

Subject to technical changes!

Current as of 09/2015

# Basic kit assembly instructions



model Riga system width 2,96 m / 9ft 8in



model Riga S system width 2,32 m / 7ft 8in Dear garden friend,

Congratulations on the purchase of an aluminium greenhouse made by



The construction is simple. First, read all the assembly instructions then follow them step by step.

#### Parts and parts list

Please store all boxes in a dry area protected from direct sunlight!

#### Quantity of cartons

	basic construction (gable/eaves)	curved center profile	windows/ doors	glazing
Riga S/II/III/IV	1	1	1	1
Riga III/IV/V	1	1	1	1

Start with the box labeled "basic kit". Please do not open all the boxes at the same time. This will prevent confusing the parts.

Before you begin assembly of a section check the parts list for that box and make sure all parts are present. Parts lists are provided in every box. The boxes go through a quality check before they are closed, thus missing parts are rare. Should any parts be missing please call the customer service number below.

Customer Service: 877-760-8500 or 512-407-8500 sales@Exaco.com Exaco Trading 10203 Metropolitan Dr. Austin, TX 78758

#### Location

Choose, if possible, a sunny place for your greenhouse. Avoid the shadows of buildings and trees. For vegetables, like tomatoes, cucumbers and melons, position your greenhouse the most north-south as possible. For flowers and potted plant , position in the east-west-direction.

#### Warning:

## The greenhouse should preferably be built in a sheltered spot and not during stormy weather. It is dangerous to leave a partly assembled house!

If assembled correctly this greenhouse resists strong winds. The manufacturer assumes no responsibility for any damage by improper installation or acts of nature.

The construction of the greenhouse must be conducted by at least two people. Work with secure, craft-oriented tools. Be careful when assembling and make sure your ladder is secure.

In principle work only with gloves (risk of injury, average risk!).

#### For the configuration you need the following tools:

- 1 pc. Phillips screwdriver size 2
- 1 pc. 10mm Wrench
- 1 pc. 3mm allen key (included in the accessoires bag of the roof window)
- 1 pc. level
- 1 pc. stepladder
- 1 pc. file to remove any burrs on the profil
- 1 pc. rubber hammer
- 1 pc. tape measure

#### You should be careful:





If forgotten, hexagonal screws can also be inserted later in the plastic slider!

The plastic slider is located in the bottom of the door frame, side and roof bars.



Push the seal 3 - 5 mm between the soil profile and the glazing Both inside the greenhouse!

Important: Compress the seals when you install them as they contract in cold weather

Quantity of wedge seals

	3 - 5 mm	3 - 5 mm	6 - 8 mm
length model	712 mm	768 mm	1030 mm
Riga S II	4	1	7
Riga S III	4	1	11
Riga S IV	4	1	14

	3 - 5 mm	3 - 5 mm	6 - 8 mm
length model	768 mm	1030 mm	1030 mm
Riga III	1	4	11
Riga IV	1	4	14
Riga V	1	4	16



## **!!!Note: Important information for glazing!!!**

When installing the polycarbonate glazing make sure the UV coated side faces out. Loosen the edges of the protective film for installation. After the assembly is complete pull it off immediately. Do not leave the film on for any period of time in the sunlight. Several days of sunlight can burn the film firmly on the glazing.

**Do not** pull the film off right out of the box, otherwise you cannot tell which side has the UV protection!

**Suggestion**: If you plan on disassembling and moving you should mark the UV side of each panel before installation. A small circle in a lower corner with a permanent marker will work well.

<u>Question</u>: Does the greenhouse glazing need to be completely sealed? In principle: **No**.

We recommend that you seal the horizontal transitions where the glazing meets the aluminum profiles with a neutral cure transparent silicone. (Shown in the diagram below by dashed lines.) This will prevent water and dirt from entering the glazing slots.

<u>Advantage</u>: The greenhouse stays looking new as the seal prevents the formation of algae and buildup of dirt/dust inside the glazing.



During some weather conditions condensation can occur within the hollow chambers of the glazing. This is because the glazing chambers are not air tight. The condensation is purely aesthetic and cannot be avoided. The condensation/water vapor will not damage the glazing.

even at freezing temperatures.

*Warning:* Use only neutral cure silicone, otherwise it may lead to stress cracks in plastic glazing. This is the most common silicone sealant.

Neutral cure silicone is available in most hardware stores. We recommend Boss 399. You can purchased Boss 399 directly from us, just call 1-877-760-8500.

#### Cleaning and care:

To wash the greenhouse use plenty of water, a car wash brush and a little detergent.

## !!!Warning: Use only according to instructions. See below!!!

This is the easiest and the safest foundation for a greenhouse.

**ATTENTION!** When using a foundation frame attach it to the soil profile before these steps (see pages 5, 6)

The foundation frame hooks into the soil profile and the corners are bolted together with a corner angle (V26). (See page 6). Use the supplied self taping screws to firmly attach the soil profile to the foundation frame.

Setting up the foundation frame

Dig a small ditch 4-5 inches deep in the dimensions of the foundation

frame.

Use paving stones or gravel under the horizontal sections as much as possible to prevent the potential for the greenhouse to sag. Fill in the rest of the ditch with earth.

It is also very practical to install tile or stone flooring, this prevents the mud from splashing on the greenhouse during heavy rain.

In addition it makes work easier around the greenhouse, such as mowing the lawn.

## Profiles and accessories for foundation frame Riga S: # - See next page!

overview	200	description	number/length in mm			
Overview	pos. description		type II	type III	type IV	
	6.1	foundation frame profile	2	2	2	
	gable <b>#</b>		2199	2199	2199	
R 2	62	foundation frame profile	2	2	2	
	eaves #		2033	3091	4149	
	1/26	foundation frame corner bracket	4	4	4	
	V20	40/40/2 x 105 item no 9999 0078	105	105	105	
J.	√27	mounting bracket	10	10	10	
l'	• = :	(rung/foundation frame) item no 9999 0267	135	135	135	
	S12 S1	hexagonal screw M6 x 12 + nut M6 item no 9999 0124 + 9999 0128	20	20	20	

#### Profiles and accessories for foundation frame *Riga*: (V26/V27/S12/S1 as above)

overview	noo	description	numb	per/length i	n mm
overview	pos.	description	type III	type IV	type V
	6.1	foundation frame profile gable	2 2835	2 2835	2 2835
N N	6.2	foundation frame profile eaves	2 3091	2 4149	2 5207



## Assembly foundation frame



## Foundation of the greenhouse

We recommend that you use anchor bolts to secure the soil profile to your foundation. to The anchor bolts are <u>not</u> included.



			<u>Foundatic</u> all dimension	<mark>on plan Riga</mark> ( Is in [cm]	<u>S/Riga</u>		
			<u>Foundation</u>	of your greenho	<u>use with a strip fo</u>	undation	
HOK	HRTH€RM		If you have n a strip foun dimensions t	lot purchased a fo idation. Create t below.	oundation frame sec the foundation in	cure the greenhous accordance with	se by means of the specified
			Creating a s placed direc	stone/cement ba	ise is not required d.	. The greenhous	e can be
	1 M		Concrete ma	sonry units are al	so a good choice		
	81	ſ	Please make	sure that the four	ndation is level in a	Il directions.	
		   [	Then anchor	the greenhouse v	with the included me	ounting brackets (V	/15)(minimum)
<u></u>	exterior edge of the foundation		Screws and a	anchors are <b>not</b> in	.cluded.		
	= Außenkonte Fundoment = Außenkonte Gewächshous ovtenior edde of the greenhouse 20		(Option) O	<u>pening for Door I</u>	Drop Kit- %% ;`'	urkni [Wyys";`u	ZWFSw
<u></u>		<u> </u>	Suggestio	<u>n</u> : Assemble the	e lower frame (soi	I profiles 1.1/2.1,	
	upper edge of ground Oberkante Erdreich		soil profile o create a sto	corner V9) of the	e greenhouse to u foundation. Mak	se as a template e sure the corner	s s
77	20		are square.	. This will preve	nt any errors in m	easurement.	
<u></u>	punoı apu <u>n</u> u	<u> </u>	Centimeters	divided by 2.54	= inches For ins	tance 233cm/2.54	4=91.7in
	ດີ ອອງ ເອີ ອີງ ເອີ ອີງ	<u></u>	-000	found	dation	greenh	ouse
	€0 <del>0</del> 1911 1914	<u></u> .		W1	L1	W2	L2
	] ] fro	<u> </u>	Riga S II	249	232	233	216
<u> </u>		· <u>·</u>	Riga S III	249	338	233	322
			Riga S IV	249	443	233	427
		, ,	🚽 🛛 Riga III	312	338	296	322
	82 M/2	_	Riga IV	312	443	296	427
			Riga V	312	549	296	533

## Main box Contents - basic kit Riga S/Riga

Please check contents list to make sure all items are there

## Profiles for both gables:

		pos. description		nu	mber/ler	ngth in n	าท	
overview	pos.			Riga S		Riga		
					IV		IV	V
	1.1	soil profile/gable	2 2238	2 2238	2 2238	2 2874	2 2874	2 2874
	1.5.4	Edge curve left	2	2	2	2	2	2
	1.5.6	Edge curve right	2	2	2	2	2	2
	1.6	door frame left with slant	2 1876	2 1876	2 1876	2 2059	2 2059	2 2059
	1.7	door frame right with slant and holes	2 1876	2 1876	2 1876	2 2059	2 2059	2 2059
	1.8	door frame top	2 758	2 758	2 758	2 758	2 758	2 758
	1.8	cross bar in the side door without	1 758	1 758	1 758	1 758	1 758	1 758
	1.9	cross bar left and right	4 702	4 702	4 702	4 1020	4 1020	4 1020

#### **Profiles for eaves:**

				nu	mber/ler	ngth in m	וm			
overview	pos.	description	description Riga S				Riga			
					IV		IV	V		
	2.1	soil profile/eave	2 2072	2 3130	2 4188	2 3130	2 4188	2 5246		
	2.3	Side curve	2	4	6	4	6	8		
	3.2	cross bar/roof window	1 1020	1 1020	2 1020	1 1020	2 1020	4 1020		
	3.3	ridge profil	1 2137	1 3195	1 4253	1 3195	1 4253	1 5311		
ſ	3.4	angle stabilization	4 2104	4 3162	4 4220	4 3162	4 4220	4 5278		

## Accessories bag basic kit Riga S/Riga

		description/		num-	num-
overview	pos.	item number		ber RigaS	ber Riga
<b>a</b>	V9	Soil profile corner item no 9999 0003		4	4
	V5	connecting plate item no 9999 0028	Edge Clamp/Door Frame	4	4
•	V10	connecting plate 90 x 35 mm item no 9999 0030	For mounting cross bar/rear	2	2
R	V11	endplate ridge/gutter item no 9999 0075		2	2
• •	V4	connecting plate item no 9999 0031	for cross bar/roof window	= 2     = 2  V= 4	III = 2 IV = 4 V = 8
-	V12	corner 30/30/2/15 mm <sub>item no 9999 0072</sub>	soil profil screw the corner from inside	4	4
1	S21	blind plug Ø10 mm item no 9999 0097	Edge profile-drilling cross bar	4	4
	V14	door hose section 760 mm lg. item no 9999 0181	door threshold seal	1	1
	V23	wedge seal 3 - 5 mm item no 9999 0119	sealing the soil profile insid	See table below !	See table below!
Damas	S9	self-tapping screw pan head 4,2 x 13 item no 9999 0144	door frame-soil profile cover plate/corner (V12)	38*	38*
<u>(</u>	S13	self-tapping screw pan head 4,8 x 45 item no 9999 0150	gable	6	6
	S5/ S1	hexagnal screw M6 x 16 + nut item no 9999 0183 + 9999 0128	screws for pulling	= 40*     = 40*  ∨=44*	III = 40* IV = 44* V = 48*
•	V15	mounting bracket - offset 74 x 30 x 33 mm item no 9999 0207	for the attachement of the greenhouse to a foundation made by customer (not with foundation frame)	10	10
0	S32	washer A6,4 item no 9999 0173	door frames, roof and side profiles	20	20 V = 24
	V1	mounting corner bracket inside item no 9999 00074		je 2x lks. 2x rts.	je 2x lks. 2x rts.

## Assembly procedure gable

ATTENTION! When using a foundation frame attach it to soil profile in advance (see pages 5, 6)



## Assembly procedure gable

ATTENTION! When using a foundation frame attach it to soil profile in advance (see pages 5, 6)



You should be careful:



## Profiles for roof windows (per roof window)

overview	pos.	description	num- ber	length in mm
	4.1	roof window side profile	2	541
	4.2	roof window top/bottom profil	2	953

## Content accessories bag roof window (per roof window)

overview	pos.	description/item number	num- ber	length in mm
*	V25	T-seal item no 9999 0032	2 1	641 1052
	V13	corner with grub screw, internal hex and flat point item no 9999 0070	4	
	V21	allen key item no 9999 0056	1	
	S12/ S1	hexagonal screw M6 x 12 item no 9999 0124   nut M6 item no 9999 0128	3	
	V24	corner bracket/roof window item no 9999 0005	4	

\* <u>Note:</u> The seal is bundled in one strand for all doors and windows, please cut accordingly.

## Assembly roof window





## Automatic Window Opener



#### Auto Opener Installation

- 1. Check whether the greenhouse window can open and close freely and unhindered.
- 2. Install the window opener with the mounting plate (4) in the center of the lower roof window profile (pos 4.2)
- 3. Secure the cylinder by lining up the hole in the piston with the upper hole in the Tcoupling, then insert the cotter pin.
- 4. Install the mounting plate (5) in the center of the cross bar(pos 3.2) using the middle hole in the mounting plate(5)
- 5. Attach the opener frame (1) to the mounting plate (5). Open the roof window until the threads of the piston (2) engage the threads of the opener frame (1). Thread the piston (2) half way into the threads in the opener frame (1).

#### Adjustment:

Let the opener acclimate to the greenhouse for 3-4 hours before you make adjustments.

For earlier engagement and a larger opening, turn the cylinder clockwise.

For a delayed engagement and a smaller opening turn the cylinder counter clockwise. Make sure you don't back it out too far.

For opening engagement advance/delay one full turn is about 1 degree Fahrenheit.

Please keep in mind that greenhouse temperatures can vary and windows can have different opening tolerances.

#### Winter-storage:

If the greenhouse interior does not stay above freezing we recommend you remove the cylinder from the window opener or remove the entire opener. Please store it in a dry frost-free place for the winter. Required Maintenance:

Around springtime every year, check to make sure the piston shaft and cylinder threads are greased. Also check the piston shaft for ease of movement. A dab of marine grease on the piston shaft and the cylinder threads will be sufficient. Failure to do so could render your opener inoperable.

## Profiles for divided revolving door - bottom -

overview	pos.	description		num- ber	length in mm
ריין א	5.3.1	door profile botto		1	700
	5.6	door profile lef	with hole for sash lock	1	692
	5.7	door profile righ	with hinge hole	1	692
	5.9	door profile to	with transverse hole	1	700
	5.8	square tube	with transverse hole	1	740

## Content accessories bag divided revolving door - bottom -

overview	pos.	description	num- ber	length in mm
	V51	metal hinge, black item no 9999 0358	2	
	V28	sash lock item no 9999 0023	1	
	V29	QR-stopper 30 x 30 x 1,5-2 item no 9999 0099	2	
*	V25	T-seal item no 9999 0032	2 2	710 744
-	S18	self-tapping screw countersunk head 4,8 x 25 (hinges) item no 9999 0163	8	
-	S17	self-tapping screw countersunk head 4,2 x 45 (doors) item no 9999 0160	4	
	S19	self-tapping screw countersunk head 3,5 x 22 (sash lock) item no 9999 0152	2	
	S6	pan head screw 3,5 x 38 (square tube) item no 9999 0138	2	
	V32	glazing block 30 x 10 x 4	2	
	V30/ V31	corner bracket door profil left - item no 9999 0009 right - item no 9999 0011	4	

\* Note: The seal is bundled in one strand for all doors and windows, please cut accordingly.

## Assembly - divided revolving door - bottom -

#### view from outside



## Profiles for divided revolving door - top -

overview	noc	description		number/length in mm		
Overview	pos. description		Riga S	Riga		
	5.1	door profile lef		1 1081	1 1264	
	5.2	door profile righ	with hinge hole	1 1081	1 1264	
	5.3	door profile to		1 700	1 700	
	5.4.1	cross bar	with hole for lockable door handle	1 700	1 700	

## Content accessories bag - divided revolving door - top

overview	noc	description	number/length in mm		
Overview	pos.	description	Riga S	Riga	
	V52	door handle, lockable outside - item no 9999 0035 inside - item no 9999 0244	1	1	
	S17	self-tapping screw countersunk head 4,2 x 45 (door) item no 9999 0160	6	6	
	V32	glazing block 30 x 10 x 4	2	2	
*	V25	T-seal	2 710	2 710	
	V25	item no 9999 0032	2 1112	2 1295	
	V51	metal hinge, black item no 9999 0358	2	2	
-	S18	self-tapping screw countersunk head 4,8 x 25 (hinge) item no 9999 0163	8	8	
	V28	sash lock, small item no 9999 0023	1	1	
	S19	self-tapping screw countersunk head 3,5 x 22 (sash lock) item no 9999 0152	2	2	
ſ	V33	door locking device item no 9999 0230	1	1	
()	S22	wing-type self drill, screw counters head 3,5 x 13 (door stop) item no 9999 0189	1	1	
	V30/ V31	corner bracket door profil right - item no 9999 0009	2	2	

\* Note: The seal is bundled in one strand or all doors and windows, please cut accordingly.

## Assembly - divided revolving door - top -

#### view from outside



<u>Note:</u> The seal is bundled in one strand for all doors and windows, please cut accordingly.

## Profiles for rear window

overview	<b>n</b> 00	description		number/length in mm		
Overview	pos.	description		Riga S	Riga	
	5.1.2	door profile left	with hole for sash lock	1 1081	1 1264	
	5.2	door profile right	with hinge hole	1 1081	1 1264	
	5.3.1	door profile top		1 700	1 700	
	5.4.2	door profile bottom	with hole for window opener	1 700	1 700	

## Content accessories bag - rear window -

	noc	description	number/length in mm		
Overview	pos.	description	Riga S	Riga	
	S17	self-tapping screw countersunk head 4,2 x 45 (window) item no 9999 0160	6	6	
	V32	glazing block 30 x 10 x 4	2	2	
<b>*</b>	V25	T-seal	2 710	2 710	
		item no 9999 0032	2 1112	2 1295	
	V51	metal hinge, black item no 9999 0358	2	2	
	S18	self-tapping screw countersunk head 4,8 x 25 (hinges) item no 9999 0163	10	10	
	V28	sash lock, small	1	1	
CHILDREN THE	S19	self-tapping screw countersunk head 3,5 x 22 (sash lock) item no 9999 0152	2	2	
allo	V85	opener for rear window item no 9999 0303	1	1	
2 3	V145	CORNER (fixation of window item no 9999 0416	1	1	
Presson	S9	self-tapping screw pan head 4,2 x 13 item no 9999 0144	2	2	
	V30/ V31	corner bracket door profil left - item no 9999 0009 right - item no 9999 0011	2	2	
	S12/ S1	hexagonal screw M6 x 12 item no 9999 0124   with nut M6 item no 9999 0128	4	4	

\* Note: The seal is bundled in one strand for all doors and windows, please cut accordingly.

## Assembly - rear window -

#### view from outside



## **Installation of Door Catch**

## Door Catch Placement Riga Model IIs, IIIs, IVs









## Door Catch Placement Riga Model III, IV, V





## Assembly procedure - eaves -

ATTENTION! When using a foundation frame attach it to the soil profile before these steps (see pages 5, 6)



## Assembly procedure - eaves -

ATTENTION! When using a foundation frame assemble in advance on this soil profile (see pag s 5,

step 11	to step 11:
shown enlarged side curve (pos. 2.3)	First place a side curve up against the edge curve installed on the gable end. You want to match curvature of the edge curve with the side curve. This will ensure that the side curve is installed in the correct direction. Slide the side curve (pos 2.3) into the ridge profile and into the soil profile. Work it down until it is flush with the glazing then work the glazing into it. If necessary you can use a rubber mallet on the side curve to move it down. Be careful not to damage the aluminum.
step 12	to step 12:
	Continue inserting the side glazing and side curves. The connecting plate (V4) is attached from the inside with screw hex M6 x 16 and nut M6. This secures the window crossbar to the greenhouse.
step 13	to step 13:
	Insert the remaining glazing panels and side curves.

## Assembly procedure -eaves-

**<u>ATTENTION!</u>** When using a foundation frame attach it to soil profile in advance (see pages 5, 6)

step 14	to step 14:
	Attach the preassembled door gable. Refer to steps 8-9 for attachment procedures. For added stability install the inside corner (V1). Use the self-tapping screw pan head 4,2 x 13 (S9).
Step 15	to step 15: Install the door and windows. Instructions, see page 12-21.
Step 16 Glazing cut away in image to show installation.	to step 16: The stabilization angle (pos 3.4) is installed on both sides from inside. It is attached to the side curve with screw M6 x 16, nut M6 and washer A6, 4 screwed. The stabilization angles (pos 3.4) are also the rear supports for the top and bottom shelf (see separate instructions).

Polycarbonate Glazing Size Sheet

below roof	p	number	1	1	2	1	2	4
window	D	size (a x b)	1048 x 1984	1048 x 1984	1048 x 1984	1048 x 2345	1048 x 2345	1048 x 2345
window	p	number	1	1	2	1	2	4
	v	size (a x b)	974 x 565					
side glazing	p	number	3	5	6	5	6	6
	D	size (a x b)	1048 x 2634	1048 x 2634	1048 x 2634	1048 x 3000	1048 x 3000	1048 x 3000
rear gable	a	number	1	1	1	1	1	1
below	D	size (a x b)	787 x 728					
div. revolv.	p	number	1	1	1	1	1	1
door/bottom	a	size (a x b)	724 x 676					
door/	a	number	2	2	2	2	2	2
window	a	size (a x b)	724 x 1031	724 x 1031	724 x 1031	724 x 1215	724 x 1215	724 x 1215
gable	a b	number	2	2	2	2	2	2
triangular		size (a x b)	779 x 239					
gable below	p	number	4	4	4	4	4	4
	D	size (a x b)	730 x 728	730 × 728	730 × 728	1048 x 728	1048 x 728	1048 x 728
gable	a b	number	4	4	4	4	4	4
above		size (a x b)	730 x 1135	730 x 1135	730 x 1135	1048 x 1319	1048 x 1319	1048 x 1319
type of house			Riga II S	Riga III S	Riga IV S	Riga III	Riga IV	Riga V