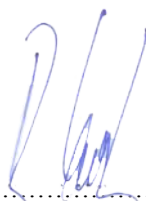


issues

MANDATORY BULLETIN No. RTC-020a

**TECHNICAL CONTENT OF THIS DOCUMENT IS APPROVED ON
THE BASIS OF AUTHORIZATION DOA NO. EASA.21J.057.**

- 1. CONCERNING TO:** Pilot's Operating Handbook doc. No. ERTC020-10-AS for SPORTSTAR RTC Airplane (applies to all airplanes in operation)
- 2. REASON:** Insertion of information on installation of the new adjustable foot pedals. Added limitation of electrical system and supplements No. 22 and 23 into List of Supplements in Section 9, minor corrections.
- 3. REQUIRED ACTIONS:** Owner / operator will insert changed pages (enclosed to this bulletin) into the POH.
- 4. LATEST DAY OF THE ACTION:** Immediately after receiving this bulletin.
- 5. CARRIED OUT BY:** Owner/operator of the airplane.
- 6. COSTS COVERED BY:** Owner/operator of the airplane.
- 7. NECESSARY MATERIAL:** Changed pages are enclosed to this bulletin.
- 8. WORK PROCEDURE:** Owner/operator of the airplane will insert changed pages, marked with Rev. 5, which are enclosed to this bulletin, into POH. Owner/operator will mark date of pages insertion and put the signature into the table on page 0-2. Owner/operator will mark Supplements incorporated into the POH into table on page 9-3.
- 9. APPENDICES:** Changed pages to the POH doc. No. ERTC020-10-AS, Revision 5, dated 2016-03-24.



Ing. Radek Sejbál
Project Manager

Date: 06.04.2016



0 Technical Information

0.1 Introduction

This Manual is valid only for SportStar RTC airplane with serial number and registration number shown on the cover page.

This Manual may not be used for airplane operation if it is not keep up to date.

0.2 Warnings, Cautions, Notes

WARNING

MEANS THAT NON-OBSERVATIONS OF THE CORRESPONDING PROCEDURE LEADS TO AN IMMEDIATE OR IMPORTANT DEGRADATION OF THE FLIGHT SAFETY.

CAUTION

MEANS THAT NON-OBSERVATIONS OF THE CORRESPONDING PROCEDURE LEADS TO A MINOR OR TO A MORE OR LESS LONG TERM DEGRADATION OF THE FLIGHT SAFETY.

NOTE

Draws the attention to any special item not directly related to safety but which is important or unusual.



0.3 Log of Revisions

All revisions or supplements to this Manual, except actual weighing data, are issued in form of revisions, which will have new or changed pages as an appendix and the list of which is shown in the Log of Revisions table.

NOTE

It is airplane operator's responsibility to keep this Manual up to date.

Rev. No.	Affected Pages	Description	EASA Appr./ Date	Inserted by / Date
1	0-2, 0-4, 0-6 2-12, 2-13 7-6, 7-7, 9-3	Minor corrections: placards and instrument panel layout.	Approved under DOA No. EASA.21J.57	Evektor 2012-08-08
2	0-2, 0-4, 0-6 9-3	Added Supplement No. 16 into the List of Supplements.	Approved under DOA No. EASA.21J.57	Evektor 2013-06-04
3	0-2, 0-4, 0-5, 0-6 1-3, 1-7, 2-10, 2-5, 2-6, 2-7, 2-11 3-4, 3-5, 3-6, 3-7, 3-8, 3-10 4-5, 4-6, 4-9, 4-14, 4-15 5-21, 7-1, 7-2, 7-5, 7-6, 7-7, 7-8, 7-16, 9-3	Minor corrections: typos, oil quantity, added description of wing flaps control and parking brake operation, added supplements No. 14, 17, 18 and 19 into List of Supplements, added max. empty weight.	Approved under DOA No. EASA.21J.57	Evektor 2014-03-17
4	0-2, 0-4, 0-6 2-5, 2-6 7-7, 7-9 9-3	Incorporation of Rotax service bulletin SB-912-066 and adding supplements to List of Inserted Supplements in Section 9.	Approved under DOA No. EASA.21J.57	Evektor 2015-02-27
5	0-2, 0-4, 0-5, 0-6 2-1, 2-5, 2-11, 2-12, 2-13 4-8, 4-10, 4-11, 4-14, 4-15 7-4, 7-5, 7-6, 7-7 9-3	Incorporation of the new adjustable foot pedals. Added limitation of electrical system and supplements No. 22 and 23 into List of Supplements, minor corrections.	Approved by EASA under AFM approval No. 10057270	



Rev. No.	Affected Pages	Description	EASA Appr./ Date	Inserted by / Date



Section 0

Technical Information

PILOT'S OPERATING HANDBOOK

Doc. No. ERTC020-10-AS

0.4 List of Effective Pages

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	0-3	2012-02-29	EASA Approved	2-6	2015-02-27
	0-4	2016-02-05	EASA Approved	2-7	2014-03-17
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Section 0

Technical Information

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2.4 Power Plant

Engine manufacturer:	BRP-Powertrain GmbH & Co KG	
Engine type:	ROTAX 912 ULS	
Power:	max. take-off	73.5 kW / 100 HP
	max. continuous	69.0 kW / 93 HP
Engine speed:	max. take-off	5800 RPM max. 5 minutes
	max. continuous	5500 RPM
	idle	1400 RPM
Cylinder head temperature:	maximum	128°C / 262 °F see Note on page 2-6
Coolant temperature:	maximum	120°C / 248 °F see Note on page 2-6
Oil temperature:	maximum	130°C / 266 °F
	optimum operation	90 - 110°C / 190 - 230°F
Oil pressure:	maximum	102 PSI / 7 bar (for short period admissible at cold start)
	minimum	0.8 bar / 12 PSI
	optimum operation	2 - 5 bar / 29 - 73 PSI
Fuel pressure:	maximum	5.8 PSI / 0.4 (0.5*)bar
	minimum	2.2 PSI / 0.15 bar
Fuel grades:	see para 2.13.2 Approved Fuel Grades	
Oil grades:	see para 2.14 Oil Limits	
Engine start, operating temperature		
	maximum	50°C / 120°F (ambient temperature)
	minimum	-25°C / -13°F (oil temperature)
Propeller manufacturer:	WOODCOMP s.r.o.	
Propeller type:	KLASSIC 170/3/R	
	3-blade, composite, on-ground adjustable	
Propeller diameter:	1712 mm / 68 in	
Propeller blade pitch:	17°30'	

* Applicable only for fuel pump from S/N 11.0036



NOTE

The coolant temperature (instead of CHT) is measured on engines from S/N 6 781 410 inclusive or on engines equipped with cylinder heads of P/N 413185 (cylinder head position 2/3) and 413195 (cylinder head position 1/4).

2.5 Power Plant Instrument Marking

The color-code of instruments is shown in the following table:

Instrument	Units	Red line	Green arc	Yellow arc	Red line
		Lower limit	Normal operation range	Caution range	Upper limit
RPM indicator	RPM	-	1400 - 5500	5500 - 5800	5800
Oil temperature indicator	°C	-	90 - 110	50 - 90 110 - 130	130
	°F	-	190 - 230	120 - 190 230 - 266	266
Oil pressure indicator	bar	0,8	2 - 5	0,8 - 2 5 - 7	7
	PSI	12	29 - 73	12 - 29 73 - 102	102
Fuel pressure	bar	0.15	0.15 - 0.4 (0.5*)	-	0.4 (0.5*)
	PSI	2.2	2.2 - 5.8	-	5.8
Cylinder head temperature see Note above	°C	-	-	-	128
	°F	-	-	-	262
Coolant temperature see Note above	°C	-	-	-	120
	°F	-	-	-	248

* Applicable only for fuel pump from S/N 11.0036

2.6 Miscellaneous Instrument Marking

There are no other instruments with color marking.



NOTE

AVGAS 100 LL places greater stress on the valve seats due to its high lead content and forms increased deposits in the combustion chamber and leads sediments in the oil system. Thus it should only be used when automotive gasoline is unavailable.

Risk of vapor formation if using winter fuel for summer operation.

2.14 Oil Limits

Performance classification SG or higher according to API.

Oil volume:

- minimum2.5 l (min. mark on the dip stick)
- maximum3.0 l (max. mark on the dip stick)

CAUTION

RECOMMENDED OIL GRADES ARE STATED IN THE ACTUAL ISSUE OF SERVICE INSTRUCTION SI-912-016.

2.15 Maximum Number of Passengers

Maximum number of passengers including pilot ..2

2.16 Electrical System Limitations

SOCKET and **BEACONS** switches must be in **OFF** position during taxiing.

SOCKET switch must be in **OFF** position during landing.

2.17 Other Limitations

SMOKING IS PROHIBITED on the airplane board.



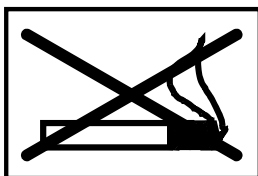
2.18 Limitation Placards

The following placards are located on the titling canopy:

This Light Sport Aircraft has been approved only for VFR day flights under no icing conditions.	This Light Sport Aircraft has been approved only for VFR day flights under no icing conditions.
Aerobatics and intentional spins are prohibited!	Aerobatics and intentional spins are prohibited!
AIRSPEED IAS Never exceed V_{NE} 146 kts Design Manoeuvring V_A 90 kts Max. Flap Extended V_{FE} 70 kts Stalling V_{SO} 39 kts	AIRSPEED IAS Never exceed V_{NE} 270 km/h Design Manoeuvring V_A 167 km/h Max. Flap Extended V_{FE} 130 km/h Stalling V_{SO} 73 km/h
ENGINE SPEED Max. Take-off (max. 5 min.) 5800 rpm Max. Continuous 5500 rpm Idling 1400 rpm	ENGINE SPEED Max. Take-off (max. 5 min.) 5800 rpm Max. Continuous 5500 rpm Idling 1400 rpm
Unusable quantity of fuel 2 litres	Unusable quantity of fuel 2 litres

LOAD LIMITS							
Max.take-off weight					600	kg	
Empty weight					335	kg	
Max.baggage weight					25	kg	
PERMITTED CREW WEIGHT						[kg]	
Fuel quantity ltr.			120	100	75	50	25
Baggage weight	max. 25 kg		154	168	186	204	222
	1/2 12 kg		167	181	199	217	235
	no baggage		179	193	211	229	247
Fuel reserve (1/8 on the fuel indicator)					8 litres		

The following placards are located on the instrument panel



**BEFORE TAKE-OFF PUSH CANOPY HANDLE UP
TO CHECK CANOPY FULL CLOSING**

Placard color: red.



The following placards are located in the baggage compartment:



Placard color: green.



Placard color: red.

The following placard is located on the left and right side of the canopy frame:

**ADJUSTABLE
PEDALS LEVER**
PULL TO
UNLOCK PEDALS.
WARNING!
DO NOT ADJUST IN
FLIGHT OR WITH
ENGINE RUNNING!
REFER TO THE POH
FOR INSTRUCTIONS.

NOTE

Other placards and labels are shown in Airplane Maintenance Manual for SportStar RTC airplane.



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16. Propeller - check

- attachment
- condition of blades, hub and spinner

17. Front part of fuselage - left hand side - check

- cleanness of air intakes
- tilting canopy attachment and condition

18. Cockpit - check

NOTE

Canopy is unlocked if a latch next to lock is visible under the glass, otherwise it is locked. Unlock it first with key.

- **MASTER SWITCH** **ON**
- Check canopy OPEN/CLOSE red indication light function.
- All switches **OFF**
- Instrument equipment check on condition
- Check of safety belts condition and attachment
- Check pressure in the portable fire extinguisher (press gauge in the green arc)
- Check on presence of loose object in the cockpit
- Check on adjusting and securing the rudder pedals (see Section 7, para 7.3.3)

WARNING

**RIGHT AND LEFT PEDAL OF RUDDER CONTROL
MUST BE SET TO THE SAME POSITIONS AND
WELL SECURED!**

- POH and other required documents check on completeness and validity



4.5 Normal Procedures and Checklist

4.5.1 Before Engine Starting

1. Pre-flight check and check on weight and centre of gravity positiondone
2. Safety harnesses.....check, fasten
3. Rudder pedalsfree
4. Control stick.....free
5. Wing flaps.....function check
6. **MASTER SWITCH****ON**
7. Trim tabfunction check
8. **PARKING BRAKE** handlerelease brakes
9. Brakesfunction check
10. **AVIONICS SWITCH****OFF**
11. Ignition**OFF**
12. Canopyclose

4.5.2 Engine Starting

1. Fuel gauge indicatorscheck of fuel quantity
2. **FUEL** selector**LEFT**
Pull the safety button on the fuel selector, turn the handle to the left and then release safety button. Now the handle can be freely moved between left and right position. Safety button prevents unintentionally switch the selector to **OFF** position.
3. Electric fuel pump**ON**
4. **THROTTLE** leveridle
5. **CHOKE**as necessary
6. Space in the propeller areafree
7. **BEACONS****ON** (if necessary)
8. Brakesapply



9. Ignition **START** (see CAUTION)
after starting up **BOTH**

CAUTION

ACTIVATE STARTER FOR 10 SEC. AS A MAXIMUM, AND THEN LET IT COOL DOWN FOR 2 MINUTES.

AFTER STARTING UP ENGINE, DO NOT CARRY OUT SUDDEN RPM CHANGES, AFTER POWER DECREASE WAIT FOR ABOUT 3 SEC. IN ORDER TO REACH CONSTANT RPM BEFORE REACCELERATION.

10. **THROTTLE** lever as necessary (see NOTE)
11. Oil pressure up to 10 sec. min. pressure

NOTE

After starting up engine, adjust throttle for smooth engine running at about 2500 RPM. Check oil pressure. Pressure must increase within 10s. Increase engine RPM until oil pressure is stabilized over 2 bar (29 PSI).

12. Engine instruments check
13. **CHOKE** as necessary
14. Engine warming up see NOTE

NOTE

Begin warming up with engine running at 2000 RPM. For about 2 minutes, continue at 2500 RPM. Warming time depends on outside air temperature until oil temperature reaches 50°C / 122 °F.

15. **FUEL** selector **RIGHT**
Verify proper engine feeding from the right tank for approx.
1 minute.
16. **FUEL** selector **LEFT** or **RIGHT**
17. **AVIONICS SWITCH** **ON**
18. Radio station / avionics **ON**
19. Other electrical equipment. **ON** as necessary



4.5.3 Before Taxiing

1. Transponder **SBY**
2. Outside lights as necessary
3. **BEACONS** **OFF**
4. **SOCKET** **OFF**

4.5.4 Taxiing

1. **THROTTLE** lever as necessary
2. Brakes check by depressing
3. Rudder pedals function check
4. Direction of taxiing control by rudder pedals (these are mechanically connected with nose wheel control), possibly by slacking up left and right wheel of the main landing gear.

4.5.5 Before Take-off

1. Brakes apply
2. **BEACONS** **ON** (if necessary)
3. Ignition check carry out, see NOTE

NOTE

Carry out ignition check in the following way:
Set engine speed to 4000 RPM. Switch ignition gradually to **L**, **BOTH**, **R** position and return to **BOTH**. RPM drop with one ignition circuit switched off must not exceed 300 RPM. Maximum RPM difference at using one of the L or R circuits is 120 RPM.

4. Control stick free
5. Wing flaps **TAKE-OFF** position (15°)
6. Trim tab **NEUTRAL**
7. Fuel gauge indicator check on fuel quantity
8. **FUEL** selector **LEFT** or **RIGHT**
9. Electric fuel pump **ON**
10. **CARBURET. PREHEAT.** check function then **OFF**

NOTE

If **CARBURET. PREHEAT.** is switched ON, then engine RPM drop reaches approximately 50 RPM.



11. Engine instrument check
12. Flight instrument check
13. Radio station / avionics check, set
14. Ignition check **BOTH**
15. **CHOKE** **CLOSED** (in inserted position)
16. Safety harness tighten up
17. Canopy closed
18. Transponder **ON** or **ALT**

4.5.6 Take-off

1. **THROTTLE** lever max. take-off power
2. During take-off run smoothly lighten up the nose landing gear until airplane take-off occurs.
3. After take-off accelerate airplane to 57 KIAS (106 km/h IAS)
4. Main landing gear wheels brake
5. After reaching 150 ft, set flaps to retracted position 0°
6. Accelerate airplane to 65 KIAS (120 km/h IAS)
7. Trim as necessary

WARNING

TAKE-OFF IS PROHIBITED:

- **IF ENGINE RUNNING IS IRREGULAR**
- **IF CHOKE IS OPEN**
- **IF VALUES OF ENGINE INSTRUMENTS ARE NOT WITHIN THE REQUIRED RANGE**



4.5.7 Climb

1. **THROTTLE** lever max. continuous power
2. Airspeed $V_Y = 65$ KIAS (120 km/h IAS)
..... $V_X = 49$ KIAS (90 km/h IAS)
3. Engine instrument check
4. Trim as necessary
5. Electric fuel pump **OFF**

4.5.8 Cruise

1. **THROTTLE** leveras necessary
2. Airspeedas necessary
3. Engine instruments.....check
4. Fuel quantitycheck

CAUTION

FUEL GAUGES DISPLAY TRUE FUEL QUANTITY ONLY ON GROUND AND IN A LEVEL FLIGHT. TO READ TRUE FUEL QUANTITY AFTER TRANSITION FROM CLIMB/DESCENT WAIT APPROX. 2 MINUTES TO FUEL TO LEVEL.

NOTE

It is recommended to alternately switch the tanks during cruise to equally consume fuel from both tanks and minimize airplane tendency to bank with unbalanced tanks.

If the engine conks out due to fuel consumption from either tank, then immediately switch the fuel selector to other tank and engine run will be recovered within 7 seconds.

5. **CARBURET. PREHEAT**.....as necessary

**4.5.9 Descent**

1. **THROTTLE** leveras necessary
2. Airspeedas necessary
3. Trimas necessary
4. Engine instrumentcheck
5. **CARBURET. PREHEAT.**as necessary

CAUTION

AT LONG APPROACHING AND DESCENDING FROM HIGH ALTITUDE IT IS NOT SUITABLE TO REDUCE THROTTLE TO MINIMUM FOR THE REASON OF POSSIBLE ENGINE UNDERCOOLING AND SUBSEQUENT LOSS OF POWER. PERFORM DESCENDING AT INCREASED IDLE AND CHECK OBSERVANCE OF THE ALLOWED VALUES ON ENGINE INSTRUMENTS.

4.5.10 Before Landing

1. Fuel quantitycheck

CAUTION

FUEL GAUGES DISPLAY TRUE FUEL QUANTITY ONLY ON GROUND AND IN A LEVEL FLIGHT. TO READ TRUE FUEL QUANTITY AFTER TRANSITION FROM CLIMB/DESCENT WAIT APPROX. 2 MINUTES TO FUEL TO LEVEL.

2. **FUEL** selector**LEFT** or **RIGHT**
3. Enginecheck
4. Brakescheck by depressing pedals
5. Safety harnesses.....tighten up
6. Free area of landingcheck
7. **CARBURET. PREHEAT.****ON**
8. Approaching speed59 KIAS (110 km/h IAS)
9. Flaps.....**TAKE-OFF** position (15°)
10. Airspeed57 KIAS (106 km/h IAS)
11. Trimas necessary



Section 4

Normal Procedures

PILOT'S OPERATING HANDBOOK

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12. **PARKING BRAKE** check for lever down

13. Electric fuel pump **ON**

14. **SOCKET** **OFF**

FINAL – NORMAL LANDING

1. Flaps..... **LANDING I** position (30°)

2. Maintain airspeed 57 KIAS (105 km/h IAS)

3. Trim as necessary

4. **CARBURET. PREHEAT.** **OFF**

FINAL – SHORT LANDING

5. Flaps..... **LANDING II** position (50°)

NOTE

When extending wing flaps to LANDING II (50°) position at flight speeds close to V_{FE} , it is necessary to exert an increased force on the wing flap control lever.

6. Maintain airspeed 54 KIAS (100 km/h IAS)

7. Trim as necessary

8. **CARBURET. PREHEAT.** **OFF**

4.5.11Balked Landing

1. **THROTTLE** lever max. take-off power

2. Airspeed min. 54 KIAS (100 km/h IAS)

3. Flaps..... **TAKE-OFF** position (15°)

4. Airspeed 57 KIAS (106 km/h IAS)

5. Flaps at altitude of 150 ft **RETRACTED** position (0°)

6. Climb at speed 65 KIAS (120 km/h IAS)

7. Trim as necessary

8. **THROTTLE** lever max. continuous power

9. Instruments..... check

4.5.12Landing

1. Flaps..... **LANDING I** position (30°)

2. **THROTTLE** lever idle

3. Touch-down on main landing gear wheels carry out

4. Brakes after nose landing gear
wheel touch-down as necessary

**4.5.12.1 Short Landing**

1. Flaps.....**LANDING II** position (50°)
2. **THROTTLE** leveridle
3. Airspeed49 KIAS (90 km/h IAS)
4. Touch-down on all three wheels.....carry out
5. Brakes after touch-downbrake

4.5.13 After Landing

1. Flaps.....**RETRACTED** position (0°)
2. Trim**NEUTRAL**
3. Outside light**OFF**
4. Transponder**OFF**
5. Electric fuel pump.....**OFF**
6. **BEACONS****OFF**

4.5.14 Engine Shut-off

1. **THROTTLE** leveridle
2. Engine instruments.....check
3. Radio station / avionics**OFF**
4. **AVIONICS SWITCH****OFF**
5. Other electrical equipment**OFF**
6. Ignition**OFF**
7. **MASTER SWITCH****OFF**



Section 4

Normal Procedures

PILOT'S OPERATING HANDBOOK

Doc. No. ERTC020-10-AS

4.5.15 Airplane Parking

1. Ignition check **OFF**
2. **MASTER SWITCH** check **OFF**
3. **FUEL** selector **OFF**
 Pull the safety button on the fuel selector, turn the handle to the **OFF** position and then release safety button. Now the handle is blocked in the **OFF** position. Safety button prevents unintentionally switch the selector from the **OFF** position.
4. **PARKING BRAKE** handle brake as necessary
5. Fix the control stick using safety harnesses during long-time parking.
6. Canopy close,
 lock as necessary

NOTE

It is recommended to use parking brake for short-time parking only, between flights during a flight day. After ending the flight day or at low temperatures of ambient air, do not use parking brake, but use the wheel chocks instead.



7.1 Introduction

This section describes systems of the airplane and its operation.

More detailed information on optional systems and equipment are available in section 9, Supplements.

7.2 Airframe

The airframe of SportStar RTC airplane is of semimonocoque, metal -composite structure consisting of metal reinforcement, frames and duralumin sheet skin.

7.2.1 Fuselage

The fuselage is of semimonocoque structure consisting of reinforcements and duralumin skin. Fuselage section is rectangular in the lower part and elliptic in the upper part. The fin is an integral part of fuselage. Top part of the fuselage including canopy frame is made of composite. The cockpit for two-member crew is located in the middle part of the fuselage that is accessible after uncovering the single-piece organic glass canopy. The engine compartment in the front part of the fuselage is separated from the cockpit by the steel fire wall to which the engine bed is attached.

7.2.2 Wing

The wing is of rectangular shape, single-spar structure with the auxiliary spar with suspended ailerons and split wing flaps. Riveting is used for connecting individual structural elements. Fiber-glass wing tips are riveted on the wing ends.

7.2.3 Horizontal Tail Unit (HTU)

The HTU of conventional type consists of the stabilizer and elevator with the trim tab. Single-spar structure of HTU consists of duralumin ribs, spar and skin. Top view of HTU is of rectangular shape.

7.2.4 Vertical Tail Unit

VTU is of trapezoidal shape. Its fin is an integral part of the fuselage. The rudder is suspended on the fin by means of two hinges. The VTU structure consists of the duralumin spar and skin.



7.3 Control

Airplane control consists of ailerons, elevator and rudder. Directional control is connected by means of pull rods with nose landing gear control. Main landing gear brakes are controlled by pedals of directional control.

Airplane is equipped with dual control enabling flight with two-member crew.

7.3.1 Longitudinal Control

Longitudinal control is actuated by the control stick. Longitudinal movement of control stick is transferred to the elevator by mechanical system of pull rods and levers.

7.3.2 Lateral Control

Lateral control is actuated by the control stick. From the control stick the movements is transferred through the system of levers and pull rods to ailerons.

7.3.3 Rudder Control

Rudder control is controlled by pedals of foot control. The rudder is interconnected with foot control pedals by cable system. The foot control pedals can be adjusted into one of three positions.

Adjustable foot control pedals NOT equipped with the remote position control

The steps to adjust the rudder pedals position:

1. Release the pin from the adjusting groove by pressing lever.
2. Set pedal to one of three possible positions.
3. Check on the pin locking-on in the adjusting groove.

WARNING

**RIGHT AND LEFT PEDAL OF RUDDER CONTROL
MUST BE ADJUSTED IN THE SAME POSITIONS
AND SECURED!**



Adjustable foot control pedals equipped with the remote position control

The steps to adjust the rudder pedals position:

WARNING

**THE RUDDER MUST BE IN NEUTRAL POSITION
BEFORE PEDALS ARE ADJUSTED! CHECK THAT
THE RUDDER IS CENTERED BEFORE
ADJUSTING!**

**DO NOT ADJUST FOOT CONTROL PEDALS
POSITION IN FLIGHT OR WITH ENGINE RUNNING!**

1. Check the engine is shut down.
2. Set the rudder in the neutral position (centered).
3. Assure the space aft of the rudder pedals (where your feet are positioned in flight) is clear, and no pressure is applied to the rudder pedals.
4. Pull the lever (located below the instrument panel on the RH and LH cockpit side), pedals will automatically move fully aft. Then release the lever.
5. Place feet on the pedals, apply light even pressure on pedals while slightly engaging the lever. The pedals will start to move forward.
6. Release lever and continue to push pedals forward using light even pressure. The pedals will automatically lock in the nearest position.
7. Repeat steps 4 and 5 to move pedals to the desired position.

7.3.4 Elevator Trim Tab Control

Electric elevator trim tab control is installed in the airplane. Control switches are located on the control stick; trim tab position indicator is located on the instrument panel.

7.3.5 Wing Flaps Control

The flap control lever is located between pilot seats. When a lock button located on the upper end of the lever is pressed, the lock pin is pulled out of the groove in the changing gate. The flaps can then be extended to a position for takeoff or landing (2 positions). The flap position is locked when the lock button is released.

There can be installed **FLAPS** amber warning light on the left side of the instrument panel. The **FLAPS** warning light is on when the wing flaps control lever is in position for takeoff or landing (2 positions).



7.4 Controls in the Cockpit and Instrument Panel

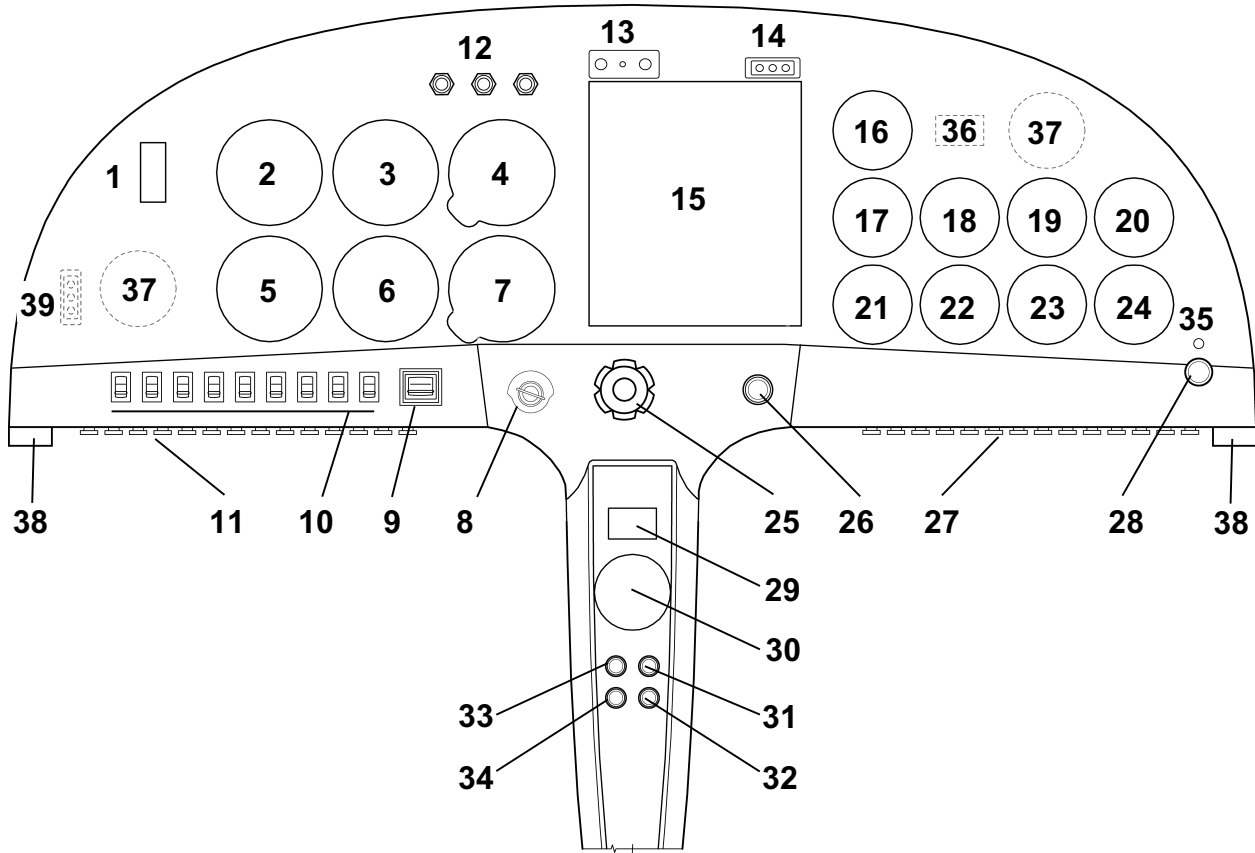


Figure 7-1 SportStar's RTC instrument panel

- | | |
|---|--|
| 1. Trim tab position indicator | 20. Voltmeter |
| 2. Airspeed indicator | 21. Oil pressure indicator |
| 3. Artificial horizon | 22. Fuel quantity indicator |
| 4. Altimeter | 23. Fuel quantity indicator |
| 5. Turn and bank indicator | 24. Outside air temperature ind. |
| 6. Directional gyro | 25. Throttle lever |
| 7. Vertical speed indicator | 26. Choke lever |
| 8. Switch box | 27. Pop-up breakers |
| 9. Master switch | 28. Socket 12V |
| 10. Switches from the right:
avionics switch, turn and bank ind.,
horizon, directional gyro, beacons,
position lights, landing light, fuel pump,
el. socket | 29. Engine hours indicator – regular
location |



- | | |
|---|--|
| 11. Pop-up breakers | 30. Flight clock – regular location |
| 12. Warning light from right:
flaps (if installed), charging,
canopy opening | 31. Carburettor preheater lever |
| 13. Intercom (if installed) | 32. Air distribution lever: canopy/cockpit |
| 14. ELT remote control | 33. Cold air lever |
| 15. Avionics bay – see POH supplements | 34. Hot air lever |
| 16. Engine speed indicator | 35. Audio input (if installed) |
| 17. Oil temperature indicator | 36. Engine hours indicator – alternative
location |
| 18. Cylinder head temperature ind. or
Coolant temperature ind. – see Note on
page 2-6 | 37. Flight clock – alternative locations |
| 19. Fuel press indicator | 38. Lever for adjusting the position of the
foot control pedals |
| | 39. ELT remote control – alter. location |

7.5 Inside and Outside Marking and Placards

Placard list and markings are mentioned in the Airplane Maintenance Manual for SportStar RTC airplane.

7.6 Landing Gear and Brakes

7.6.1 Landing Gear

The airplane is equipped with a sort of fixed nose landing gear. Main landing gear legs are produced from composite spring. Nose landing gear leg is welded from two pieces - the tube and the yoke- in which the nose wheel is mounted. The nose landing gear is spring-loaded by rubber blocks. The nose wheel is controllable, wheel control is coupled with rudder control by means of two pull rods. Wheels can be fitted with fiber-glass aerodynamic pants.

7.6.2 Brakes

The SportStar RTC airplane is equipped with disk hydraulic brakes on main landing gear wheels. Brake system is composed of brake pedals (these are a part of rudder control pedals), brake pumps, hoses for leading brake liquid, brake yokes with wheel cylinders and brake pads. By depressing the brake pedals compression of brake pumps occurs, which generates pressure in brake circuit and hydraulic cylinders press the brake pads onto the brake disks. Braking pressure can be regulated only by force of brake pedals depressing.



The mechanical manually controlled parking brake is installed in the airplane.

PARKING BRAKE handle is located below the left pilot seat.

Applying parking brake

1. Brake pedalspress and hold
2. **PARKING BRAKE** handlepull to brake
3. Brake pedalsrelease

Releasing parking brake

1. Brake pedalspress and hold
2. **PARKING BRAKE** handlepush to release
3. Brake pedalsrelease

7.7 Seat and Safety Harnesses

SportStar RTC airplane is a two-seat airplane with side-by-side seats. Seats are fixed, non-adjustable and fitted with light upholstery.

Each of seats is fitted with four-point safety harness which is composed of safety belts, shoulder straps and lock. The safety harness is anchored in the fuselage sides behind the seats and on the seat sides.

7.8 Baggage Compartment

Baggage compartment is positioned behind seat rests.

Maximum weight of baggage is 55 lbs (25 kg) and is stated on the placard in the baggage compartment. The baggage compartment is fitted with rubber net for baggage fixation.

7.9 Canopy

The cockpit canopy is of a semi drop shape. The framework is made of composite. The organic glass is glued to the canopy composite frame.

The canopy is attached to the fuselage in the front part by two swivel pins by means of which it can be folded up forwards. In order to make opening easier, the actual weight of canopy is balanced by two gas struts, besides the canopy is provided with holders on the lower framework for easier handling. The canopy is provided with the lock in the rear upper part of framework for locking.



9.1 Introduction

This section contains the appropriate supplements necessary to safely and efficiently operate the airplane when equipped with various optional systems and equipment not provided with the standard airplane.

9.2 List of Inserted Supplements

Instal.	Date	Doc. Number	Title of Inserted Supplement
	2012-02-29	ERTC020-10-AS-001	Equipment list
	2012-02-29	ERTC020-10-AS-002	Garmin SL40 Transceiver
	2012-02-29	ERTC020-10-AS-003	PM3000 Intercom
	2012-02-29	ERTC020-10-AS-004	Garmin GTX 328 Transponder
	2012-02-29	ERTC020-10-AS-005	AK-451 Emergency Locator Transmitter
	2012-02-29	ERTC020-10-AS-006	Astrotech LC-2 Flight Clock
	2012-02-29	ERTC020-10-AS-007	Garmin Area 500 GPS Receiver
	2012-02-29	ERTC020-10-AS-008	Magnum Speed Soft 601 Prachute Rescue System
	2012-02-29	ERTC020-10-AS-009	Becker AR 6201 VHF Transceiver
	2012-02-29	ERTC020-10-AS-010	Becker BXP 6401-2 ATC Transponder
	2012-03-16	ERTC020-10-AS-011	Rotax 912 S Engine installed into SportStar RTC airplane
	2012-03-16	ERTC020-10-AS-012	GPS Receiver Flymap L
	2012-03-16	ERTC020-10-AS-013	Auxiliary Generator SD-20
	2014-03-17	ERTC020-10-AS-014	Airplane equipment and modification for S/N 20121504 and 20121505
	2012-07-02	ERTC020-10-AS-015	Garmin SL30 COM/NAV/LOC/ILS Receiver
	2013-03-15	ERTC020-10-AS-016	Garmin GNC 255A / 255B COM/NAV/LOC/ILS Receiver
	2014-03-17	ERTC020-10-AS-017	DYNON SKYVIEW EFIS/EMS System with SV-D1000 and SV-D700 Displays
	2014-03-17	ERTC020-10-AS-018	Garmin GTN 750 GPS/NAV/COM Receiver
	2014-03-17	ERTC020-10-AS-019	External Power Source Socket E7 68-91 01
	2015-02-18	ERTC020-10-AS-020	Installation of Garmin GTR 225A VHF COMM
	2015-02-27	ERTC020-10-AS-021	Data recorder Safetyplane V5
	2015-04-07	ERTC020-10-AS-022	Emergency Locator Transmitter Artex ME406
	2015-07-30	ERTC020-10-AS-023	Woodcomp KW-31-033 In-Flight Adjustable Propeller

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