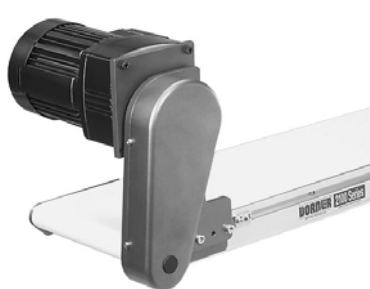




2100, 2200, 4100, 6200 & MPB Series Top Mount Drive Pack. for Standard Load Parallel Shaft 60 Hz Gearmotors

Installation, Maintenance & Parts Manual



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Introduction

NOTE

Some illustrations may show guards removed. DO NOT operate equipment without guards.

Upon receipt of shipment:

- Compare shipment with packing slip. Contact factory regarding discrepancies.
- Inspect packages for shipping damage. Contact carrier regarding damage.
- Accessories may be shipped loose. See accessory instructions for installation.

Dorner 2100 Series conveyors are covered by the following patent numbers: 5,131,529, 5,174,435, and corresponding patents and patent applications in other countries.


Dorner 2200 and MPB Series conveyors are covered by patent number 5,174,435, 6,422,382 and corresponding patents and patent applications in other countries.

Dorner 4100 Series conveyors are covered by patent number 3,923,148, 5,131,529 and corresponding patents and patent applications in other countries.

Dorner 6200 Series conveyors are covered by patent number 6,685,009, 5,174,435, 6,109,427 and corresponding patents and patent applications in other countries.

Dorner's Limited Warranty applies.

Dorner reserves the right to make changes at any time without notice or obligation.

Dorner has convenient, pre-configured kits of Key Service Parts for all conveyor products. These time saving kits are easy to order, designed for fast installation, and guarantee you will have what you need when you need it. Key Parts and Kits are marked in the Service Parts section of this manual with the Performance Parts Kits logo .

Warnings - General Safety

⚠ WARNING

The safety alert symbol, black triangle with white exclamation, is used to alert you to potential personal injury hazards.

⚠ DANGER




Climbing, sitting, walking or riding on conveyor will cause severe injury. **KEEP OFF CONVEYORS.**

⚠ DANGER



Do NOT OPERATE CONVEYORS IN AN EXPLOSIVE ENVIRONMENT.

⚠ WARNING



Exposed moving parts can cause severe injury.
LOCK OUT POWER before removing guards or performing maintenance.

⚠ WARNING




Gearmotors may be **HOT**.
DO NOT TOUCH Gearmotors.

⚠ WARNING




Exposed moving parts can cause severe injury.
REPLACE ALL GUARDS BEFORE RUNNING CONVEYOR.

⚠ WARNING



Dorner cannot control the physical installation and application of conveyors. Taking protective measures is the responsibility of the user.
When conveyors are used in conjunction with other equipment or as part of a multiple conveyor system, **CHECK FOR POTENTIAL PINCH POINTS** and other mechanical hazards before system start-up.

⚠ WARNING



MPB Series Conveyors are not reversible. Reversing creates pinch points which can cause severe injury.
DO NOT REVERSE MPB SERIES CONVEYORS.

Product Description

Refer to **Figure 1** for typical components.

1	Drive Pulley
2	Gearmotor
3	Timing Belt
4	Mounting Bracket
5	Cover
6	Conveyor
7	Driven Pulley
8	Timing Belt Tensioner

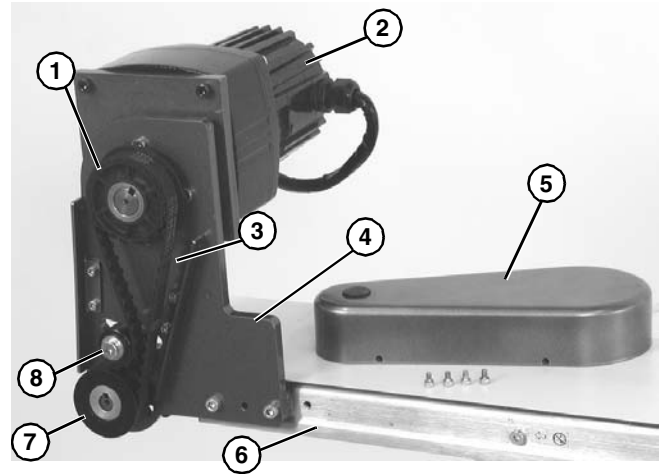


Figure 1

Specifications

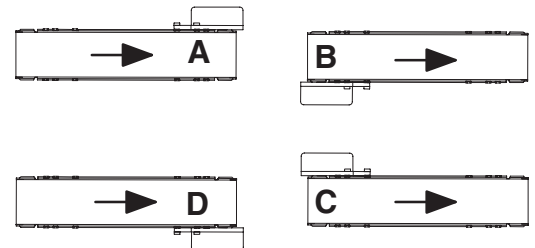
Gearmotor Mounting Package Models:

Example:

2 M T P S W W A - 32 32

- Driven Pulley (see Belt Speed Tables starting on page 4)
- Drive Pulley (see Belt Speed Tables starting on page 4)
- Belt Type: - = flat belt, A through J = cleated belt
- Mount Position = A, B, C or D (see detail to the right)
- Conveyor Width Reference*
- Gearmotor Type: S= Standard Load, Industrial
B= Brushless DC
- Output Shaft Type = Parallel Shaft
- Mount Style = Top Mount
- Language Code = U.S. English

- 2** = 2100 Series Conveyor
- 22** = 2200 & MPB Series Conveyor
- 4** = 4100 Series Conveyor
- 6** = 6200 Series Conveyor
- 2P** = MPB Series Conveyor



* See "Ordering and Specifications" Catalog for details.

Specifications

Table 1: Gearmotor Specifications

	Single Phase	Three Phase	DC Variable Speed	Brushless DC
Output Power	0.17 hp (0.13 kw)		0.25 hp (0.19 kw)	
Input Voltage	115 Volts A.C.	230 Volts A.C.	130 Volts D.C.	115/230 Volts D.C.
Input Frequency	60 Hz		N/A	60 Hz
Input Current	1.9 Amperes	1.2 Amperes	1.8 Amperes	8.8 / 3.4 Amperes
Motor RPM	1725		2500	3000
Gearmotor Ratios	5:1, 10:1, 20:1, 30:1, 60:1, 180:1			10:1, 20:1, 50:1
Frame Size	NEMA 42 CZ			
Motor Type	Totally enclosed, Fan-cooled		Totally enclosed, Non-ventilated	

Table 2: RPM/Torque for Standard Load Fixed Speed Parallel Shaft 60 Hz Gearmotors

Gearmotors*			1 Phase		3 Phase	
Part Number	Ratio	RPM	In-lb	N-m	In-lb	N-m
62M180PS4(vp)F(n)	180:1	10	341	38.5	341	38.5
62M060PS4(vp)F(n)	60:1	29	270	30.5	270	30.5
62M030PS4(vp)F(n)	30:1	58	135	8.26	250	28.3
62M020PS4(vp)F(n)	20:1	86	90	10.2	167	18.9
62M010PS4(vp)F(n)	10:1	173	45	5.1	115	13
62M005PS4(vp)F(n)	5:1	345	25	2.8	58	6.5

(vp) = voltage and phase

(n) = reversing capability

11 = 115 V, 1-phase

N = no reversing switch

23 = 230V, 3-phase

R = with reversing switch (115V, 1 phase only)

Table 3: RPM/Torque for Standard Load Variable Speed Parallel Shaft VFD Gearmotors on 2100, 4100 and 6200 Series Conveyors

Gearmotors*				
Part Number	Gear Ratio	RPM	In-lb	N-m
62M060PS423EN	60:1	5-29	270	30.5
62M020PS423EN	20:1	14-86	167	18.9
62M010PS423EN	10:1	29-173	115	13
62M005PS423EN	5:1	58-345	58	6.5

* At 60 Hz

Table 4: RPM/Torque for Standard Load Variable Speed Parallel Shaft DC Gearmotors on 2100, 4100 and 6200 Series Conveyors

Gearmotors*				
Part Number	Gear Ratio	RPM	In-lb	N-m
62M180PSD3DEN	180:1	2-14	341	38.5
62M060PSD3DEN	60:1	5-42	270	30.5
62M030PSD3DEN	30:1	10-83	135	15.3
62M020PSD3DEN	20:1	15-125	90	10.2
62M010PSD3DEN	10:1	30-250	72	8.1
62M005PSD3DEN	5:1	60-500	25	2.8

Specifications

Table 5: RPM/Torque for Brushless DC Gearmotors

Gearmotors				
Part Number	Gear Ratio	RPM	In-lb	N-m
62M050PSBDDEN	50:1	2-60	240	28
62M020PSBDDEN	20:1	5-150	103	11.7
62M010PSBDDEN	10:1	10-300	52	5.9

Table 6: Pulley Ratio / Timing Belt Number

Motor (Drive) Pulley Teeth	Conveyor (Driven) Pulley Teeth	Pulley Ratio	Timing Belt		
			2200/MB/Flat Belt MPB	4100/6200	Cleated Belt MPB
22	28	0.79	N/A	814-104	N/A
22	32	0.69	814-105	814-105	814-108
28	22	1.27	N/A	N/A	N/A
28	28	1.00	814-105	N/A	814-108
28	32	0.88	814-065	N/A	814-064
32	19	1.68	N/A	814-104	N/A
32	22	1.45	814-105	814-105	814-108
32	28	1.14	814-065	N/A	814-064
32	32	1.00	N/A	814-112	N/A
44	19	2.32	N/A	N/A	N/A
44	22	2.00	814-101	814-112	814-115
44	28	1.57	814-101	814-108	814-099
44	32	1.38	814-108	814-064	814-109
48	19	2.53	N/A	814-112	N/A
48	22	2.18	814-101	814-112	814-099
48	28	1.71	814-108	814-064	814-109
48	32	1.50	814-064	814-064	814-115
60	19	3.16	N/A	814-064	N/A
60	22	2.73	814-064	814-064	814-115
60	28	2.14	814-099	814-099	814-110
60	32	1.88	814-099	814-099	814-110

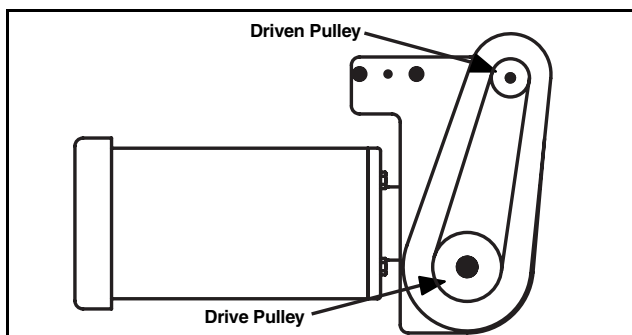


Figure 2

Table 7: Conveyor Belt Speed Factor

Series	Ft/revolution	M/revolution
2200 / 2300	0.350	0.107
2100 / 4100 / 6100 / 6200	0.278	0.085
2200 MPB	0.590	0.180
2200 Precision Move	0.394	0.120
2200 / 2300 Modular Belt	0.394	0.120

Belt Speed Calculation:

How to Calculate Belt Speed

1. Determine gearmotor RPM from tables 2-5.
2. Determine the pulley kit ratio. Count the number of teeth on the drive and driven pulleys following figure 2. Using table 6, look up pulley ratio based on pulley combinations.
3. Determine conveyor speed factor using table 7. Based on your conveyor type, select the appropriate factor.
4. Calculate belt speed:

Example: Belt Speed = Gearmotor RPM (tables 2-5) x Pulley Kit Ratio (table 6) x Conveyor Speed Factor (table 7)

2200 Series parallel shaft DC variable speed 20:1 gearmotor with 44 tooth sprocket on gearmotor (Drive) and 28 tooth sprocket on the conveyor output shaft (Driven).

Gearmotor =	62M020PSD3DEN	= 16 - 125 RPM
Pulley Kit =	44 t mtr. - 28 t conv.	= 1.57
Speed Factor =	2200 Series	= 0.350 ft/min per RPM
Minimum Belt Speed =	16 x 1.57 x 0.350	= 8.8 Ft/min
Maximum Belt Speed =	125 x 1.57 x 0.350	= 69 Ft/min


Installation

Required Tools

- Hex key wrenches:
2 mm, 2.5 mm, 3 mm, 5 mm
- Torque wrench


Mounting

⚠ WARNING



Exposed moving parts can cause severe injury.
LOCK OUT POWER before removing guards or performing maintenance.

⚠ WARNING



MPB Series Conveyors are not reversible. Reversing creates pinch points which can cause severe injury.
DO NOT REVERSE MPB SERIES CONVEYORS.

⚠ WARNING



For MPB Series and Cleated Belt Conveyors Gearmotors must be mounted as shown in Figure 8.
Failure to do so creates pinch points which can cause severe injury.

1. Typical components (Figure 3)

Installation Component List:

1	Cover
2	Drive Pulley
3	Top Mount Assembly
4	M6 Socket Head Screws (2x)
5	Key
6	Driven Pulley
7	Timing Belt
8	M4 Socket Head Screws (4x)

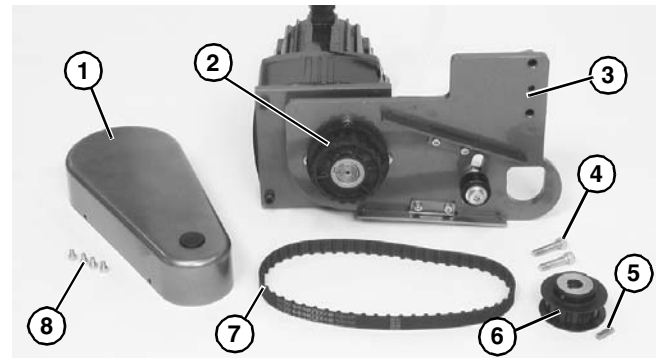
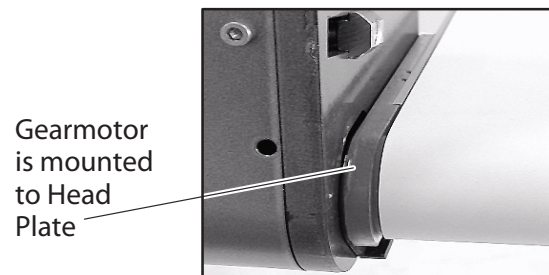


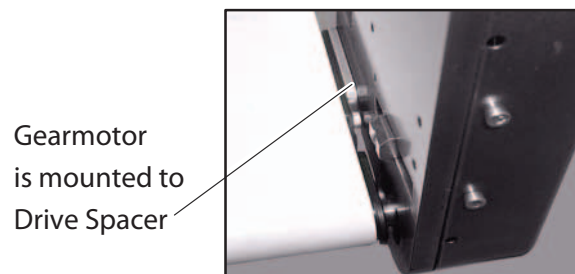
Figure 3

2. For your reference, the following figures show gearmotor mounting configurations for various conveyor series.



2200 Series

Figure 4

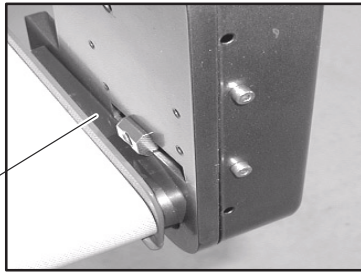


6200 Series

Figure 5

Installation

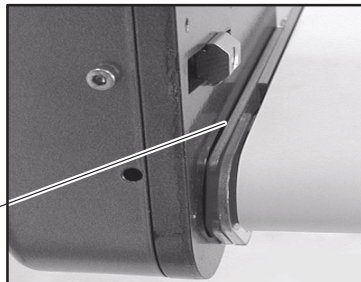
Gearmotor is mounted to Drive Adapter Plate



4100 Series

Figure 6

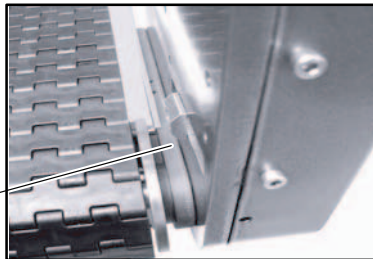
Gearmotor is mounted to Head Plate



2100 Series

Figure 7

Gearmotor is mounted to Head Plate



MPB Series

Figure 8

NOTE

6200 Series conveyor shown, other Series similar.

3. Locate drive output shaft (**Figure 9, item 1**) and remove two (2) screws (**Figure 9, item 2**).

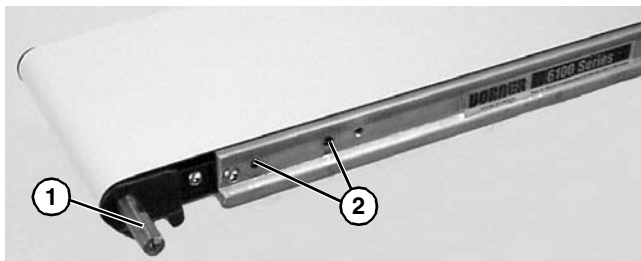


Figure 9

4. Install M6x8 socket head screw (**Figure 10, item 1**) and washer.

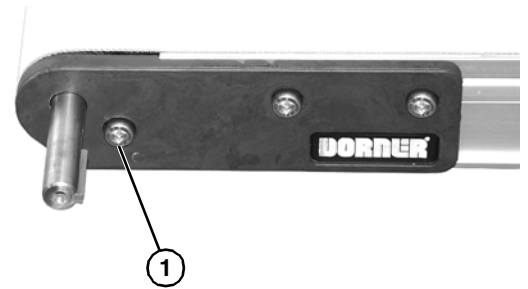


Figure 10

5. Attach mount assembly (**Figure 11, item 1**) with screws (**Figure 11, item 2**). Tighten screws to 80 in-lb (9 N-m).

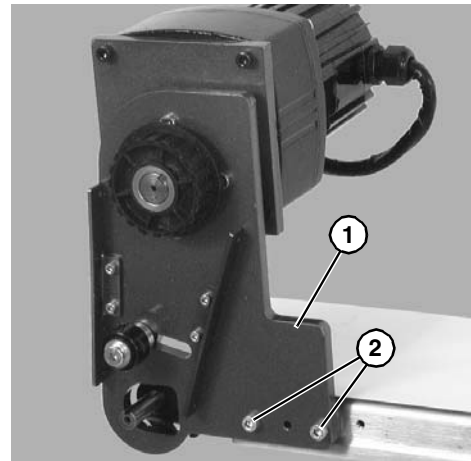


Figure 11

WARNING



**Drive shaft keyway may be sharp.
HANDLE WITH CARE.**

Installation

6. Install key (Figure 12, item 1).

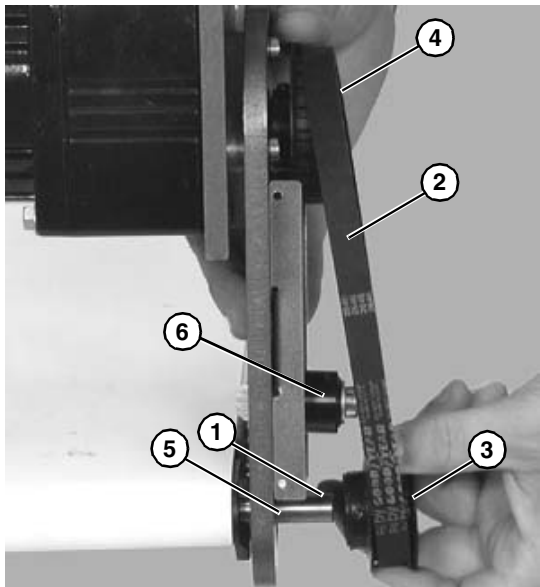


Figure 12

7. Wrap timing belt (Figure 12, item 2) around driven pulley (Figure 12, item 3) and drive pulley (Figure 12, item 4). Install driven pulley onto conveyor shaft (Figure 12, item 5).
8. Remove cam bearing and spacer (Figure 12, item 6). Place the cam bearing and spacer (Figure 13, item 1) next to the driven pulley (Figure 13, item 2). Ensure the flanges of the driven pulley are aligned with the cam bearing. Tighten driven pulley set screws (Figure 13, item 3). This will allow for proper belt alignment while conveyor is in use. Install cam bearing and spacer (Figure 13, item 1).

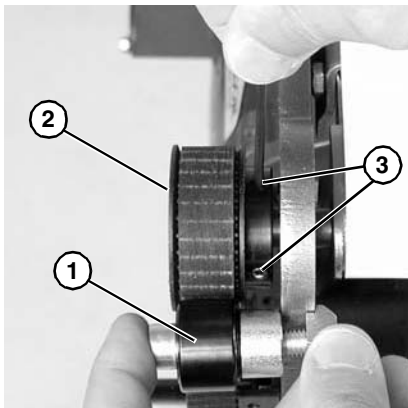


Figure 13

9. Depending on direction of conveyor belt travel (1 or 2 of Figure 14), position belt tensioner (Figure 14, item 3) as shown. Tension belt to obtain 0.125" (3 mm) deflection for 1.0 lb (456 grams) of force at belt mid-point (Figure 14, item 4). Tighten tensioner screw to 103 in-lb (12 N-m).

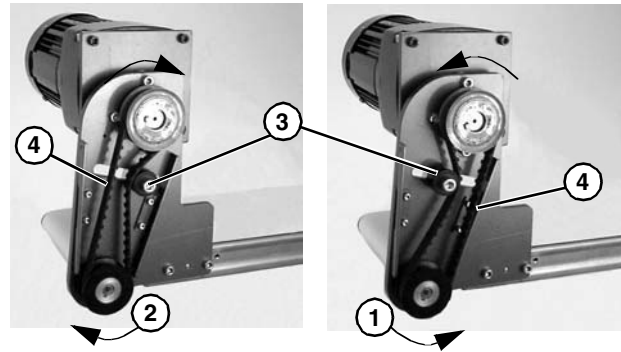


Figure 14

10. Install cover (Figure 15, item 1) with four screws (Figure 15, item 2). Tighten to 35 in-lb (4 N-m).

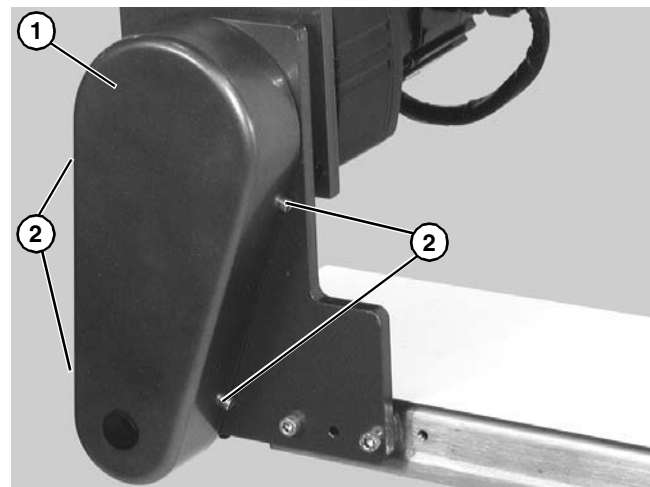



Figure 15

Preventive Maintenance and Adjustment

Required Tools

- Hex key wrenches
- 2 mm, 2.5 mm, 3 mm & 5 mm
- Adjustable wrench (for hexagon head screws)
- Torque wrench

Timing Belt Tensioning

⚠ WARNING

<p>Exposed moving parts can cause severe injury. LOCK OUT POWER before removing guards or performing maintenance.</p>

1. Remove four screws (**Figure 16, item 1**) and remove cover (**Figure 16, item 2**).

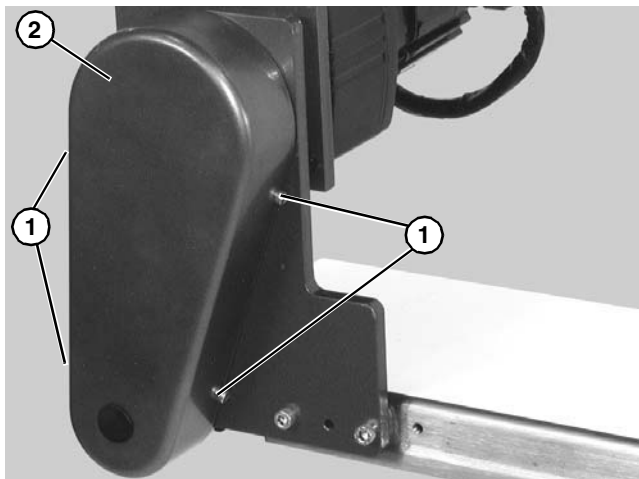


Figure 16

2. Loosen tensioner (**Figure 17, item 1**).

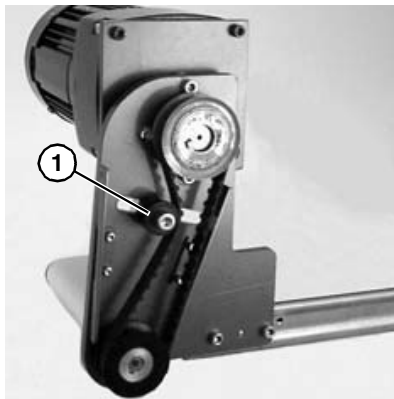



Figure 17

3. Depending on direction of conveyor belt travel (1 or 2 of **Figure 14**), position belt tensioner (**Figure 14, item 3**) as shown. Tension belt to obtain 0.125" (3 mm) deflection for 1.0 lb (456 grams) of force at belt mid-point (**Figure 14, item 4**). Tighten tensioner screw to 103 in-lb (12 N-m).
4. Install cover (**Figure 16, item 2**) with four screws (**Figure 16, item 1**). Tighten to 35 in-lb (4 N-m).

Timing Belt Replacement

⚠ WARNING

<p>Exposed moving parts can cause severe injury. LOCK OUT POWER before removing guards or performing maintenance.</p>

1. Remove four screws (**Figure 16, item 1**) and remove cover (**Figure 16, item 2**).
2. Loosen tensioner (**Figure 17, item 1**).
3. Remove timing belt (**Figure 18, item 1**).

NOTE
<p><i>If timing belt does not slide over pulley flange, loosen two driven pulley set screws (Figure 18, item 2) and remove pulley with belt ((Figure 18, item 1)). For re-installation, see steps 6 and 7 on page 10.</i></p>

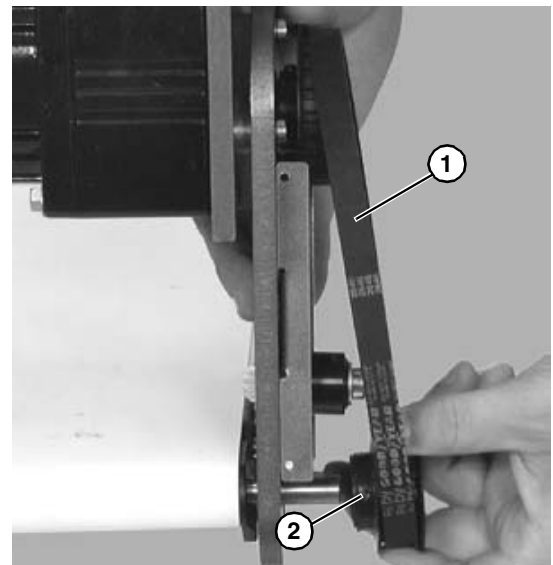



Figure 18

4. Install new timing belt.

Preventive Maintenance and Adjustment

- Depending on conveyor belt travel (direction 1 or 2), locate timing belt tensioner (**Figure 14, item 3**) as shown. Tension timing belt to obtain 0.125" (3 mm) deflection for 1.0 lb (456 grams) of force at timing belt mid-point (**Figure 14, item 4**). Tighten tensioner screw to 103 in-lb (12 N-m).
- Install cover (**Figure 15, item 2**) with four screws (**Figure 15, item 1**). Tighten to 35 in-lb (4 N-m).

Drive or Driven Pulley Replacement


⚠ WARNING

<p>Exposed moving parts can cause severe injury.</p> <p>LOCK OUT POWER before removing guards or performing maintenance.</p>


- Complete steps 1 through 3 of "Timing Belt Replacement" section on page 11.
- Loosen set screws and remove drive or driven pulley.

NOTE
<p><i>If drive pulley (Figure 26, item 3) was replaced, wrap timing belt around drive pulley and complete step 3.</i></p>

- Complete steps 6 through 9 of "Installation" section beginning on page 10.

Gearmotor Replacement

⚠ WARNING

<p>Exposed moving parts can cause severe injury.</p> <p>LOCK OUT POWER before removing guards or performing maintenance.</p>

⚠ DANGER

<p>Hazardous voltage will cause severe injury or death.</p> <p>LOCKOUT POWER BEFORE before wiring.</p>

Single Phase Motor

- For single phase motor, unplug power cord from outlet.

Three Phase Motor

- Loosen terminal box screws (**Figure 19, item 1**) and remove cover (**Figure 19, item 2**).

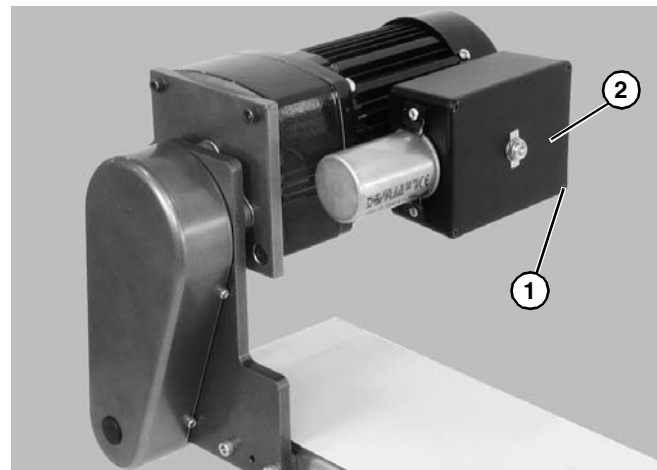


Figure 19

- Record incoming wire colors connecting to red, black and blue leads. Loosen wire nuts and remove incoming wires.
- Loosen cord grip and remove cord.

DC Variable Speed Motor

- For DC variable speed motor, unplug motor cord at disconnect (**Figure 20, item 1**).

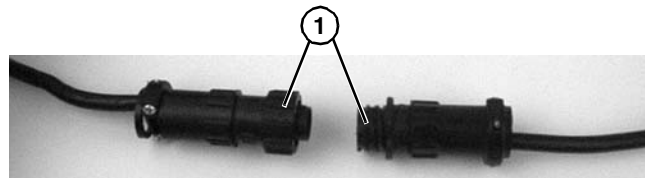


Figure 20

Preventive Maintenance and Adjustment

Brushless Motor

1. Twist covers (**Figure 21, item 1**) apart.

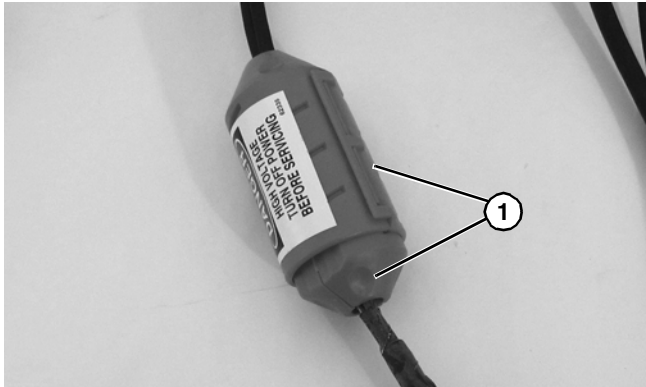


Figure 21

2. Remove outer cord cover (**Figure 22, item 1**) from inner cord cover (**Figure 22, item 2**).

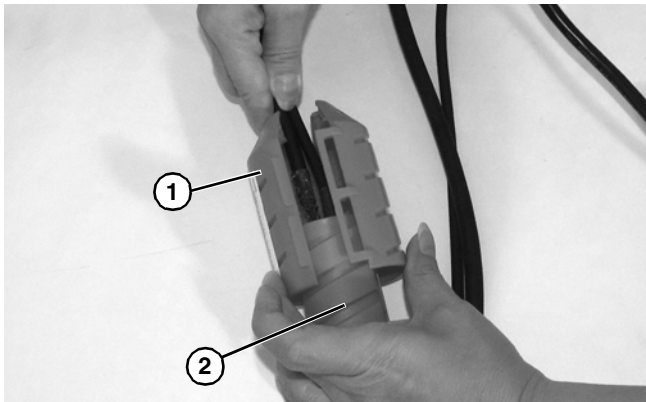


Figure 22

3. Open inner cord cover (**Figure 23, item 1**).

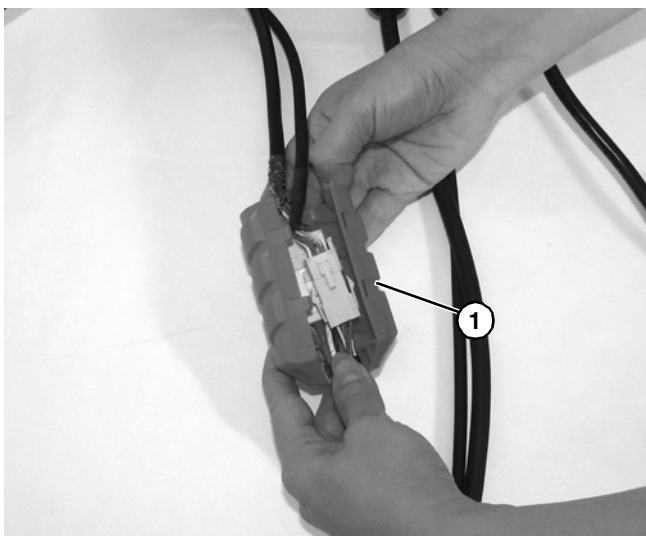


Figure 23

4. Unplug motor cord connectors (**Figure 24, item 1**) and signal cable connectors (**Figure 24, item 2**).

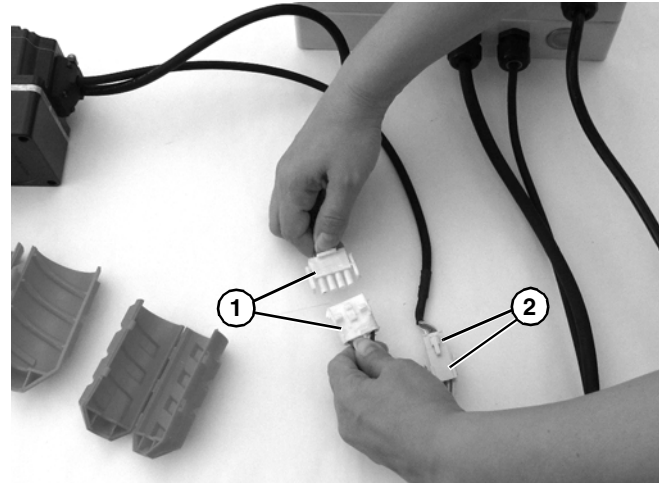


Figure 24

Preventive Maintenance and Adjustment

All Models

1. Remove four screws (**Figure 25, item 1**) and remove cover (**Figure 25, item 2**).

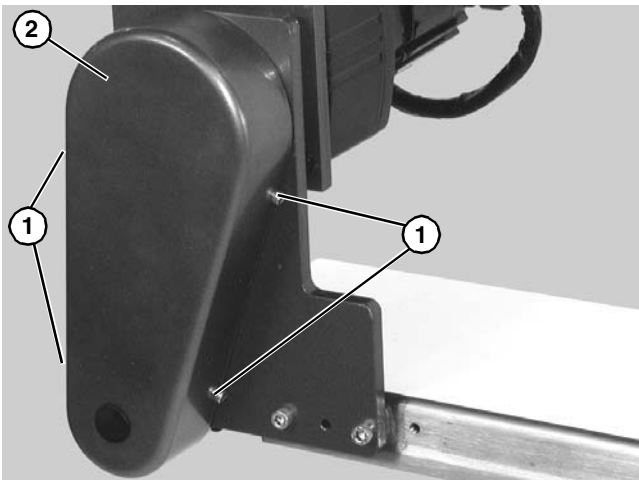


Figure 25

2. Loosen tensioner (**Figure 26, item 1**).
3. Loosen drive pulley set screws (**Figure 26, item 2**).
4. Remove drive pulley (**Figure 26, item 3**) and timing belt (**Figure 26, item 4**).

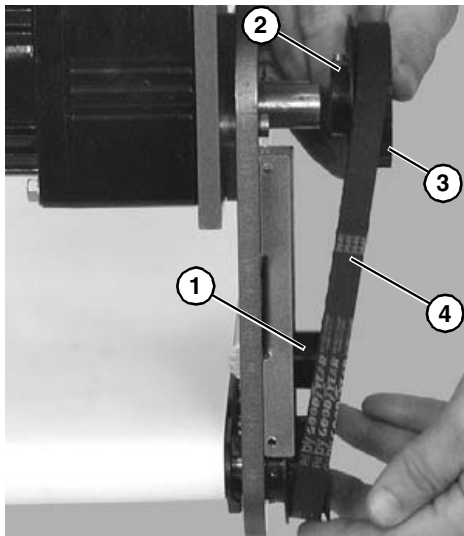


Figure 26

4. Remove four gear motor mounting screws (**Figure 27, item 1**). Remove gearmotor/adapter plate Assembly.

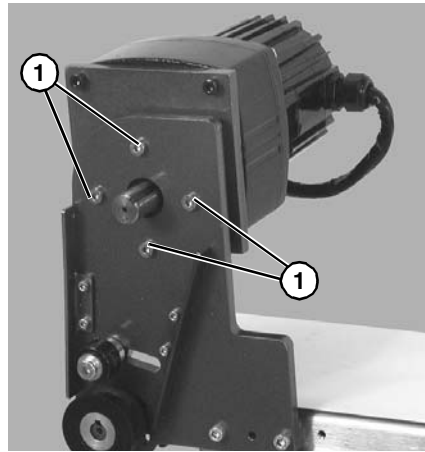


Figure 27

5. Remove four adapter plate screws (**Figure 28, item 1**). Remove adapter plate.

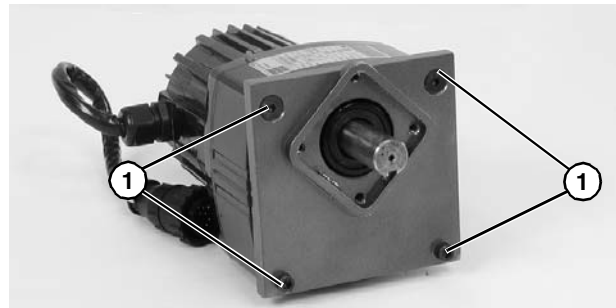


Figure 28


6. Install new gearmotor to adapter plate with screws (**Figure 28, item 2**). Tighten screws to 103 in-lb (12 N-m).
7. Install gearmotor/adapter plate assembly on mounting bracket with screws (**Figure 27, item 1**). Tighten screws to 103 in-lb (12 N-m).

NOTE

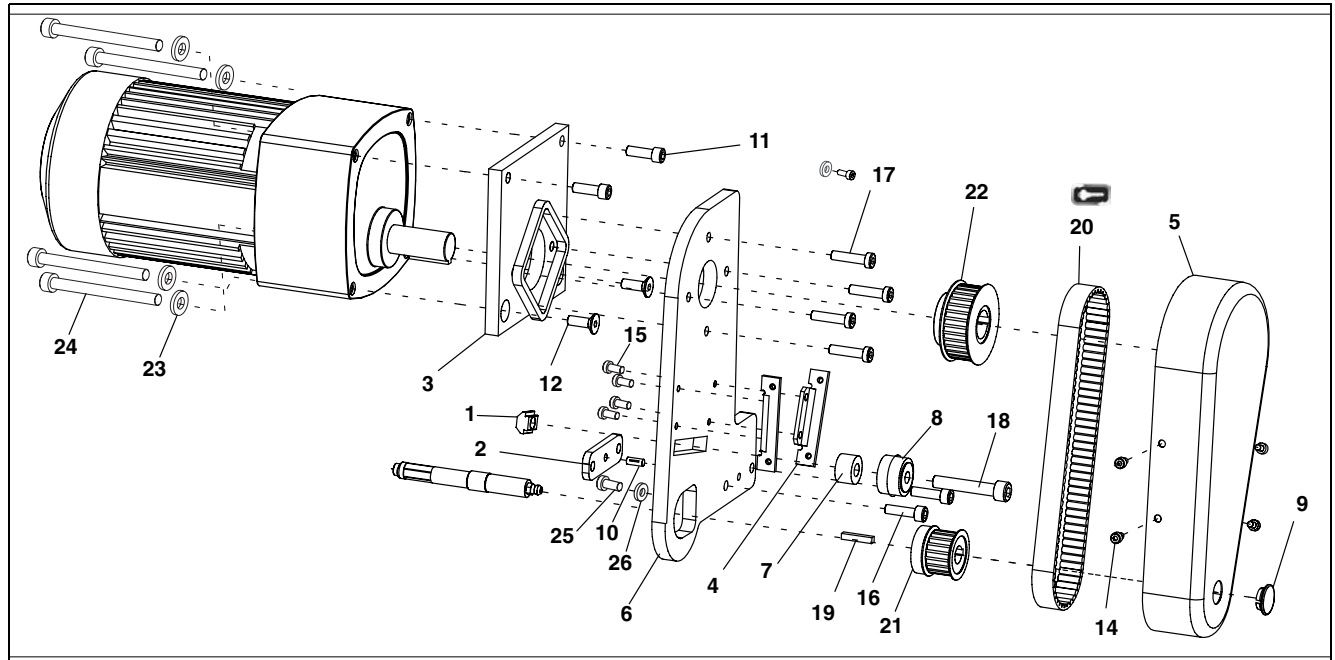
*If drive pulley (**Figure 26, item 3**) was removed, wrap timing belt around drive pulley and complete step 11.*

8. Complete steps 6 through 9 of “Installation” section beginning on page 10.
9. Replace wiring:
 - For a single phase motor, reverse step 1 in “Single Phase Motor” on page 12.
 - For a three phase motor, reverse steps 1-3, in “Three Phase Motor” on page 12.
 - For a DC variable speed motor, reverse step 1 on “DC Variable Speed Motor” on page 12.
 - For a brushless motor, reverse steps 1-2 on “Brushless Motor” on page 13.

NOTE

For replacement parts other than those shown in this section, contact an authorized *Dorner Service Center* or the factory. Key Service Parts and Kits are identified by the Performance Parts Kits logo . Dorner recommends keeping these parts on hand.

2100, 2200, 4100, 6200 and MPB Series Top Mount Drive Package

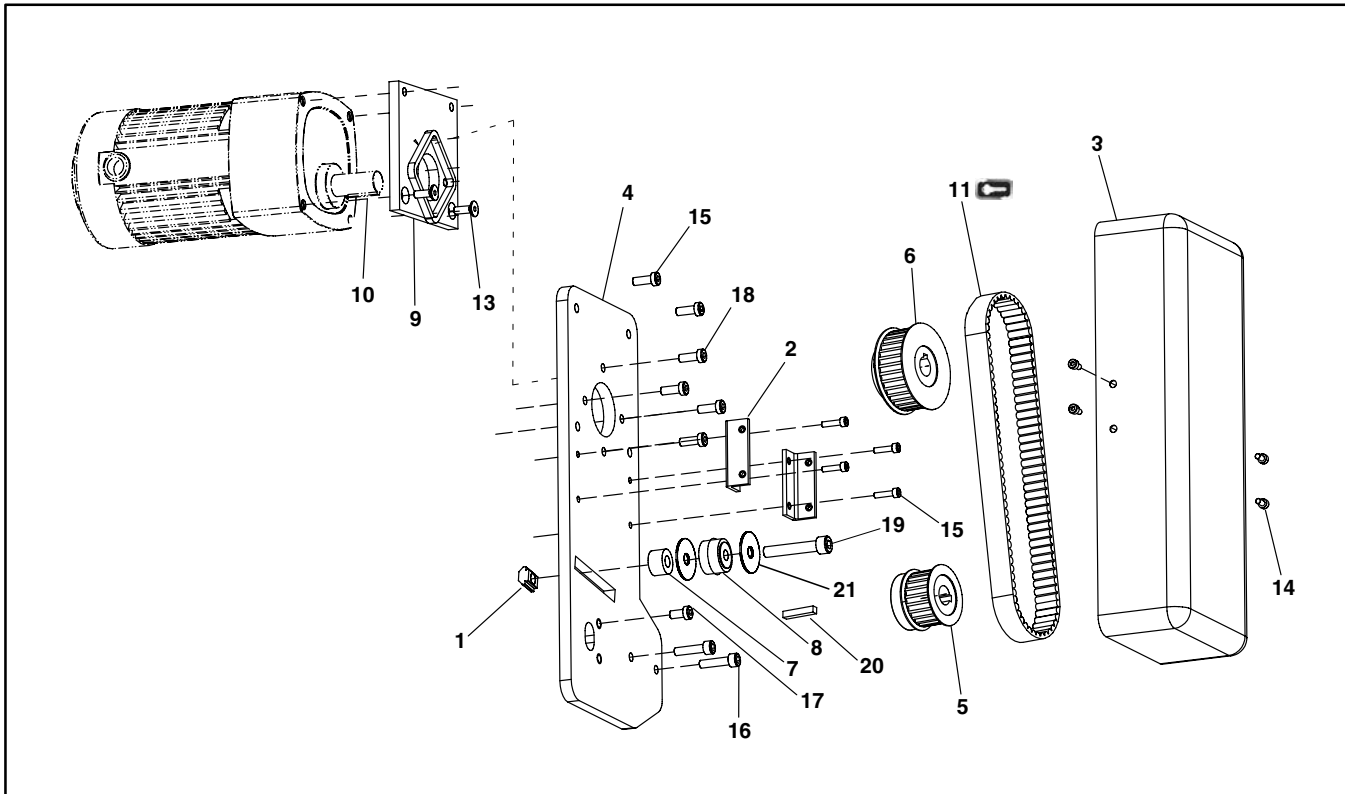


Item	Part Number	Description
1	202390M	Nut, Cam Follower
2	450027M	Adaptor Plate Assembly (6200 Only)
3	450029M	Adaptor Plate Assembly
4	450375M	Cover Mounting Bracket
5	450376M	Drive Guard
6	450443M	Grove Mounting Plate
7	450445	Spacer
8	802-046	Bearing
9	807-226	Snap-out Plastic Plug
10	807-952	Groove Pin (6200 Only)
11	902-157	Socket Cap Head Screw, 1/4-28 x 0.75"
12	903-161	Flat Cap Head Screw, 1/4-28 x 0.75"
13	912-084	Square Key, 0.188" x 1.50"
14	920481M	Socket Head Screw, M4 x 8mm
15	920592M	Socket Head Screw, M5 x 10mm
16	920625M	Socket Head Screw, M6 x 25mm
	920616M	Socket Head Screw, M6 x 16mm (4100 Only)
	920630M	Socket Head Screw, M6 x 30mm (6200 Only)
17	920695M	Socket Low Head Screw, M6 x 20mm
18	920840M	Socket Head Screw, M8 x 40mm
19	980428M	Square Key 4mm x 28mm
	912-053	Square Key, 0.125" x 0.75" (4100 Series - 1" (25mm) Wide Conveyor Only)

Item	Part Number	Description
20	814-104	Timing Belt, 15mm W x 450mm L
	814-105	Timing Belt, 15mm W x 460mm L
	814-065	Timing Belt, 15mm W x 475mm L
	814-112	Timing Belt, 15mm W x 495mm L
	814-101	Timing Belt, 15mm W x 500mm L
	814-108	Timing Belt, 15mm W x 520mm L
	814-064	Timing Belt, 15mm W x 535mm L
	814-099	Timing Belt, 15mm W x 565mm L
	21	450365MP
450366MP		Driven Pulley, 22Tooth, 12mm bore
450367MP		Driven Pulley, 28Tooth, 12mm bore
450368MP		Driven Pulley, 32Tooth, 12mm bore
22	450434	Drive Pulley, 22Tooth, 0.75" bore
	450435	Drive Pulley, 28Tooth, 0.75" bore
	450436	Drive Pulley, 32Tooth, 0.75" bore
	450437	Drive Pulley, 44Tooth, 0.75" bore
	450438	Drive Pulley, 48Tooth, 0.75" bore
450439	Drive Pulley, 60Tooth, 0.75" bore	
23	911-120	Washer, (for 50:1 Brushless DC Motor only)
24	920890M	Socket Head Screw, M8 x 90mm (for 50:1 Brushless DC Motor only)
	920875M	Socket Head Screw, M8 x 75mm (for 10:1 Brushless DC Motor only)
25	920608M	Socket Head Screw, M6-1.00 x 8 mm
26	807-2092	Washer

Service Parts

MPB Series Cleated Belt Top Mount Drive Package



Item	Part Number	Description
1	202390M	Nut Cam Follower
2	243402	Mounting Cover Bracket
3	300871M	Drive Guard
4	243401	Mounting Plate
5	450367MP	Driven Pulley, 28 Tooth
	450368MP	Driven Pulley, 32 Tooth
6	450434	Drive Pulley, 22 Tooth, 0.75" bore
	450435	Drive Pulley, 28 Tooth, 0.75" bore
	450436	Drive Pulley, 32 Tooth, 0.75" bore
	450437	Drive Pulley, 44 Tooth, 0.75" bore
	450438	Drive Pulley, 48 Tooth, 0.75" bore
7	450445	Spacer
8	802-046	Bearing
9	450029M	Adaptor Plate Assembly
10	912-084	Square Key, 0.188 x 1.5"

Item	Part Number	Description
11	814-101	Timing Belt, 15mm W x 500mm L
	814-108	Timing Belt, 15mm W x 520mm L
	814-064	Timing Belt, 15mm W x 535mm L
	814-099	Timing Belt, 15mm W x 565mm L
	814-109	Timing Belt, 15mm W x 580mm L
	814-115	Timing Belt, 15mm W x 600mm L
	814-110	Timing Belt, 15mm W x 615mm L
12	902-157	Socket Head Screw, 1/4-28 x 0.75"
13	903-161	Flat Head Screw, 1/4-28 x 0.75"
14	920408M	Socket Head Screw, M4 x 8mm
15	920416M	Socket Head Screw, M4 x 16mm
16	920625M	Socket Head Screw, M6 x 25mm
17	920692M	Stabilization Screw, M6 x 12mm Low Hd
18	920695M	Socket Low Head Screw, M6 x 25mm
19	920845M	Socket Head Screw, M8 x 45mm
20	980422M	Square Key, 4mm x 22mm
21	807-1133	Washer

Pulley Ratio / Timing Belt Combinations

Motor (Drive) Pulley Teeth	Conveyor (Driven) Pulley Teeth	Pulley Ratio	Timing Belt		
			2200/MB/Flat Belt MPB	4100/6200	Cleated Belt MPB
22	28	0.79	N/A	814-104	N/A
22	32	0.69	814-105	814-105	814-108
28	22	1.27	N/A	N/A	N/A
28	28	1.00	814-105	N/A	814-108
28	32	0.88	814-065	N/A	814-064
32	19	1.68	N/A	814-104	N/A
32	22	1.45	814-105	814-105	814-108
32	28	1.14	814-065	N/A	814-064
32	32	1.00	N/A	814-112	N/A
44	19	2.32	N/A	N/A	N/A
44	22	2.00	814-101	814-112	814-115
44	28	1.57	814-101	814-108	814-099
44	32	1.38	814-108	814-064	814-109
48	19	2.53	N/A	814-112	N/A
48	22	2.18	814-101	814-112	814-099
48	28	1.71	814-108	814-064	814-109
48	32	1.50	814-064	814-064	814-115
60	19	3.16	N/A	814-064	N/A
60	22	2.73	814-064	814-064	814-115
60	28	2.14	814-099	814-099	814-110
60	32	1.88	814-099	814-099	814-110

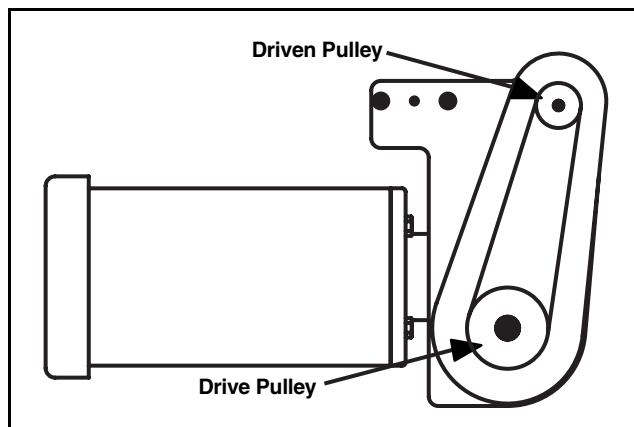
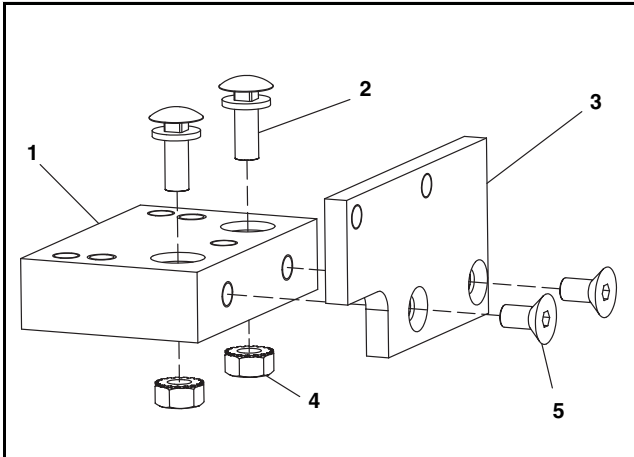


Figure 29

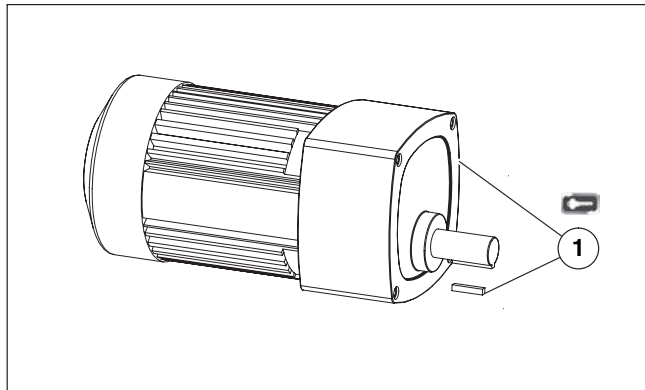
Service Parts

4100 Series Adapter Package



Item	Part No.	Part Description
1	609486	Mounting Block 1" (25mm)
	609487	Mounting Block 2" (51mm)
	609488	Mounting Block 3" (76mm)
	609479	Mounting Block 4" (102mm)
	609480	Mounting Block 5" (127mm)
	609481	Mounting Block 6" (152mm)
	609482	Mounting Block 7" (178mm)
	609483	Mounting Block 8" (203mm)
	609484	Mounting Block 10" (254mm)
	609485	Mounting Block 12" (305mm)
2	613602P	Bolt & Flat Washer Assembly
3	450374	Drive Adapter Plate
4	910-126	Hex Nut with Lock Washer
5	930612M	Flat Head Screw, M6 x 12mm

Gearmotors



Item	Part No.	Part Description
1	62M180PS411FN	Motor, 0.08hp (0.06Kw), 10 RPM, 115VAC, 60Hz, 1-Phase
	62M180PS411FR	Motor, 0.08hp (0.06Kw), 10 RPM, 115VAC, 60Hz, 1-Phase with reversing switch
	62M060PS411FN	Motor, 0.17hp (0.13Kw), 29 RPM, 115VAC, 60Hz, 1-Phase
	62M060PS411FR	Motor, 0.17hp (0.13Kw), 29 RPM, 115VAC, 60Hz, 1-Phase with reversing switch
	62M060PS423FN	Motor, 0.25hp (0.19Kw), 29 RPM, 230VAC, 60Hz, 3-Phase
	62M030PS411FN	Motor, 0.17hp (0.13Kw), 58 RPM, 115VAC, 60Hz, 1-Phase
	62M030PS411FR	Motor, 0.17hp (0.13Kw), 58 RPM, 115VAC, 60Hz, 1-Phase with reversing switch
	62M030PS423FN	Motor, 0.25hp (0.19Kw), 58 RPM, 230VAC, 60Hz, 3-Phase
	62M020PS411FN	Motor, 0.17hp (0.13Kw), 86 RPM, 230VAC, 60Hz, 1-Phase
	62M020PS411FR	Motor, 0.17hp (0.13Kw), 86 RPM, 115VAC, 60Hz, 1-Phase with reversing switch
	62M010PS411FN	Motor, 0.17hp (0.13Kw), 173 RPM, 115VAC, 60Hz, 1-Phase
	62M010PS411FR	Motor, 0.17hp (0.13Kw), 173 RPM, 115VAC, 60Hz, 1-Phase with reversing switch
	62M010PS423FN	Motor, 0.25hp (0.19Kw), 173 RPM, 230VAC, 60Hz, 3-Phase
	62M005PS411FN	Motor, 0.17hp (0.13Kw), 345 RPM, 230VAC, 60Hz, 1-Phase
	62M005PS411FR	Motor, 0.17hp (0.13Kw), 345 RPM, 115VAC, 60Hz, 1-Phase with reversing switch
	62M180PSD3DEN	Motor, 0.12hp (0.09Kw), 14 RPM, 130VDC
	62M060PSD3DEN	Motor, 0.25hp (0.19Kw), 42 RPM, 130VDC
	62M030PSD3DEN	Motor, 0.25hp (0.19Kw), 83 RPM, 130VDC
	62M020PSD3DEN	Motor, 0.25hp (0.19Kw), 125 RPM, 130VDC
	62M010PSD3DEN	Motor, 0.25hp (0.19Kw), 250 RPM, 130VDC
	62M005PSD3DEN	Motor, 0.25hp (0.19Kw), 500 RPM, 130VDC
	62M050PSBDDEN	Motor, 0.25hp (0.19Kw), 60 RPM, Brushless DC
	62M020PSBDDEN	Motor, 0.25hp (0.19Kw), 150 RPM, Brushless DC
	62M010PSBDDEN	Motor, 0.25hp (0.19Kw), 300 RPM, Brushless DC

Return Policy

Returns must have prior written factory authorization or they will not be accepted. Items that are returned to Dorner without authorization will not be credited nor returned to the original sender. When calling for authorization, please have the following information ready for the Dorner factory representative or your local distributor:

1. Name and address of customer.
2. Dorner part number(s) of item(s) being returned.
3. Reason for return.
4. Customer's original order number used when ordering the item(s).
5. Dorner or distributor invoice number (if available, part serial number).

A representative will discuss action to be taken on the returned items and provide a Returned Goods Authorization (RMA) number for reference. RMA will automatically close 30 days after being issued. To get credit, items must be new and undamaged. There will be a return charge on all items returned for credit, where Dorner was not at fault. It is the customer's responsibility to prevent damage during return shipping. Damaged or modified items will not be accepted. The customer is responsible for return freight.

Conveyors and conveyor accessories

Standard catalog conveyors	30%
MPB, 7200, 7300 Series, cleated and specialty belt	50%
AquaGuard & AquaPruf Series conveyors	non-returnable items
Engineered to order products	case by case
Drives and accessories	30%
Sanitary stand supports	non-returnable items

Parts

Standard stock parts	30%
Plastic chain, cleated and specialty belts	non-returnable items

Returns will not be accepted after 60 days from original invoice date. The return charge covers inspection, cleaning, disassembly, disposal and reissuing of components to inventory. If a replacement is needed prior to evaluation of returned item, a purchase order must be issued. Credit (if any) is issued only after return and evaluation is complete.

Dorner has representatives throughout the world. Contact Dorner for the name of your local representative. Our Customer Service Team will gladly help with your questions on Dorner products.

For a copy of Dorner's Warranty, contact factory, distributor, service center or visit our website at www.dorner.com.

For replacement parts, contact an authorized Dorner Service Center or the factory.



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