

# TopDry Air Box

## Models:

TD-101164

TD-101522

## Assembly Manual

## **PNEG-1890**

**Version 1.1**

**Date: 07-14-16**



PNEG-1890

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**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.**



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# NOTES

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# NOTES

# 1 Safety Precautions

## Topics Covered in this Chapter

- Safety Guidelines
- Cautionary Symbol Definitions
- Safety Cautions

## Safety Guidelines

Safety guidelines are general-to-specific safety rules that must be followed at all times. This manual is written to help you understand safe operating procedures and problems that can be encountered by the operator and other personnel when using this equipment. Save these safety guidelines for future reference.

As owner or operator, you are responsible for understanding the requirements, hazards, and precautions that exist and to inform others as required. Unqualified persons must stay out of the work area at all times.

Alterations must not be made to the equipment. Alterations can produce dangerous situations resulting in **SERIOUS INJURY** or **DEATH**.

This equipment must be installed in accordance with the current installation codes and applicable regulations, which must be carefully followed in all cases. Authorities having jurisdiction must be consulted before installations are made.

When necessary, you must consider the installation location relative to electrical, fuel and water utilities.








Personnel operating or working around equipment must read this manual. This manual must be delivered with equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment.

ST-0001-3

## Cautionary Symbol Definitions

Cautionary symbols appear in this manual and on product decals. The symbols alert the user of potential safety hazards, prohibited activities and mandatory actions. To help you recognize this information, we use the symbols that are defined below.

**Table 1-1** Description of the different cautionary symbols

| Symbol  | Description   |
|---|---|
|    | This symbol indicates an imminently hazardous situation which, if not avoided, <b>will result in serious injury or death.</b> |
|    | This symbol indicates a potentially hazardous situation which, if not avoided, <b>can result in serious injury or death.</b>  |
|    | This symbol indicates a potentially hazardous situation which, if not avoided, <b>can result in minor or moderate injury.</b> |
|    | This symbol is used to address practices not related to personal injury.  |
|    | This symbol indicates a general hazard.   |
|  | This symbol indicates a prohibited activity.  |
|  | This symbol indicates a mandatory action.   |

ST-0005-2



## Safety Cautions

### Use Personal Protective Equipment

- Use appropriate personal protective equipment:

**Eye Protection**



**Respiratory Protection**



**Foot Protection**



**Hearing Protection**



**Head Protection**



**Fall Protection**



**Hand Protection**



- Wear clothing appropriate to the job.
- Remove all jewelry.
- Tie long hair up and back.

ST-0004-1

### Follow Safety Instructions

- **Warning:** If the information in the manual is not followed exactly, a fire or explosion can result, causing property damage, personal injury or loss of life.
- Carefully read all safety messages in this manual and safety signs on your machine. 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.
- If you do not understand any part of this manual or need assistance, contact your dealer.



ST-0025-2

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# NOTES

# 2 Air Box Assembly

## Topics Covered in this Chapter

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- Assembling the Air Box Covers
- Installing Vent to Angle Plate
- Installing Vent Assembly
- Installing Side Plate Assembly
- Installing the Top Spout to the Support Frame
- Installing the Inner Spout
- Installing the Door Frame
- Installing the Access Door

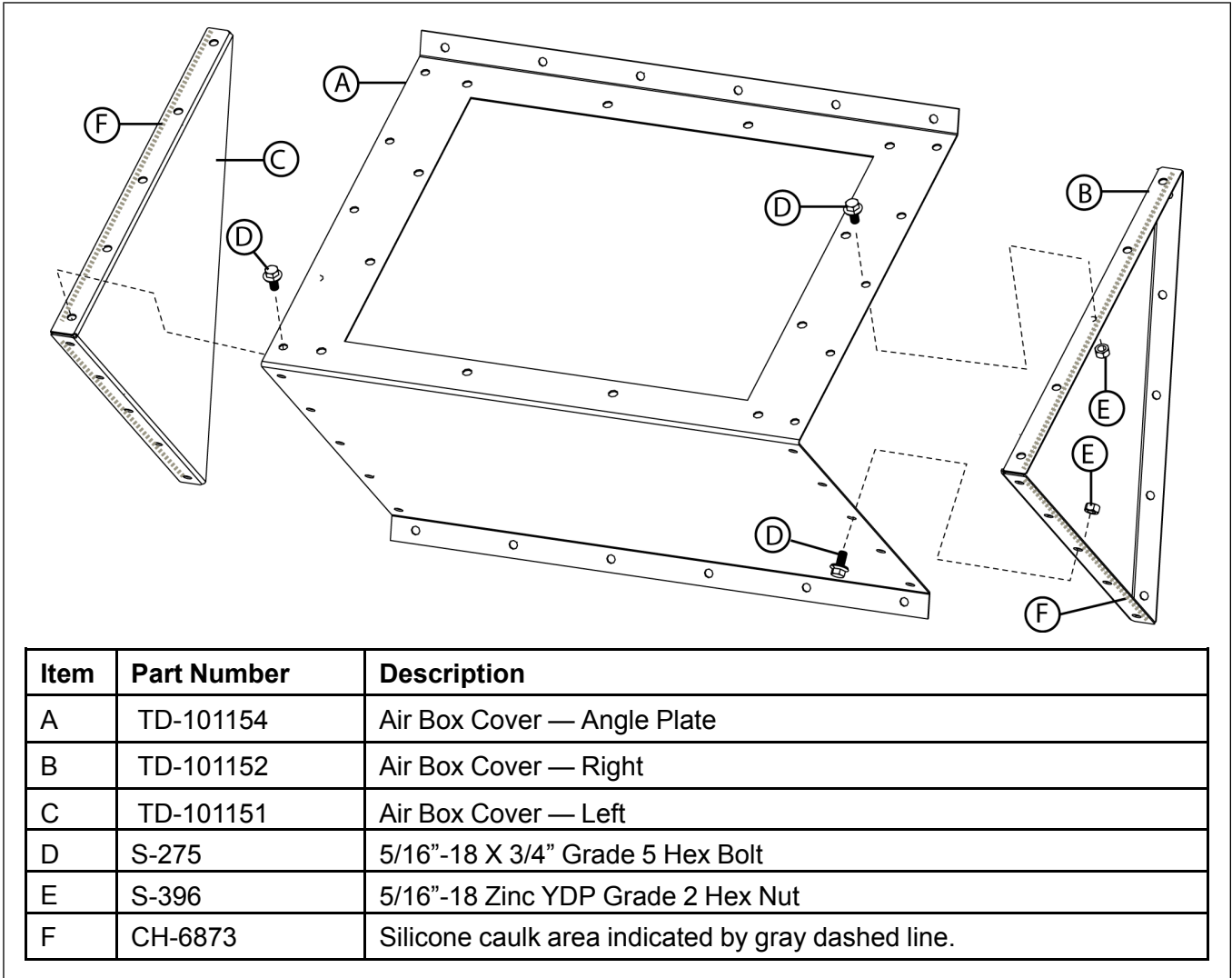
**NOTICE**

*Use a silicone based caulk along all connecting surfaces throughout the assembly to assure a water tight fit.*

## Assembling the Air Box Covers

The air box covers consist of the air box right and left covers and the air box cover angle plate. This assembly will be the base for the vent assembly.

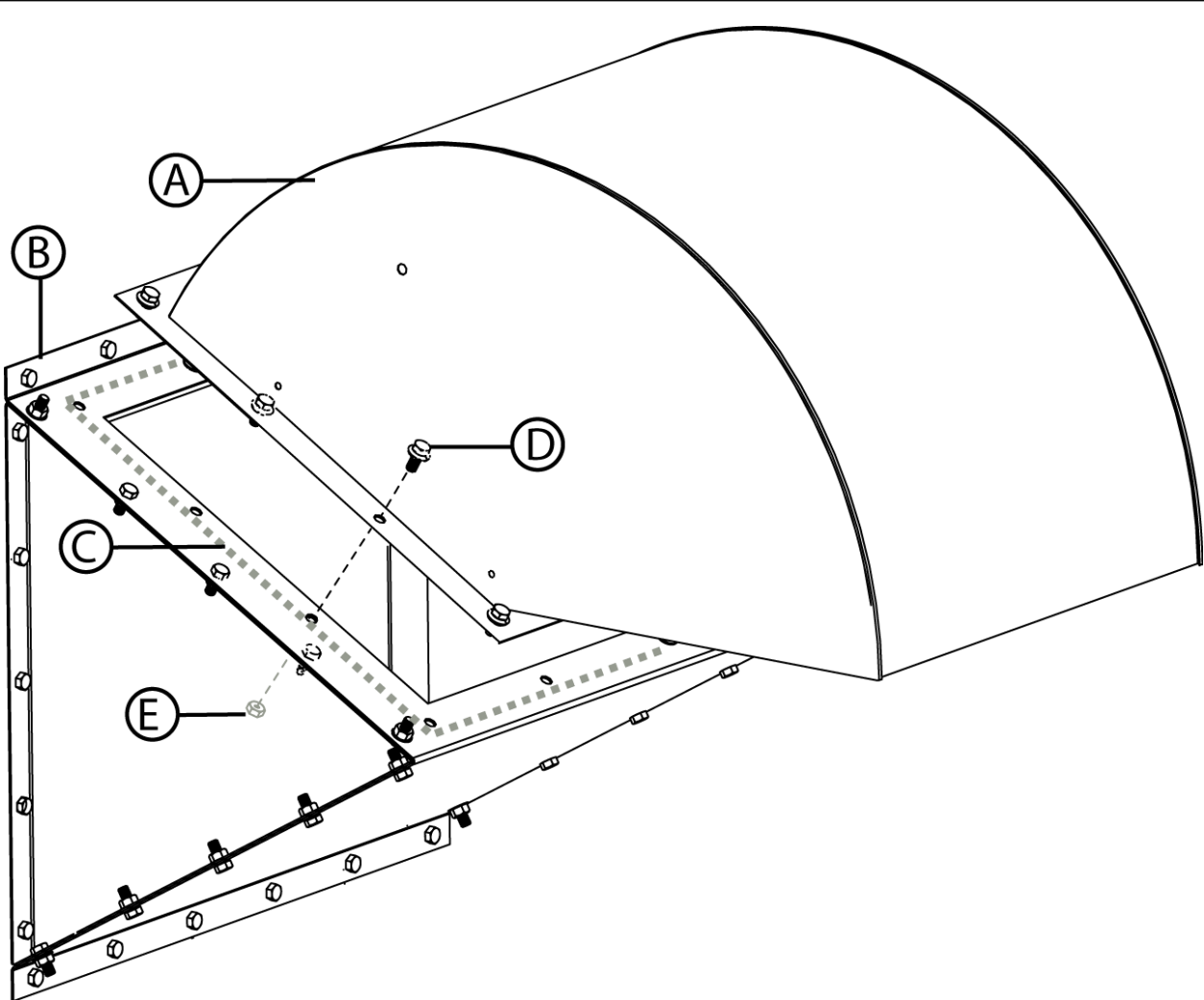
1. Apply caulk (F) along the bolt holes in both the right side panel (B) and the left side panel (C).
2. Install the right side panel (B) and the left side panel (C) to the angle plate (A) using bolts (D) and nuts (E).



### Installing Vent to Angle Plate

Assembling the vents to the angle plates before attaching the angle plates to the side plates will allow easier access to hardware during installation.

- 1. Apply caulk around angle plate opening next to bolt holes (C).
- 2. Align holes in vent flange (A) with holes in angle plate (B).
- 3. Attach vent to angle plate using bolt (D) and nut (E).

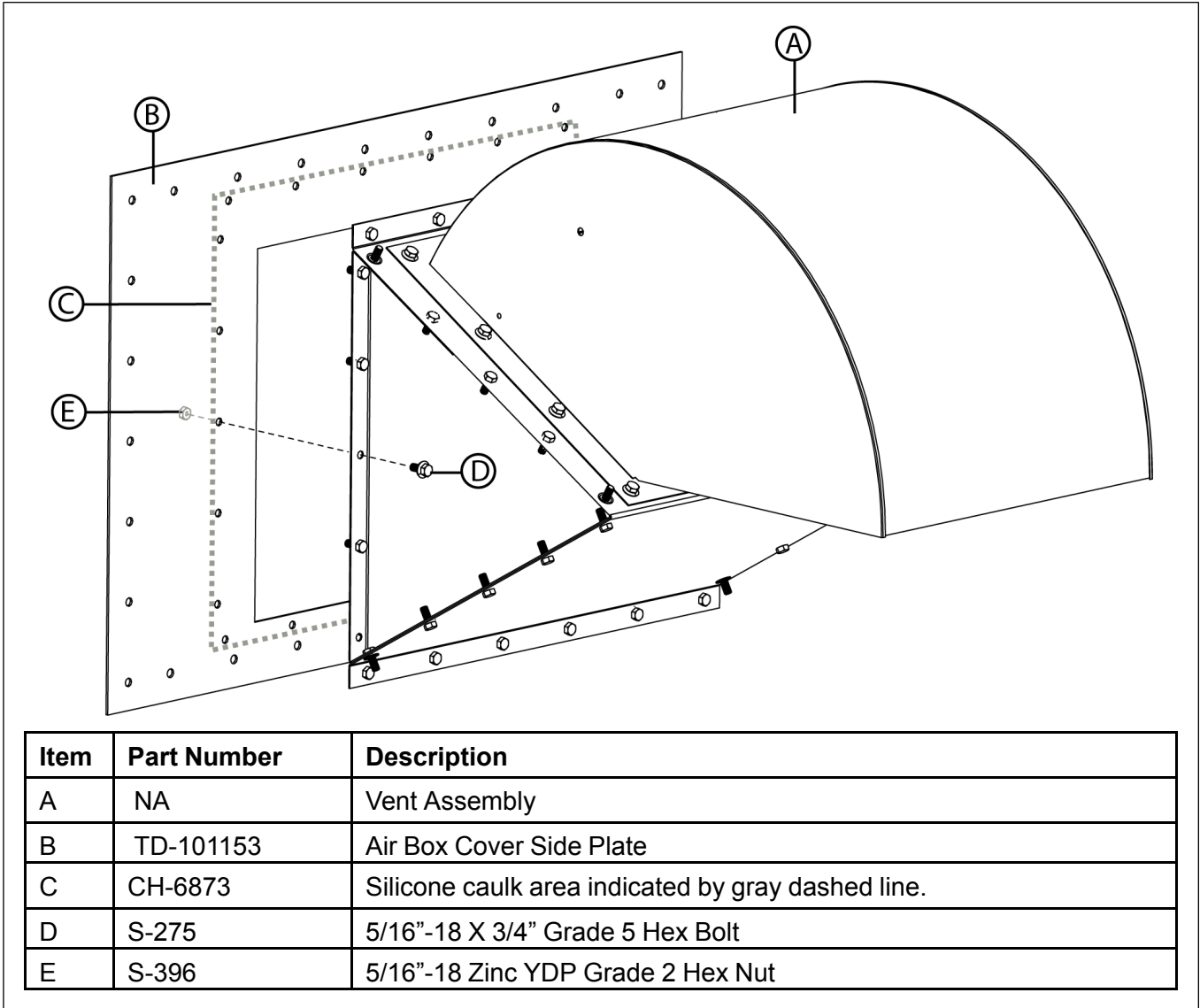


| Item | Part Number | Description                               |
|------|-------------|---|
| A    | MIS-6773    | Slim Roof Vent Housing                    |
| B    | TD-101154   | Air Box Cover — Angle Plate               |
| C    | MIS-6778    | Base Gasket indicated by gray dashed line |
| D    | S-275       | 5/16"-18 X 3/4" Grade 5 Hex Bolt          |
| E    | S-396       | 5/16"-18 Zinc YDP Grade 2 Hex Nut         |

## Installing Vent Assembly

Attaching the vent assemblies to the side plates first will allow for easier access to hardware during installation.

1. Apply caulk (C) along the perimeter of the bolt holes in the side plate (B).
2. Align holes in vent assembly (A) with those in the side plate (B).
3. Fasten vent assembly (A) to side plate (B) using screws (D) and nuts (E).

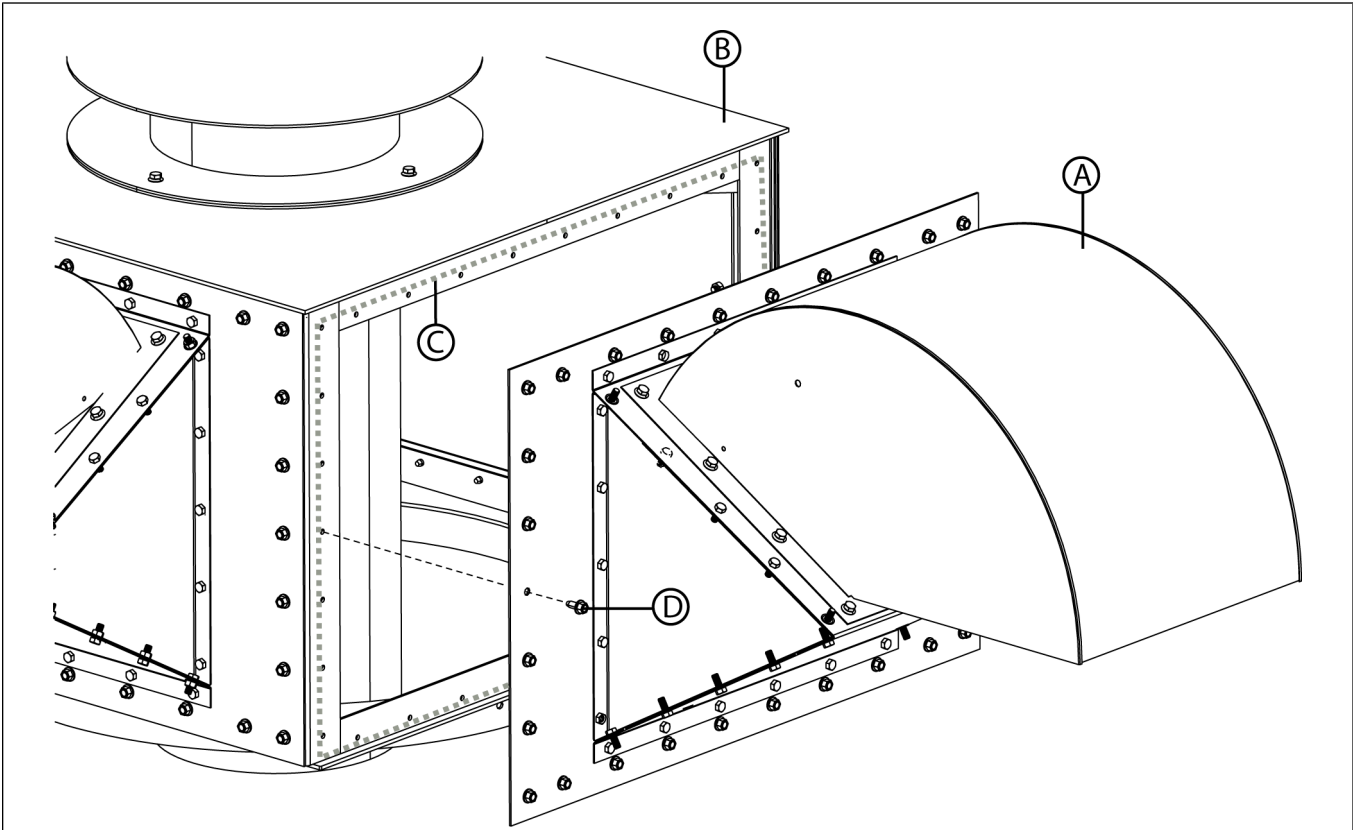


### Installing Side Plate Assembly

The side plate assemblies will cover three sides of the air box support frame. The remaining side will house the access door.

**NOTE: The two vent version (TD-101522) will have two access doors and two vents.**

- 1. Apply caulk (C) along the perimeter of the bolt holes on the support frame (B).
- 2. Align holes in side plate assembly (A) with those on the support frame (B).
- 3. Fasten side plate assembly (A) to support Frame (B) using screws (D).

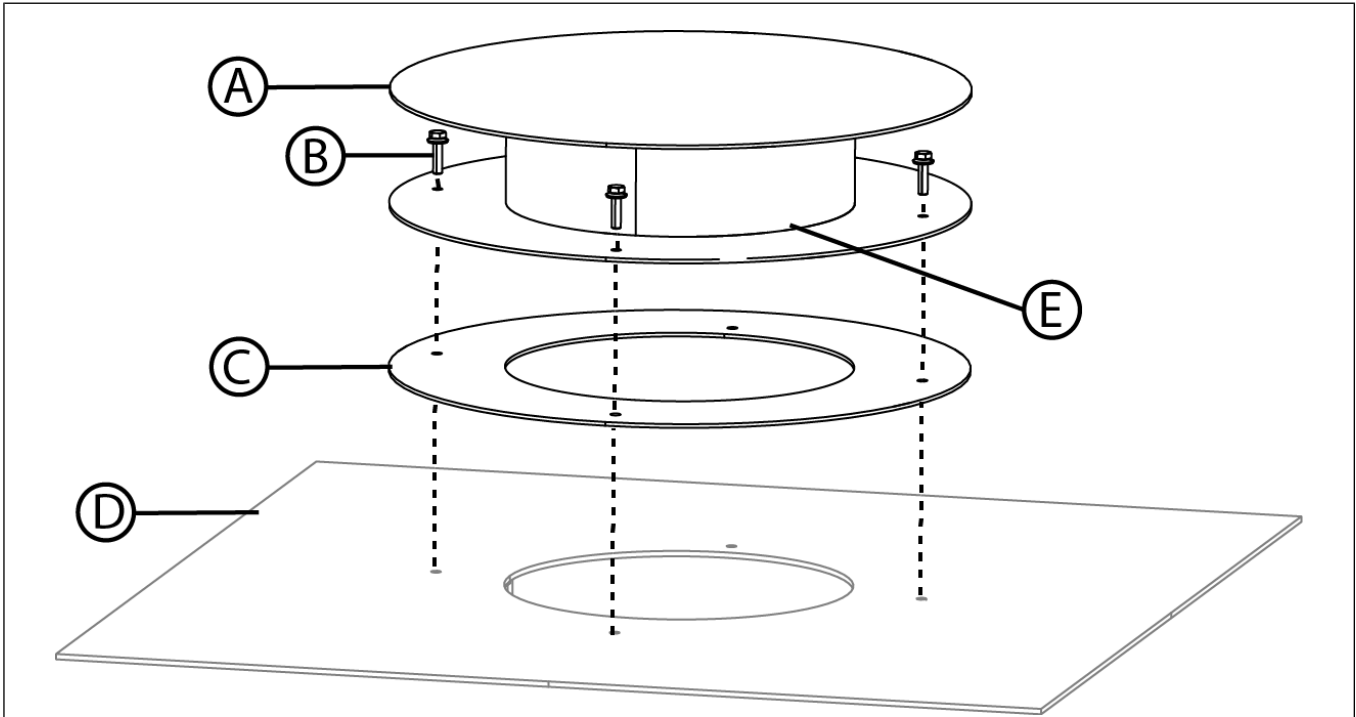


| Item | Part Number | Description  |
|------|-------------|--|
| A    | NA          | Side Plate Assembly                                |
| B    | TD-101155   | Air Box Support Frame                              |
| C    | CH-6873     | Silicone caulk area indicated by gray dashed line. |
| D    | S-7221      | 5/16"-18 X 3/4" Grade 2 Self Tapping Screw         |

## Installing the Top Spout to the Support Frame

The top spout is fastened to the top of the air box using three bolts through threaded plates located on the inside of the box.

1. Align holes in bottom of top spout (A) with holes in rubber gasket (C) and support frame top (D).
2. Fasten together using only three bolts (B). Do not install the bolt located on the door side.
3. Apply silicone caulk (E) all around seam.



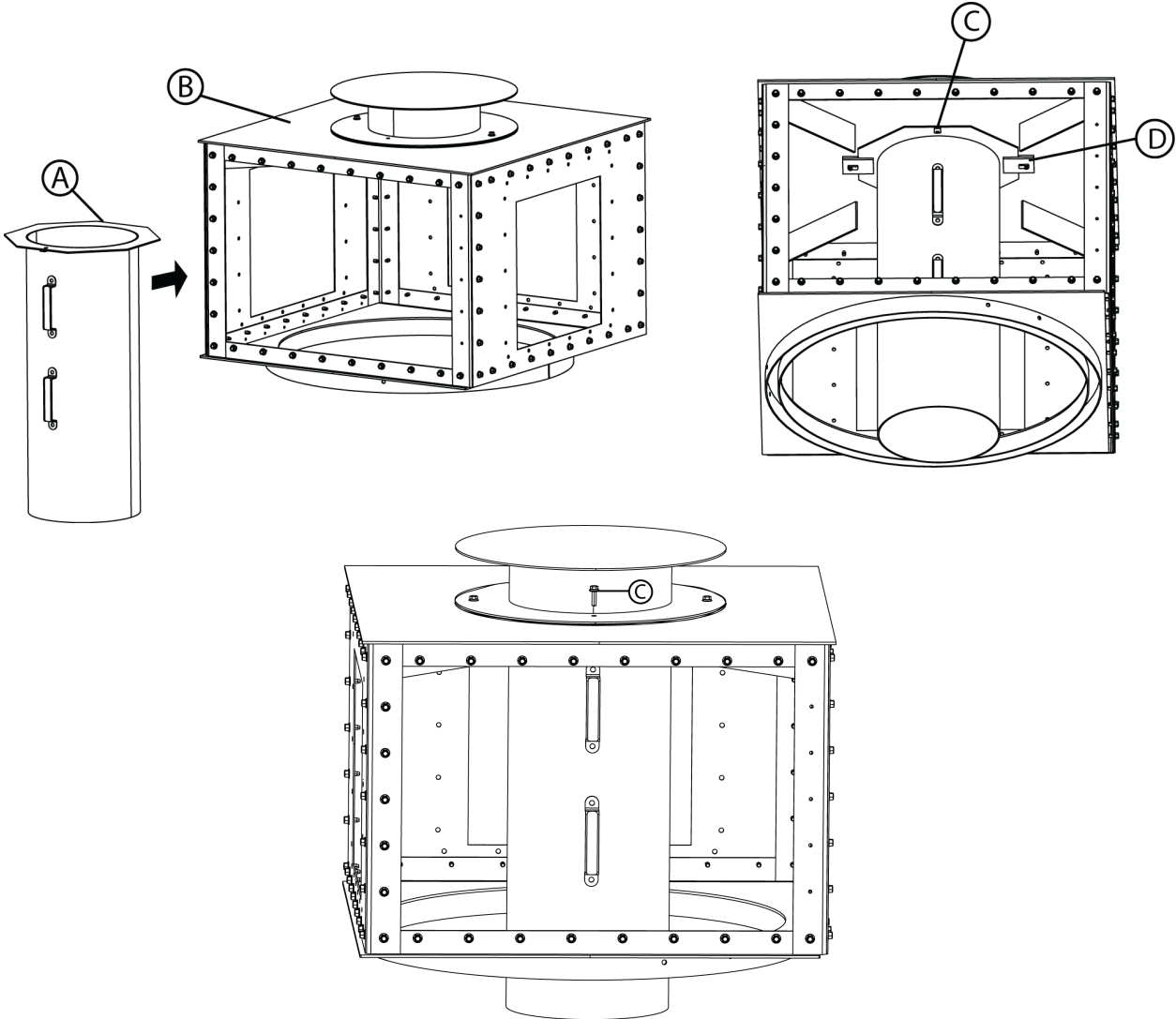
| Item | Part Number | Description                        |
|------|-------------|------------------------------------|
| A    | TD-101313   | Air Box Top Spout Weldment         |
| B    | S-277       | 5/16"-18 X 1-1/4" Grade 5 Bin Bolt |
| C    | TD-101325   | Rubber Gasket Seal                 |
| D    | TD-101155   | Air Box Support Frame              |
| E    | CH-6873     | Apply silicone caulk around seam.  |



### Installing the Inner Spout

The inner spout slides onto the support plates located inside the air box under the top spout and is fastened in place with a keeper bolt.

- 1. Slide flanges of inner spout (A) onto spout support plates (D).
- 2. Fasten in place with keeper bolt (C).



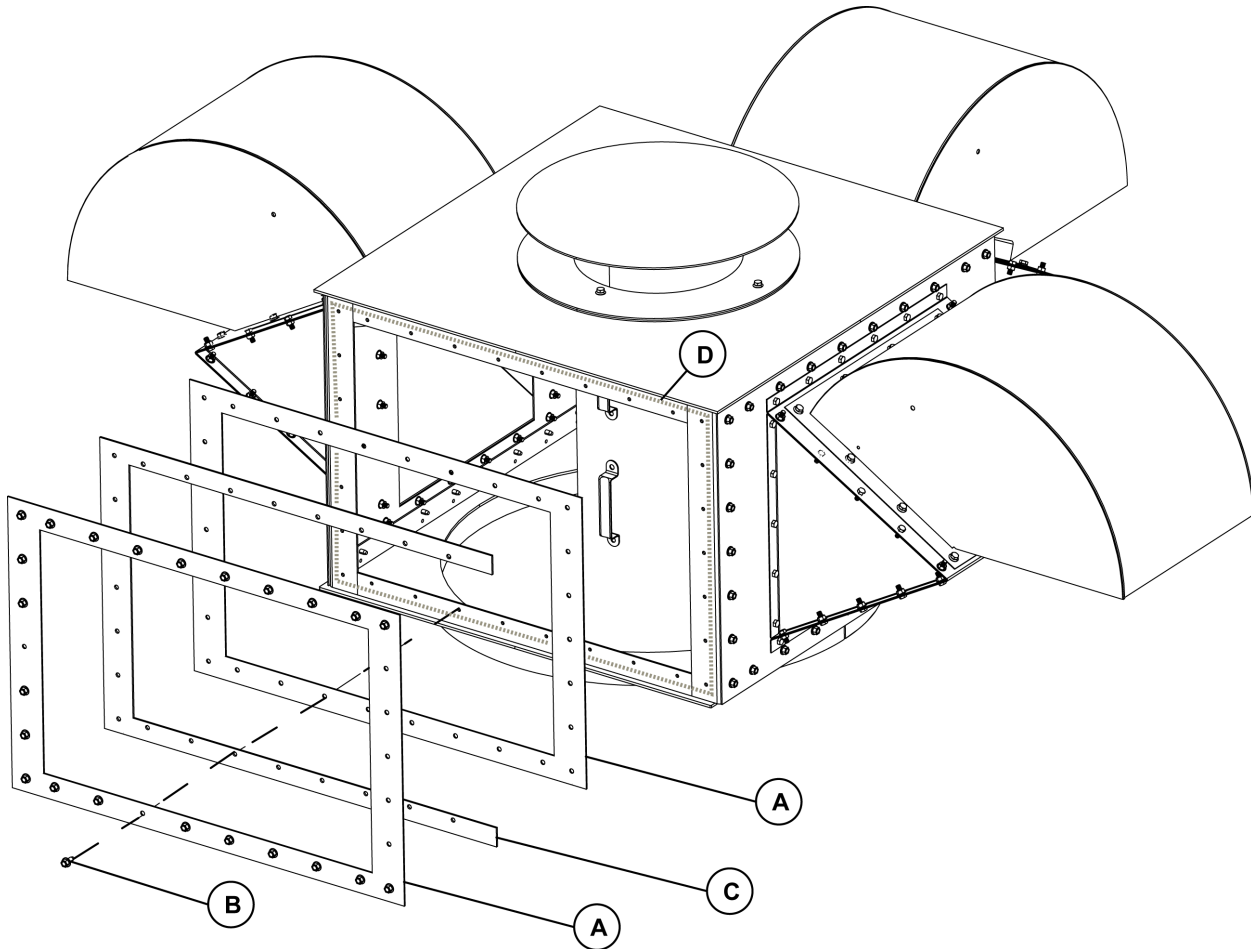
| Item | Part Number | Description                            |
|------|-------------|--|
| A    | TD-101310   | Air Box Inner Spout Weldment           |
| B    | TD-101155   | Air Box Cover Support Frame            |
| C    | S-277       | 5/16"-18 X 1-1/4" YDP Grade 5 Bin Bolt |
| D    | NA          | Spout Support Plate                    |
| E    | TD-101313   | Air Box Top Spout Weldment             |

## Installing the Door Frame

The air box sliding door frame is made of three plates. One side of the middle plate is removed to allow the door to slide between the two outer plates.

**NOTE:** *The two vent version (TD-101522) will have another door frame on the opposite side instead of a vent.*

1. Apply caulk along the perimeter of the bolt holes in the support frame (D).
2. Align holes in outer and inner door plates (A and C) with holes in support frame.
3. Attach together using bolts (B).



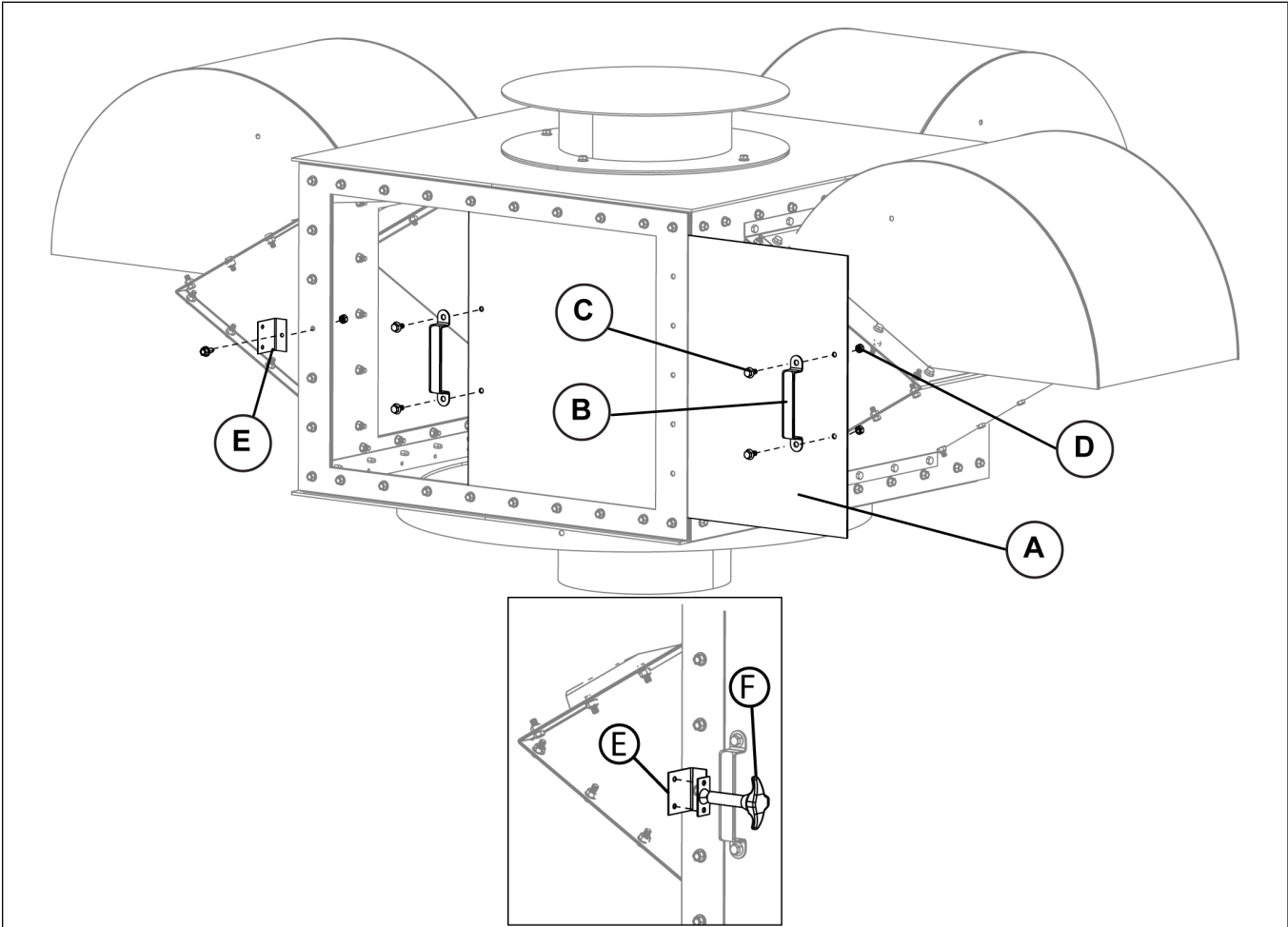
| Item | Part Number | Description  |
|------|-------------|--|
| A    | TD-101318   | Air Box Sliding Door Outer Plate                   |
| B    | S-7221      | 5/16" x 3/4" Grade 2 Self Tapping Screw            |
| C    | TD-101319   | Air Box Sliding Door Inner Plate                   |
| D    | CH-6873     | Silicone caulk area indicated by gray dashed line. |

## Installing the Access Door

The top dry air box sliding door allows access to the inside of the air box to easily remove the inner tube.

**NOTE: The two vent version (TD-101522) will have another access door on the opposite side instead of a vent.**

1. Slide access door (A) into opening on side of door frame.
2. Attach handles (B) to door using bolts (C) and nuts (D).
3. Install latch bracket (E) to air box side panel next to handle.
4. Install the latch (F) to the latch bracket (E).



| Item | Part Number | Description                          |
|------|-------------|--------------------------------------|
| A    | TD-101320   | Air Box Sliding Door                 |
| B    | PR-331      | Handle                               |
| C    | S-275       | 5/16"-18 X 3/4" YDP Grade 5 Bin Bolt |
| D    | S-396       | 5/16"-18 YDP Grade 2 Hex Nut         |
| E    | TD-101321   | Air Box Sliding Door Latch Bracket   |
| F    | CRP-4654    | Latch                                |

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# NOTES

## GSI Group, LLC Limited Warranty

The GSI Group, LLC (“GSI”) warrants products which it manufactures to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months after sale to the original end-user or if a foreign sale, 14 months from arrival at port of discharge, whichever is earlier. The end-user’s sole remedy (and GSI’s only obligation) is to repair or replace, at GSI’s option and expense, products that in GSI’s judgment, contain a material defect in materials or workmanship. Expenses incurred by or on behalf of the end-user without prior written authorization from the GSI Warranty Group shall be the sole responsibility of the end-user.

**Warranty Extensions:** The Limited Warranty period is extended for the following products:

|                                     | Product   | Warranty Period |
|-------------------------------------|---|-----------------|
| AP Fans and Flooring                | Performer Series Direct Drive Fan Motor                       | 3 Years         |
|                                     | All Fiberglass Housings                                       | Lifetime        |
|                                     | All Fiberglass Propellers                                     | Lifetime        |
| AP/Cumberland                       | Flex-Flo/Pan Feeding System Motors                            | 2 Years         |
| Cumberland Feeding/Watering Systems | Feeder System Pan Assemblies                                  | 5 Years **      |
|                                     | Feed Tubes (1-3/4" and 2.00")                                 | 10 Years *      |
|                                     | Centerless Augers   | 10 Years *      |
|                                     | Watering Nipples  | 10 Years *      |
| Grain Systems                       | Grain Bin Structural Design                                   | 5 Years         |
| Grain Systems Farm Fans Zimmerman   | Portable and Tower Dryers                                     | 2 Years         |
|                                     | Portable and Tower Dryer Frames and Internal Infrastructure † | 5 Years         |

\* Warranty prorated from list price:  
 0 to 3 years - no cost to end-user  
 3 to 5 years - end-user pays 25%  
 5 to 7 years - end-user pays 50%  
 7 to 10 years - end-user pays 75%

\*\* Warranty prorated from list price:  
 0 to 3 years - no cost to end-user  
 3 to 5 years - end-user pays 50%

† Motors, burner components and moving parts not included.  
 Portable dryer screens included.  
 Tower dryer screens not included.

GSI further warrants that the portable and tower dryer frame and basket, excluding all auger and auger drive components, shall be free from defects in materials for a period of time beginning on the twelfth (12<sup>th</sup>) month from the date of purchase and continuing until the sixtieth (60<sup>th</sup>) month from the date of purchase (extended warranty period). During the extended warranty period, GSI will replace the frame or basket components that prove to be defective under normal conditions of use without charge, excluding the labor, transportation, and/or shipping costs incurred in the performance of this extended warranty.

### Conditions and Limitations:

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH ABOVE. SPECIFICALLY, 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. The sole and exclusive remedy is set forth in the Limited Warranty, which shall not exceed the amount paid for the product purchased. This warranty is not transferable and applies only to the original end-user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor.

GSI assumes no responsibility for claims resulting from construction 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 void the Limited Warranty.

This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained. This Limited Warranty extends solely to products manufactured by GSI.

Prior to installation, the end-user has the responsibility to comply with federal, state and local codes which apply to the location and installation of products manufactured or sold by GSI.

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**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 installations are made.**



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