

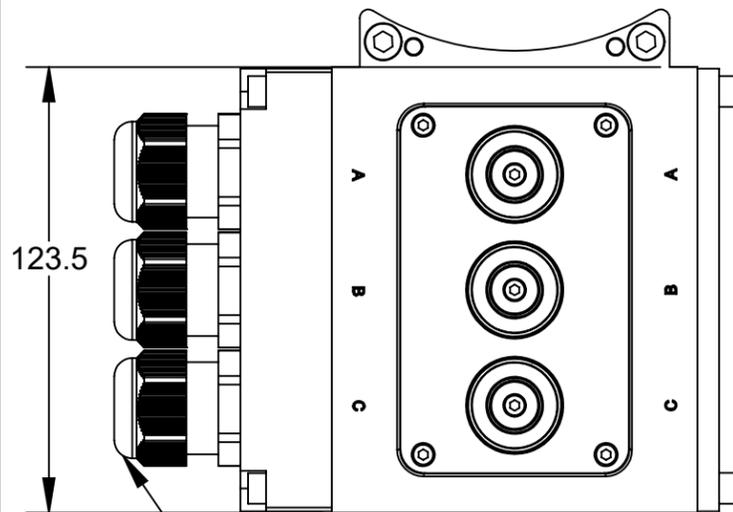


**"DANGER!" - Electrical Shock Hazard**

This module has a Voltage of 50V or greater, NO contact should be attempted before removing power. This especially includes separation or insertion of the mating connectors or any contact with the tool changer or its components.

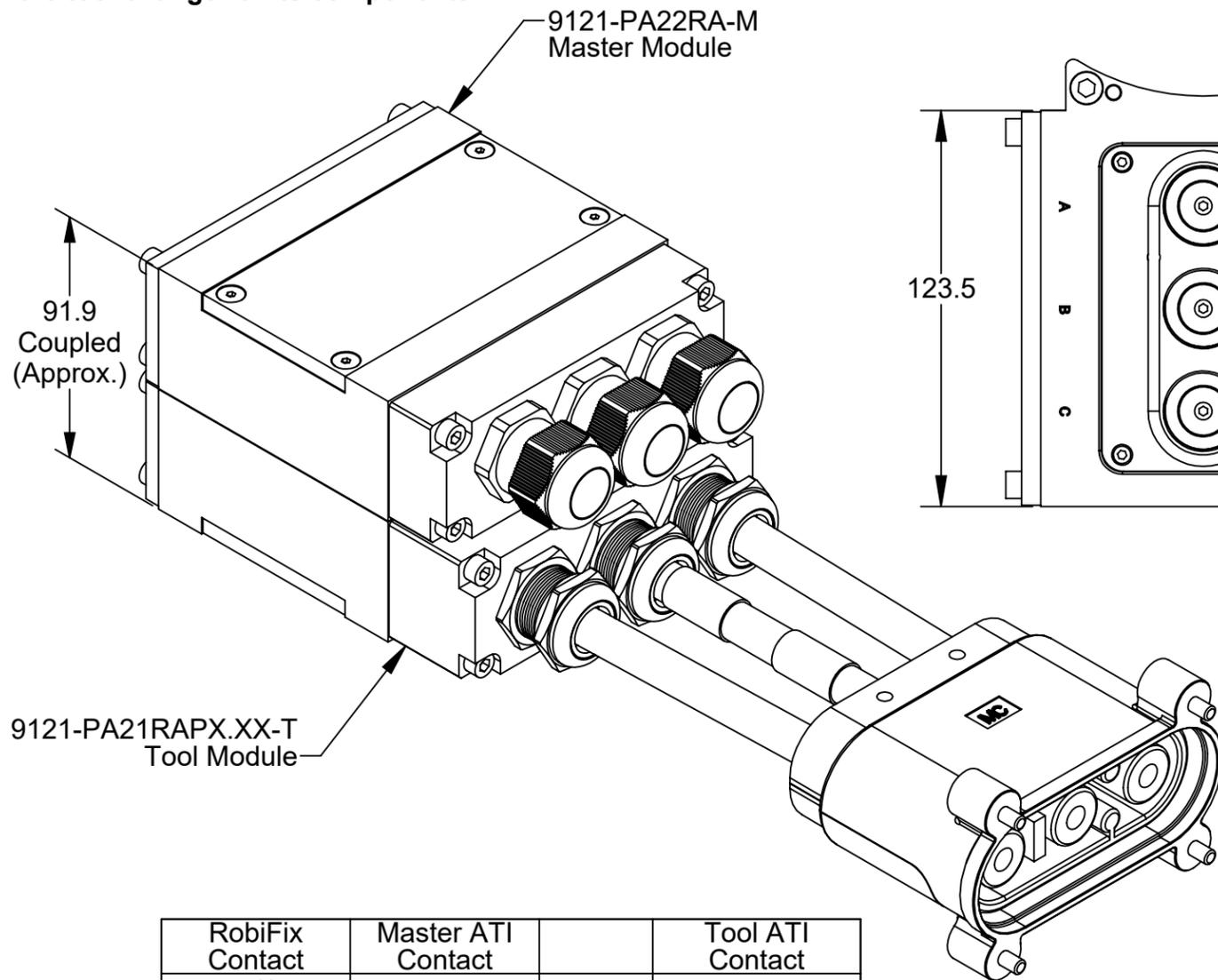
REV.	DESCRIPTION	INITIATOR	DATE
04	ECO 19782; Sheet 2 removed text "Tip Master Rebuild Kit = 9005-20-2582, Contains 1 each of items: 5, 11, 12"	DS	3/8/2021

**9121-PA22RA-M**



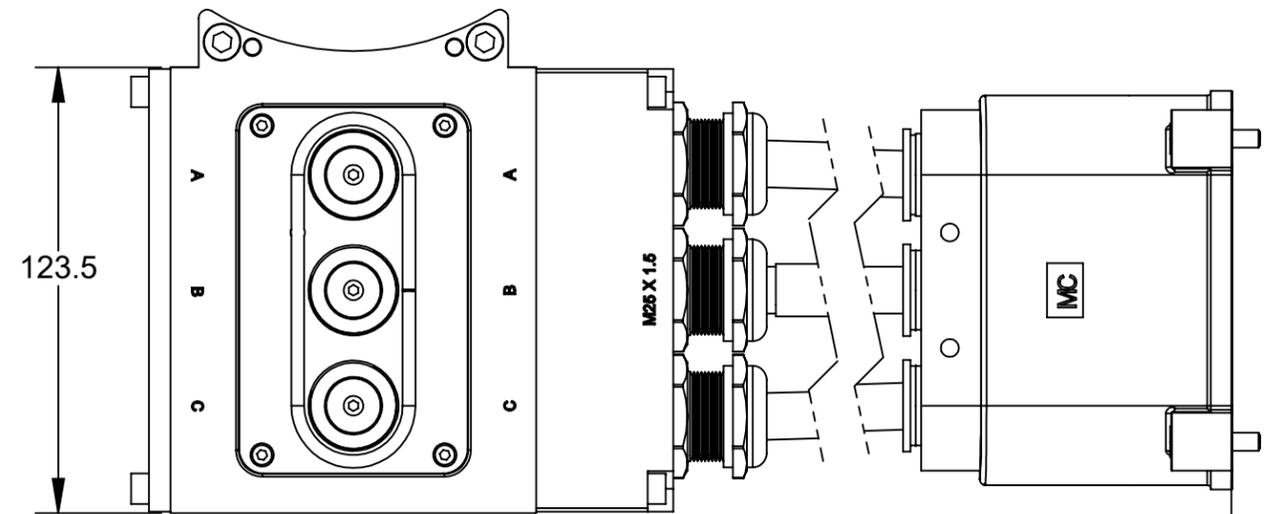
(3) Essentra CG-M25-1-BK  
8mm-17mm Cable Diameter

9121-PA22RA-M  
Master Module

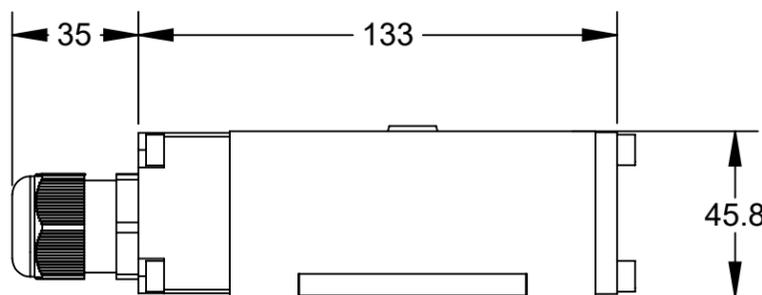


9121-PA21RAPX.XX-T  
Tool Module

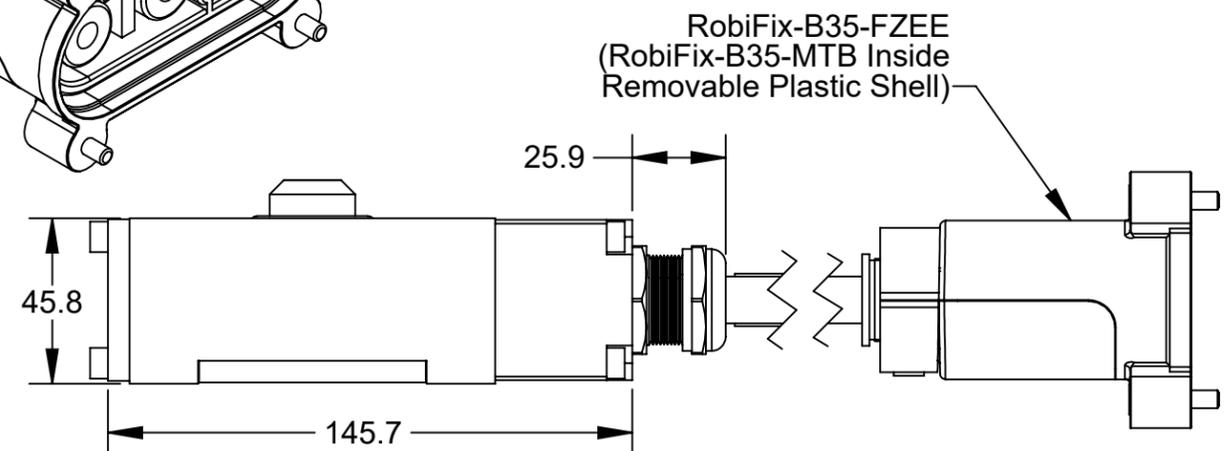
**9121-PA21RAPX.XX-T**



X.XX in the Tool Part Number  
Identifies this Length in Meters



RobiFix Contact	Master ATI Contact		Tool ATI Contact
U**	A	>--->	A
Gnd	B	>--->	B
V**	C	>--->	C
Tool Contact B is Configured for First-Make/Last-Break			
** Contacts U & V may be switched in the field either in the ATI module or in the RobiFix connector.			



RobiFix-B35-FZEE  
(RobiFix-B35-MTB Inside  
Removable Plastic Shell)

**Notes:**

1. The electrical modules are not a switch and must not be used as a switch.
2. Do not couple or uncouple the modules unless power has been disconnected and discharged both upstream and downstream. Failure to do so can result in severe module damage and injury.
3. The installation of over-current protection is recommended.
4. The contact tips must be kept clean for best product performance and life.
5. Master module rated for 800VAC/180A. Tool module rated for 600VAC/150A. Contact ATI for alternative Tool module configurations.
6. See Sheets 2 & 3 for an exploded Bill of Materials for Master and Tool
7. See Sheets 4 & 5 for installation instructions.

NOTES: UNLESS OTHERWISE SPECIFIED.

DO NOT SCALE DRAWING. ALL DIMENSIONS ARE IN MILLIMETERS.



3rd ANGLE PROJECTION



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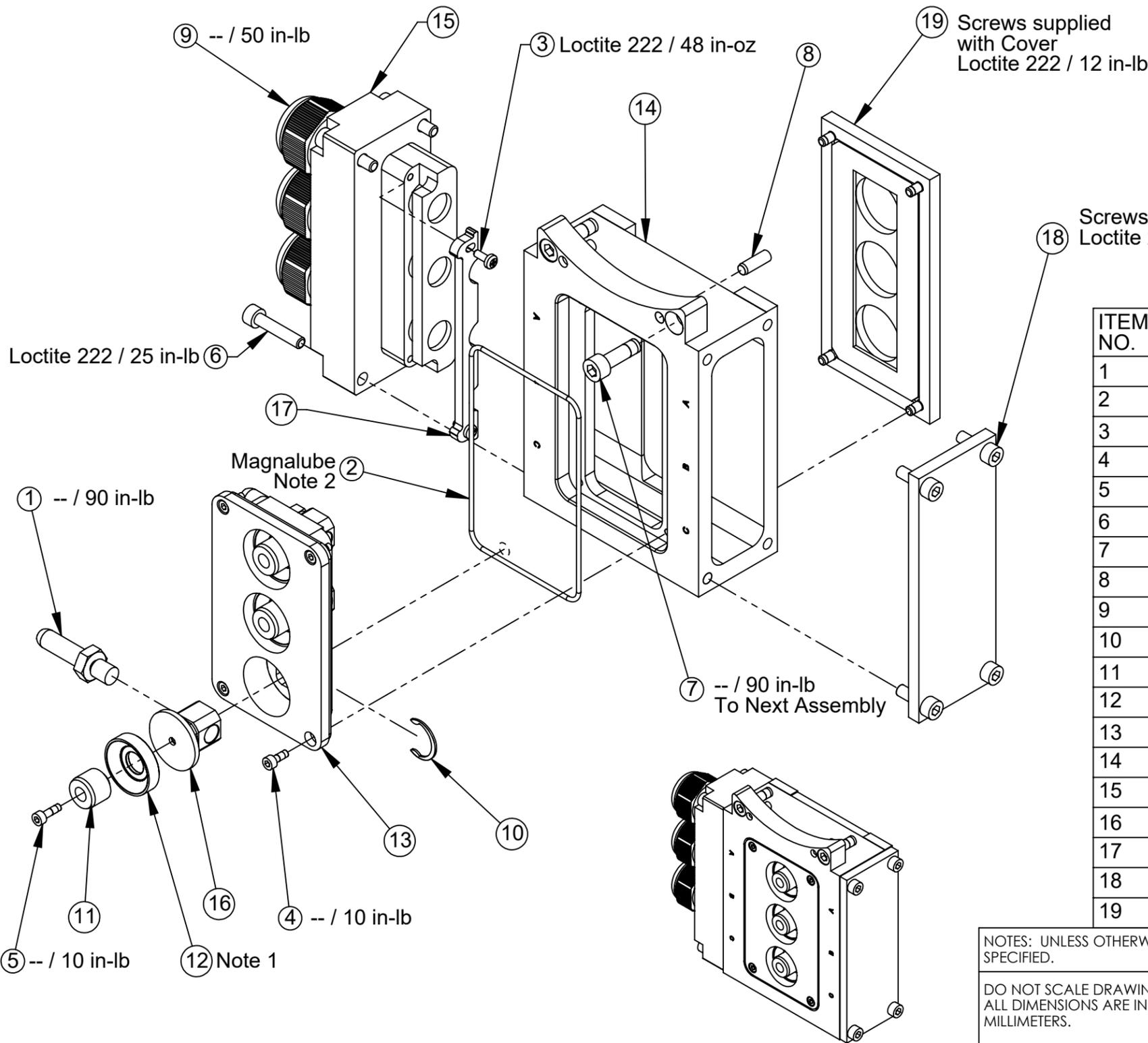
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DRAWN BY: D. Simons, 11/7/18		TITLE	
CHECKED BY: W. Berrocal, 2/20/19 K. Davis, 2/26/19		PA22RA-M, PA21RAP-T Customer Drawing	
PROJECT # 181012-1	SHEET 1 OF 5	SCALE 1:2	SIZE B
DRAWING NUMBER 9630-20-PA22RAM PA21RAPT		REVISION 04	

# Master Side Parts 9121-PA22RA-M

Right Feed Shown. For Left Feed the End Cover Assembly is Located on the Opposite Side

Robifix Connector Fitting Plate Kit = 9005-20-8783  
Contains all shown quantities of items: 3, 6, 9, 15, 17



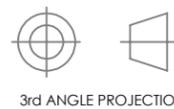
18 Screws supplied with Cover  
Loctite 222 / 12 in-lb

ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	3	1700-0630201-01	Pin, 8mm x 41mm, RobiFix S8/M8-41 AG 30.0401
2	1	3410-0001439-01	O-Ring, 85mm x 2mm, Nitrile, 70A
3	2	3500-0158008-21	M3-0.5 x 8 PAN HEAD PHILLIPS - SS
4	4	3500-1058008-21A	M3-0.5 x 8mm SHCS, SS, Pre-Applied
5	3	3500-1058010-21A	M3-0.5 x 10mm SHCS, SS, Pre-Applied
6	4	3500-1064025-21	M5-0.8 x 25mm SHCS, SS
7	2	3500-1066020-15A	M6-1 x 20mm SHCS, Blue, Pre-Applied
8	2	3540-0105016-11	5mm x 16mm Dowel Alloy Steel
9	3	3620-0800000-60	Cord Grip, M25 Thread, 9mm-17mm cable range, Nylon,
10	3	3690-6500004-11	Low-Clearance C-Style Ring for 5/8" Shaft Dia.
11	3	3700-20-4153	INSULATOR POST, MASTER
12	3	3700-20-8523	Contact Tip, 200A, Master, Silver Plate
13	1	3700-20-9501	Contact Block, PA20, Master
14	1	3700-20-10484	Housing, Box, PA21
15	1	3700-20-10987	Fitting Plate, Robifix Master Sockets, 3x M25 Cord Grip
16	3	3700-20-10988	Contact Base, 200A, M8 Cross drill
17	1	3700-20-11097	Socket Retainer, Robifix Connector, High Current Module
18	1	9005-20-2495	End Cover Assembly, PA20, 44.8mm
19	1	9005-20-2603	Cover Plate Assembly, PA21

Notes:  
1. Apply silver grease to the bottom surface per the product manual.  
2. After applying Magnalube to the o-ring, fit to the underside of the contact carrier, then slip the contact carrier and seal into the housing.

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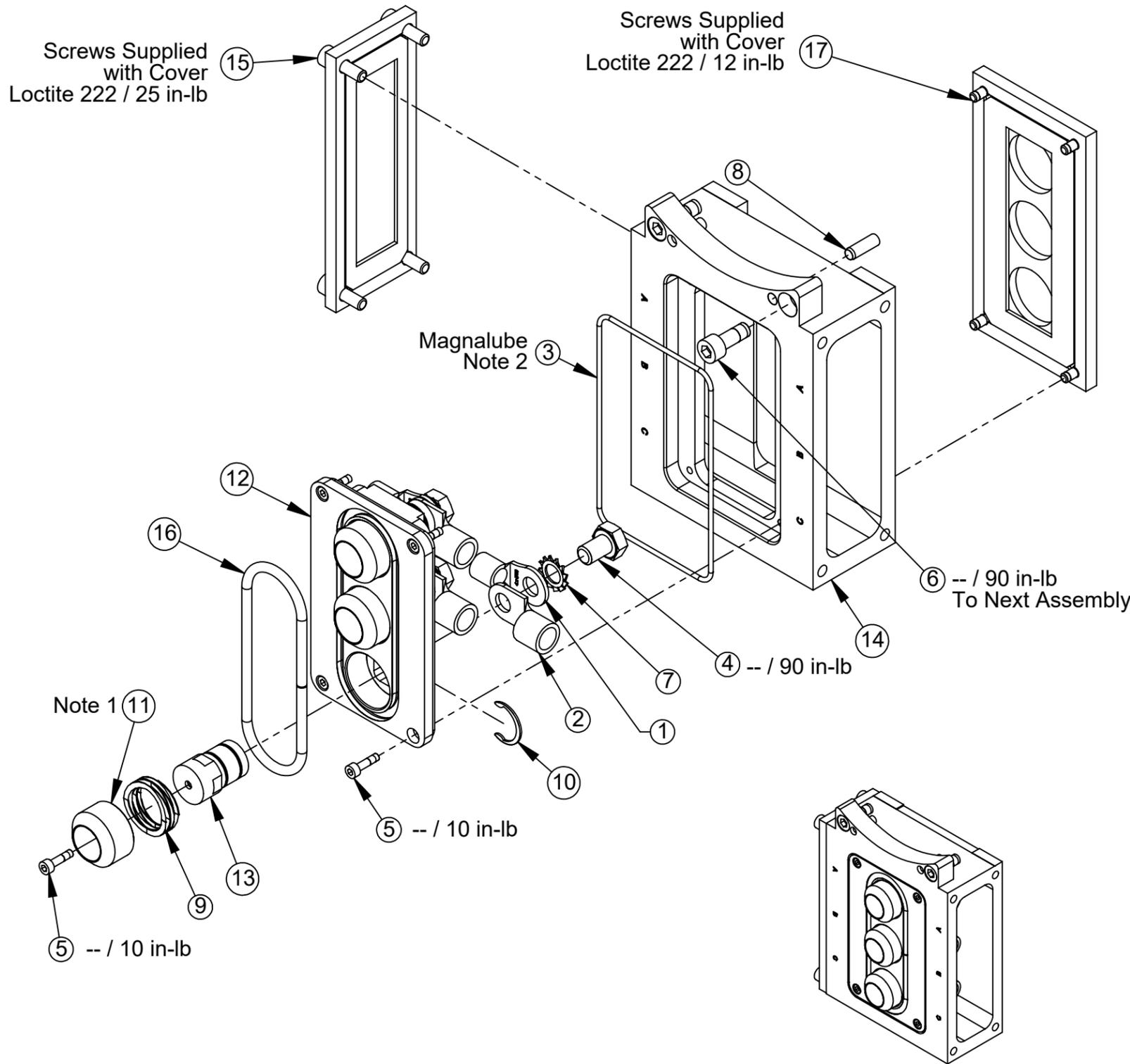
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CHECKED BY: W. Berrocal, 2/20/19 K. Davis, 2/26/19		PA22RA-M, PA21RAP-T Customer Drawing	
PROJECT # 181012-1	SHEET 2 OF 5	SCALE 1:2	SIZE B
DRAWING NUMBER 9630-20-PA22RAM PA21RAP-T		REVISION 04	

## Tool Side Parts 9121-PA21R-T & 9121-PA21L-T

Right Feed Shown. For Left Feed the End Cover Assembly is Located on the Opposite Side

Tip Tool Rebuild Kit = 9005-20-2583  
Contains 1 each of items: 5, 9 & 11



ITEM NO.	QTY	PART NUMBER	DESCRIPTION
1	3	1705-0610220-03	Ring Terminal, Non Insulated, #4 AWG, 5/16 Stud
2	3	1705-5510202-03	Ring Term., #2x8mm, AMP 322870
3	1	3410-0001439-01	O-Ring, 85mm x 2mm, Nitrile, 70A
4	3	3500-0868012-12	M8 x 12 HHCS, Zinc
5	7	3500-1058012-15A	M3-0.5 x 12mm SHCS, Blue, Pre-Applied
6	2	3500-1066016-15A	M6-1 x 16mm SHCS, Blue, Pre-Applied
7	3	3510-5267001-12	Washer, Lock, Ext. Tooth, M8, Steel, Zn Plt, DIN 6797A
8	2	3540-0105016-11	5mm x 16mm Dowel Alloy Steel
9	3	3610-7301101-21	Wave Spring, .91"OD x .44 Lg-Smalley 14892-08
10	3	3690-6500004-11	Low-Clearance C-Style Ring for 5/8" Shaft Dia.
11	3	3700-20-4158	High Power Tool Module Contact Tip
12	1	3700-20-9511	Contact Carrier Plate, PA20-T
13	3	3700-20-9512	200A Contact Base, Bolt Type, PAXX Tool
14	1	3700-20-10484	Housing, Box, PA21
15	1	9005-20-2495	End Cover Assembly, PA20, 44.8mm
16	1	9005-20-2498	8.3" x 4mm Dia. Viton Tubular Seal, PA20-T
17	1	9005-20-2603	Cover Plate Assembly, PA21

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### Notes:

1. Apply silver grease to the bottom surface per the product manual.
2. After applying Magnalube to the o-ring, fit to the underside of the contact carrier, then slip the contact carrier and seal into the housing.

DRAWN BY: D. Simons, 11/7/18

CHECKED BY: W. Berrocal, 2/20/19

K. Davis, 2/26/19

PROJECT # 181012-1 SHEET 3 OF 5

TITLE

PA22RA-M, PA21RAP-T Customer Drawing

SCALE  
1:2

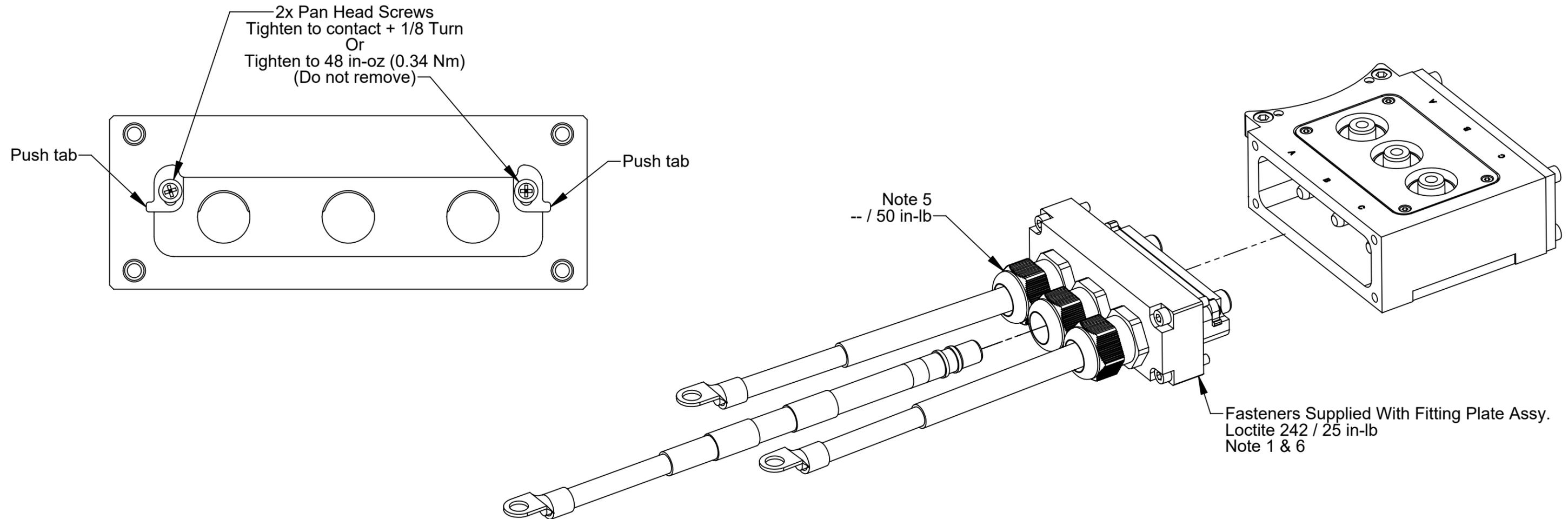
SIZE  
B

DRAWING NUMBER  
9630-20-PA22RAM PA21RAP-T

REVISION  
04

# Attachment of the Master Side RobiFix Cables 9121-PA22RA-M & 9121-PA22LA-M

Right Feed Shown. For Left Feed the RobiFix Adapter Assembly is Located on the Opposite Side



## Perform the assembly steps in the order listed below.

### Assembly Notes:

1. Remove the fitting plate assembly from the PA22-M module.
2. Loosen the two pan head screws shown.
3. Insert the Robifix crimp through the cord grip and fitting plate until it stops. For smaller diameter conductors, the inner grommet supplied with product can be installed within the cord grip assembly.
4. Push down on the tabs to secure crimps to fitting plate. Retighten pan head screws.
5. Tighten the cord grip dome nuts one at a time starting with the middle fitting.
6. Fit the fitting plate onto the module ensuring the socket contacts mate to the pins. Tighten.

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CHECKED BY: W. Berrocal, 2/20/19

K. Davis, 2/26/19

TITLE

PA22RA-M, PA21RAP-T Customer Drawing

PROJECT # 181012-1 SHEET 4 OF 5

SCALE  
1:2

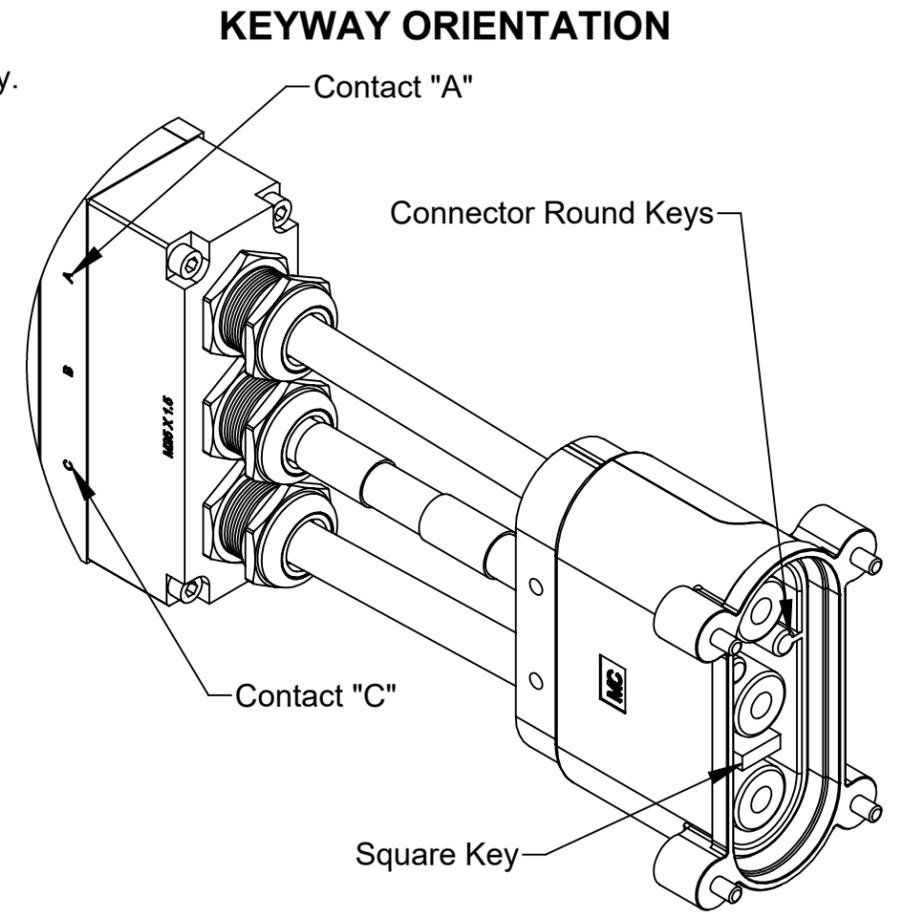
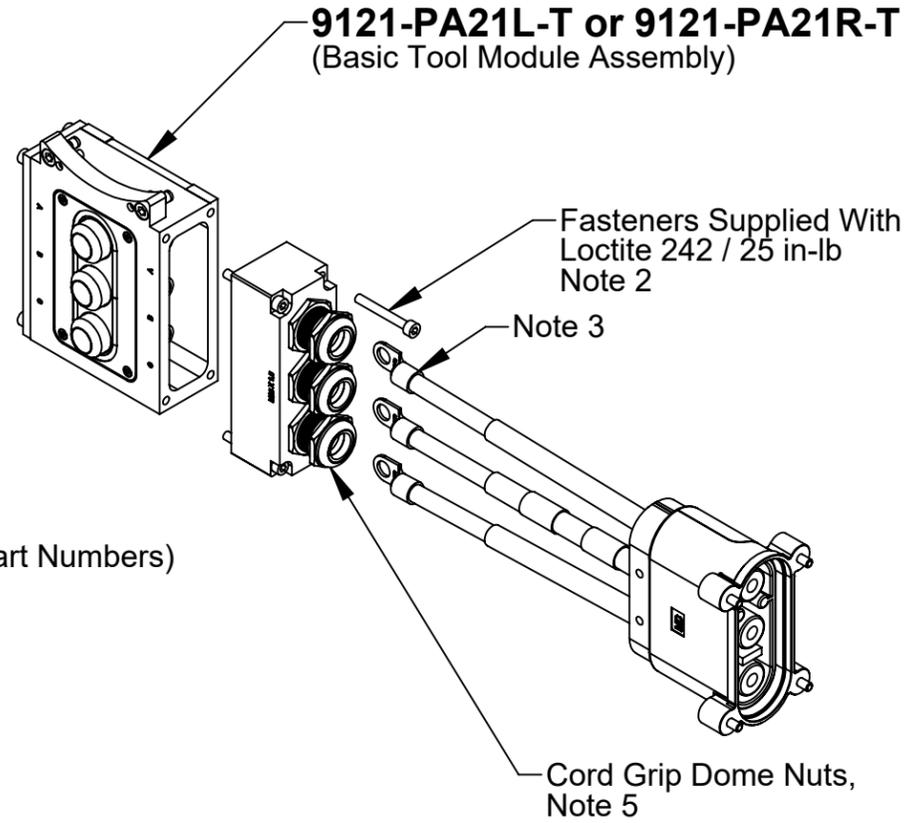
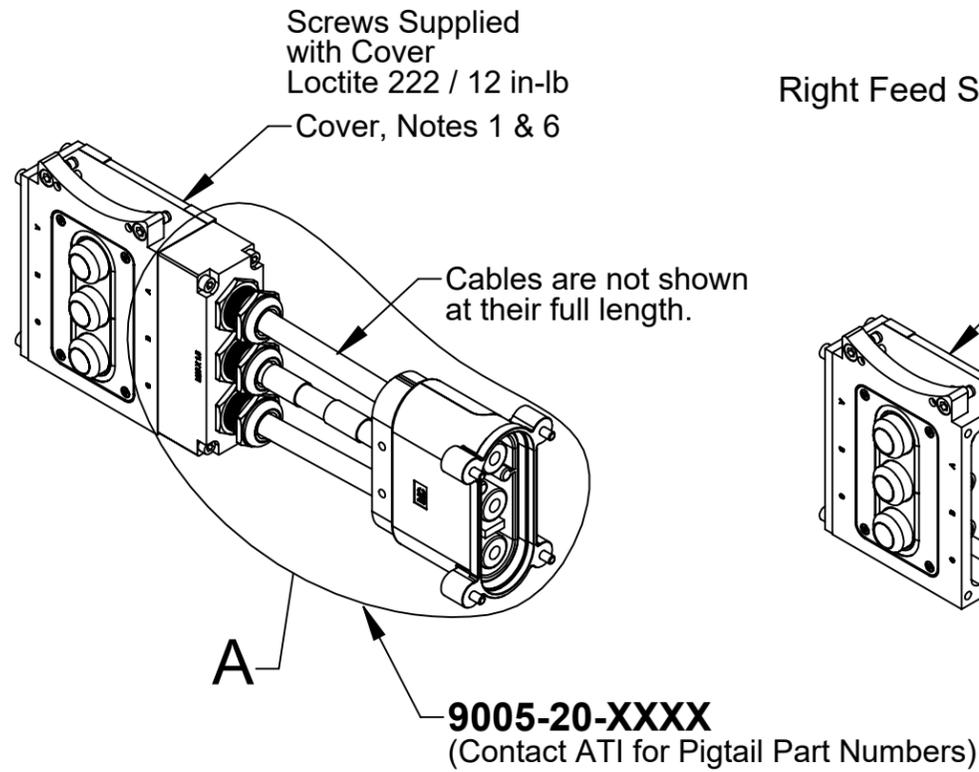
SIZE  
B

DRAWING NUMBER  
9630-20-PA22RAM PA21RAPT

REVISION  
04

# Attachment of the Tool Side RobiFix Pigtail Adapter 9121-PA21LAPX.XX-T & 9121-PA21RAPX.XX-T

(X.XX in the Part Number Specifies the Pigtail Length in Meters)  
Right Feed Shown. For Left Feed the RobiFix Adapter Assembly is Located on the Opposite Side



VIEW A  
SCALE 1 : 2

**Perform the assembly steps in the order listed below.**

**Notes:**

1. Remove the cover from the PA21-T module.
2. Attach the fitting plate assembly to the PA21 housing and tighten its mounting screws.
3. Route the cables from the pigtail through the cord grips (observe the cable routing in View A). For smaller diameter conductors, the inner grommet supplied with product can be installed within the cord grip assembly.
4. Insert the hex head bolts through the lock washers and ring terminals and tighten the bolts.
5. Tighten the cord grip dome nuts one at a time starting with the middle fitting.
6. Fit the cover and tighten its mounting screws.

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PROJECT # 181012-1	SHEET 5 OF 5	SCALE 1:4	SIZE B
DRAWING NUMBER 9630-20-PA22RAM PA21RAPT		REVISION 04	