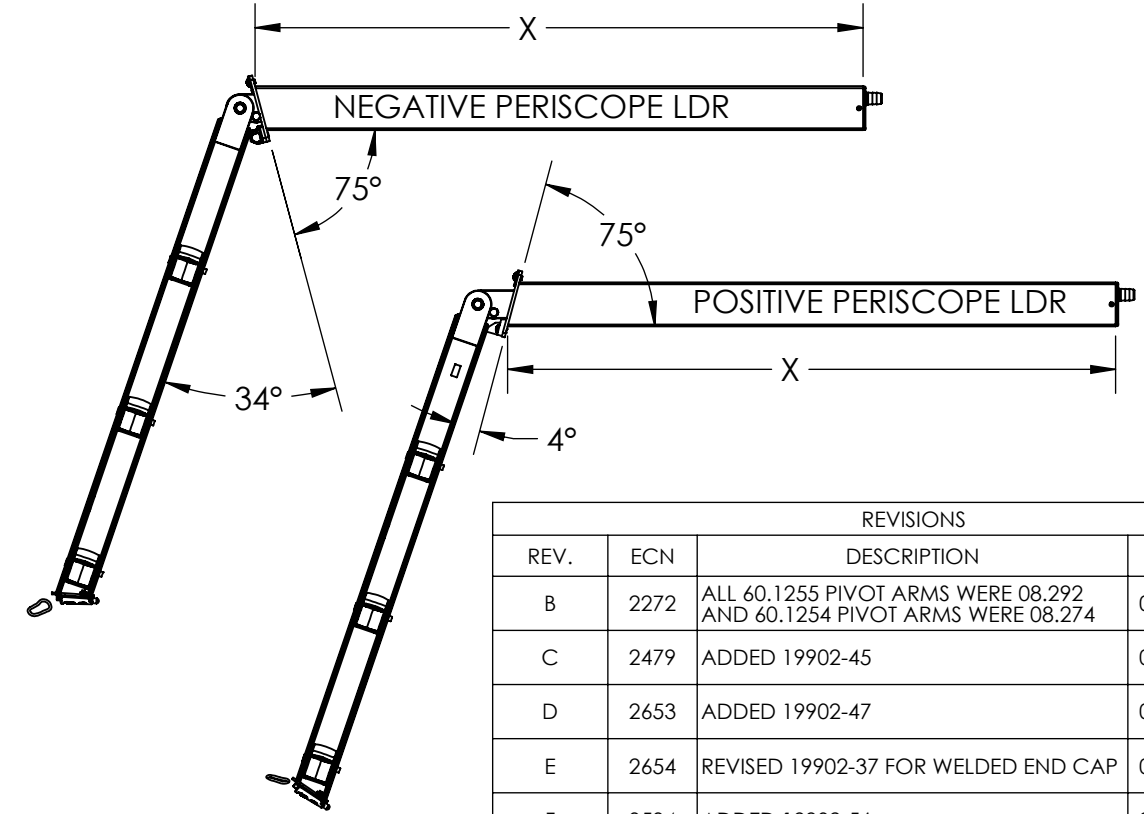
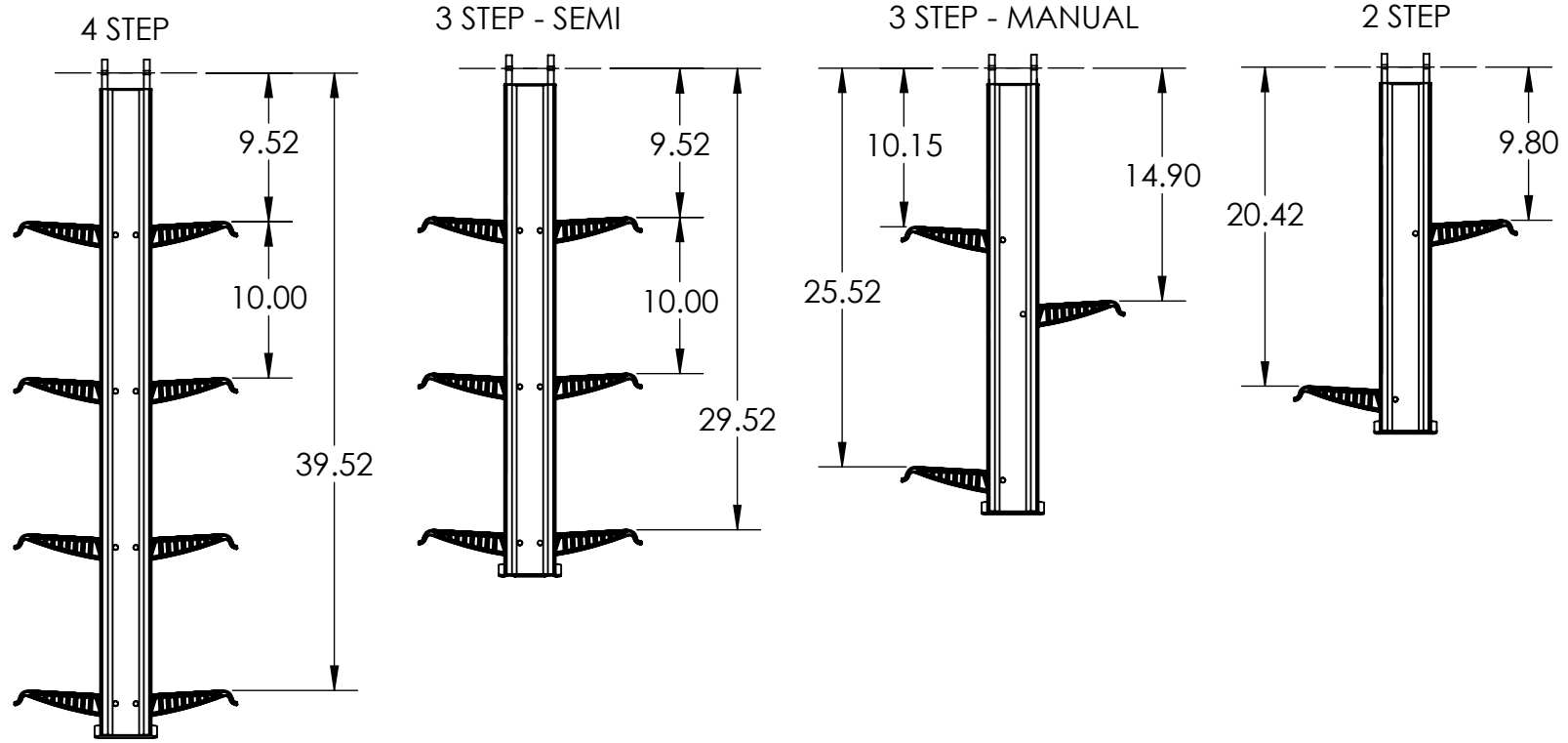


Part Number	Rev	Description	Step Operation	Version	I-beam Assy	Tube Assy	Slider Block Detail	Tube Cap (Bung) Detail	Step Qty	Step Part Number	Drive Link Qty	Part Number	Ctn	Insert	"X" Value	Notes
19902-23	A	Inv Ladder Series	na	na	na	na	na	na	na	na	na	na	na	na	na	Refer to Individual Print
19902-28	C	Periscope Ldr, 2 Step	Manual	Negative	60.1217	60.1229	A-2	B-2	2	06.523	na	na	07.539	07.540	27 7/8	
19902-29	A	Periscope Ldr, 3 Step	Manual	Negative	60.1211	60.1233	na	na	3	06.523	na	na	07.539	07.540	33 1/8	Welded Tube End Cap
19902-30	B	Periscope Ldr, 3 Step	Manual	Negative	60.1211	60.1225	A-1	na	3	06.523	na	na	07.539	07.540	33	No Tube End Cap
19902-31	-	Periscope Ldr, 3 Step	Manual	Negative	60.1211	60.1230	A-2	B-2	3	06.523	na	na	07.539	07.540	33	
19902-34	B	Periscope Ldr, 3 Step	Semi-automatic	Negative	60.1213	60.1227	A-1	B-1	6	06.2227	4	50.910	07.579	07.578	38	
19902-35	B	Periscope Ldr, 3 Step	Semi-automatic	Negative	60.1213	60.1227	A-1	B-1	6	06.2227	4	50.910	07.579	07.578	38	Include 11.004 Gasket
19902-36	C	Periscope Ldr, 3 Step	Semi-automatic	Positive	60.1214	60.1227	A-4	B-3	6	06.2227	4	50.910	07.579	07.578	38	
19902-37	C	Periscope Ldr, 3 Step	Manual	Negative	60.1148	60.1394	A-4	na	3	06.523	na	na	07.579	07.578	34 1/4	Enlarged faceplate at compound angle, Welded Tube End Cap
19902-38	B	Periscope Ldr, 3 Step	Semi-automatic	Negative	60.1213	60.1234	A-2	B-1	6	06.2227	4	50.910	07.579	07.578	37 1/2	90 Deg Fitting (Bung)
19902-44	B	Periscope Ldr, 4 Step	Semi-automatic	Negative	60.1215	60.1228	A-1	B-1	8	06.2227	6	50.910	07.580	07.578	48 1/4	
19902-45	B	Periscope Ldr, 4 Step	Semi-automatic	Negative	60.1215	60.1228	A-1	B-1	8	06.2227	6	50.910	07.580	07.578	48 1/4	Include 11.004 Gasket
19902-46	B	Periscope Ldr, 4 Step	Semi-automatic	Positive	60.1216	60.1228	A-3	B-3	8	06.2227	6	50.910	07.580	07.578	48 1/4	
19902-47	A	Periscope Ldr, 4 Step	Semi-automatic	Negative	60.1215	60.1393	A-1	na	8	06.2227	6	50.910	07.580	07.578	48 1/4	Welded Tube End Cap
19902-56	A	Periscope Ldr, 3 Step	Semi-automatic	Negative	60.1213	60.1234	A-2	B-3	6	06.2227	4	50.910	07.579	07.578	37 1/2	90 Deg Fitting (Bung)



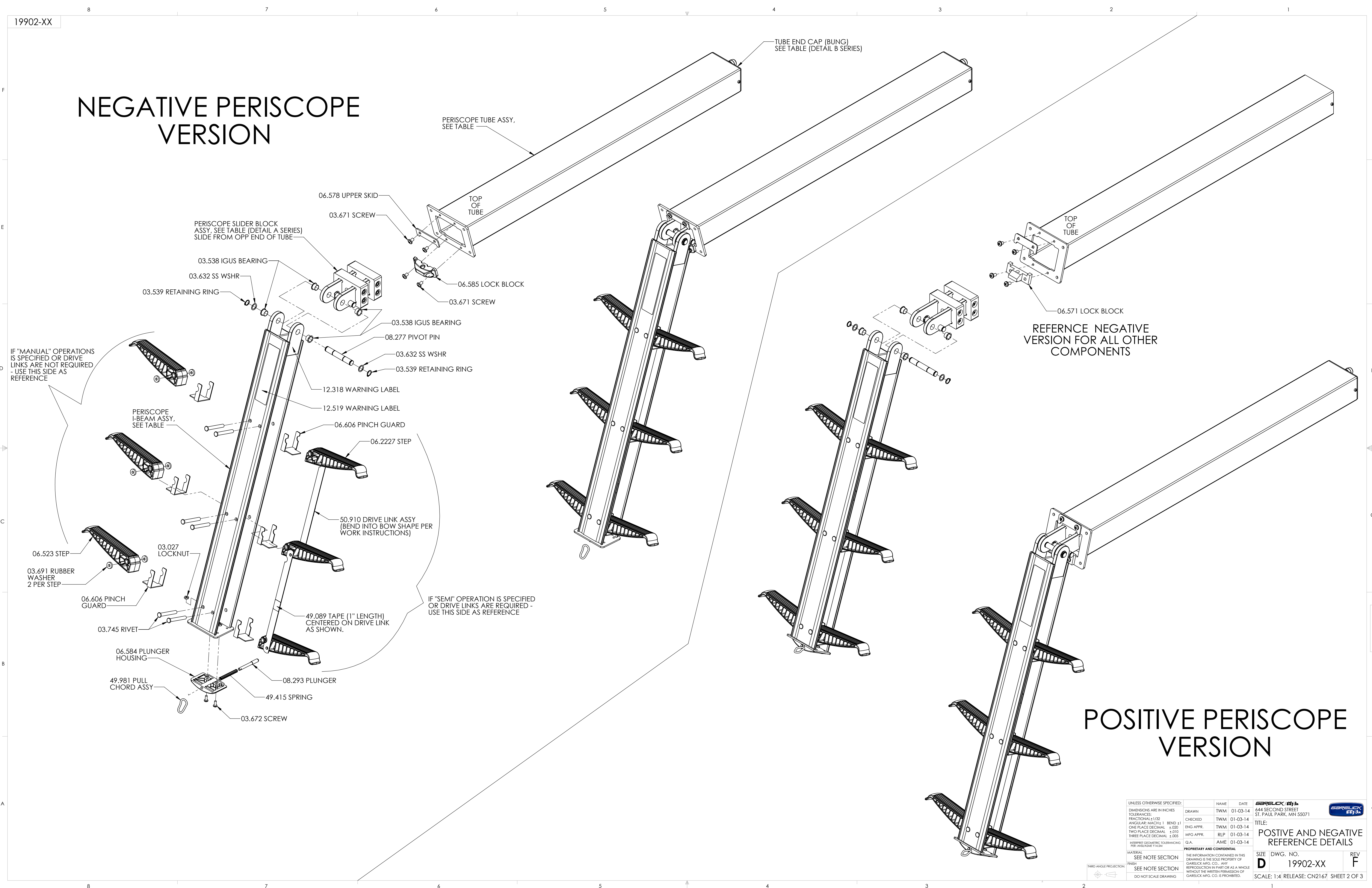
REVISIONS				
REV.	ECN	DESCRIPTION	DATE	APR'VD
B	2272	ALL 60.1255 PIVOT ARMS WERE 08.292 AND 60.1254 PIVOT ARMS WERE 08.274	04-16-14	TWM
C	2479	ADDED 19902-45	02-23-15	TWM
D	2653	ADDED 19902-47	08-03-15	TWM
E	2654	REVISED 19902-37 FOR WELDED END CAP	08-03-15	TWM
F	3534	ADDED 19902-56	08-02-16	TWM

- NOTES UNLESS OTHERWISE SPECIFIED:
- DIMENSIONS SHOWN ARE REFERENCE - REFER TO COMPONENTS FOR SPECIFIC INFORMATION.
  - SEE SHEET 2 FOR POSITIVE AND NEGATIVE LDR REFERENCE CONFIGURATION INFORMATION.
  - SEE SHEET 3 FOR SLIDER BLOCK AND END CAP (BUNG) REFERENCE CONFIGURATION INFORMATION.
  - ASSEMBLY TO BE FREE OF NON-ANODIZED SCRATCHES, DISCOLORATION OR IRREGULARITIES.
  - PACKAGE ASSEMBLY PER TABLE CTN/PAD INFORMATION.
  - APPLY LOCTITE TO ALL FASTENERS PRIOR TO INSTALLATION, UNLESS LOCTITE IS PRE-APPLIED TO SCREW OR LOCKING NUT IS UTILIZED.
  - LADDER MUST SLIDE FREELY AND STEPS DEPLOY WITH NORMAL HUMAN EFFORT.

UNLESS OTHERWISE SPECIFIED:  
 DIMENSIONS ARE IN INCHES  
 TOLERANCES:  
 FRACTIONAL ±1/32  
 ANGULAR: MACH ±1 BEND ±1  
 ONE PLACE DECIMAL ±.020  
 TWO PLACE DECIMAL ±.010  
 THREE PLACE DECIMAL ±.005  
 INTERPRET GEOMETRIC TOLERANCING PER: ANSI/ASME Y14.5M  
 MATERIAL & FINISH  
 SEE NOTE SECTION  
 REF FILE FOR MACHINING: NA  
 THIRD ANGLE PROJECTION:  
 DO NOT SCALE DRAWING

NAME	DATE	<b>GARELICK / E&amp;J</b> 644 SECOND STREET ST. PAUL PARK, MN 55071 TITLE: <h3>PERISCOPE LDR</h3>
DRAWN	TWM 01-03-14	
CHECKED	TWM 01-03-14	
ENG APPR.	TWM 01-03-14	
MFG APPR.	RLP 01-03-14	
Q.A.	AME 01-03-14	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF GARELICK MFG. CO.. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF GARELICK MFG. CO. IS PROHIBITED.		SIZE <b>B</b> DWG. NO. <b>19902-XX</b> REV <b>F</b>
SCALE: 1:12		RELEASE: CN2167 SHEET 1 OF 3

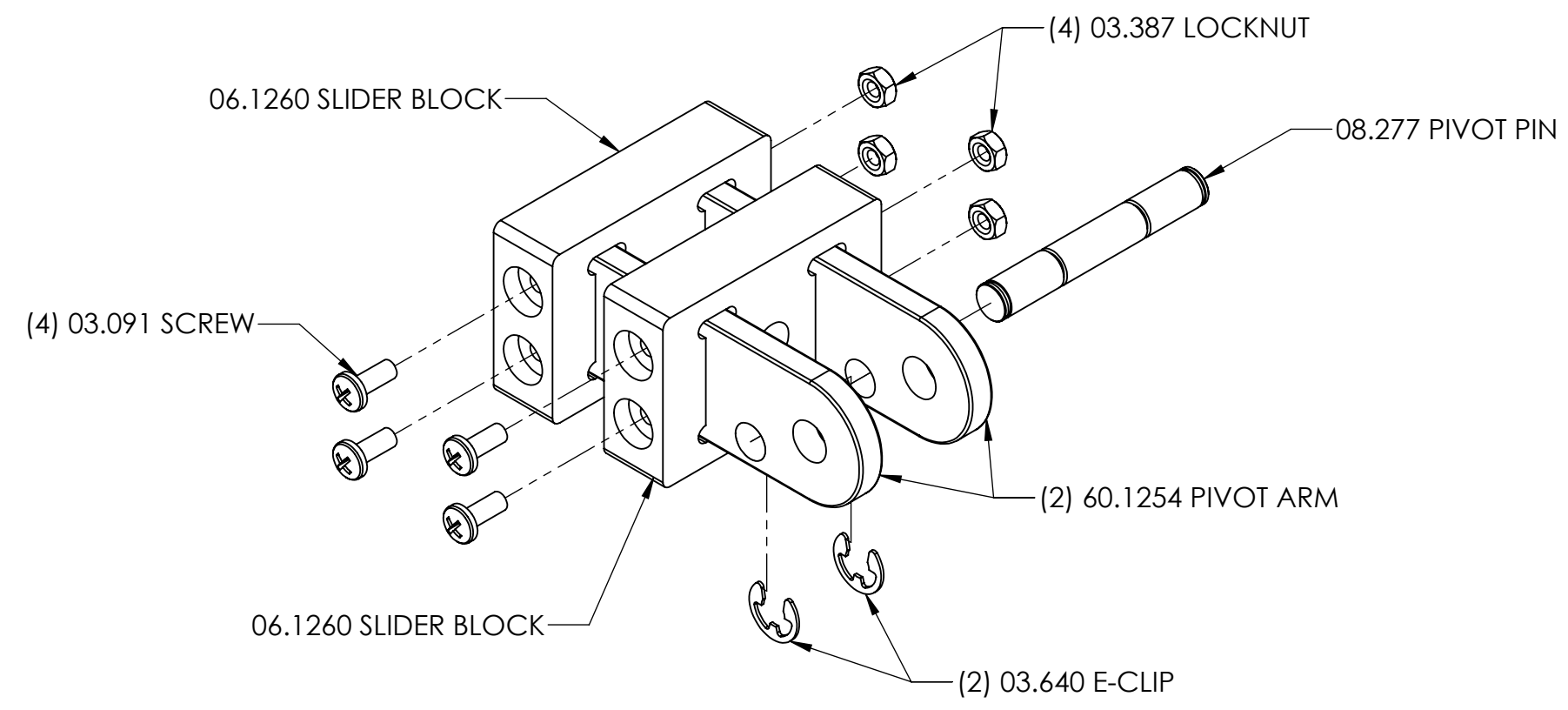
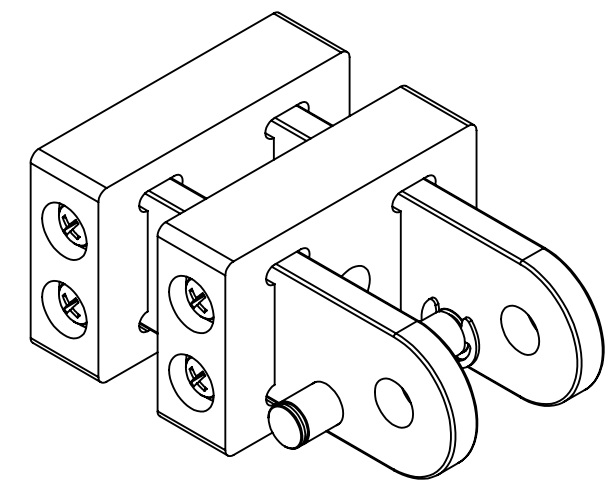
# NEGATIVE PERISCOPE VERSION



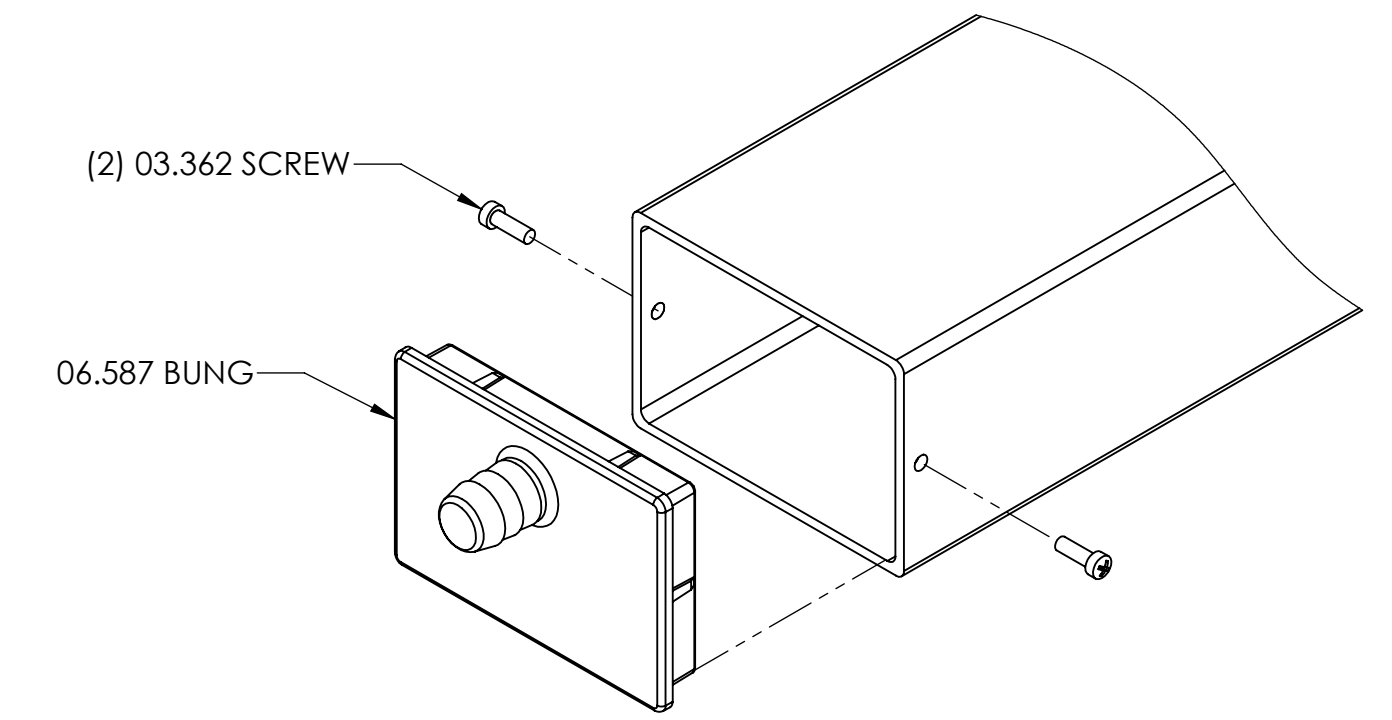
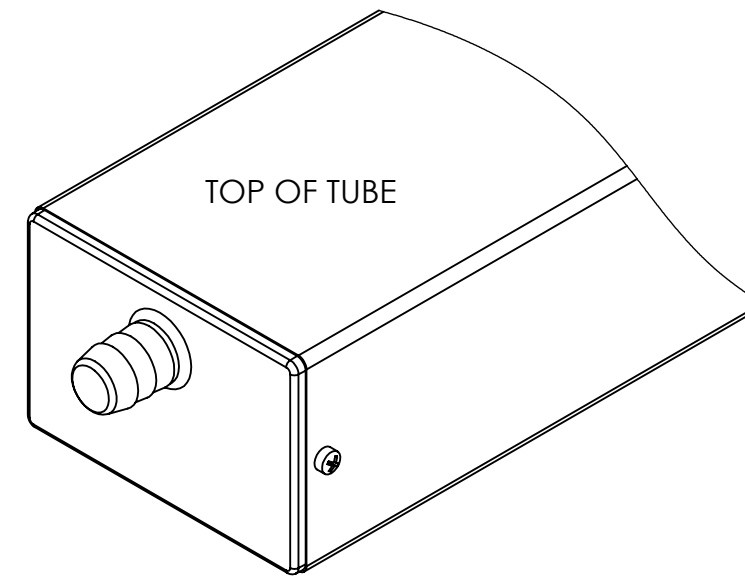
REFERENCE NEGATIVE VERSION FOR ALL OTHER COMPONENTS

# POSITIVE PERISCOPE VERSION

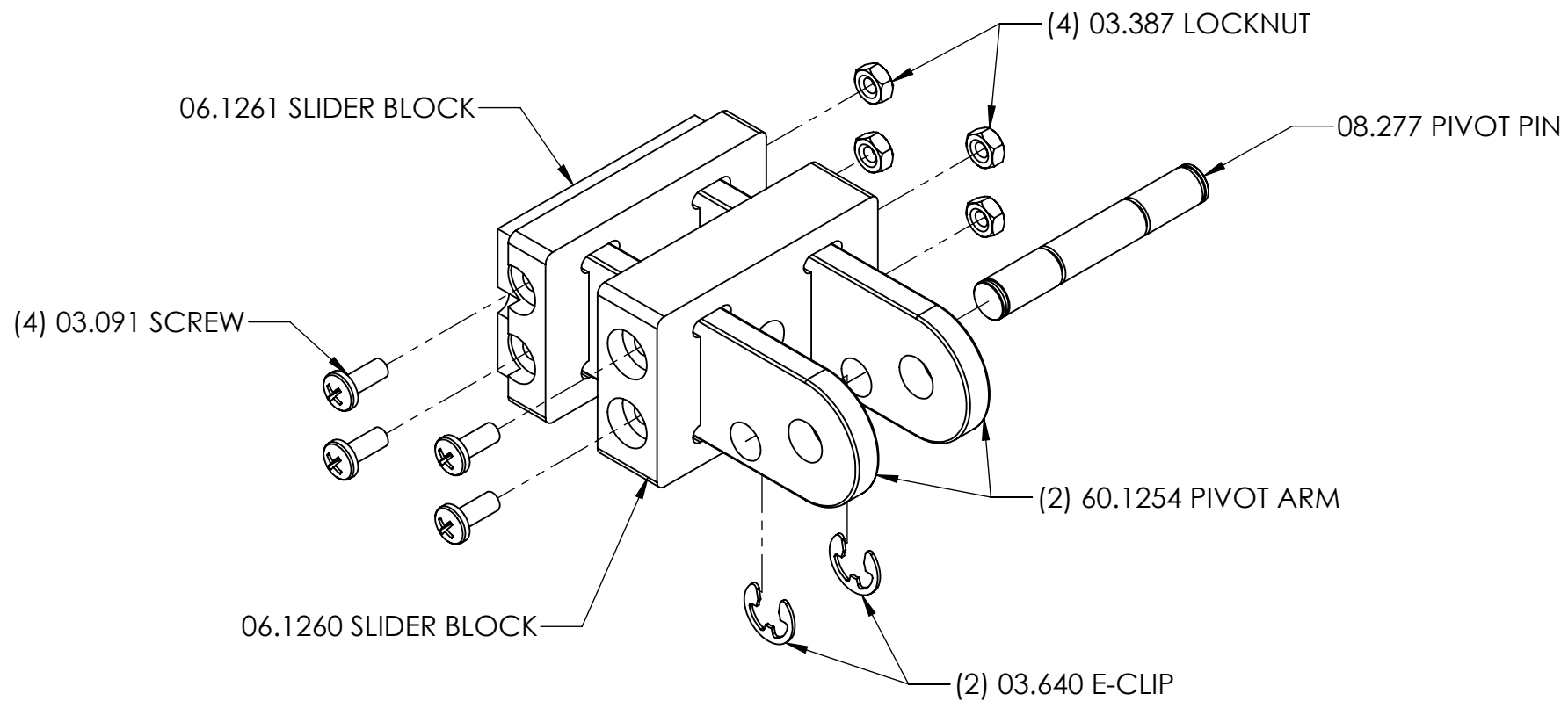
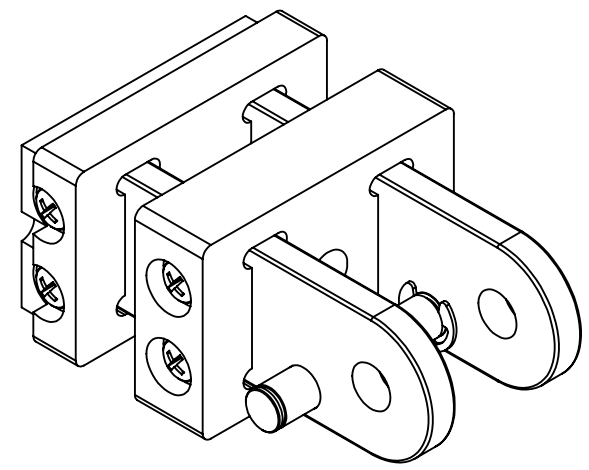
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MATCH ± 1 BEND ± 1 ONE PLACE DECIMAL ± 0.020 TWO PLACE DECIMAL ± 0.010 THREE PLACE DECIMAL ± 0.005 INTERPRET GEOMETRIC TOLERANCING PER ANSI Y14.5M		NAME: TWMM DATE: 01-03-14	 644 SECOND STREET ST. PAUL PARK, MN 55071 
MATERIAL: SEE NOTE SECTION FINISH: SEE NOTE SECTION DO NOT SCALE DRAWING		CHECKED: TWMM ENG APPR: TWMM MFG APPR: RLP Q.A.: AME	
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF GARELICK MFG. CO. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF GARELICK MFG. CO. IS PROHIBITED.		TITLE: <b>POSITIVE AND NEGATIVE REFERENCE DETAILS</b> SIZE: DWG. NO. <b>D 19902-XX</b> SCALE: 1:4 RELEASE: CN2167 SHEET 2 OF 3	REV: <b>F</b>



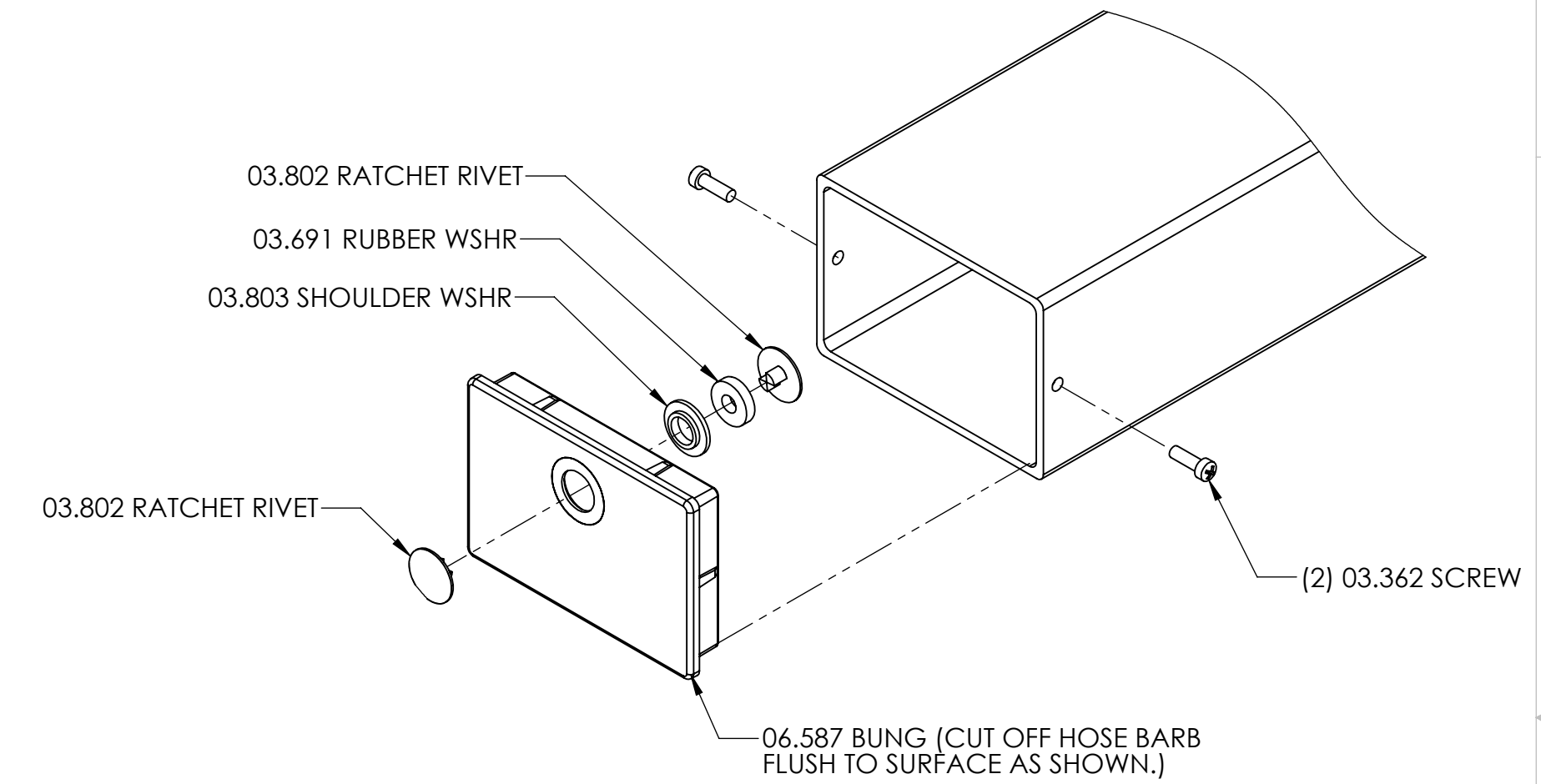
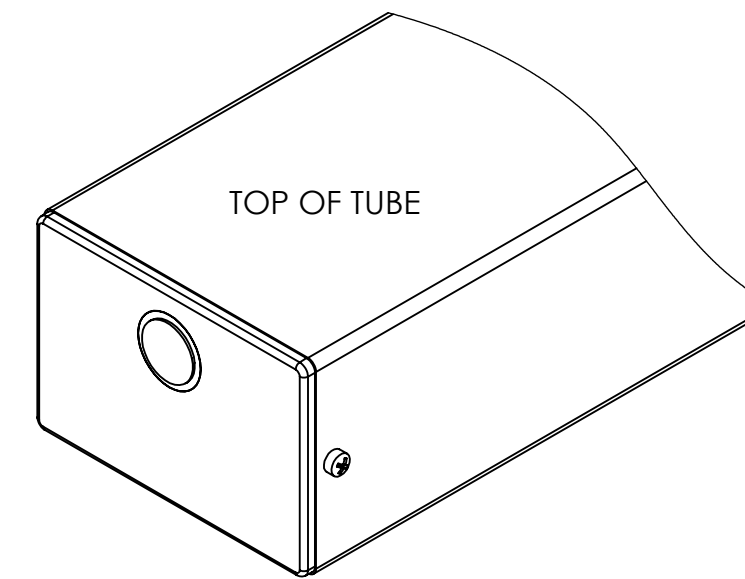
DETAIL A-1: NEGATIVE SLIDER BLOCK ASSY



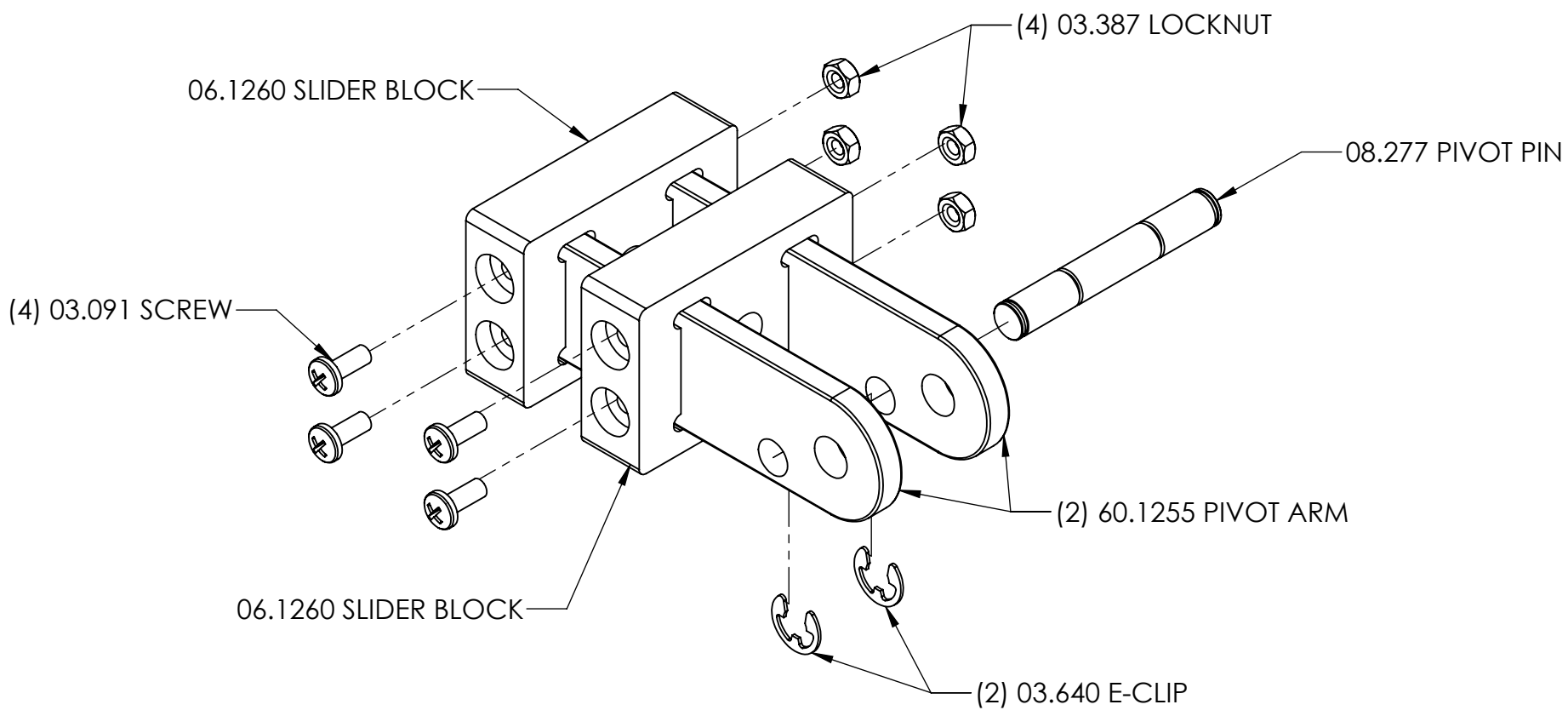
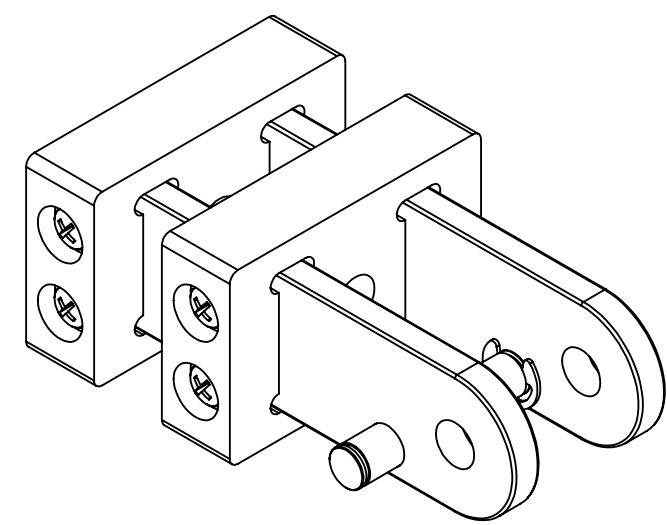
DETAIL B-1: TUBE END CAP - HOSE BARB



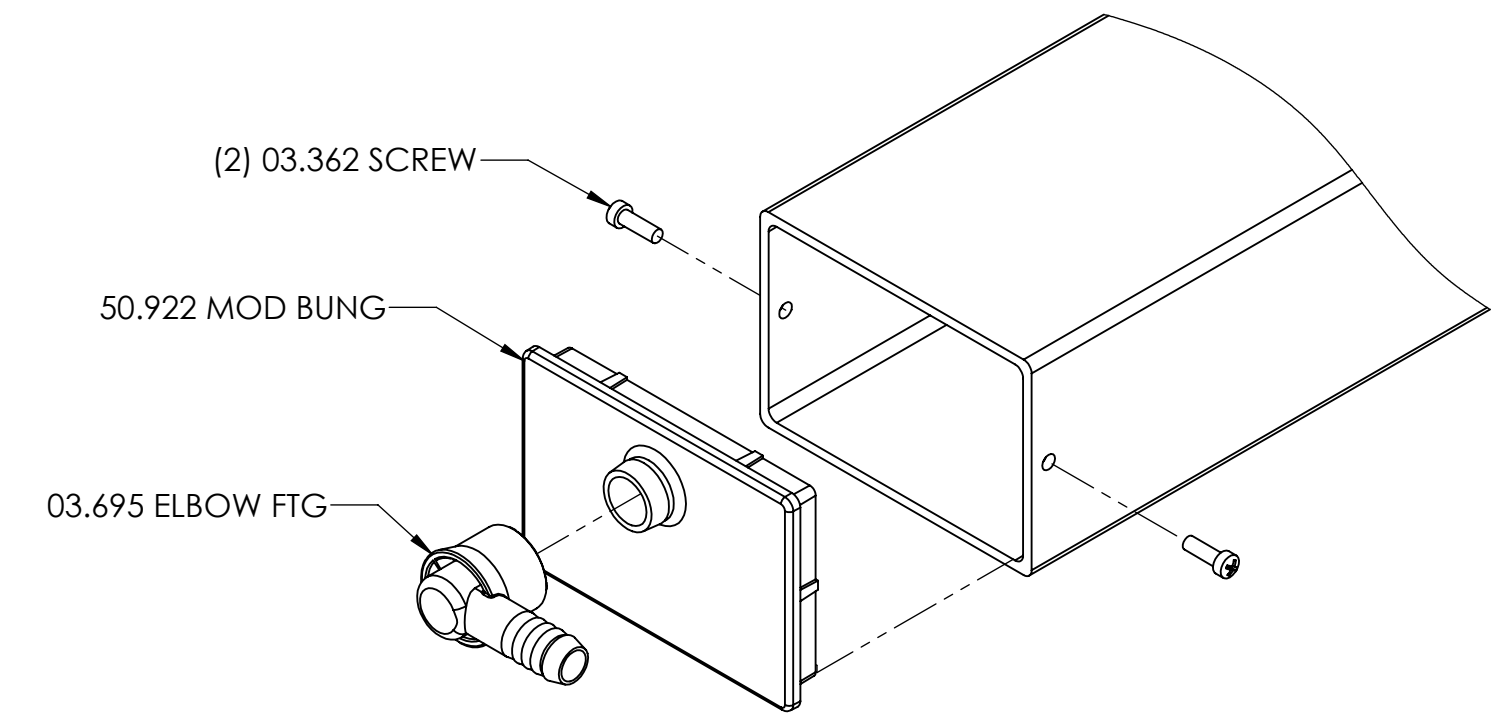
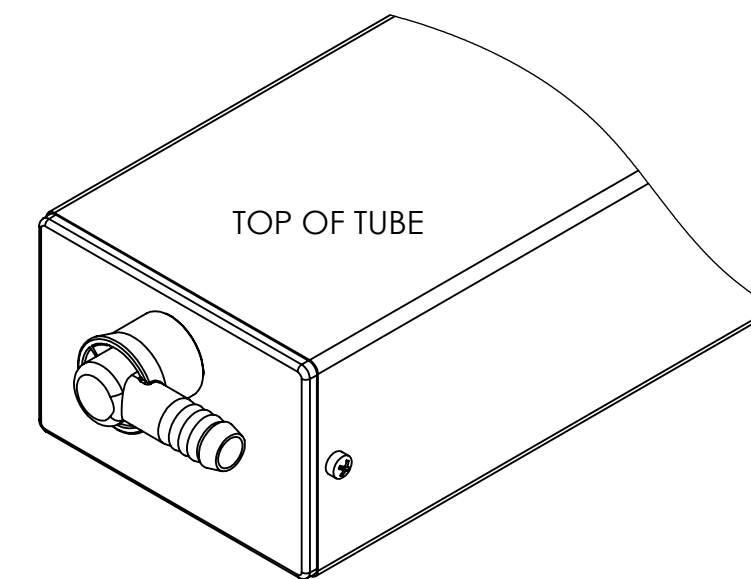
DETAIL A-2: NEGATIVE SLIDER BLOCK ASSY, MOD



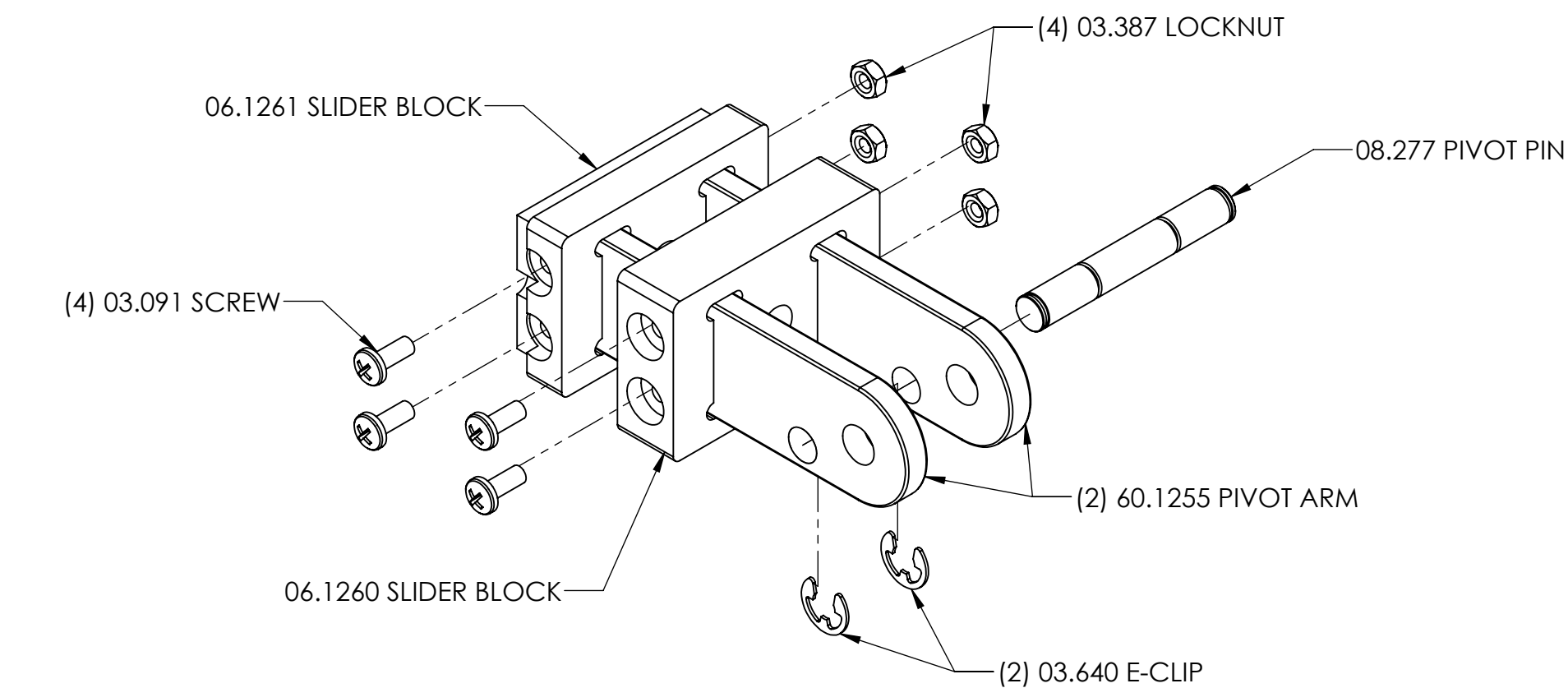
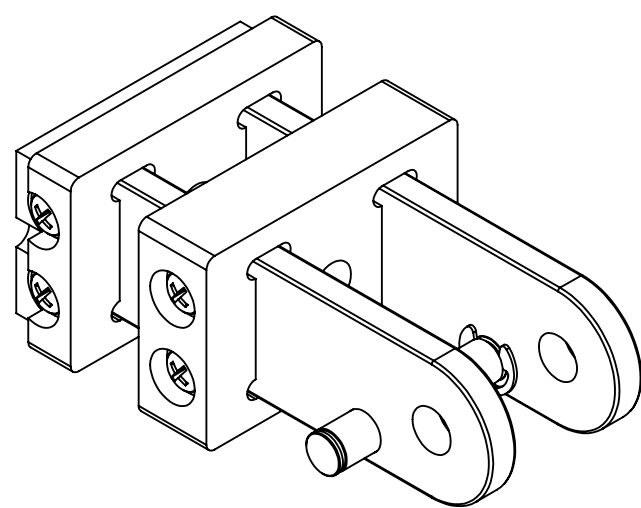
DETAIL B-2: TUBE END CAP - RIVETED



DETAIL A-3: POSITIVE SLIDER BLOCK ASSY



DETAIL B-3: TUBE END CAP - RIGHT ANGLE FTG



DETAIL A-4: POSITIVE SLIDER BLOCK ASSY, MOD

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/32 ANGULAR: MATCH 1 BEND ± 1 ONE PLACE DECIMAL ± 0.020 TWO PLACE DECIMAL ± 0.010 THREE PLACE DECIMAL ± 0.005 INTERPRET GEOMETRIC TOLERANCING PER ANSI Y14.5M		NAME DRAWN TWM 01-03-14 CHECKED TWM 01-03-14 ENG APPR. TWM 01-03-14 MFG APPR. RLP 01-03-14 Q.A. AME 01-03-14	DATE 01-03-14	<b>GARRECK</b> 644 SECOND STREET ST. PAUL PARK, MN 55071	
MATERIAL SEE NOTE SECTION FINISH SEE NOTE SECTION THIRD ANGLE PROJECTION		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF GARRECK MFG. CO., ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF GARRECK MFG. CO. IS PROHIBITED.		TITLE: <b>SLIDER BLOCK AND TUBE END CAP DETAILS</b>	
SCALE: 1:2		SIZE: <b>D</b>	DWG. NO.: <b>19902-XX</b>	REV: <b>F</b>	RELEASE: CN2167 SHEET 3 OF 3