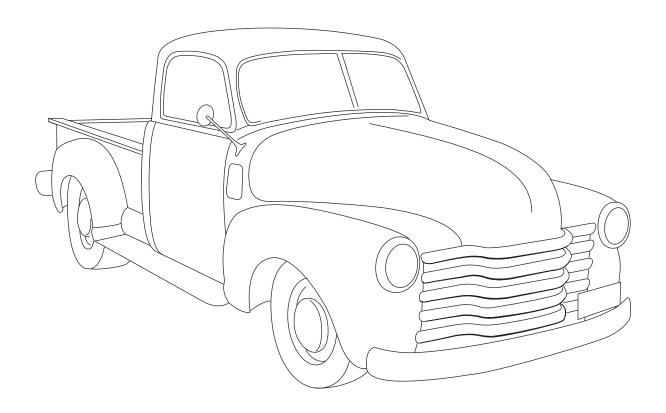


# 1947-55 Chevrolet Pickup

Condenser Kit with Drier with Condenser Mounted 1 %" Forward From Stock Position (021553)



**18865 Goll St. San Antonio, TX 78266** 

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## **Table of Contents**

Thank you for purchasing this condenser kit from Vintage Air. When installing these components as part of a complete SureFit™ system, Vintage Air recommends working from front to back on the vehicle, installing the condenser kit and compressor first, followed by the evaporator, wiring and hoses, and control panel.

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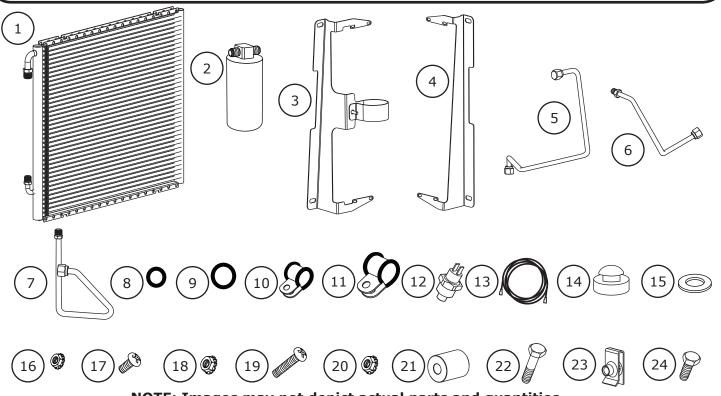
NOTE: Using the Vintage Air compressor bracket and harmonic balancer requires the radiator to be moved forward 1 %" from the stock position. In order to move the radiator forward, the core support and radiator will have to be modified.



# Packing List: Condenser Kit (021553) 1947-55 Chevrolet Pickup

No.	Qty.	Part No.	Description	
1.	1	037036	Condenser, Parallel Flow	
2.	1	07321-VUC	Drier	
3.	1	645705	Bracket, Passenger Side Condenser Mounting	
4.	1	645704	Bracket, Driver Side Condenser Mounting	
5.	1	095016	Hardline, #6 Condenser/Drier	
6.	1	094752	Hardline, #6 Drier/Core	
7.	1	094753	Hardline, #8 Condenser/Core	
8.	3	33857-VUF	O-ring, #6	
9.	1	33858-VUF	O-ring, #8	
10.	1	31600-VUD	Adel Clamp, #2	
11.	1	31603-VUD	Adel Clamp, #4	
12.	1	11079-VUS	Binary Switch, Male	
13.	1	23135-VUW	Compressor Lead	
14.	1	331733	Rubber Bumper	
15.	7	18125-VUB	Washer, Flat	
16.	3	18152-VUB	Nut with Star Washer, 1/4-20	
17.	8	18249-VUB	Screw, 10-24 x 3/8", Pan Head	
18.	8	18260-VUB	Nut with Star Washer, 10-24	
19.	1	18258-VUB	Screw, 10-32 x 3/4", Pan Head	
20.	1	18251-VUB	Nut with Star Washer, 10-32	
21.	4	180166	Spacer, .750 x .281 x .875 L	
22.	4	182921	Bolt, 1/4-20 x 2"	
23.	4	18978-VUB	U-nut, 1/4-20	
24.	2	182871	Bolt, 1/4-20 x 3/4"	

<sup>\*\*</sup> Before beginning installation, open all packages and check contents of shipment. Please report any shortages directly to Vintage Air within 15 days. After 15 days, Vintage Air will not be responsible for missing or damaged items.



NOTE: Images may not depict actual parts and quantities. Refer to packing list for actual parts and quantities.



## **Important Notice—Please Read**

For Maximum System Performance, Vintage Air Recommends the Following:

NOTE: Vintage Air systems are designed to operate with R134a refrigerant only. Use of any other refrigerant could damage your A/C system and/or vehicle, and possibly cause a fire, in addition to potentially voiding the warranties of the A/C system and its components.

#### **Refrigerant Capacities:**

**Vintage Air System:** 1.8 lbs. (1 lb., 12 oz.) of **R134a**, charged by weight with a quality charging station or scale. **NOTE:** Use of the proper type and amount of refrigerant is critical to system operation and performance.

Other Systems: Consult manufacturer's guidelines.

#### **Lubricant Capacities:**

**New Vintage Air-supplied Sanden Compressor:** No additional oil needed (Compressor is shipped with proper oil charge).

**All Other Compressors:** Consult manufacturer (Some compressors are shipped dry and will need oil added).

#### **Safety Switches**

Your Vintage Air system is equipped with a binary pressure safety switch. A binary switch disengages the compressor clutch in cases of extreme low pressure conditions (Refrigerant Loss) or excessively high head pressure (406 PSI) to prevent compressor damage or hose rupture. A trinary switch combines Hi/Lo pressure protection with an electric fan operation signal at 254 PSI, and should be substituted for use with electric fans. Compressor safety switches are extremely important since an A/C system relies on refrigerant to circulate lubricant.

#### **Service Info:**

**Protect Your Investment:** Prior to assembly, it is critical that the compressor, evaporator, A/C hoses and fittings, hardlines, condenser and receiver/drier remained capped. Removing caps prior to assembly will allow moisture, insects and debris into the components, possibly leading to reduced performance and/or premature failure of your A/C system. This is especially important with the receiver/drier.

Additionally, when caps are removed for assembly, **BE CAREFUL!** Some components are shipped under pressure with dry nitrogen.

**Evacuate the System for 35-45 Minutes:** Ensure that system components (Drier, compressor, evaporator and condenser) are at a temperature of at least 85° F. On a cool day, the components can be heated with a heat gun *or* by running the engine with the heater on before evacuating. Leak check and charge to specifications.

### **Bolts Passing Through Cowl and/or Firewall:**

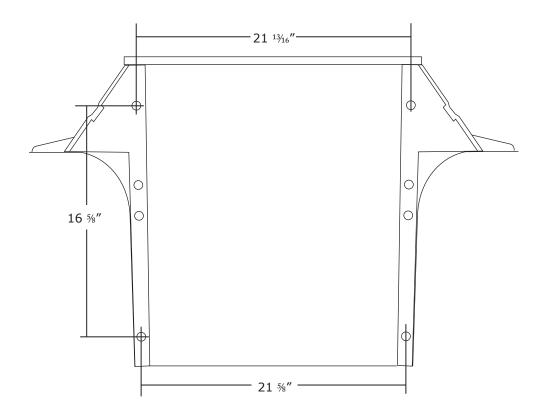
To ensure a watertight seal between the passenger compartment and the vehicle exterior, for all bolts passing through the cowl and/or firewall, Vintage Air recommends coating the threads with silicone prior to installation.

### **Heater Hose (Not Included With This Kit):**

Heater hose may be purchased from Vintage Air (Part# 31800-VUD) or your local parts retailer. Routing and required length will vary based on installer preference.



## Core Support Measurements



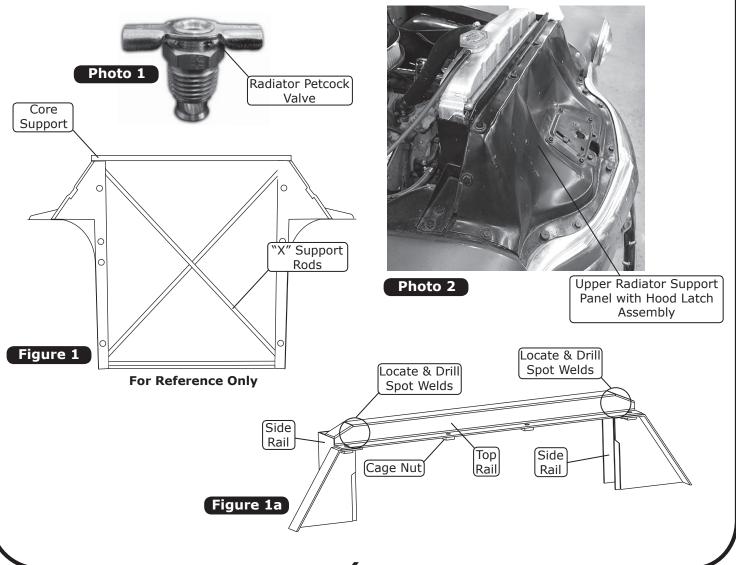


## **Engine Compartment Disassembly**

NOTE: Before starting the installation, check the function of the vehicle (horn, lights, etc.) for proper operation, and study the instructions, illustrations, & diagrams.

#### Perform the Following:

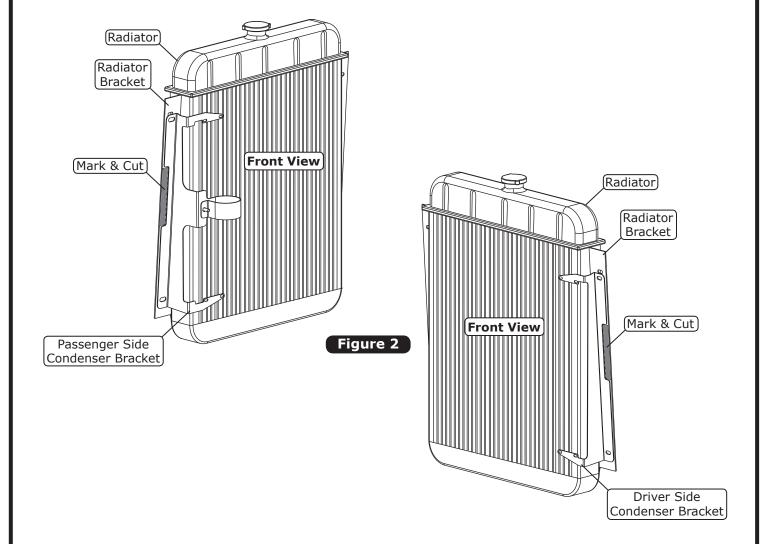
- 1. Remove battery cover under passenger side floorboard, and disconnect battery. NOTE: Ensure battery remains disconnected during entire installation process.
- 2. Drain radiator.
- 3. Remove radiator (retain).
- 4. Remove the radiator petcock valve (See Photo 1, below) from the bottom of the radiator (retain).
  NOTE: The petcock valve is removed so that it does not damage the condenser coil when the radiator is reinstalled.
- 5. Remove the upper radiator support panel with hood latch assembly as shown in Photo 2, below (retain).
- 6. Remove the "X" support rods from the core support (if equipped) (discard). NOTE: If the vehicle is equipped with "X" support rods as illustrated in Figure 1, below, these must be removed from the core support in order to make room for the condenser.
- 7. Remove the top rail of the core support, using a 5/16" drill bit to drill out the spot welds connecting the top rail to the side rails (retain) (See Figure 1a, below).





## **Radiator Modification**

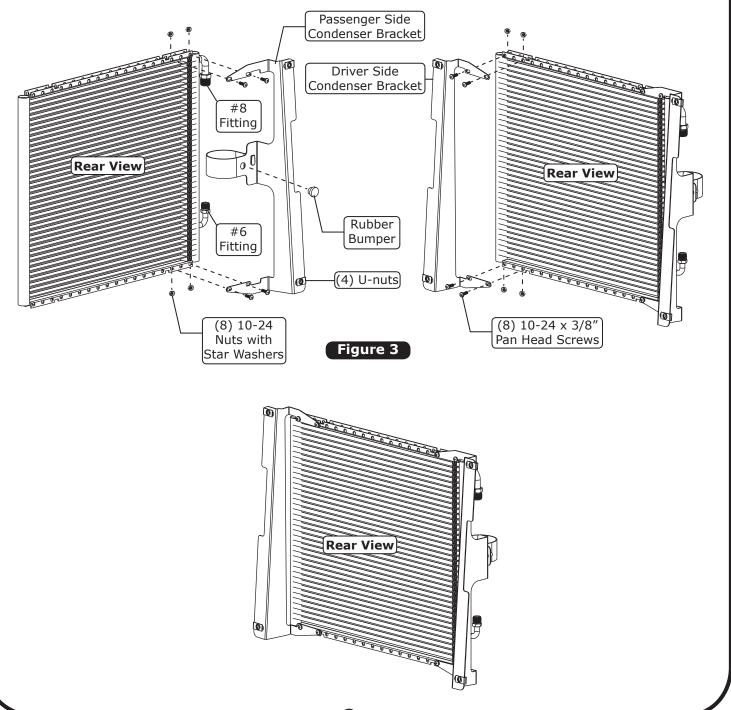
- 1. Place the radiator on a workbench, front side up, for the modification. Locate both the driver and passenger side condenser mounting brackets.
- **2.** Using the condenser mounting brackets as templates, align the condenser mounting brackets with the radiator bracket slots used to mount the radiator to the core support (See Figure 2, below).
- 3. Mark and cut the radiator brackets at the center slots as shown in Figure 2, below. NOTE: There are cage nuts located toward the bottom of the core support that may interfere with some aftermarket radiators. To check for clearance, temporarily slide the radiator into the back of the core support. Align the radiator bracket slots to the OEM mounting holes on the core support, and check for clearance of all cage nuts on the front of the core support. If there is any interference, additional modifications to the radiator brackets will be needed.





## Condenser Mounting Bracket Installation

- 1. Install the supplied rubber bumper into the passenger side condenser bracket as shown in Figure 3, below.
- 2. Using (8) 10-24 x 3/8" pan head screws and (8) 10-24 nuts with star washers, secure the passenger and driver side condenser brackets to the condenser a shown in Figure 3, below. NOTE: Slotted holes are used to connect the bracket to the condenser. To ensure proper spacing of the brackets, before tightening, place the condenser assembly on the radiator, and adjust as needed so that the core support/radiator mounting holes match the condenser mounting holes. Then, tighten the nuts with star washers.
- **3.** Install (4) U-nuts onto the condenser mounting brackets as shown in Figure 3, below.



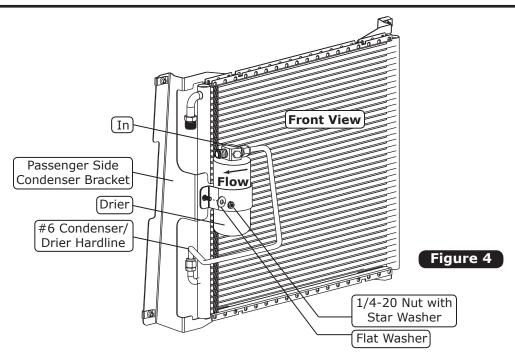


## **Drier Installation**

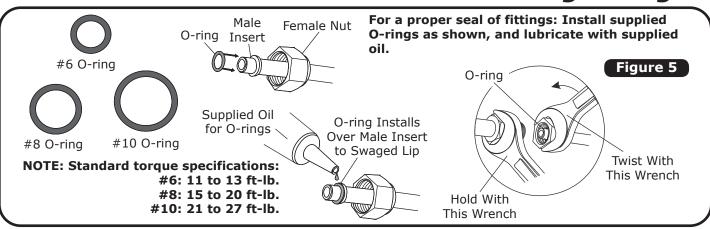
NOTE: Do not remove the caps from the drier. The drier contains a desiccant that will quickly absorb moisture from the air, causing it to lose effectiveness. For this reason, Vintage Air recommends that the drier remains capped until the installer is ready to evacuate the system.

#### Perform the Following:

- 1. Lubricate (2) #6 O-rings as shown in Figure 5, below, and install onto the #6 condenser/drier hardline.
- 2. To set the proper height of the drier, connect drier to condenser using the #6 condenser/drier hardline as shown in Figure 4, below. NOTE: Be sure the "IN" connection on the drier is pointed to the driver side as shown in Figure 4, below. Refrigerant flow through drier is IN from condenser, OUT to evaporator.
- 3. Secure the drier to the passenger side condenser bracket using a flat washer and 1/4-20 nut with star washer as shown in Figure 4, below. **NOTE: Ensure drier is held parallel to the condenser while tightening the nut.**



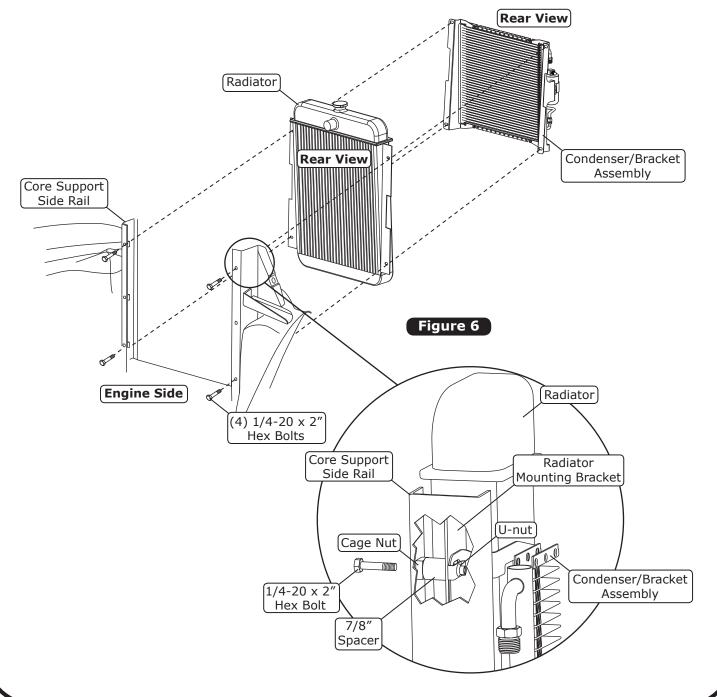
## **Lubricating O-rings**





### **Condenser Installation**

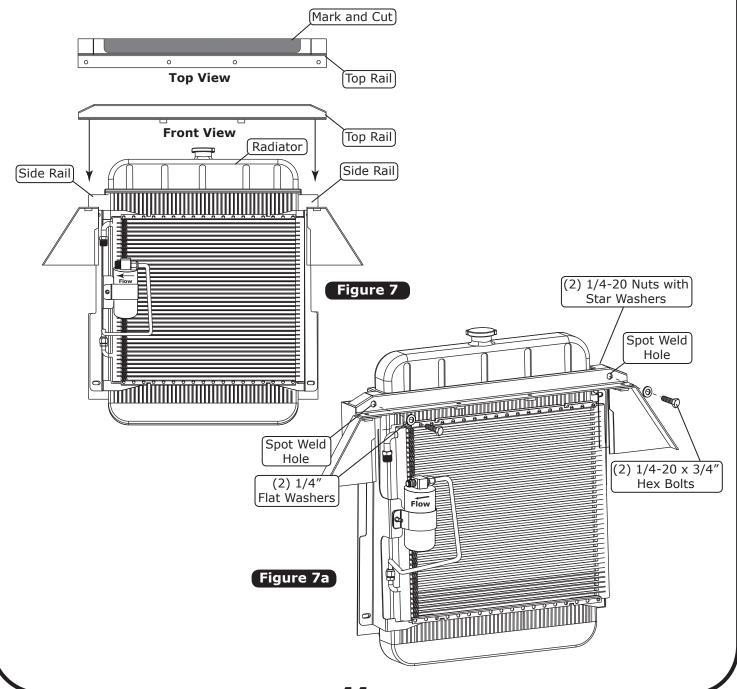
- **1.** Locate (4) 7/8" spacers. Use a small amount of press tape provided in the evaporator kit or some other means to hold the spacer in place on the core support cage nuts while installing the radiator and condenser.
- 2. Slide the radiator down into the front side of the core support, and then back to line up with the spacers.
- **3.** Install (4) 1/4-20 x 2" bolts into the back side of the core support, through the side rails, cage nuts, 7/8" spacers and radiator mounting bracket.
- 4. Lower the condenser assembly down into the front side of the core support and then back to the radiator. Screw the (4) 1/4-20 x 2" bolts into the U-nuts located on the condenser mounting brackets as shown in Figure 6, below. NOTE: Do not tighten the bolts until the core support top rail is reinstalled (on Page 11), as the core support side rails may have sprung away from each other.
- **5.** Reinstall the petcock valve onto the radiator.





## Core Support Top Rail Modification & Installation

- **1.** The core support top rail will need to be modified to clear the radiator top tank. Take the previously removed core support top rail and place it near its original position.
- 2. Mark the point at which the radiator interferes with the top rail.
- 3. Cut the top rail as shown in Figure 7, below. NOTE: Allow for clearance so the top rail and radiator do not touch as shown in Figure 7a, below.
- **4.** Using (2) 1/4-20 x 3/4" hex bolts, (2) 1/4" flat washers and (2) 1/4-20 nuts with star washers, bolt the top rail back into position using the holes that were made previously when drilling out the spot welds (See Figure 7a, below). **NOTE: The side rails may have sprung away from each other. Lift up on the fenders to bring the side rails back into position to insert the bolts.**
- **5.** Once the top rail has been secured into position, tighten the (4) 1/4-20 x 2" hex bolts securing the radiator and condenser assembly.





## Hardline and Binary Switch Installation

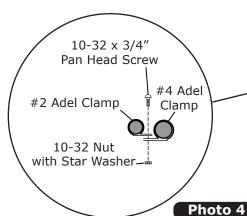
- 1. Lubricate a #6 and #8 O-ring as shown in Figure 5, Page 9, and install them onto the #6 drier/core hardline and the #8 condenser/core hardline.
- 2. Install the #6 drier/core hardline onto the drier and through the core support as shown in Photo 3, below.
- **3.** Install the #8 condenser/core hardline onto the condenser and through the core support as shown in Photo 3, below.
- **4.** Install the binary switch onto the drier as shown in Photo 3, below.
- **5.** Secure hardlines on engine side of core support with a #2 and #4 Adel clamp by connecting the two clamps together with a #4 10-32 x #4 pan head screw and #4 10-32 nut with star washer as shown in Photo 4, below.
- **6.** With the hardlines installed and secured, reinstall and/or reconnect all remaining items removed or disconnected in Steps 1-5 of the Engine Compartment Disassembly instructions on Page 6. **NOTE: Do not install the upper radiator support panel with hood latch assembly until the binary switch has been wired. This concludes the condenser kit portion of your installation.**

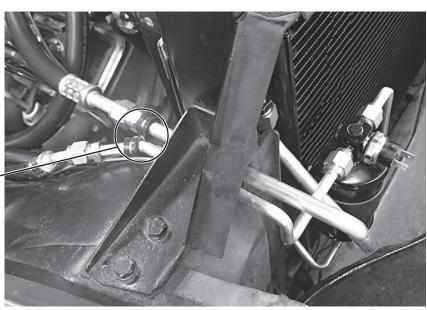
Core Support

#8 Condenser/Core Hardline #6 Drier/Core Hardline

Binary Switch

Photo 3







**15**.

16.

**17**.

18.

19.

20.

21.

22.

23.

24.

8

8

1

1

4

4

4

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www.vintageair.com				
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5.	1	095016	Hardline, #6 Condenser/Drier	
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7.	1	094753	Hardline, #8 Condenser/Core	
8.	3	33857-VUF	O-ring, #6	
9.	1	33858-VUF	O-ring, #8	
10.	1	31600-VUD	Adel Clamp, #2	
11.	1	31603-VUD	Adel Clamp, #4	
12.	1	11079-VUS	Binary Switch, Male	
13.	1	23135-VUW	Compressor Lead	
14.	1	331733	Rubber Bumper	

Nut with Star Washer, 1/4-20

Screw, 10-24 x 3/8", Pan Head Nut with Star Washer, 10-24

Screw, 10-32 x 3/4", Pan Head

Nut with Star Washer, 10-32

Spacer, .750 x .281 x .875 L

Washer, Flat

Bolt, 1/4-20 x 2"

Bolt, 1/4-20 x 3/4"

U-nut, 1/4-20

18125-VUB

18152-VUB

18249-VUB

18260-VUB

18258-VUB

18251-VUB

18978-VUB

180166

182921

182871

Checked By: \_\_\_\_\_\_ Packed By: \_\_\_\_\_\_ Date: \_\_\_\_\_

