

Zenair Europe

Notice to Owners



This Notice issued by Zenair Europe is addressed to all owners of the specified Zenair aircraft design.

Notice Number:	ZE-2009-03
Date of issue:	July 31, 2009
Subject:	Clarification of aircraft speed limitations and replacement of pages 2.1 and 2.2 of the CZAW Flight Manual (POH) for the CH 601 XL (Ultralight Version).
Affected Models:	All Zenair CH 601 XL (factory-built ULM and Kit-built Models certified to LTF-UL (2003).
Serial Number(s)	All
Manufactured by:	Czech Aircraft Works (CZAW) and others.
Purpose:	<p>Around the world, a range of airspeed limits and airspeed indicator markings exist for the Zenair CH 601 XL design. To clarify this potentially confusing situation, designer Chris Heintz has issued an updated set of airspeeds and ASI markings for the basic European (ULM) version of the Rotax-powered CH 601 XL. Once calibrated, these speeds should be included in every Pilot Operating Handbook (POH) and should be reflected on the traditional white, green and yellow arcs of the ASI in all ultralight versions of the Zodiac XL.</p> <p>These new and approved design and operating (speed) limits are available on pages 2 and 3 of this Notice. Every CH 601 XL pilot should be familiar with these limits and should respect them at all times. These sheets can be added "as is" to the aircraft flight manual and/or Pilot Operating Handbook (POH).</p>
Directed Action(s):	<p>Check Current POH and compare content with this latest information (attached sheets). If content is identical, no further action is necessary.</p> <p>If design and operating limits are different, update data in the POH or substitute the appropriate pages (insert new pages in place of the old ones).</p> <p>Always fly the aircraft within its operating limits.</p>
Effective date:	July 2009.
Compliance:	Highly recommended. Before the next flight.
References:	<ul style="list-style-type: none">• Assembly Drawings for the CH 601 XL – Page 1 (dated 03/2008).• POH pages 2-1 and 2-2, Revision 0.1 (replacing Z601XLFMEN: pages 2-1 and 2-2)

Remarks:

Where applicable, compliance with this Notice should be recorded in the aircraft's maintenance log and/or POH.

For more information concerning this Notice to Owners, contact your nearest Zenair representative or:

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FLIGHT MANUAL FOR THE ZENAIR ZODIAC CH 601 XL (LTF-UL)¹

2.1 Introduction

Section 2 includes operating limitations, instrument markings and basic placards necessary for the safe operation of the aircraft, its engine, standard systems and standard equipment. Limitations for optional systems and equipment are shown in Section 9 and in Supplements.

2.2 Airspeed

Airspeed limitations at MTOW and their operational significance are shown below:

Speeds (for aircraft at 472.5 kg)		CAS/EAS in km/h (Calibrated)	IAS ² in km/h (Indicated)	Remarks
VNE	Never Exceed Speed	224		Do not exceed this speed in any operation. ($VNE = .9 \times VD$)
Vc	Maximum structural cruising speed	201		Do not exceed this speed except in smooth air, and then only with caution. ($Vc = VRA \leq .9 \times VNE$)
VA	Maneuvering Speed	146		Do not make full or abrupt control movement above this speed, because under certain conditions the aircraft may be overstressed by full control movement.
VFE	Maximum Flap Extended speed	130		Do not exceed this speed with flaps extended.
Vs1	Stall Speed	73		Stall speed without flaps
Vs0	Stall Speed	63		Stall speed with flaps extended

¹ Symbols and Speeds applicable to aircraft operating in compliance with LTF-UL (2003) standards.

² **Indicated Airspeed (IAS):** As airspeed indicators and pitot tubes and lines can vary slightly from one aircraft to another, color markings and IAS (at sea level and standard pressure) should be checked and measured for every aircraft (enter appropriate IAS in the column provided above).

Enter Revision 0.1 of this page and the next (2-1 and 2-2) in the Flight Manual of the Zodiac CH 601 XL and note the substitution on the "Record of substitution" (page ii) at the front of the manual.

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FLIGHT MANUAL FOR THE ZENAIR ZODIAC CH 601 XL (LTF-UL)¹

2.3 Airspeed indicator markings

Airspeed indicator markings and their color-code significance are shown below:

Color Markings	Symbols (defined by LTF-UL)	CAS/EAS in km/h (Calibrated)	IAS ² in km/h (Indicated)	Significance
White Arc	$V_{SO} \times 1.1$ to V_{FE}	70 - 130		Flap Operating Range
Green Arc	$V_{S1} \times 1.1$ to V_{RA}	80 - 201		Normal Operating Range
Yellow Line	V_A	146		See note below ³ $(\sqrt{n_1} \times V_{S1}$ or $2 \times V_{S1})$
Yellow Arc	V_C to V_{NE}	201 - 224		Maneuvers must be conducted with caution and only in smooth air.
Red Line	V_{NE}	224		Never Exceed Speed. Maximum speed for all operations.

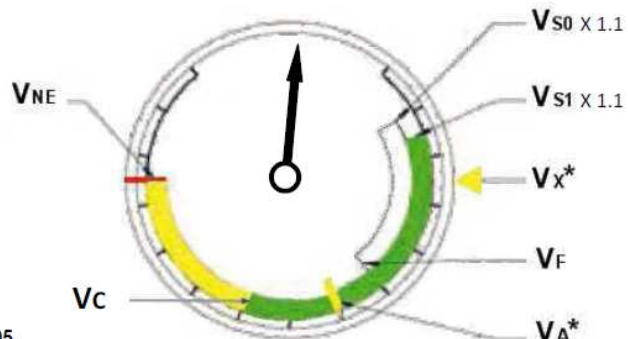
¹ Symbols and Speeds applicable to aircraft operating in compliance with LTF-UL (2003) standards.

² **Indicated Airspeed (IAS):** As airspeed indicators and pitot tubes and lines can vary slightly from one aircraft to another, color markings and IAS (at sea level and standard pressure) should be checked and measured for every aircraft (enter appropriate IAS in the column provided above).

³ **More about V_A :** V_A is defined as $V_{S1} \times \sqrt{n_1}$ (LTF-UL 335.1). In plain language, V_A is the maximum speed at which the controls may be fully (and smoothly) deflected in calm air as long as n_1 (4 "g") is not exceeded. Since most aircraft are not equipped with a "g" meter, full deflections "for fun" should be avoided; remember that aerobatics are prohibited in ultralights.

**Markings required on ASI
for German LTF-UL compliance.**

(Requirements in other countries may vary).



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