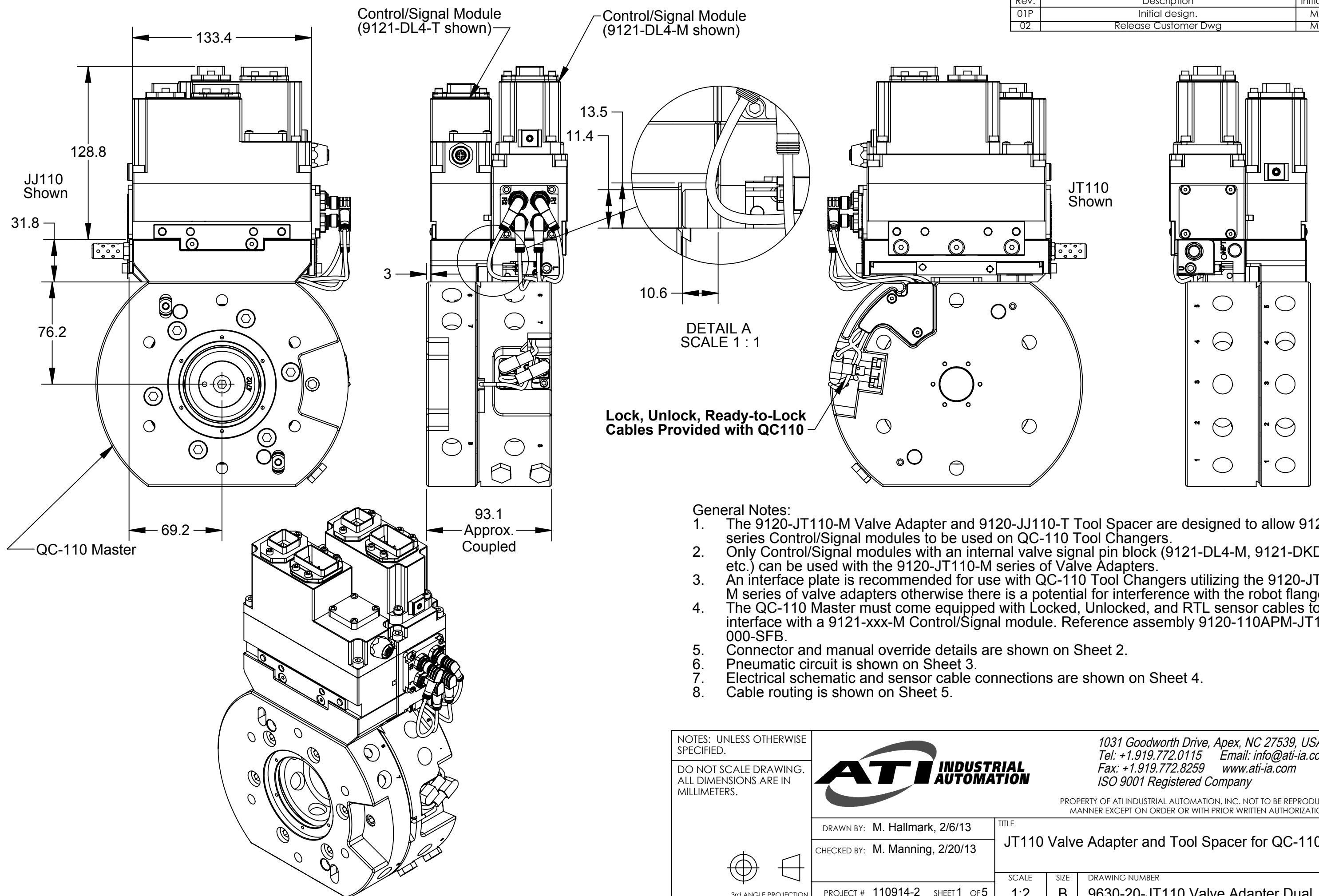


Rev.	Description	Initiator	Date
01P	Initial design.	MH	2/8/2013
02	Release Customer Dwg	MH	6/5/2013

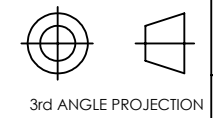


**General Notes:**

1. The 9120-JT110-M Valve Adapter and 9120-JJ110-T Tool Spacer are designed to allow 9121 series Control/Signal modules to be used on QC-110 Tool Changers.
2. Only Control/Signal modules with an internal valve signal pin block (9121-DL4-M, 9121-DKD-M, etc.) can be used with the 9120-JT110-M series of Valve Adapters.
3. An interface plate is recommended for use with QC-110 Tool Changers utilizing the 9120-JT110-M series of valve adapters otherwise there is a potential for interference with the robot flange.
4. The QC-110 Master must come equipped with Locked, Unlocked, and RTL sensor cables to interface with a 9121-xxx-M Control/Signal module. Reference assembly 9120-110APM-JT110-000-SFB.
5. Connector and manual override details are shown on Sheet 2.
6. Pneumatic circuit is shown on Sheet 3.
7. Electrical schematic and sensor cable connections are shown on Sheet 4.
8. Cable routing is shown on Sheet 5.

NOTES: UNLESS OTHERWISE SPECIFIED.

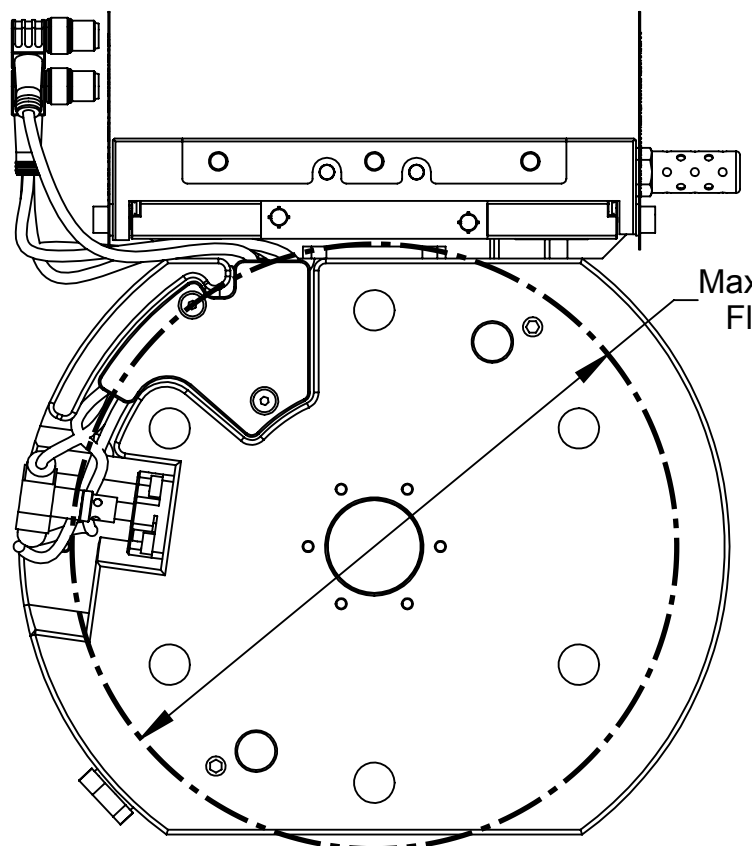
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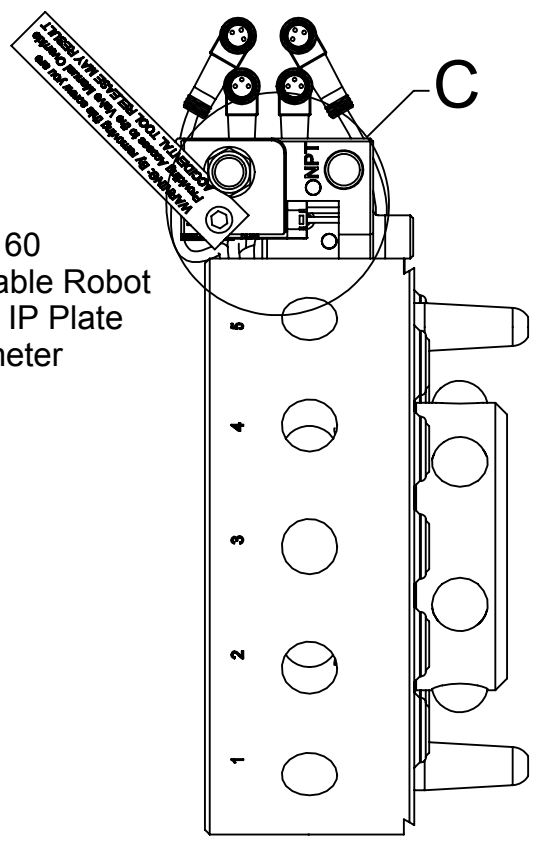
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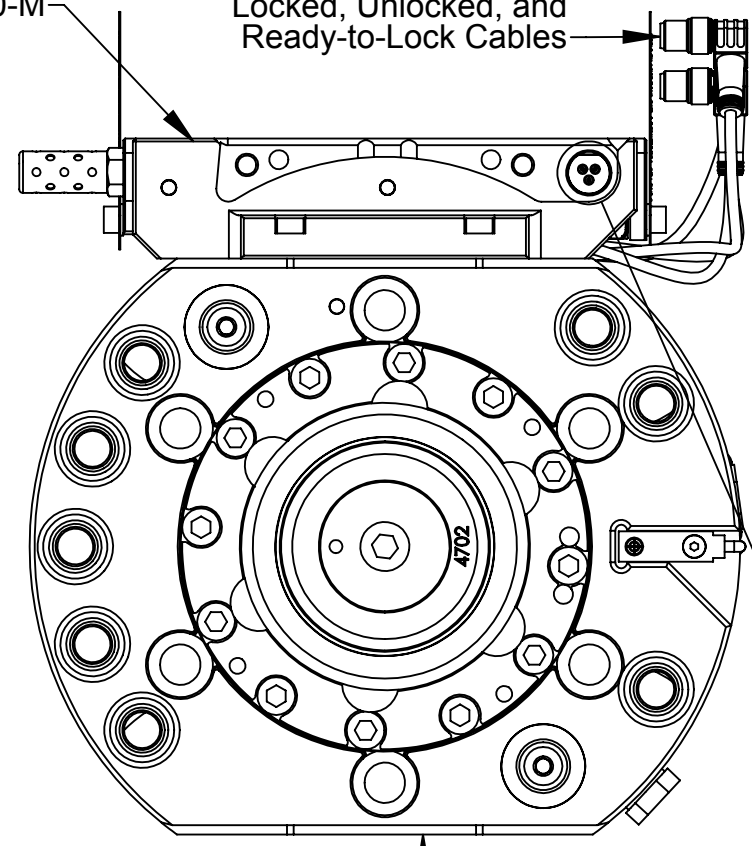
DRAWN BY: M. Hallmark, 2/6/13		TITLE	
CHECKED BY: M. Manning, 2/20/13		JT110 Valve Adapter and Tool Spacer for QC-110	
PROJECT # 110914-2	SHEET 1 OF 5	SCALE 1:2	SIZE B
DRAWING NUMBER		REVISION	
9630-20-JT110 Valve Adapter Dual		02	



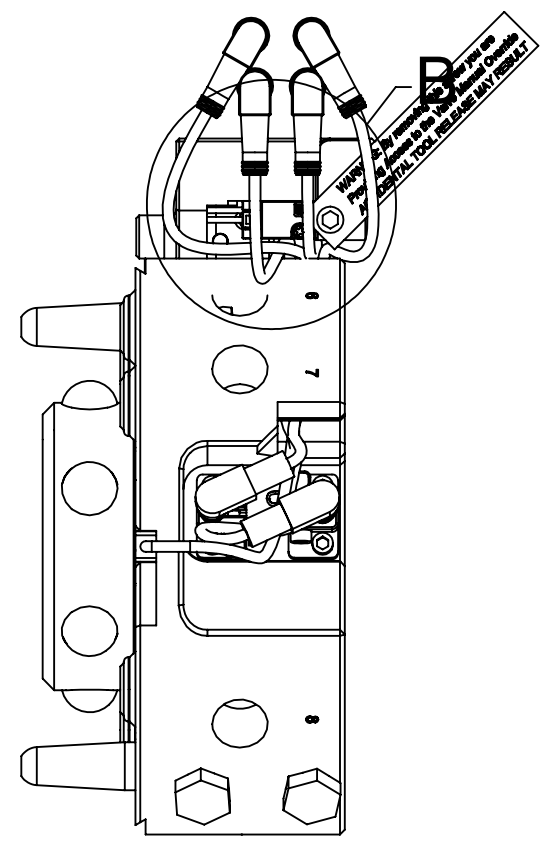
Ø 160  
Max. Allowable Robot  
Flange or IP Plate  
Diameter



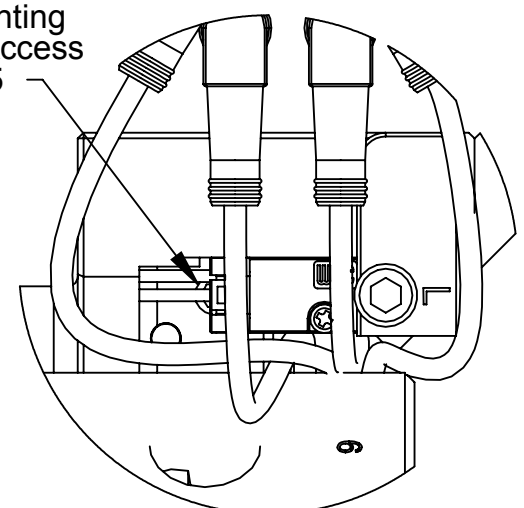
9120-JT110-M



Locked, Unlocked, and  
Ready-to-Lock Cables

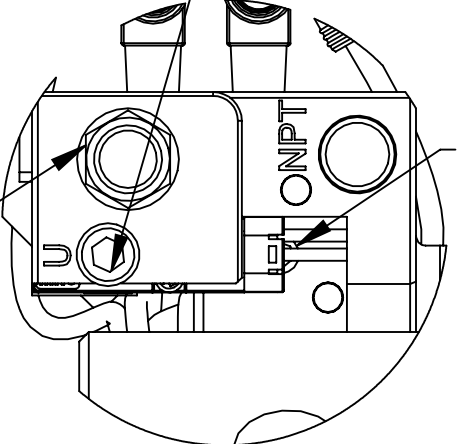


Valve Mounting  
Fastener Access  
See Note 5



DETAIL B  
SCALE 1 : 1

Manual Override Access  
(Cover Screw and Warning Label  
are Supplied)  
See Note 1

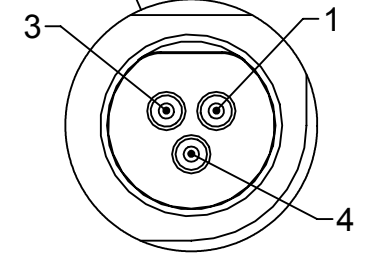


DETAIL C  
SCALE 1 : 1

1/8NPT Exhaust Muffler

Valve Mounting  
Fastener Access  
See Note 5

QC-110 Master



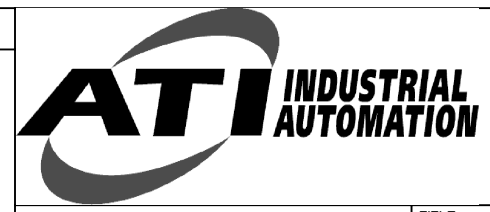
DETAIL A  
SCALE 2 : 1

Table 1: Valve Connector Signals (Note 2)

3-Pin Block	Signal	Wire
1	Unlatch (+24 VDC)	Brown
3	0 VDC	Blue
4	Latch	Black

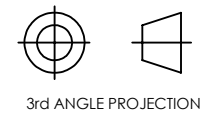
- Notes:**
- WARNING: Tool Release Will Occur with actuation of the Valve Manual Override.**  
Use of the valve manual override is restricted to contingency situations. The tool changer and associated tool should be in a stand or storage location prior to actuation of the manual override. Insert a ball-end 2mm hex key or similar blunt object in the location shown and manually depress the valve manual override. Replace the cover screw and warning label when finished.
  - Signals are sourced from the Control/Signal Module via the internal pin block. See Electrical Schematic on Sheet 4 for details.
  - The valve mounting access holes are to be used only in a valve replacement situation. A 3mm hex key is to be used to loosen the cone point set screws that retain the valve. Care should be taken to avoid striking the internal valve disconnect during the valve removal process.

NOTES: UNLESS OTHERWISE SPECIFIED  
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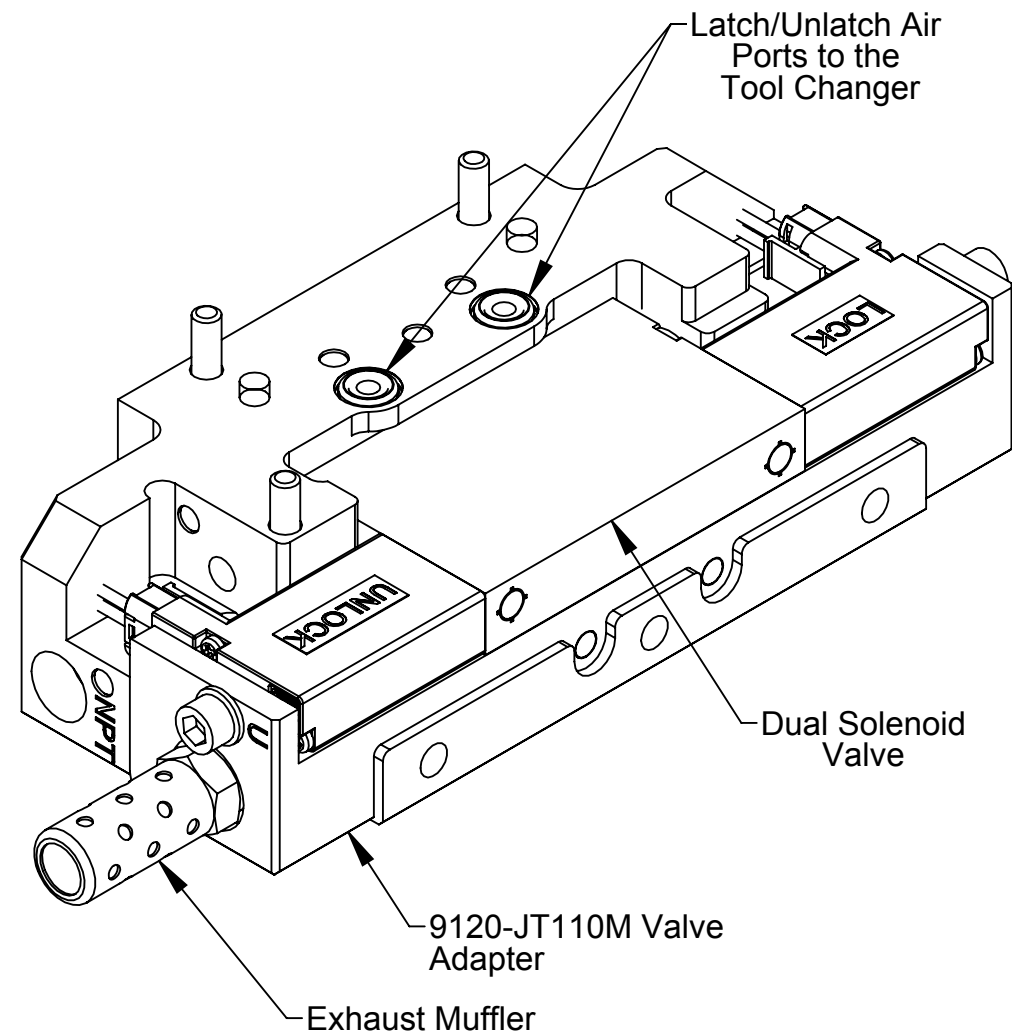
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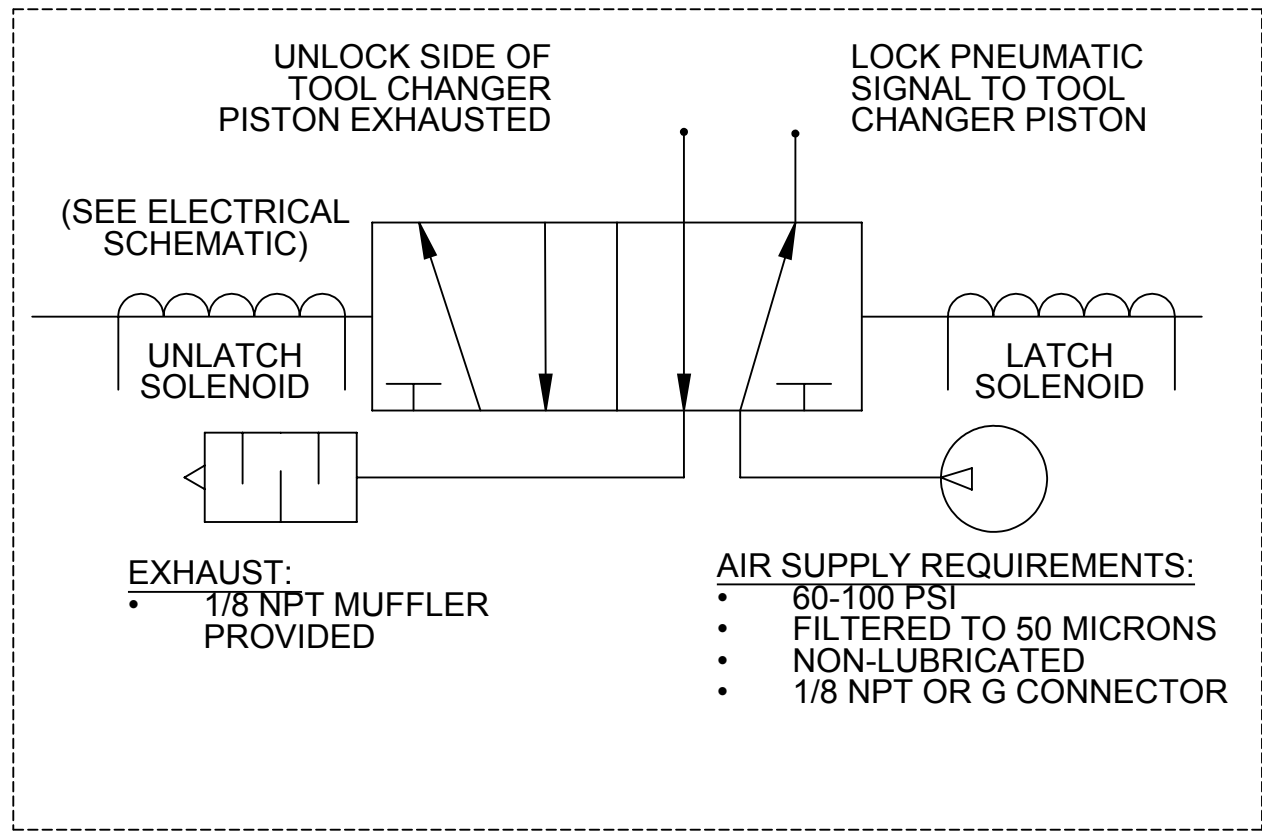


DRAWN BY: M. Hallmark, 2/6/13	TITLE JT110 Valve Adapter and Tool Spacer for QC-110		
CHECKED BY: M. Manning, 2/20/13	SCALE 1:3	SIZE B	DRAWING NUMBER 9630-20-JT110 Valve Adapter Dual
WEIGHT LBS: 20.51	ASSEMBLY REF:	PRODUCT RELEASE # 110914-2	DATE: SHEET 2 OF 5
		REVISION 02	

Rev.	Description	Initiator	Date
-	See Sheet1	-	-

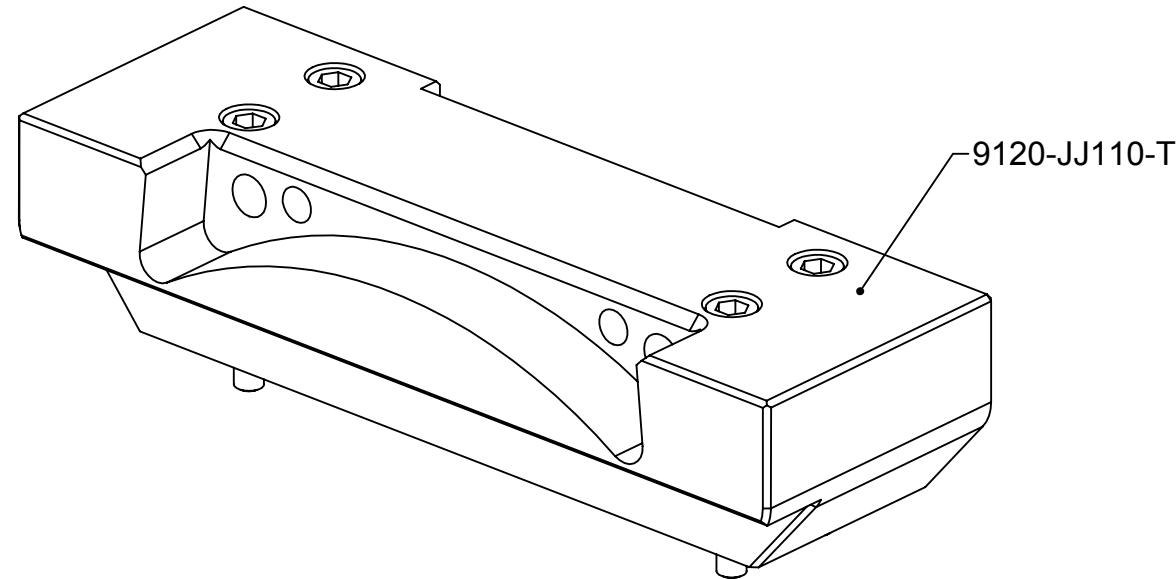


### PNEUMATIC CIRCUIT



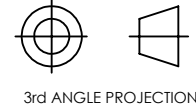
**Pneumatic Circuit Notes:**

1. Dual solenoid valve type shown. The valve is shown in the Latched State, solenoid de-energized. Dual solenoid position is determined by the solenoid energized and the previous state upon loss of power.
2. The valve will NOT operate correctly if insufficient air pressure is supplied.
3. It is critical that the exhaust muffler is not restricted. As part of a preventative maintenance program, periodically inspect and/or replace the exhaust muffler.



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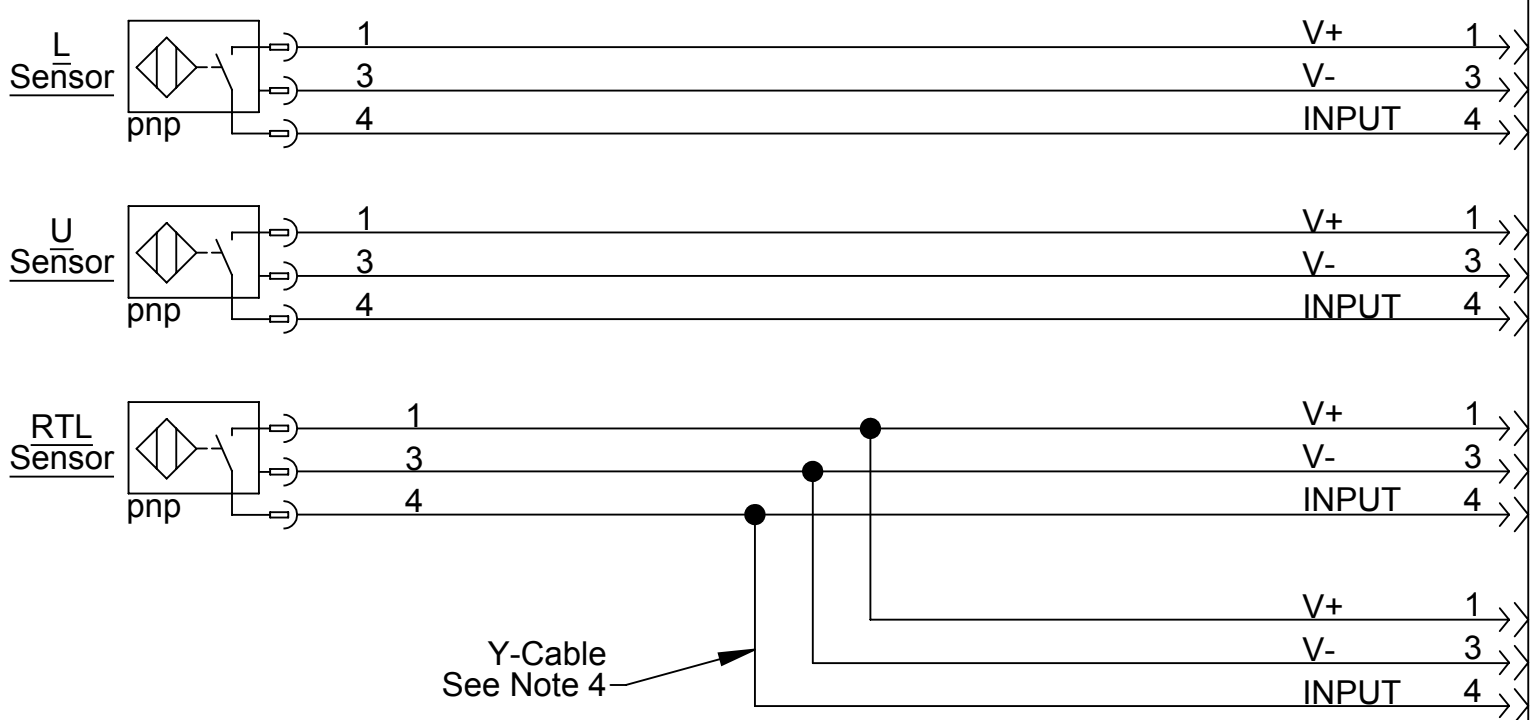
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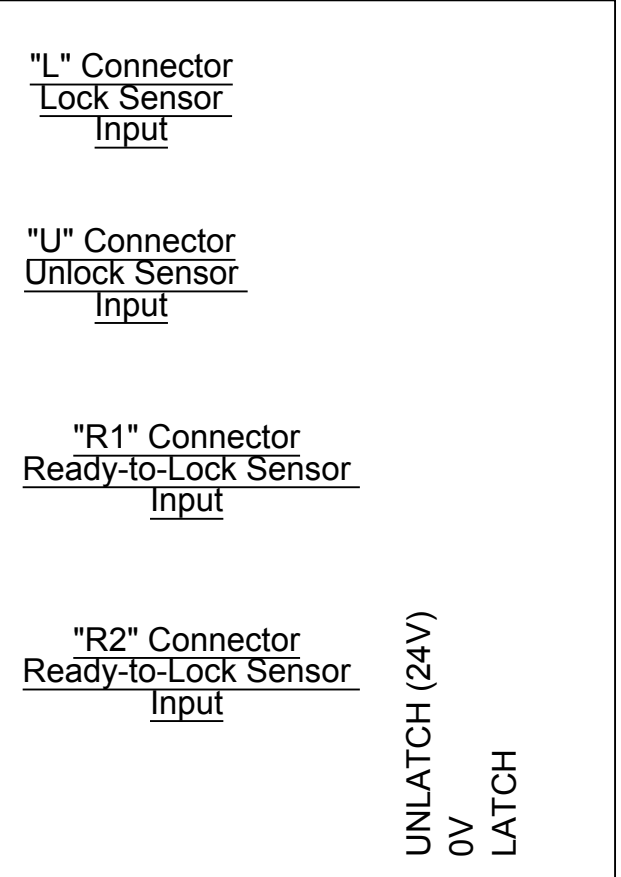
DRAWN BY: M. Hallmark, 2/6/13		TITLE	
CHECKED BY: M. Manning, 2/20/13		JT110 Valve Adapter and Tool Spacer for QC-110	
PROJECT # 110914-2	SHEET 3 OF 5	SCALE 1:1	SIZE B
DRAWING NUMBER		REVISION	
9630-20-JT110 Valve Adapter Dual		02	

Rev.	Description	Initiator	Date
-	See Sheet1	-	-

**QC-110 Locked, Unlocked, and Ready-to-Lock Sensors**



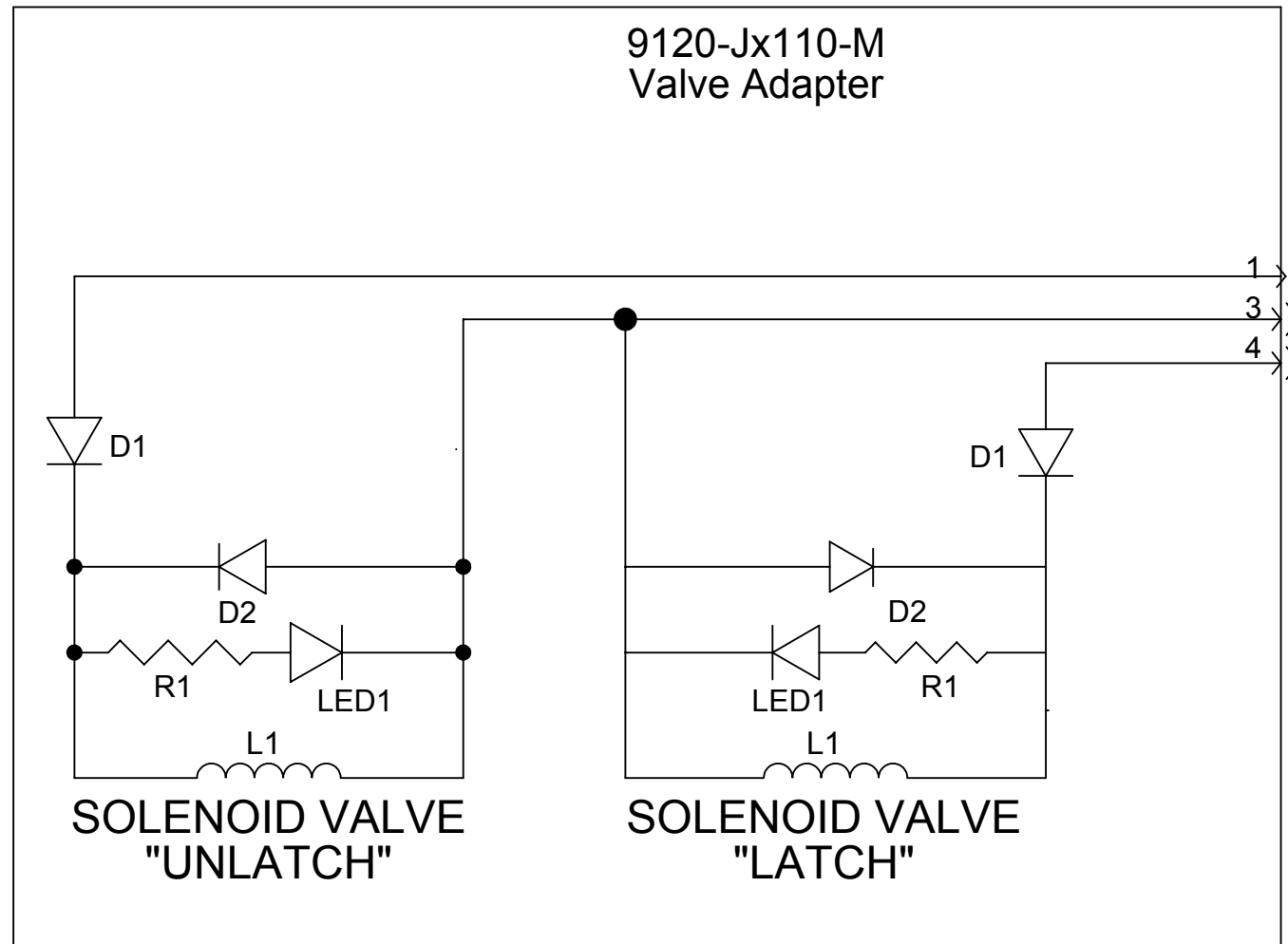
**9121-xxx-M Control/Signal Module**



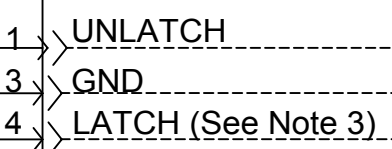
**Electrical Schematic Notes:**

1. The complete tool changer package comes equipped with external cables that are connected to the sensors.
2. An 3-Pin internal pin block is used to transmit the Latch/Unlatch signal from the Control/Signal Module to the Valve Adapter.
3. The 9120-JT110-M Valve adapter is a Dual solenoid version.
4. Only one RTL sensor is available in the QC-110. Therefore, the one RTL sensor output is connected in parallel to the two RTL inputs of the 9121-XXX-M Control/Signal module via a Y-cable, as shown in the schematic.
5. The valve requires supply voltage between 19-29V.

**9120-Jx110-M Valve Adapter**



UNLATCH



**VALVE CONNECTION**  
3-Pin Block (See Note 2)

NOTES: UNLESS OTHERWISE SPECIFIED.  
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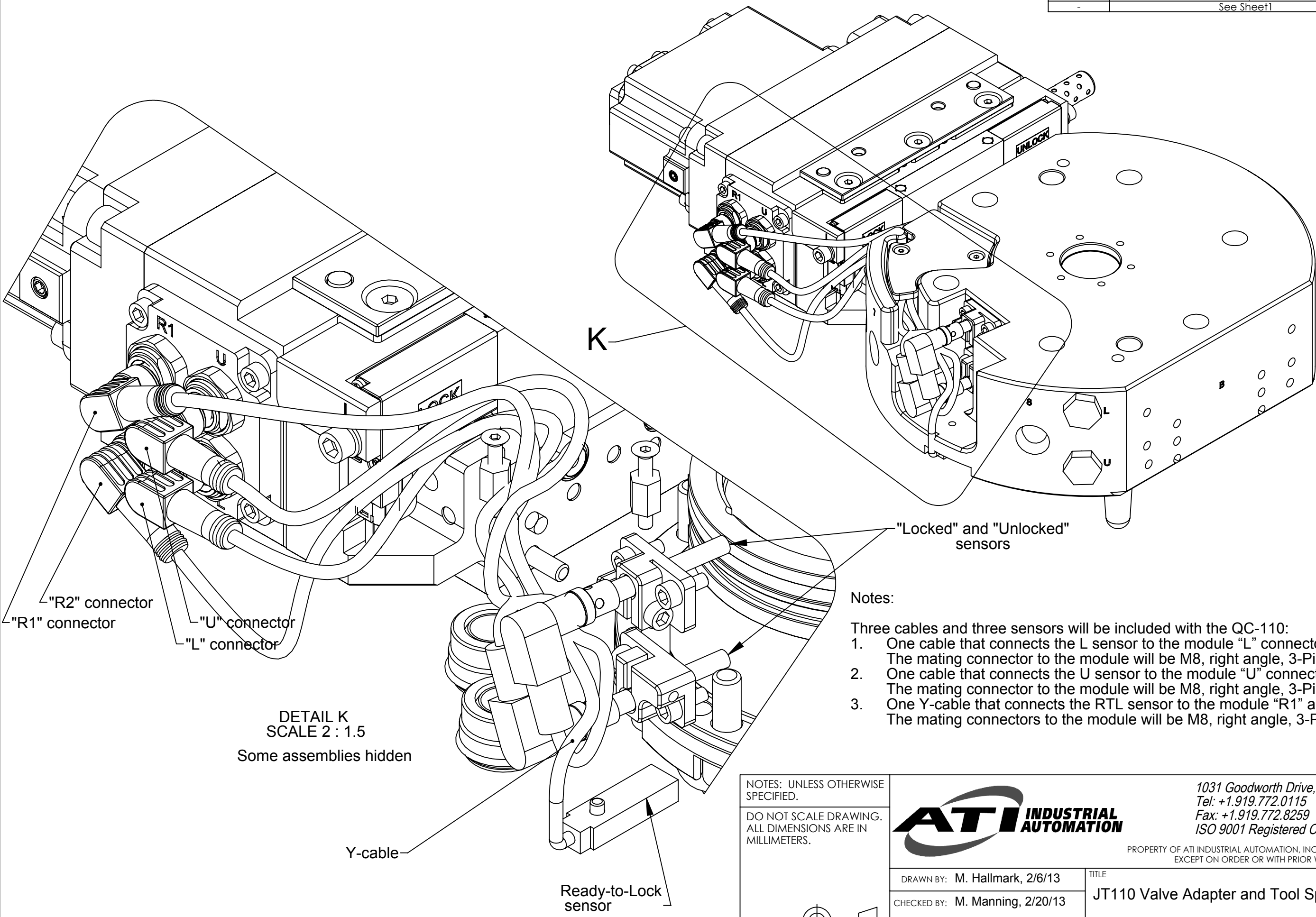


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PROJECT # 110914-2	SHEET 4 OF 5	SCALE 1:1	REVISION 02
DRAWING NUMBER		SIZE B	REVISION
9630-20-JT110 Valve Adapter Dual			

Rev.	Description	Initiator	Date
-	See Sheet1	-	-



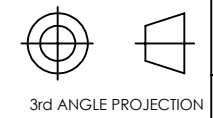
DETAIL K  
SCALE 2 : 1.5  
Some assemblies hidden

Notes:

- Three cables and three sensors will be included with the QC-110:
1. One cable that connects the L sensor to the module "L" connector. The mating connector to the module will be M8, right angle, 3-Pin Male, with LED indicators.
  2. One cable that connects the U sensor to the module "U" connector. The mating connector to the module will be M8, right angle, 3-Pin Male, with LED indicators.
  3. One Y-cable that connects the RTL sensor to the module "R1" and "R2" connectors. The mating connectors to the module will be M8, right angle, 3-Pin Male, with LED indicators.

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CHECKED BY: M. Manning, 2/20/13		JT110 Valve Adapter and Tool Spacer for QC-110	
PROJECT # 110914-2	SHEET 5 OF 5	SCALE 1:1	SIZE B
DRAWING NUMBER 9630-20-JT110 Valve Adapter Dual		REVISION 02	