

Installation, Maintenance & Parts Manual

Multi Tier Aluminum Support Stands

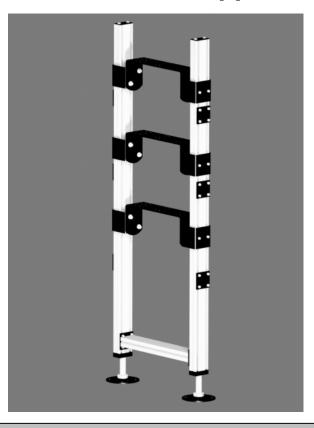


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Warnings - General Safety



WARNING



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



A

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

Loosening stand height, angle adjustment, or tier tie bracket screws may cause conveyor sections to drop down, causing severe injury.

SUPPORT CONVEYOR SECTIONS PRIOR TO LOOSENING STAND HEIGHT OR ANGLE ADJUSTMENT SCREWS.





WARNING

Adding casters to Multi Tier Support Stands may cause instability of conveyors and stands.

DO NOT USE CASTERS WITH MULTI TIER STANDS.





WARNING

Insufficient clearance between conveyed product and upper conveyor support causes pinch points which can cause severe injury.

ALLOW A MINIMUM OF 2" (51mm) BETWEEN PRODUCT AND UPPER CONVEYOR MOUNTING.





WARNING

Exceeding maximum suggested height may cause instability of conveyors and stands.

DO NOT EXCEED 72" (1829mm) IN HEIGHT WITH MULTI TIER SUPPORT STANDS.





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.

Introduction

IMPORTANT: 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's Limited Warranty applies.

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

Product Description

Refer to Figure 1 for typical conveyor components.

Typical Components				
A	Conveyor			
В	Mounting Brackets			
C	End Cap			
D	Base Tier			
E	Middle Tier			
F	Upper Tier			

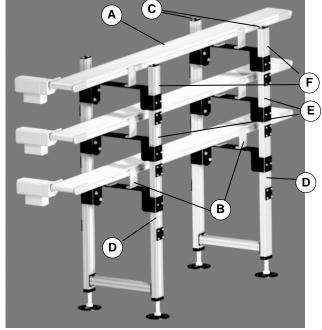
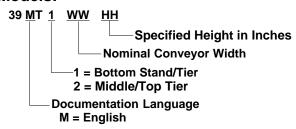


Figure 1

Specifications

Models:



Specifications

Stand Dimensions:

	Heights		
Section	Min	Max	
G	42" (1067mm)	72" (1829mm)	
Н	20" (508mm)	46" (1168mm)	
I *	18" (457mm)	60" (1524mm)	
J**	12" (305mm)	36" (914mm)	
K	2" (51mm)	6" (152mm)	
L	15" (382mm)	15" (382mm)	
М	12" (305mm)	36" (914mm)	
*Available in 2" (51mm) increments ** Available in 1" (25mm) increments			

Installation

Required Tools

- Hex Key Wrenches
- -5 mm -6 mm
- Adjustable Wrench to 1 1/2" (40 mm)

Recommended Installation Sequence (see Table of Contents for page number)

- Attach base tier to conveyor
- Perform initial placement (height, location)
- Attach middle tier to base tier
- Install middle conveyor
- Attach top tier to middle tier
- Install top conveyor
- Attach optional diagonal bracing
- Adjust stand height and level

Stand Base Tier to Conveyor Attachment





Insufficient clearance between conveyed product and upper conveyor support causes pinch points which can cause severe injury.

ALLOW A MINIMUM OF 2" (51mm) BETWEEN PRODUCT AND UPPER CONVEYOR MOUNTING.





Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

Illustration References (Figure 3)

- N Stand Mounting Bracket
- O M8 x 18 mm Socket Head Angle Adjustment Screws (4x)
- P M6 x 16 mm Socket Head Height Adjustment Screws (4x)
- **1.** Typical components as shipped (Figure 3)

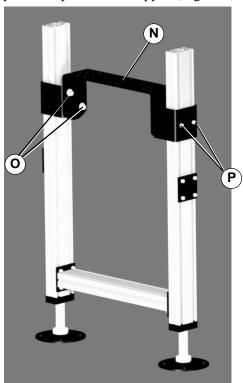


Figure 3

2. Attach conveyor (A of Figure 4) with mounting brackets (B) to stand base mounting bracket (N). Dependent on conveyor series, mounting bracket (B) may vary from those shown. See Conveyor Installation, Maintenance & Parts Manual for additional instructions. Repeat for each stand being installed.

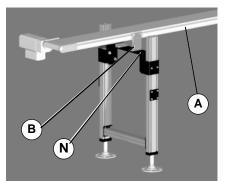


Figure 4

3. Make height and angle adjustments as required . See "Conveyor Height Adjustment" section on page 9. See "Angle Adjustment" section on page 10.



- **4.** Secure screws.
- Tighten screws (P) to 146 in-lb (17 Nm)
- Tighten screws (O) to 24 ft-lb (33 Nm)

Installation

Additional Tier Installation



WARNING

Insufficient clearance between conveyed product and upper conveyor support causes pinch points which can cause severe injury.

ALLOW A MINIMUM OF 2" (51mm) BETWEEN PRODUCT AND UPPER CONVEYOR MOUNTING.



MARNING

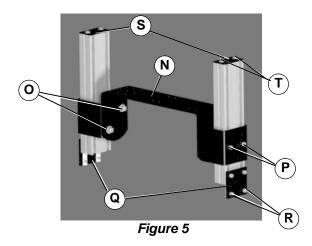
Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

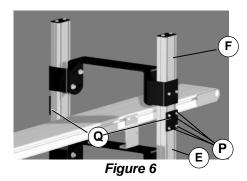
1. Typical components as shipped (Figure 5)

Illustration References

- N Stand Mounting Bracket
- O M8 x 18 mm Socket Head Angle Adjustment Screws (4x)
- P M6 x 16 mm Socket Head Height Adjustment Screws (4x)
- Q Tier Tie Bracket (2x)
- R M6 x 16mm Socket Head Tie Bracket Screws (8x)
- S End Caps (2x)
- T M8 x 10 mm Button Head Cap Screws (4x)



2. Loosen (8) tie bracket screws (R of Figure 6). Place upper tier support (F) onto lower base support (E). Slide tie brackets (Q) into lower base support. Tighten screws (P) to 146 in–lbs (17 N–m). Repeat for each multi tier stand.



3. Attach conveyor (A of Figure 7) with mounting brackets (B) to stand mounting bracket (N). Dependent on conveyor series, mounting bracket (B) may vary from those shown. See Conveyor Installation, Maintenance & Parts Manual for additional instructions. Repeat for each stand being installed.

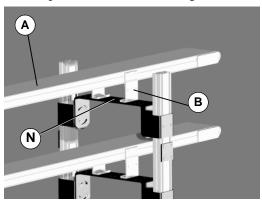
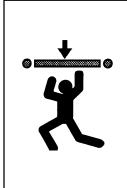


Figure 7

- **4.** If installing an additional tier remove screws (T of Figure 5) and top plates (S).
- **5.** Make height and angle adjustments as required. See "Conveyor Height Adjustment" section on page 9. See "Angle Adjustment" section on page 10.



MARNING

Failure to secure stand height or angle adjustment screws may cause conveyor sections to drop down, causing severe injury. TIGHTEN ALL STAND HEIGHT OR ANGLE ADJUSTMENT SCREWS

AFTER ADJUSTMENT.

- **6.** Secure screws.
- Tighten screws (O) to 146 in-lb (17 Nm)
- Tighten screws (P) to 24 ft-lb (33 Nm)
- **7.** If installing an additional tier, repeat steps 2 thru 6.

Optional Diagonal Bracing



MARNING

Exposed moving parts can cause severe injury.

LOCK OUT POWER before removing guards or performing maintenance.

Required Tools

- Hex Key Wrenches
- -5 mm -6 mm
- No. 3 phillips screwdriver

Metric Hardware Illustration References

- U M8 x 18 mm Button Head Cap Screws (2x)
- V 2100 and 2200 Brace Clips (2x)
- W 3100 Brace Clips (2x)
- X M6 x 18 mm Socket Head Cap Screws (4x)
- Y M6 Spring T-nuts (4x)
- Z Offset Plate (Right)
- AA Offset Plate (Left)
- AB M8 x 12 mm Button Head Cap Screws (2x)
- AC Brace Bars (2x)
- AD 6100 Brace Clips (2x)
- AE 6100 Guard Plates (2x)
- **1.** Typical components (Figure 8)

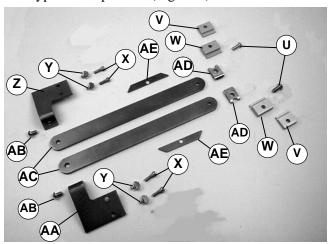


Figure 8

NOTE: For conveyors narrower than 6" (152 mm), install one (1) brace bar per stand.

2. Using phillips screwdriver, install four (4) nuts (Y of Figure 3) into same T-slot of cross member.

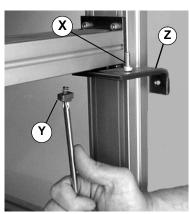


Figure 9

3. Loosely attach right offset plate (Z of Figure 10) to nuts (Y) with two (2) screws (X).

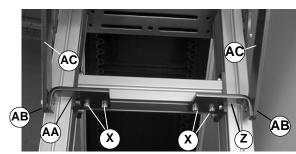


Figure 10

- **4.** Repeat step 3 for left offset plate (AA).
- **5.** Loosely attach brace bars (AC) to offset plates (Z & AA) with screws (AB).
- **6.** If required, loosen eight (8) screws (AF of Figure 11) and re-locate crossmember (AG) to attach brace bar(s) to conveyor.

Installation

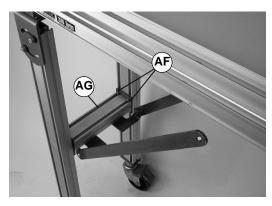


Figure 11

For 2200 and 2100 Series Conveyor:

7a. Loosely attach brace bars (AC of Figure 12) to conveyor using clips (V) and screws (U).

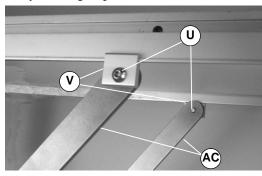


Figure 12

For a 3100 Series or LPZ Conveyor:

7b. Loosely attach brace bars (AC of Figure 13) to conveyor using clips (W) and screws (U).

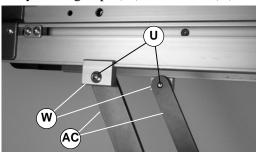


Figure 13

For a 6100 Series Conveyor:

7c. Pre-assemble mounting clips (AD of Figure 14), guard plates (AE) and screws (U).

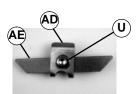


Figure 14

7d. Loosely attach brace bars (AC of Figure 15) to conveyor using clip assemblies.

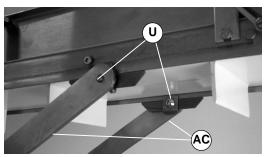


Figure 15



- **8.** Align brace bars with conveyor side rails and secure mounting hardware.
 - Tighten screws (X) to 146 in-lb (17 Nm)
 - Tighten screws (AB & U) to 7 ft-lb (9 Nm)
 - Tighten screws (AF) to 24 ft-lb (33 Nm)

Preventive Maintenance and Adjustment

Required Tools

- Hex key wrenches
- -5 mm -6 mm
- Level

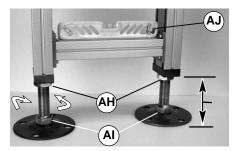
Stand Height Adjustment



1. Loosen jam nuts (AH of Figure 16).



Do not exceed a maximum height of 6-1/2" (165 mm) on a stand with foot pads. Exceeding maximum height will allow parts to separate causing possible personal injury.



Height Range 1-5/8 to 6-1/2" (41 to 165 mm)

Figure 16

- **2.** Rotate nut (AI of Figure 16) to adjust height and level stand (AJ).
- **3.** Tighten jam nuts (AH of Figure 16).

Conveyor Height Adjustment



1. Temporarily support conveyor that will be adjusted.



2. Loosen screws (P of Figure 17) on both sides of conveyor.

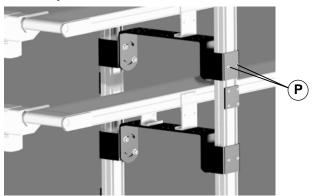


Figure 17

- **3.** If equipped with diagonal bracing, loosen screws (U of Figure 13) and disconnect brace bars from conveyor.
- **4.** Adjust conveyor to desired height.

Preventive Maintenance and Adjustment

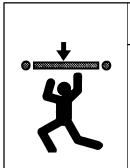


WARNING

Failure to secure screws (P of Figure 17) may cause conveyor sections to drop down, causing severe injury. TIGHTEN SCREWS (O) AFTER ADJUSTMENT.

- **5.** Tighten screws (P) to 146 in-lb (17 Nm).
- **6.** If equipped with diagonal bracing, re-connect brace bars. See installation section "Optional Diagonal Bracing" for details.

Angle Adjustment



WARNING

Loosening angle adjustment screws (O of Figure 19) may cause conveyor sections to drop down, causing severe injury.

SUPPORT CONVEYOR **SECTIONS PRIOR TO LOOSENING ANGLE** ADJUSTMENT SCREWS.

NOTE: To rotate conveyor mounting bracket (N of Figure 19), screws (O of Figure 18) may need to be relocated to holes (AM).

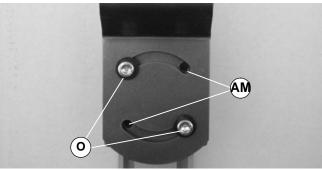


Figure 18

1. Loosen angle adjustment screws (O of Figure 19) on both sides of conveyor.

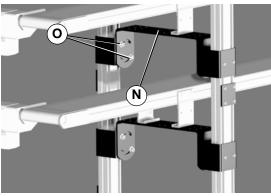


Figure 19

- 2. If equipped with diagonal bracing, loosen screws (U of Figure 13) and disconnect brace bars from conveyor.
- 3. Adjust conveyor angle and level stand legs (see Figure 19).



WARNING

Failure to secure screws (O of Figure 19) may cause conveyor sections to drop down, causing severe injury. **TIGHTEN SCREWS (0)** AFTER ADJUSTMENT.

- **4.** Tighten screws (O) to 24 ft-lb (33 Nm).
- 5. If equipped with diagonal bracing, re-connect brace bars. See installation section "Optional Diagonal Bracing" for details.

Bottom or Middle Tier Conveyor Service



WARNING

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

- 1. Near the support stand, temporarily support the conveyor to be serviced AND the conveyor directly above.
- **2.** Remove mounting bracket screws (O of Figure 20) of the conveyor to be serviced.

Preventive Maintenance and Adjustment

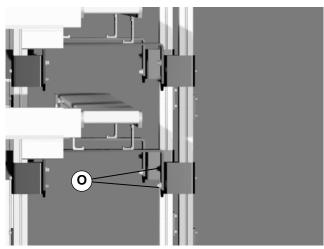


Figure 20

3. Loosen tier tie bracket screws (P of Figure 21). Slide tier tie brackets out of the way.

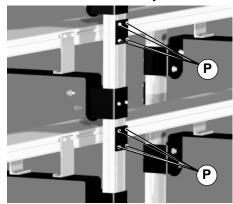
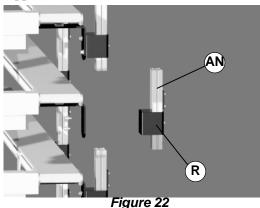


Figure 21

4. Remove stand section (AN of Figure 22) and leg support bracket (R) from multi tier stand.

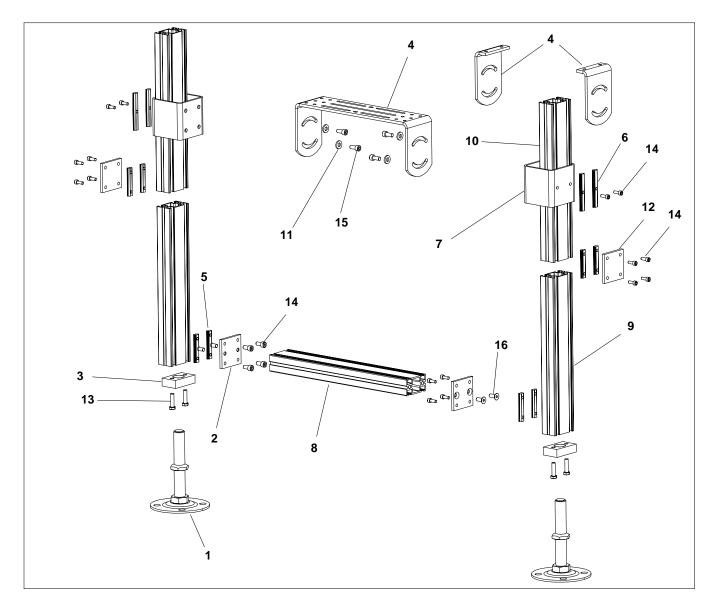


- **5.** Perform maintenance as required on conveyor.
- **6.** Reverse steps to reinstall stand section when service is complete.
- **7.** Tighten screws (O of Figure 20) to 24 ft–lbs (33 N–m) and tighten tier tie bracket screws (P of Figure 21) to 146 in–lbs (17 N–m).
- **8.** Move to next multi tier stand and repeat steps 1 thru 8.

Service Parts

Base Tier

NOTE: For replacement parts other than those shown on this page, contact an authorized Dorner Service Center or the factory.



Item	Part Number	Description
item	Part Number	Description
1	200797	Foot, Swivel, Adjustable
2	200799M	Plate, End, MtgTube
3	200800	Block, Mtg., Foot – Metric
4	202148	Brkt, Mtg., Stand/Conv 12"
	200697	Brkt, Mtg., Stand/Conv 14"-48"
5	300150M	Bar, Tee, Drop-In 1.88" CD Metric
6	300690M	Bar, Tee, Drop-In Single 3.5"LG
7	301185	Bracket, Leg Support

8	See Table Below	Cross Member
9	See Table Be- low	Base Tier Extrusion
10	301194-01500	Mounting Bracket Extrusion
11	605280P	Washer, Hard, .361X.750X.120
12	657633M	Plate, Mtg., 90 deg
13	906–998	Scr, Cap, HD-Hex 5/16-18x1.25
14	920616M	Scr, Socket, Metric M6–1.00x16MM

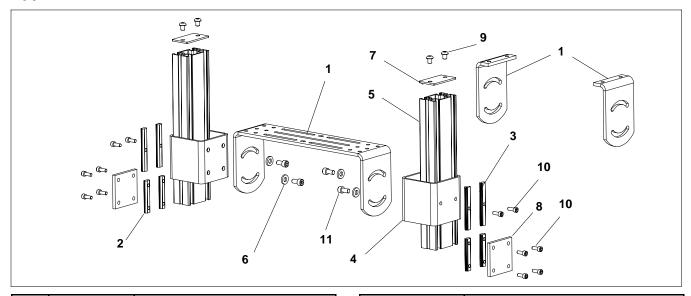
Service Parts

15	920818M		Scr, Sock, Metric M8–1.25x18MM		
16	930820M		Scr, Flat, Metric M8–1.25x20MM		
Item 8	Item 8: Cross Member				
Conve	yor Width	Pa	Part Number		
2–12" ((51–305mm)	30	301195_01647		
14" (3	56mm)	30	1195_01847		
16" (40	07mm)	30	1195_02047		
18" (4	57mm)	30	1195_02247		
20" (50	O8mm)	30	1195_02447		
21" (53	33mm)	30	1195_02547		
22" (5	59mm)	30	1195_02647		
24" (6	-	301195_02847			
26" (66	60mm)	301195_03047			
28" (7	11mm)	301195_03247			
30" (76	62mm)	301195_03447			
32" (8	13mm)	301195_03647			
34" (86	64mm)	301195_03847			
36" (9 <i>°</i>	14mm)	301195_04047			
38" (96	65mm)	301195_04247			
40" (10	016mm)	301195_04447			
42" (10	067mm)	301195_04647			
	118mm)	301195_04847			
	168mm)	301195_05047			
48" (12	219mm)	301195_05247			

Item 9: Base Tier Extrusion		
First Tier Height (I of Figure 2)	Part Number	
18" (457mm)	301194_00325	
20" (508mm)	301194_00525	
22" (559mm)	301194_00725	
24" (610mm)	301194_00925	
26" (661mm)	301194_01125	
28" (711mm)	301194_01325	
30" (762mm)	301194_01525	
32" (813mm)	301194_01725	
34" (864mm)	301194_01925	
36" (915mm)	301194_02125	
38" (966mm)	301194_02325	
40" (1016mm)	301194_02525	
42" (1067mm)	301194_02725	
44" (1118mm)	301194_02925	
46" (1169mm)	301194_03125	
48" (1220mm)	301194_03325	
50" (1271mm)	301194_03525	
52" (1322mm)	301194_03725	
54" (1373mm)	301194_03925	
56" (1424mm)	301194_04125	
58" (1475mm)	301194_04325	
60" (1526mm)	301194_04525	

Service Parts

Upper Tier



Item	Part Number		Description
1	202148		Brkt, Mtg., Stand/Conv 12"
	200697		Brkt, Mtg., Stand/Conv 14"-48"
2	300150M		Bar, Tee, Drop-In 1.88" CD Metric
3	300690M		Bar, Tee, Drop-In Single 3.5"LG
4	301185		Bracket, Leg Support
5	See Table Be- low		Upper Tier Extrusion
6	605280P		Washer, Hard, .361X.750X.120
7	635133M		Cap, End, Tube-Metric
8	657633M		Plate, Mtg., 90 deg
9	910810M		Scr, Bttn, Metric M8–1.25x10MM
10	920616M		Scr, Socket, Metric M6–1.00x16MM
11	920818M		Scr, Sock, Metric M8–1.25x18MM
Item 5	Item 5: Upper Tier Extrusion		
Upper Tier Height (J of Flgure 2)		Pa	rt Number
12" (305mm) 30		30	1195_01200
13" (331mm) 30		30	1195_01300
14" (356mm) 30		30	1195_01400
15" (382mm) 30		30	1195_01500
16" (407mm) 30		30	1195_01600

17" (433mm)	301195_01700
18" (457mm)	301195_01800
19" (483mm)	301195_01900
20" (508mm)	301195_02000
21" (533mm)	301195_02100
22" (559mm)	301195_02200
23" (584mm)	301195_02300
24" (610mm)	301195_02400
25" (635mm)	301195_02500
26" (661mm)	301195_02600
27" (686mm)	301195_02700
28" (712mm)	301195_02800
29" (737mm)	301195_02900
30" (762mm)	301195_03000
31" (788mm)	301195_03100
32" (813mm)	301195_03200
33" (839mm)	301195_03300
34" (864mm)	301195_03400
35" (889mm)	301195_03500
36" (915mm)	301195_03600

Notes

Return Policy

No returns will be accepted without prior written factory authorization. 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. 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.

A representative will discuss action to be taken on the Returned items and provide a Returned Goods Authorization Number to reference.

There will be a 15% restocking charge on all new items returned for credit where Dorner was not at fault. These will not be accepted after 60 days from original invoice date. The restocking charge covers inspection, cleaning, disassembly, and reissuing 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. Feel free to contact Dorner for the name of your local representative. Our technical sales and service staff will gladly help with your questions on Dorner products.

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

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



Dorner Mfg. Corp. reserves the right to change or discontinue products without notice. All products and services are covered in accordance with our standard warranty. All rights reserved. ©Dorner Mfg. Corp. 1999

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