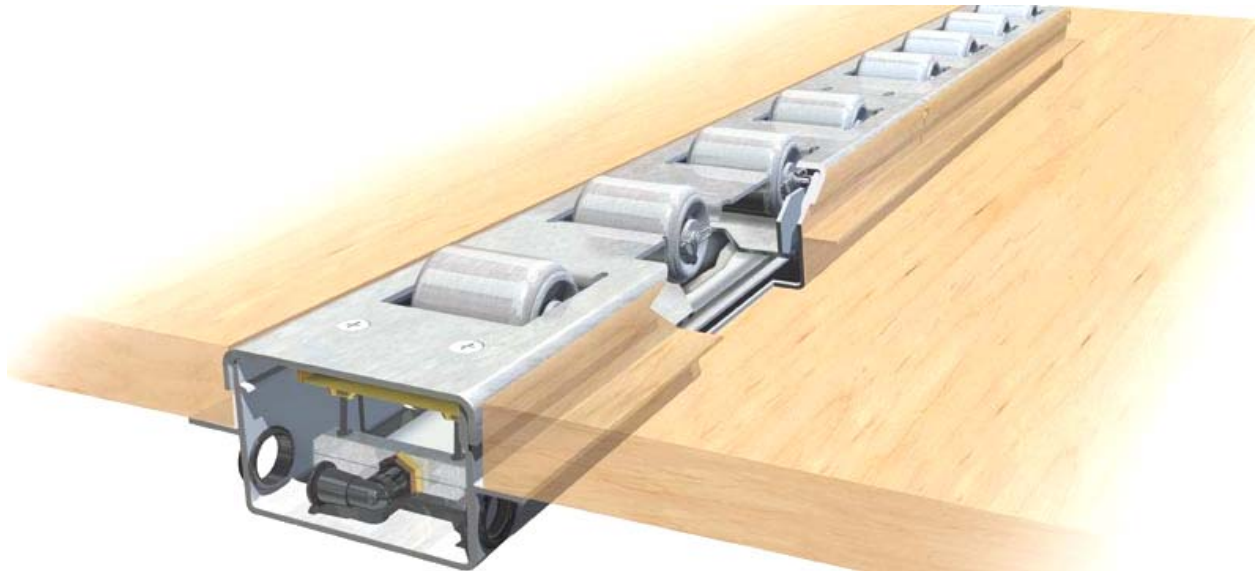


RETRACT-A-ROLL® II



Installation Manual **#62040-10 REV 1F**



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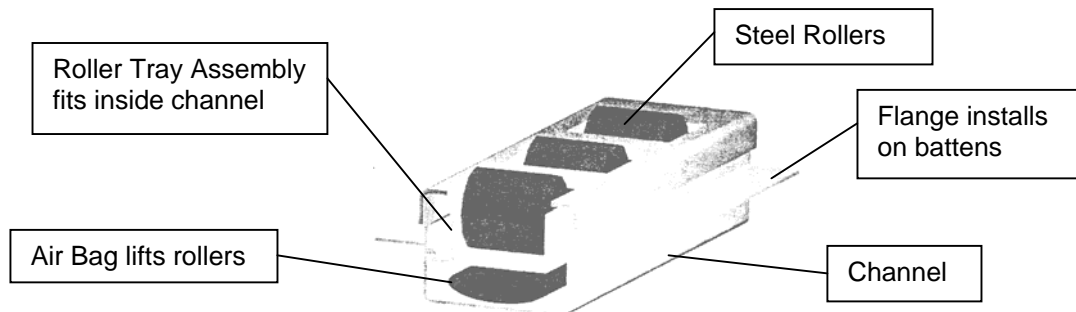
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Figure 1-1 - Conveyors Installed



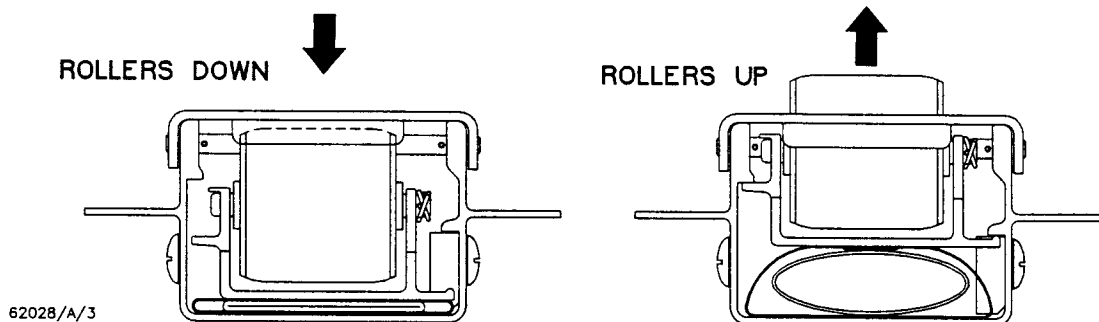
1.1 What is Retract-A-Roll® II?

Figure 1-2 - Typical Conveyor



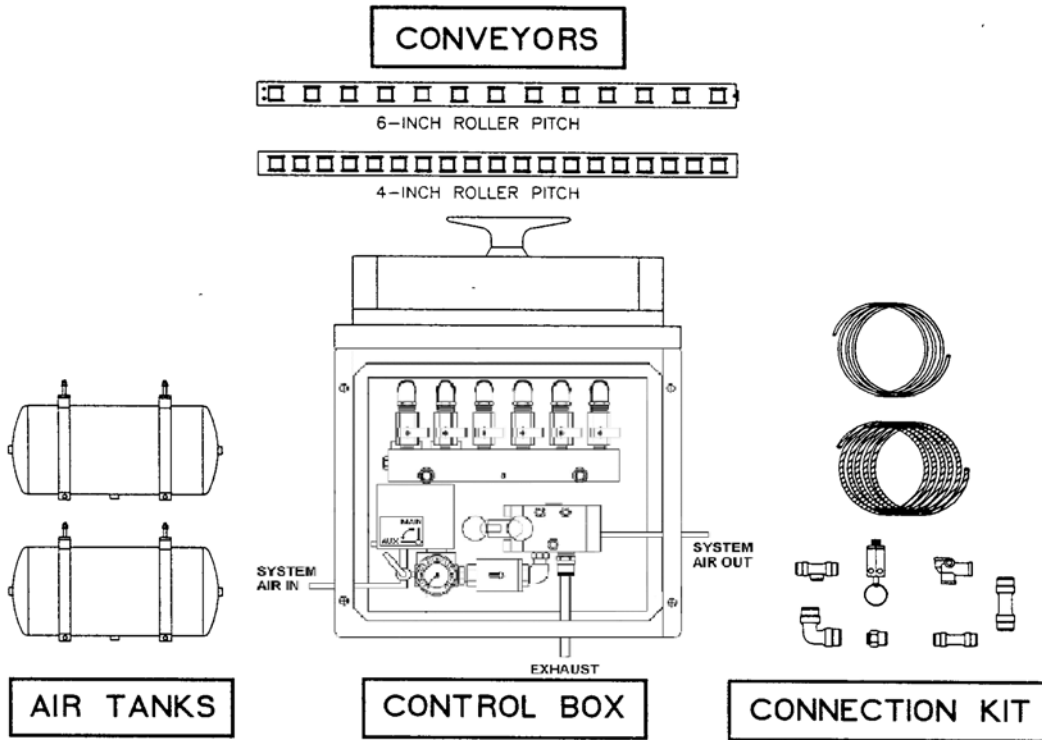
- Raise the rollers for loading and moving cargo without a forklift.
- Lower the rollers before transport.
- System attaches to the vehicle's air supply.

Figure 1-3 - Roller Operation



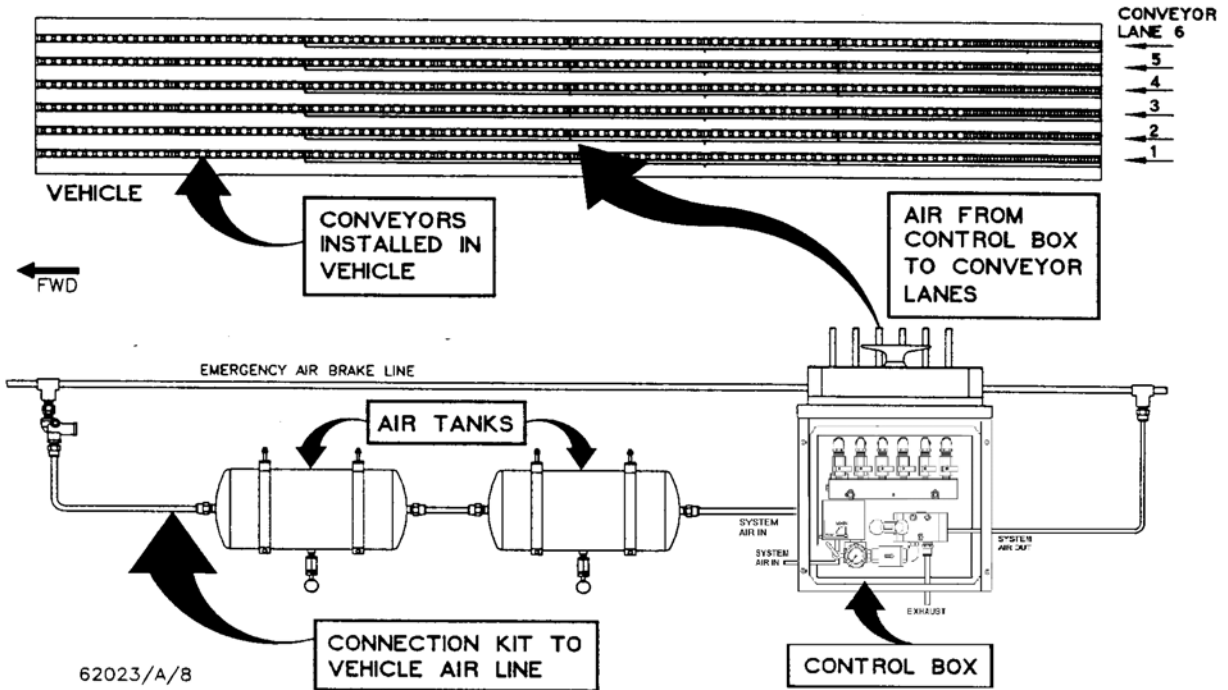
1.2 System Overview

Figure 1-4 - Components



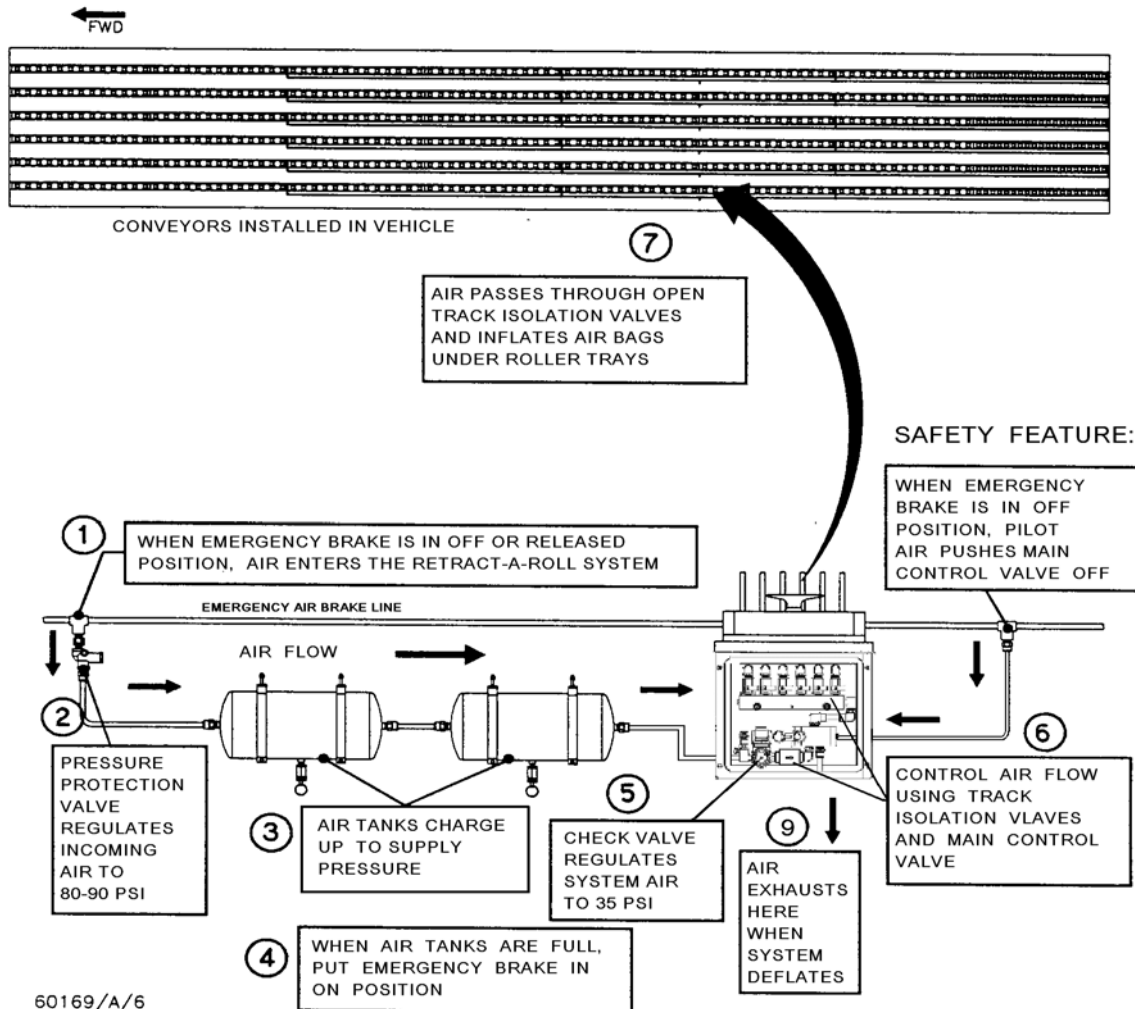
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Figure 1-5 - Typical System



62023/A/8

Figure 1-6 – System Operation

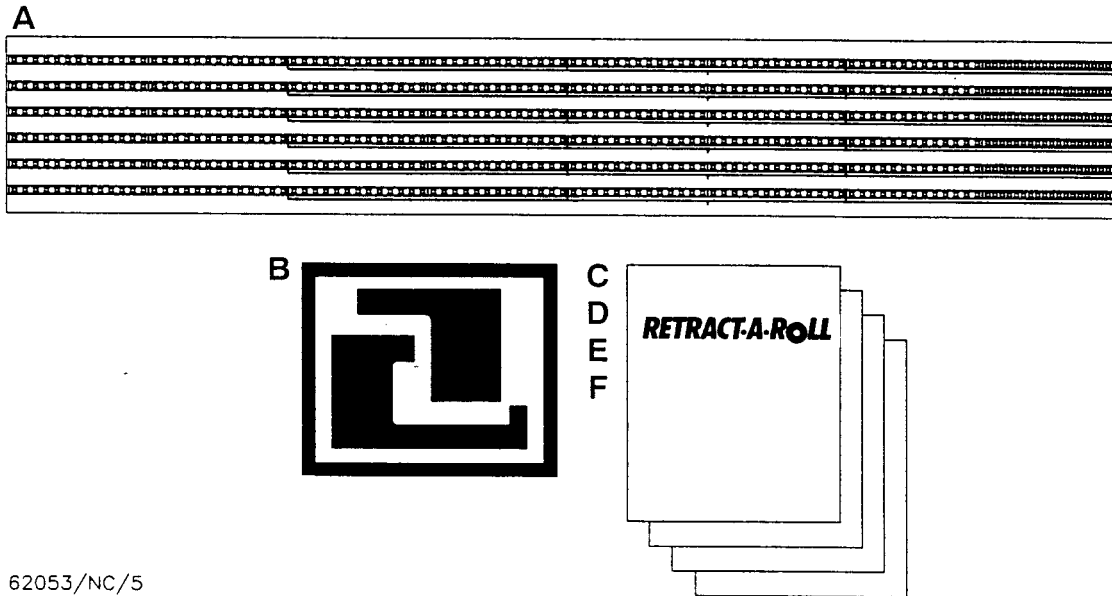


1. When the emergency brake is off or released position, air enters the R-A-R system.
2. When pressure is built up, the PPV valve allows air to enter the air tanks.
3. The air tanks charge up to supply pressure.
4. When the air tanks are full, set the emergency brake to the on position.
5. The check valve and regulator inside the control box regulates the air pressure to 35 psi.
6. Begin air flow to operate floor system by using the main control valve inside the control box.
7. Air passes through the open isolation valves and inflates and raises the rollers.
8. When finished, deactivate the system by using the main control valve inside the control box.
9. Air will exhaust under the control box and the system will deflate.

Note: If the operator forgets to lower the rollers before pulling the trailer away from the loading station, the main control valve will be shut off by the pilot air safety feature and the rollers will lower when the trailer brake is released.

1.3 Information Resources

Figure 1-7 – Resources

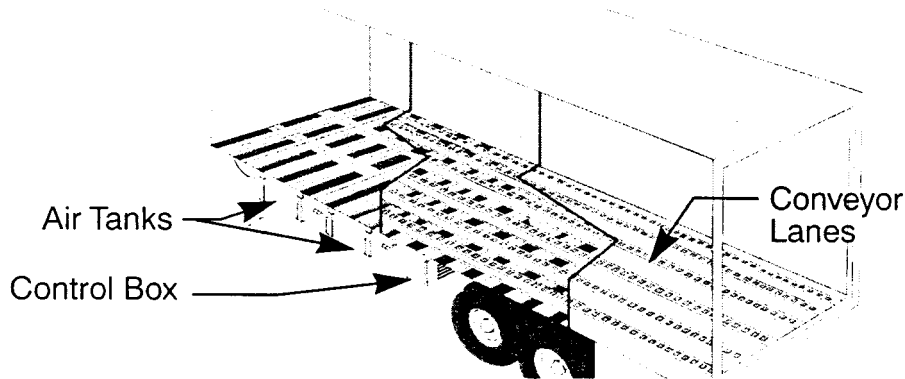


62053/NC/5

- A. Vehicle Floor Assembly Drawing (from Vehicle Manufacturer)
- B. Ancra Customer Service: Toll-free (800) 929-2627 or Local (859) 371-7272, Fax (800) 347-2627.
- C. Retract-A-Roll® II Warranty Registration Form (62081-10)
- D. Ancra System Engineering Drawing
- E. Ancra Installation Manual (62040-10)
- F. Ancra Operations and Maintenance Manual (Sent to Operator)

CHAPTER 2 INSTALLATION PLANNING

Figure 2-1 – System View



2.1 Suggested Installation Sequence

Most components can be installed at the same time. Tasks are divided into chapters:

- Chapter 3: Vehicle Preparation & Conveyor Installation.
- Chapter 4: System Control Kit & Air Tank System Installation.
- Chapter 5: Testing & Inspections
- Chapter 6 Illustrations & Parts Lists

Before starting work, the installer should read instructions all the way through and understand requirements.

2.2 Checking Inventory

Locate the Retract-A-Roll® II System Part Number and/or list of components for each vehicle. Make sure that the proper components and all installer supplied equipment (see next page) is available for each system. Systems are identified in the Illustrated Parts Lists in Chapter 6.

For best results, and to avoid Warranty issues, Ancra recommends installing only new components and fasteners.

When receiving a shipment, please inspect all materials and report any damage or missing items to Ancra Customer Service (Section 2.4).

Table 2-1 – Installer-Supplied Equipment

<input type="checkbox"/>	<i>Drawings</i>	Vehicle Floor Assembly Drawing, from Vehicle Manufacturer, shows Retract-A-Roll® II and Installer-supplied parts.
<input type="checkbox"/>	Sub-Floor	Bridge plates, track end supports. Steel shims (if floor is not level). Battens (wood beams - if required). Run-out channels (wood or steel spacers).
<input type="checkbox"/>	Fasteners	Fasteners for Conveyors to Battens and fasteners for Air Tank Brackets and Tubing.
<input type="checkbox"/>	Air Supply (Installer Supplied)	Two (2) “T”-Fittings (connecting to vehicle air supply). One (1) Adaptor: “T”-Fitting-to-1/4”-tube. One (1) Adaptor: “T”-Fitting-to-Pressure Protection Valve (1/4”). One (1) Pressure Gauge: 160psi, 1psi gradients (Leak Test). Pipe Tape (all connectors). Brackets (connectors and air lines to vehicle, as required).
<input type="checkbox"/>	Shop Tools	Air compressor and pneumatic tools, welding equipment, linear measuring and marking tools (chalk line), pressure measuring tools and a table saw for floorboards.
<input type="checkbox"/>	Supplies	Caulking, Mylar Tape, Touch-up paint, Undercoat.
<input type="checkbox"/>	Safety	Make sure that all proper safety equipment is provided and safety procedures are followed.

2.3 Inspecting the Vehicle

Before installing Retract-A-Roll® II, carefully inspect the vehicle and all auxiliary systems. Make repairs as required. Road-worthiness is the responsibility of the Owner and Vehicle Manufacturer.

2.4 Contacting Ancra Customer Service

Ancra Customer Service is available to answer your questions about Retract-A-Roll® II. Contact us locally at (859) 371-7272, toll-free at (800) 929-2627 or toll-free fax at (800) 347-2627.

Figure 3-1a – Typical Mounting Details

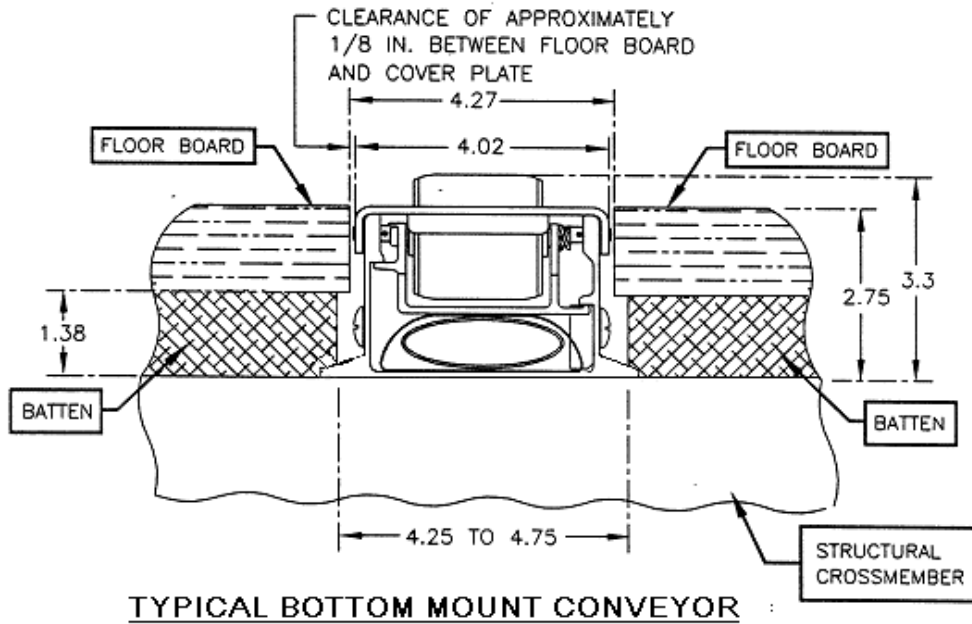
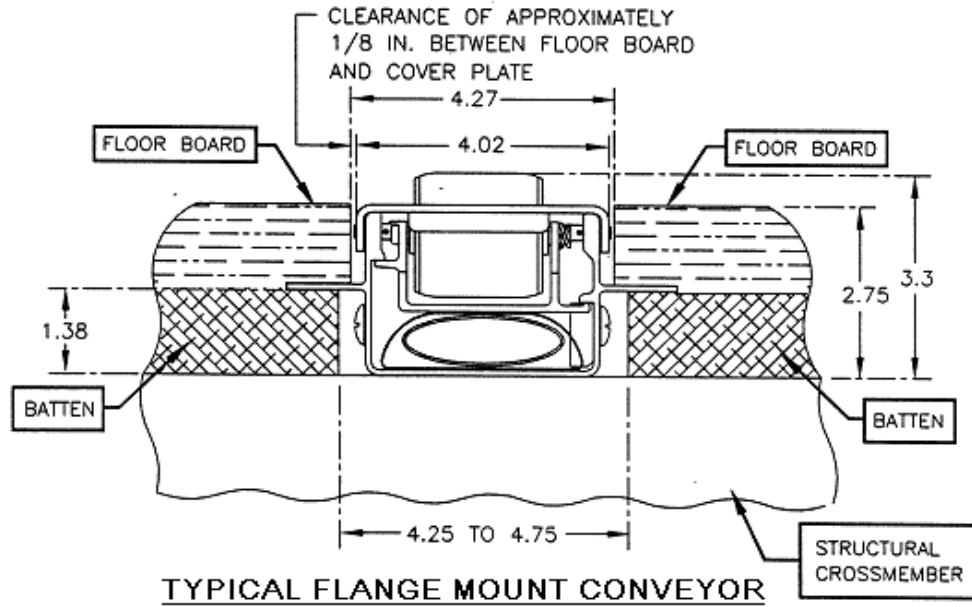
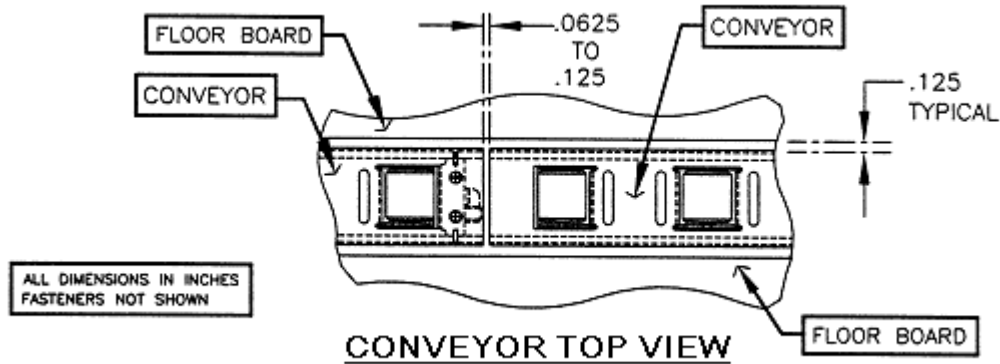


Figure 3-1b – Conveyor Clearances



3.5 Pallet Stops

Pallet stops are provided separately and are available through your Ancra Material Handling Systems Sales Representative. Refer to Figure 3-2 on page 14 for a guide to spacing the Pallet Stops.

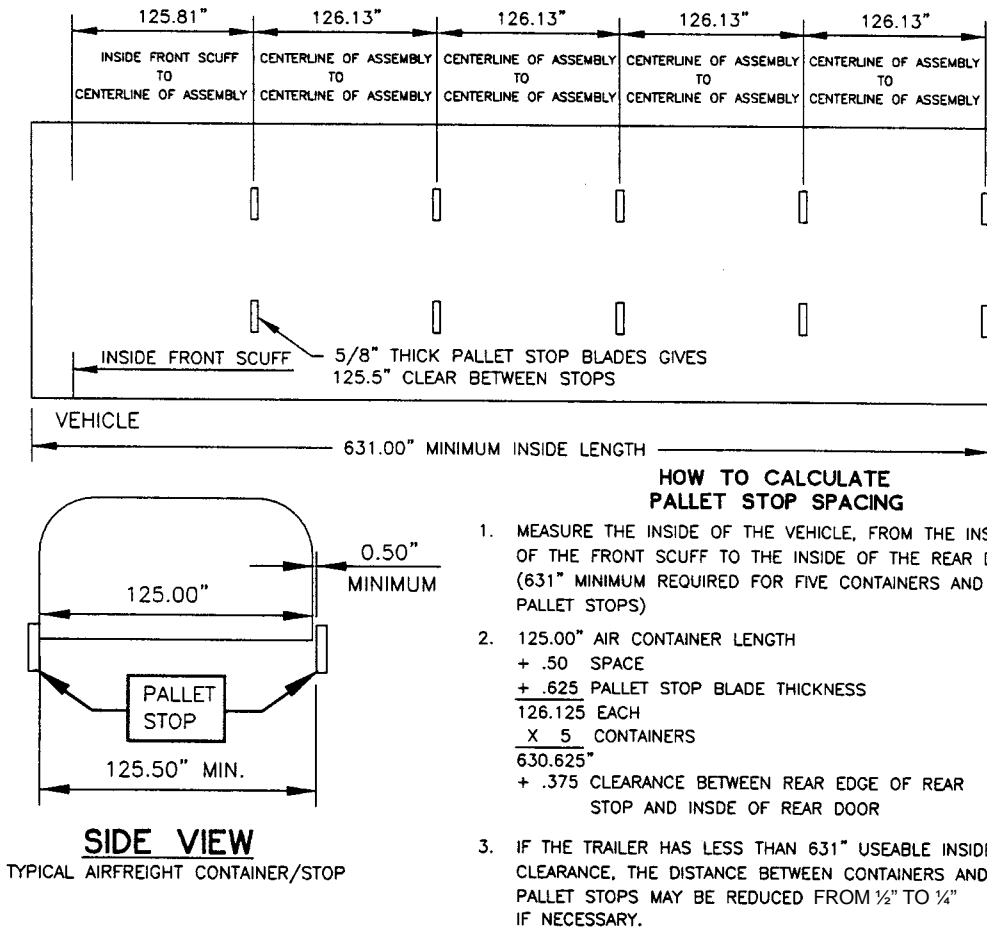
Fillet-weld Pallet stops to structural cross-members or installed Bridge Plates per American Welding Society standards and instructions from the Vehicle Manufacturer.

Refer to Section 4.7 on page 25 for instructions on caulking and painting around the Pallet Stops and floor boards.

Table 3-1 – Check List for Preparing Vehicle Interior

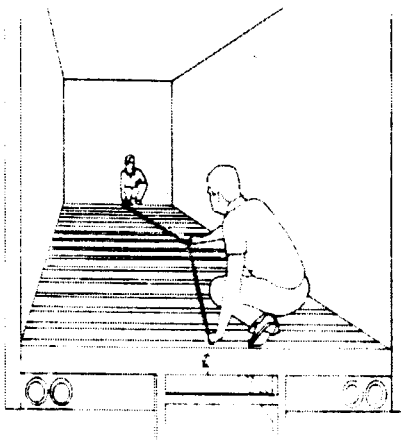
- | |
|--|
| <input type="checkbox"/> Road worthiness verified by vehicle owner. |
| <input type="checkbox"/> Trailer cross-members are level and properly spaced (section 3.3). |
| <input type="checkbox"/> Pallet stops (if required) are installed properly (section 3.5). |
| <input type="checkbox"/> Battens (installer supplied) are ready to be cut and installed (section 3.4). |
| <input type="checkbox"/> System arrangement matches drawings. |
| <input type="checkbox"/> Connection Kit is installed and air system working properly. |
| <input type="checkbox"/> Vehicle sub floor is continuous or undercoating is used (recommended). |
| <input type="checkbox"/> Obtain all required approvals. |

Figure 3-2 – Pallet Stops Spacing



3.6 Conveyor Lane Marking and Spacing

Figure 3-3 – Center Line



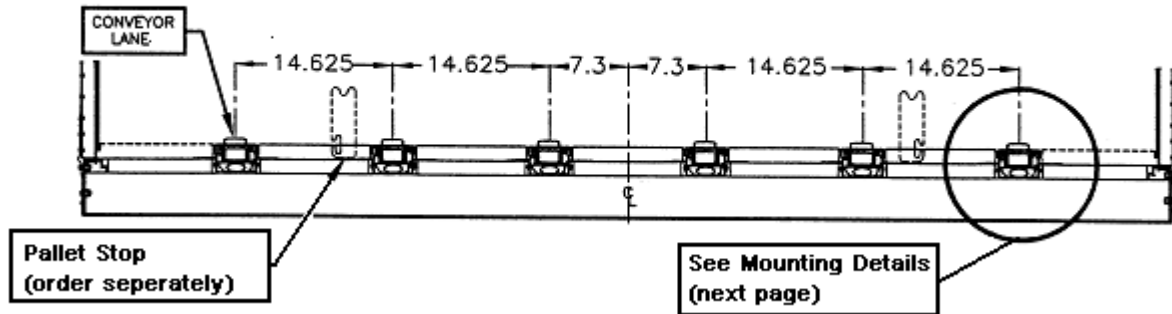
Ankra recommends spacing the Conveyor Lanes to provide an even load distribution.

Determine the centerline of the trailer by measuring the inside width of the vehicle at four (4) locations: the front bulkhead, the front end, the back end and inside the rear door opening.

Use these four measurements to identify the centerline of the trailer and mark using a chalk line as shown in Figure 3-3.

Figure 3-4 on page 15 shows an example of proper lane spacing for a six (6) Lane System. Measure and mark (with chalk line) the centerline of each Conveyor Lane as indicated.

Figure 3-4 – Conveyor Spacing for a six (6) Lane System



3.7 Conveyor Assembly

Figure 3-5 on below shows the three (3) types of Conveyors: 6-inch Roller Pitch, 4-inch Roller Pitch and the Combo unit with both 4 and 6 inch Rollers.

Starting at the tailgate, or rear, of the vehicle and working forward, the Conveyors will be laid-out using the chalked Lane centerlines identified in Section 3.6.

The first Conveyor (Combo unit) should be a maximum of 1/4" from the inside edge of the rear sill for all six (6) lanes. (If the purchased product does not have a Combo unit, then the 4" roller will be the first Conveyor).

The remaining Conveyors will be assembled with a gap of 1/16" to 1/8" between each unit. The gap allows the coverplates to pivot in and out of the channel when servicing the components inside the assembly.

Clearances are shown in Figure 3-1a on page 12 and Figure 3-1b on page 13. As shown in Figure 3-6, make sure that the Conveyors are lined up with connections in the proper direction. Conveyors shall be fastened to the Battens at a minimum of six (6) locations: at both ends, in the center and on both sides. Fasteners are provided by the Installer.

NOTE: The elbow fittings on the air bag assemblies may need to be rotated 180° to allow for proper air connection.

Figure 3-5 – Identifying Conveyors

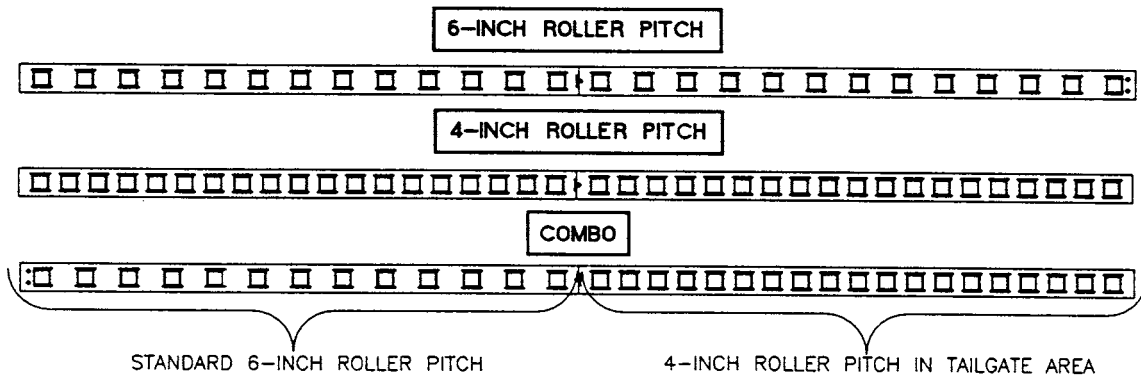
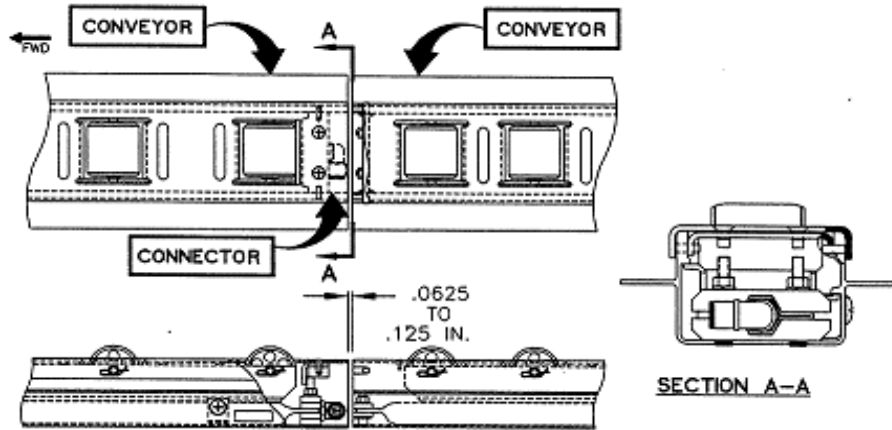


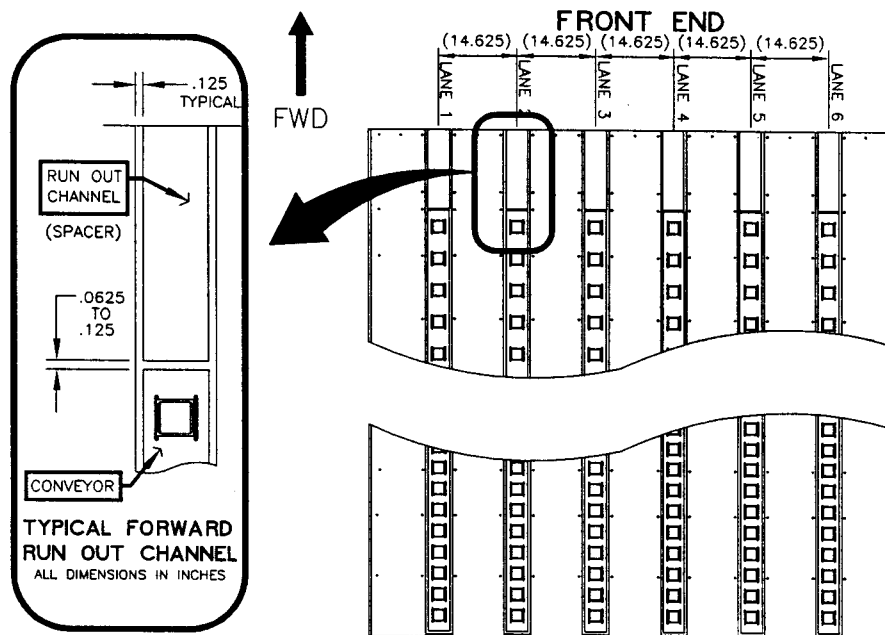
Figure 3-6 – Aligning Conveyors



3.8 Run-Out Channels

Run-Out Channels are wood or steel spacers placed between the end of the Conveyor and the front bulkhead. They are supplied by the Installer and are required to protect the ends of the Conveyors from dirt and damage. After the Conveyors are installed, the length of each Run-Out Channel can be determined by measuring the distance from the end of each Conveyor to the front bulkhead. Examples are shown in Figure 3-7 below.

Figure 3-7 – Example of Run-Out Channels



Note: Do not attach the Run-Out Channels to the Conveyors.

3.9 Painting the Vehicle Interior

Before painting the vehicle interior, make sure that the Conveyors are completely covered. Paint will damage the rollers and may void Warranty.

3.10 Installing Warning Decals

After painting the vehicle interior, install the Warning Decals on the road side wall near the tailgate, approximately 5' up from the vehicle floor. Before installation, make sure that the sidewall is clean and dry.

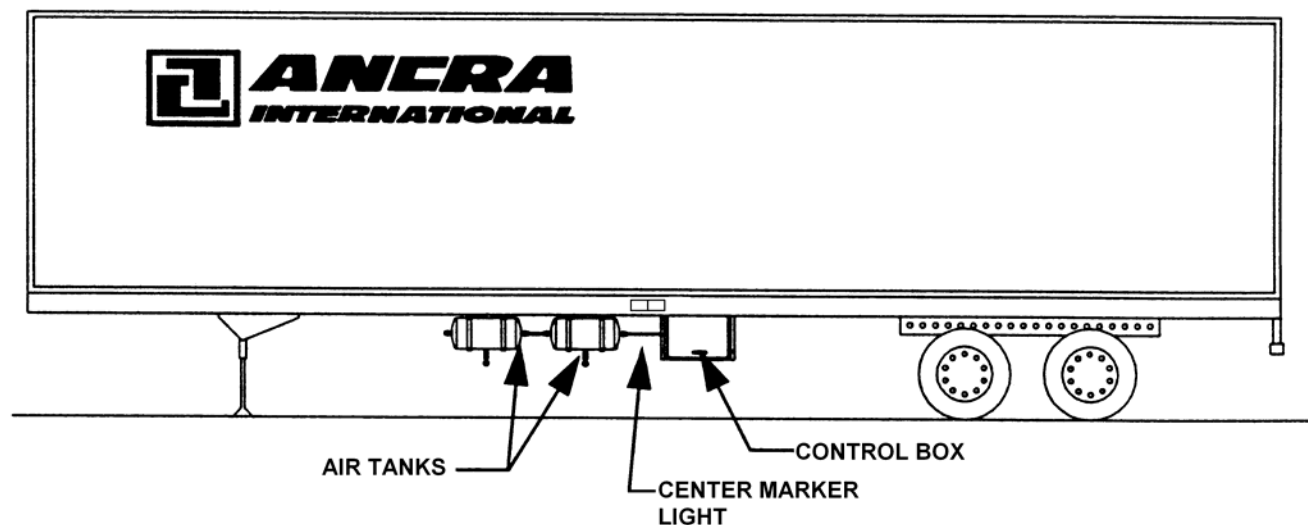
If problems persist and the decals will not stay adhered to the wall, it may be necessary to apply the decals to a thin clean piece of aluminum and attach it to the sidewall of the trailer.

CHAPTER 4 SYSTEM CONTROL KIT AND AIR TANK SYSTEM INSTALLATION

4.1 Recommended Locations

Ancra recommends installing the System Control Kit (Control Box) and Air Tank Kits on the Driver's side of the vehicle, forward of the wheels, at the locations shown in Figure 4-1 below.

Figure 4-1 – Control Box / Air Tank Locations



4.2 Installing System Control Box

The most common location for mounting the System Control Box is the first pair of cross-members to the right of the vehicle center marker light as shown in Figure 4-1 above. The Box is attached to the vehicle using a mounting bracket that can either be purchased from Ancra (Part #62063) or custom field fabricated by the Installer.

Whether purchased or field built, the mounting bracket must be installed as illustrated in Figure 4-2 on page 19. The bracket is mounted to a minimum of two structural cross-members and attached with Installer provided fasteners or welded in place. In addition to the cross-members, a steel “pinch” plate can be used to provide additional fastening/welding points.

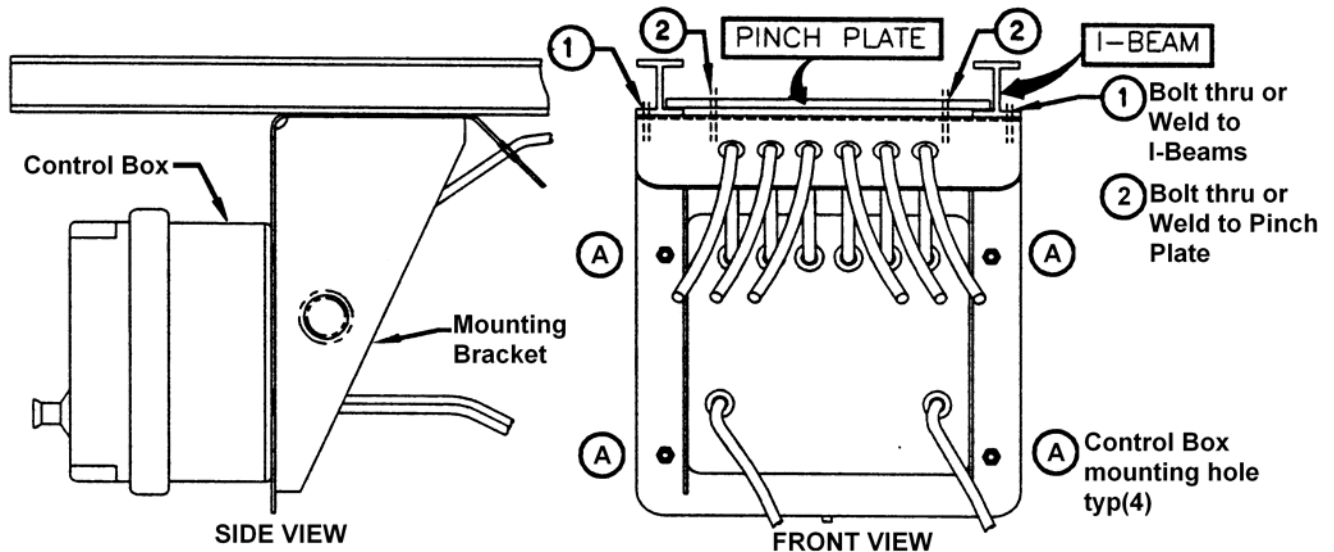
When installed, the bracket should be recessed under the vehicle approximately 18” to lessen the damage from side impact

Note: If welding the bracket in place, do so in accordance with American Welding Society standards and instructions from the trailer manufacturer.

Attach the Control Box to the mounting bracket (fasteners provided) using the four (4) mounting holes indicated in Figure 4-2. Install the Control Box so the lid opens **UP**.

Note: Ancra recommends that the Installer takes steps to protect the Box from wheel water spray and road debris.

Figure 4-2 – Control Box & Mounting Bracket Installation

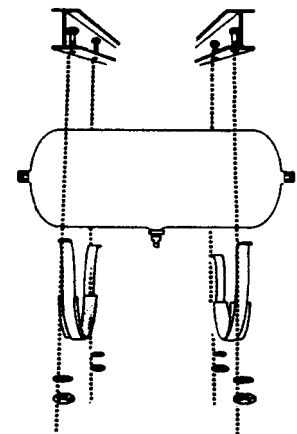


4.3 Installing Air Tanks

Figure 4-3 – Air Tank Mounting

The most common location for mounting the Air Tanks is left of the vehicle center marker light as shown in Figure 4-1 on page 18. The first tank is attached to the *first pair* of cross-members (left of the marker light) using the hardware provided in the Air Tank Kit. The second tank is attached to the *third pair* cross-members (left of the marker light) using the hardware provided in the Air Tank Kit.

For both Air Tanks, the drain should be facing down to allow proper operation and maintenance of the system.



4.4 Installing Air Tubing and Fittings

Layout the air tubing from the Conveyors to the Control Box System. System arrangements are shown in Figure 6-2 on page 34.

Prior to making any connections, verify that each Conveyor Lane isolation valve in the Control Box will be connected to the proper Conveyor Lane. The Lane/Valve number designations one (1) thru six (6) are from left to right for both the isolation valves and Conveyor Lanes. The proper arrangement is shown in Figure 4-4 on page 20.

Figure 4-4 - Valves and Lanes

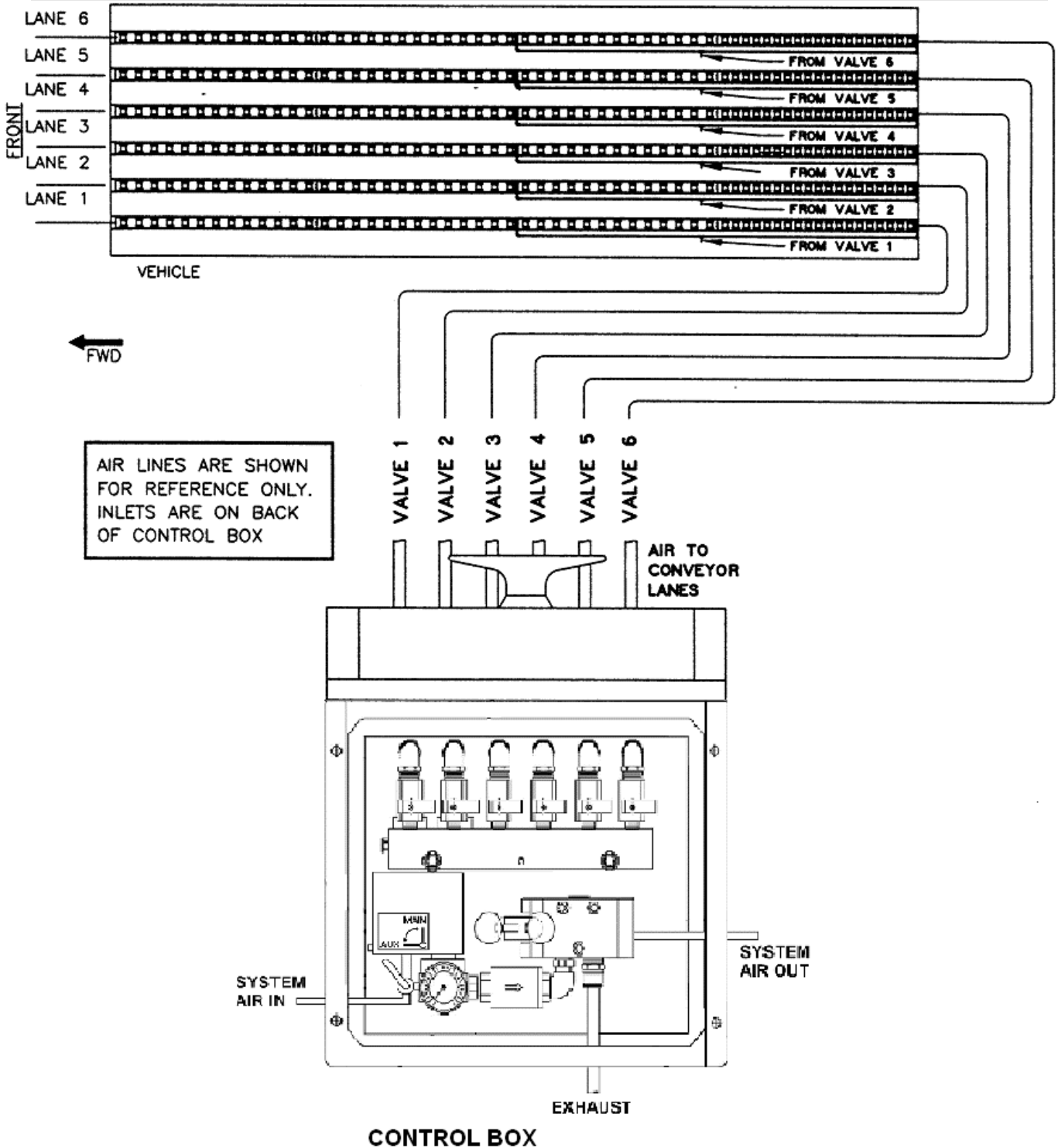


Figure 4-5 on page 21 shows the attachment locations on the System Control Box.

Figure 4-5 - Attaching to Control Box

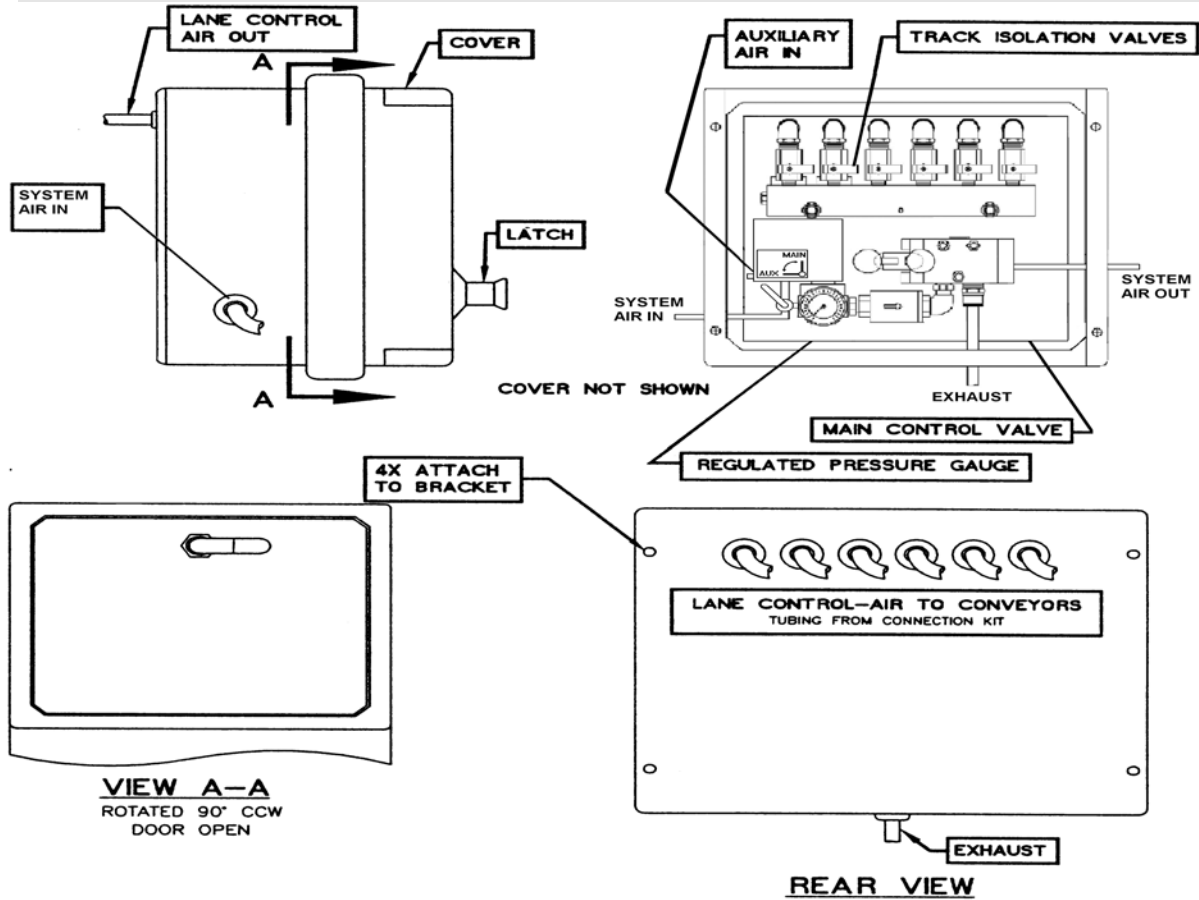
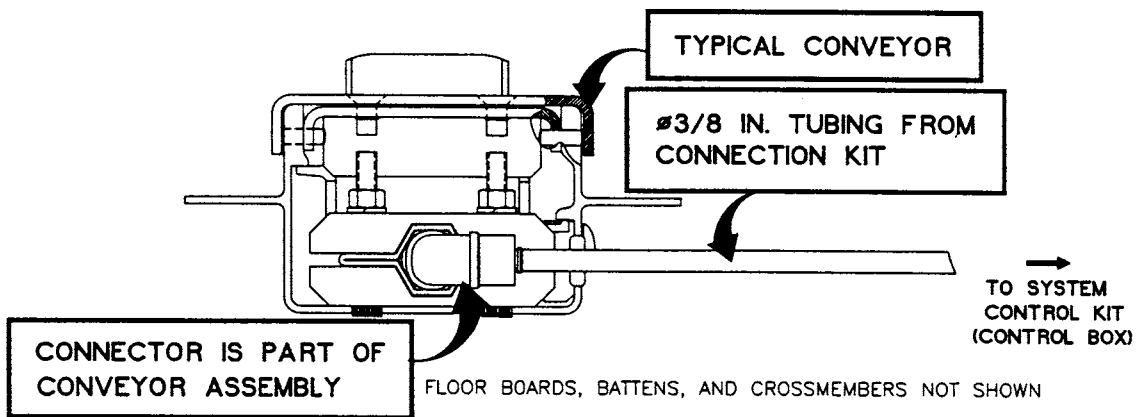


Figure 4-6 - Attaching Fittings to Conveyors (Cross-section)



Make sure that the Conveyors are positioned with the connector facing the proper direction. Refer to Figure 3-6 on page 16.

Connection Kit components are shown in Figure 4-9 on page 24 and Part Numbers are listed in Chapter 6.

Table 4-1 – Tips for attaching fittings and tubing

Recommendations

- Before installation, make sure that tubing and fittings are free from dirt and debris.
- To prevent leaks, use a tube cutter to make a clean, square cut. **DO NOT USE** a razor blade knife or a straight edge knife. A tube cutter is provided in the Fittings Kit. Refer to Figure 4-7 on page 23.
- To prevent leaks, make sure that all tubing is fully installed into fittings. Refer to Figure 4-8 on page 23.
- All tubing must be secured to vehicle. Do not let it droop down or swing. Clips and fasteners are provided by the Installer
- Make sure that all connections are secure. Use pipe tape to seal threaded pneumatic fittings. Pipe tape is provided by the Installer.
- Find and remove any KINKS OR SHARP BENDS in the tubing, as they will cause leaks and slow system operation.

Figure 4-7 – Using Tube Cutter

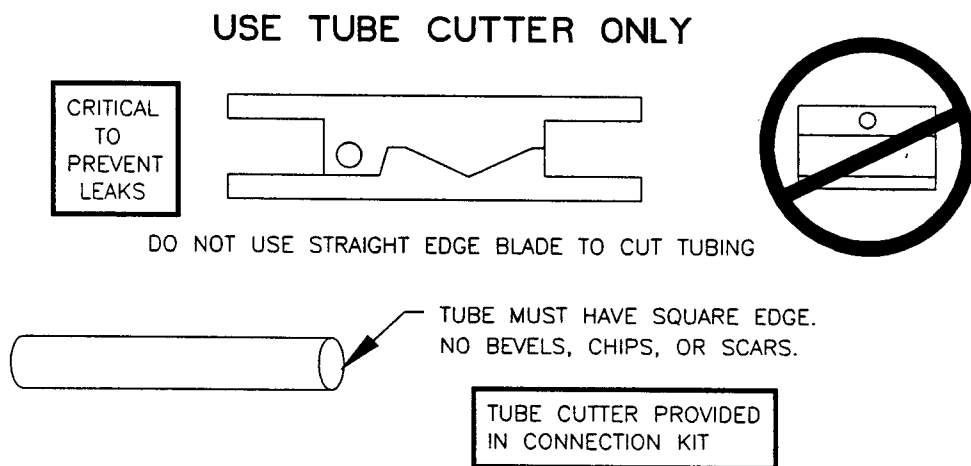
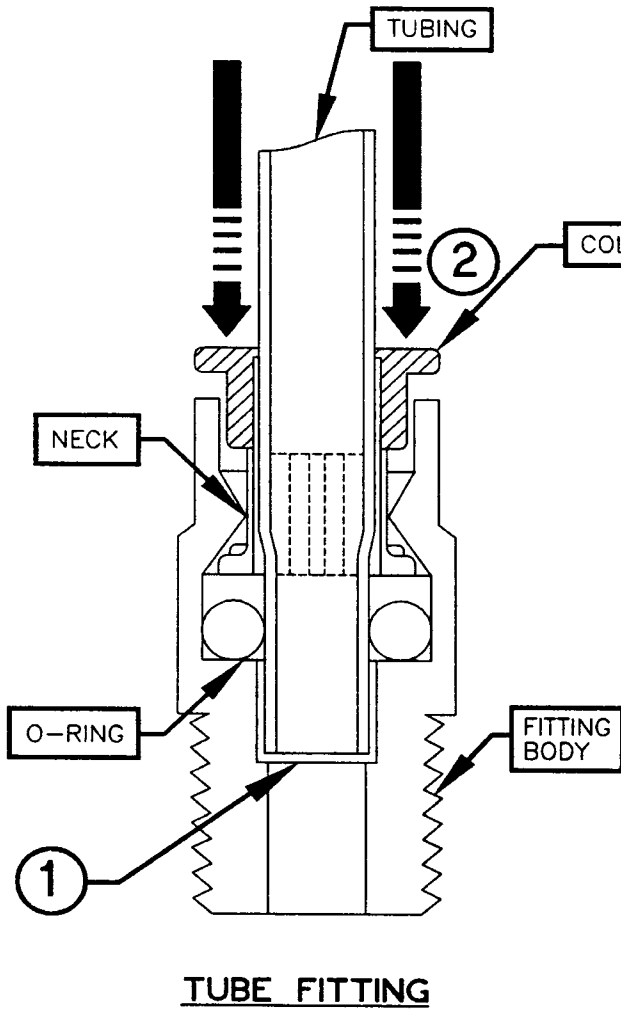


Figure 4-8 – Installing Tubing in Fittings



① INSTALL TUBING

FIRMLY PUSH TUBING ALL THE WAY INTO FITTING. PUSH TUBING IN PAST NARROW NECK (YOU WILL FEEL IT RESIST). PUSH TUBING UNTIL IT REACHES END OF FITTING. APPROX. 3/4 INCH OF TUBING ENTERS FITTING.

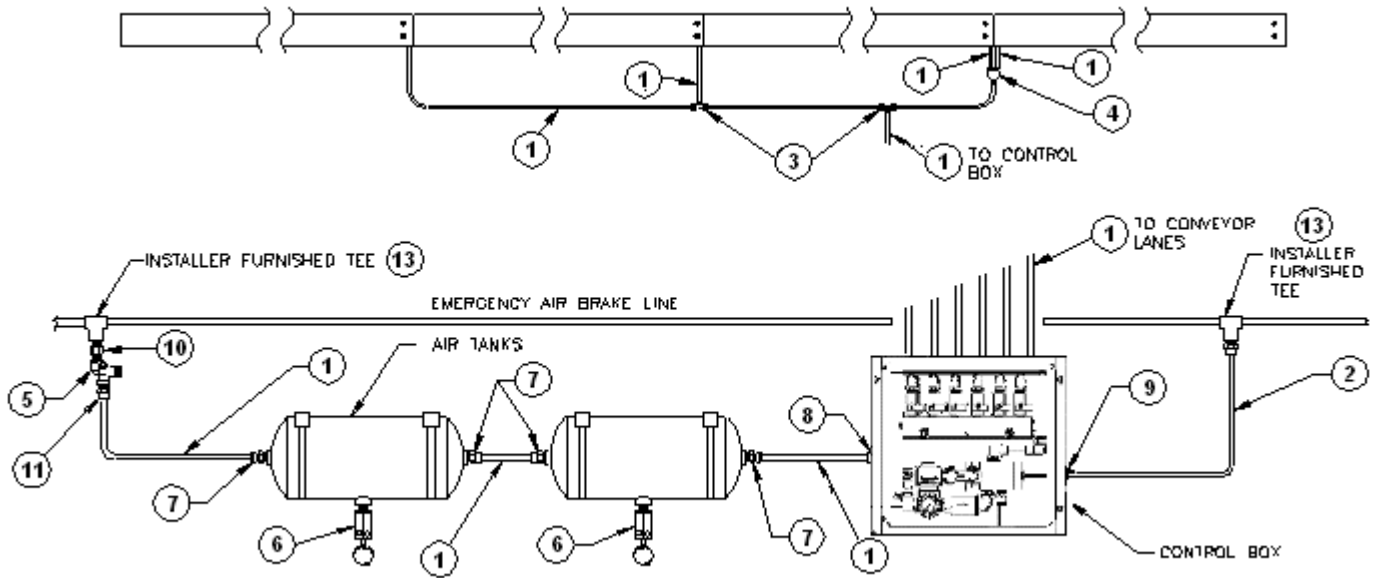
INSPECTION FOR CORRECT INSTALLATION

1. FIRMLY PULL TUBING. TUBING STAYS IN FITTING.
2. TRY TO MOVE TUBING IN ALL DIRECTIONS. TUBING DOES NOT WOBBLE OR MOVE IN FITTING.

② REMOVE TUBING

PUSH COLLET RING AND PULL TUBING OUT OF FITTING BODY.

Figure 4-9 – System Components and Schematic



<u>Item</u>	<u>Description</u>	<u>Item</u>	<u>Description</u>
1	Tubing, 3/8" Ø	8	Fitting, Tube-to-Tube, - 3/8" Ø
2	Tubing, 1/4" Ø	9	Fitting, Tube-to-Tube, - 1/4" Ø
3	Fitting, Tube-to-Tube, "T" - 3/8" Ø	10*	Adaptor, "T"-to-Pressure Protection Valve
4	Fitting, Tube-to-Tube, "Y" - 3/8" Ø	11	Adaptor, Pipe-to-Tube – 1/4" NPT to 3/8" Tube
5	Valve, Pressure Protection, 1/4 NPT	12	Tube Cutter (Not Shown)
6	Valve, Drain Air Tank	13*	Connector (2), "T" to Vehicle Air Supply
7	Adaptor, Pipe-to-Tube – 3/8" NPT to 3/8" Tube	14*	Gauge, to 160psi, 1psi gradients (Not shown)

Note: Items 10, 13 & 14 are furnished by Installer

4.5 Connecting to Vehicle's Air Supply

WARNING



Before starting work, make sure that the Emergency Brake System is disconnected. Perform work in accordance with all local, state, and Federal regulations. Road-worthiness is the responsibility of the Owner / Operator.

Connect the Retract-A-Roll® II system to the Emergency Brake Line using fittings provided by the Installer. Attach the appropriate "T"-connectors and an adaptor attaching the "T"-connector to the pressure protection valve. Installation locations are shown on Figure 4-9 on page 24.

4.6 Inspecting System

Before installing the floor boards, Ancra recommends inspecting the Retract-A-Roll® II system. Inspections required are described in Chapter 5.

4.7 Applying Caulking and Undercoating

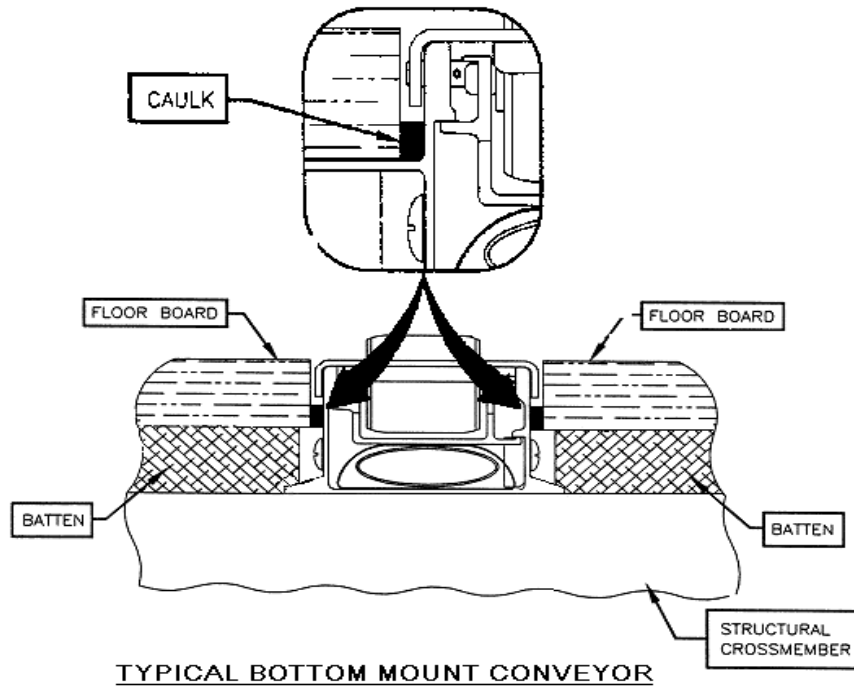
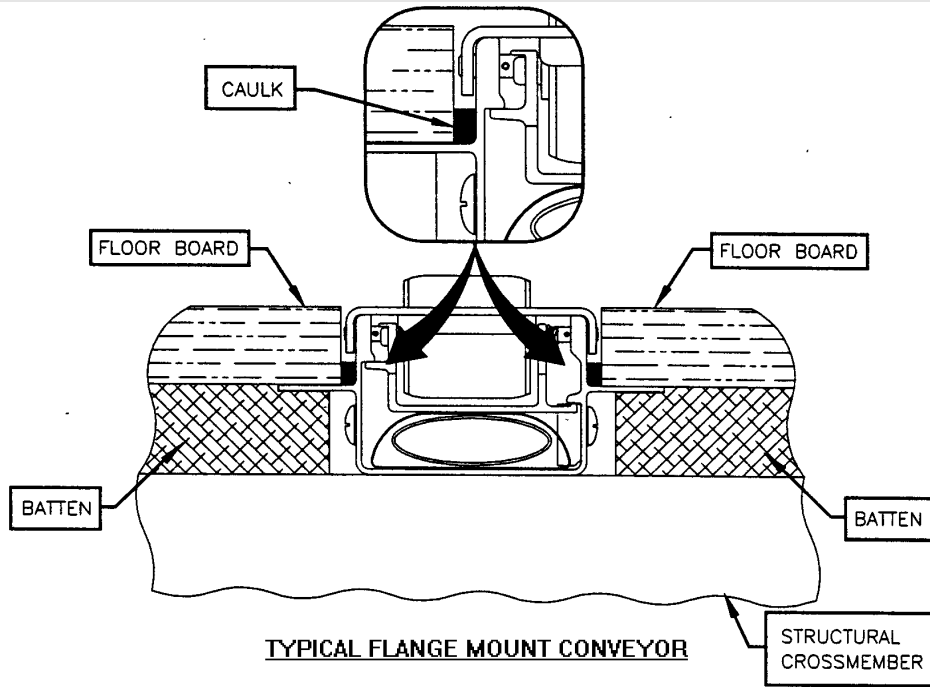
Ancra recommends applying caulking and undercoating to the Retract-A-Roll® II system. Make sure that the bottom of the floor boards and battens are undercoated. Caulking, undercoating, and touch-up paint are all supplied by the Installer.

As shown in Figure 4.10, apply a 3/16" bead of caulking along the wing or flange of the Conveyors from front to rear then lay the floor board down. Apply caulking around the Pallet Stops to seal off from road splash.

DO NOT apply caulking to the top plates

After the floor boards are in place and fastened to each cross-member, apply undercoating to the entire bottom of the vehicle. Provide protection to the Control Box and Air Tanks prior to undercoating application.

Figure 4-10 Caulking Application



CHAPTER 5 TESTING & INSPECTIONS

5.1 Recommended Inspections

This chapter describes inspections for leaks, lane control, clearances, and attachment. If a component is found defective and needs replacing, please contact Customer Service for replacement under terms of the Ancra Product Warranty.

5.2 Warnings



The following warnings apply when operating the Retract-A-Roll II system.

- **SET PARKING BRAKE BEFORE ACTUATING SYSTEM.**
- **LOWER ROLLERS BEFORE MOVING VEHICLE.**
- **CLOSE AND SECURE CONTROL BOX LID BEFORE MOVING VEHICLE**
- **VEHICLE MUST BE LEVEL TO PREVENT UNCONTROLLED CARGO MOVEMENT WHEN ROLLERS ARE IN THE “RAISED” POSITION.**
- **DO NOT DRIVE OR OPERATE FORKLIFT OR SIMILAR EQUIPMENT ON THE ROLLERS WHEN THEY ARE IN THE “RAISED” POSITION.**
- **DO NOT WALK ON ROLLERS WHEN THEY ARE IN THE “RAISED” POSITION.**
- **USE ONLY MAIN CONTROL VALVE (JOYSTICK) TO RAISE AND LOWER ROLLER SYSTEM.**

5.3 System Testing

A. AIR TANK SYSTEM LEAK TEST

Prior to the “final” hook-up to the vehicle, the Air Tank system must be leak tested as follows:

1. The main control valve in the Control Box is to be set to the **RIGHT** or lowered (off) position and the track isolation valves are set in the **OPEN** position. Refer to Figure 5-1a and Figure 5-1b on page 28.
2. Attach the air compressor to the auxiliary air inlet on the Control Box. The inlet is shown on Figure 4-5 on page 21 and Figure 5-1a on page 28. Fill both Air Tanks to 100psi (+/- 5psi).
3. Attach a hand-held pressure gauge to the auxiliary air inlet in the Control Box. The gauge must be rated to at least 160 psi with gradients of 1 psi and is provided by the Installer.
4. A pressure loss of 10% or less over a 3 hour period is acceptable. If the pressure loss is acceptable, check the block in Ancra Warranty Registration and lower all vehicle rollers.
5. If the pressure loss is greater than 10%, leak-check all connections between the pressure protection valve and the Control Box. If needed, apply a soapy spray or leak detecting solution. Make repairs, adjustments or replace defective fittings as necessary and retest per steps #1-4 above.

NOTE: The subject duration of the test is solely dependent on the accuracy of the test equipment. The pressure loss must be equivalent of a 10% loss or less over a 3 hour period. For example, a 3 hour test at 30psi would require a loss of .30psi or less.

Figure 5-1a - Control Box Valve Locations

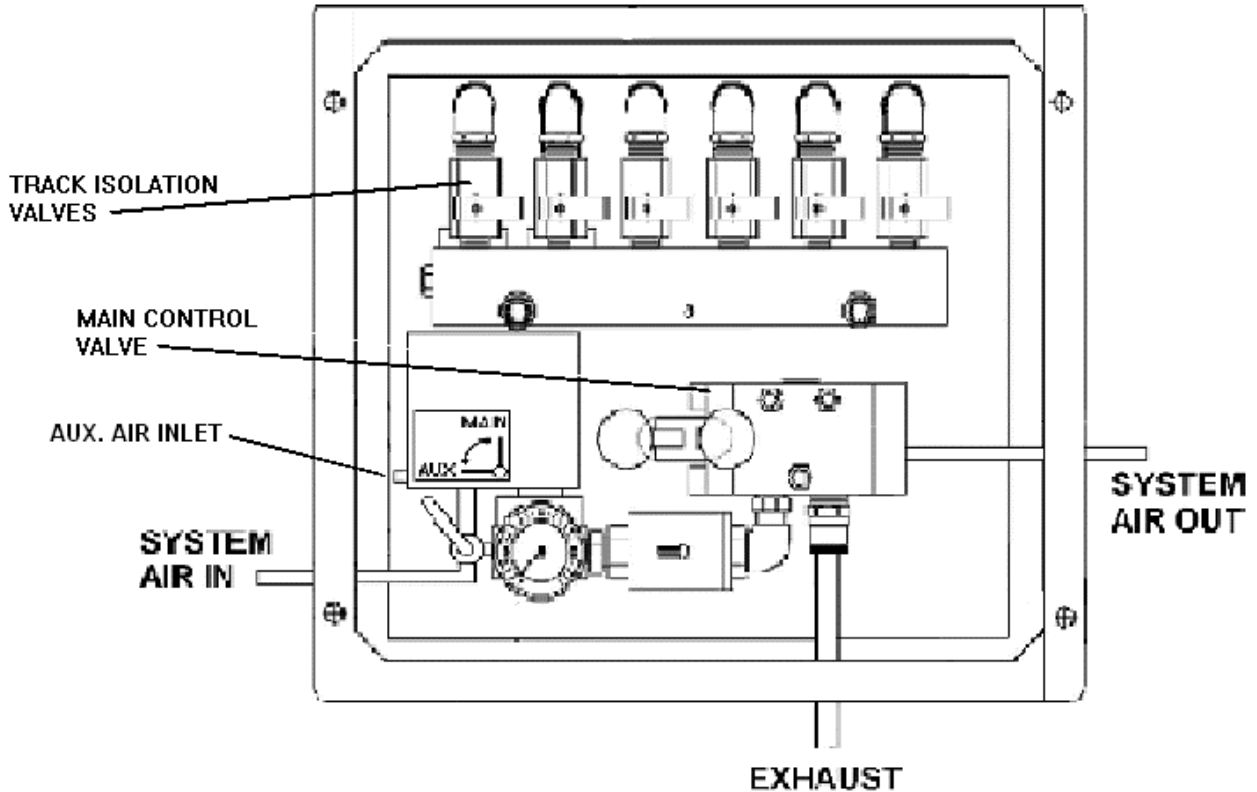
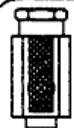



Figure 5-1b - Valve Operating Instructions

TRACK ISOLATION VALVES

IN THE EVENT OF AIR PRESSURE LOSS, CLOSE ALL TRACK ISOLATION VALVES AND OPEN ONE VALVE AT A TIME TO DETERMINE WHICH TRACK IS LEAKING. ISOLATE LEAKING TRACK TO CONTINUE TO OPERATE SYSTEM.

VALVE SEQUENCE MATCHES TRACK LAYOUT LEFT TO RIGHT.

! WARNING !

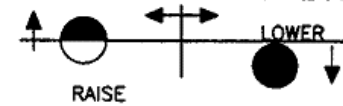
- SET PARKING BRAKE BEFORE ACTUATING ROLLER SYSTEM-
- TRAILER MUST BE LEVEL TO PREVENT UNCONTROLLED CARGO MOVEMENT WHEN ROLLERS ARE RAISED-
- DO NOT STAND ON ROLLERS WHEN IN RAISED POSITION-
- USE ONLY MAIN CONTROL VALVE TO RAISE AND LOWER ROLLER SYSTEM-

AUXILIARY AIR IN

-FILL TANKS TO 100 PSI MAX.-

ANCRA 62037-20

MAIN CONTROL VALVE



RAISE LOWER

NOTE: The above diagram is located on the underside of the Control Box cover.

B. ROLLER CONVEYOR SYSTEM LEAK TEST

1. Inflate the roller system by moving the main control valve to the **LEFT** or raised (on) position.
2. Verify that all the rollers are raised approximately ½” above the top plates/floor boards.
3. Exhaust both Air Tanks by pulling open the drain valves located on the bottom of each tank.
4. Verify that regulated pressure gauge in the Control Box reads 35psi (+/- 5psi). A pressure loss of 10% or less over a 3 hour period is acceptable. If the pressure loss is acceptable, the Roller Conveyor Leak Test is completed and steps #5-11 can be skipped in order to perform the Emergency System Shutoff Test (5.3C)

If pressure drop is greater than 10%, each Conveyor Lane must be inspected:

5. Exhaust all air from the Lanes by moving the main control valve to the **RIGHT** or lowered (off) position.
6. Refill both Air Tanks using an air compressor attached to the auxiliary inlet in the Control Box
7. Isolate Conveyor Lane 1 by turning the track isolation valve (on the Control Box) for Lane 1 to the **OPEN** position and turning the track isolation valves for Lanes 2 through 6 to the **CLOSED** position. This exhausts the air from Lanes 2 through 6.
8. Move the main control valve to the **LEFT SIDE** or raised (on) position and EXHAUST both the Air Tanks.
9. Verify that regulated pressure gauge in the Control Box reads 35psi (+/- 5psi). A pressure loss of 10% or less over a 3 hour period is acceptable. If the pressure loss is acceptable, Lane 1 has passed the test and go on to step #11.
10. If the pressure loss is more than 10% , check all connections between the track isolation valve for Lane 1 and air bag assemblies in the Conveyors. If needed, apply a soapy spray or leak detecting solution. Make repairs, adjustments or replace defective fittings as necessary and retest per steps #5-9 above until the Lane is in compliance.
11. Continue the testing for Lanes 2 - 6, using steps #5-10 until the leak is found. At that time, repeat test steps #1-4 for the entire Conveyor System.

C. EMERGENCY SYSTEM SHUTOFF TEST

12. All the track isolation valves are set to the **OPEN** position.
13. Attach the Truck/Tractor air brake system to the Trailer and fill both Air Tanks.
14. Engage the Truck/Tractor parking brake.
15. Inflate the roller system by moving the main control valve to the **LEFT** or raised (on) position.
16. Verify that all the rollers are raised approximately ½” above the top plates/floor boards.
17. Release the Truck/Trailer parking brake to simulate that the vehicle is ready to move.
18. Verify that all the rollers have been lowered and are below the top plates/floor boards.

NOTE: If the “Roller System Conveyor Leak Test”(Section 5.3.B) was completed **AND** the individual Conveyor Lanes were not inspected as described in Section 5.3.B steps #5 – 11, the following test must be completed.

5.4 Lane Control Inspection

This inspection verifies that each track isolation valve in the Control Box is attached to the proper Conveyor Lane inside the vehicle. The Lane/Valve number designations one (1) thru six (6) are from left to right for both the Isolation Valves and Conveyor Lanes. This is illustrated in Figure 4-4 on page 20.

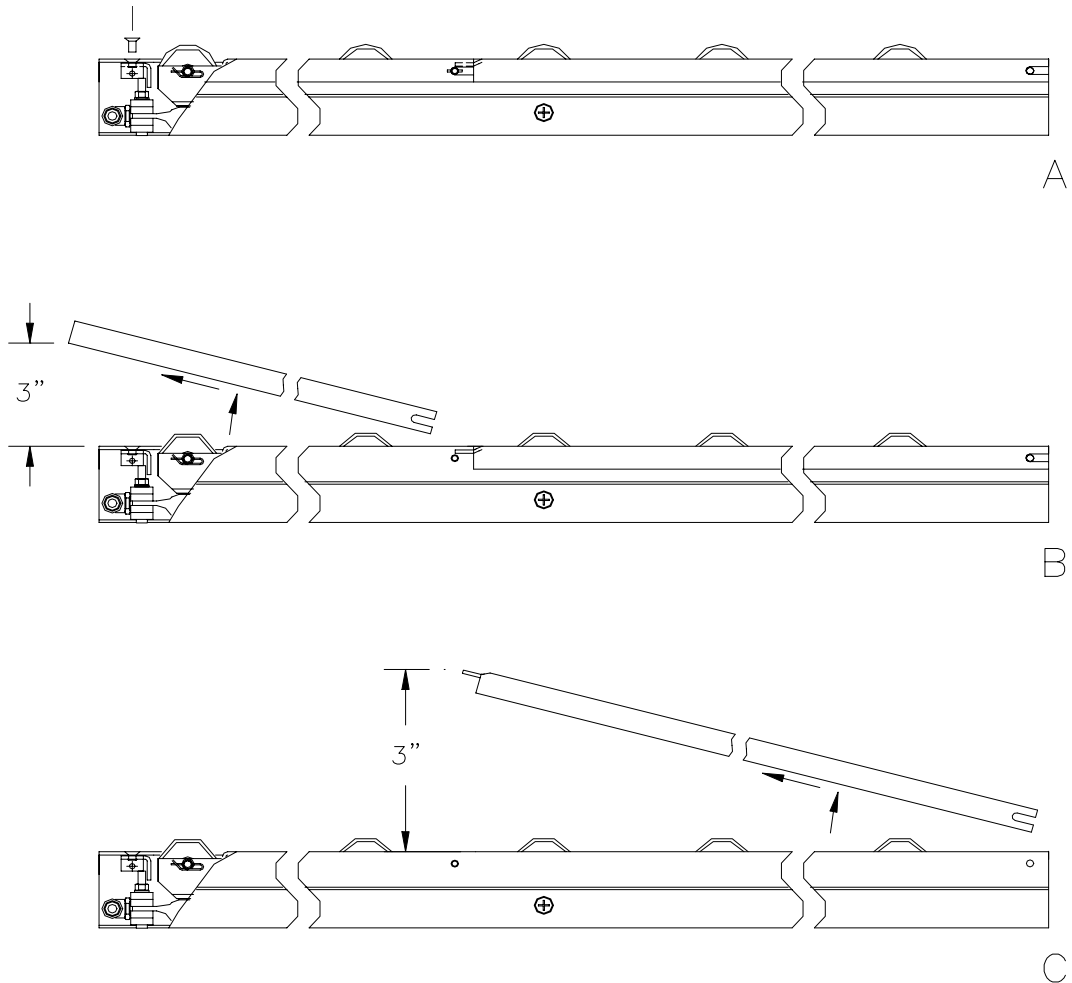
1. Verify that both Air Tanks are full and air is being supplied to the conveyors.
2. Isolate Conveyor Lane 1 by turning the track isolation valve (in the Control Box) for Lane 1 to the **OPEN** position and turning the track isolation valves for Lanes 2 through 6 to the **CLOSED** position. This exhausts the air from Lanes 2 through 6.
3. Move the main control valve to the **LEFT SIDE** or raised (on) position.
4. Verify that the air bags for Lane 1 have inflated and the rollers are in the raised position. If the rollers are raised, go to step #6. If the air bags are not inflated , continue to step #5.
5. If the air bags have not inflated, check all connections between the track isolation valve for Lane 1 and air bag assemblies in the Conveyors. If needed, apply a soapy spray or leak detecting solution. Make repairs, adjustments or replace defective fittings as necessary and retest per steps # 1 - 4 above until the Lane is in compliance.
6. Continue testing Lanes 2 - 6, using steps #1 – 5 until all six
7. (6) Lanes are in compliance.

5.5 Cover Plate Removal

Should the need arise to remove the Cover Plates to verify the air bag connection, please refer to Figure 5-2 on page 36 for the proper instructions. Damage may occur if the cover plate ends are lifted above the 3” position shown.

1. Remove two (2) flat head screws from the screw end Cover Plate. (Fig. A)
2. Lift screw end Cover Plate (**Approx. 3”**) and pull back to free it from the retaining pin at the middle of the conveyor assembly. (Fig. B)
3. Lift tab end Cover Plate (**Approx. 3”**) and pull back to free it from the retaining pin at the far end of the conveyor assembly. (Fig. C)

Figure 5-2 – Cover Plate Removal



To Replace Cover Plates:

Reverse the above steps. Make sure each top plate is properly seated on retaining pins, and make sure tab end on rear plate is under the front plate after installation. Tighten the Cover Plate screws to 50-70 in/lbs.

NOTE: The Cover Plates have a slight camber to improve installed strength. It may be necessary to depress the top surface during installation.

5.6 System Clearance/Assembly Inspections

Table 5-1 – Recommended Inspections

Recommended Areas to Inspect

- Batten & Floor Board build-up must not be lower than 2-3/4" nor higher than 2-27/32" (Section 3.2 / Figures 3-1a & 3-1b).
- Floor boards, battens and trailer structural members are level (Sections 3.3 & 3.4).
- Conveyor Lanes are properly spaced. The center line of each lane is aligned with the vehicle center line (Sections 3.6, 3.7 & Figures 3-3, 3-4).
- Proper clearances are present around Conveyors, Floor boards, Battens, Pallet Stops and Run Out Channels (Sections 3.4, 3.5, 3.6, 3.7 & Figures 3-1a, 3-1b, 3-2, 3-6 & 3.7).
- Structural members are required under both ends of each Conveyor section and must be spaced under each Conveyor on a maximum 12" centers (Section 3.3).
- Conveyors are attached to the Battens at a minimum of six (6) locations: at both ends, in the center and on both sides (Section 3.7).
- Air tubing and fittings are properly installed and will not disconnect. Tubing is free from kinks or sharp bends. Long tubing segments are attached to the vehicle's underside to prevent damage (Table 4-1 & Figures 4.7, 4.8).
- Control Box and Air Tanks are securely attached to vehicle cross-members (Section 4.2 & 4.3).
- System is securely attached to the Vehicle's air supply (Section 4.5).
- All "Inspection Tests" listed in Chapter 5 are completed.



Your Retract-A-Roll® II system is installed. Please complete and return the Warranty Registration Form immediately.

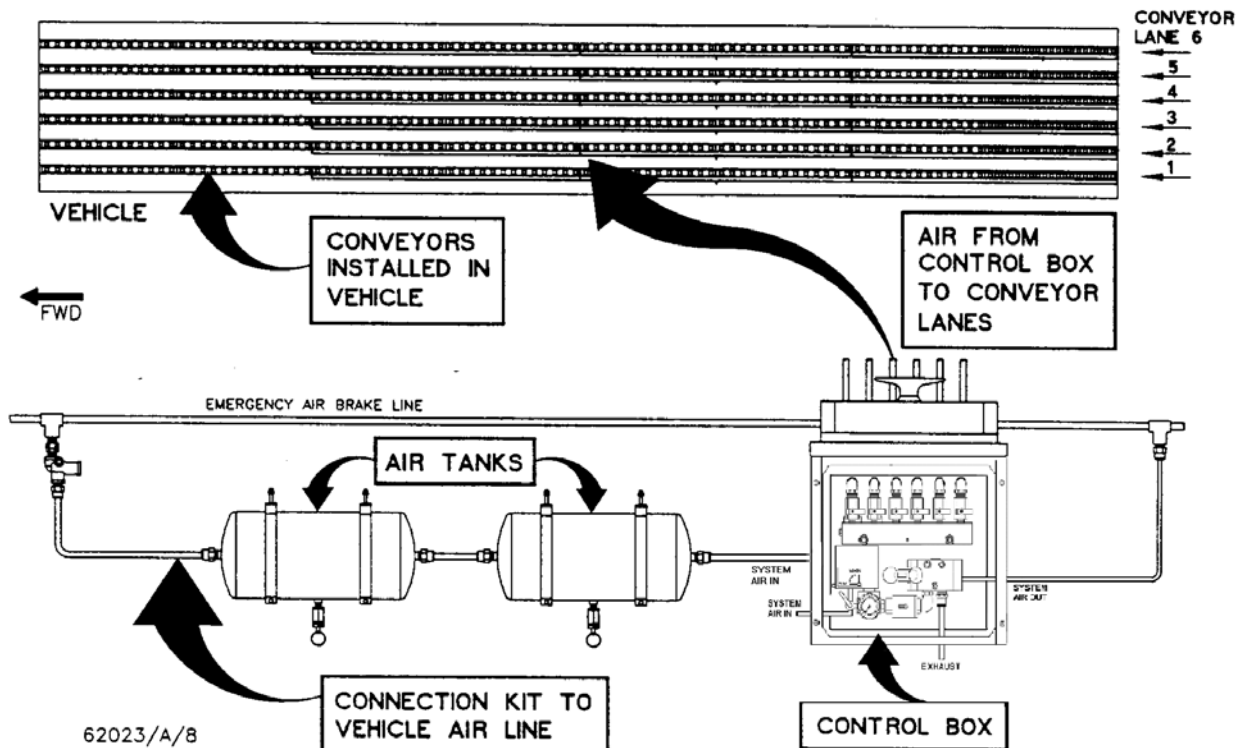
Refer to the Operations and Maintenance Manual for tips on using and maintaining the system.

CHAPTER 6 ILLUSTRATIONS & PARTS LISTS
FOR INSTALLATION

6.1 Operating and Maintaining the System

NOTE: The parts lists in this Installation Guide cover only the information required to install components. If you require detailed parts, refer to the Operations and Maintenance Manual.

Figure 6-1 – Typical System



Ankra Customer Service is available for ordering parts and answering your questions about Retractable-A-Roll® II. Call us toll-free at (800) 929-2627, locally at (859) 371-7272 or fax us at (800) 347-2627.

6.2 Parts Lists

Parts lists are provided for part identification and system arrangement. Identify the item number assigned to each part in Figure 6-1 and locate that item in Table 6-1 to determine the part number and description.

Quantities listed are the total number of each part required for this assembly.

Turn to the installation instructions in Chapters 3 and 4 for more information.

Figure 6-2 System #62053-40 (52' long / 6 Lane system for a 53' Vehicle)

Front of Trailer

Rear of Trailer

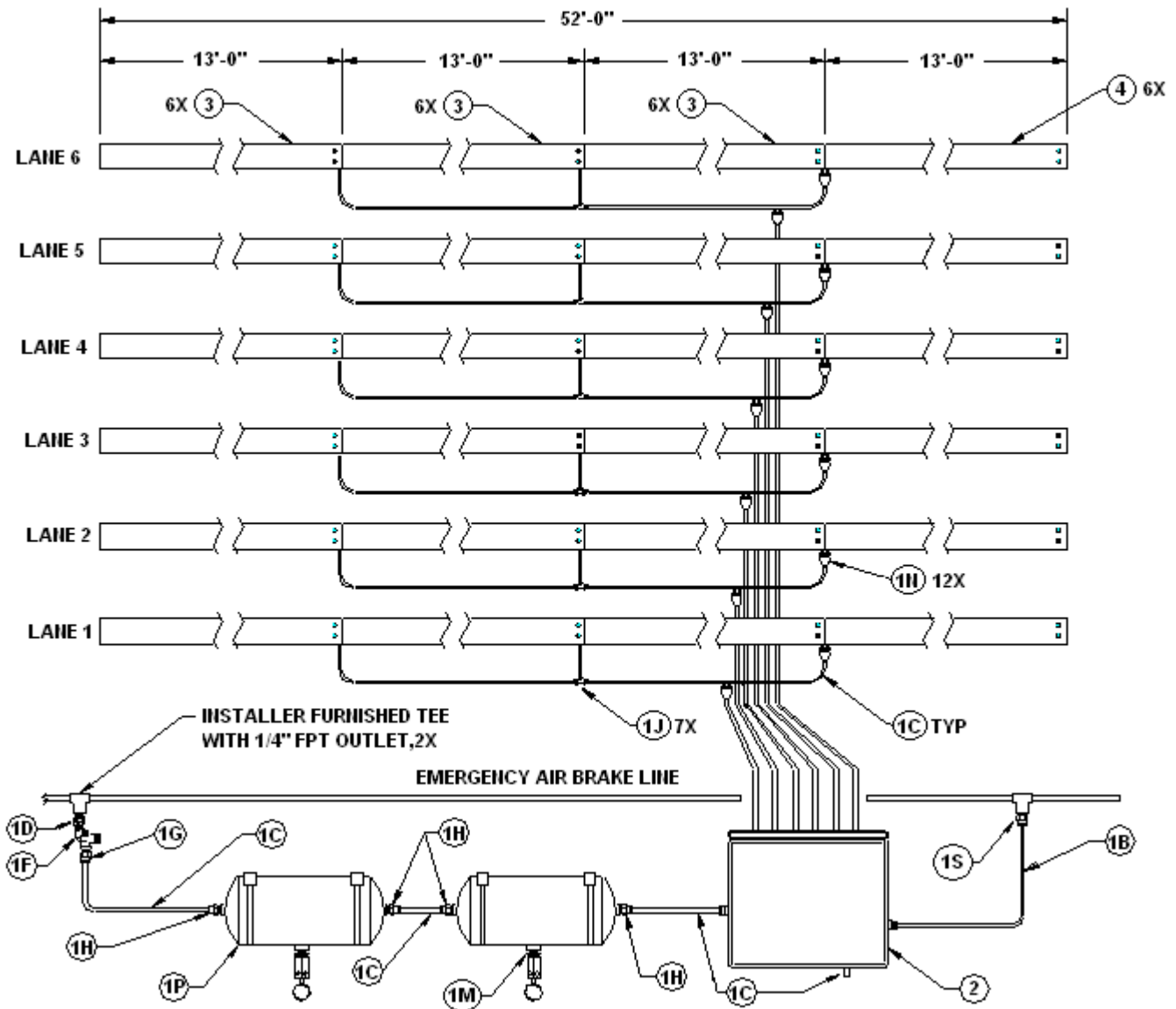


Table 6-2 PARTS LIST – 6 LANE / 52' LONG SYSTEM FOR A 53' VEHICLE

ITEM	PART NO.	DESCRIPTION	QTY
1	62023-49	AIR TANK & INSTALLATION KIT (DUAL)	1
1B	47049-10	1/4" NYLON TUBE	6 ft
1C	47049-11	3/8" NYLON TUBE	220 ft
1D	47051-10	1/4" BRASS NIPPLE	1
1E	47056-10	TUBE CUTTER (NOT SHOWN)	1
1F	47058-13	VALVE, PRESSURE PROTECTION	1
1G	47061-13	ADAPTER : 1/4" NPT to 3/8" TUBE	1
1H	47061-14	ADAPTER: 3/8" NPT to 3/8" TUBE	4
1J	47065-10	TEE, 3/8" TUBE	7
1K	47082-10	DECAL, WARNING NO-WALK	1
1L	47082-11	DECAL, WARNING NO-DRIVE	1
1M	47230-10	DRAIN VALVE, AIR TANK	2
1N	49267-10	FITTING, Y – 3/8" TUBE	12
1P	60169-10	AIR TANK KIT	2
1S	47061-11	ADAPTER : 1/4" NPT to 1/4" TUBE	1
1T	62081-10	WARRANTY FORM	1
2	62011-13P	SYSTEM CONTROL KIT	1
3	62022-20	CHANNEL ASSEMBLY, 6" PITCH	18
4	62022-21	CHANNEL ASSEMBLY, COMBO	6

Figure 6-3 – Air Tank Kit, PN 60169-10

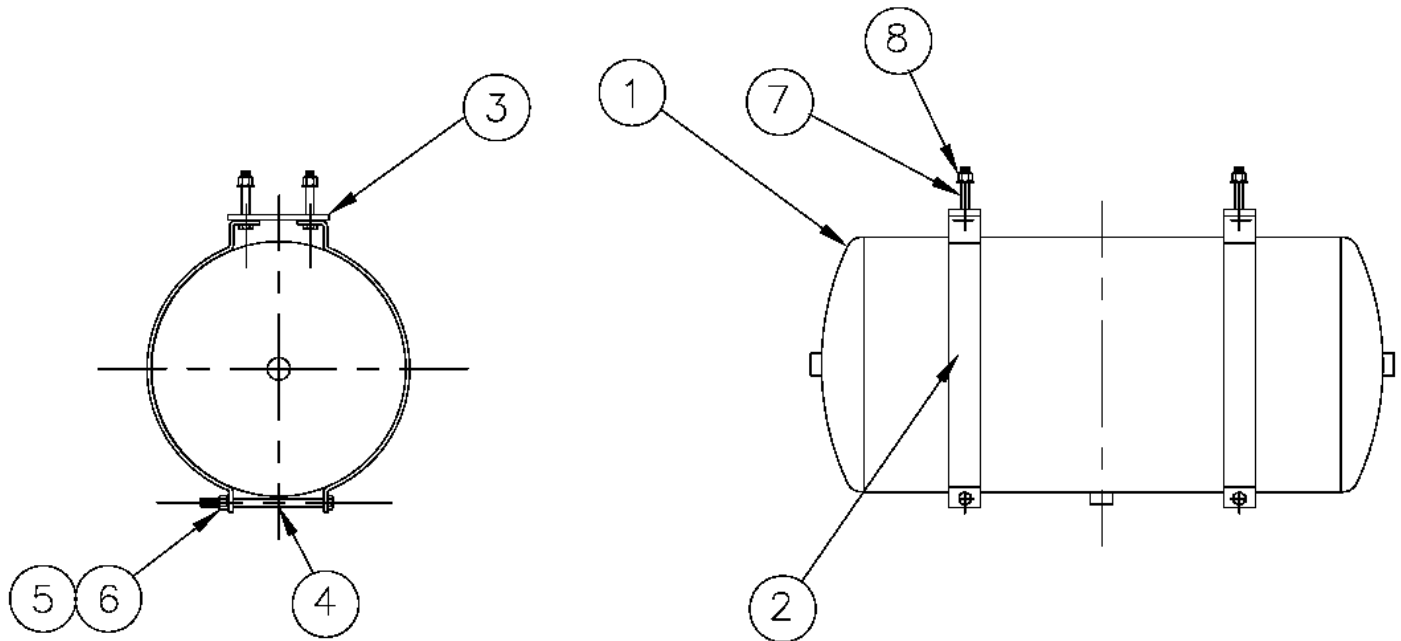


Table 6-3 – Parts List for Air Tank Kit, PN 60169-10

ITEM	PART NO.	DESCRIPTION	Qty. Per Kit
1	47068-12	Air Tank	1
2	60342-10	“C” – Brackets	4
3	60341-10	Isolation Pad	2
4*	1118BAC1268	3/8-16 x 6” Hex Bolt	2
5*	1415FAC1200	3/8 Lock Washer	2
6*	1343BAC1200	3/8-16 Hex Nut	2
7	1118AAC1220	Bolt, 3/8-16 x 1 ¼” Long	4
8	1351BAC12SL	Nut, Hex, Self-Locking, 3/8-16	4

Items #4, #5 and #6 are packaged together as
Hardware Kit #094-30005.

NOTES

NOTES



Ancra Material Handling
Systems Division
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