

ASSEMBLY AND MAINTENANCE MANUAL

RODEO^{EP}



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Safe flying rules

- ✈ Observe UL aircraft regulations.
- ✈ Do not overestimate your pilot skills and never show off. Use open areas for emergency landing training.
- ✈ Watch the weather forecast carefully. Do not plan long flights, when storms, fogs or frost are forecasted.
- ✈ Watch fuel level (flight time and real consumption).
- ✈ When Choosing the direction and height of your flight always consider possibility of emergency landing.
- ✈ Always fly with reserve of speed, particularly during all start and landing manoeuvres.
- ✈ Do not make any kind of aerobatics (e.g. total wingovers), even if you think, your skills and flight characteristics of your MPG can manage it.
- ✈ Do not underestimate the navigation and flight planning. Do not fly into a unknown area without proper preparation and equipment (map, compass).
- ✈ Fly only in good physical and mental condition.

MANUAL

- 1) This manual is written by the manufacturer of the MPG.
- 2) All records must be readable, permanent and none of the pages must be pulled out.
- 3) This filled-in book is a part of technical documentation.
- 4) Total flight time, number of starts and latest issued mandatory bulletins must be transferred to the new book.
- 5) Record only measured or certified data to the technical-operating records. (After approval of commissioned inspector–technician)
- 6) The owner guarantees the accuracy of the operation records.

IMPORTANT NOTES

AMENDMENTS TO THE MANUAL

If there is change of flight rules or a required change to the construction of MPG, announcements of these changes will be published in bulletins (e.g. in Pilot magazine). Each owner of MPG must take an appropriate action and implement this change and make record of this in the relevant part of this handbook.

Every owner, user and pilot of this MPG must thoroughly familiarize themselves with this manual.

**THIS PRODUCT DOES NOT COME UNDER CERTIFICATION OF CIVIL AVIATION AUTHORITY CR
AND IT IS OPERATED ON USERS OWN RISK.
ALL INTENTIONAL SPIRALS, FALLS AND AEROBATICS ARE PROHIBITED.**

All construction changes to the MPG altering the original certified setup must be authorised by commissioned inspector-technician, who registered this MPG.

Any damage to the MPG must be notified to manufacturer of relevant inspector-technician, who recommends service, supervises the repair and makes technical check of the MPG afterwards. He will make a record of this in the documentation of the MPG.

TECHNICAL COMMITTEE LAA CR (Light Aircraft Association of Czech Republic)

represented by Mr. certifies, that ,according to authorisation from Civil aviation authority CR given to test airworthiness of aircraft, this MPG complies in construction, used materials, performance and characteristics with the UL-2 directive, and belongs to the group:

Powered ParaGlider

PPG

PPG

The name MPG – type

RODEO

This MPG was awarded airworthiness certificate – type:

„Z“ – prototype, unique construction

„A“ – approved type of self-built construction

„P“ – approved type of professional made MPG

Registration mark

Number of crewmembers

1

Date of registration

Inspector-technician

stamp, signature

FLIGHT HANDBOOK RECORDS

USER'S - OWNER'S RECORD

MPG owner

Name

Address

ID number

From – To (date)

placed evidential mark OK -

Change of owner

Name

Address

ID number

From – To (date)

placed evidential mark OK -

Canopy (manufacturer, type, category, work number, date of manufacture,
min. – max. flight weight, canopy weight):

manufacturer / type

category

registration number

date of manuf.

min. – max. flight weight

canopy weight

.....

Change of owner

Name

Address

ID number
From – To (date)
placed evidential mark OK -

Canopy (manufacturer, type, category, work number, date of manuf., min. – max. flight weight, canopy weight):

manufacturer / type
category
registration number
date of manufacture
min. – max. flight weight
canopy weight

Change of owner
Name
Address
ID number
From – To (date)
registration mark OK -

Canopy (manufacturer, type, category, work number, date of manuf., min. – max. flight weight, canopy weight):

manufacturer / type
category
registration number
date of manufacture
min. – max. flight weight
canopy weight

TECHNICAL DATA

TECHNICAL DATA MPG						
	Undercarriage	Engine	Propeller	Harness	rescue system	
Type, name	RODEO	MINI 2 PLUS	PULSE 2R2	LEXX		
Manufacturer	NIRVANA PARAGLIDING	Simonini, Italy	Nirvana paragliding	NIRVANA PARAGLIDING		
Manuf. number			-			
Manuf. year						
	Manufacturer	Name	Manuf. number	Year of manuf.	weight in fly	
paraglider 1					min.	max.
paraglider 2						
paraglider 3						
paraglider 4						

CONTROLS

Manual control

Pulling left brake MPG turns left and vice versa.

Pulling both brakes at the same time, MPG brakes.

Throttle

Held in the left hand, pressing throttle lever increases thrust.

Ignition switch off

With left thumb, press and hold red button on the throttle.

Central ignition switch

With right hand, lower switch on the side of laminate part. Ignition on – up, off – down.

Starter button

With right hand, press and hold black button on the throttle.

Central starter switch

With right hand, on the side of laminate part. Starter on – up, off – down.

Rescue system

With right hand, bottom part of the harness, side container or front container (depends on the harness type).

WEIGHT

paramotor, harness, carbines

2) electric starter version

empty weight according to UL – 2

max. flight weight

27 kg

150 kg

ENGINE

If the is not certified as an aircraft engine, it can fail any time! The pilot is responsible for any consequences of engine failure !

two-stroke single-cylinder engine, membrane carburettor Walbro WB37, tuned exhaust with silencer.

cylinder capacity	200 ccm
power on take off	20 kW / 27 PS
empty engine weight	9,5 kg
weight incl. equipment	12,1 kg
fuel (type, oct.rating)	BA 95
consumption approx.	3,5 l/h
oil (type)	100% fully synthetic
the oil-petrol mixture	1 : 50
ignition	NIRVANA CIR
reduction (type, origin, red.ratio)	belt NIRVANA
fuel tank capacity	10 l

PROPELLER

diameter / gradient in 75 %	1150 mm / 16° 1200 mm / 15°
-----------------------------	--------------------------------

diameter	material	weight	in configuration
1150	composite	950 g	
1200	composite	1000 g	

Rescue parachute system

type, manufacturer, manuf.number

.....

activation way

max. fall (m/s)

with max. flight weight

position

Battery (type, parameters)

type 14-cells NiCd Sanyo 1700 SCR

capacity 1700 mAh

voltage 16,8 V

weight 840 g

position case in upper laminate part

Ignition NIRVANA CI

Consists of alternator, high-voltage induction coil and voltage regulator. It enables engine start already at 100 rpm. Alternator is supplied by winding, which together with regulator charges the battery during the flight.

nominal capacity 100 W

regulator values 18 V – 100 W

Output 16,8 V

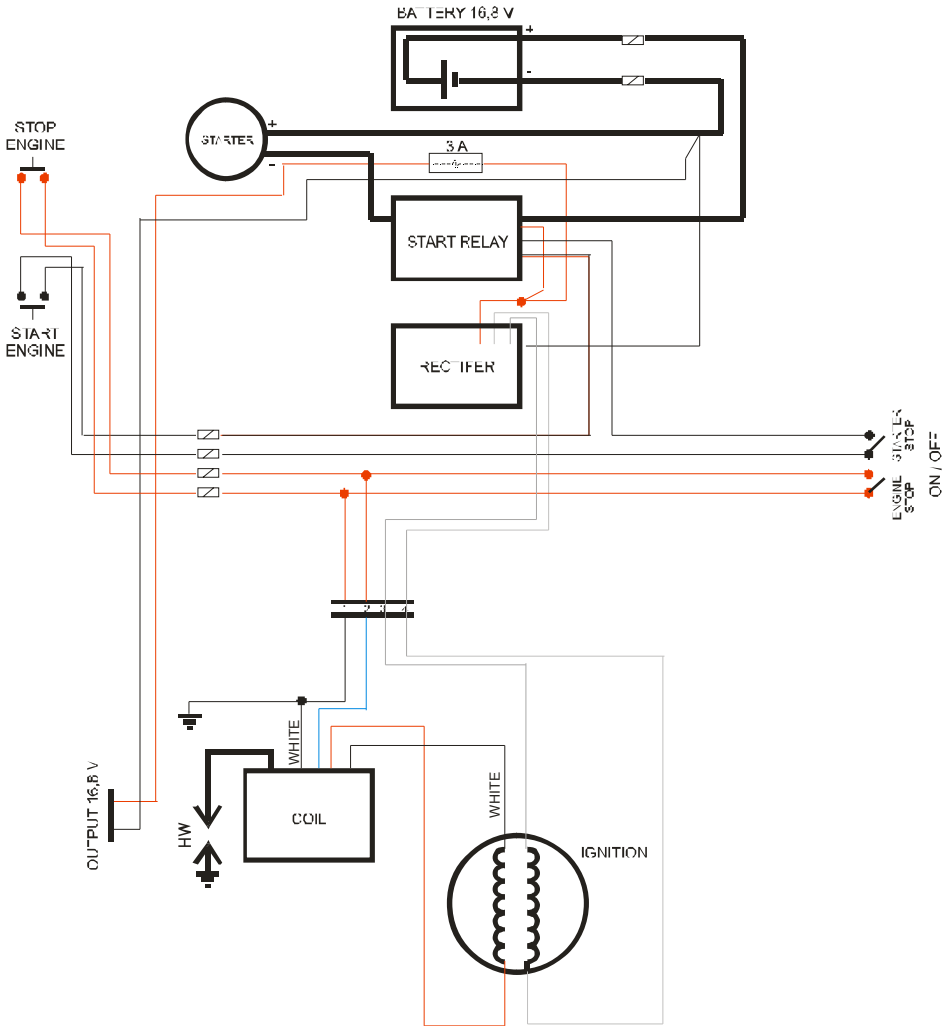
Output for additional equipment (i.e. warmed gloves, electronics...)

type panel 4pin XLR

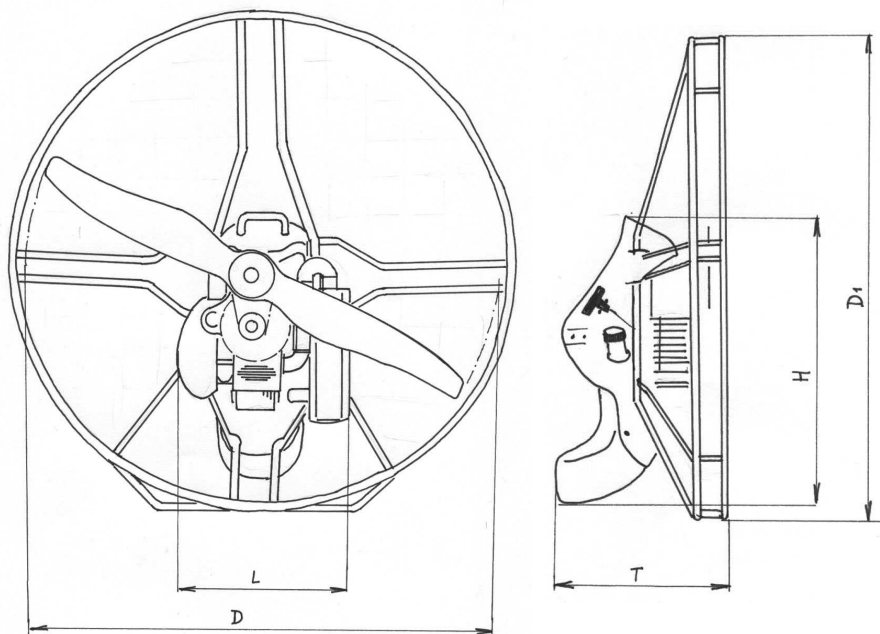
position side of the laminate back part under fuel pump

voltage 16,8 V

ELECTRIC SCHEMA EP



DIMENSIONS



D	D ₁	L	H	T
1150	1300	450	750	450
1200	1450			

OPERATING LIMITATIONS

Speed

Given by speed range of the canopy used.

Wind speed

According to canopy used. Do not take off and land with back wind.

Driving unit limitation

Mode

max. revolutions allowed	7000 rpm	for max.. 5min at a time
max. constant revolutions	6500 rpm	unlimited
idle revolutions	2000 rpm	

Weight

min. pilot weight	75 kg
max. pilot weight	115 kg
max. weight in flight MPG	150 kg
empty weight MPG	27 kg

Performance

Static thrust (propeller 120/115 cm)	800 / 750 N
climb ratio approx.	2 m/s
service ceiling	4 000 m
<u>flight</u> range (depends on canopy used)	cca 100 km

Other limitations

This paramotor is not certified for tandem flying.

Canopy check period is set by the canopy manufacturer. We recommend first check of the lines after 50-70 flying hours.

Flight types

**Only daytime VFR flights are allowed
(visual reference flight). Other flight types are prohibited.**

EMERGENCY PROCEDURES

Engine failure (in height up to 200 m)

- lead the MPG into free flight
- in low height, land in the line of flight – try to avoid any barriers
- if you are high enough, land into an open area without any barriers, against the wind if possible

Engine failure (in height over 200 m)

- lead the MPG into free flight
- check fuel condition
- in case of breaking fuel supply, try to restore it and start the engine
- if your paramotor has not got an electric starter, it do not start or your high is under 200 m, choose suitable area for your landing and land as described above.

Fire

- switch off the ignition
- do not try to start the engine

Vibrations

if abnormal vibrations appear it is necessary:

- to set engine revolutions to the mode, where vibrations are as small as possible
- to do emergency landing
- if vibrations increase, land in the terrain with engine switched off.

Using the rescue system

In case of emergency or definitive loss of control of your paraglider, switch the ignition off, right hand grasps the rescue parachute handle, pull and release it, and throw it sideways behind yourself. The position of the handle depends on the rescue parachute positioning – at the bottom, on the side or in the front (standard in the front in a front container).

NORMAL PROCEDURES

All engines are tested before handover for about 10 min. We gave special attention to all joining components. All screws nuts and rivets were carefully tightened and secured by Loctite. It is important to check and tighten all screws on the cylinder head and exhaust system after approx. 2 operating hours, when heat energy causes their final positioning. After this check you can be sure, that your paramotor is safe and ready to fly.

Flight position adjustment

Flight position adjustment of all paramotor set must be done before the first flight. The upper hang points for the karabiners are used for PPG flying. You should set seat position, side trims, shoulder trims, to find comfortable position slightly leaning back. We recommend to hang the seat so that it simulates the flight position and to try shift from sitting to stand-up position before landing. It is important for future smooth starts and safe landings.

The propeller must be in an angle of 5 degrees with vertical axis in flight position. Each pilot must adjust the flight position for his height and weight.

PRE-FLIGHT PREPARATION

Paramotor assembly

Frame

Take all components out of transport containers. Place the engine part horizontally on the ground. Put the bottom quarter of the frame in the fixed pipe located in the middle of the side of the laminate part, and turning fix it to the bottom hollow. Do the same with the other bottom quarter. Then secure them together with velcro. Then stand the engine up. Assemble the 2 upper quarters of the frame first, then slide them partially into the pipes in the laminate part and finally to the bottom half of the cage. Then assemble whole cage and secure it with **all attached** velcro belts.

Propeller

Put propeller on the reduction, put flange on it and secure it by four special screws supplied. Tighten these by hand key in the order 1-4-2-5-3-6 with force of approx. 1 kg/m. Do not dent the propeller body by over tightening. We recommend to turn the propeller round once by hand to make sure, that it is attached correctly.

ATTENTION!
Never start the engine without a propeller!!!

Engine

Release the petrol tank cap to allow equalization of a pressure in the tank. Tighten the cap again.

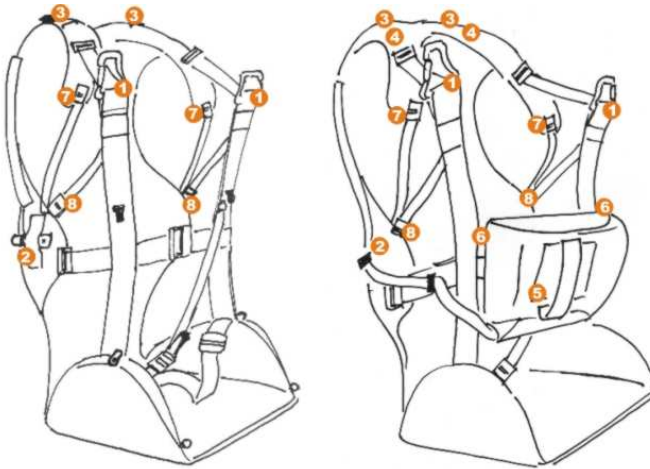
Battery

Insert charged battery (in the protective case) in the battery case in the laminate part. Check the main starter switch. It should be OFF. Then connect leads and close the battery case.

!! Never disconnect battery from engine while in operation. There is a risk of damage to the electronic ignition.

Harness

There is an anti-vibration airbag in the back part of the harness. Inflate it to approx. 30 % of its capacity and put it in the back pocket of the harness. Clip the harness to the paramotor firstly on a side, then at the top. Carefully check the catches. When locking upper buckles, pay attention to the rescue system belt, which has to lead over above the buckles straps. Each of these buckles has bearing capacity of 300 kg and can not be unbuckled without simultaneously pressing both safety-locks. The tubes at the side can not be opened without simultaneously pressing safety catch and pulling out the tube. Now You can be sure, you will not loose your paramotor during the flight.



- 1) main glider attachment
- 2) side tubes for paramotor attachment
- 3) upper paramotor attachment points
- 4) rescue system attachment point
- 5) rescue system handle
- 6) front rescue system container attachment
- 7) straps for shoulder belt length setting
- 8) straps for sitting position setting

PRE-FLIGHT CHECK

cage	intact, assembling, velcro
strings	undamaged, tense
propeller	orientation, screws tightening, intact, no damage
engine	silent-blocks, carburettor and exhaust attachment
reduction	screws, belt tension
equipment	general condition, fuel supply, el. contacts, switches, spark-plug cable
fuel tank	cup , tight
harness	attach points – engine, pilot, paraglide
rescue system	attached, safety catches
oil	good oil-petrol mixture
petrol	sufficiency for flight planed
engine test	high revolutions, neutral, switch off
pilot	helmet, shoes, warm clothes, gloves
other	vario, tachometer, GPS, clock, radio
paraglider	canopy, lines, loos ends

ENGINE TEST

When starting cold engine, repeatedly press the petrol pump, until petrol comes out through the air filter. Remove all small objects, which could be possibly drawn in by the propeller, from immediate proximity of the paramotor. Loose parts of your (and long hair) are equally dangerous.

**Nobody must stand dangerously close to starting engine,
especially not in the propeller's plane of rotation.**

1.

Switch on the main switch on the right hand side. Grasp the engine handle firmly by left hand, lean your knee against the laminate. Never hold the protective frame. The engine gives thrust immediately after it is started. It is necessary to keep this in mind and make sure, the engine switch off button is accessible.

Manual start

Turn the propeller behind engine compression. As no.1. Take the throttle with the left hand* together with the engine handle. Pull the start rope strongly (but smoothly). Do not release the start rope, but let it smoothly retract back.

Electric start

As no.1. Switch the starter switch ON. Take the throttle and press starter button. The engine should start running within max. 10 s. If not, repeat start after short pause.

After starting, Warm up the engine for about 1 min in low and middle rpm, till it starts accelerating. Then try idle revs, transition from min to max revs and back. Switch the engine off.

* Why is the throttle in left hand?

The propeller rotation causes forces in this configuration, which try to turn all MPGs right. This is normally balanced by tightening the cross strap on the harness before start, and by left paraglider brake if necessary. This is why the left hand does never release the left handle and throttle and you have right hand free to control the GPS, vario or camera.

REFUELLING

Always refuel with the engine switched OFF. Fill the tank through the filter and check the fuel purity. Make sure there is no fire around the MPG, especially nobody smoking there. Use only fuel containers specifically intended for fuel. Do not wear clothes, which creates static electricity, during refuelling your MPG.

It is possible to watch fuel level during the flight, by the mirror placed on the string in the harness pocket (or a parabolic plastic mirror fixed on the glove).

TAKEOFF

Make front start in front wind. Start to inflate the paraglider with your hand poised to the sides and engine in idle revs. Check the canopy filling and line condition. Apply full gas and run as fast as possible with your hands now above your head without breaking the paraglider. Keep heading against the wind. When you reach the takeoff speed, break the paraglider slightly and take off. Run until you fly. Do not sit prematurely down into the harness and do not bounce to lift the canopy.

Release the breaks after take off and climb with full speed. This minimises the danger of speed loss.

LANDING

Carefully check the landing place, possible barriers and wind direction. Do always land against the wind.

Press and hold the engine switch off button on the throttle till the engine stops in high min 10 m above the ground. Get off the harness in approx. 5 m above the ground. Land normally on your feet. Run if necessary. Put the canopy on the ground to avoid the contact with hot engine parts.

ENGINE TUNING AND MAINTENANCE

RUNNING-IN

There are two reasons, why is engine running-in very important:

- 1) correct operation check in all rpm types
- 2) warming up the engine and final settling of all its parts

Don't use full gas during first 5 flying hours, except for the take off (approx. 1 min at a time). Vary the rpm levels during first flights. After this your engine will be ready to fly without any limitations. The revolutions will increase by 300 rpm.

FUEL AND OILS

Solo and NIRVANA recommend using fully synthetic (ie: Mobil 1 – Racing 2T, Eurol, Valvoline SYNTO, SHELL ADVANCE ULTRA, PANOLIN 2 STROKE SYNTH., ...) in correct oil-petrol mixture, which prevent combustion chamber and exhaust carbonisation.

Do not store mixed petrol longer than few days, max 2 – 3 weeks.

You can mix Castrol TTS with leaded or unleaded petrol. However leaded petrol is preferred. Always use quality petrol.

mode	time	Mixture (oil/petrol)
running in	5 hod	1 : 40
normal operation	---	1 : 50

octane	EUROPE	UK	USA
97	Super PB	4-star PB	Premium
95	Super S/PB	Regular S/PB	Regular

Do not use oils intended for high revolutions or water-cooled engines.

Any mechanical problems causing seizure of the engine will not be covered by the warranty.

These are always caused by not observing the running-in rules, use of wrong fuel, oil, oil-petrol mixture or by combination of the above..

CARBURETTOR SETTING

	minimum	standard	maximum
screw L	1/2 turn	3/4 turn	1 turn
screw H	7/8 turn	1 turn	9/8 turn

Make setting from tightened position turning left.

REDUCTION BELT TENSIONING

Reduction belt should not have more free play than 5 mm, but not lower than 2 mm.

Loose the shaft nut (by special key supplied in the set), set the correct tension of the belt by the upper screw and tighten fast the shaft nut.

PROPELLER ORIENTATION SETTING

Set propeller to vertical position. Find the distance between the blade end and the frame with some tool (e.g. screwdriver). Then rotate the prop by 180° and check whether the distance is the same on the other blade. If there is a difference, loose firstly propeller screw on the less deflected side and than tighten both.

PROPELER MAINTENANCE

Always store the propeller in a dry place. Do not expose it to sudden temperature changes. Store it in horizontal position. Do not expose the propeller unnecessarily to sunshine.

Check the propeller after each flight. If it has small scratches, it is necessary to repair them to prevent any dampness penetration. You can make Small repairs yourself using special tools and solutions. It is necessary to balance the propeller after every repair.

It is recommended to have the propeller generally treated and balanced after some time.

Any unprofessional treatment of the propeller can have fatal consequences (misbalance, high vibrations, loosing the prop in flight, frame destruction, reduction damage,...)

CHARGING THE BATTERY

See detailed description in “**Charger ICS 1702 manual**”

REGULAR MAINTENANCE

part	check	replacement
spark-plug	10 h	50 h / 1 year
reduction belt	before each flight	100 h / 2 years
engine silentblocks	before each flight	100 h / 2 years
exhaust silentblocks	before each flight	100 h / 2 years

In case of evident damage of any part of the paramotor it is necessary to repair or replace it before first next flight.

FAULTS AND SOLUTIONS

Fault	Indication	Solution
flooded engine	the engine does not start running, does not give a spark	manually turn the propeller 3 turns against normal direction of rotation
	If it still does not start running	without the gas, repeatedly pull manual start or try el. starter
	If it still does not start running	take out the spark-plug and dry it. Without the plug, turn prop 3 turns in normal direction of rotation.
Irregular engine operation	in low turns	tune the engine turning the "L" screw right (see the carburettor setting)
	in high turns	tune the engine turning the "H" screw (see the carburettor setting)
slow low-high revolution transition	slow acceleration	tune the engine turning the "L" screw
ignition fault	carburettor is set correctly, engine does not start correctly or does not run smoothly	<ol style="list-style-type: none"> 1. spark-plug – check the contacts 2. set the contacts distance on the magnet (does the manufacturer) (engine needs 600 rpm to start)
air filter pollution	low thrust	take the air filter out, blow it through and clean it
Loos reduction belt	belt slips and whistles	Tighten up the belt (see "Reduction belt tightening")
propeller damage	vibrations increase	great damage – replace it with a new one, small damage can be repaired (see "Propeller maintenance")
Propeller vibrations	The prop is not damaged, but causes vibes	balance the prop.

TRANSPORTATION RULES

Completely assembled

- disconnect the battery
- the engine must be supported by the fuel tank and the frame all the time. It must not be supported just by the frame.
- if you need to secure it during transport only strap down the laminate part, never try to secure (strap down)the MPG by the cage
- check, that it can not tip over

Dismantled

- disconnect the battery
- detach the harness, propeller and take apart the frame
- we recommend using the transportation bags (engine, frame, propeller)

LONG TIME STORAGE RULES

- drain all the fuel
- protect the combustion chamber wit special conservator
- detach and store the propeller (see "Propeller maintenance")
- disconnect the battery – store it separately
- store the paramotor in dry, clean place in constant temperature



Letecká amaterská asociace ČR – Light Aircraft Association of the Czech Republic

Oprávnění LAA ČR k výrobě, opravám a zkušebnictví sportovních létajících zařízení

Registrační číslo:

05/2005

Na základě pověření a v souladu se zákonem č. 49/1997 Sb. o civilním letectví
v platném znění a v souladu s Postupy LA-1 Hlava 9 vydává LAA ČR
toto oprávnění k výrobě a opravám sportovního létajícího zařízení.

Držitel oprávnění:

Firma : NIRVANA SYSTEMS s.r.o
Jateční 523, 760 01 Zlín-Prácheň, Czech Republic
IČO 26978595, DIČ CZ26978555

Předmět činnosti držitele oprávnění:

Vývoj, výroba a opravy motorových padákových kluzáků, padákových
kluzáků a vybavení pro paragliding a motorový paragliding.

Platnost oprávnění:

3 roky

Odborným dozorem je pověřen:

Ing. Pavel Březina
(inspektor technik PL LAA ČR č.9
inspektor technik MPL LAA ČR č.25 B)

Vydáno dne:

2.11.2005

Hlavní inspektor technik PL LAA ČR:

Miroslav Fejt

Ředitel správy LAA ČR:

Letecká amaterská asociace ČR
Ke Pácku 20P
102 00 Praha 10
Tel. +420 271 085 587

Jiří Koubík



Letecká amatérská asociace ČR – Light Aircraft Association of Czech Republic

Typový průkaz – Type Certificate

Vydává Letecká amatérská asociace české republiky (dále jen LAA ČR) v souladu s ustanovením §81 odst. 2. zákona o civilním letectví č. 49 / 1997 Sb. a v souladu s prováděcími předpisy.

Označení typu letecké techniky:
Designation of the type of aviation technology:

POSTROJ PRO MOTOROVÉ PADÁKOVÉ KLUZÁKY

Model: LEXX R

Držitel typového průkazu:
Owner of Type Certificate:

Ing. Pavel Březina
Nirvana paragliding
Příkrá 3538
760 01 Zlín

Schváleno technickou komisí LAA ČR dne:
Approval of the Technical commission of LAA CR:

17. 3. 2004

Typový průkaz je zaregistrován u LAA ČR pod značkou:
Type certificate is registered in LAA CR under registration sign:

PL 5 – 02 / 2004

Typový průkaz vydán 19. 3. 2004

Hlavní inspektor technik MPK LAA ČR:

Ing. Miroslav Huml

Ředitel správy SLZ LAA ČR:

Jiří Koubík

Letecká amatérská asociace ČR
Ke Kابلu 289
102 00 Praha 10
Tel.: +420 271 085 274



Letecká amaterská asociace ČR – Light Aircraft Association of the Czech Republic

Typový průkaz – Type Certificate

Vydává Letecká amaterská asociace České republiky (dále LAA ČR)
na základě pověření a v souladu s ustanovením
zákonu č. 49/1997 Sb. o civilním letectví v platném znění.

Označení typu letecké techniky:

Designation of the type of aviation technology:

Dvoumístný PPG – Sportovní létající zařízení

Typové označení: RODEO 115 (125)

Maximální vzletová hmotnost:

Podrobné technické specifikace jsou uvedeny v příloze.

Držitel typového průkazu:

Owner of Type Certificate:

Nirvana paragliding – ing. Pavel Březina Příklad 3538, 760 01 Zlín I, Č.45498822
Firma provádí výrobu částí a závěrečnou kompletaci zařízení.

Schváleno technickou komisí LAA ČR dne:

Approval of the Technical commission of LAA ČR:

2 . 11 . 2005

Typový průkaz je zaregistrován u LAA ČR pod značkou:

Type certificate is registered in LAA CR under registration sign:

PPG – 06 / 2005

Hlavní inspektor technik MPK LAA ČR:

Chief Engineer of MPK LAA CR:

Ing. Miroslav Huml

Letecká amaterská asociace ČR
Ke Koubku 289,
102 00 Praha 10,
Tel. +420 271 085 887

Ředitel správy SLZ:

Managing director of the LAA:

Jiří Koubík



Letecká amatérská asociace ČR – Light Aircraft Association of the Czech Republic

Typový průkaz – Type Certificate

Vydává Letecká amatérská asociace České republiky (dále LAA ČR)
na základě pověření a v souladu s ustanovením
zákona č. 49/1997 Sb. o civilním letectví v platném znění.

Označení typu letecké techniky:

Designation of the type of aviation technology:

Vrtule pro sportovní létající zařízení

Typ 1R2

Celokompozitová dvoulistá skládací vrtule pro motorový paragliding.
Vrtule je ve dvou provedeních, průměr vrtule 1150 mm a 1230 mm.
Vrtule jsou určeny pro motory vybavené reduktorem, výkon max. 25 kW.
Maximální povolené otáčky 2700 ot/min.

Držitel typového průkazu:

Owner of Type Certificate:

NIRVANA PARAGLIDING

Příkří 3538

760 01 Zlín

Schváleno technickou komisí LAA ČR dne:

Approval of the Technical commission of LAA CR:


15.6.2005

Typový průkaz je zaregistrován u LAA ČR pod značkou:

Type certificate is registered in LAA CR under registration sign:

02 / 2005

Hlavní technik LAA ČR:
Chief Engineer of LAA CR:


Ing. Václav Chvála

Ředitel správy SLZ:
Managing director of the LAA:

Letecká amatérská asociace ČR
Ke Kladu 289
102 00 Praha 10
Tel.: +420 271 085 587

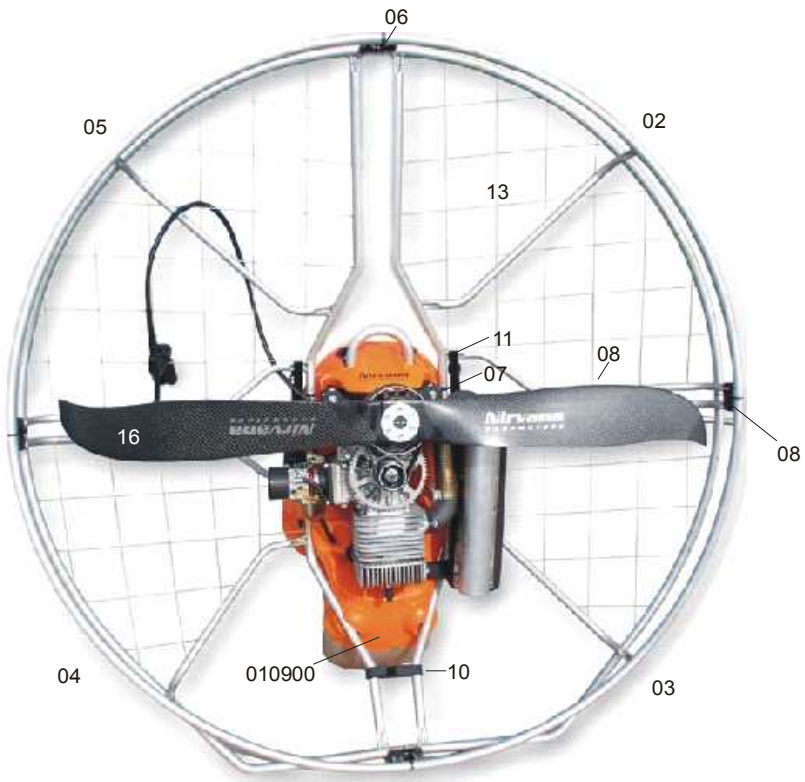

Jiří Koubík

**PARAMOTOR
NIRVANA RODEO
115 / 125**

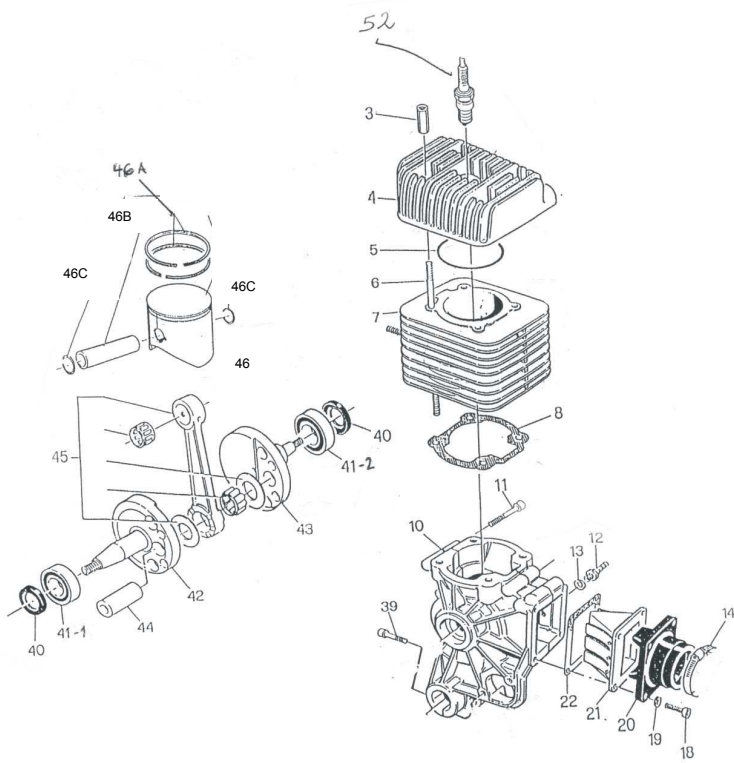
COMPONENTS

Frame

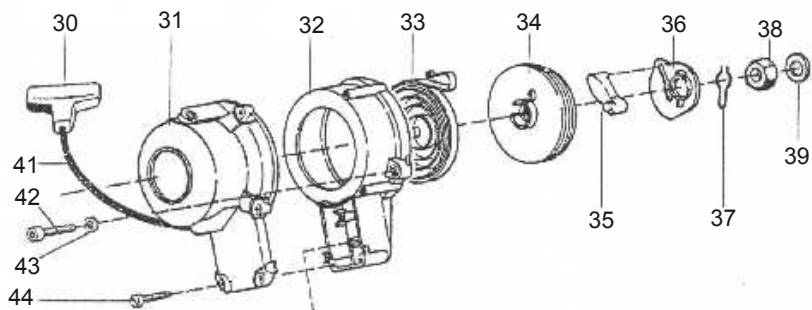
01 01 xx



číslo/ number	popis	name	need	
010101	RÁM	FRAME	1	set
010102	Ochranný rám 1/4 PH	safety frame, 1/4 incl. String, RT	1	pc
010103	Ochranný rám 1/4 PS	safety frame, 1/4 incl. String, RB	1	pc
010104	Ochranný rám 1/4 LS	safety frame, 1/4 incl. String, LB	1	pc
010105	Ochranný rám 1/4 LH	safety frame, 1/4 incl. String, LT	1	pc
010106	Spojka rámu - obvodová	Frame joint - peripheral	8	pc
010107	Spojka rámu - vnitřní	Frame joint - inner	4	pc
010111	Stahovací pásek rámu - se sponou	Velcro strap - with buckle	2	pc
010112	Stahovací pásky - sada	Velcro straps - set	1	set
010113	Výplet 1/4 rámu	String (1/4 frame part)	10	m
010114	Nýt rámu	Rivet	12	pc
	DOPLŇKY	ACCESSORIES		
020117	Sedačka se zálož.kontejnrem LexxR	Harness with rescue container	1	pc
010118	Powerfly	Main carbines - Powerfly	2	pc
010119	Majlon záložáková	Rescue chute carbines	2	pc
010120	Nafukovací polštářek	Air cushion	1	pc
010121	Speed	Speed system	1	pc
010122	Taška na motor	Engine wheel bag	1	pc
010123	Obal rámu	Frame casing	1	pc
010124	Obal vrtule	Propeller casing	1	pc
010125	Taška na návod	Briefcase	1	pc
020126	Návod	Manual	1	pc
	Vrtule	Propeller		
020115	Vrtule dřevěná 125, 115 cm	Wooden propeller	1	pc
010118	Vrtule plastová 115, 2-listá PULSE 2R2	Plastic propeller 115, 2blade PULSE 2R2	1	pc
010119	Vrtule plastová 125, 2-listá PULSE 2R2	Plastic propeller 125, 2blade PULSE 2R2	1	pc



číslo/ number	popis	name	need	
	MOTOR	ENGINE		
020200	Motor MINI2PLUS	Enginge MINI2PLUS	1	pc
020203	Matice hlavy	Head nut	4	pc
020204	Hlava válce	Cylinder head	1	pc
020205	Těsnění hlavy válce	Cylinder head gasket	1	pc
020206	Šroubový šteft válce	Cylinder stud bolt	4	pc
020207	Válec	Cylinder	1	pc
020208	Těsnění válce	Cylinder foot gasket	1	pc
020210	Karter	Crankshaft box	1	pc
020211	Šroub karteru	f.h. screw	6	pc
020212	Průchodka podtlaku	Impulse socket	1	pc
020213	Těsnění průchodky	Socket gasket	1	pc
020218	Šroub	Screw	4	pc
020219	Podložka	Washer	4	pc
020220	Příruba sání	Suction flange	1	pc
020221	Sací membrána	Suction membrane	1	pc
020222	Těsnění	Gasket	1	pc
020223	Zapalovací svíčka	Spark-plug	1	pc
020240	Gufero klikové hřídele	Oil seal	2	pc
020241-1	Ložisko klikové hřídele	Ball bearing	1	pc
010209	Ložisko klikové hřídele	Ball bearing	1	pc
020242	Kliková hřídel	Crankshaft	1	pc
020245	Ojniční sada	Needle set	1	pc
020246	Píst	Piston	1	pc
20246A	Pístní kroužek	Piston ring	2	pc

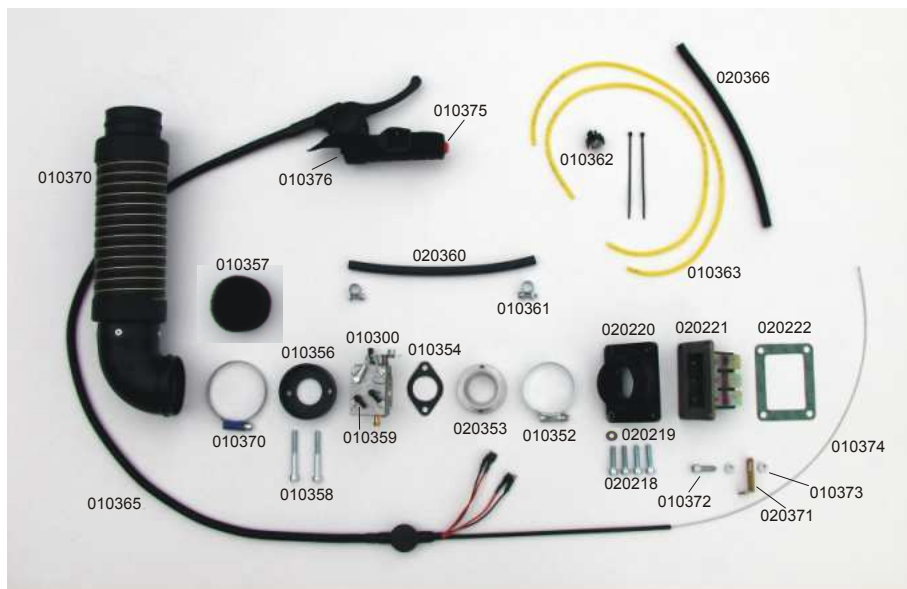
Starter**01 02 xx**

číslo/ number	popis	name	need	
	STARTOVADLO	MANUAL STARTER		
010230	Ručka startovadla	Starter handle	1	pc
010231	Vnější kryt startovadla	Starter cover - inside	1	pc
010232	Vnitřní kryt startovadla	Starter cover - outside	1	pc
010233	Startovací pružina	Starter spring	1	pc
010234	Tělo západky	Wheel for rope	1	pc
010235	Startovací palec	Finger	1	pc
010236	Kulisa	Coulisse	1	pc
010237	Závlačka	Cotter	1	pc
010238	Matice	Nut	1	pc
010239	Podložka	Tension washer	1	pc
010241	Šňůra startovadla	Rope	1	pc
010242	Šroub startovadla	Screw	3	pc
010243	Podložka	Tension washer	3	pc
010244	Šroub krytu startovadla	Screw	6	pc
010252	Startovadlo - komplet	Starter - complet	1	pc
010257	Hřídel startovadla	Manual starter shaft	1	pc



číslo/ number	popis	name	need	
	Karburátor	Carburettor		
020300	Karburátor Rodeo	Carburettor Rodeo	1	pc
010375	Membránová sada Walbro	Membrane set WALBRO	1	set

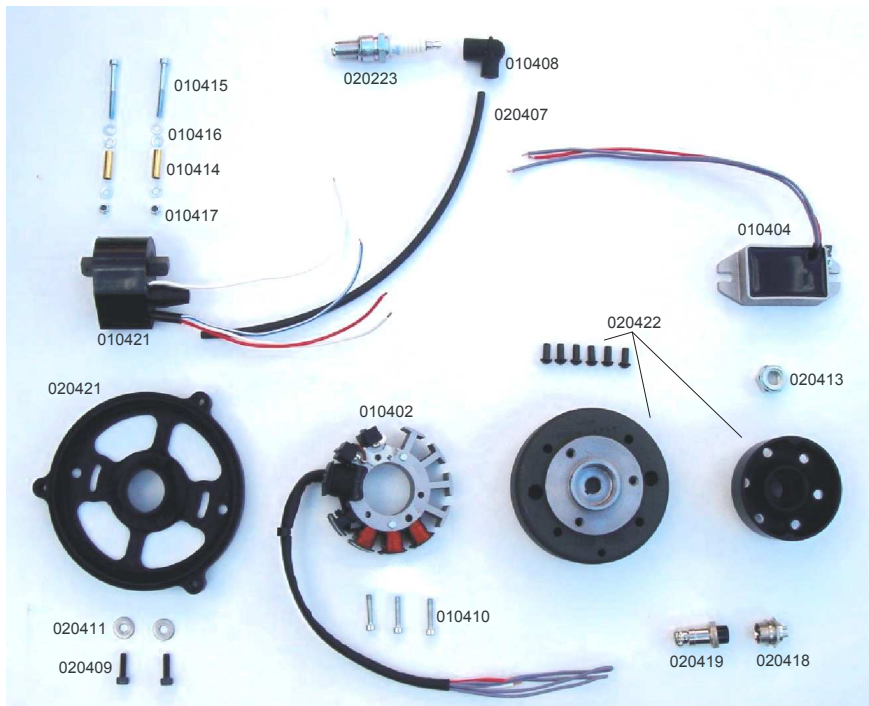
Engine and carburettor accessories



číslo/ number	popis	name	need	
	Příslušenství motoru a karburátoru	Engine and carburettor accessories		
020218	Šroub	Screw	4	pc
020219	Podložka	Washer	4	pc
020220	Příruba sání	Suction flange	1	pc
020221	Sací membrána	Suction membrane	1	pc
020222	Těsnění	Gasket	1	pc
020253	Držák motoru horní	Upper engine bracket	1	pc
020255	Šroub horního držáku	Screw	2	pc
020256	Podložky šroubu horního držáku	Tension washer	2	pc
020257	Držák motoru spodní	Lower engine bracket	1	pc
202558	Šroub spodního držáku	Screw	2	pc
020259	Podložky šroubu spodního držáku	Tension washer	2	pc
020352	Stahovací spona	Clamp	1	pc
020353	Příruba karburátoru	Manifold	1	pc
010354	Těsnění karburátoru	Gasket	1	pc
010356	Příruba filtru	Filter flange	1	pc
010357	Filtr vzduchový	Air filter	1	pc
010358	Šroub filtru	Screw	2	pc
010359	Průchodky karburátoru - benzinové pumpy	Socket	2	pc
020360	Hadička podtlaku	Suction hose	1	pc
010361	Sponka	Clamp	2	pc
010362	Pumpička benzínová	Petrol pump	1	pc
020363	Hadička čerpadla 1,1m (2x55cm)	Pump hose 1,1 m (2x55cm)	1	pc
020366	Kryt hadiček čerpadla	Intake silencer	1	pc
010370	Tlumič sání DULV	Intake silencer	1	pc
020371	Držák bowdenu plynu	Throttle holder	1	pc
010372	Šroub bowdenu plynu	Screw	1	pc
010373	Matka bowdenu plynu	Nut	2	pc
010365	Plyn s aretací komplet	Throttle with tempomat complet	1	set
010374	Lanko plynu	Throttle wire	1	pc
010375	Tlačítko vypínání zapalování	Push button - stop	1	pc
010376	Tlačítko starteru	Push button - start	1	pc

Ignition EP

02 04 00



číslo/ number	popis	name	need	
020400	Zapalování CIR	Ignition CIR	1	set
020422	Rotor komplet	Rotor komplet	1	pc
010402	Stator	Stator	1	pc
010421	Indukční cívka	Induction coil	1	pc
010404	Regulátor	Regulator	1	pc
010421	Adapter startovadla	Adapter	1	pc
020407	Kabel svíčky	Ignition cable	1	pc
010408	Fajka svíčky	Spargplug cap	1	pc
010409	Šroub adapteru	Screw	2	pc
010410	Šroub statoru	Screw	2	pc
020411	Podložka	Washer	4	pc
020413	Matice klikové hřídele	Nut	1	pc
010414	Distance cívky	Coil distance	2	pc
010415	Šroub cívky	Screw	2	pc
010416	Podložka šroubu cívky	Tension washer	4	pc
010417	Matice šroubu cívky	Nut	2	pc
020418	Zásuvka	Plug	1	pc
020419	Konektor	Conector	1	pc

Exhaust

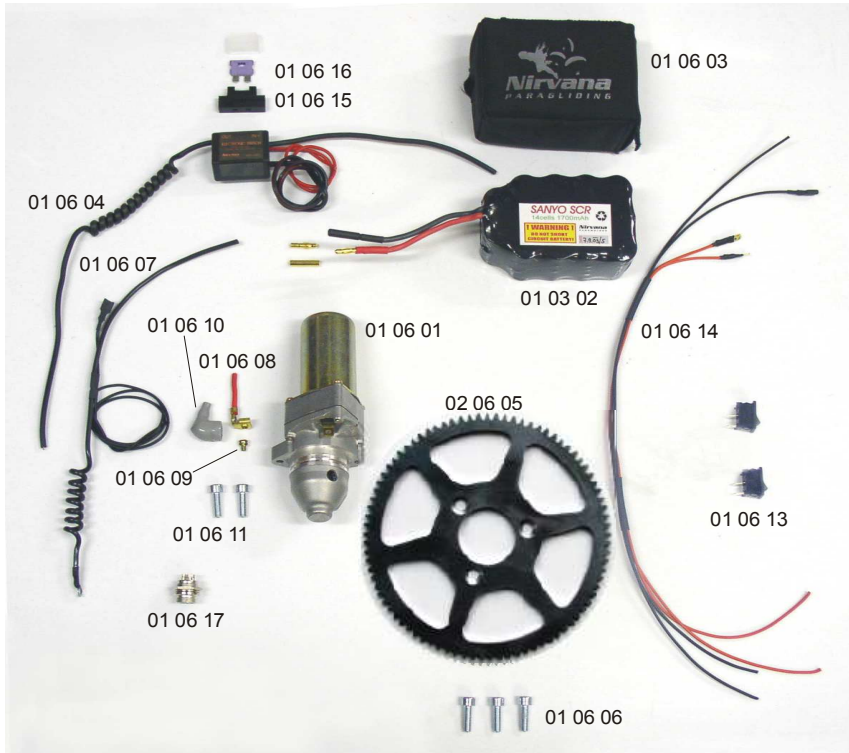
01 05 xx



číslo/ number	popis	name	need	
020500	Výfuk laděný - komplet - samostatně neprodejný díl	Tuned exhaust - komplet - unsaleable	1	set
020501	výfuk s dotlumovačem - samostatně neprodejný díl	Tunned exhaust - unsaleable	1	pc
020502	Repka	Exhaust tube	1	pc
020503	Koleno výfuku	Connection pipe	1	pc
010504	Stahovací spona	Clamp	2	pc
020505	Těsnění výfuku	Exhaust gasket	1	pc
010506	Matice výfuku	Exhaust nut	2	pc
010508	Silentblok výfuku spodní	Exhaust rubberjoint lower	1	pc
010509	Podložka spodního silentbloku	Tension washer	2	pc
010510	Matice spodního silentbloku	Nut	2	pc
010511	Silentblok výfuku horní	Exhaust rubberjoint upper	2	pc
010512	Podložka horního silentbloku	Tension washer	4	pc
010513	Matice horního silentbloku	Nut	4	pc

Electric Starter - set

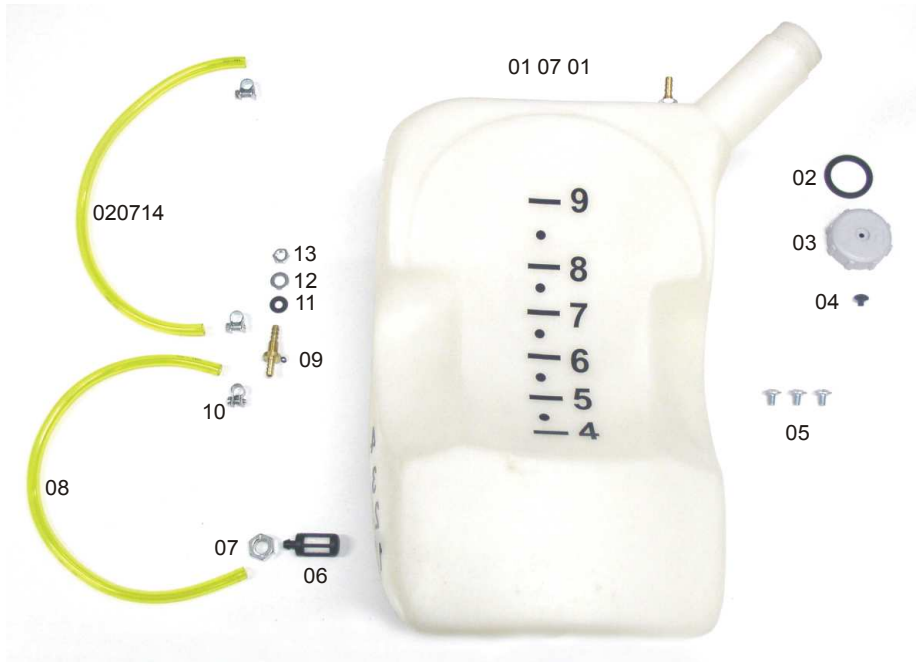
01 06 xx



číslo/ number	popis	name	need	
020600	STARTOVACÍ SADA	ELECTRIC STARTER set	1	set
020601	Starter Rodeo	Starter Rodeo	1	pc
010602	Zdroj	Battery	1	pc
010603	Obal zdroje	Battery covering	1	pc
010604	Startovací relé	Starter relay	1	pc
020605	Startovací rozeta	Starter ring	1	pc
010606	Šroub rozety	Screw	3	pc
010607	Přívodní kabel ke starteru	Starter cable	1	pc
010608	Kontakt starteru	Starter contact	1	pc
010609	Šroub kontaktu	Screw	1	pc
010610	Krytka kontaktu	Contact covering	1	pc
010611	Šroub starteru	Starter screw	2	pc
010612	Kontakt zlacený	Gold-plated connection	2	pc
010615	Pojistková skříňka	Fuse box	1	pc
010616	Pojistka	Safety fuse	1	pc
010617	Zásuvka	Plug	1	pc
010618	Nabíječka, pulzní	Charger - puls	1	pc

Petrol Tank

01 07 xx



číslo/ number	popis	name	need	
010700	NÁDRŽ - komplet	Petrol tank	1	set
010701	Nádrž	petrol tank	1	pc
010702	Těsnění víčka nádrže	Gasket	1	pc
010703	Víčko nádrže	Petrol top	1	pc
010704	Ventilek	Ventil	1	pc
010705	Šroub nádrže	Screw	3	pc
010706	Nořidlo s filtrem	Dip filter	1	pc
010707	Matice nořidla	Nut	1	pc
010708	Hadička benzínová vnitřní	Petrol hose - inside	1	pc
010709	Průchodka nádrže	Bushing	1	pc
010710	Spona stahovací	Clamp	3	pc
010711	Těsnění průchodky nádrže	Rubber gasket	1	pc
010712	Podložka průchodky nádrže	Tension washer	1	pc
010713	Matice průchodky nádrže	Nut	1	pc
010714	Hadička benzínová vnější	Petrol hose - outside	1	pc

Reducer

02 08 xx



číslo/ number	popis	name	need	
020800	Reduktor		1	set
020806	Řemenice malá	Lower pulley	1	pc
020807	Podložka malé řemenice	Tension washer	1	pc
020808	Matka malé řemenice	Nut	1	pc
020809	Řemen reduktoru	Reduction belt	1	pc
020810	Řemenice velká	Upper pulley	1	pc
020811	Hřídel velké řemenice	Propeller hub	1	pc
020812	Šroub hřídele velké řemenice	Hub screw	1	pc
020813	Podložka	Washer	1	pc
020814	Podložka	Washer	1	pc
010816	Ložisko velké řemenice	Upper pulley bearing	2	pc
020817	Distance ložisek velké řemenice	Distance	1	pc
010818	Ségrovka	Circlip	1	pc
010819	Ségrovka	Circlip	1	pc
020820	Středící kroužek vrtule	Median propeller ring	1	pc
020821	Příruba vrtule	Propeller flange	1	pc
020822	Šroub vrtule	Propeller screw	6	pc
020823	Klíč na reduktor	Reduction spanner	1	pc
020824	Klíč na vrtuli	Propeller spanner	1	pc

01 09 xx



číslo/ number	popis	name	need	
010900	ZÁDOVÝ DÍL - samostatně neprodejný	Skelet - unsaleable	1	set
010613	Skelet - samostatně neprodejný díl	Skelet - unsaleable	2	pc
010901	Skelet	Skelet	1	pc
010902	Kryt baterie	Battery cover	1	pc
010903	Boční kryt	Side bonnet	1	pc
010904	Šroub bočního krytu horní	Screw	1	pc
010905	Nýtovací matka horní	Rivet nut	1	pc
010906	Šroub bočního krytu spodní	Screw	1	pc
010907	Nýtovací matka spodní	Rivet nut	1	pc
010908	Zádový oblouk	Back bend pipe	1	pc
020909	Kloub sedačky	Hinge	2	pc
020910	Rozpěrka	Strut	2	pc
020911	Nýt	Rivet	2	pc
020912	Podložka	Washer	2	pc
010916	Nýt boční zadní	Rivet	2	pc
010917	Nýt boční přední	Rivet	2	pc
010918	Nýt zadní	Rivet	2	pc
010919	Kladka startovadla	Pulley	1	pc
010920	Podložka nýtu kladky startovadla	Rivet washer	2	pc
010921	Nýt kladky startovadla	Rivet	2	pc
010922	Držák startovadla	Holder	1	pc
010923	Nýt držáku startovadla	Rivet	2	pc
010924	Madlo	Handle	1	pc
010925	Nýt madla	Rivet	4	pc
010926	Podložka nýtu madla	Rivet washer	4	pc
010927	Pásek horní karabiny	Upper strap	2	pc
010928	Nýt pásku	Rivet	2	pc
010929	Trubka rámu	Frame pipe	2	pc
010930	Nýt trubky rámu	Rivet	2	pc
010931	Silentblok motoru	Rubberjoint screw	3	pc
010932	Pojišťovací pásek silentbloku motoru	Safety strap	3	pc
010933	Podložka silentbloku	Tension washer	4	pc
010934	Matice silentbloku	Nut	5	pc
010935	Podložka spodního silentbloku	Tension washer	1	pc
010936	Matice spodního silentbloku - vymezovací	Nut	1	pc
010937	Velcro samolepící	Velcro self-adhesive	1	pc
010938	Nálepka "NIRVANA PARAMOTORS"	Sticker	1	pc

020939	Nálepka "RODEO 115 / 125"	Sticker	1	pc
020940	Nálepka "Seřízení karburátoru"	Sticker	1	pc
010941	Nálepka "Mísící poměr"	Sticker	1	pc
010942	Nálepka "Předletová příprava"	Sticker	1	pc
010943	Nálepka "ON / OFF"	Sticker	1	pc
010944	Nálepka "výstup 16,8 V"	Sticker	1	pc
010945	Nálepka "Type"	Sticker	1	pc
010946	Nálepka "Evidenční štítek"	Sticker	1	pc
010947	Nálepka "NIRVANA PARAMOTORS" stříbrná	Sticker	2	pc

OPERATING RECORDS

SERVICE LIST

List of mandatory checks performed, repairs, important part replacements, ...			
Operation (reason)	date	flight hours	signature – checked by

**List of mandatory checks performed,
repairs, important part replacements, ...**

Operation (reason)	date	flight hours	signature – checked by

**List of mandatory checks performed,
repairs, important part replacements, ...**

Operation (reason)	date	flight hours	signature – checked by

**List of mandatory checks performed,
repairs, important part replacements, ...**

Operation (reason)	date	flight hours	signature – checked by

RECORD OF BULLETIN IMPLEMENTATIONS OR MANDATORY CHANGES

serial number	bulletin number	date	note	performed – signature

DAILY OPERATING RECORDS

date	take off and landing place	daily		in all		notes, flight, faults, repairs, consumption,...
		flights number	flight time	flights number	flight time	

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date	take off and landing place	daily		in all		notes, flight, faults, repairs, consumption,...
		flights number	flight time	flights number	flight time	

date	take off and landing place	daily		in all		notes, flight, faults, repairs, consumption,...
		flights number	flight time	flights number	flight time	

date	take off and landing place	daily		in all		notes, flight, faults, repairs, consumption,...
		flights number	flight time	flights number	flight time	

date	take off and landing place	daily		in all		notes, flight, faults, repairs, consumption,...
		flights number	flight time	flights number	flight time	

date	take off and landing place	daily		in all		notes, flight, faults, repairs, consumption,...
		flights number	flight time	flights number	flight time	

NOTES:

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EQUIPMENT

Engine configuration		<input type="checkbox"/>				
Frame 4/4	1450	<input type="checkbox"/>	1300	<input type="checkbox"/>		
Propeller, frame, screws	1200	<input type="checkbox"/>	1150	<input type="checkbox"/>		
Bags	Engine	<input type="checkbox"/>	Frame	<input type="checkbox"/>	Prop	<input type="checkbox"/>
Harness	Comple	<input type="checkbox"/>				
Air bag		<input type="checkbox"/>				
Battery		<input type="checkbox"/>				
Key – reduction		<input type="checkbox"/>				
Key – propeller		<input type="checkbox"/>				
Manual		<input type="checkbox"/>				

WARRANTY

The warranty covers manufacture and material faults for all parts of paramotor including the harness. **This product is covered by 1 year manufacturers warranty**

The warranty does not cover any damages caused by theft. It does not cover any broken or destroyed parts due to incorrect use of the MPG, use in unsuitable weather conditions, wrong assembly of mechanical parts and damages caused by falls.

The warranty ceases if the MPG is sold to the third person, or in case of incorrect use, unprofessional repair or use of unoriginal parts.

The guarantee is valid, when dated and signed by both sides.

Keep in mind, that this engine has not got an aircraft certification. It is your responsibility as the user to assemble and check the MPG before each flight.

Date Seller

The buyer confirms, that he was informed about correct operation of the MPG, he will be responsible for finding out about any changes or mandatory bulletins from the manufacturer, related to this MPG.

Buyer



NIRVANA SYSTEMS s.r.o., Jateční 523, 760 01 Zlín, Czech Republic
tel.: +420 577226616, fax: +420 577019117, sms: +420 775917001
e-mail: info@nirvana.cz, <http://www.nirvana.cz>