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In accordance with the ASTM specification F 2243-03 each Pegasus PPC includes a Pilot Operating Handbook (POH). The content and format herewith is defined by F 2243-03

2. *General Information*

Read this before your first flight!
Every pilot has to understand the limitations and specifications of this light sport aircraft. The Pilot Operating Handbook must be read thoroughly. Please pay attention to the pre-flight and daily checks. Maintenance instructions for the Pegasus are given in a separate maintenance manual.

Also note that no amount of information we can give you in writing will serve as a substitute for proper training. Before you attempt to fly your Pegasus PPC, seek out a qualified instructor to teach you how to fly safely. **No other single factor is as important to your safety as proper training!** If you need help in locating an instructor in your area, contact Powrachute and we will help you find one. The pilot in command alone is responsible for ensuring the continued airworthiness of this aircraft and for its operation within the limits details herein. All persons entering this aircraft do so at their own risk.

Manufacturer:
Powrachute, LLC.
9425 Spring Creek Ct
Middleville, MI 49333

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2.1. Description of the PPC.

Your Pegasus Power Parachute is comprised of several components which are carefully matched by Powrachute, LLC to meet our stringent quality standards. The components and their features are discussed in this manual.

The main systems that make up the Pegasus Power Parachute are:

- **Chassis** - Engineered and constructed by Powrachute, LLC.
- **Electrical System** - A self-charging system that powers all accessories
- **Rotax 582 Engine and Gearbox** - Manufactured by Bombardier
- **Cooling System** - Engineered to keep your engine running at optimal temperature
- **Exhaust System** - Durably mounted to the engine
- **PowerFin Propeller** - A smooth, balanced combination

Performance Designs - A perfect balance of lift and handling

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3. Operating Limitations

In order to safely enjoy flying your Pegasus Power Parachute, the following precautions must ALWAYS be followed. **Failure to do so could result in serious bodily injury or death!**

• Never fly in winds stronger than your piloting skills will allow you to be safe. Winds above 15 mph can be considered dangerous for a PPC.
• Do not fly in rain or snow, or when conditions could turn rainy or snowy.
• Never fly if you are impaired by alcohol or medications.
• Do not fly if you have any medical conditions which could cause you to black out or lose control of the aircraft in any way.
• Always fly from a field that is of sufficient length and free of obstructions.
• Always take off and land directly into the wind. NEVER take off or land with the wind.
• You should never attempt to operate your powered parachute without proper training.
• Use of helmets is always recommended.
• Your PPC should always be operated within the legal boundaries set up by the FAA for these types of crafts. This means you must be a licensed pilot and have your craft legally registered with the FAA and carry an airworthiness card and limitations.
• You may, under no circumstances, carry a passenger with a student pilot certificate.
• Never overload your craft or exceed the manufacturers recommended gross weight limit.
• Your craft must be carefully inspected before each and every flight.
• Always warm your engine up to operating temperature before flying.
• Always wear lap and shoulder belts.
• NEVER fly your aircraft if you know of a problem or suspect there to be one.
• Always fly in a safe manner, and never fly over anything that you wouldn't want to land on!
• Never modify your Pegasus PPC without the express consent of Powrachute, LLC.

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3.1 Fuel and Fuel Capacity
Fuel Specification: Premium Automotive Unleaded MIN 89oct rated.
Fuel Capacity: 10 US Gallons (Optional 15 gallon tank available)

3.2 Oil
For complete oil specifications see Rotax Manual located in the Pegasus maintenance manual.

3.3 Operating Weights
Minimum load front seat: (PIC): 120lbs
Maximum Load per seat: 320lbs ea.

3.4 Maximum Wind
Maximum wing speed 15mph no gust factor
Maximum cross wind 5mph no gust factor
Cross wind take offs and landings demand a lot of training and skill, the higher the cross wind, the greater your skill must be.

3.5 Service Ceiling
Maximum service ceiling is 10,000ft due to sport pilot restrictions.

3.6 Load Factors
+6 g / - 0 g

3.7 Prohibited Maneuvers
The Pegasus is not certified for aerobatics. Steep turns beyond 60deg should not be performed. Flights only in VFR conditions. Night flight requires special optional lighting and a Private Pilots license with an endorsement.

3.8 Engine Limits
Max EGT 1200F
Max CHT 300F
Max Coolant 175F

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4. Emergency Procedures

4.1. Emergencies During Wing Inflation

Any anomaly that occurs during the inflation of the wing prior to take off that does not immediately correct itself or cannot be corrected prior to actual takeoff is cause to abort the takeoff. Close the throttle, switch off the ignition (MAG Switches), push the flight steering foot bars full forward and pull in steering lines by hand to collapse the wing behind the aircraft. Inspect the aircraft for any source of trouble or review your takeoff procedures for any problems. If corrections cannot be made, suspend flying activities till corrections are made. If possible, make necessary corrections, pack up the wing, go back to the end of the runway, setup and try again.
If cart rolls over do not try and stop it with feet or hands. Keep hands and feet tucked in. STUT down the mags and when roll over has stopped release your seat belt and help passenger if needed.

4.2 Emergencies in flight

The most likely emergency in flight is loss of engine power. The first priority in such an occurrence is to pick out an emergency landing site and begin procedures to approach and land maintaining control of the aircraft throughout. If you are at low altitude you may have very little time to make a safe landing. Concentrate on the safe landing task first and foremost.

If you have a lot of altitude allowing time to determine the cause of the engine stoppage, you may attempt a restart or other action after selecting a landing site and beginning the emergency approach. In the majority of cases a safe restart is unlikely so do not spend a great deal of time on this effort. Concentrate on making a safe landing first.

The power off landing will be at a much higher sink rate that the “normal” landing with power on being used to control the sink rate. Begin your landing “flare “ at about 15 ft up and use full flare to keep the touchdown as light as possible. Use full flare and pull in the steering lines by hand as in a normal landing.

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5. Normal Procedures

Training Supplement.

There are some peculiar characteristics of powered parachutes that need to be emphasized when training flying students. All students should be trained using the FAA prescribed standards for examination and practical tests as a guide as to what knowledge and skills the student will need. The manufacturer's Pilot Operating Handbook should also be used as a guide for training. For beginning students unfamiliar with any form of flight, this should be a straight forward process. Particular care on the part of the instructor however needs to be paid to powered parachute students who may have experience with other forms of flight. The powered parachute has some characteristics that are quite different from other aircraft. Pilots of other aircraft develop habits that could be a hindrance to safe flight in a powered parachute without proper training.

5.1 Launching of the wing:

The powered parachute wing is not ready for flight until it has been "kited up" and has assumed the proper shape and overhead position for flight. Sufficient time must be spent on this phase of training to see that the student is proficient in handling this part of powered parachute operations. Wing layout, inspection while laid out, kite up sequence, final visual inspection prior to takeoff and actual takeoff need to be covered as a part of every students training. Special throttle control required in this operation needs to be emphasized. In particular, pilots of other forms of aircraft may need to have this part of the operation made clear as it differs markedly from what they may be used to.

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5.2 Collapsing of the wing on landing:

Because of the non rigid form of the powered parachute wing, it needs special handling upon landing to prevent damage. Landing techniques to control collapse of the wing and make it fall behind the aircraft on landing are essential to prevent the wing falling on hot engine parts, getting fouled in the propeller or run over by the landing gear. This procedure is essential to training for all students. Again special care must be exercised with students who have experience in other forms of aircraft in order to point out the need for special procedures unfamiliar to them.

5.3 Packing and unpacking the wing:

Because of the non rigid nature of the powered parachute wing and it's susceptibility to ultraviolet ray damage from prolonged sunlight exposure, it needs to be stowed in a bag or other container when not in use. This requires that it be packed and unpacked with each use. Instruction in the proper methods for performing packing and unpacking that will minimize wear and damage to the wing and it's related accessories is essential.

5.4 Potential for rollover:

Because a powered parachute wing is situated many feet above the center of gravity of the aircraft, the aircraft has a potential to be dragged over or pulled over by combined forces of wind and propeller thrust under certain conditions. Commonly referred to as a "rollover". Instruction in proper techniques to minimize this risk is essential. Instruction as to what operational signals indicate an impending rollover or pullover and appropriate pilot actions is also essential. Again, pilots with experience in other forms of aircraft need special emphasis on these issues to point out how they differ from what they understand and the habits they have developed.

5.5 Landing Flare:

Another unique feature of powered parachutes is the use of the in flight turning or "steering" controls when landing. Using both the left and right controls simultaneously allows for "braking" or "flaring" on final approach just before touchdown to reduce speed and "round out" or level off the descent for a smooth touchdown. It is essential to learn this technique and achieve sufficient proficiency for use in the event of an engine failure in flight. Again, powered parachute students with experience in other forms of aircraft need special emphasis on this difference from what they are used to.

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5.6 Preflight Checklist (Detailed)

Before each flight the pilot in command of the flight should conduct a preflight inspection to assure that the aircraft is in a safe condition for flight. The following is a detailed description of a suggested procedure for such a preflight inspection. The pilot in command is encouraged to develop his or her own inspection routine to suit their own individual aircraft configuration and needs. The following is only a suggested guide.

For convenience this suggested procedure starts at the left side of the front or nose wheel and proceeds rearward, around and back to the right front side of the nose wheel examining each point along the way. This is a detailed description of suggested procedure. An abbreviated checklist will be repeated afterwards which can be used as a checklist in the field to remind the pilot of what items are suggested to be covered in the preflight inspection.

Nose wheel, Brake and ground steering.
Check for security of the nose wheel on it's axle with nut secure, security of wheel fork and pivot bolt, brake mechanism secure and operating, centering springs OK, steering arm secure. Wheel and steering turn freely.

Left Hand flight steering foot bar, steering line, pulley and trim system.
Check that foot bar is secure, pivots freely, steering line in good order, pullies in good order and trim system secure, moves freely and in proper takeoff position.

Instrument Pod, instruments, switches, displays.
Check that instrument pod is secure, all instruments and switches secure, switches in safe position before engine startup.

Front ground steering .
Check for proper range of steering and check all nuts and bolts.
Front seat & belts left hand side.
Check that front seat and seat belts are securely fastened to airframe.

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Rear seat and belts left hand side.
Check that rear seat and seat belts are securely fastened to airframe.

Left side riser connections, steering line, pulley, links and riser.
Check left side riser connections to airframe, brackets secure, links finger tight plus no more than ¼ turn, never over tighten these links. Mallion Rapide links are only ones approved. Steering line properly routed, in good condition, pulley, riser in good condition and properly connected (no twists).

Rear suspension and pivots left side.
Check that all left side suspension pivots are smooth and free from excessive wear, springs shocks and tubes in good order.

Wheel, tire and axle left side.
Check that left side tire is in good condition, properly inflated, axle secure, axle nut secure.

Left side battery, radiator and radiator mounts.
Check left side battery mount secure, battery secure and free of leaks, left side radiator mounts secure, radiator free of leaks, drain cock closed.

Left side of engine.
Check left side exhaust, exhaust springs, sparkplugs, plug caps and plug wires.

Left side prop cage.
Check left side prop cage tubes, all tubes secure, bolts secure, etc.

Propeller and gearbox.
Check gearbox for leaks, move prop to check for normal gearbox backlash, examine prop for damage, cleanliness, distortion, etc.

Right hand side of engine.
Check right side carburetor and mounting, check carb boots for cracks, throttle and choke linkages and fuel lines.

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Right hand suspension.
Check that all right side suspension pivots are smooth and free from excessive wear, springs shocks and tubes in good order.

Wheel, tire and axle right side.
Check that right side tire is in good condition, properly inflated, axle secure, axle nut secure.

Coolant overflow bottle and header tank.
Check that coolant bottle is secure, filled to proper level, lines are secure, no leaks, cap is secure. Check header tank and hoses. Tank secure, cap secure, lines and clamps secure, no leaks.

Oil Tank
Check that oil bottle is secure, filled to proper level, lines are secure, no leaks and cap is secure.

Strobe light.
Check strobe light for secure mounting, wiring in good order, lens secure, etc.

Fuel tank and fuel gage right side.
Check fuel tank for leaks, secure mountings, check fuel gage for fuel level and any leaks. Check fuel tank vent for security and lack of blockage or leaks. Check the fuel filter for any contamination.

Gascolator and fuel sample.
Visually check gascolator, securely connected to airframe and fuel lines, draw sample, check for water, correct fuel color, dirt or other contamination.

Rear throttle.
Check rear throttle control and linkage for proper action and security.

Rear seat and belts right hand side.
Check that rear seat and seat belts are securely fastened to airframe.

Right side riser connections, steering line, pulley, links and riser.
Check right side riser connections to airframe, brackets secure, links finger tight+?, steering line properly routed, in good condition, pulley, riser in good condition and properly connected (no twists).

Front seat & belts right hand side.
Check that front seat and seat belts are securely fastened to airframe.

Throttle controls.
Check throttle controls, assembly secure to airframe, linkages secure, cables and housings in good condition, friction set correctly, throttle levers move smoothly thru full range.

Right Hand flight steering foot bar, steering line, pulley and trim system.
Check that foot bar is secure, pivots freely, steering line in good order, pullies in good order and trim system secure, moves freely and in proper takeoff position.

Nose wheel, right side.
Check for security of the nose wheel on it's axle with nut secure, security of wheel fork and pivot bolt.

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5.7 Preflight Checklist (Abbreviated)

The following is an abbreviated checklist which can be used during a preflight inspection to remind the pilot of those items to be checked. See the detailed preflight checklist for exact procedures to follow.

Nose wheel, Brake and ground steering.
Left Hand flight steering foot bar, steering line, pulley and trim system.
Instrument Pod, instruments, switches, displays.
Ground Steering controls
Front seat & belts left hand side.
Rear seat and belts left hand side.
Left side riser connections, steering line, pulley, links and riser.
Rear suspension and pivots left side.
Wheel, tire and axle left side.
Battery, radiator and radiator mounts.
Left side of engine.
Left side prop cage.
Propeller and gearbox.
Right hand side of engine.
Right hand suspension.
Wheel, tire and axle right side.
Coolant overflow bottle and header tank.
Strobe light.
Oil tank.
Rear throttle.
Rear seat and belts right hand side.
Right side riser connections, steering line, pulley, links and riser.
Front seat & belts right hand side.
Throttle and choke controls.
Right Hand flight steering foot bar, steering line, pulley and trim system.
Nose wheel, right side.

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6. Performance

The performance figures stated below are given at sea level of the international standard atmosphere conditions. Operations at higher altitudes and temperatures WILL reduce takeoff and climb performance.

Seating	Dual Seats
Empty Weight	418 lbs.
Max Gross Weight / PD500 Wing	1100lbs @ Sea Level -5% per 1000ft msl
Canopy Span	32.9 feet
Canopy Area	500 square feet (with standard chute)
Fuel Capacity	10 U.S. gallons
Propeller	3-blade PowerFin composite
Length	128 inches
Height	84 inches

Pegasus Power Parachute Performance

- Standard Engine — Rotax 582
- Power — 65 horsepower @ 6500 RPM
- Power Loading — 16.9 lbs per horsepower
- Cruise Speed — 30-32 mph
- Glide Ratio — 4:1 Max
- Rate of Climb — 900 feet per minute max
- Takeoff Distance — 350 feet at gross weight
- Landing Distance — 250 feet at gross weight

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6.1 Takeoff Distances

Take-off range over a 50ft obstacle with 650lb gross after lift off point @ Sea Level: 210ft ....4000 Ft MSL: 320ft
Take-off range over a 50ft obstacle with 1100lb gross after lift off point @ Sea Level: 330ft.... 4000 Ft MSL: 490ft

6.2 Rate of Climb

Best Rate of climb at max gross payload 650lb: 700ft per min
Best Rate of climb at max gross payload 1100lb: 380ft per min

6.3 Fuel Consumption

Fuel consumption is variable based on the payload and engine rpms at cruise. At Max power 6500rpms the Rotax 582 will burn 7.2 US Gallons per hour. Average cruise settings should yield 4.5 - 5 US gallons per hour.

7. Speed

Speed will be determined by gross weight of the PPC.

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8. Weight and Balance

Aircraft Information:

N No._____

Serial No._____

Empty Weight_____

Max Weight_____

Useful Load_____

Wing Make and Model_____

Front Seat PIC (Pilot In Command) Loading range:

5&8 Setting 80-130lbs Pilot Weight
4&7 Setting 130-180lbs Pilot Weight
3&6 Setting 180-230lbs Pilot Weight
2&5 Setting 230-280lbs Pilot Weight
1&4 Setting 280-330lbs Pilot Weight

Note:
Empty Weight
The total weight of complete plane, all permanently installed accessories and equipment.
Gross Weight
The maximum authorized weight as specified by the wing manufacture for particular wing being used.
Useful Load
The difference between empty weight and gross weight.

If weight falls outside specified range please contact Powrachute @ 574-286-9670

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9. Systems and Description

The airframe of the Pegasus Power Parachute is constructed of 6061-T6 aircraft-grade aluminum and 4130 chromoly steel to be durable yet lightweight. It includes many features which differentiate it from most of the competition. Full-length main rails, aluminum fuel cell, It also includes two separate bucket seats for comfort and safety, and the most ground clearance in the industry.

The components of the airframe are discussed in more detail on the following pages.

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9.1 Chassis Overview

Serial Number - The serial number of your Pegasus PPC is located on a plate located on the left side main frame rail behind the pylon tube. You should refer to this serial number in any communications with Powrachute regarding your Pegasus PPC.

Main Frame Rails - The main rails of the Pegasus are constructed of sturdy chromoly steel alloy for strength.

Prop Ring - Protection... First, they protect people and animals from the spinning propeller. Second, the prop rings protect delicate chute lines from the prop and engine during takeoff and landing. Finally, the ring provides protection for you and your machine should you ever roll the machine over or have an accident.

Fuel Tank - The fuel tank on your Pegasus PPC is made out of aluminum. An optional fuel level sensor can be added so the fuel level can be read from the EIS system.

Suspension System - The rear suspension of the Pegasus PPC has been engineered to smooth out bumps on even the roughest flying surfaces. The suspension consists of spring over oil shock coupled with soft turf glide tires. This combination provides a suspension that is effective, durable, and lightweight. Powrachute recommends that you keep the air pressure in them to no more than 10-12 lbs. This will keep them sufficiently soft to help smooth out rough terrain.

Ground Steering Lever - As you sit in the front seat of the Pegasus, the ground steering lever is strait in front of the PIC. This handle allows you to steer the craft while it is taxiing on the ground. Push the steering lever to the right to turn left and to the left to turn right. The springs will help self center the steer bar when let go.

Throttle Lever - The throttle lever, controlled by the right hand, regulates the output of the engine. The throttle is configured like most operating equipment, meaning that you push the throttle forward to make the craft climb and pull it back to descend. The front throttle is connected to a rear throttle lever, which allows the throttle to be controlled from the rear seat.

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Steering Bars - As you sit in the pilot seat, your feet should rest comfortably on the steering bars. Adjust the steer bars so that you can fully depress the bars. The steering bars control the direction of the craft while in the air. Depressing the left steering bar causes the craft to turn left, while depressing the right steering bar causes the craft to turn right. The chute steering lines should be firmly attached to the trim lock.

Primer - The engine primer is located by the throttle on the right side. The primer is used to aid in easy engine starting. By priming the engine with fuel prior to starting, the engine starts much easier than with a choke. The primer can also be used in an emergency to shut down the engine (should your mag switches fail, for example). To shut the engine down with the primer, simply pump the primer until the engine floods with fuel and shuts down.

Optional Brake - Powrachute offers a disk brake option. The brake allows the pilot to control taxiing speeds while on the ground. Note that the effectiveness of the brake is diminished by the lightness of the machine's front end, so the brakes should not be relied upon to quickly bring the machine to a full stop. The brake lever is mounted on the ground steering lever.

Nylon Riser Straps - The parachute is mounted to the Pegasus airframe via extremely strong riser straps, total lift capacity 24,000lbs. The straps combine high strength with some elasticity to provide safe yet smooth flight. The riser straps should be carefully inspected before each flight, and the parachute should be secured to the straps only by a qualified instructor. **NEVER** disconnect your chute from the straps unless you are qualified to do so.

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9.2 Electrical System Overview

Your Pegasus PPC includes a self-charging, state-of-the-art electrical system that provides power to all onboard accessories, as well as keeping the starting battery charged. The main components of the electrical system are:

- Lighting Coil - An integral part of the Rotax engine, the lighting coil provides AC output.
- Regulator/rectifier - Located next to the fuel pump, the regulator/rectifier receives the AC input from the lighting coil and converts it to a 12 volt DC output. This 12 volt DC is then fed to the battery for charging and powering accessories.
- Battery - It is located right behind the passenger seat.

Strobe Light - For safety, the Pegasus includes a standard strobe light on top of the machine. The strobe pulses brightly, allowing you to be seen by other aircraft.

Instruments

The sophisticated instruments included on the Pegasus PPC provide a wide range of engine and flight monitoring capabilities. All the instrumentation is housed in the instrument pod, which is located directly in front of the pilot. In addition to the computerized Engine Information System (EIS), the instrument pod also includes a warning light, two magneto switches, a keyed ignition switch, and an on/off switch for the EIS system.

EIS System - The EIS system, located in the center of the pod, is a state-of-the-art instrument that monitors vital engine functions, as well as providing valuable flight information such as altitude and rate of climb. The EIS system can be set with limits on each of the inputs it monitors, and will trigger the warning light when any of the limits is exceeded. To get the most out of the EIS system, it is strongly recommended that you carefully read the EIS manual that came in your Pegasus documentation package.

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Magneto Switches - The magneto switches (or mag switches for short) are located to the left of the EIS system, and control power to the two separate ignition systems on your engine. With both mag switches in the OFF (down) position, your engine will not run. In fact, the mag switches are used to shut down the engine after you land. The mag switches are also used to test the dual ignitions during engine warm-up. During the warm up period, the switches should be flipped OFF one at a time to make sure that the engine will run on each of the ignition systems by itself. During normal flight, both switches should be in the ON (up) position.

Warning Light - The warning light is connected to the EIS system and flashes whenever any of the set limits is exceeded. The light will flash until the input being gathered returns to the "normal" range as defined in the EIS system.

EIS Power Switch - Located to the left of the warning light, this switch controls power to the EIS system. This allows you to flip the EIS system on without the machine running (to check your hours, for example), or to shut the EIS off while flying (although there is no logical reason to want to do this).

Keyed Ignition Switch - The ignition switch controls power to the starter and to any accessories. It works just like an ignition on a car. Turning the switch all the way to the right (clockwise) activates the starter. Releasing it will cut the flow of power to the starter, but will keep accessories on. Turning the key to the left (counter clockwise) will shut off any accessories tied to the key switch.

NOTE: The key should NEVER be left in the ignition when the plane is unattended. Even with the mag switches in the OFF position, turning the key to the right WILL turn the engine over and will cause the propeller to turn.

9.3 Rotax 582 Engine

The Rotax 582 Engine used on the Pegasus is built by Bombardier specifically for light aircraft applications. The Rotax 582 is extremely powerful and reliable. The following features contribute to its suitability for this application:

- Dual ignition systems provide redundancy. This is a feature unique to aircraft engines.
- High power output. The Rotax 582 delivers 65 h.p., enough power to safely lift the maximum payload specified by Powrachute for this machine.
- Liquid cooling provides reliable operation even in the hottest weather.
- Oil injection prevents having to pre-mix oil with your fuel. You can fill up directly from the fuel pump, and the oil injector will make sure your engine gets the optimal amount of oil. (Always fill oil to the top line every time to add fuel!)
- Built-in electrical circuits provides power for onboard accessories and charging your starting battery.
- Rotax has a large network of service professionals in the event you ever do need service on your engine.

9.4 Engine Break-In

Few things will impact the life of your engine more than properly breaking it in. The Rotax engine manual outlines a very specific and precise procedure for breaking in the 582 engine. The process takes about an hour to complete, and involves running the engine at specific rpm levels for specified periods of time. Your Rotax 582 engine is NOT broken in at the factory unless stated by Powrachute at time of purchase, so it is very important that you or a qualified dealer perform the break-in procedure before attempting to fly or use your PPC. Failure to perform the break-in procedure per the Rotax specifications can greatly reduce the reliability and shorten the life of your engine.

In addition to the engine itself, there are several other engine-related components on your power parachute:

Rotax Exhaust System - The exhaust system provided by Rotax is engineered to provide optimal performance and reliability for your engine. The exhaust system should never be altered in any way. The joints between the sections of the exhaust should periodically be lubricated with anti-seize compound to allow the joints to remain flexible. The springs and the rest of the exhaust system should be carefully inspected before every flight. Optional ceramic coated exhaust are available. ***Ceramic Coated Optional***

Carburetors and Air Filters - The dual Bing carburetors supplied with your engine come pre-set from the factory for optimal performance. Under normal flying conditions, your EGT readings should be between 1100 and 1200 degrees F at cruise throttle (and should never exceed 1220 F). If your EGT readings fall outside this range, you will need to adjust your carburetors to compensate. (See section of engine maintenance manual on carburetors for instructions).

Radiator - Your water-cooled engine uses a radiator and thermostat to keep the coolant at the optimal temperature. The radiator and all coolant hoses should be inspected for leaks before every flight. It is also very important to use a 50/50 mix of distilled water and antifreeze in your cooling system. Antifreeze should be free of silicates and phosphates, or the seal on your rotary valve will be damaged. The radiator is filled via the fill bottle.

Fuel Pump - The fuel pump pulls fuel from your fuel tank and supplies it to your carburetors. The fuel pump works off of a pulse line from the engine. The fuel pump should be carefully inspected for leaks before every flight. It is strongly recommended that you replace or rebuild your fuel pump annually. A new pump is about $30, and a rebuild kit (which contains all the delicate parts) costs under $10. Note: Pulse line is not the same as the fuel line.

Gearbox - The gearbox takes the high RPM output of the engine and reduces it down to the proper RPM range for the propeller. The oil in your gearbox should be changed after your first ten hours of operation and then every 100 hours thereafter. (See Rotax engine manual for details). Your craft comes the Rotax "E" Gearbox and electric start. The E Gearbox is a standard-duty gearbox " 3.00 reduction" that provides smooth operation for many years if properly cared for.

Recommended Fluids

The following are Powrachute's recommendations for fluids in your Pegasus PPC:

Fuel - Good quality, 89 octane or higher unleaded gasoline.

Oil - High quality TCW-3 rated 2-stroke oil. Use oil formulated for air cooled engines if possible (We use Premium Husqvarna from the factory). If you do decide to switch brands, it is recommended that you empty all of the oil out of your oil reservoir and clean it well before adding the new oil. Switching oil brands is strongly discouraged. You must also maintain the proper oil level in the small oil bottle that supplies lubricant to the rotary valve of the 582 engine (located next to the radiator fill bottle). Use the same oil you use in your engine, and keep the level up to the fill line on the bottle.

Coolant - Your Pegasus PPC should always contain a 50/50 mix of anti-freeze and distilled water. Use only anti-freeze that is free of both phosphates and silicates (these anti-freezes are normally orange in color). In addition, use only distilled water. The rotary shaft seal in the 582 engine is extremely susceptible to leaks caused by mineral buildup on the rotary shaft. The exclusive use of distilled water and phosphate/silicate free anti-freeze eliminates this problem.

Gear Oil - Use gear oil that conforms to the specifications found in your Rotax Engine Manual. The gear oil should be changed after the first ten hours of operation and every 100 hours thereafter.

9.5 Component Propeller

Composite Propeller - The PowerFin propeller is made from a composite material, and is specifically made for powered parachute aircraft. The propeller can be pitch adjusted to produce the maximum amount of thrust from a wide variety of engines. The pitch of your propeller should be adjusted so that your engine turns about 6350-6450 RPM at full throttle. Note that your maximum RPM level will vary slightly from day to day. This is normal and not cause for concern. To adjust the pitch of your composite propeller, follow the instructions in the Pegasus Maintenance Manual. You should periodically check the torque on the mounting bolts to make sure they are within the specs outlined on the propeller instruction sheet. The prop should also be cleaned periodically to remove bugs, oil, and grime. Many enthusiasts find that Dow Bathroom Cleaner (with "scrubbing bubbles") works very well to clean the stubborn grime from their propellers.

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9.6 Pegasus Power Parachute Components - Parachute

The parachute that comes with your Pegasus PPC is manufactured by Elan, one of the premier parachute manufacturers in all the world. Your Elan wing has been carefully engineered with the finest materials and workmanship to last many flying seasons with the proper care.

The Pegasus PPC comes standard with the Elan 500 chute, although the Elan 550 can be purchased as options.

PD 500 - The PD 500 is a good all around chute, and an economical choice. A square chute of 500 square feet, it inflates quickly, turns with little leg pressure, handles like a sports car, and carries moderate loads well.

PD 550 - At 550 square feet, the PD 550 will carry larger loads than the 500. It is slightly more difficult to kite than the 500 (because of the added size) and turns a little slower as well.

Chute Care - Follow the guidelines included in the parachute manual for care instructions and inspection procedures for your parachute. Dirty spots can be cleaned with a damp rag (water only), and very small puncture-type holes can be repaired with sail tape, available from an aviation supply catalog or a parachute service facility.

NEVER try to repair damaged lines yourself, especially by tying them! This could result in serious injury or death. Refer all line damage or parachute rips and tears to a qualified parachute rigger or to the parachute manufacturer.

QuickLinks - The parachute is attached to the riser straps by stainless steel quicklinks. The quicklinks are rated for very high load capacities, but should be inspected for damage and tightness prior to every flight. **DO NOT USE STANDARD HARDWARE STORE QUICK LINKS FOR REPLACEMENTS!**

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10. Handling, Service and Maintenance

Taxi

Make sure the wing is secured to the side of the frontal bars or properly secured in the rear seat. Caution! If dual throttle handle is installed the chute bag should not be stowed in the rear seat, it could hinder the use of throttle. Use caution when taxiing to stay at a safe speed in order to stop with only the front brake.

Servicing Fuel, Oil, and coolant.

Fill up fuel tank.

Remove fuel cap and fill tank with 89oct unleaded fuel or higher grade only to the desired amount. Close cap.

Fill Oil Tank.

Fill oil tank any time fuel is added even if it is a partial fill. Use only recommended 2 stroke oil. (Pennzoil for air cooled engines only)

Coolant level

Check overflow bottle for adequate amount of coolant. If no coolant is in the overflow bottle open radiator fill neck on top of engine and add coolant. Silicate and Phosphate free coolant only!

More detailed maintenance issues are addressed in the Pegasus Maintenance Manual.

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10.1 Transporting

One of the most compelling reasons for owning a power parachute is their portability. You can take your Pegasus PPC with you on vacation, or easily transport it to fly-ins on a trailer .

There are basically two trailering options: The enclosed trailer or the open trailer.

Enclosed Trailers - The enclosed trailer is a great way to transport your Pegasus PPC while protecting it from the elements. An enclosed trailer also functions as a hangar when you are not transporting your PPC. Enclosed trailers are more expensive than open trailers, and generally require a more powerful vehicle to pull them. If you are interested in an enclosed trailer, see your Powrachute dealer for prices or contact Powrachute. Powrachute has access to a variety of sizes and styles of enclosed trailers.

Open Trailers - Open trailers are an economical choice that work well for many PPC enthusiasts. There are open trailers designed specifically for Power Parachutes, or you can use a standard open trailer such as a snowmobile trailer. Powrachute carries a line of open trailers that are extremely lightweight to pull and custom designed to fit the Pegasus Power Parachute. These trailers can be pulled by virtually any vehicle.

When You Trailer Your Pegasus PPC...

Regardless of the trailer you choose for your Pegasus PPC, there are a few considerations you should always adhere to:

- Always make sure your PPC is securely strapped down to the trailer. Powrachute recommends running a heavy duty strap over each rear wheel or axle to hold them down to the deck of the trailer. It is also important to secure the front end of the Pegasus PPC. Because the front end is very light, it will bounce considerably if not secured.

- You should always strap the chute bag securely in the rear seat of the PPC when trailering. This will eliminate the possibility of the chute somehow becoming loose from the PPC.

- Make sure the instrument pod, seats, and chute are well protected while trailering. You should also cover the air filter with a plastic bag or a cover designed specifically for it, and make sure the open end of the exhaust pipe is covered.

  If you plan to trailer your Pegasus PPC often on an open trailer, you may want to consider having your exhaust system coated with ceramic to prevent it from rusting. Rotax exhaust systems that are exposed to the elements tend to weather very quickly. See your Powrachute dealer for details, or call Powrachute.

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11. Environmental Restrictions

Powered Parachutes in there vary nature have restrictions and limiting factors that need to be taken into consideration. The powered parachute was designed to fly in light winds and usually in the morning or evening hours. During the midday there are usually thermal activity that makes flying the PPC very uncomfortable. Below is a list of limitations that are maximum limits for very experienced pilots and should in no way be the pilot in commands limiting factor. The pilot in command needs to know his or hers limits based on the amount of training and experience.

Max wind speed should be Max 15mph (NO GUST FACTOR!)

Max Crosswind component 5mph

Do not fly in rain or snow.

Do not fly if rain or thunderstorm activity is approaching or in the area.

Always fly from a field that is of sufficient length and free of obstructions.

Always take off and land directly into the wind. NEVER take off or land with the wind.

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12. Warm Up Proceedure.

- Remove prop and carb covers and exhaust plug. Store in saddle bag.
- Check oil (Injection and Rotary Valve)
- Check fuel, all caps secure. Prime until fuel gets to carb. and two-three more squirts.
- Mags ON, EIS OFF.
- Yell “Clear Prop” and look to make sure all is clear before starting.
- Turn Key to start. Prime as needed.
- Once running smoothly, turn on EIS.
- Bring RPM up to 3000-3500rpm range and run for minimum of 5 minutes. Verify voltage is within normal operating range during this time. 13.5 - 14.5 volts.
- Mag Check. Turn off one mag at a time to verify both mags are operational.
- Full Power run up. Secure plane against solid object, make sure water temp is 140deg or higher, if not continue warm up to this range. Always sit in seat with hands on Mag switches in case you need to shut down quick.

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13. Pre Start Up and Takeoff.

- Conduct preflight passenger briefing and cover emergency proceedures.
- Make sure passenger seat belt and helmet are secure and that they are connected to intercom.
- Get in and secure your seat belt and helmet, plug into intercom.
- Verify wind direction and speed has not changed.
- Ready to start, Mags on, EIS off, Look back and verify prop area clear, Yell clear prop and start.
- Once started and running smoothly turn on EIS, verify engine is up to temp.
- Take off into wind.

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14. Wing Layout

- Set up into wind based on runway orientation. If unable to do so within safe parameters, choose another runway and or location.
- Remove bag from plane, place bag behind plane label facing away from rear of plane.
- Remove chute from bag and lay out using inverted or stacked method depending on wind and pilot preference.
- After removing line socks, check for tangled line or line overs, Clean lines so there are no tangles.
- Going back to riser attachment points make sure there are no twist in the risers, that you have a smooth flow of risers from where the links connect to plane. Follow back and position on riser cleats located on prop guard. Make sure steering line and risers are taut, not wrapped over anything and flow smoothly from rapide links back to chute. Steering line should be above the cleat not hanging below.
- Once cleared repeat for other side. Stow line socks and chute bag.
- Double check to make sure all lines are clear on both sides.
- Before getting into plane and after securing passenger make sure there is no slack in the steering lines and risers.

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15. Post Flight.

- Bag chute and secure on plane.
- Replace carb cover and exhaust plug.
- Secure seat belts, zip saddle bags closed.
- Replace prop covers.
- Remove key
- Secure plane on trailer and strap down
- Verify nothing loose is left on plane.

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16. Supplements

Intentionally left blank.....

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17. Data Location and Contact Information

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18. Warnings and placards

"There are inherent risk in the participation in recreational aviation aircraft. Operators and passengers of recreational, by participation, accept the risk inherent in such participation of which the ordinary prudent person is or should be aware. Pilots and passengers have the duty to exercise good judgment and act in a responsible manner while using the aircraft and to obey all oral or written warnings, or both, prior to or during the use of the aircraft, or both."

Pilot in command must observe operating limitations on instrument panel and aircraft.

Max: RPM 6800, EGT 1200, CHT 300, Coolant Temp 180F

No Spins or turns greater than 60 deg.

Never fly over anything you would not intend to land on without proper altitude to glide to a safe landing area.

Always make sure you have adequate fuel quantity for the desired flight time.

Never fly over gross payload capacity.

Never fly without being mentally prepared for the flight ahead.

Always brief the passenger about safety precautions and proper seat belt configuration.

Remember you are Pilot in Command and have final say on whether the plane is in airworthy condition and the weather is safe to fly.

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19. Revisions

The Revisions pages are updated by Powrachute each time a revision is issued. They contain a list of all revisions made to the Pilot Operating Handbook since its original issue.

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