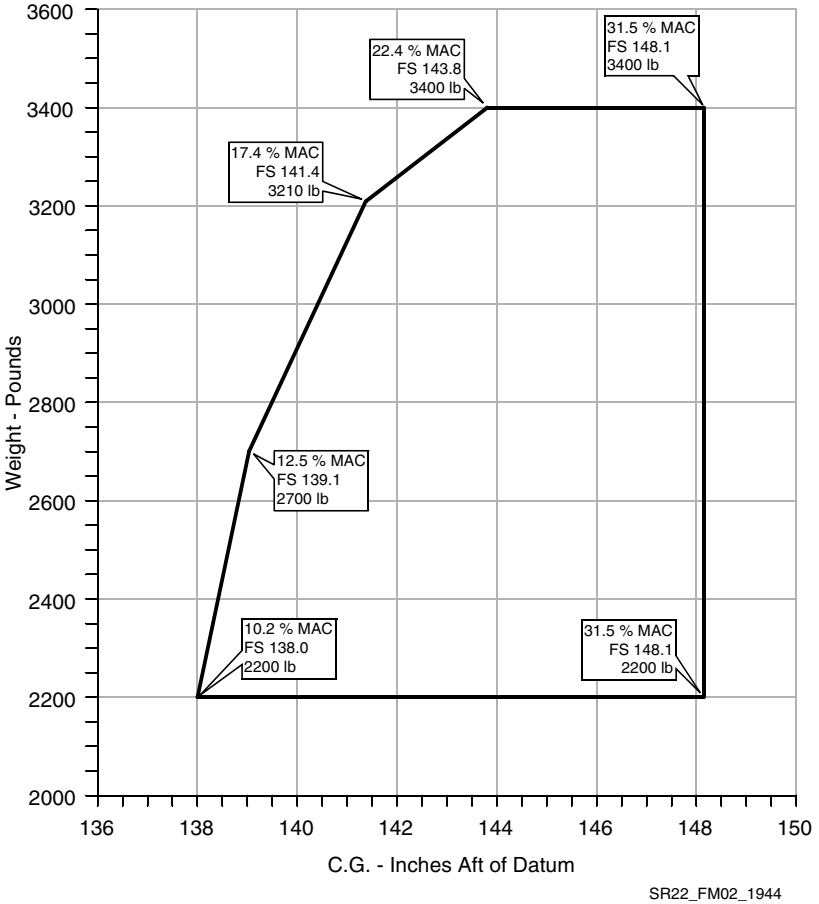
Maneuver Limits

Aerobatic maneuvers, including spins, are prohibited.

• Note •

Because the SR22 has not been certified for spin recovery, the Cirrus Airframe Parachute System (CAPS) must be deployed if the airplane departs controlled flight. *Refer to Section 3 – Emergency Procedures, Inadvertent Spiral/Spin Entry*.

This airplane is certified in the normal category and is not designed for aerobatic operations. Only those operations incidental to normal flight are approved. These operations include normal stalls, chandelles, lazy eights, and turns in which the angle of bank is limited to 60°.



FORWARD LIMIT - The forward limit is FS 138.0 (10.2% MAC) at 2200 lb, with straight line taper to FS 139.1 (12.5% MAC) at 2700 lb, to FS 141.4.0 (17.4% MAC) at 3210 lb, and to FS 143.8 (22.4% MAC at 3400 lb.
AFT LIMIT - The aft limit is FS 148.1 (31.5% MAC) at all weights from 2200 lb to 3400 lb.

Figure 2-4
C.G. Envelope

Flap Limitations

Serials 0002 through 0227 before accomplishment of Service Bulletin SB 22-27-02: Simultaneous Flap operation and COM transmission is prohibited.

Approved Takeoff Settings..... UP (0%) or 50%

Approved Landing Settings ..... Up (0%), 50%, or 100%

Flight Load Factor Limits

Flaps UP (0%), 3400 lb. .....+3.8g, -1.9g

Flaps 50% .....+1.9g, -0g

Flaps 100% (Down), 3400 lb. .....+1.9g, -0g

Fuel Limits

Approved Fuel ..... Aviation Grade 100 LL (Blue) or 100 (Green)

Total Fuel Capacity..... 84.0 U.S. Gallon (318.0 L)

Total Fuel Each Tank..... 42.0 U.S. Gallon (159.0 L)

Total Usable Fuel (all flight conditions)..... 81.0 U.S. Gallon (306.6 L)

Maximum Allowable Fuel Imbalance.....10.0 U.S. Gallon (¼ tank)

The fuel system BOOST pump must be on for takeoff, landing, and for switching fuel tanks.

Maximum Occupancy

Occupancy of this airplane is limited to four persons (the pilot and three passengers).

Minimum Flight Crew

The minimum flight crew is one pilot.

Paint

To ensure that the temperature of the composite structure does not exceed 150° F (66° C), the outer surface of the airplane must be painted with an approved white paint, except for areas of registration marks, placards, and minor trim. *Refer to SR22 Airplane Maintenance Manual (AMM), Chapter 51,* for specific paint requirements.

Runway Surface

This airplane may be operated into and off of any runway surface.

Smoking

Smoking is prohibited in this airplane.

System Limits

Cirrus Airframe Parachute System (CAPS)

V_{PD} Maximum Demonstrated Deployment Speed.....133 KIAS

• Note •

Refer to Section 10 – Safety Information, for additional CAPS guidance.

Multi-Function Display

The Multi-Function Display is not approved as a primary navigation instrument. Information displayed on the multi-function display may be used for advisory purposes only.

Oxygen System

Whenever the operating rules require the use of supplemental oxygen, the pilot must:

- Use an oxygen system approved by Cirrus Design and listed in the Oxygen System AFM Supplement Part Number 13772-109.
- Secure the oxygen bottle in the right front seat as described in the AFM Supplement noted above.

Kinds of Operation

The SR22 is equipped and approved for the following type operations:

- VFR day and night.
- IFR day and night.

Icing

Flight into known icing conditions is prohibited.

Kinds of Operation Equipment List

The following listing summarizes the equipment required under Federal Aviation Regulations (FAR) Part 23 for airworthiness under the listed kind of operation. Those minimum items of equipment necessary under the operating rules are defined in FAR Part 91 and FAR Part 135 as applicable.

• Note •

All references to types of flight operations on the operating limitations placards are based upon equipment installed at the time of Airworthiness Certificate issuance.

System, Instrument, and/or Equipment	Kinds of Operation				Remarks, Notes, and/or Exceptions
	VFR Day	VFR Nt.	IFR Day	IFR Nt.	
Communications					
VHF COM	—	—	1	1	
Electrical Power					
Battery 1	1	1	1	1	
Battery 2	—	—	1	1	
Alternator 1	1	1	1	1	
Alternator 2	—	—	1	1	
Ammeter	1	1	1	1	
Low Volts Annunciator	1	1	1	1	

System, Instrument, and/or Equipment	Kinds of Operation				Remarks, Notes, and/or Exceptions
	VFR Day	VFR Nt.	IFR Day	IFR Nt.	
ALT 1 Annunciator	1	1	1	1	
ALT 2 Annunciator	1	1	1	1	
Circuit Breakers	A/R	A/R	A/R	A/R	As Required.
Equipment & Furnishings					
Emergency Locator Transmitter	1	1	1	1	
Restraint System	A/R	A/R	A/R	A/R	One Seat Belt for each occupant.
Fire Protection					
Fire Extinguisher	1	1	1	1	
Flight Controls					
Flap Position Lights	3	3	3	3	
Flap System	1	1	1	1	
Pitch Trim Indicator	1	1	1	1	
Pitch Trim System	1	1	1	1	
Roll Trim Indicator	1	1	1	1	
Roll Trim System	1	1	1	1	
Rudder Trim and Indicator	1	1	1	1	Rudder Trim System and/or Indicator may be inoperative provided the trim tab is fixed in the streamlined position, the indicator is placarded "Rudder Trim Inop," and the system is electrically disabled

System, Instrument, and/or Equipment	Kinds of Operation				Remarks, Notes, and/or Exceptions
	VFR Day	VFR Nt.	IFR Day	IFR Nt.	
Stall Warning System	1	1	1	1	
Fuel					
Auxiliary Boost Pump	1	1	1	1	
Fuel Quantity Indicator	2	2	2	2	
Fuel Selector Valve	1	1	1	1	
Ice & Rain Protection					
Alternate Engine Air Induction System	1	1	1	1	
Alternate Static Air Source	1	1	1	1	
Pitot Heater	—	—	1	1	
Landing Gear					
Wheel Pants	—	—	—	—	May be removed.
Lights					
Anticollision Lights	2	2	2	2	
Instrument Lights	—	❖	—	❖	❖-Must be operative.
Navigation Lights	—	4	—	4	
Navigation & Pitot Static					
Altimeter	1	1	1	1	
Airspeed Indicator	1	1	1	1	
Vertical Speed Indicator	—	—	—	—	
Magnetic Compass	1	1	1	1	
Attitude Gyro	—	—	1	1	
HSI	—	—	1	1	

System, Instrument, and/or Equipment	Kinds of Operation				Remarks, Notes, and/or Exceptions
	VFR Day	VFR Nt.	IFR Day	IFR Nt.	
Turn Coordinator (Gyro)	—	—	1	1	
Clock	—	—	1	1	
Nav Radio	—	—	1	1	
Pitot System	1	1	1	1	
Static System, Normal	1	1	1	1	
Multi-Function Display	—	—	—	—	
Engine Indicating					
Cylinder Head Temperature Gage	—	—	—	—	
Fuel Flow Gage	1	1	1	1	
Manifold Pressure Gage	1	1	1	1	
Oil Pressure Gage	1	1	1	1	
Oil Quantity Indicator (Dipstick)	1	1	1	1	
Oil Temperature Gage	1	1	1	1	
Tachometer	1	1	1	1	
Special Equipment					
Cirrus Airframe Parachute (CAPS)	1	1	1	1	
Airplane Flight Manual	1	1	1	1	Included w/ POH.

Placards

Engine compartment, inside oil filler access:

ENGINE OIL GRADE

ABOVE 40° F SAE 50 OR 20W50 OR 20W60

BELOW 40° F SAE 30 OR 10W30, 15W50, OR 20W50

REFER TO AFM FOR APPROVED OILS

Wing, adjacent to fuel filler caps:

AVGAS MIN GRADE 100LL OR 10 0

40.5 U.S. GALS. (153 LITERS) TOTAL USABLE CAP .

23.5 U.S. GALS. (89 LITERS) USABLE TO TAB

Serials 0002 thru 0549.

Serials 0550 & subs.

Upper fuselage, either side of CAPS rocket cover:

WARNING!

ROCKET FOR PARACHUTE DEPLOYMENT INSIDE

STAY CLEAR WHEN AIRPLANE IS OCCUPIED

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Figure 2-5
Placards (Sheet 1 of 7)

Elevator, Rudder, & Elec. Trim Tab (if installed), both sides:

NO PUSH

Left fuselage, on external power supply door:

EXTERNAL

POWER

28 V DC

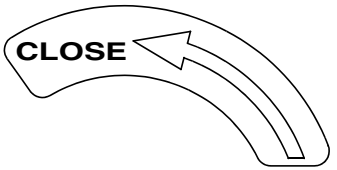
DE-ICING FLUID

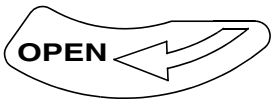
REFER TO AFM FOR APPROVED

DE-ICING FLUIDS

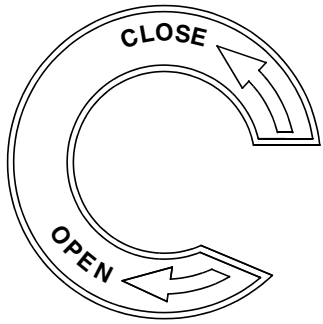
Serials 0334 & subs w/ Ice Protection.

Doors, above and below latch:

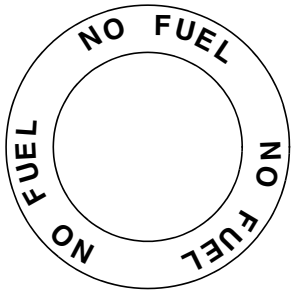




Serials 0002 thru 0521.



Serials 0522 thru 0820.



Serials 0334 & subs w/ Ice Protection.

PUSH
TO
OPEN

Serials 0821 & subs.

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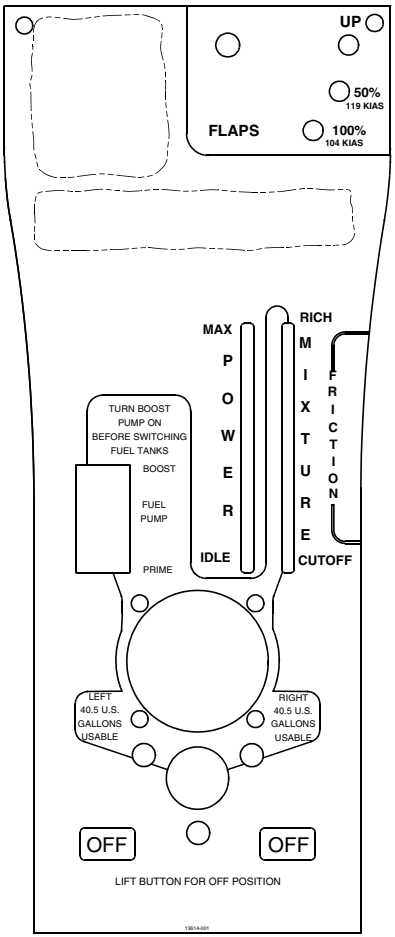
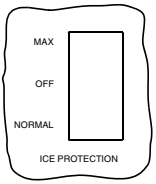
Figure 2-5
Placards (Sheet 2 of 7)

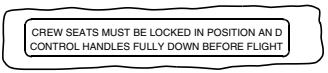
Engine control panel:



Serials 0002 & subs.



Serials 0334 thru 0434.



Serials 0410 & subs
& serials 0002 thru 0409
after incorporating SA 02-18.

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Figure 2-5
Placards (Sheet 3 of 7)

Wing, flap aft edge and fuselage vortex generator:

NO STEP

Cabin Door Window, lower edge, centered, applied upside down:

RESCUE: FRACTURE AND REMOVE WINDOW

Bolster Switch Panel, left edge:

THIS AIRCRAFT IS CERTIFIED FOR THE FOLLOWING FLIGHT OPERATIONS:
DAY - NIGHT - VFR - IFR
(WITH REQUIRED EQUIPMENT)

FLIGHT INTO KNOWN ICING IS PROHIBITED

OPERATE PER AIRPLANE FLIGHT MANUAL

Instrument Panel Upper left:

MANEUVERING SPEED: Vo 133 KIAS

NORMAL CATEGORY AIRPLANE

NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED

Instrument Panel Upper Right:

ALTITUDE GPH
16000 — 17
12000 — 18
8000 — 21
4000 — 24
SL — 27
MAX POWER FUEL FLOWS

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Figure 2-5
Placards (Sheet 4 of 7)

Instrument Panel Lower Right (Above HVAC controls), or on single line above the MFD:

FASTEN SEATBELTS

FIRE EXTINGUISHER UNDER PILOT SEAT FRONT

NO SMOKING

Baggage Compartment, aft edge:

ELT LOCATED BEHIND BULKHEAD
REMOVE CARPET AND ACCESS PANEL

Baggage Compartment Door, inside:

DISTRIBUTED FLOOR LIMIT 130 LBS

BAGGAGE STRAP CAPACITY IS 35 LBS EACH MAXIMUM

SEE AIRPLANE FLIGHT MANUAL FOR BAGGAGE TIE-DOWN AND WEIGHT AND BALANCE INFORMATION

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Figure 2-5
Placards (Sheet 5 of 7)

Instrument Panel Upper Right:

NO SMOKING

FASTEN SEATBELTS
FIRE EXTINGUISHER
UNDER PILOT SEAT FRONT

OR

Above MFD (on one line):

FASTEN SEATBELTS
FIRE EXTINGUISHER UNDER PILOT SEAT FRONT
NO SMOKING

Cabin Window, above door latch:

EMERGENCY EXIT
REMOVE EGRESS HAMMER FROM ARMREST LID
STRIKE CORNER OF WINDOW,
KICK OR PUSH OUT AFTER FRACTURING .

Serials 0002 thru 0168.

Cabin Window, above door latch:

EMERGENCY EXIT
REMOVE EGRESS HAMMER FROM WITHIN
CENTER ARMREST LID. STRIKE CORNER OF
WINDOW. KICK OR PUSH OUT AFTER FRACTURING.

Serials 0169 & subs.

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Figure 2-5
Placards (Sheet 6 of 7)

CAPS Deployment Handle Cover, above pilot's right shoulder:

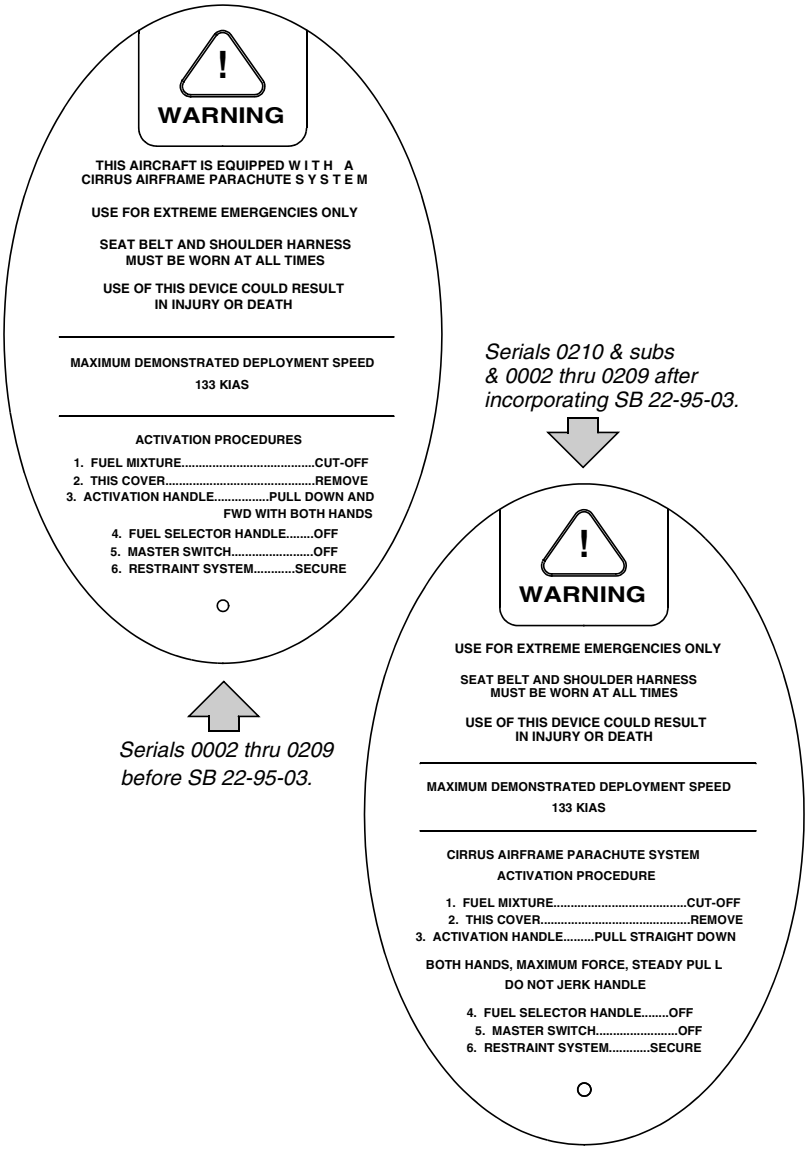

Figure 2-5
Placards (Sheet 7 of 7)

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