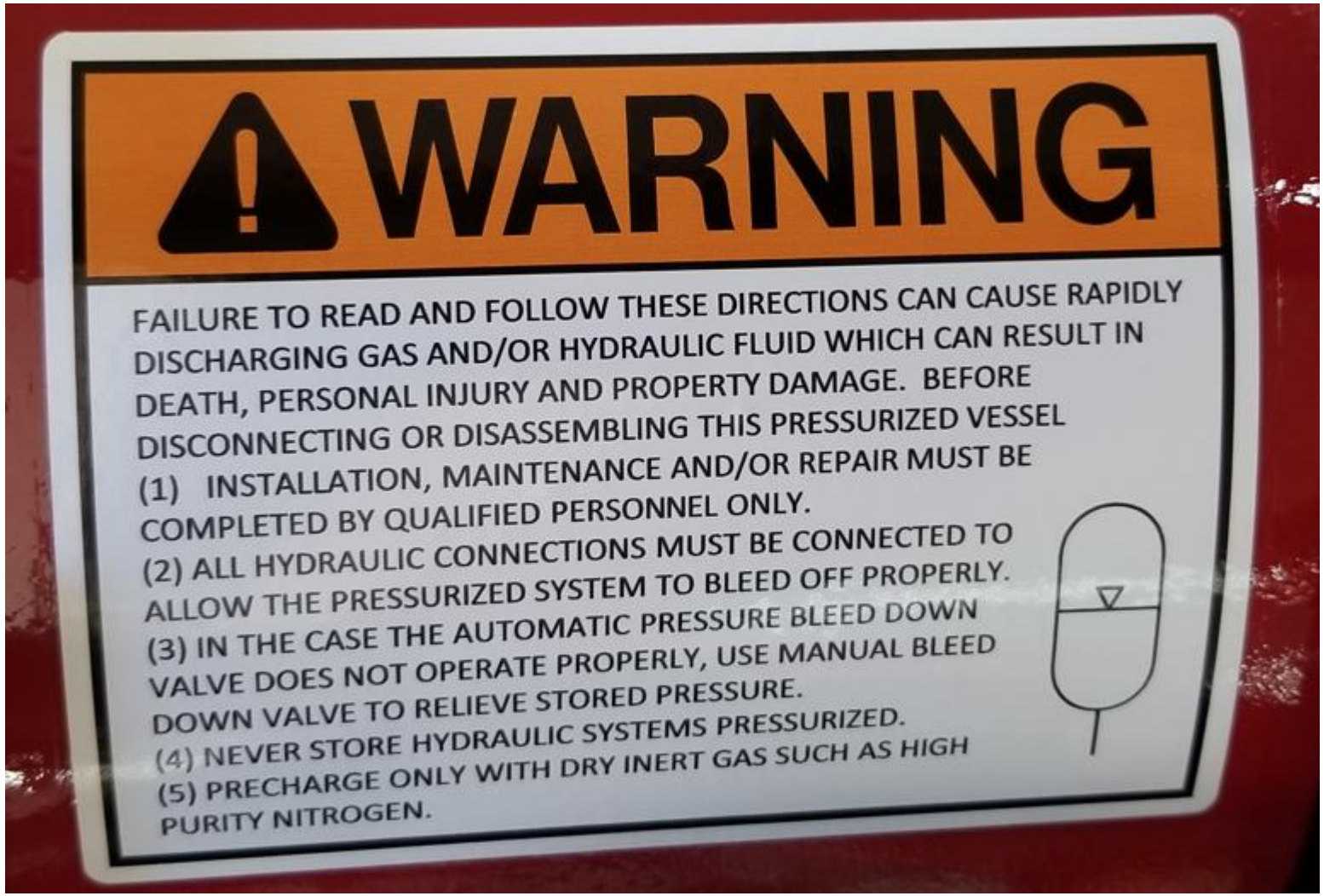
Installation Instructions For CM011-42022 Intermediate Hydraulic Control Assembly

Read All Warning Labels Prior To Installation



Description Of Product

This system is designed for installation with hydraulic systems requiring a **"Constant Hydraulic Pressure Application".**

This is an **"Intermediate Hydraulic Control Assembly"** which provides a method for multi-path flow to significantly reducing loads absorbed by the hydraulic system as well as allowing **"Interoperability"** between the power units *(Tractors)* hydraulic system and the implements *(Air Seeders, Cultivators, Discs, Harrows, Etc.)* hydraulic systems.

This **"Intermediate Hydraulic Control Assembly"** allows the individual OEM *(Original Equipment Manufacturer)* hydraulic systems to operate as originally intended without any adverse effects.

The **"Intermediate Hydraulic Control Assembly"** can be mounted on the power unit itself or on the implement without any negative repercussions.

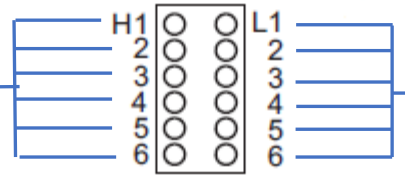
Installation of this **"Intermediate Hydraulic Control Assembly"** inversely reduces hydraulic system heating as well as a reduction of fuel consumption and emissions output of the power unit by way of reducing parasitic loads on the power unit.

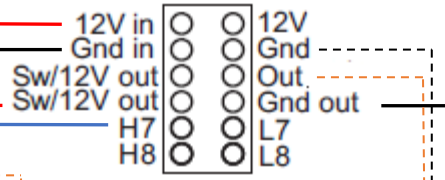
Simulated natural operation of the implement as originally designed by the OEM achieved through the installation of computerized switch gear (supplied with the **"Intermediate Hydraulic Control Assembly")**, resulting in the easing of operator requirements not having to relearn or multi-function.

Simplistic diagnostics achieved through the utilization of illuminated LED electrical connections and switch gear feedback conformation.

"Key On" Power

LCM Connections
Positive = "+" (High Inputs)
Grounds = "-" (Low Inputs)



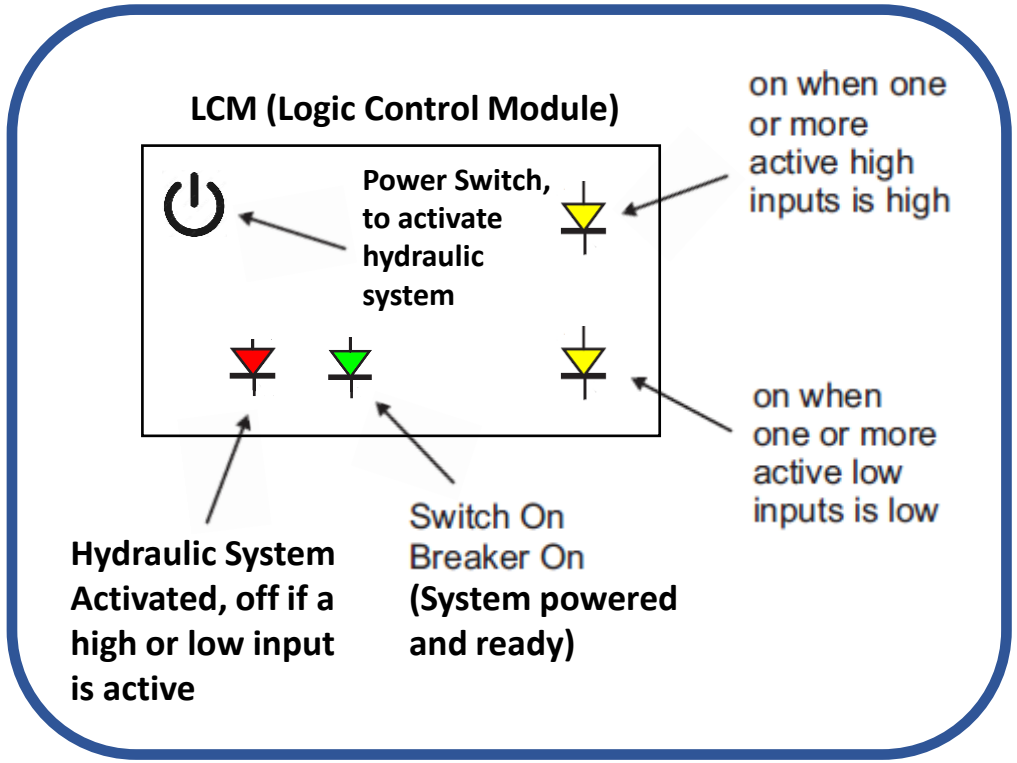


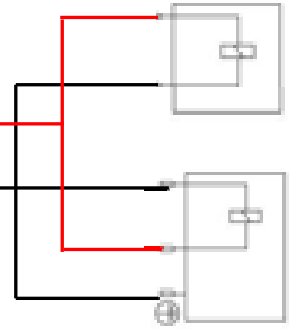
System Activation Switch

Only 1 wire to be switched (Black Wire Ground or Orange Wire Power)

GPS Controls / Tractor Valve Signals (Interrupt Signals)

Signal wire must be supplied from the raise valve of the remote supplying constant pressure in the lower position (Tee into valve solenoid wiring)





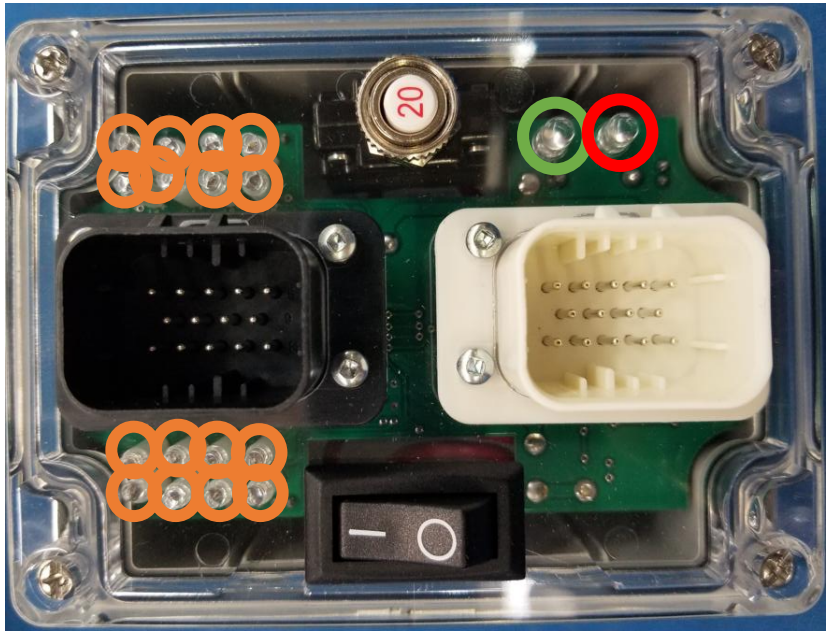
Accumulator Bleed Valve

Hydraulic Selector Valve

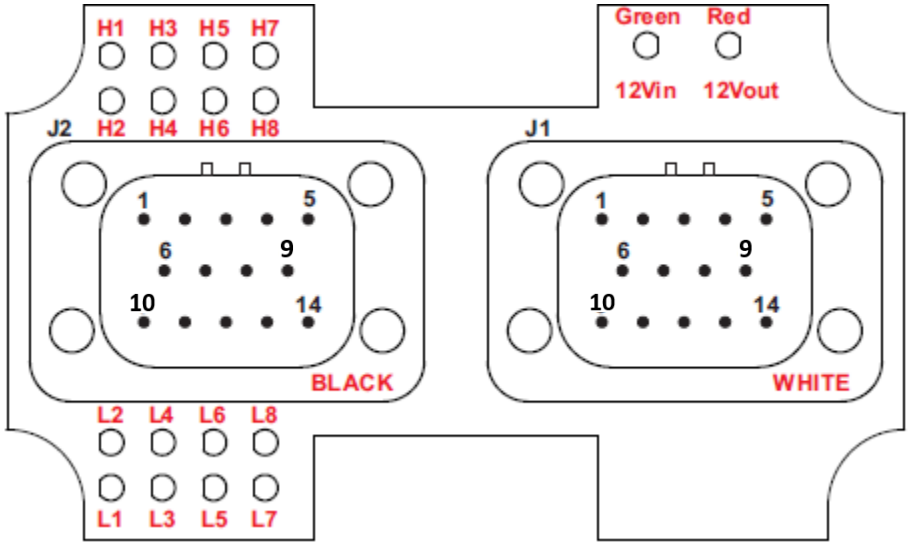
Country Mechanical Services

LOGIC CONTROL MODULE

PN# CMO11-42022-LCM



Pin		Description	Wire Color
J2 (Black)	1	H1	Blue
	2	H2	Blue
	3	H3	Blue
	4	H4	Blue
	5	H5	Blue
	6	H6	Blue
	7		
	8	L1	Blue
	9	L2	Blue
	10	L3	Blue
	11	L4	Blue
	12	L5	Blue
	13	L6	Blue
	14		



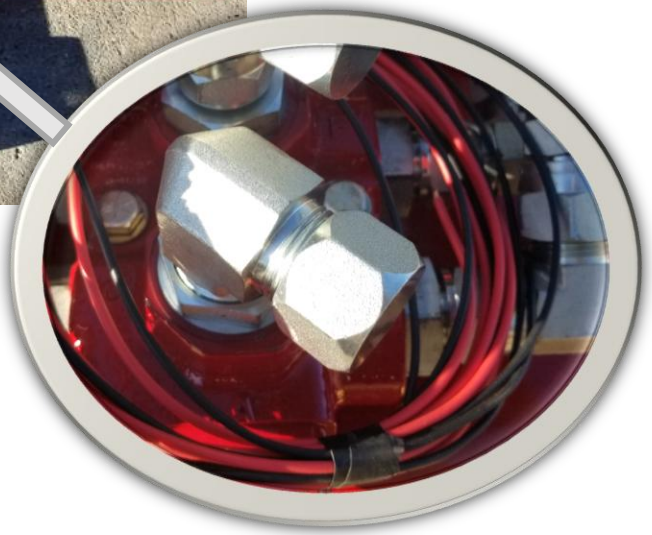
Pin		Description	Wire Color
J1 (White)	1	12V IN	Red
	2	GND IN	Black
	3	12V OUT	Red
	4	12V OUT	Red
	5	H7	Blue
	6	H8	Blue
	7		Blue
	8	12Vdc	Red
	9	GND	Black
	10	Sensor Active High	Blue
	11	Sensor Active Low	Blue
	12	GND OUT	Black
	13	L7	Blue
	14	L8	Blue

Install Hose, Tee'd In With Raise Port On Constant Pressure Remote (Return Line)

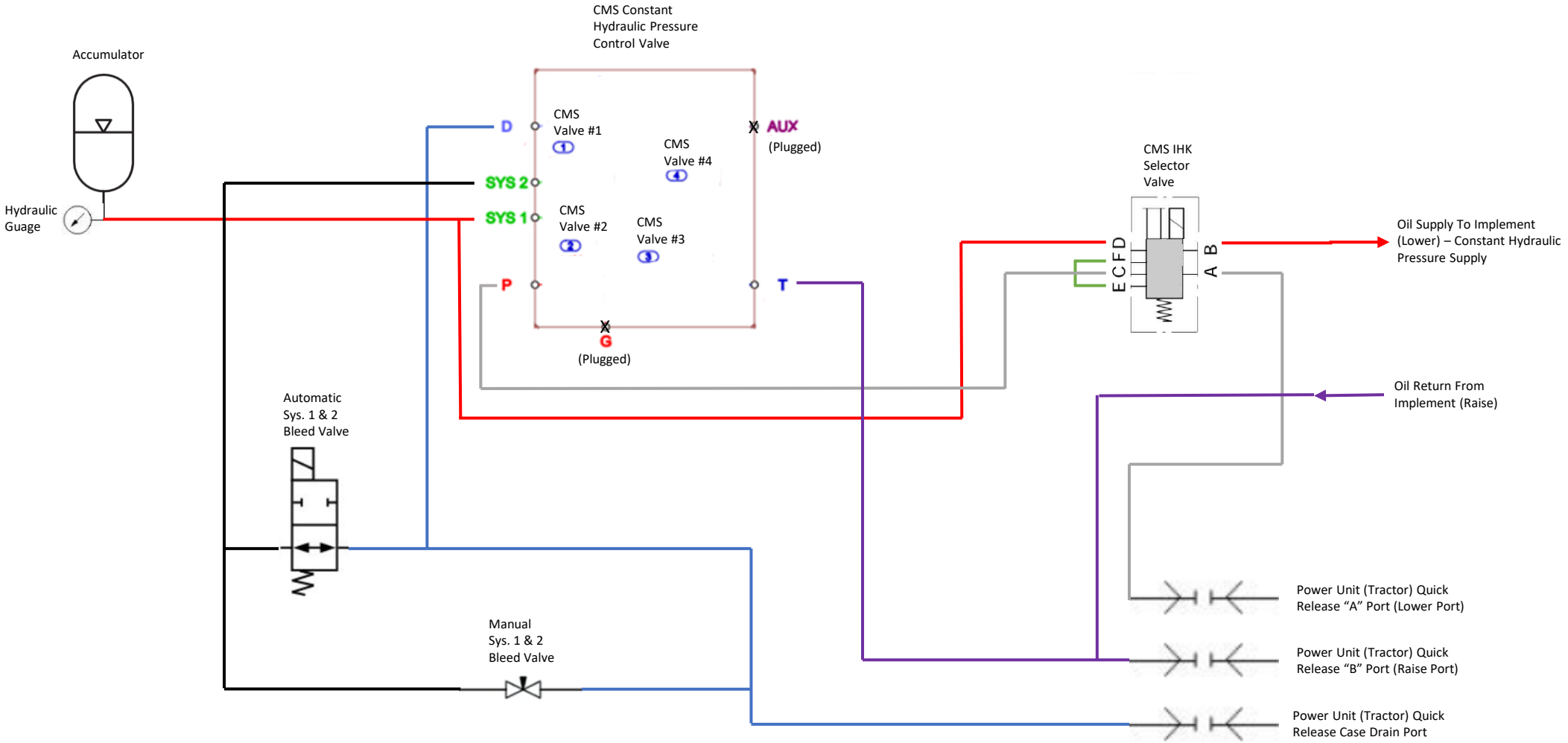
Install Hose To Implement Supply (Do Not Tee)

Install Hose, Tee'd In With Case Drain Hose – Direct Flow To Tank

Install Hose From Tractor Constant Pressure Supply (Do Not Tee)



Hydraulic Layout And Connections



Precautions / System Understanding

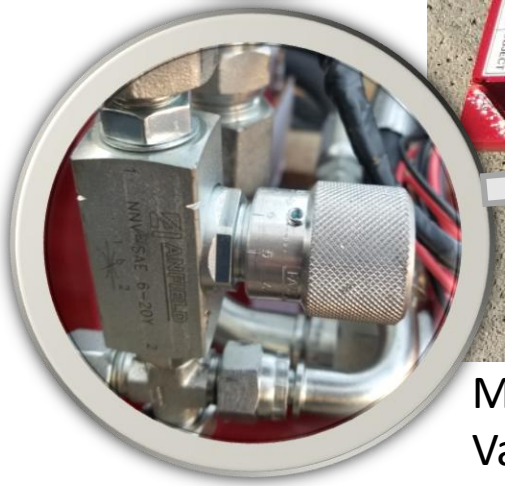
1) Make sure all connections are securely made to the power unit to ensure hydraulic pressures “DO NOT” compound, equipment damage, failure, injury or death may result.
2) Never make any connections or perform any repairs on a hydraulically pressurized system.
3) “ALWAYS” ensure hydraulic accumulator and hydraulic system are fully bled down prior to disconnecting hydraulic couplers from the power unit, failure to do so will result in stored energy / pressure in the hydraulic system which could result in equipment damage, failure, injury or death.

Hydraulic Setup And Adjustments

1) Ensure power unit is in park, parking brake is applied, wheels are chocked and articulation lock is engaged to prevent any accidental movement of the machine.
2) Start power unit, ensure hydraulic oil is at operating temperature.
3) Cycle hydraulic lever to supply constant pressure hydraulic flow to the implement.
4) Ensure **“CMS Intermediate Hydraulic System”** is active (Green & Red LED’s Illuminated) – (No amber LED’s illuminated).
5) Proceed to **“CMS Constant Pressure Hydraulic Valve”** assembly and locate the pressure gauge on the accumulator, manual bleed down valve and “CMS Valve #1” (pressure adjustment valve).
6) Slowly crack the manual bleed valve until you can hear oil hissing past the valve.
7) Watch the pressure gauge and monitor hydraulic pressure “Phase In” and “Phase Out” pressures.
8) Loosen jam nut on “CMS Valve #1” and slowly make adjustments to obtain desired hydraulic pressures (recommended pressure setting – “Phase In” pressure should be 200 – 400 psi. higher than implement required down pressure), lock jam nut (torque to 12 ft./lbs.).

9) Tighten manual bleed valve and monitor pressure on hydraulic gauge to ensure pressure stabilizes.
10) Set implement desired hydraulic pressure setting.
11) Proceed back to machine cab and turn of machine, ensure accumulator system automatically bleeds down.
12) Remove all safety items installed in step #1.

Hydraulic
Pressure Gauge



Manual Bleed
Valve

CMS Valve #1
(Pressure
Adjustment
Valve)

For Additional Information, Comments Or Concerns.

Please Contact:

Country Mechanical Services Ltd.