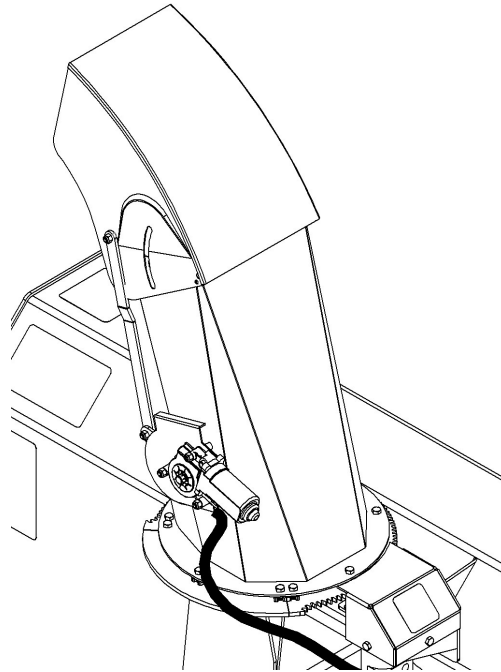




OWNER'S MANUAL
Model Number

700666



BERCO
ELECTRIC DEFLECTOR KIT
FOR CHUTE
COMMERCIAL GRADE

- * ASSEMBLY
- * OPERATION

- * REPAIR PARTS
- * MAINTENANCE

CAUTION:

**READ & FOLLOW ALL SAFETY RULES & INSTRUCTIONS BEFORE
OPERATING YOUR EQUIPMENT**



LIMITED WARRANTY

Conditions and Products Covered:

BERCOMAC guarantees any part of the product or accessory manufactured by BERCOMAC and found in the reasonable judgment of BERCOMAC to be defective in material and or workmanship will be repaired or replaced by an authorized dealer without charge up to our maximum labor rates and pre-established times. For replacement parts only standard ground freight services are covered. This warranty extends to the original retail purchaser only and is not transferable to any subsequent purchasers. This warranty applies to the products bought and used in North America.

Warranty Period

(from date of the original retail purchase)

- Residential use: 1 year
- Semi-commercial, professional or rental use: 90 days

Exceptions Noted Below; the following items are guaranteed by the original manufacturer and have their own warranty, conditions and limited time:

- Tire Chains: 90 days
- Engines: Will vary as per the manufacturer
Please refer to the engine manufacturer's warranty statement included with the unit. BERCOMAC is not authorized to handle warranty adjustments on engines.

Items and Conditions NOT Covered:

This warranty does not cover the following:

- Pick-up or delivery charges or in-home services fees.
- Any damage or deterioration of the unit, parts and or finish of these due to normal use, wear and tear, or exposure.
- Cost of regular use or maintenance service or parts, such as gas, oil, lubricants, tune-up parts, and adjustments.
- Any part or accessory which has been altered, modified, misused, neglected, accidentally damaged or not properly installed, maintained, stored or repaired not in accordance with the instructions in the owner's manual.
- Repair due to normal wear and or any wear items such as shear pins, bolts, belts, etc.
- Expedited freight fee services for replacement parts.
- Shear bolts and shear pins are to be considered as a preventive measure not as an assured protection, any damages resulting from the lack of shear bolts breakage are not covered.
- Damages due to product being installed on a vehicle other than stipulated in owner's manual.

NOTE: All warranty work must be performed by an authorized dealer using original (manufacturer) replacement parts.

NOTE: Bercomac reserves the right to change or improve the design of any part or accessory without assuming any obligation to modify any product previously manufactured.

Instructions for Obtaining Warranty Services:

Contact dealer where equipment was purchased or any other BERCO service dealer to arrange service at their dealership. Requests for warranty claims must be carried out through the same distribution network used to purchase the product.. Don't forget to bring your proof of purchase (sales receipt) to the BERCOMAC dealer.

Owner's Responsibilities:

BERCOMAC's defective equipment or part must be returned to an authorized dealer within the warranty period for repairs. In the event that defective merchandise must be returned to manufacturer for repairs, freight fees are prepaid and a written authorization from BERCOMAC must be obtained by dealer prior to the shipment. This warranty extends only to equipment operated under normal conditions. To validate a warranty claim, it is the user's responsibility to maintain and service the unit as specified in the owner's manual or to have the unit serviced at their dealer at their expense.

General Conditions:

The sole liability of BERCOMAC with respect to this warranty shall be strictly and exclusively repair and replacement as mentioned herein. BERCOMAC shall not have any liability for any other costs, loss or damage, including but not limited to, any incidental or consequential loss or damage. Taking advantage of the warranty does not in any way extend the length or renewal of the warranty.

In particular, without being limited to, BERCOMAC shall have no liability or responsibility for:

- Travel time, overtime, after hours time or other extraordinary repair charges or relating to repairs and or replacements outside of normal business hours.
- Rental of like or similar replacement equipment during the period of any, repair or replacement work.
- Any communicating or travel charges.
- Loss or damage to person or property other than that covered by the terms of this warranty.
- Any claims for lost revenue, lost profit or any similar costs as a result of damage or repair.
- Attorney's fees.

BERCOMAC's responsibility in respect to claims is limited to making the required repairs or replacement without charge up to our maximum labor rates and pre-established times and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any product or accessory. In no event recovery of any kind be greater than the amount of the purchase price of the product sold.

This warranty gives you specific legal rights. You may also have other rights, which vary from state to state.

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INTRODUCTION

TO THE PURCHASER

This new accessory was carefully designed to give years of dependable service. This manual has been provided to assist in the safe operation and servicing of your attachment.

NOTE: All photographs and illustrations in the manual may not necessarily depict the actual models or attachment, but are intended for reference only and are based on the latest product information available at the time of publication.

Familiarize yourself fully with the safety recommendations and operating procedures before putting the machine to use. Carefully read, understand and follow these recommendations and insist that they be followed by those who will use this attachment.



THIS SAFETY ALERT SYMBOL IDENTIFIES AN IMPORTANT SAFETY MESSAGE IN THIS MANUAL THAT HELPS YOU AND OTHERS AVOID PERSONAL INJURY OR EVEN DEATH. DANGER, WARNING, AND CAUTION ARE SIGNAL WORDS USED TO IDENTIFY THE LEVEL OF HAZARD. HOWEVER, REGARDLESS OF THE HAZARD, BE EXTREMELY CAREFUL.

DANGER: Signals an extreme hazard that will cause serious injury or death if recommended precautions are not followed.

WARNING: Signals a hazard that may cause serious injury or death if the recommended precautions are not followed.

CAUTION: Signals a hazard that may cause minor or moderate injury if the recommended precautions are not followed.

Record your attachment serial number and purchase date in the section reserved below (there is no serial number on the subframe). Your dealer requires this information to give you prompt, efficient service when ordering replacement parts. Use only genuine parts when replacements are required.

If warranty repairs are required please present this registration booklet and original sales invoice to your selling dealer for warranty service.

This manual should be kept for future reference.

Please check if you have received all the parts for your kit with the list of the bag and the list of the box.

SERIAL NUMBER : _____
(IF APPLICABLE)

MODEL NUMBER: _____

PURCHASE DATE : _____

SAFETY PRECAUTIONS

Careful operation is your best insurance against an accident. Read this section carefully before operating the tractor and attachment. All operators, no matter how experienced they may be, should read this and other manuals related to the tractor and attachments before operating. It is the owner's legal obligation to instruct all operators in safe operation.

TRAINING



This symbol, "Safety Alert Symbol", is used throughout this manual and on the attachment safety labels to warn of the possibility of personal injury. Please take special care in reading and understanding the safety precautions before operating the attachment or the tractor.

1. Read the snowblower owner's manual carefully. Be thoroughly familiar with the controls and proper use of the attachment.
2. Keep hands and feet away from the chute and all other moving parts.

WHENEVER YOU SEE THIS SYMBOL



IT MEANS:

WARNING!

BECOME ALERT !

YOUR SAFETY IS INVOLVED!

ASSEMBLY

TOOLS REQUIRED:

- 1 Ratchet
- 2 Wrenches 7/16", 1/2"
- 1 Wrench (for the nuts on the posts of the battery on the vehicle)
- 1 Socket 7/16"
- 1 Wire stripper
- 1 Flat screwdriver
- 1 Drill
- 1 Bit 9/32"
- 1 Square head screwdriver #2
- 1 Cross head screwdriver #2
- 1 Pair of snips

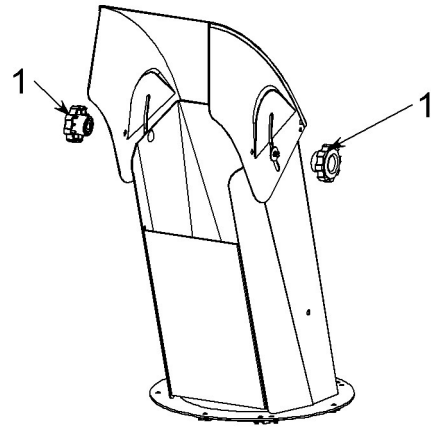
ASSEMBLY

STEP 1 INSTALLATION OF THE ELECTRIC DEFLECTOR ADJUSTMENT KIT :

Remove the two knobs (item 1) from the deflector and replace them by two nylon insert lock nuts 5/16".

Leave the two nylon washers 11/32" under the nylon insert lock nuts.

DO NOT TIGHTEN COMPLETELY so that the deflector moves freely.

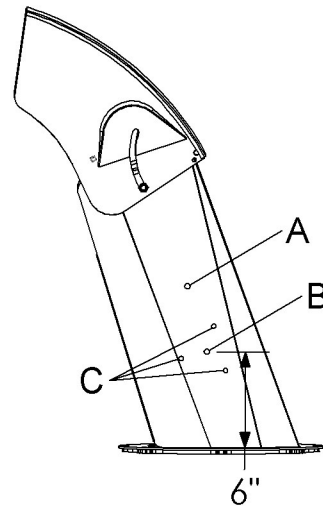


Remove knobs and replace with lock nuts

Drill holes B (\varnothing 9/32") and C (\varnothing 11/32") on the side of the chute with the drilling template.

Use the hole A and the edges of the chute to position the drilling template.

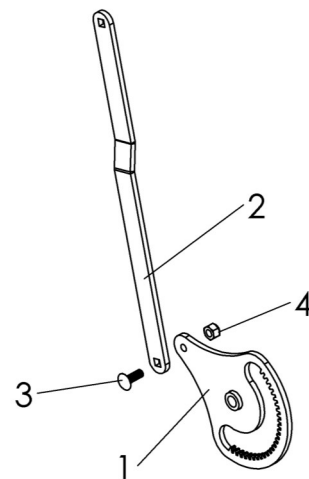
Note: Depending on the model of the blower, some chutes have the pre-drill hole B. Then use hole B to position the drilling template.



Drill the chute

Assemble the lever (item 1) and the arm (item 2) with a carriage bolt 1/4" x 3/4" and a nylon-insert locknut 1/4".

DO NOT TIGHTEN COMPLETELY so that the deflector moves freely.



Assemble the lever

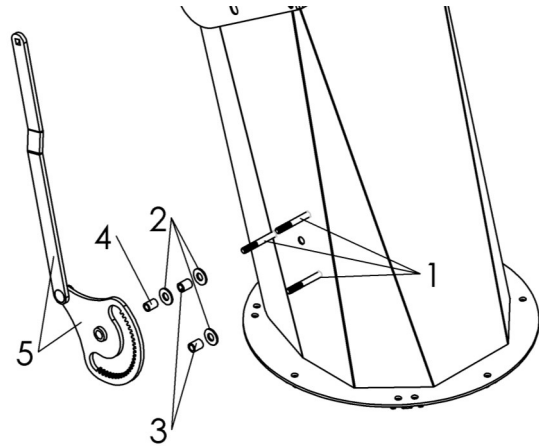
ASSEMBLY

Insert three hex. bolts 1/4" x 2" (item 1) into the hole $\text{\O} 9/32$ " of the chute.

Insert two spacers (item 2) on the two back bolts.

Insert the oil lite bushing (item 3) on the front bolt.

Insert the lever assembly (item 4) on the oil lite bushing (item 3).



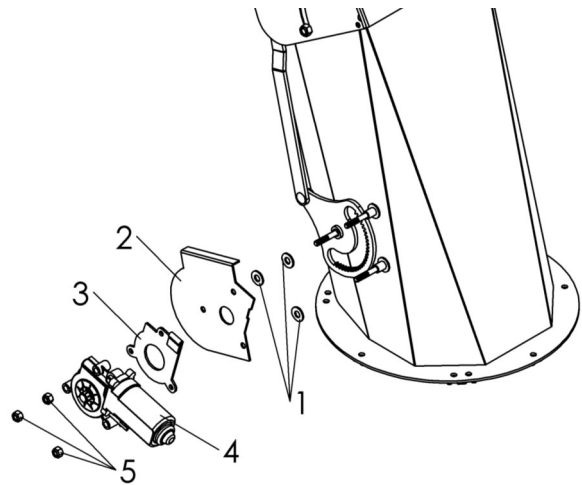
Install the lever

Insert the washer 5/16" (item 1) and the bracket (item 2) on the bolts.

Insert the gasket (item 3) and the electric motor (item 4) on the bolts.

Secure the assembly with three nylon-insert locknuts 1/4" (item 5).

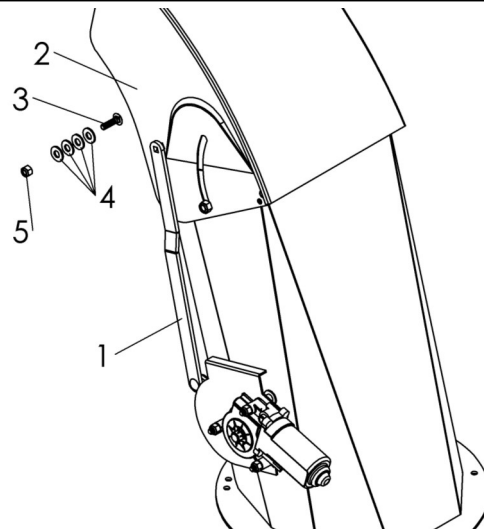
Make sure the gasket is properly positioned on the motor.



Install electric motor

Secure the arm (item 1) on the head of the chute (item 2) with the carriage bolt 1/4" x 3/4" (item 3), four flat washers 5/16" (item 4) and the nylon-insert locknut (item 5). The flat washer must be positioned between the head of the chute and the arm.

DO NOT TIGHTEN COMPLETELY so that the deflector moves freely.

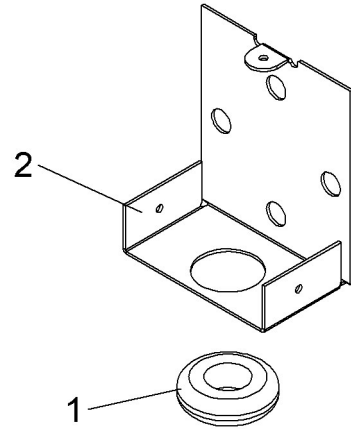


Secure the arm

ASSEMBLY

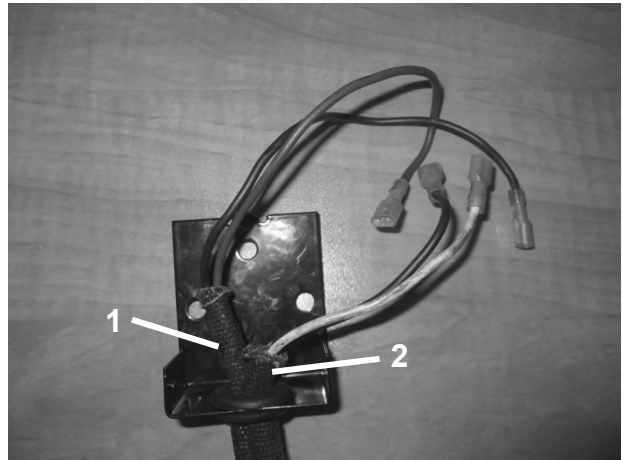
ÉTAPE 2 ASSEMBLY OF THE ELECTRIC CONTROL BOX

Install the rubber grommet (item 1) in the cover box (item 2).



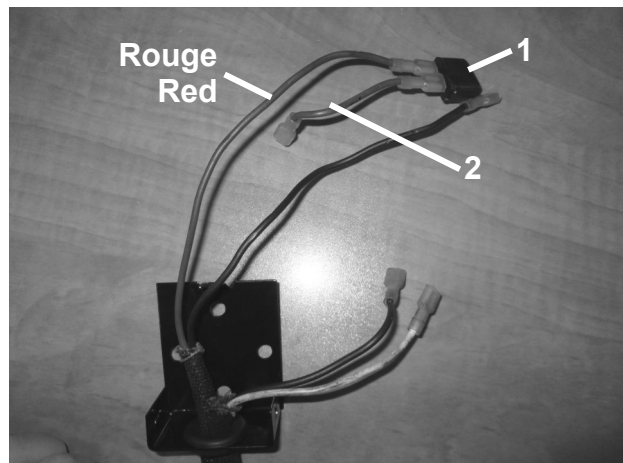
Install the grommet

Pass wire (item 1 and 2) thru the rubber grommet.



Assemble wires

Plug the breaker (item 1) on the red wire and plug the small red wire (item 2) on the breaker .



Plug the breaker

ASSEMBLY

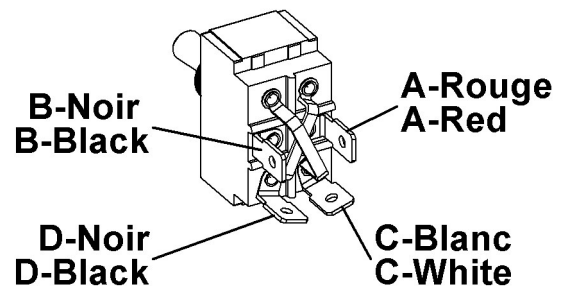
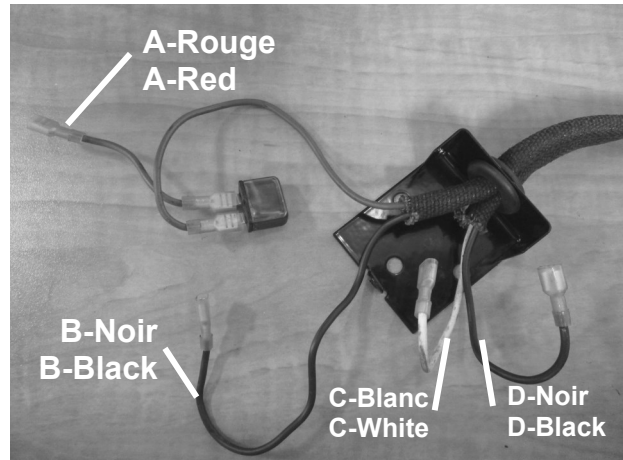


Caution



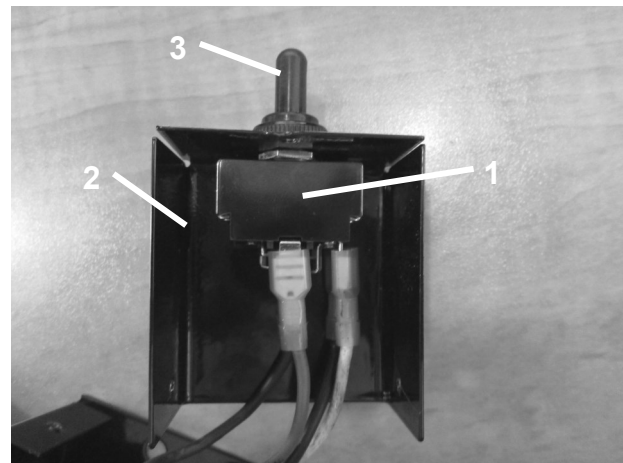
Be sure to position wires A and B to avoid short circuit

Plug wires on the switch as shown.



Plug the switch

Install de switch (item 1) in the box (item 2). Secure with the rubber boot (item 3). Tighten firmly.



Install the switch

ASSEMBLY

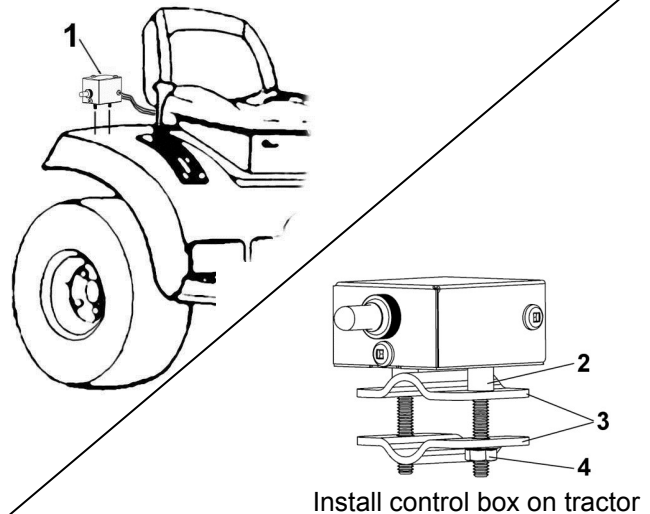
STEP 3 **INSTALLATION OF THE ELECTRIC CONTROL BOX:**

NOTE: Choose the ideal place to install the control box (item 1).

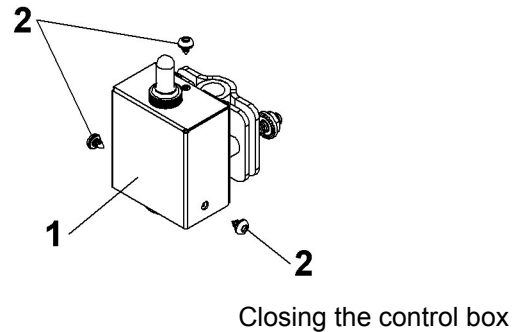
We suggest putting it on the right fender of the tractor, close to the driver's seat, the switches towards the outside and secure the control box (item 1) with two 1/4 x 1/2" bolts and flange nuts (item 4).

You may install it elsewhere with the spacers (item 2), support brackets (item 3), flange nuts and / or any other bolts supplied.

It is also possible to install the switch without the control box in the dashboard or on the lever of the tractor's hydraulics.



Close the control box (item 1) using three metal screw #8 x 1/4" (item 2).



Turn the chute to its maximum towards the right.

Secure the wires of the deflector motor (item 1) with a tie wrap around the motor.

Tie the wires with another tie wrap in the hole at the base of the deflector (item 2) as shown.

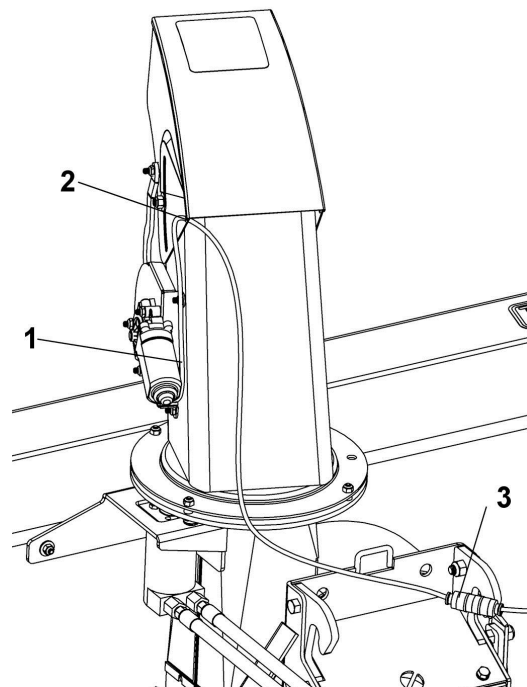
Install the connector (item 3) by cutting the wires to the desired length one at a time.

Make sure to install the same wire to the male pole and to the corresponding female pole.

It is recommended to place the connector as close as possible to the vehicle.

The reason for the connector is to facilitate dismounting of the snowblower.

Connect the red and black wires with a round eyelet on the battery's posts, The red wire on the positive post and the black wire on the negative post.



TROUBLESHOOTING

(For identification, see the parts breakdown)

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
Electric motor does not work.	Overheating of the motor.	These motors are equipped with an internal protector. Wait 10 minutes before using.
The deflector works in the opposite direction.	Wires are inversed.	Change the black wire with the white wire of the electric motor to the switch.

TORQUE SPECIFICATION TABLE

GENERAL TORQUE SPECIFICATION TABLE USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

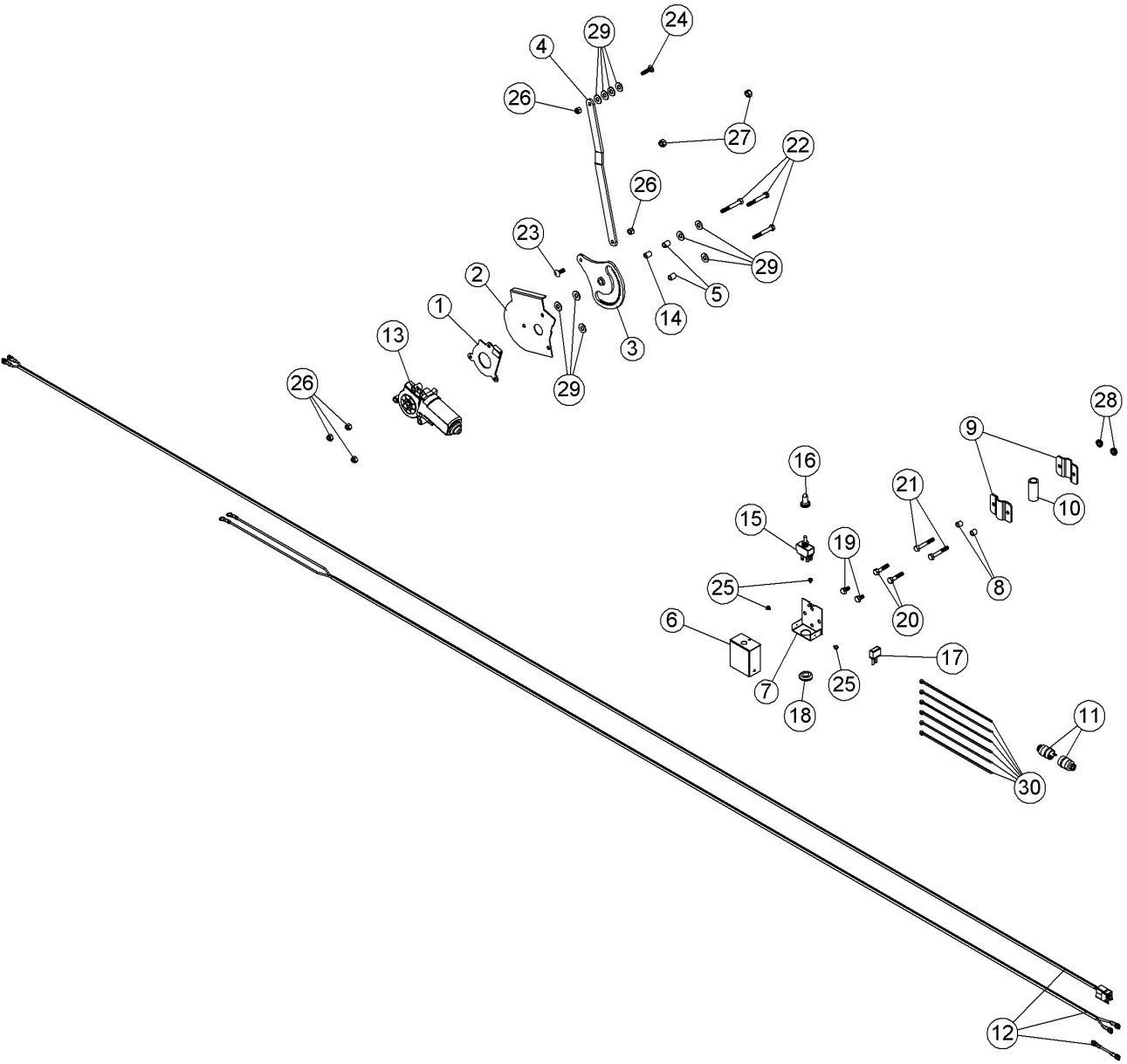
NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

* Thick nuts must be used with grade 8 bolts

SEE Grade No.		2				5				8 *			
BOLT HEAD IDENTIFICATION MARKS AS PER GRADE NOTE MANUFACTURING MARKS WILL VARY		TORQUE				TORQUE				TORQUE			
BOLT SIZE		FOOT POUNDS		NEWTON-METERS		FOOT POUNDS		NEWTON-METERS		FOOT POUNDS		NEWTON-METERS	
Inches	Millimetre	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4"	6.35	5	6	6.8	8.13	9	11	12.2	14.9	12	15	16.3	30.3
5/16"	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8"	9.53	20	23	27.1	31.2	35	42	47.5	57	45	54	61	73.2
7/16"	11.11	30	35	40.7	47.4	54	64	73.2	86.8	70	84	94.9	113.9
1/2"	12.7	45	52	61	70.5	80	96	108.5	130.2	110	132	149.2	179
9/16"	14.29	65	75	88.1	101.6	110	132	149.2	179	160	192	217	260.4
5/8"	15.88	95	105	128.7	142.3	150	180	203.4	244.1	220	264	298.3	358
3/4"	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8"	22.23	160	200	216.8	271	400	480	542.4	650.9	600	720	813.6	976.3
1"	25.4	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5

METRIC BOLT TORQUE SPECIFICATIONS							
		COARSE THREAD			FINE THREAD		
Size Screw	Grade No.	Pitch (mm)	Foot Pounds	Newton-Meters	Pitch (mm)	Foot Pounds	Newton-Meters
M6	4T	1.00	3.6 - 5.8	4.9 - 7.9	-	-	-
	7T		5.8 - 9.4	7.9 - 12.7		-	-
	8T		7.2 - 10	9.8 - 13.6		-	-
M8	4T	1.25	7.2 - 14	9.8 - 19	1.00	12 - 17	16.3 - 23
	7T		17 - 22	23 - 29.8		19 - 27	25.7 - 36.6
	8T		20 - 26	27.1 - 35.2		22 - 31	29.8 - 42
M10	4T	1.50	20 - 25	27.1 - 33.9	1.25	20 - 29	27.1 - 39.3
	7T		34 - 40	46.1 - 54.2		35 - 47	47.4 - 63.7
	8T		38 - 46	51.5 - 62.3		40 - 52	54.2 - 70.5
M12	4T	1.75	28 - 34	37.9 - 46.1	1.25	31 - 41	42 - 55.6
	7T		51 - 59	69.1 - 79.9		56 - 68	75.9 - 92.1
	8T		57 - 66	77.2 - 89.4		62 - 75	84 - 101.6
M14	4T	2.00	49 - 56	66.4 - 75.9	1.50	52 - 64	70.5 - 86.7
	7T		81 - 93	109.8 - 126		90 - 106	122 - 143.6
	8T		96 - 109	130.1 - 147.7		107 - 124	145 - 168
M16	4T	2.00	67 - 77	90.8 - 104.3	1.50	69 - 83	93.5 - 112.5
	7T		116 - 130	157.2 - 176.2		120 - 138	162.6 - 187
	8T		129 - 145	174.8 - 196.5		140 - 158	189.7 - 214.1
M18	4T	2.00	88 - 100	119.2 - 136	1.50	100 - 117	136 - 158.5
	7T		150 - 168	203.3 - 227.6		177 - 199	239.8 - 269.6
	8T		175 - 194	237.1 - 262.9		202 - 231	273.7 - 313
M20	4T	2.50	108 - 130	146.3 - 176.2	1.50	132 - 150	178.9 - 203.3
	7T		186 - 205	252 - 277.8		206 - 242	279.1 - 327.9
	8T		213 - 249	288.6 - 337.4		246 - 289	333.3 - 391.6

**PARTS BREAKDOWN
ELECTRIC DEFLECTOR KIT FOR
CHUTE COMMERCIAL GRADE #700666**



PARTS LIST

ELECTRIC DEFELCTIR KIT FOR CHUTE COMMERCIAL GRADE #700666

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Gasket	Joint d'étanchéité	1	106570
2	Bracket	Support	1	105492
3	Lever	Levier	1	103365
4	Arm	Bras	1	106385
5	Spacer	Espaceur	2	103361
6	Box	Boîte	1	105921
7	Box cover	Couvercle de la boîte	1	105920
8	Spacer	Espaceur	2	103368
9	Support bracket	Fixation du support	2	103068
10	Rubber spacer	Espaceur de caoutchouc	1	105962
11	Connectors	Connecteurs	1	104276
12	Wire assembly	Fils assemblés	1	105919
13	Electric motor	Moteur électrique	1	106147
14	Oil lite bushing	Coussinet imprégné d'huile	1	103362
15	Switch	Commutateur	1	103381
16	Rubber boot	Capuchon de caoutchouc	1	103379
17	Breaker	Disjoncteur	1	103382
18	Rubber grommet	Oeillet de caoutchouc	1	103369
19	Hex. bolt 1/4" n.c. x 1/2" GR5	Boulon hex. 1/4" n.c. x 1/2" GR5	2	O/L
20	Hex. bolt 1/4" n.c. x 1 1/4" GR5	Boulon hex. 1/4" n.c. x 1 1/4" GR5	2	O/L
21	Hex. bolt 1/4" n.c. x 1 3/4" GR5	Boulon hex. 1/4" n.c. x 1 3/4" GR5	2	O/L
22	Hex. bolt 1/4" n.c. x 2" GR5	Boulon hex. 1/4" n.c. x 2" GR5	3	O/L
23	Carriage bolt 1/4" n.c. x 3/4 " GR5	Boulon à carrosserie 1/4" n.c. x 3/4" GR5	1	O/L
24	Carriage bolt 1/4" n.c. x 1 " GR5	Boulon à carrosserie 1/4" n.c. x 1 " GR5	1	O/L
25	Metal screw P.H. #8 x 1/4"	Vis à métal P.H. #8 x 1/4"	3	O/L
26	Nylon Insert lock Nut 1/4" n.c.	Écrou à garniture de nylon 1/4" n.c.	5	O/L
27	Nylon Insert lock Nut 5/16" n.c.	Écrou à garniture de nylon 5/16" n.c.	2	O/L
28	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	2	O/L
29	Flat washer 5/16" hole	Rondelle plate 5/16" trou	10	O/L
30	Tie wrap 8"	Attache de nylon 8"	6	O/L

O/L = Obtain Locally



***WHEN PERFORMANCE
& DEPENDABILITY
ARE NON NEGOTIABLE!***

**Bercomac Limitée
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