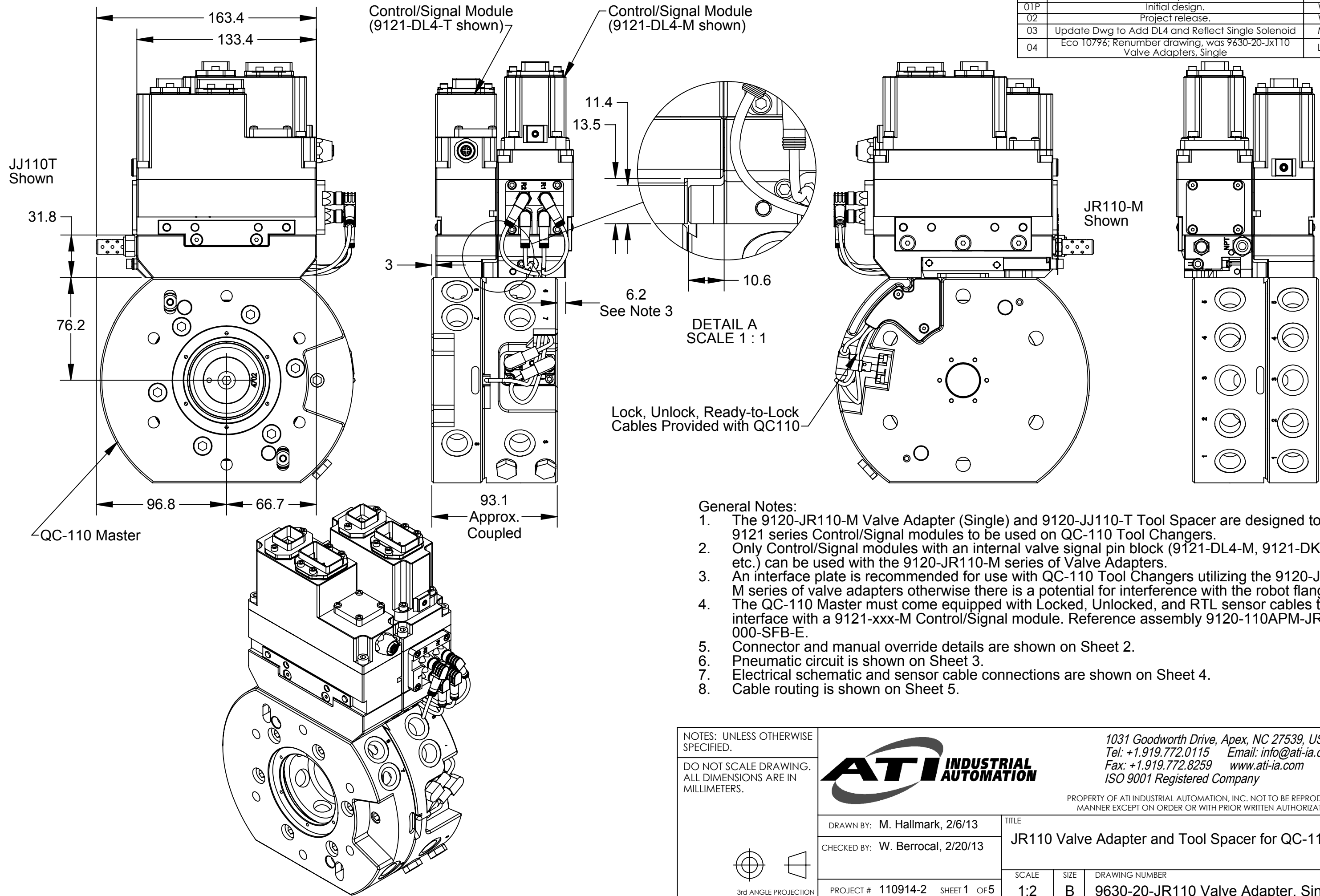


Rev.	Description	Initiator	Date
01P	Initial design.	WB	12/27/2011
02	Project release.	WB	5/15/2012
03	Update Dwg to Add DL4 and Reflect Single Solenoid	MH	2/6/2013
04	Eco 10796; Renumber drawing, was 9630-20-Jx110 Valve Adapters, Single	LJH	3/15/2013



General Notes:

1. The 9120-JR110-M Valve Adapter (Single) 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-JR110-M series of Valve Adapters.
3. An interface plate is recommended for use with QC-110 Tool Changers utilizing the 9120-JR110-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-JR110-000-SFB-E.
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.

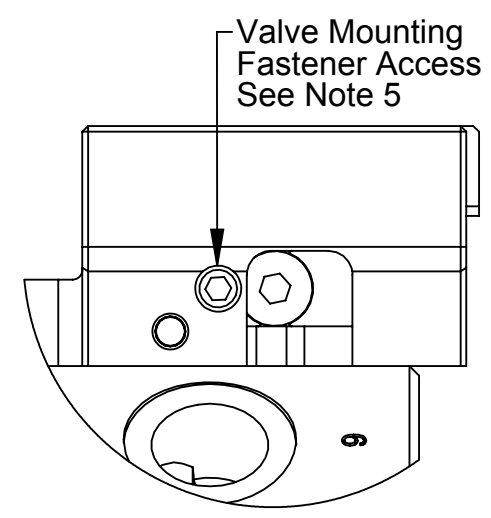
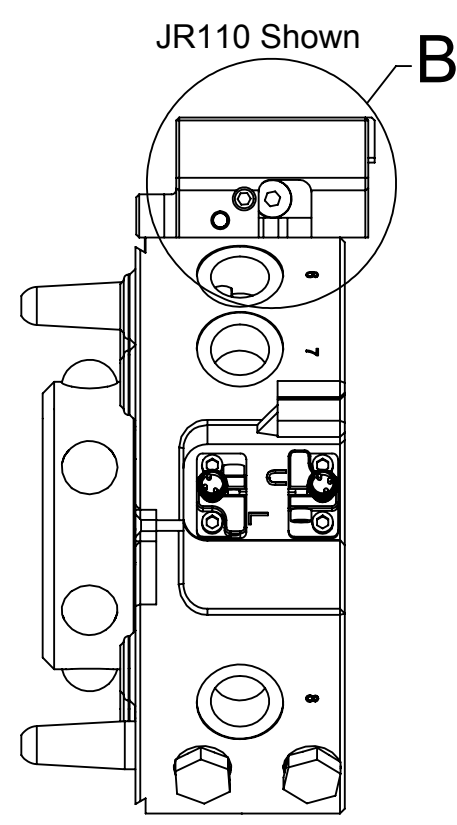
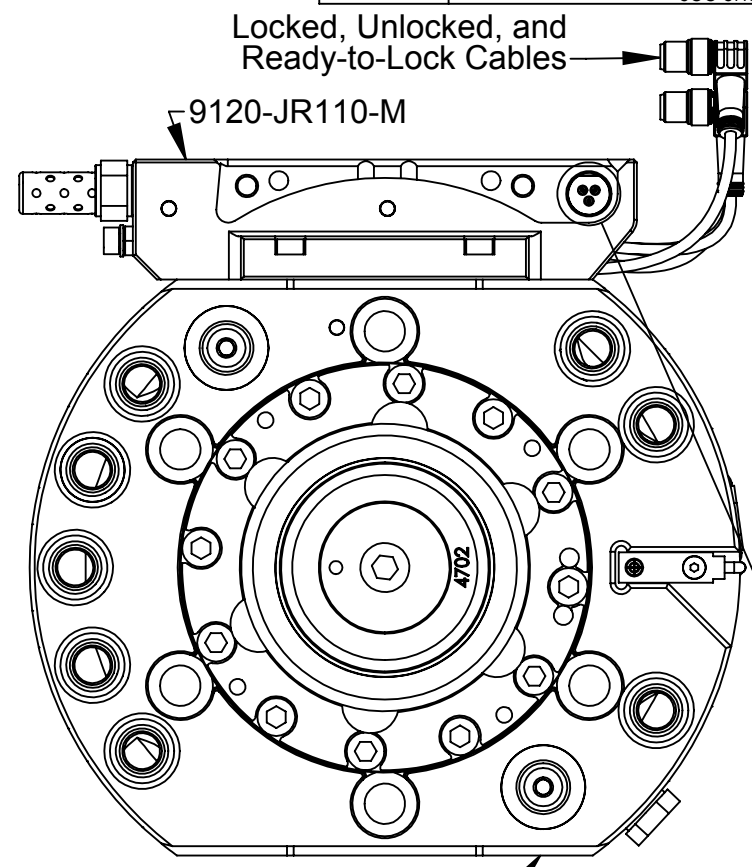
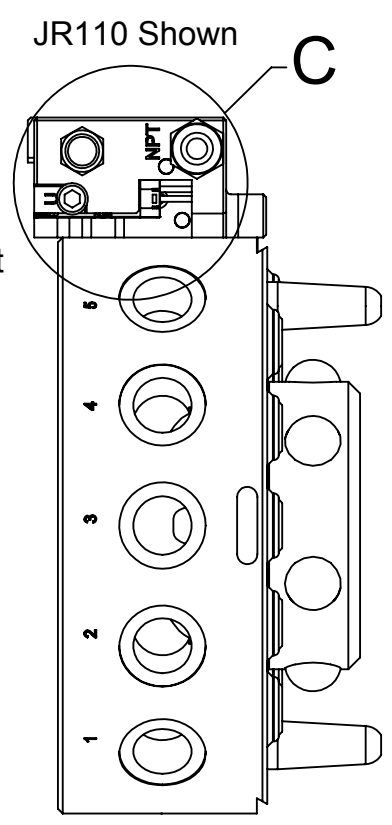
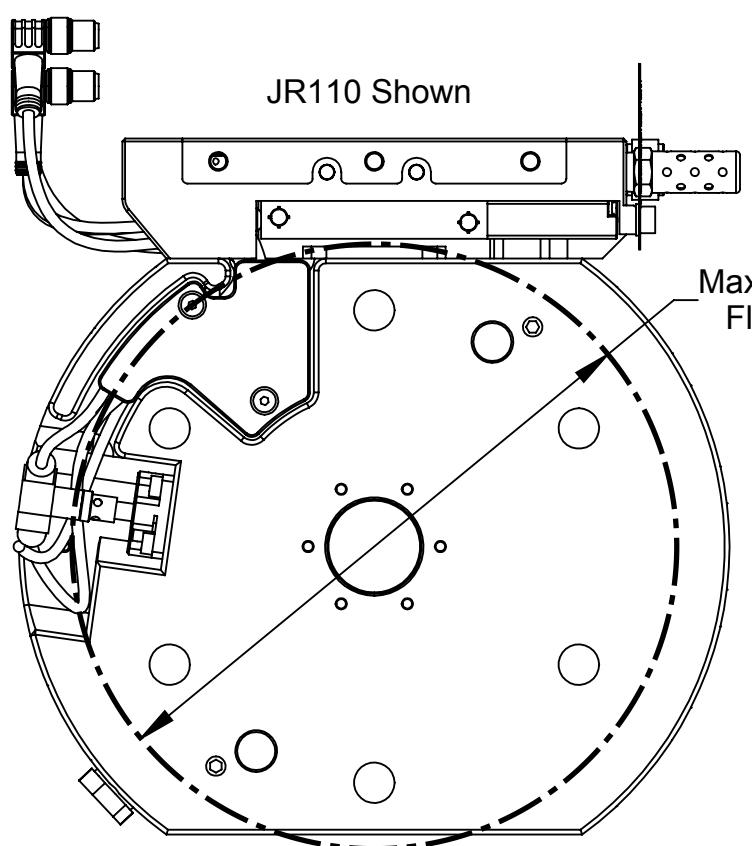
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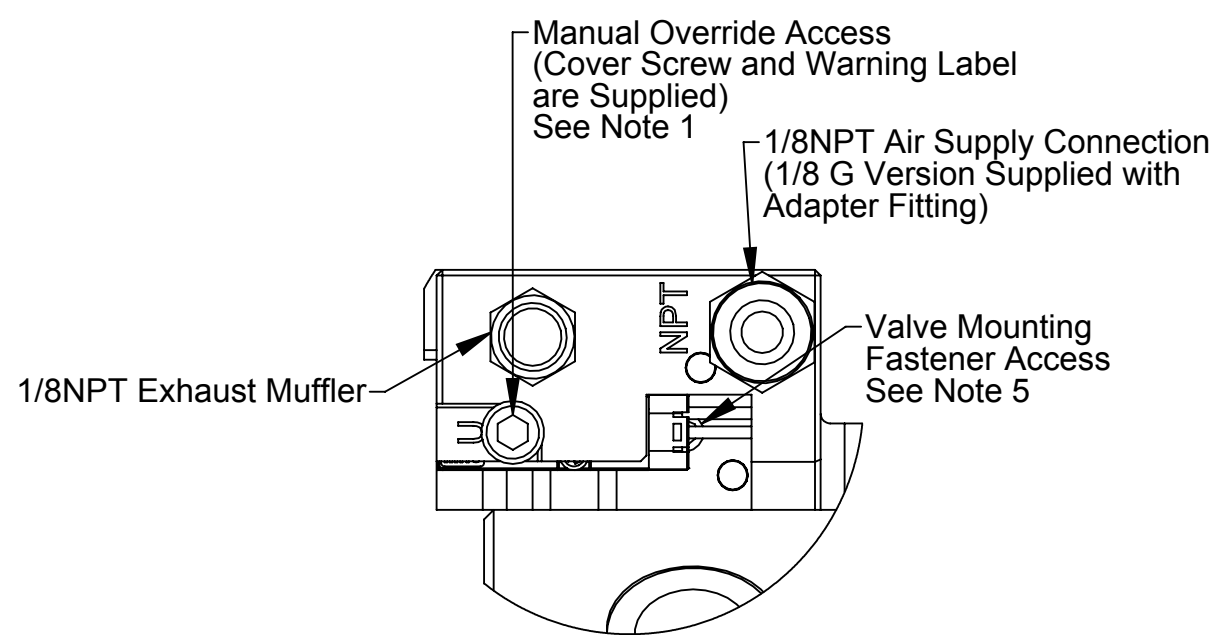
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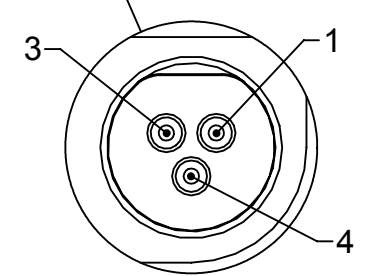
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CHECKED BY: W. Berrocal, 2/20/13		JR110 Valve Adapter and Tool Spacer for QC-110	
PROJECT # 110914-2	SHEET 1 OF 5	SCALE 1:2	SIZE B
DRAWING NUMBER 9630-20-JR110 Valve Adapter, Single		REVISION 04	



DETAIL B
SCALE 1 : 1



DETAIL C
SCALE 1 : 1



DETAIL A
SCALE 2 : 1

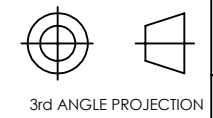
Table 1: Valve Connector Signals (Note 2)

3-Pin Block	Signal	Wire
1	Unlatch (+24 VDC)	Brown
3	0 VDC	Blue
4	N/C	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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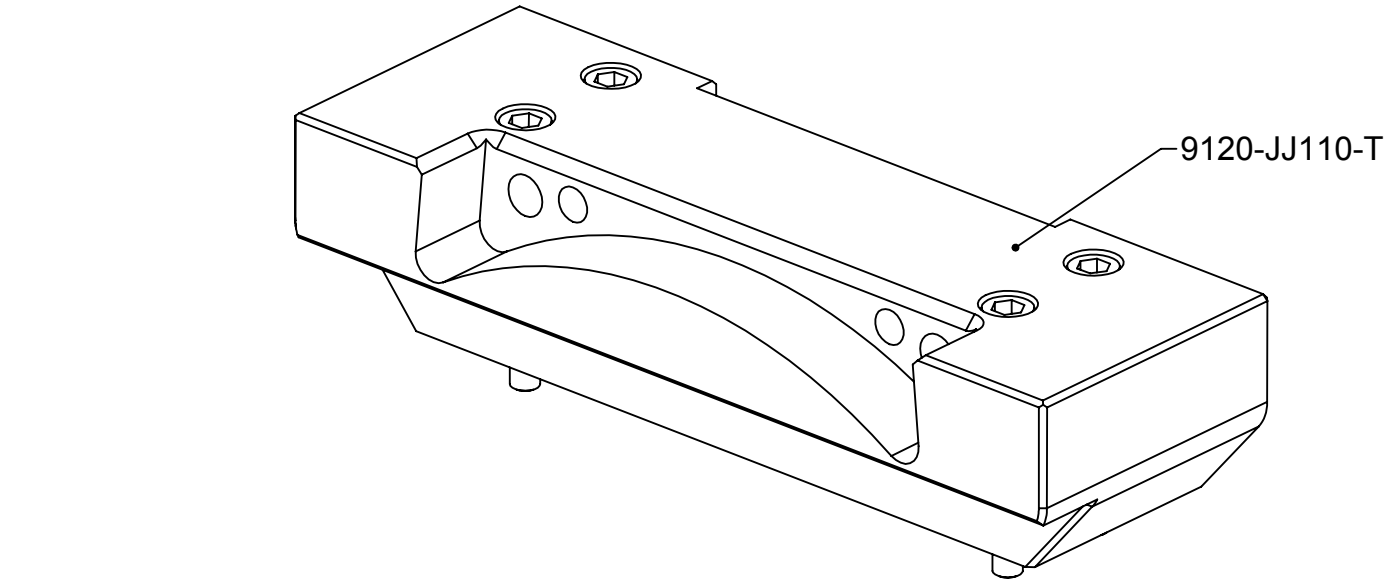
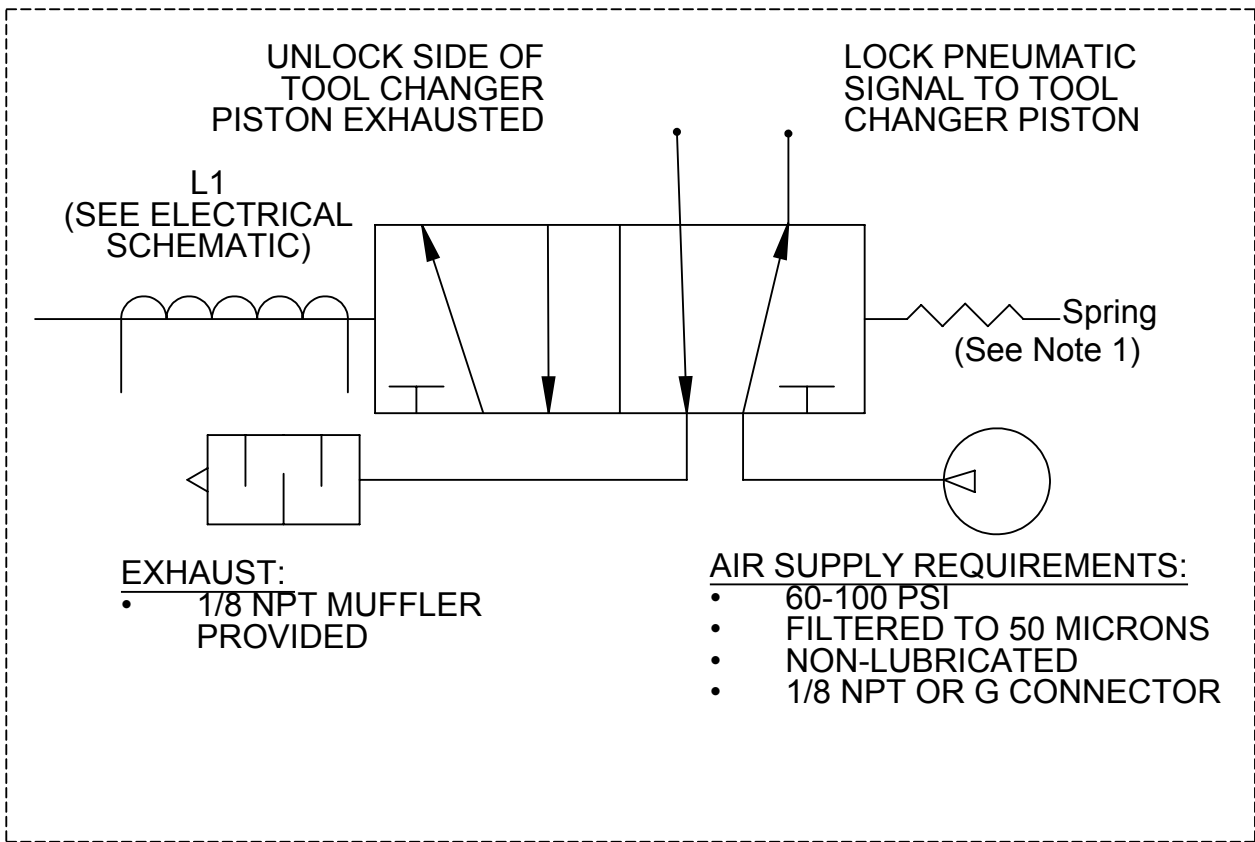
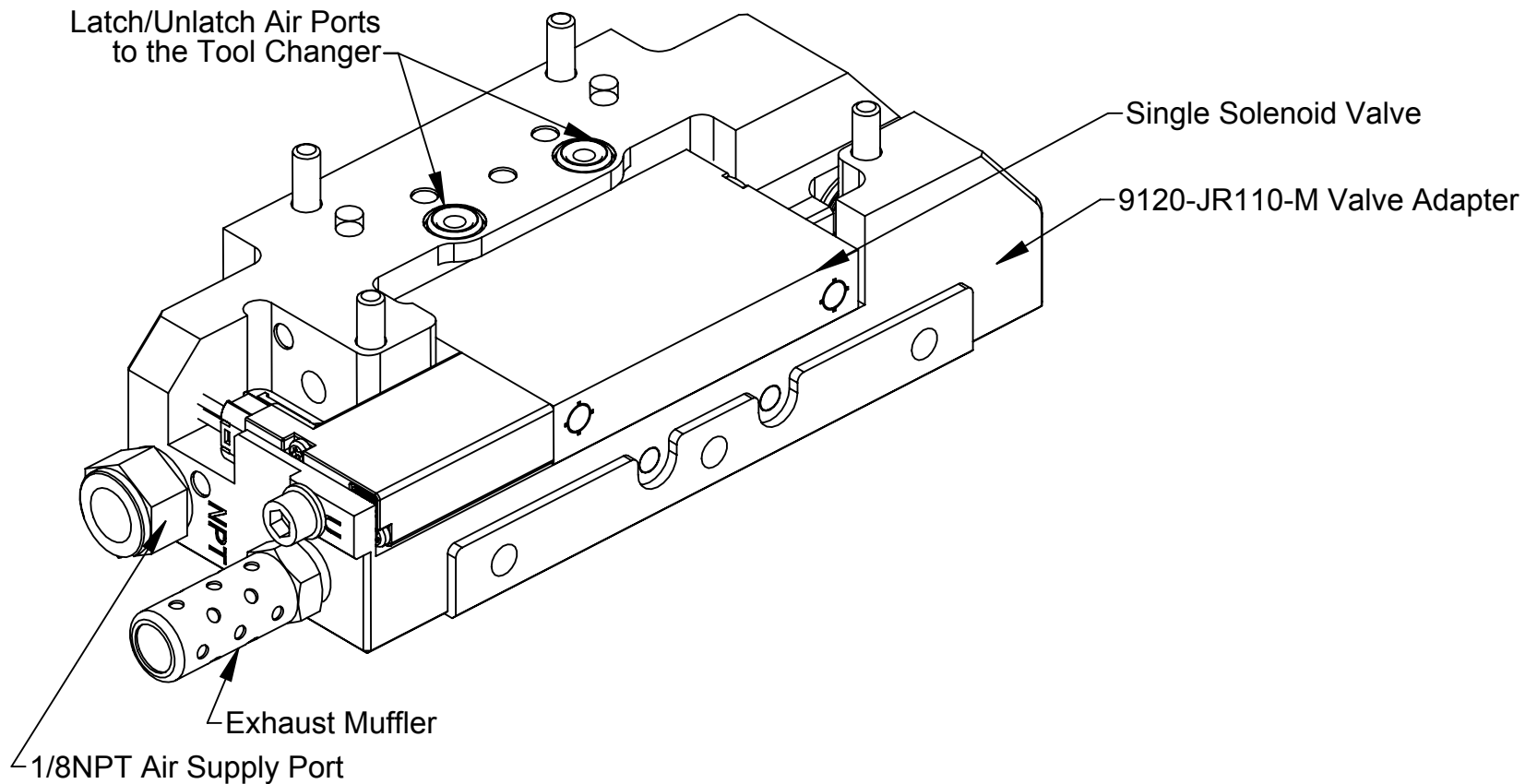
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PROJECT # 110914-2	SHEET 2 OF 5	SCALE 1:3	SIZE B
DRAWING NUMBER		REVISION	
9630-20-JR110 Valve Adapter, Single		04	

Rev.	Description	Initiator	Date
-	See Sheet1	-	-

PNEUMATIC CIRCUIT

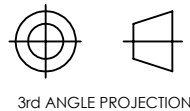


Pneumatic Circuit Notes:

1. Single solenoid valve shown. The valve is shown in the Latched State, solenoid de-energized, and spring returned for single solenoid.
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.

NOTES: UNLESS OTHERWISE SPECIFIED.

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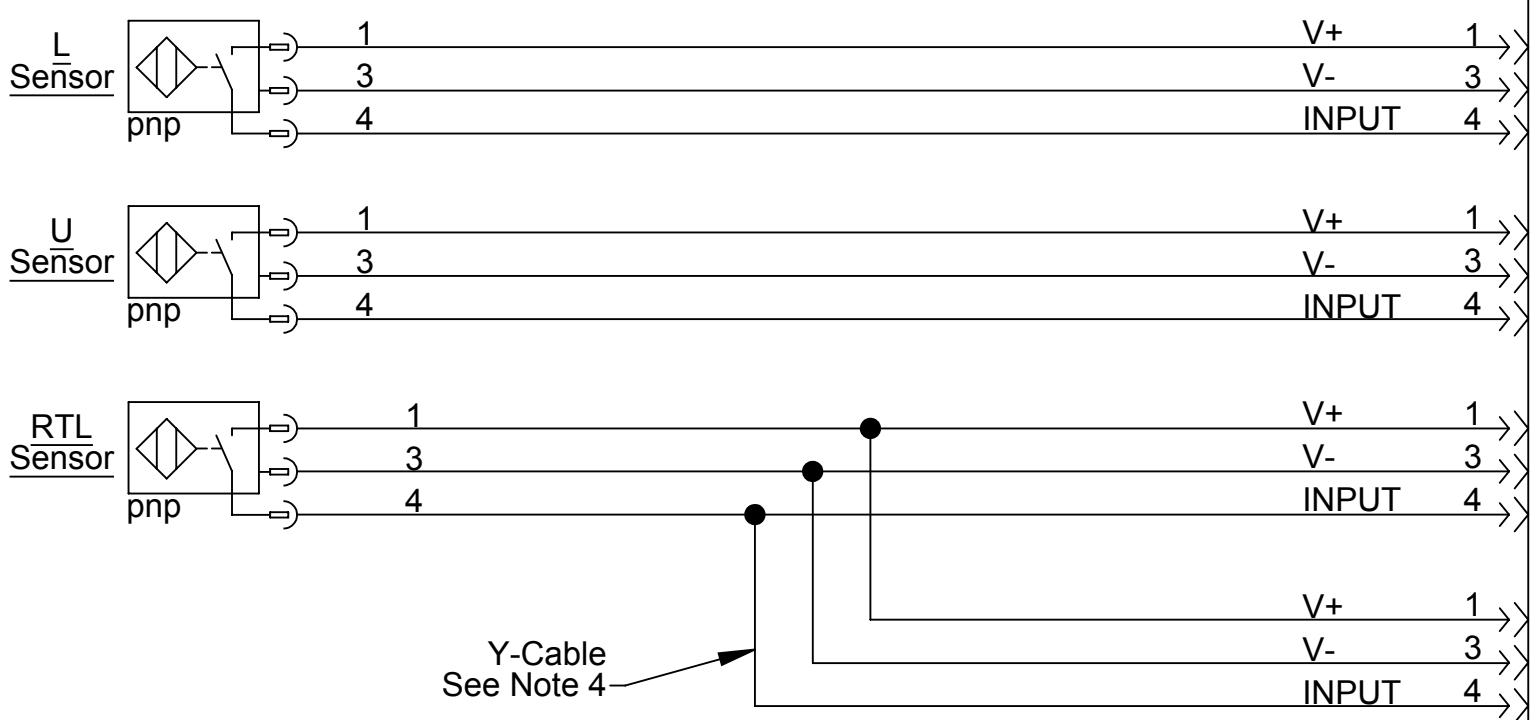
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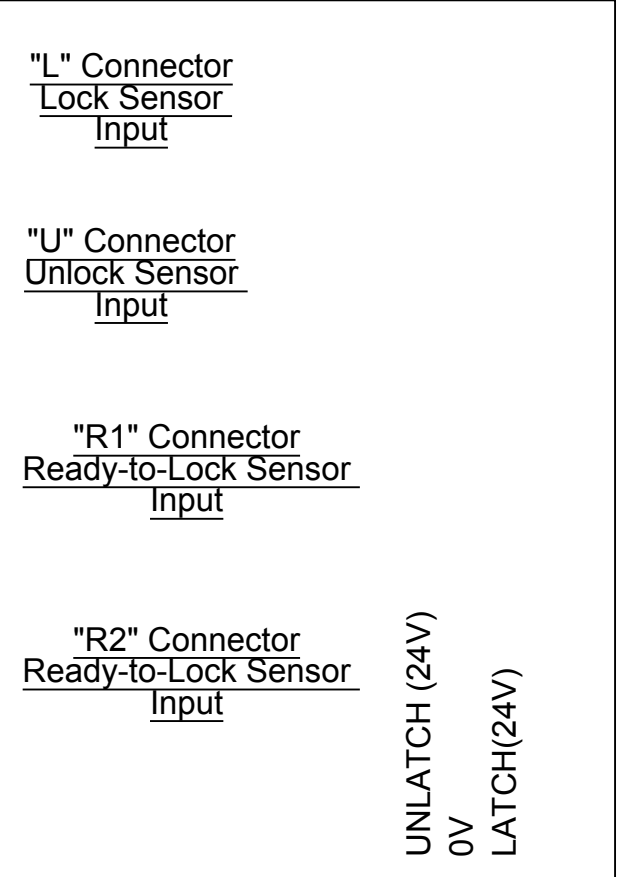
DRAWN BY: M. Hallmark, 2/6/13		TITLE: JR110 Valve Adapter and Tool Spacer for QC-110	
CHECKED BY: W. Berrocal, 2/20/13			
PROJECT # 110914-2	SHEET 3 OF 5	SCALE: 1:1	SIZE: B
		DRAWING NUMBER: 9630-20-JR110 Valve Adapter, Single	REVISION: 04

Rev.	Description	Initiator	Date
-	See Sheet1	-	-

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



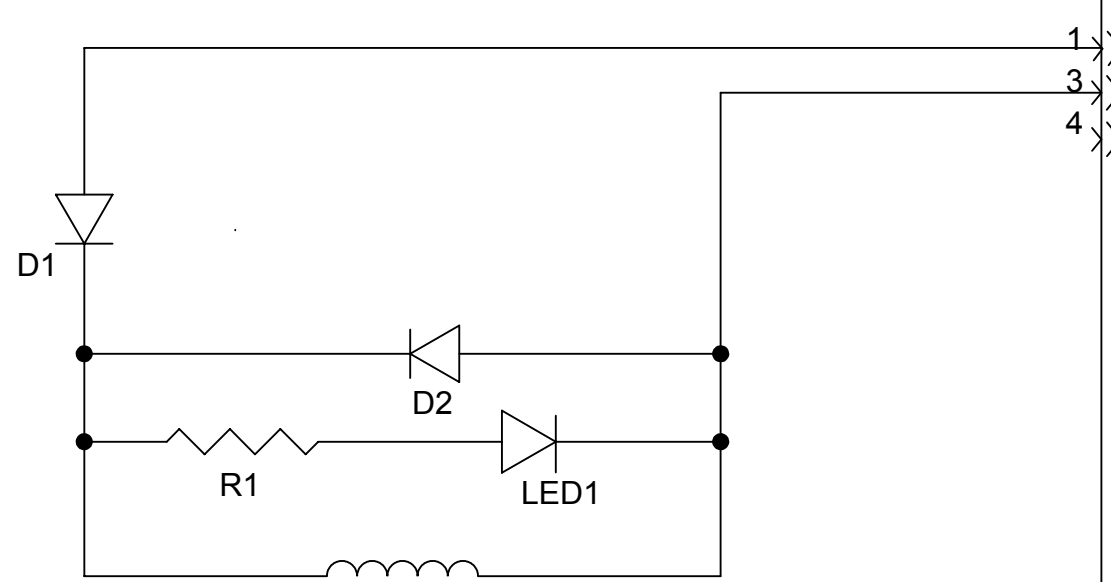
9121-xxx-M Control/Signal Module



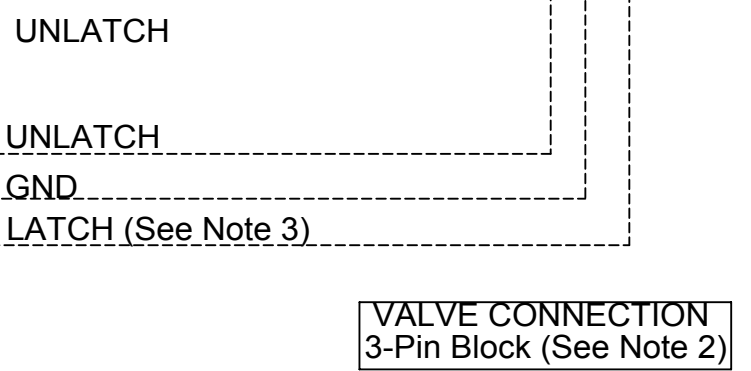
Electrical Schematic Notes:

1. The complete tool changer package comes equipped with external cables that are connected to the sensors.
2. A 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-JR110-M Valve adapter is a Single solenoid version. The single solenoid valve defaults to the Latch position via a spring return.
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. To view cable routing shown in schematic, refer to Sheet 5.
5. The valve requires supply voltage between 19-29V.

9120-JR110-M Valve Adapter



SOLENOID VALVE



NOTES: UNLESS OTHERWISE SPECIFIED.
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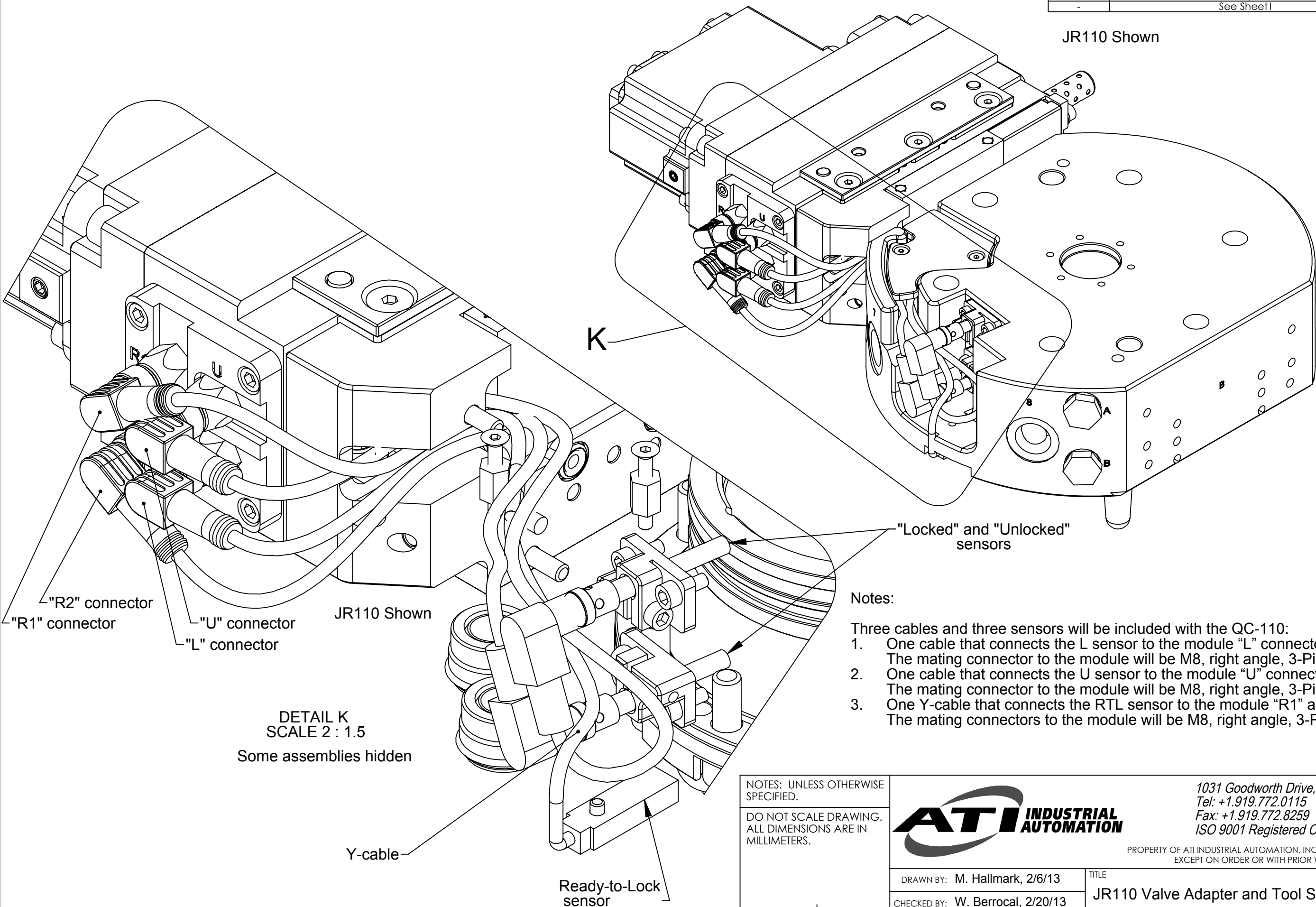
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PROJECT # 110914-2	SHEET 4 OF 5	SCALE 1:1	SIZE B
DRAWING NUMBER 9630-20-JR110 Valve Adapter, Single		REVISION 04	

Rev.	Description	Initiator	Date
-	See Sheet1	-	-

JR110 Shown



"R2" connector
"R1" connector
"U" connector
"L" connector

JR110 Shown

DETAIL K
SCALE 2 : 1.5
Some assemblies hidden

"Locked" and "Unlocked" sensors

Y-cable

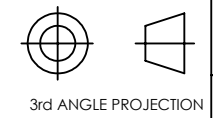
Ready-to-Lock sensor

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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PROJECT # 110914-2	SHEET 5 OF 5	SCALE 1:1	SIZE B	DRAWING NUMBER 9630-20-JR110 Valve Adapter, Single
				REVISION 04