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“CIVACONTROL” OPERATION MANUAL

The purpose of this document is to explain how the CIVACONTROL® air control system operates and to communicate the capabilities of this system. Each air connection has been identified with descriptions below. A photograph of the air control manifold has been included as a reference, as well as a suggested plumbing schematic.

The air control manifold is designed with a master air valve that is used to control the individual compartment valves for the emergency (internal) loading valves. One of the safety features of this air control manifold is that the master can be closed (Knob pushed in) and will automatically close all the other compartment valves. Not only does this close off all (internal) loading valves, it pneumatically locks the loading valves in the closed position with air pressure. The system can be plumbed in such a manner to allow the same automatic shut off from a remote location at the front of the tank using an emergency stop valve.

This air control system has been designed to protect the tank during loading or unloading. The master valve, pull out, sends an automatic diagnostic signal to sequential vapor vents, or sequentially plumbed vapor vents, to open. The signal is then returned to air control manifold. At this point, an indicator can be plumbed into the system to physically show the signal has been returned to manifold. Compartment valves can't be opened until it has received the automatic diagnostic confirmation that the vapor recovery vents from each compartment have been opened.

This air control system has the ability to enable access to the API loading adaptors with the use of our guard bar lock. A protective bar is positioned over the ends of the API loading adaptors and cannot be rotated out of the way until an air valve that is located in a locked cabinet is actuated. This allows the guard bar to be lifted to load or unload. The guard bar lock is released after the master valve is pulled open and the have been opened. Below is the basic identification of some of the key ports and how to connect this system.

WARNING:

Never lubricate or introduce non-recommended oils or solvents (WD40® or alcohol) into the CIVACONTROL® air control system. Please lubricate the system only with the recommended oils that are made for air controls on vehicles. The non-recommended oils or solvents can attack seals and cause damage to the valves resulting in excessive wear, leaking valves and even premature failures.

A

This air connection is the main or constant air supply to the master valve of the CIVACONTROL® air control system.

B

Air supply from the emergency shut off valve that would be located at the front of the trailer. No air to be applied to this port under normal operation. In an emergency situation, the emergency shut off valve would be actuated, air would be applied to Port B closing the master valve on the air block. This would in turn close and pneumatically lock the other valves on the air block that are controlling the emergency (internal) loading valves and or other valves.

C

This air connection is the return from the sequential vapor recovery vents and also functions as the primary air supply for the compartment valves.

D

This connection is for the air supply to the sequential vapor recover vents. Air is supplied to the first sequential vapor recovery vent which in turn will open and send air to the next vapor recovery vent. This continues until all vapor recovery vents are open then the air is allowed to return to air connection gallery C.

E

When the first valve on the manifold is actuated this air connection allows air to travel to the emergency (internal) loading valve in the number (1) compartment, opening this loading valve.

F

This is an exhaust port for the pilot reset gallery.

G

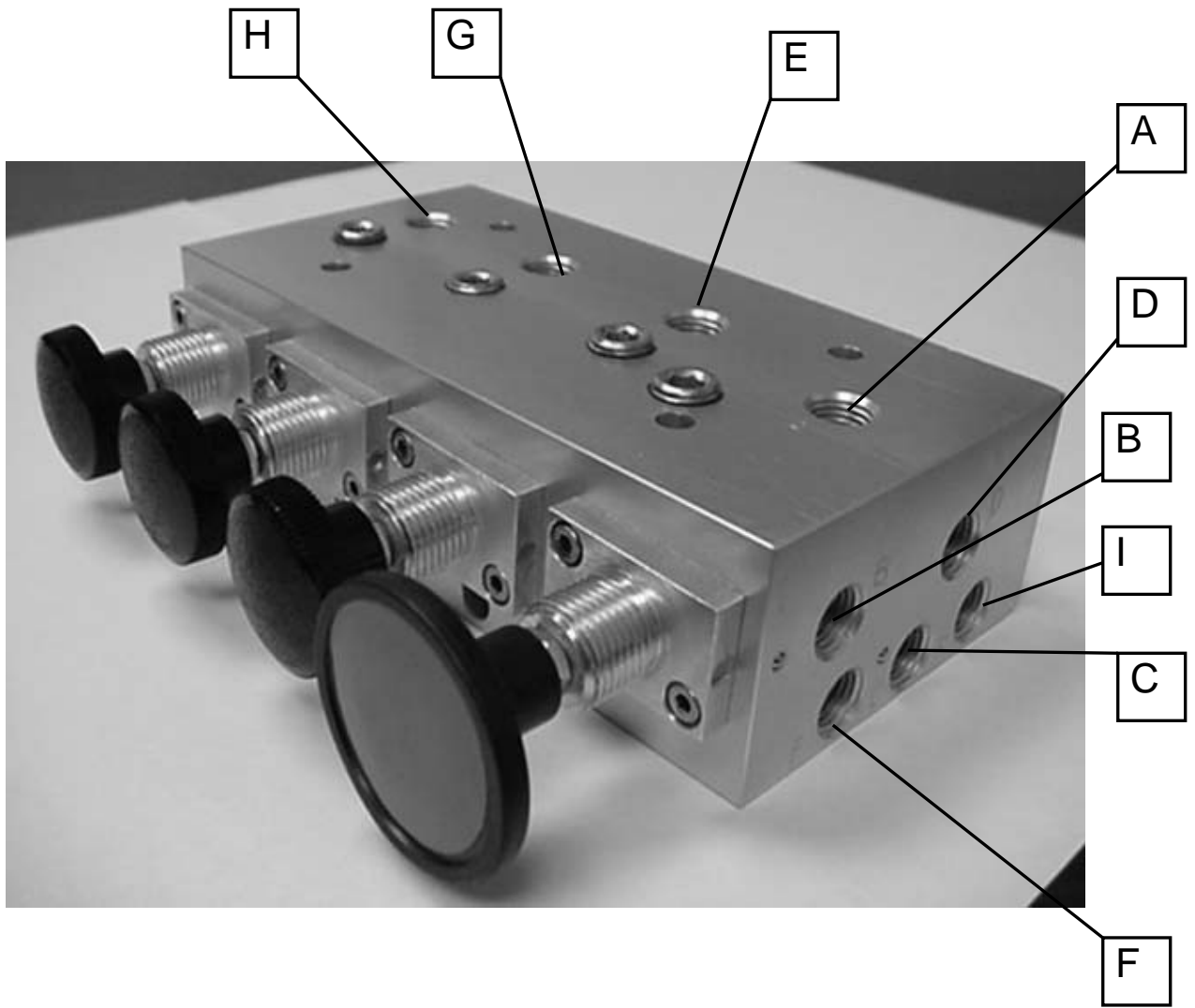
When the second valve on the manifold is actuated this air connection allows air to travel to the emergency (internal) loading valve in the number (2) compartment, opening this loading valve.

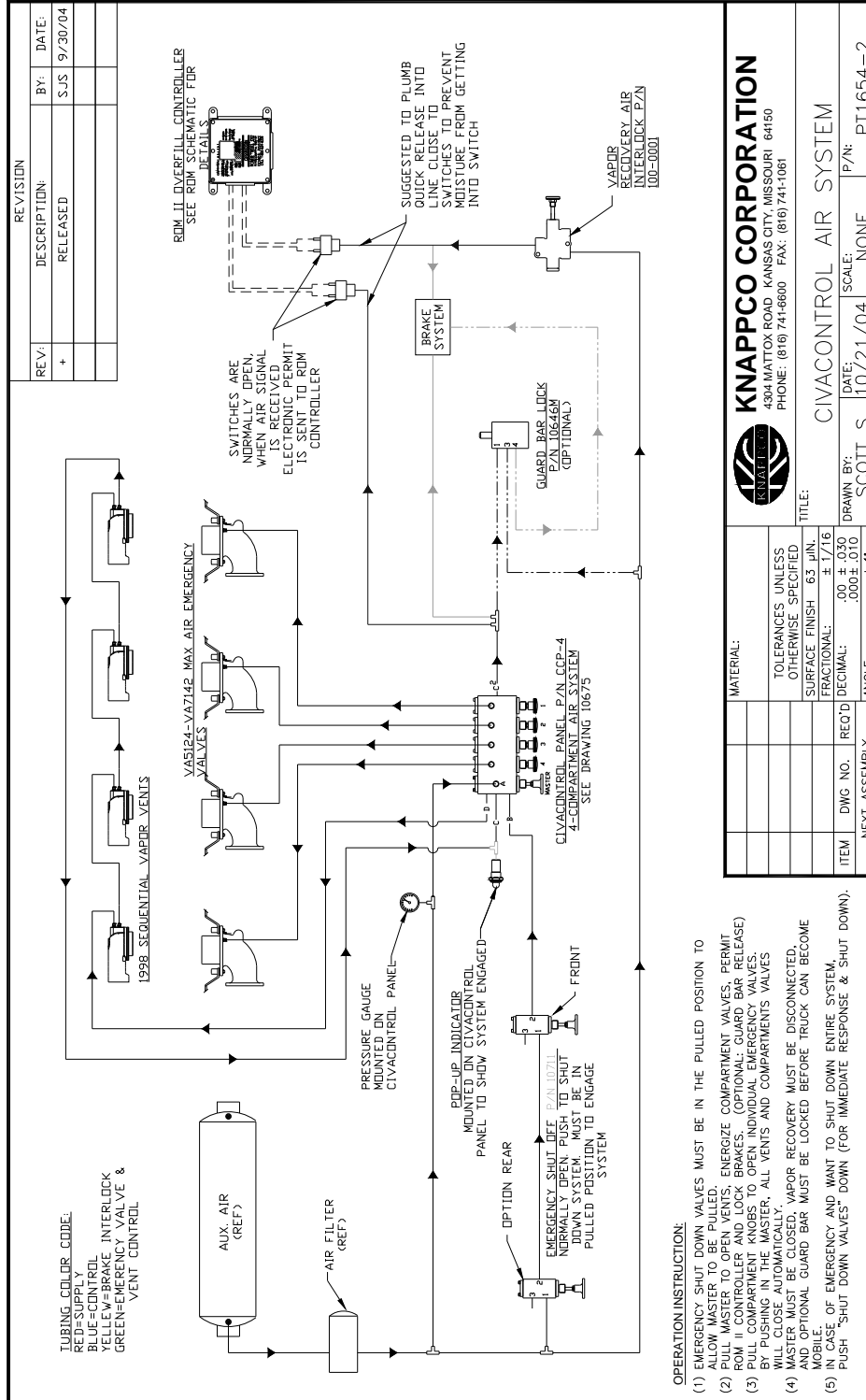
H

When the third valve on the manifold is actuated this air connection allows air to travel to the emergency (internal) loading valve in the number (3) compartment, opening this loading valve.

I

This is an exhaust port.





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CIVACONTROL AIR SYSTEM

MATERIAL:

TOLERANCES UNLESS OTHERWISE SPECIFIED	
SURFACE FINISH	63 μIN.
FRACTIONAL:	± 1/16
DECIMAL:	.00 ± .030 .000 ± .010
ANGLE:	± 1°

ITEM DWG NO. REC'D

NEXT ASSEMBLY

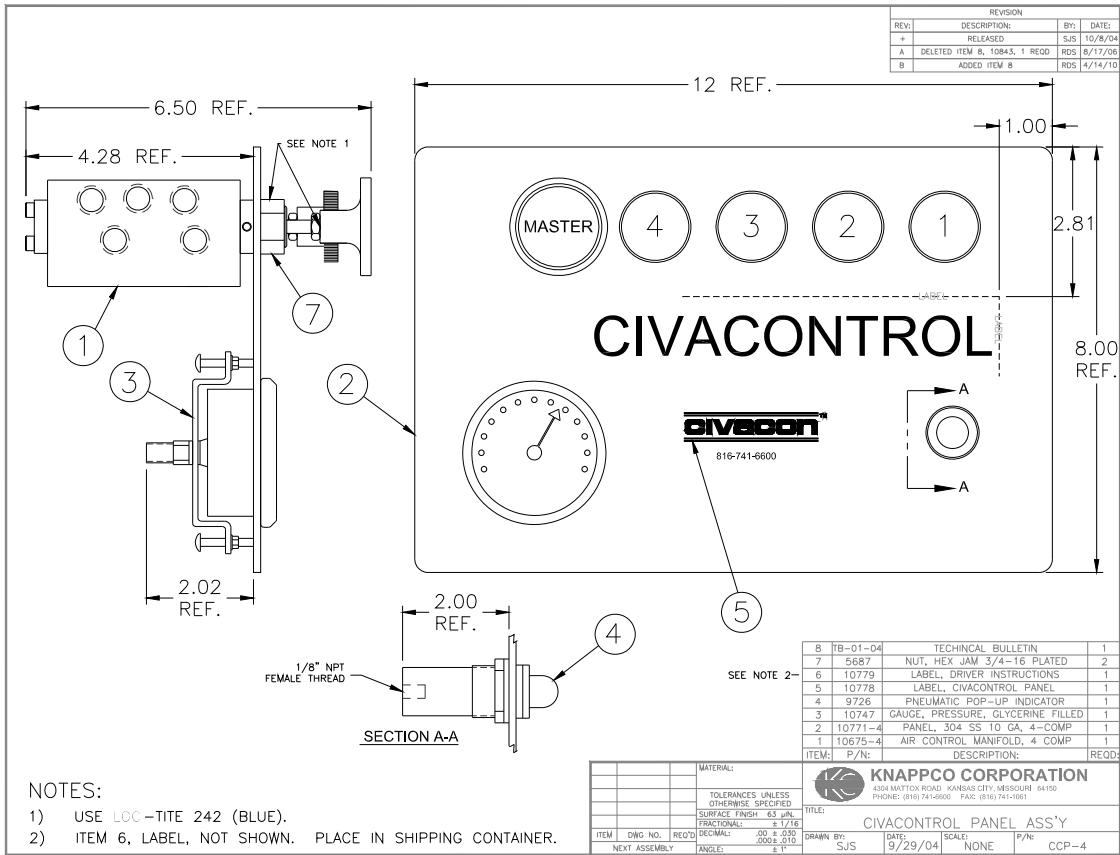
SCALE: NONE

DATE: 10/21/04

DRAWN BY: SCOTT S.

P/N: PT11654-2

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REVISION			
REV.	DESCRIPTION	BY:	DATE:
A	RELEASED	SJS	10/8/04
A	DELETED ITEM 8, 10843, 1 RECD	RDS	8/17/06
B	ADDED ITEM 8	RDS	4/14/10

ITEM	P/N:	DESCRIPTION:	RECD:
8	108-01-04	TECHNICAL BULLETIN	1
7	5687	NUT, HEX JAM 3/4-16 PLATED	2
6	10779	LABEL, DRIVER INSTRUCTIONS	1
5	10778	LABEL, CIVA CONTROL PANEL	1
4	9726	PNEUMATIC POP-UP INDICATOR	1
3	10747	GAUGE, PRESSURE, GLYCERINE FILLED	1
2	10771-4	PANEL, 304 SS 10 GA, 4-COMP	1
1	10675-4	AIR CONTROL MANIFOLD, 4 COMP	1

NOTES:

- 1) USE LOC-TITE 242 (BLUE).
- 2) ITEM 6, LABEL, NOT SHOWN. PLACE IN SHIPPING CONTAINER.

MATERIAL:			
TOLERANCES UNLESS OTHERWISE SPECIFIED			
SURFACE FINISH 63 μIN			
FRACTIONAL ±.17/32			
ITEM	DWG NO.	REC'D	DECIMAL: .00 & .030
NEXT ASSEMBLY		ANGLE:	1/4

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TITLE: CIVA CONTROL PANEL ASS'Y
DRAWN BY: SJS DATE: 9/29/04 SCALE: NONE P/N: CCP-4