

Farm/Commercial Distributor Cable Control

Installation Manual

PNEG-1375

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a division of
THE GSI GROUP



PNEG-1375

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EQUIPMENT INFORMATION

Use of the Equipment Information page will help you identify your equipment in the case that you need to call your dealer or installer. This information should be filled out and kept on record.

Model Number: _____

Date Purchased: _____

Serial Number: _____

Dealer Name and Phone Number:

RPM : _____

Head Pulley Dia.: _____

Discharge Height: _____

Horsepower: _____

Spout Dia : _____

of Spouts : _____

SAFETY GUIDELINES

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting **personal safety** and **preventing equipment problems**. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and its safety instructions is a misuse of the equipment and may lead to serious injury or death.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE

NOTE indicates information about the equipment that you should pay special attention to.

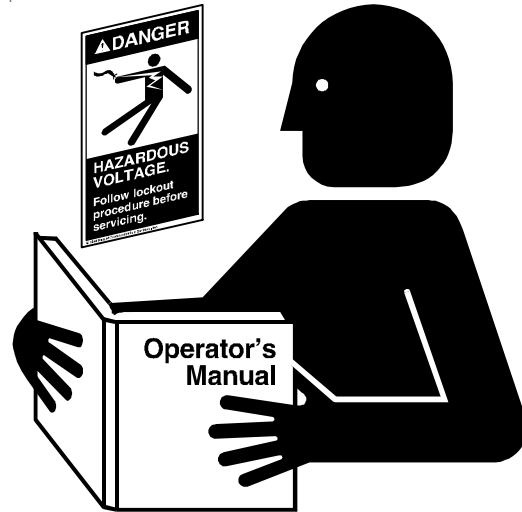
FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from the manufacturer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machinery in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your dealer.

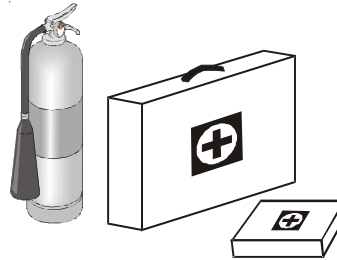


PREPARE FOR EMERGENCIES

Be prepared if fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



Keep Emergency Equipment Quickly Accessible.

WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.

Safety glasses should be worn at all times to protect eyes from debris.

Wear gloves to protect your hands from sharp edges on plastic or steel parts.

A respirator may be needed to prevent breathing potentially toxic fumes and dust.

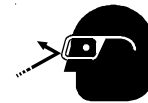
Wear hard hat and steel toe boots to help protect your head and toes from falling debris.

Remove all jewelry.

Tuck in any loose or dangling shoe strings.

Long hair should be tied up and back.

Eye Protection



Gloves



Steel Toe Boots



Respirator



Hard Hat

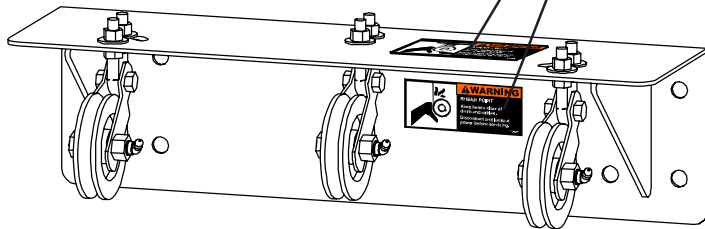


DECAL LOCATIONS

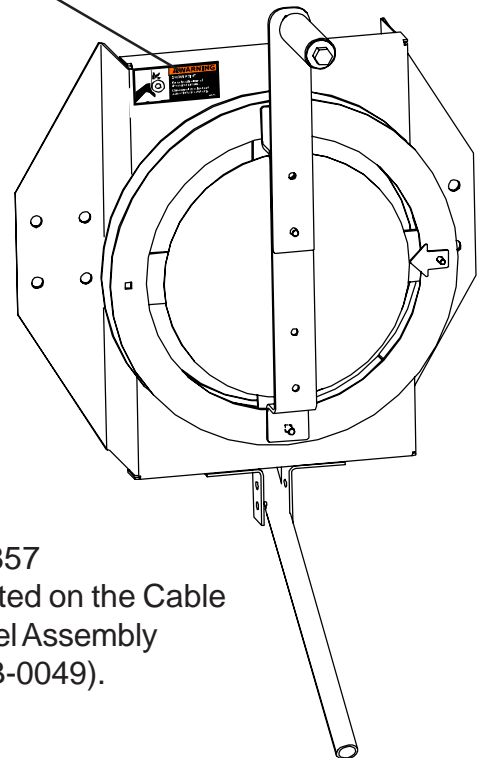
Install safety decals on components as shown. Always insure that safety decals are in place and in good condition. If a decal cannot be easily read for any reason or has been painted over, replace it immediately. Contact your dealer or the manufacturer to order a replacement decal free of charge.



DC-857



DC-857
Located on the Cable Guide Assembly (GSB-0007).



DC-857
Located on the Cable Wheel Assembly (GSB-0049).

Introduction

Thank you for choosing this product. It is designed to give excellent performance and service for many years.

This manual covers general information on the distributor cable control installation. Due to the wide variety of field conditions we cannot cover every aspect of installation. We offer one method for installing equipment but, rely on your qualified contractor's experience and techniques. Some conditions and surroundings do not allow certain practices during the installation of equipment. We can not be responsible for the installation of the distributor and accessories. We encourage anyone installing, or maintaining this equipment to thoroughly read this manual before proceeding.

The company is the vendor of the distributor and certain of its optional accessories only, and does not assume responsibility for the installation. The installation recommendations contained within this manual are for consideration only.

READ THIS MANUAL carefully to learn how to properly use and install this equipment. Failure to do so could result in personal injury or equipment damage.

INSPECT the shipment immediately upon arrival. The Customer is responsible for ensuring that all quantities are correct. Report any damage or shortages by recording a detailed description on the Bill of Lading to justify the Customer's claim from the Transport Firm. Our responsibility for damage to the equipment ends with acceptance by the delivering carrier. Save all paperwork and documentation furnished with any of the equipment.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your equipment and should be easily accessible when needed.

A WARRANTY is provided as part of the company's support program for customers who use and maintain their equipment as described in the manual. The warranty is explained on the warranty page located on the inside back cover of this manual.

This warranty provides you the assurance that the company will back its products where defects appear within the warranty period. Should the equipment be abused, or modified to change its performance beyond the factory specifications, the warranty will become void.

NOTE

All information, illustrations, photos, and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

PART IDENTIFICATION

NOTE

Cable is not supplied with cable control. 3/16" aircraft cable is recommended.

DISTRIBUTOR CABLE CONTROL FARM/COMMERCIAL		
FC-DCG		
PART #	DESCRIPTION	QTY
GSB-0006	SPACER, BOTTOM GUIDE	1
GSB-0061	CABLE WHEEL WELDMENT, TOP	1
GSB-0049	CABLE WHEEL ASSEMBLY, BOTTOM	1
GSB-0030	CONTROL HANDLE	1
GSB-0031	CONTROL HANDLE BRACKETS	2
GSB-0045	CONNECTOR-PULLEY ASSEMBLY	1
FC-DCG-HDW	HARDWARE, DIST. CABLE CONTROL	1

DISTRIBUTOR HARDWARE		
FC-DCG-HDW		
PART #	DESCRIPTION	QTY
S-8762	CLAMP 3/16" CABLE	8
S-7521	BOLT 3/8"-16 x 1-1/2"	3
S-968	3/8"-16 WHIZ NUT	3
S-1146	BOLT HHCS 5/16-18X1 ZN GR2	6
S-3611	NUT FLANGEWZ 5/16" ZN	6
S-3729	NUT HEX 1/2"-13 ZN YDP GR5	20
S-7329	BOLT HHCS 5/16-18X2 ZN GR2	1
S-7382	NUT NYLOCK 5/16-18 ZN GR5	1
S-8268	BOLT HHCS 1/2-13X2 ZN GR8	16

10" BUCKET ELEVATOR		
GSB-10DCG		
PART #	DESCRIPTION	QTY
GSB-10174	CLAMP BAND	4

16" - 36" BUCKET ELEVATOR		
1636 DCG		
PART #	DESCRIPTION	QTY
DSP16002	CLAMP BAND	4
DSP16005	CLAMP ROD WELDMENT	2

Installation of Cable Wheel & Coupler Connector

Once the distributor has been installed the installation of the cable controls can begin. First install the cable wheel. This cable wheel mounts to the control pipe coming from the bottom of the distributor using (3) 3/8"-16 x 1-1/2" Bolts (S-7521) and (3) 3/8-16 whiz nuts (S-968).

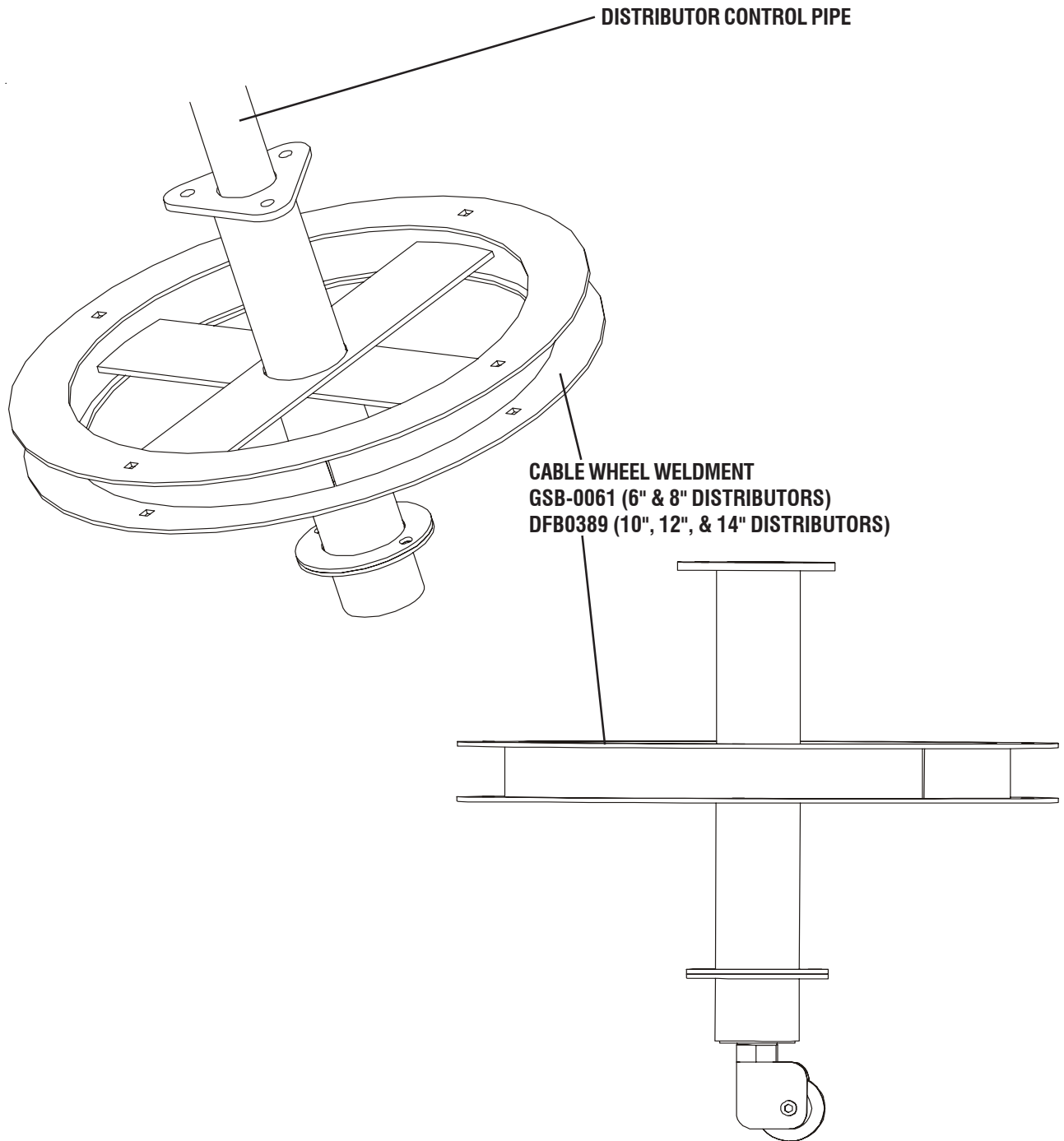


Figure 1

Connector Pulley Assembly

The next piece to install is the connector-pulley assembly (GSB-0045). This piece mounts to the Top Cable Wheel Weldment as shown in Figure 2 below. These are fastened together using (2) 5/16" x 1" bolts and whiz nuts, supplied in the hardware package (FC-DCG-HDW).

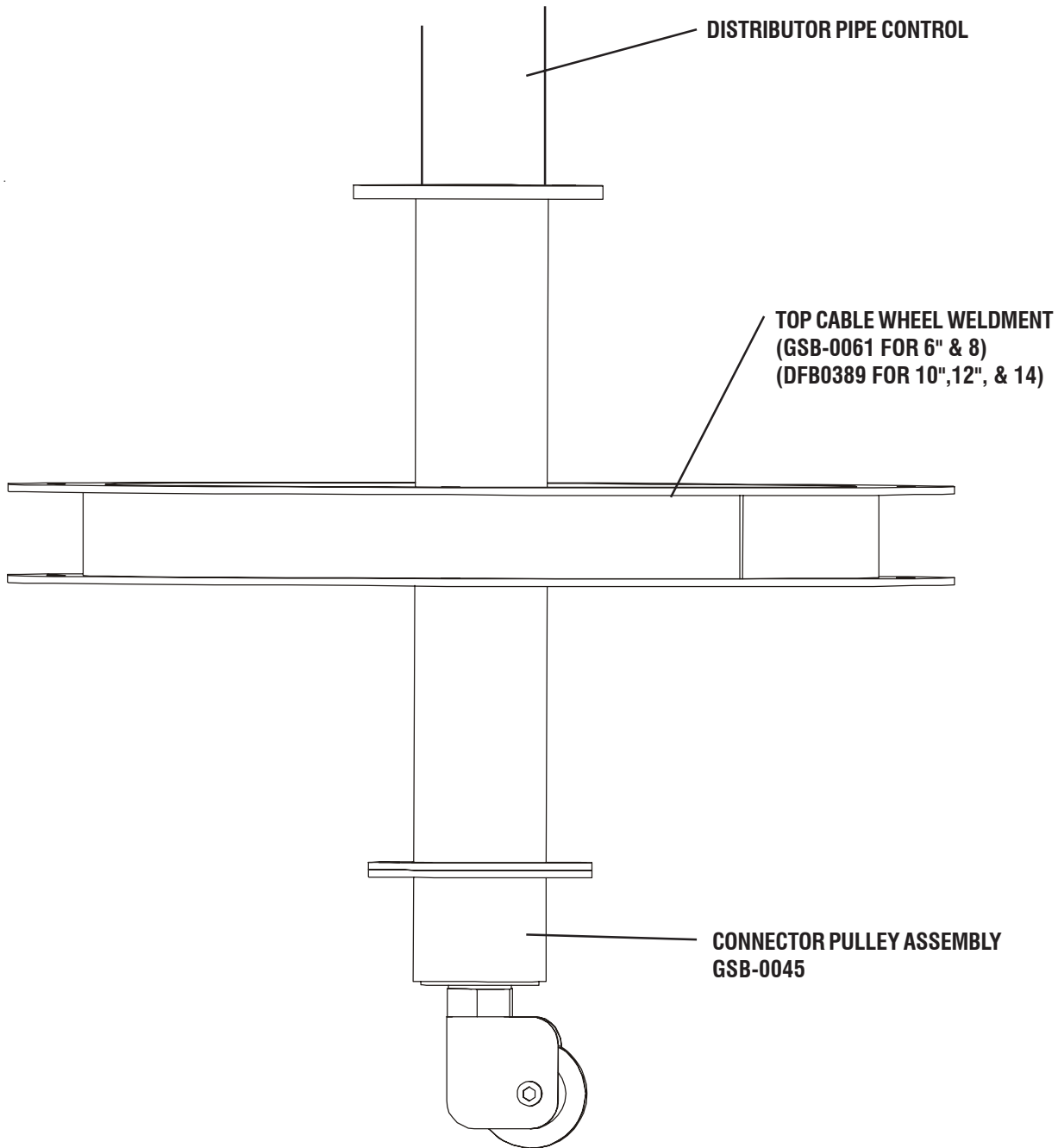


Figure 2

Cable Guide Location

Next locate the upper cable guide assembly (DFB0388). The location on the trunking is determined by the height of the cable wheel. The cable must run in-line from the cable wheel to the sheaves in the cable guide assembly. This location is shown in Figure 3 below. For cable installation see page 18.

NOTE Cable is not supplied with cable control. The company recommends 3/16" aircraft cable.

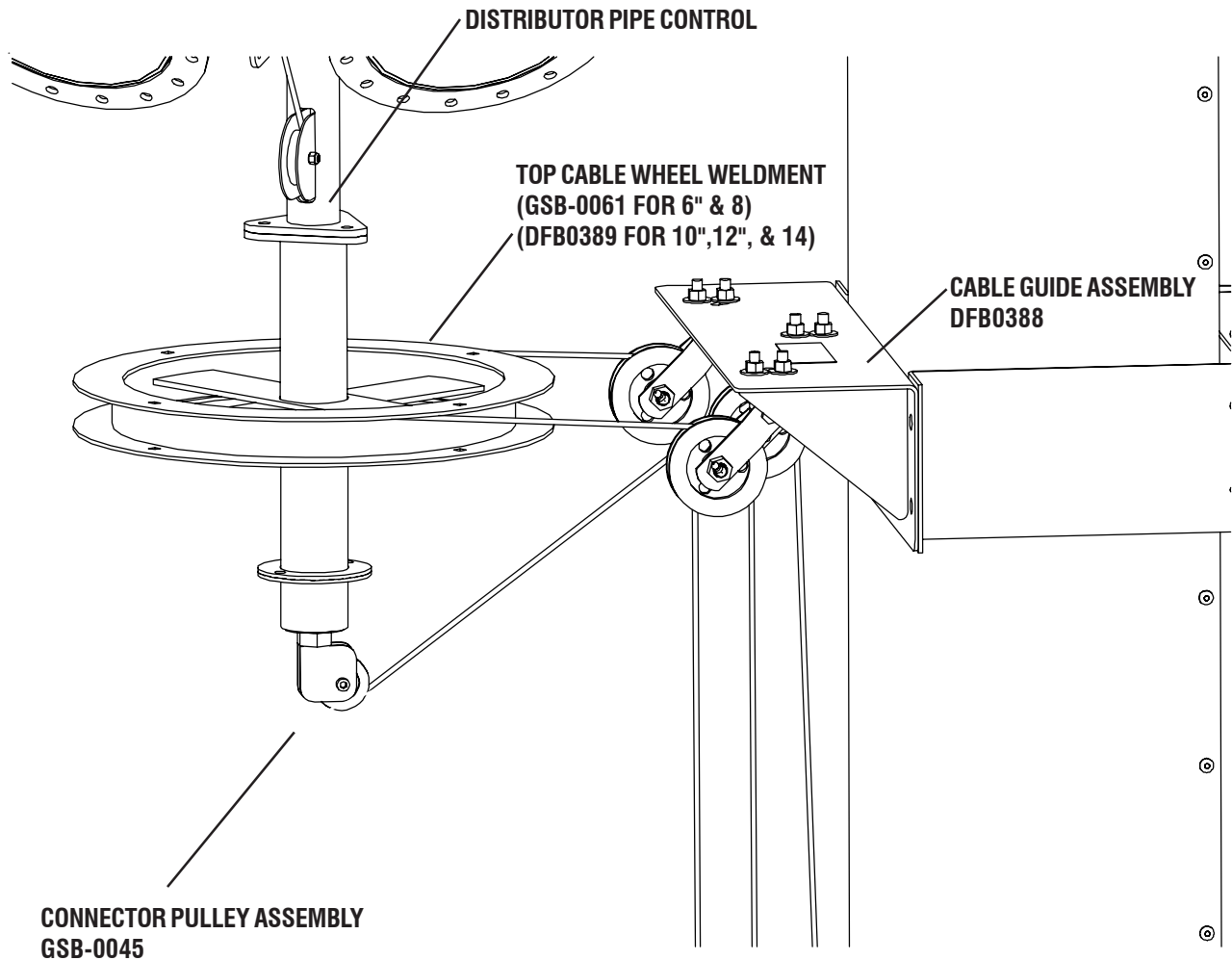


Figure 3

Upper Cable Guide Assembly

Once the location of the upper cable guide assembly is determined it must be fastened to the trunking. The assembly of the clamp band and upper cable guide assembly (DFB0388) is shown in the Figures 4 & 5 below. The 1/2" x 2" bolts and nuts that fasten the clamp bands to the upper cable guide assembly are provide in the hardware package (FC-DCG-HDW). These clamp bands vary depending on what size leg you have. Refer to the Tables below to see what clamp bands should be used.

NOTE USE CAUTION WHEN TIGHTENING HARDWARE, DO NOT OVERTIGHTEN AND COLLAPSE TRUNKING.

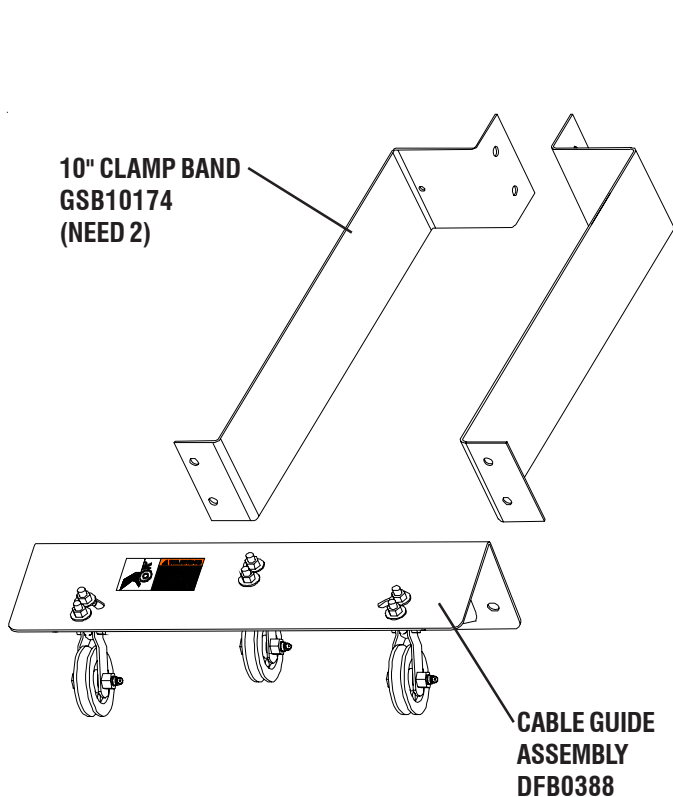


Figure 4
Trunking removed for clarity.

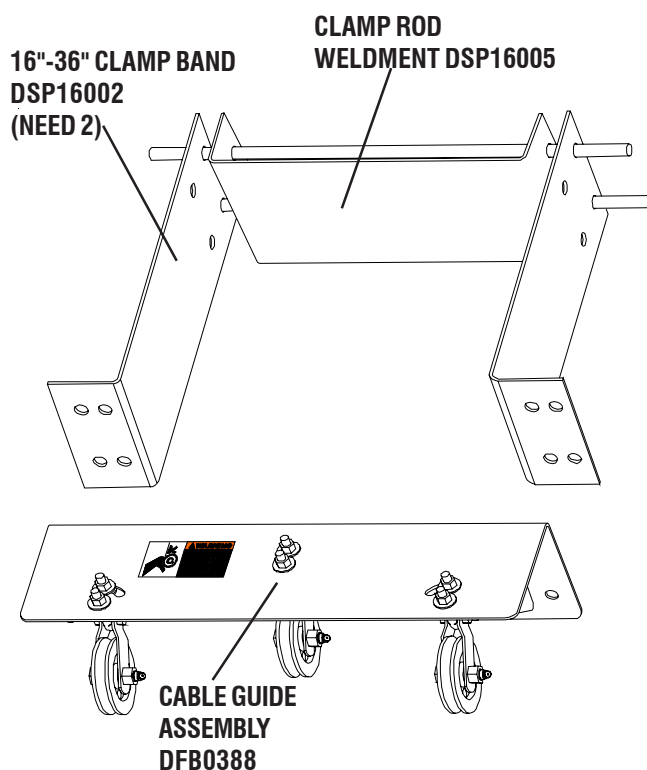


Figure 5
Trunking removed for clarity.

Pulley Dia.	Clamp Band	QTY
10"	GSB10174	2

16", 24", 30" & 36" Pulleys	Part Number	QTY
Clamp Band	DSP16002	2
Clamp w/ Rod Weldment	DSP16005	1

Control Handle Installation

Once the upper assembly has been installed, the control handle needs to be assembled to the lower cable wheel assembly. There are two brackets (GSB-0031) that mount to the bottom of the lower cable wheel assembly (GSB-0049). These brackets are fastened with 5/16" x 1" bolts and whiz nuts. The control handle (GSB-0030) is then mounted between the brackets using the second hole in the control handle and the end hole on the brackets. This is fastened using 5/16" x 2" bolt and lock nut. The hardware required is located in (FC-DCG-HDW). This assembly is shown in Figure 6 below.

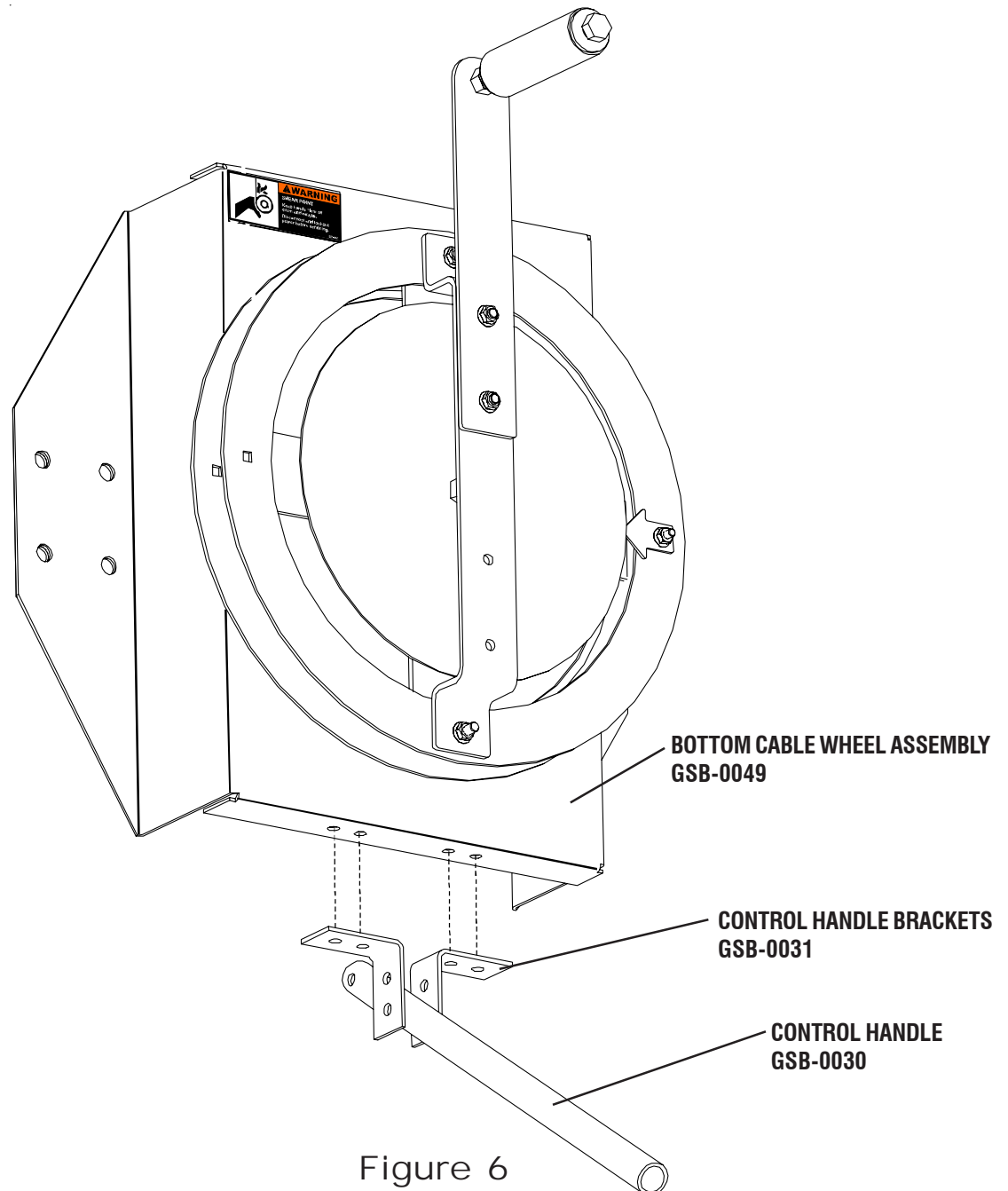


Figure 6

Lower Cable Wheel Assembly

Once the control handle has been assembled the lower cable wheel can be installed. The location of the lower cable wheel assembly (GSB-0049) is decided by where the operator will be positioned. Once the desired height has been determined for the lower cable wheel, it must be fastened to the trunking. The assembly of the lower cable wheel and clamp bands are shown in Figures 7 & 8 below. The 1/2" x 2" bolts and nuts to fasten clamp bands to the lower cable wheel are provided in the hardware package (FC-DCG-HDW). These clamp bands vary depending on what size leg you have. Refer to tables on page 14 to see what clamp bands should be used.

NOTE

USE CAUTION WHEN TIGHTENING HARDWARE, DO NOT OVERTIGHTEN AND COLLAPSE TRUNKING.

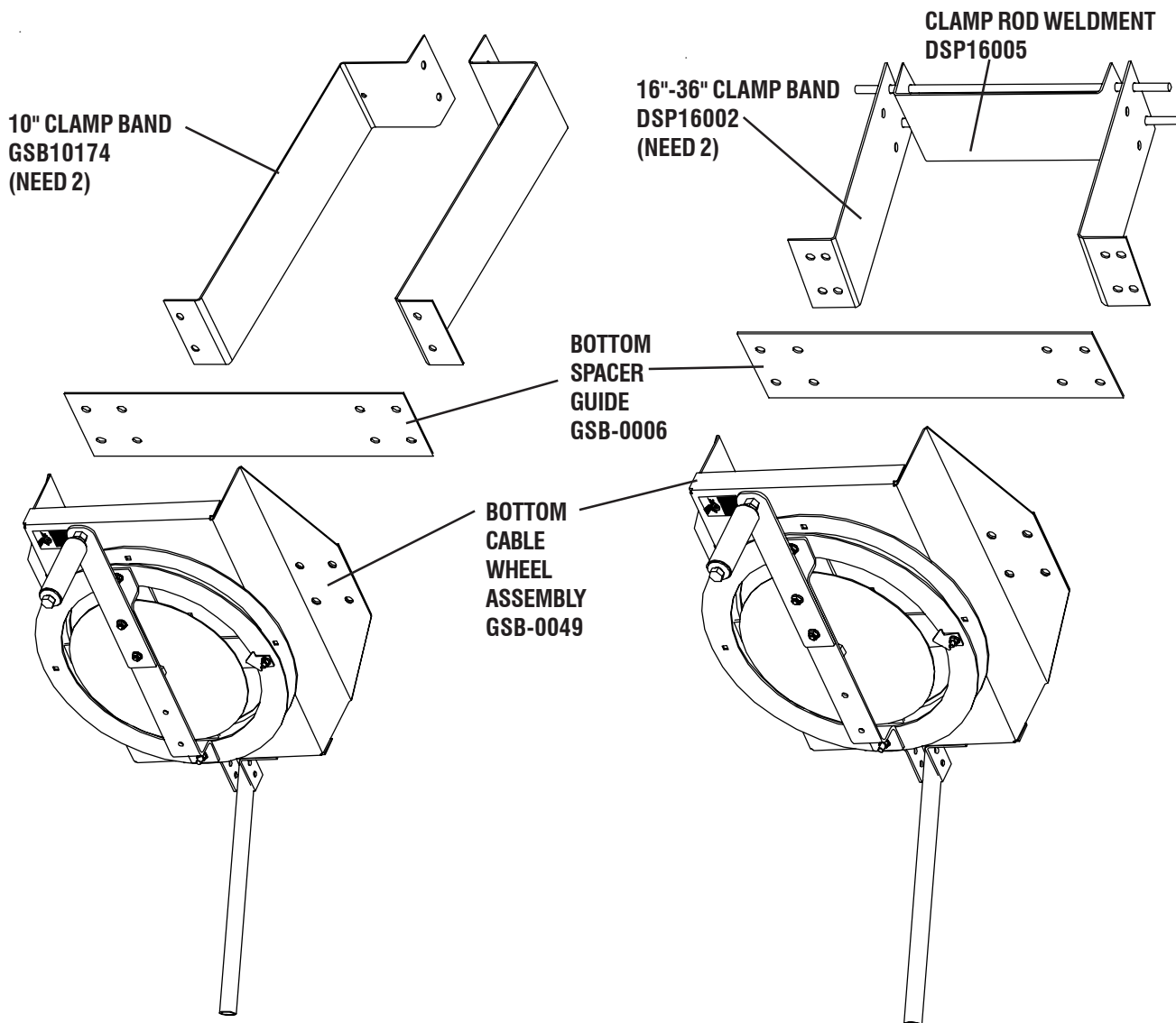


Figure 7
Trunking removed for clarity.

Figure 8
Trunking removed for clarity.

Cable Guides

To help keep the cable in-line from the upper assembly to lower assembly intermediate cable guides need to be installed. The quantity of the intermediate cable guides is determined by the height of the leg. The company recommends that they be installed every 20 feet. These intermediate cable guides (GSB-0022) are fastened at the trunking joints using the same hardware as the joint. The assembly below shows how the intermediate cable guides are located on the trunk joints. For cable installation see page 18.

NOTE

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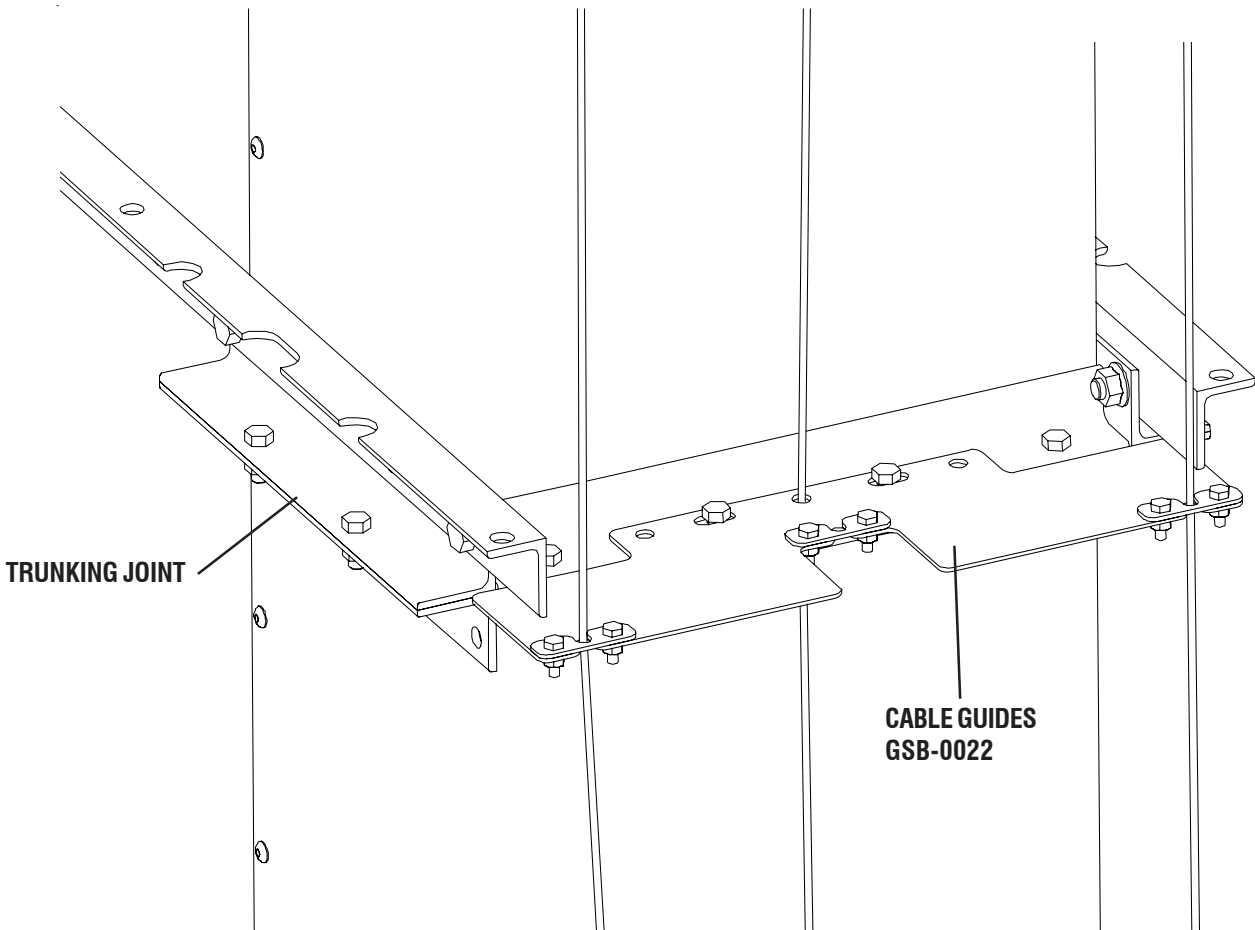


Figure 9

Cable Installation

There is more than one way to install the cable for the cable control. We recommend that you rely on your qualified contractor's experience and techniques for cable installation. Below is an example of one method of installation.

You will need two cables:

Cable 1. Spout Position Cable:

This cable is used to turn the spout. It should be long enough to reach from the Upper Control Wheel to the Lower Control Wheel assembly. This can be determined by the vertical distance between the two wheels and the horizontal distance from the side of the trunking to the **center** of the Upper Control Wheel. (See Figure 10 for formula) Multiply this distance x2 to account for the distance up and back down. Add 26' to this distance to account for 2½ wraps around the Upper and Lower Control Wheels (Approximately 3'-9" per wrap plus an extra 2 wraps allowance for possible error. 7 wraps total = 26')

SPOUT POSITION CABLE LENGTH FORMULA:
 $(A+B \times 2) + 26' = \text{CABLE}^1 \text{ LENGTH}$

NOTE

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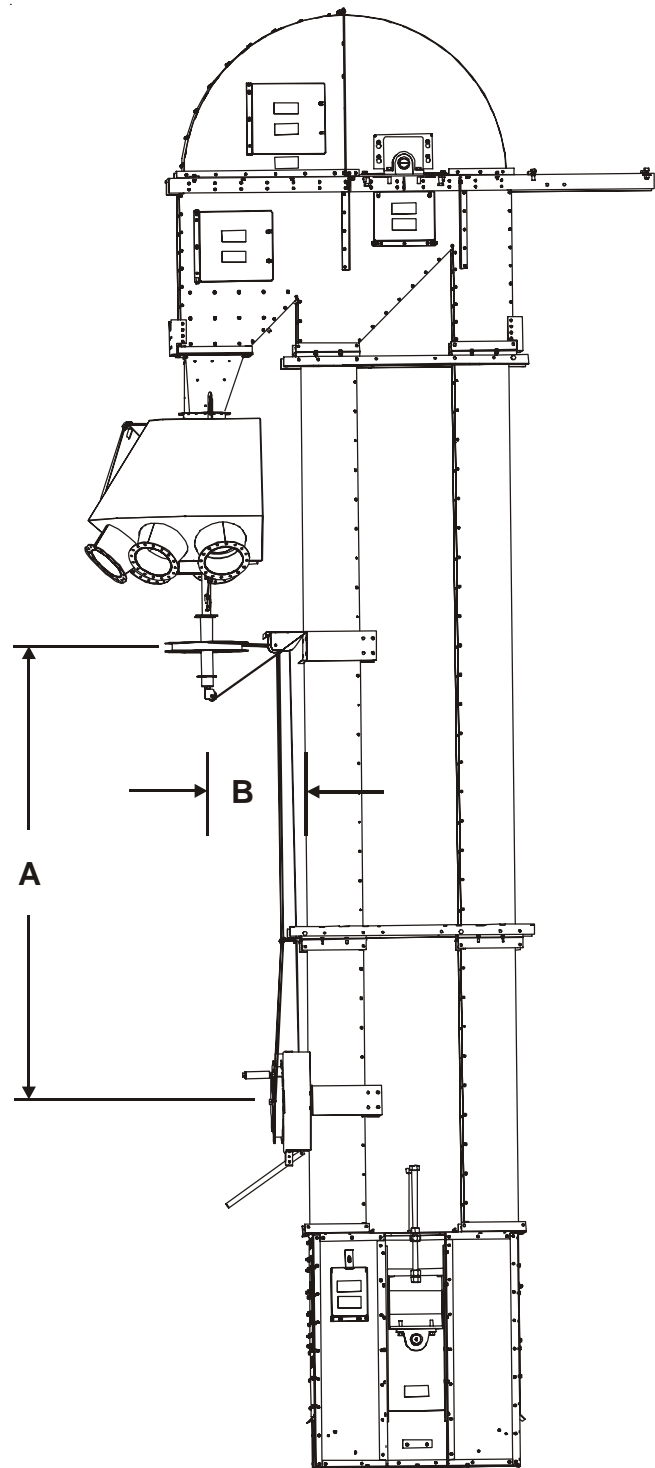


Figure 10

When installing, mark the center of the cable. Start at the Upper Control Wheel. Feed the cable into the holes in the side of the control wheel (as shown in Fig.11) until the center of the cable is between the two holes in the side. Wrap each end of the cable one full wrap around wheel.

Run both ends of the cable through the cable guides (see Fig.12), continue down through the intermediate cable guides along trunking (see Fig.13), down to the lower cable wheel. Wrap each end of the cable 1 full wrap and then cable clamp both ends (see Fig.14).

Cable 2, Spout Release Cable:

This cable is used to release the index trigger so that the spout can be turned. This cable should be able to reach from the control handle at the bottom side of the lower control wheel

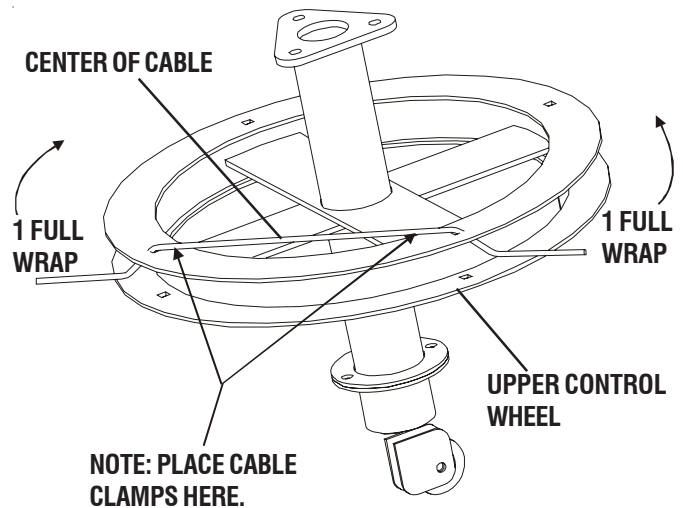


Figure 11

(See Figure 13), up over the center pulley of the cable guide assembly, under the connector pulley assembly, and tie off at the index trigger (See Figure 12). Allow some extra cable to be able to tie off at both ends.

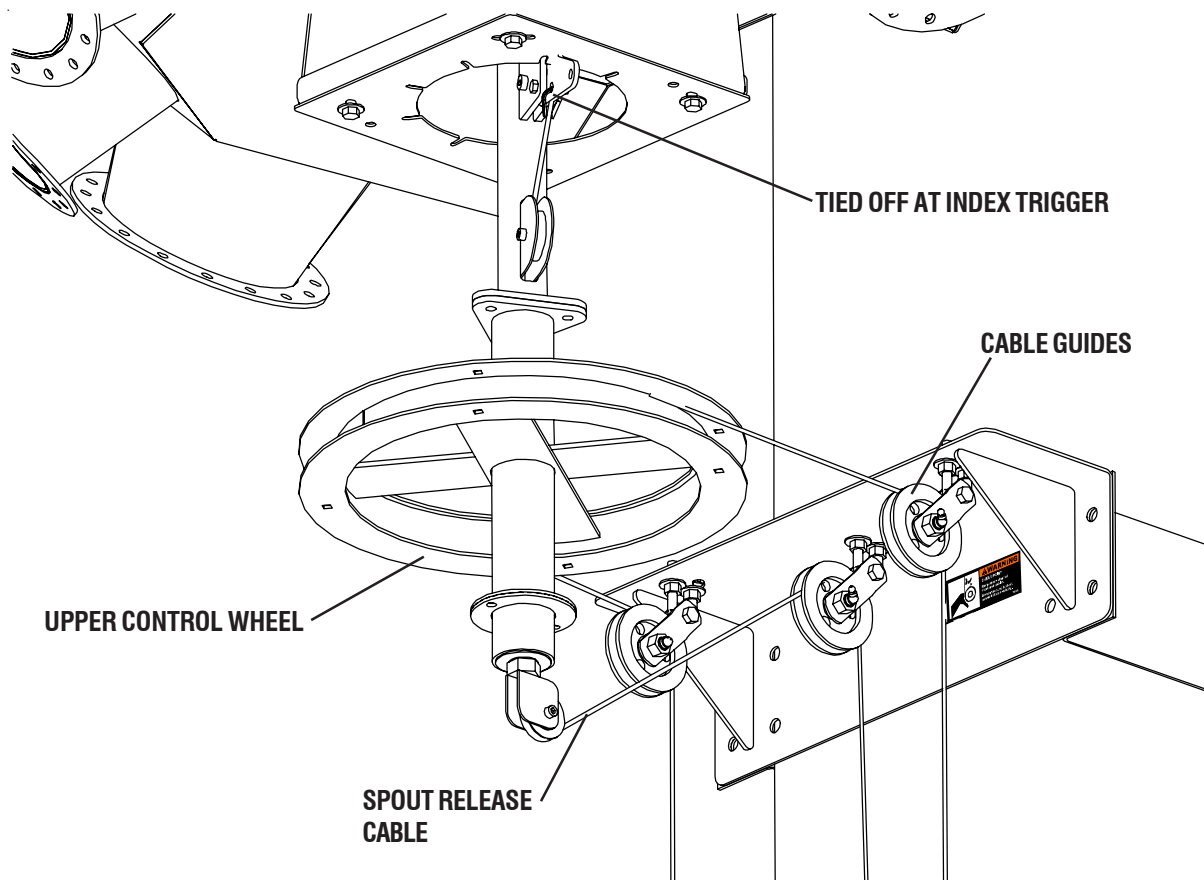


Figure 12

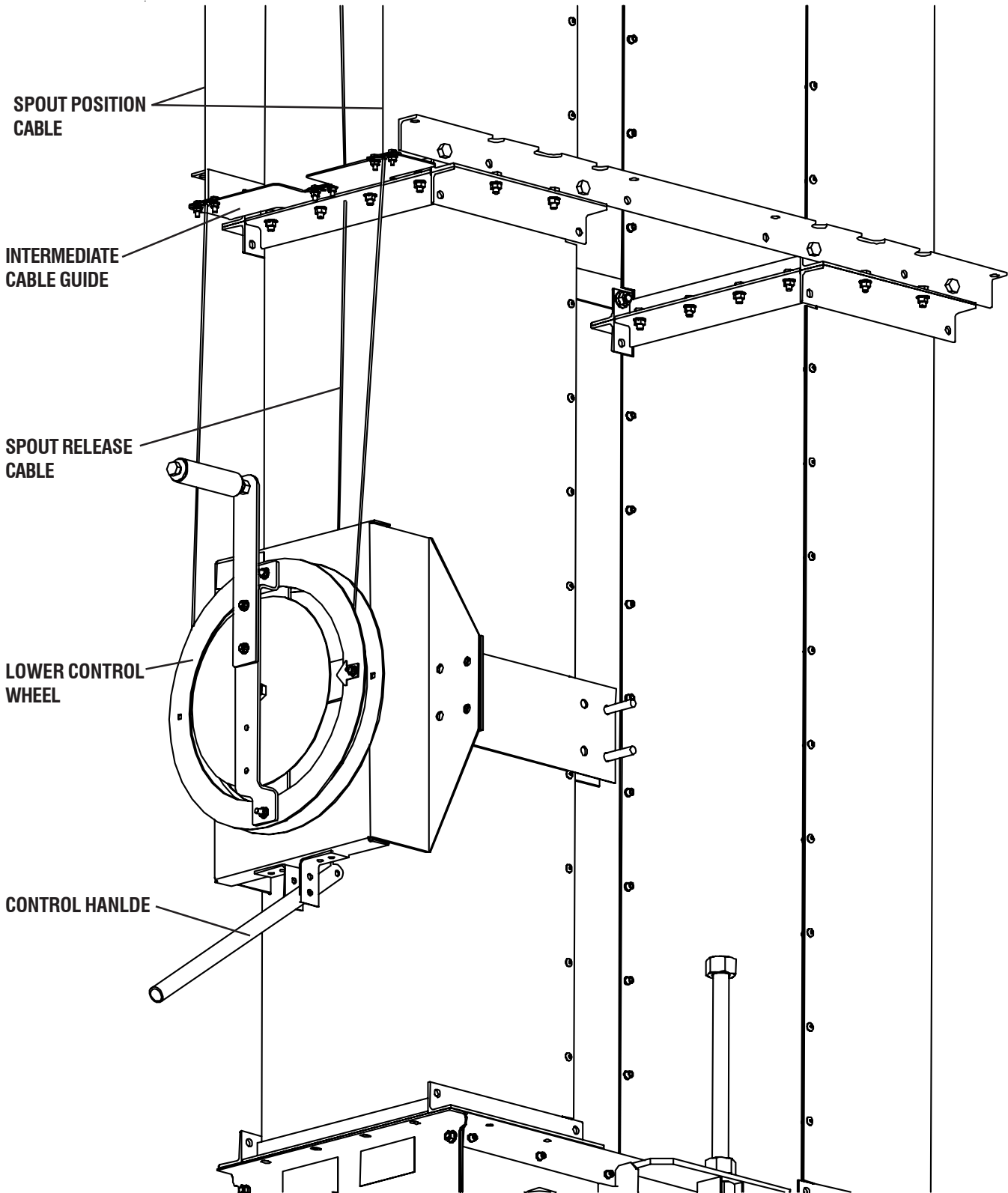


Figure 13

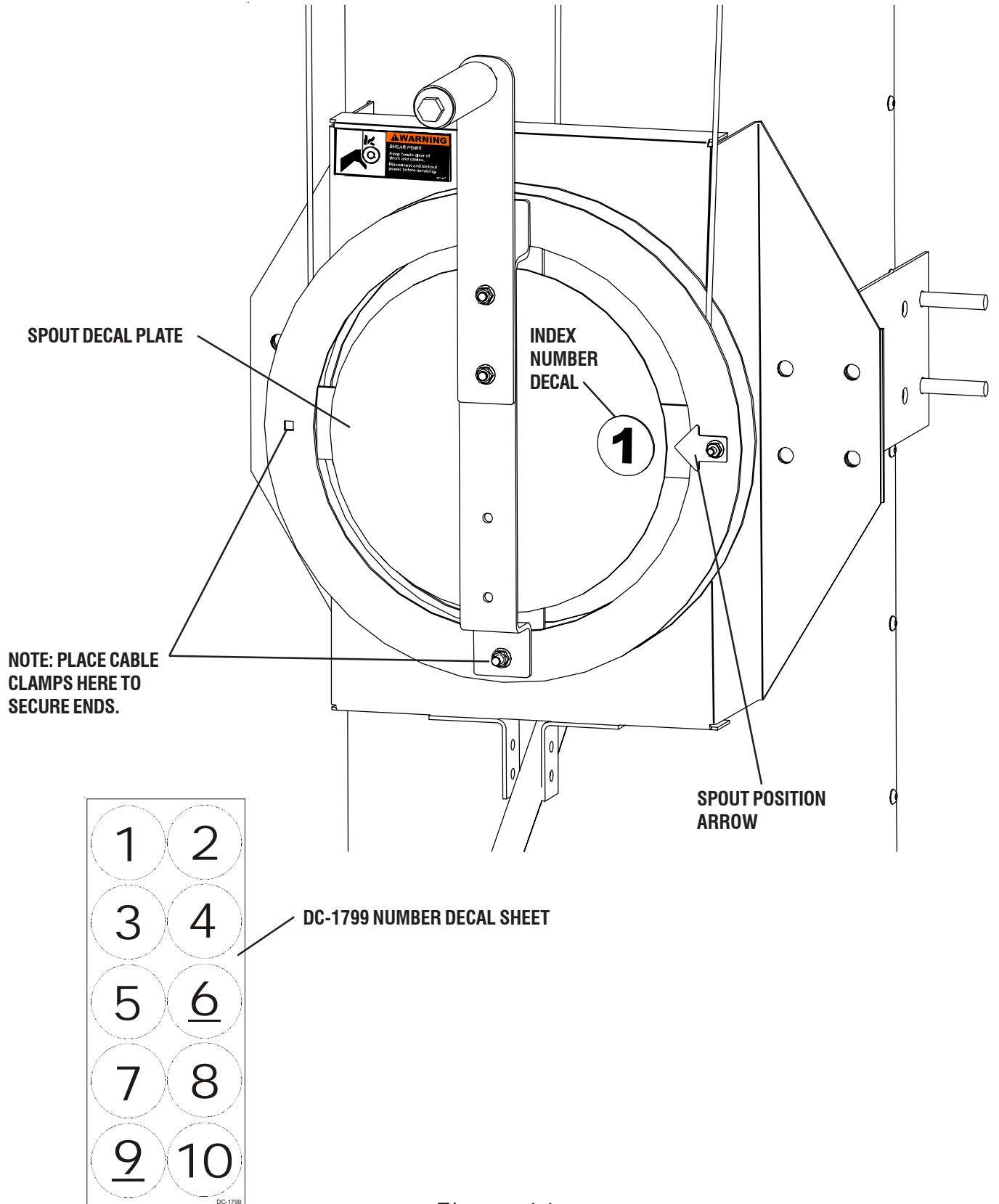


Figure 14

Calibrating the Distributor Spout and the Lower Cable Control Wheel

Step 1: Place the discharge spout index trigger to the far right as shown in Fig.15.

Step 2: Using the Index Number Decal (Decal part number DC-1799), peel off one of the numbers (numbered 1 through 10) and place on the Spout Decal Plate in front of the Spout Position Arrow (See Fig.14).

Step 3: Move to the next spout by pulling up on the Control Handle to disengage the Index Trigger while rotating the Lower Cable Control Wheel counter-clockwise.

Step 4: Repeat Steps 2 & 3 until all spouts have been labeled on the Spout Decal Plate.

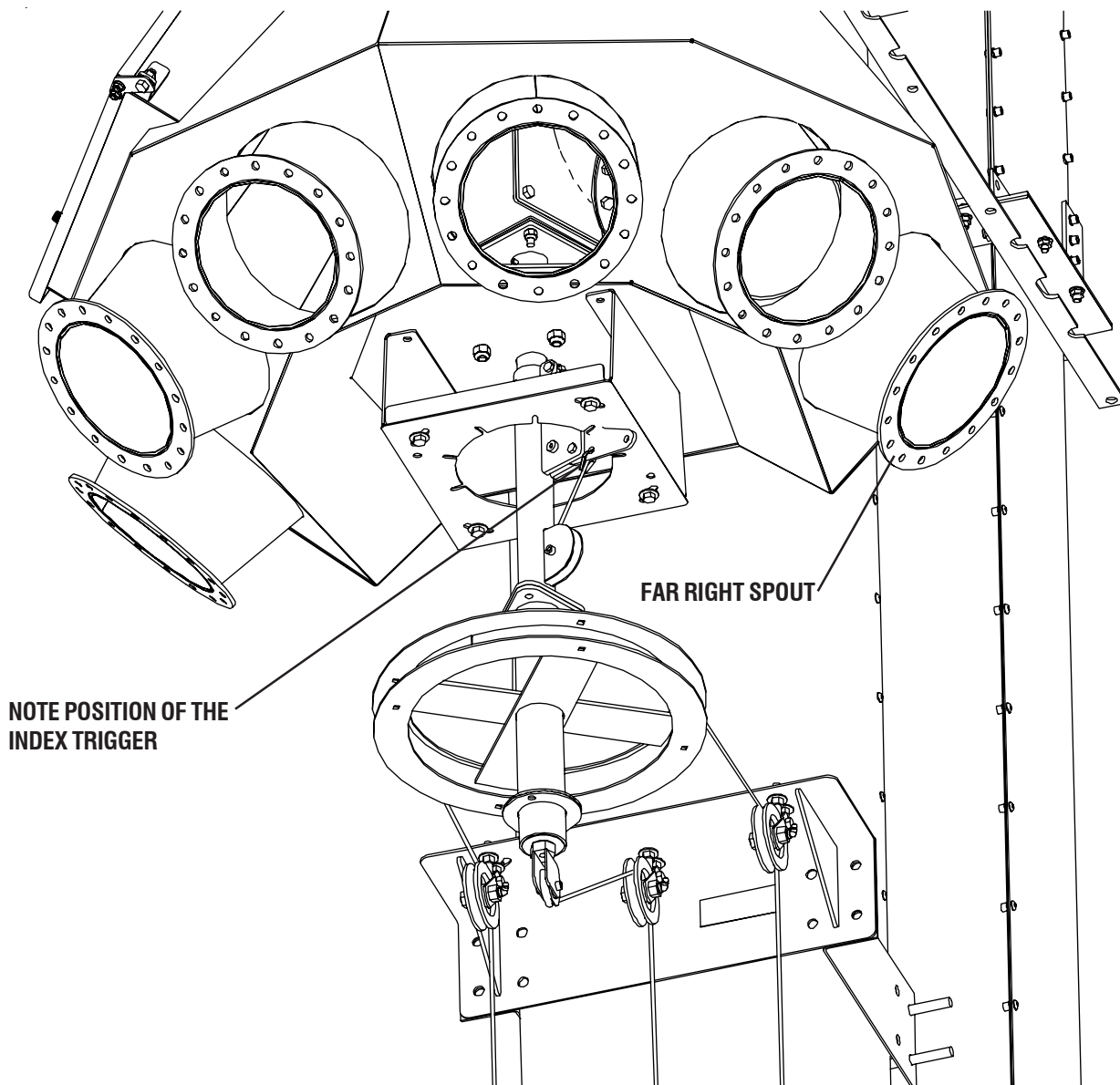


Figure 15

The GSI Group, Inc. Warranty

THE GSI GROUP, INC. ("GSI") WARRANTS ALL PRODUCTS WHICH IT MANUFACTURES TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USAGE AND CONDITIONS FOR A PERIOD OF 12 MONTHS AFTER RETAIL SALE TO THE ORIGINAL END USER. THE PURCHASER'S SOLE REMEDY AND GSI'S ONLY OBLIGATION SHALL BE TO REPAIR OR REPLACE, AT GSI'S OPTION AND EXPENSE, PRODUCTS THAT, IN GSI'S SOLE JUDGMENT, CONTAIN A MATERIAL DEFECT DUE TO MATERIALS OR WORKMANSHIP. ALL DELIVERY AND SHIPMENT CHARGES TO AND FROM GSI'S FACTORY WILL BE PURCHASER'S RESPONSIBILITY. EXPENSES INCURRED BY OR ON BEHALF OF THE PURCHASER WITHOUT PRIOR WRITTEN AUTHORIZATION FROM AN AUTHORIZED EMPLOYEE OF GSI SHALL BE THE SOLE RESPONSIBILITY OF THE PURCHASER.

EXCEPT FOR THE LIMITED WARRANTY EXPRESSED ABOVE, GSI MAKES NO FURTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH (I) PRODUCT MANUFACTURED OR SOLD BY GSI OR (ii) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.

GSI SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOSS OF ANTICIPATED PROFITS OR BENEFITS. PURCHASER'S SOLE AND EXCLUSIVE REMEDY IS AS SET FORTH IN THE LIMITED WARRANTY EXPRESSED ABOVE, WHICH SHALL NOT EXCEED THE AMOUNT PAID FOR THE PRODUCT PURCHASED. THIS WARRANTY IS NOT TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL PURCHASER. GSI SHALL HAVE NO OBLIGATION OR RESPONSIBILITY FOR ANY REPRESENTATIONS OR WARRANTIES MADE BY OR ON BEHALF OF ANY DEALER, AGENT OR DISTRIBUTOR OF GSI.

GSI ASSUMES NO RESPONSIBILITY FOR CLAIMS RESULTING FROM ERECTION DEFECTS OR UNAUTHORIZED MODIFICATIONS TO PRODUCTS WHICH IT MANUFACTURED. MODIFICATIONS TO PRODUCTS NOT SPECIFICALLY DELINEATED IN THE MANUAL ACCOMPANYING THE EQUIPMENT AT INITIAL SALE WILL NULLIFY THE PRODUCT WARRANTY THAT MIGHT HAVE BEEN OTHERWISE AVAILABLE.

THE FOREGOING WARRANTY SHALL NOT EXTEND TO PRODUCTS OR PARTS WHICH HAVE BEEN DAMAGED BY NEGLIGENT USE, MISUSE, ALTERATION OR ACCIDENT. THIS WARRANTY EXTENDS SOLELY TO ONLY PRODUCTS MANUFACTURED BY GSI. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. GSI RESERVES THE RIGHT TO MAKE DESIGN OR SPECIFICATION CHANGES AT ANY TIME.

PRIOR TO INSTALLATION, PURCHASER HAS THE RESPONSIBILITY TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES WHICH MAY APPLY TO THE LOCATION AND INSTALLATION OF PRODUCTS MANUFACTURED OR SOLD BY GSI.

This Equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installation occurs.



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