

CIVIL AVIATION AUTHORITY

MICROLIGHT TYPE APPROVAL DATA SHEET (TADS)



NO: BM 77 ISSUE: 3

TYPE: **QUIKR**

- (1) MANUFACTURER: P&M Aviation Ltd, Unit B, Crawford St, Rochdale, Lancs  
OL16 5NU
- (2) UK IMPORTER: N/A
- (3) CERTIFICATION: BCAR section S issue 4
- (4) DEFINITION OF BASIC STANDARD: Airworthiness Submission QUIKR, GA drawing YQE-000  
issue A

(5) COMPLIANCE WITH THE MICROLIGHT DEFINITION

(a) MTOW	450 kg
(b) No. Seats	2
(c) Maximum Wing Loading	39kg/m <sup>2</sup>
(d) V <sub>so</sub>	40mph CAS
(e) Permitted range of pilot weights	55-110 kg front seat. 0-110 kg rear seat.
Total Maximum crew weight	220kg
(f) Typical Empty Weight (ZFW)	220Kg
(g) ZFW + 172 kg crew + 1 hr fuel (18litres /13 kg)	405Kg
(h) ZFW + 86 kg pilot + full fuel ( 65litres /47 kg)	353Kg
(i) Max ZFW at initial permit issue	265Kg

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**(6) POWER PLANTS**

Designation	Rotax 912 ULS	Rotax 912 ULS	Rotax 912 UL	Rotax 912 UL
Engine Type	4 cylinder 4 stroke	4 cylinder 4 stroke	4 cylinder 4 stroke	4 cylinder 4 stroke
Reduction Gear	2.43:1 gearbox	2.43:1 gearbox	2.27:1 gearbox	2.27:1 gearbox
Exhaust System	CKT Twin Exhaust	Rotax Side Mounted	CKT Twin Exhaust	Rotax side mounted
Intake System	K&N intake filter With Skydrive carb body heater	K&N intake filter With Skydrive carb body heater	K&N intake filter With Skydrive carb body heater	K&N intake filter With Skydrive carb body heater
Propeller Type	Warp Drive	Warp Drive	Warp Drive	Warp Drive
Propeller Dia x Pitch	172cm Dia 16° at tip	172cm Dia 16° at tip	172cm, 11 ° at tip	172cm, 11 ° at tip
Noise Type Cert No.	192M issue 1	192M issue 2	192M issue 3	192M issue 3
AAN approving configuration	AAN BMAA-1027 Issue 1	AAN BMAA-1027 Issue 1	AAN BMAA-1036 Issue 1	AAN BMAA-1036 Issue 1

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(7) MANDATORY LIMITATIONS:

(A) Max Take-Off Weight	450kg			
(B) CG Limits	N/A not critical. Flexwing with defined hang point position on keel.			
(C) CG datum	Nosewheel axle.			
(D) Cockpit Loadings (solo front seat only)	Front	Rear	Total	
	Min	55kg	0	55kg
	Max	110kg	110kg	220kg
(E) Never Exceed Speed	120mph IAS			
(F) Manoeuvring Speed	90mph IAS			
(G) Permitted Manoeuvres	45° Nose up / 45° nose down Non Aerobatic, max bank 60° Normal acceleration limits, +4 / -0g			
(H) Fuel Contents (Max Useable)	65L			

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(I) Power Plant

See Table

Engine	Rotax 912 ULS	Rotax 912 UL		
Max RPM	5800max 5min. 5500 contin.	5800max 5min. 5500 contin.		
MAX CHT	135°C **	150°C**		
MAX EGT	880°C	880°C		
Fuel Spec	95 RON minimum unleaded to BS(EN)228 or AVGAS 100LL.*			
Engine Oil Spec	API - SG semi synthetic 4 stroke motorcycle engine oil.	API SF or SG semi synthetic 4 stroke motorcycle engine oil.		
Gearbox oil spec	Common supply with engine	Common supply with engine		
Fuel/Oil Mix	N/A	N/A		
Coolant Temperature	120°C	120°C		
Oil Pressure	2-5 bar above 3500 rpm	2-5 bar above 3500 rpm		
Oil Temperature	50-130°C	50-140°C		
Fuel Pressure	0.4-0.15 bar	0.4-0.15 bar		

\*Unleaded preferred. See flight manual for limitations on AVGAS.

\*\*With 100% Ethylene glycol or Evans NPG coolant. See SB121

(8) INSTRUMENTS REQUIRED:

ASI	Altimeter	Compass	RPM	CHT	EGT	Coolant Temperature	Oil Temperature	Oil Pressure
Required 0-150mph	Required 0-20,000ft	Optional	Required 0-6000	Required 50-150°C	Optional 375-925°C	Measured by CHT sensor	Required 50-150°C	Required 0-8 bar

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- (9) CONTROL DEFLECTIONS:  
N/A weight shift control limits defined by structure geometry.

Control bar move right =	roll left
Control bar push out =	pitch up
Trim switch up =	slow trim (tight trim cord)
Push left pedal =	taxi steering right
Push left toe =	brakes on
Push right toe =	throttle open
Hand throttle forward =	throttle open
Ignition switches up =	switch on
Choke forward =	choke on
Tap aligned with body =	fuel on

- (10) PILOT'S NOTES, MAINTENANCE MANUALS REFERENCES:

10.1 Manuals approved for use with this aircraft.

- (a) QuikR Operator's manual issue 1.3 or as amended.
- (b) Rotax 912S & 912 Operator's manual
- (c) Rotax 912S & 912 Maintenance Manual.

10.2 The following placards are to be fitted:-

- (a) Flight Limitations Placard (to be visible to pilot)  
See Annex D.
- (b) Engine Limitations Placard (to be located near to engine instruments)  
N/A limitations are programmed into electronic Rotax FLYDAT instrument or marked as red lines on the instrument faces
- (c) Fuel Limitations Placard (to be located near to filler cap)  
See Annex D.
- (d) Switches  
See Annex D.

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(11) MANDATORY MODIFICATIONS / SERVICE BULLETINS / AIRWORTHINESS DIRECTIVES ETC:

SB127	CKT Twin Exhausts	Check for cracking	08/09/09
SB128	Keel Pocket Webbing	Mod 229	08/09/09
SB132 Issue 4	Sail Reinforcement Test	Brookstesting	18/06/13

Annual Bettometer test with a 1.2mm diameter needle, with wing sails fitted and tensioned enough to prevent puckering of sailcloth at the needle, is to be carried out to in accordance with Service Bulletin 133 issue 3.

Applied loads:

Upper & lower surface: 1360 grammes, for wings with Yellow Aramid Reinforcement.

Or

Upper & lower surface: 1000 grammes, for wings with Black Technora reinforcement.

Loads to be applied spanwise and chordwise.

Stitches: 1360 grammes using a 1.2mm diameter hook, pull at 90degs to surface of tensioned sail.

Annual Brooksmeter test after first 2 years, using Brooksmeter, on untensioned wing trailing edge is to be carried out in accordance with Service Bulletin 132 issue 4.

Applied loads:

Aramid X-05 Yellow sail reinforcement: 9kgf

or

Technora Black sail reinforcement: 8kgf

(12) MINIMUM PERFORMANCE AT MAX TAKE-OFF WEIGHT

Rate of Climb: 1150fpm at 60mph IAS (912S engine)

Rate of Climb: 850fpm at 60mph IAS (912 engine)

Stall or Minimum Flying Speed: 40mph CAS at MTOW / idle.

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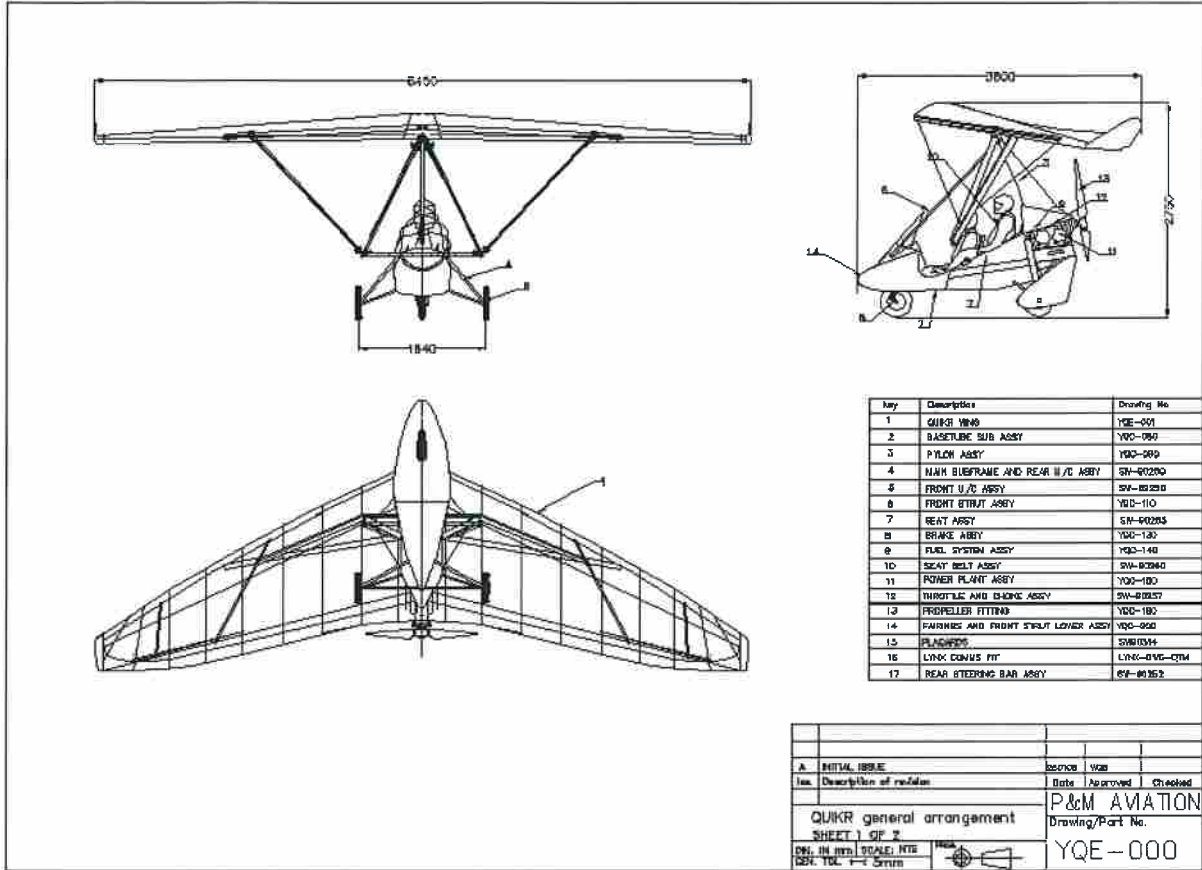
Issue History

<u>Issue No.</u>		<u>Reason and signatory</u>
01	01/10/08	Initial Issue
02	30/04/12	Introduction of Rotax 912 engine D S CORTIZO
03	18/03/15	Betts & Brooks Test Limits Amended & General Update

A C LOVE

A handwritten signature in blue ink, appearing to read 'A C LOVE', written over the printed name.

Illustration of Aircraft - 3 View





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ANNEX A

MANDATORY MODIFICATIONS/SERVICE BULLETINS

**Service Bulletins:**

Nil

**CAA Mandatory modifications:**

Mod 229 Keel Pocket Webbing

**P&M Aviation compulsory modifications:**

Nil

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ANNEX B

APPROVED OPTIONAL MODIFICATIONS

<b>Mod Ref</b>	<b>Description</b>	<b>Issued</b>
PG371	Instructor bars	03/10/02
M135	BRS Softpack Parachute	04/02/05
M137	Low drag panniers	06/04/05
M153	Landing light	31/08/05
M157	Standard GPS & Power socket	12/01/06
M204	Webs on Subframe	11/03/08
M217	Stoneguard	10/01/11
M218	Enigma Instrument	30/09/08
M220	PX10T Leading Edge Material	03/09/08
M225	Trim Pot	20/02/09
M226	Rotax 912 80hp engine	07/05/09
M230	TE Buzz CFRP Strip	04/06/09
M231	Radio/Transponder/ELT	24/07/09
M232	Seat Belt Protection Sleeve	20/08/09
M234	Hand Controls	12/02/10
M235	YTZ-14 Battery	11/12/09
M236	Technoral Strips	30/06/10
M242	Rear Axle Aerial Mnt	31/01/11
M244	Oil & Coolant Thermostats	27/10/11
M249	Super B Battery	09/11/11
M250	UV (TNF215 or CB) Sailcloth	27/05/11
M251	Screen Washer	15/06/11
M252	STARS Roll System	18/05/12
M256	Explorer Large Wheels and Brakes	21/03/12
M270	Sail TE Reinforcement	07/12/12
M275	Roll Trimmer	20/05/14
M282	Fournales Shocks	25/07/14
M286	Spinner	12/12/14

The installation of all optional modifications is to be inspected by a BMAA inspector and an entry made in the appropriate logbook(s). Note that other approved modifications may exist which are not listed here.

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ANNEX C

WEIGHING INFORMATION

The table below is a guide only. Empty weights include unusable fuel, full oil, electrolyte and prepared ready for flight.

<b>ITEM WEIGHT kg</b>	
QuikR 912S Trike	168
QuikR 912 Trike	166
QuikR wing only	52
<b>OPTIONAL ITEMS</b>	
POD BAG	0.76
DELUXE SEAT (1.150), ADD	0.46
50mm FRONT SEAT BOOSTER PAD	0.27
50mm FRONT S/BACK BOOSTER PAD ET	0.25
50mm REAR BOOSTER PAD	0.27
100mm REAR BOOSTER PAD	0.42
CONTROL BAR PROTECTION (2)	0.05
FRONT STRUT PROTECTION	0.04
LYNX ANTENNA	0.19
LYNX FILTER, POWER INT, PTT	0.81
INSTRUCTOR BARS	2.4
ICOM HAND HELD RADIO	0.3

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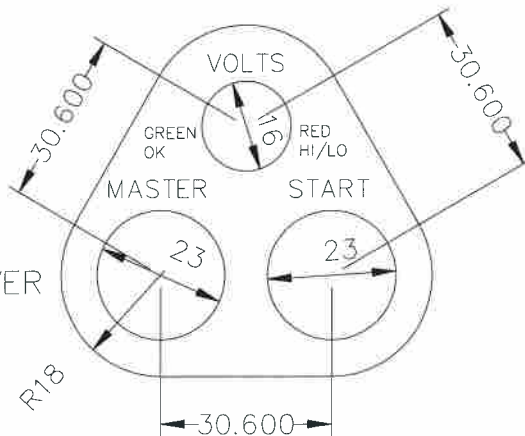
ANNEX D

EXAMPLE PLACARDS

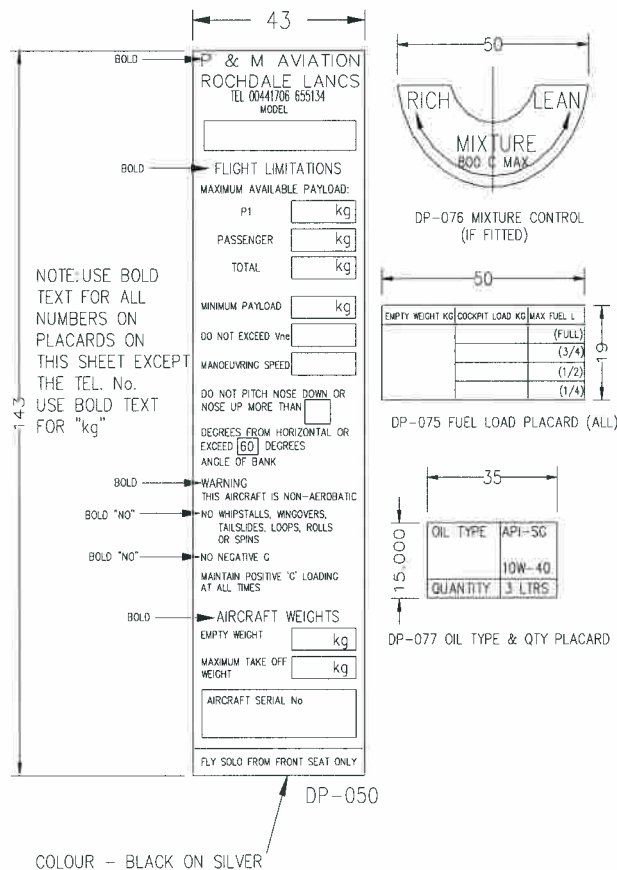
<b>Title</b>	<b>Location</b>
Flight Limitations:	On basetube and wing upright
Engine Limitations:	On panel
Aircraft Weights:	On basetube
Baggage Limitations:	On baggage container
Fuel Type, Capacity and Mix Ratio:	On rear suspension leg
Fuel Cock On/Off Positions:	On seat
Ignition Switch On/Off Positions:	On ignition switch bracket
Propeller Pitch Setting:	On airbox or radiator
Hand Throttle:	On throttle unit
Wiring Loom Disconnection Warning:	On airbox or carb covers
Trimmer Setting:	On trim switch (electric trim) On trim display (electric trim)
Tip Turn Adjusters:	On leading edge tube tips
Latch Locking:	On seat next to latch
Oil Type and Quantity:	On oil cap
Propeller Pitch:	On oil cooler
Fuel Load Limitations:	In the cockpit

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DP-079  
MASTER  
START &  
VOLTS  
BLACK/SILVER

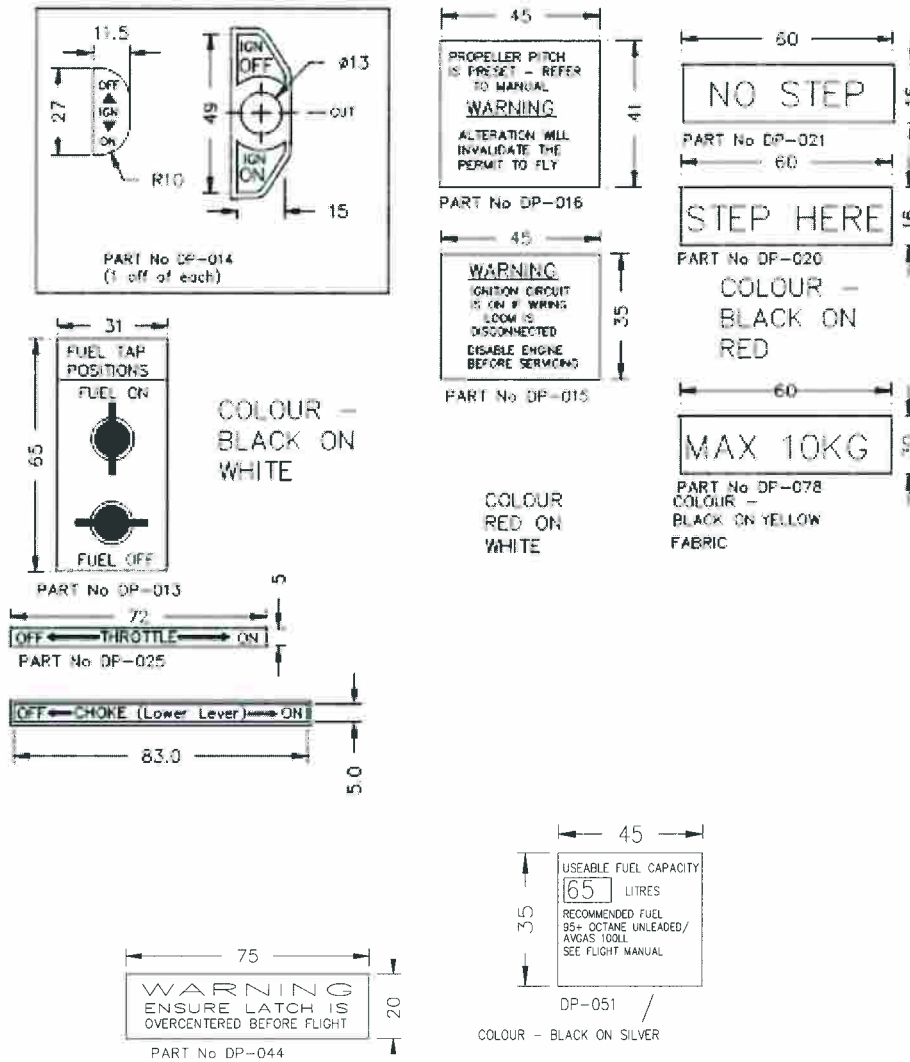


MAIN, MIXTURE, FUEL LOAD AND OIL PLACARDS

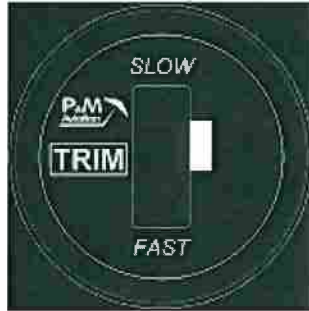


MISCELLANEOUS PLACARDS

IGNITION SWITCH PLACARD IS SPLIT AND USED FOR BOTH MAG SWITCHES.

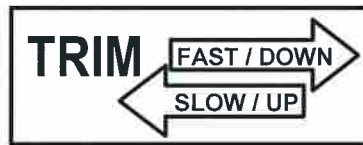


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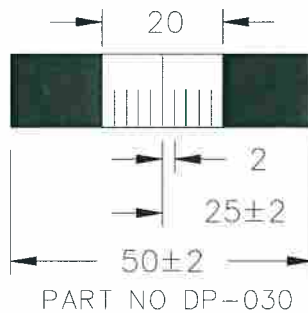


TRIM INDICATOR PLACARD

Note - Takeoff setting is slower than for GT450 or Quik aircraft



TRIM SWITCH PLACARD



WING TIPS ADJUSTERS SETTING PLACARDS