



Assembly Manual
w/ Part Master

Edition

GREENHOUSE TECHNOLOGY INC.

Greenhouse Irrigation and Control

Boomerangs Installation Guide

Getting Familiar With Your Machine

Congratulations on your commitment to improving the quality and value of your plants! With the Boomerang® Basket System you have everything you need to exceed all of your growth and economical expectations!

With all of the irrigation choices available today, finding the best watering solution for your needs can be confusing. Everyone at Greenhouse Technology, Inc. would like to congratulate you and thank you for selecting the Boomerang® Basket System.

The Boomerang® Basket System's superior design and quality is unmatched by any other single piece of equipment available today. You will not believe the outstanding performance above others in the industry.

The Boomerang® is the best overhead basket system product available, and you're about to prove it to yourself.



Basic Assembly Principles

To help you assemble the Boomerang® Basket System a quick and easy way there are a few basic principles that you should follow.

- To make the assembly process go faster and save you extra time and effort, gather the pieces you need for each step and thoroughly read the assembly instructions for that step prior to starting assembly for the step.
- Be sure to have all the tools required for the assembly ready before hand. A list of the required and suggested tools is provided in this manual.

*Based on 100ft, 2 layer Boomerang® System

Parts List

Item No.	Qty.	Item No.	Qty.
1	1	24	2
2	1	25	2
3	1	26	28*
4	1	27	28*
5	1	28	225*
6	1	29	225*
7	1	31	113*
8	1	32	113*
9	2	33	0*
10	4	34	113*
11	4	35	113*
12	4	36	0*
13	2	37	1
14	2	38	2
15	2	39	2
16	2	40	2
17	1	41	20(Ft)
18	2	42	1
19	2		
20	9(Ft)		
21	4(Ft)		
22	2		
23	6		

3/4" Spray Head Nozzel

Tension Anchor Plate

Aluminum Extrusion 11"

2" Strap

Basket Hook

Basket Hook Clip

Black Plastic Tab

Green Plastic Tab

Blue Plastic Tab

Counter Weight

Basket Hanger (20")

Basket Hanger (40")

Pull Cord Housing

Pencil Magnet Reader

Earth' Magnet

OMRON Switch

Network Wire

Boomerang® Controller

Hardware List

Item No.	Qty.	Item No.	Qty.
A	4	AA	32*
B	20	BB	2
C	56*	CC	3
D	4	DD	1
E	2	FF	1
F	4	GG	2
G	1	HH	2
H	2	II	2
I	2	JJ	2
J	6	KK	2
K	15	LL	2
L	120	MM	2
M	1	NN	2
N	16	OO	4
O	4	PP	2
P	4		
Q	20		
R	16		
S	16		
T	16		
U	2		
V	4		
W	4		
X	6		
Y	136		
Z			

Item No.	Qty.	Item No.	Qty.
AA	32*	NYLOCK 3/8" Jam Nut	
BB	2	1/2" Conduit Clamp	
CC	3	3/4" Conduit Clamp	
DD	1	3/4" T ^m SSS	
FF	1	3/4" Elbow SS	
GG	2	3/4" Male Adaptor	
HH	2	1 x 3/4" Bushing	
II	2	1 x 1/2" Bushing	
JJ	2	1/2" Nipple x Closed	
KK	2	1/2" Male x Hose Barb	
LL	2	1/2" Female x Hose Barb	
MM	2	1/2 x 8" Nipple	
NN	2	1/2 x 3/4" Male Hose Union, Brass	
OO	4	1/2" Worm Clamp	
PP	2	3/4 X 3' Threaded Rod	

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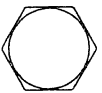
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Hardware Guide

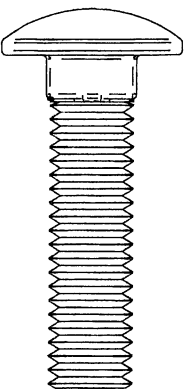
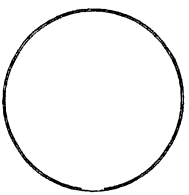
Below is a description of the hardware you will using for the installation of your Boomerang®



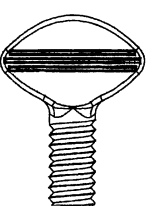
Item#: A
Qty: 4
Decr: 1/4 x 1"
Tap Bolt



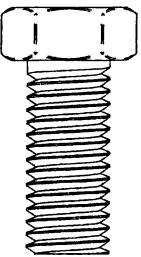
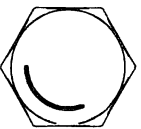
Item#: F
Qty: 4
Decr: 6-32 x 1 1/8"
Pan Head Screw



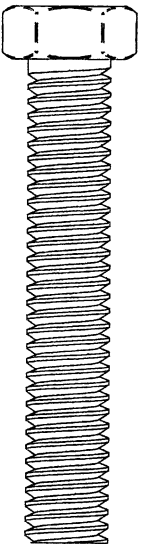
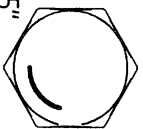
Item#: B
Qty: 20
Decr: 3/8 x 1"
Carriage Bolt



Item#: G
Qty: 1
Decr: 1/2-20 x 3/4"
Thumb Screw



Item#: C
Qty: 56
Decr: 3/8 x 1"
Tap Bolt

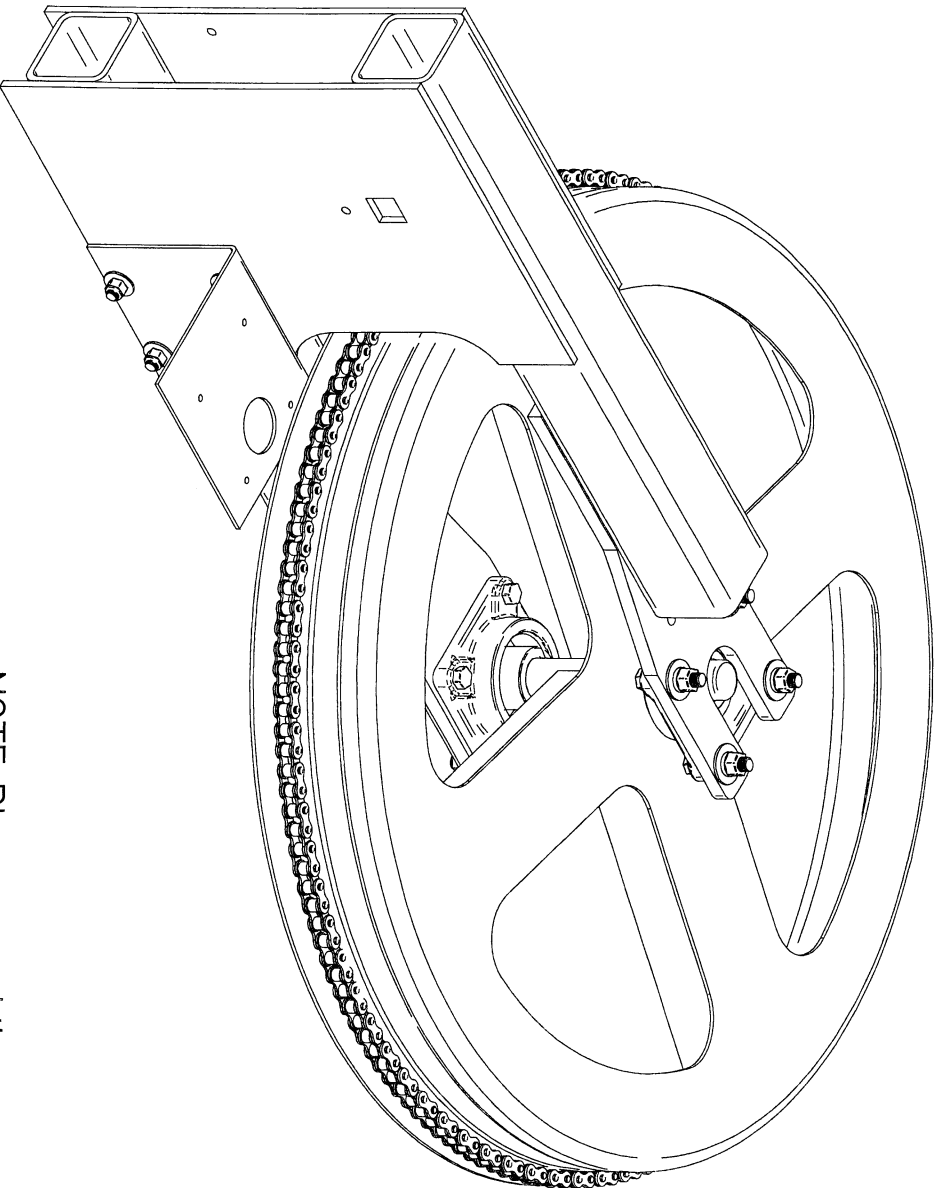


Item#: D
Qty: 4
Decr: 3/8 x 2.5"
Tap Bolt



Item#: E
Qty: 2
Decr: 6-32 x 2"
Pan Head Screw

Boomerang Assembly Manual: Part 1/drum assm.

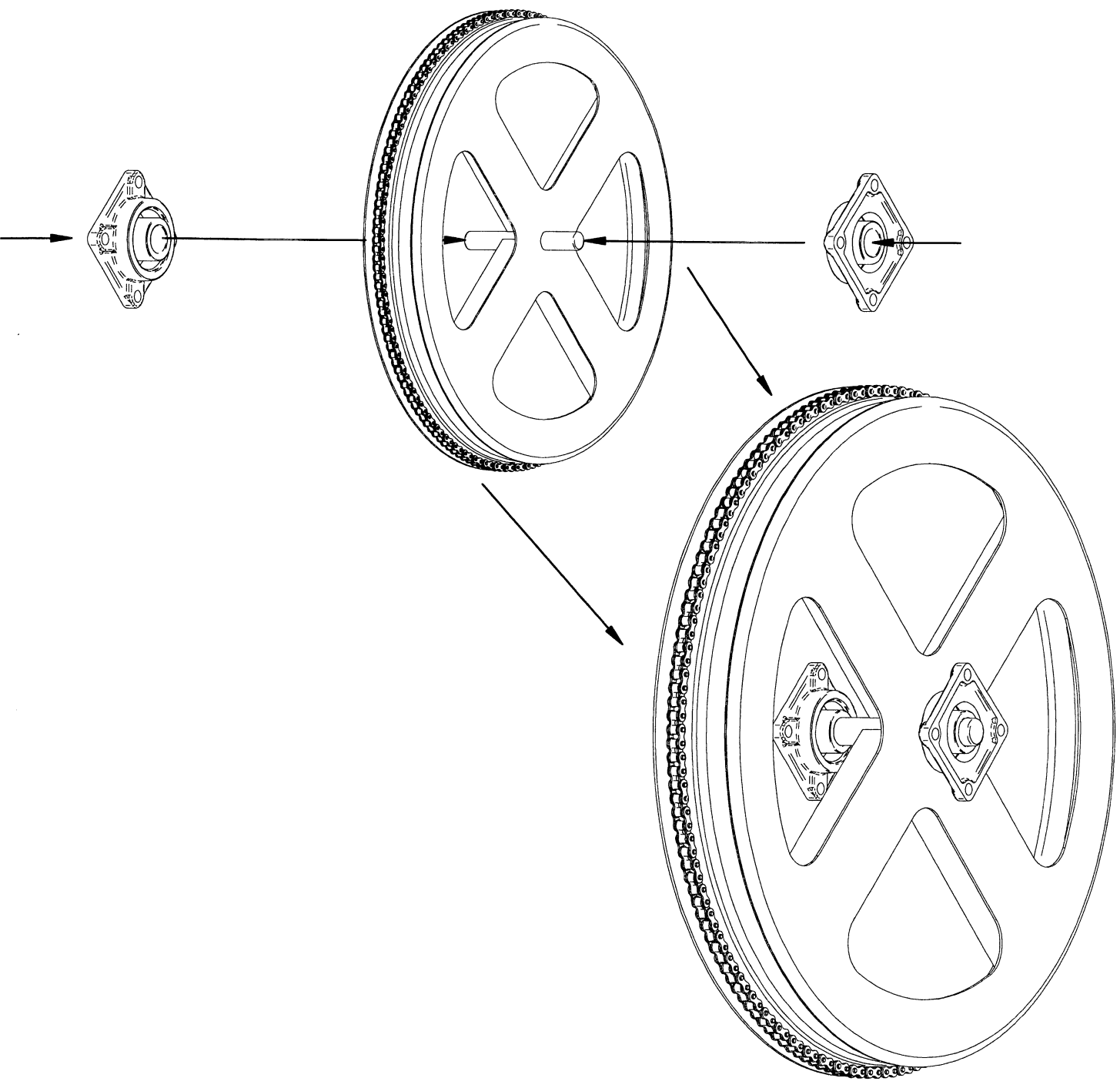


NOTE: Please read the construction manual thoroughly and identify all hardware and materials before beginning assembly. This assures proper placement of all parts and a smooth installation.

Part I: step A

Assembly of the drum and corresponding parts

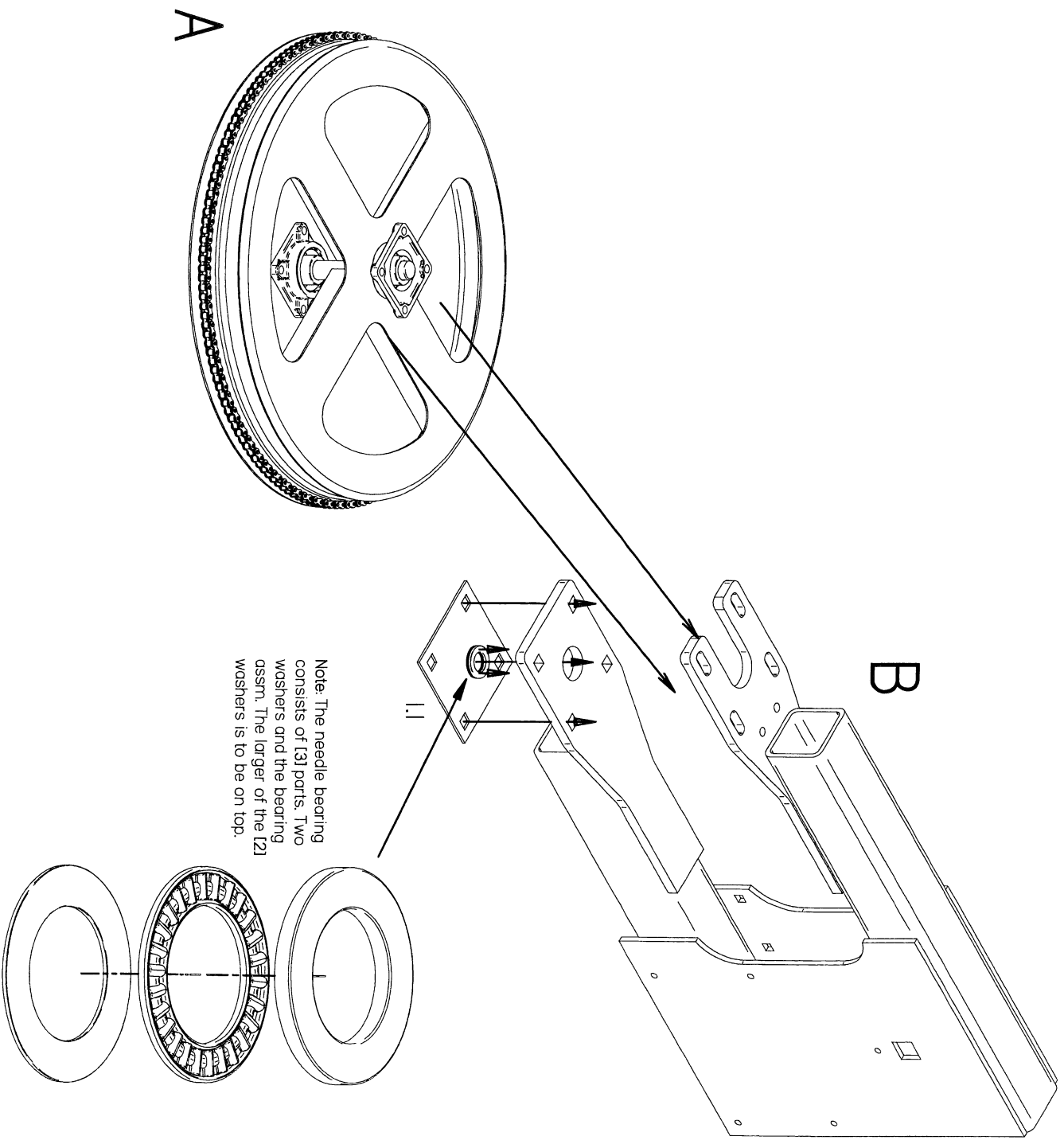
Mount pillow blocks to both ends of the drum axlesee figure 1./1.



Part I: step B

Mating of the drum assm./step A/ with the B part.

Before fastening A into B, be certain that the 'needle' bearing is in place with support plate/see figure 1.1/.

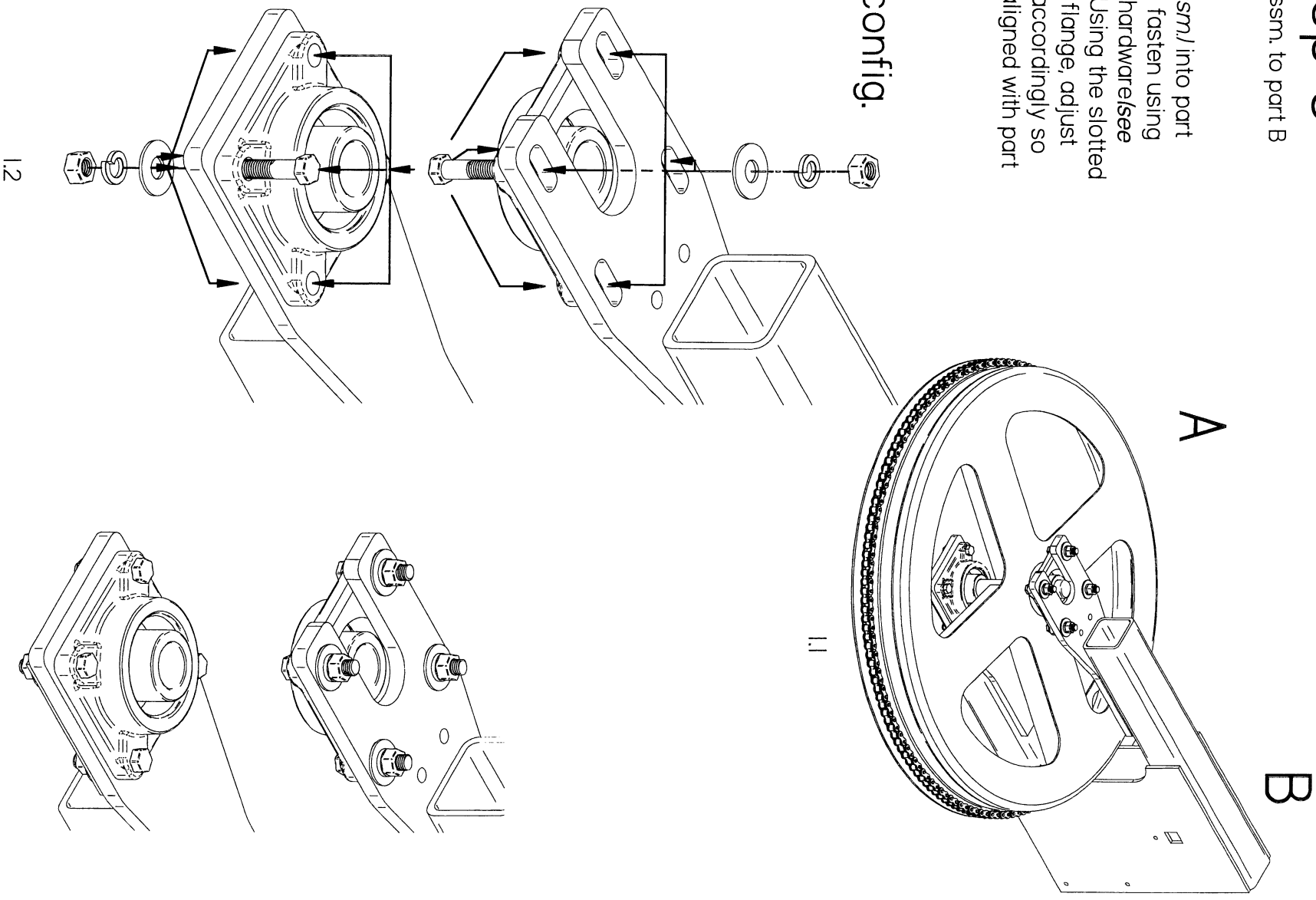


Part I: step C

Fastening the drum assm. to part B

Position Aldrum assm./ into part B. See figure 1.1 and fasten using the provided 7/16" hardware. See figures 1.2 and 1.3. Using the slotted holes in the upper flange, adjust the Aldrum assm./ accordingly so that it is properly aligned with part B. See next page.

Hardware config.



Note: The steps up to this point are duplicated on the other end of the Boomerang, otherwise known as the Idler Assembly.

Part I: step D

Mounting the motor plate

1x3/8" bolts/d are fed from behind and fasten the motor plate as illustrated in figure 1.1 and 1.2.

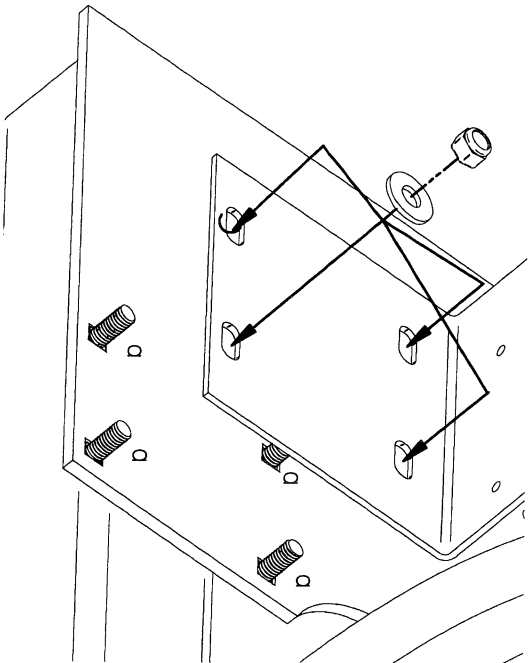


Figure 1.1

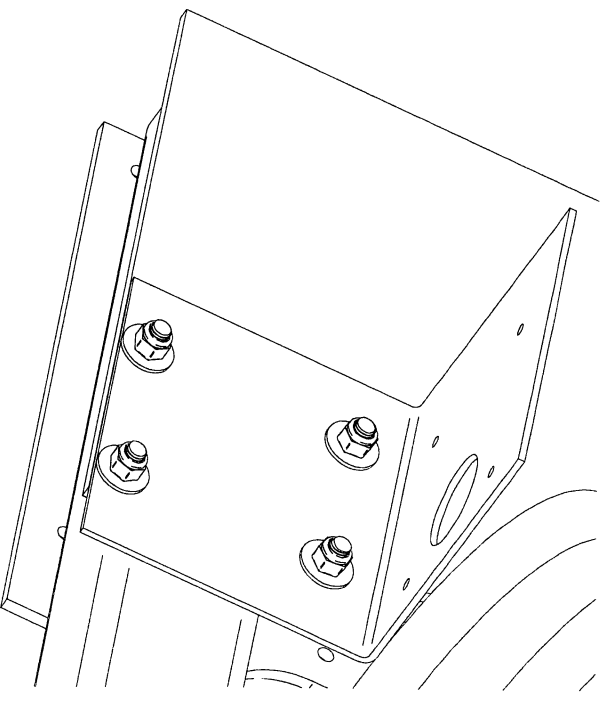
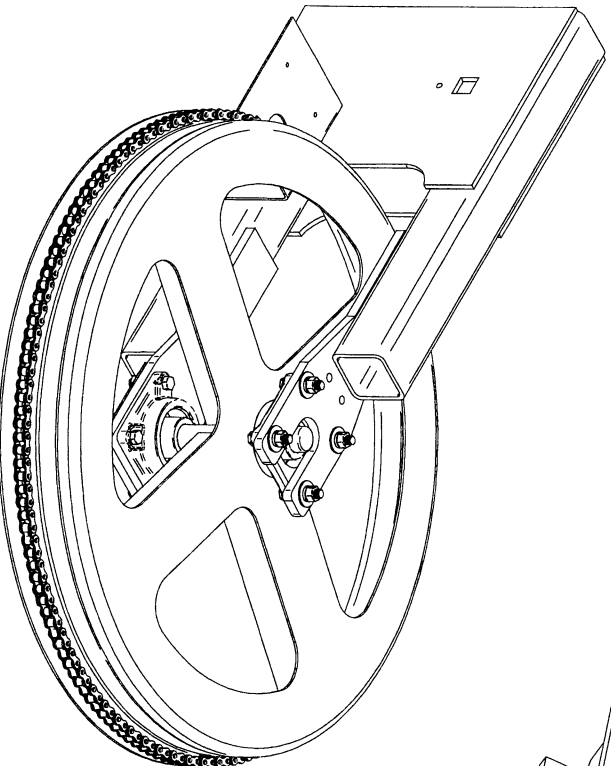


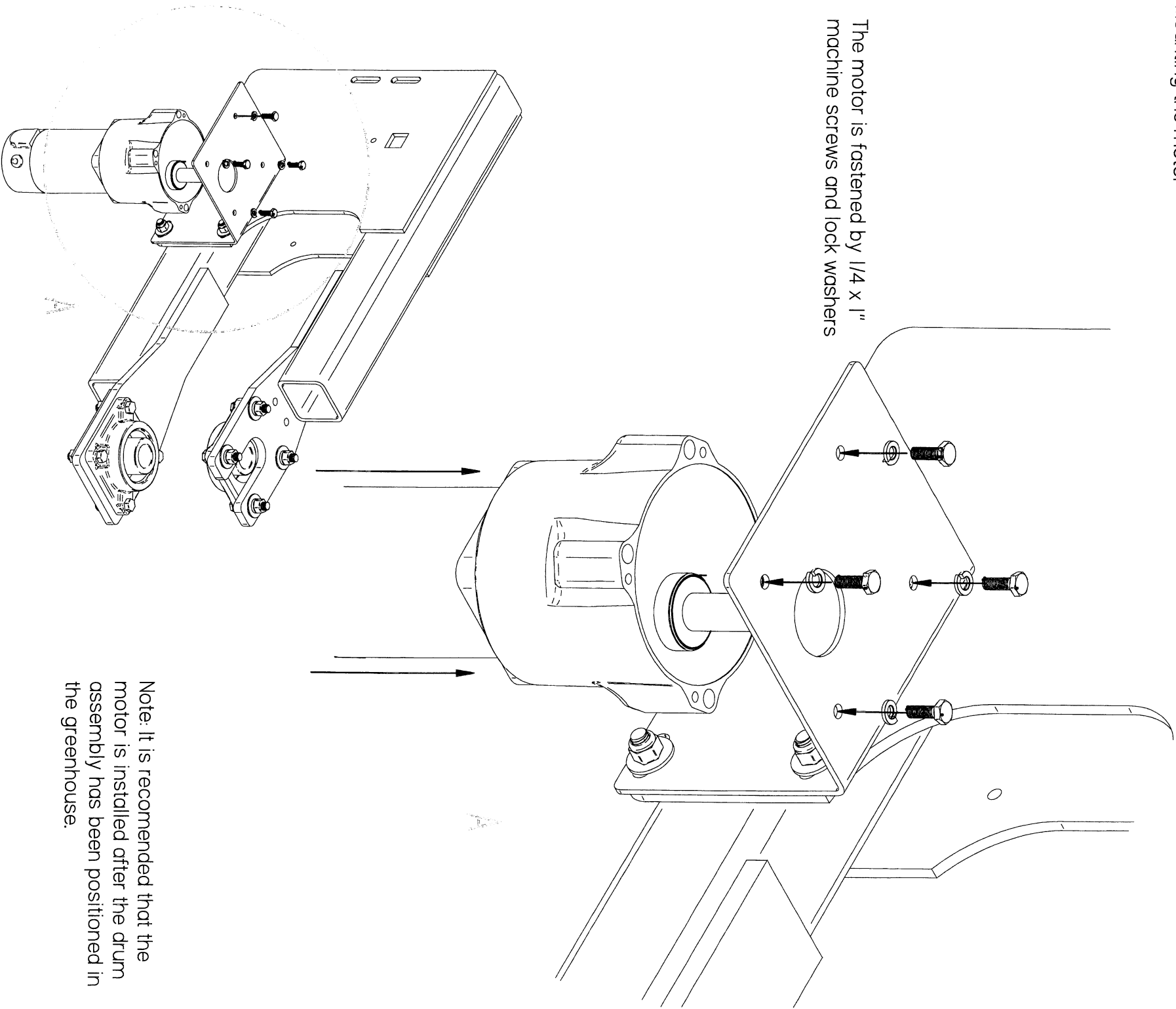
Figure 1.2



Part I: step E

Mounting the motor

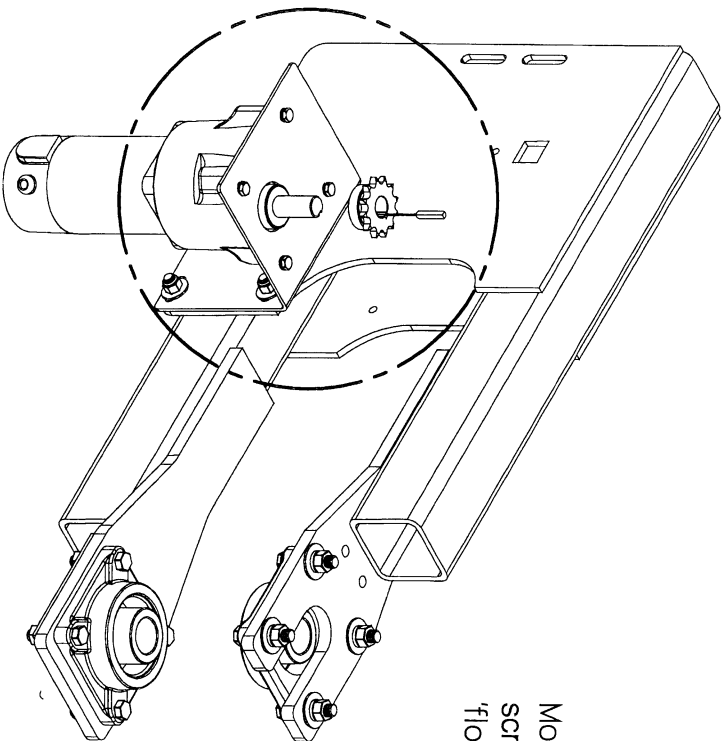
The motor is fastened by 1/4 x 1" machine screws and lock washers



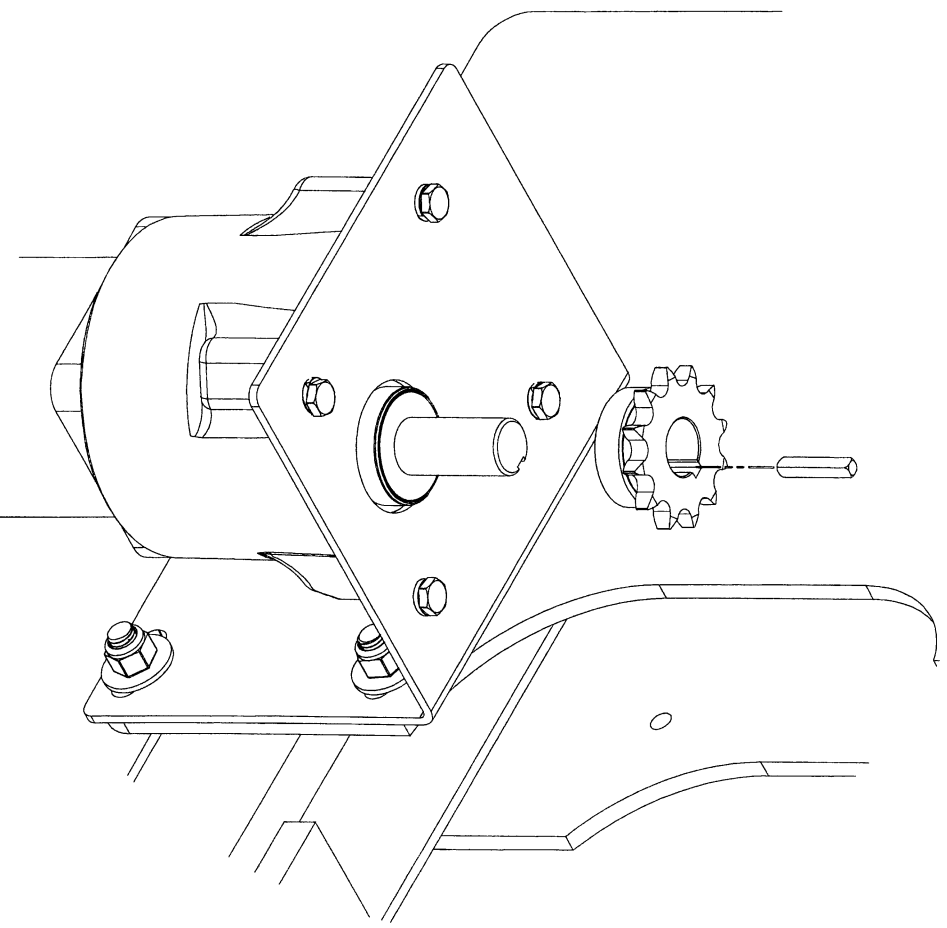
Note: It is recommended that the motor is installed after the drum assembly has been positioned in the greenhouse.

Part I: step E

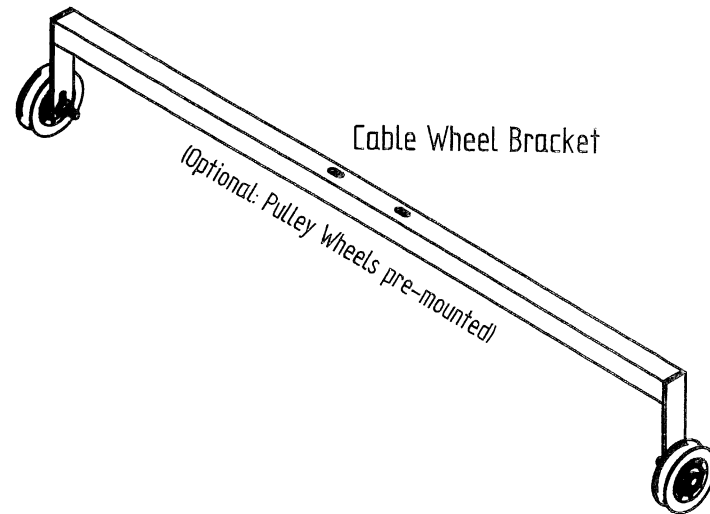
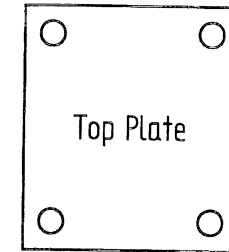
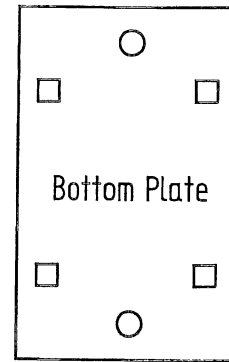
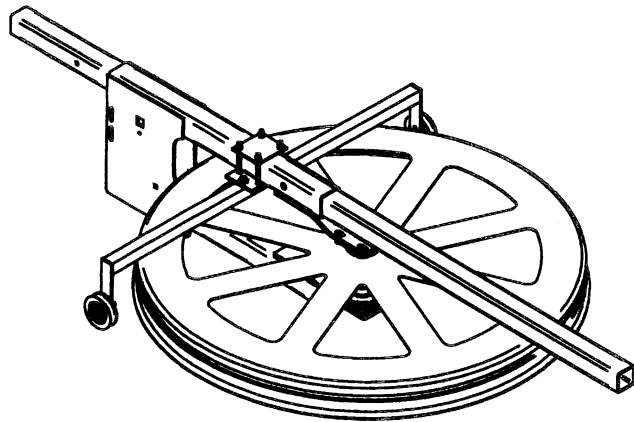
Sprocket



Mount the sprocket and key. Remove both the set screws on the sprocket. The sprocket is to be left 'floating' on the motor axle.



Mounting The Cable Wheel Guide Bracket



4" Carriage Bolt



1" Carriage Bolt



3/8 Washer



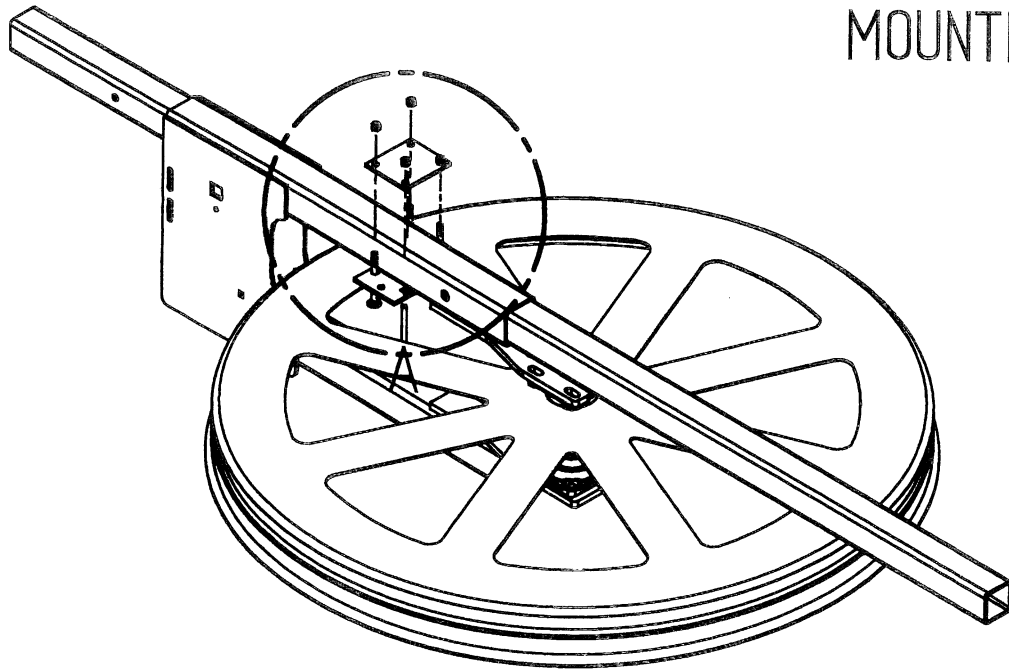
3/8 NYLOCK



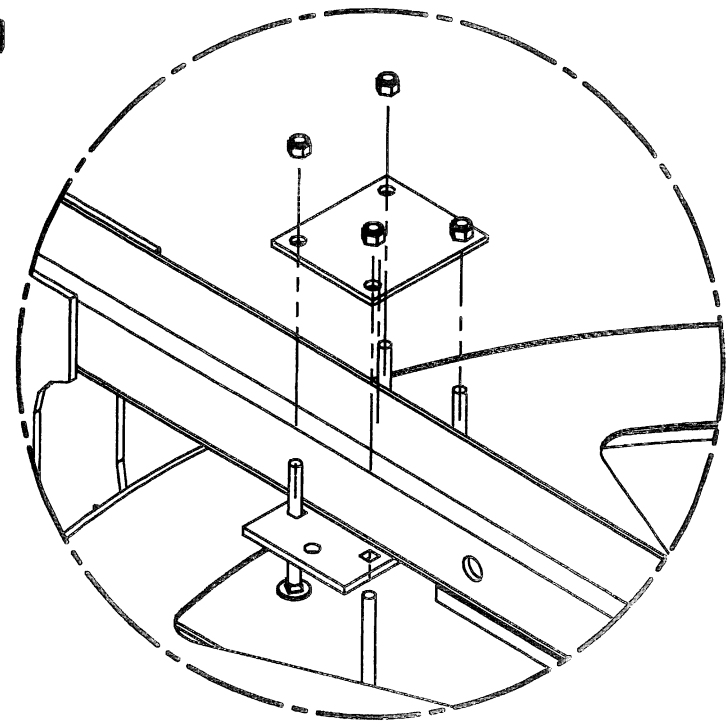
3/8 Jam NYLOCK



MOUNTING TOP & BOTTOM PLATES



Using 4- 3/8 x 4" carriage bolts and 4 3/8 Nylocks position the Top and Bottom plates as shown in Detail A and HAND tighten each nylock (they should be facing up for easier access). DO NOT tighten completely as this will be needed to be adjustable in later steps.



DETAIL A