

PART NUMBER	REV	FIRST USED	REVISIONS
680020-1	P	854400-1	LEADMAKER OR BENCH MODEL G
680020-2	P	565435-5	BENCH MODEL K
680020-7	P	-	KOMAX 162

SUPERSEDED BY 680020-1  
 SUPERSEDED BY 680020-1

CRIMPING DATA			
PAD LETTER	CRIMP HEIGHT	WIRE SIZE	STRIP LENGTH
A	.055±.002	18	.281
B	.052±.002	(2)22	
C	.050±.002	20	
D	.047±.002	22	
CRIMP	SIZE	TYPE	FEED
WIRE	.080	F	.740
INSUL	.140	0	-
INSUL RANGE	WIRE RANGE	APPLICATOR INSTRUCTION SHEET	
.050-.100	22-18	AI 8099	AI 8102
TERM APPL SPEC			114-2124

P	LTR	DESCRIPTION	DATE	DMN	APVD
P3		ECR-24-217107	23AUG2024	GK	TE

- 1 RECOMMENDED SPARE PARTS.
- 2 ITEMS NOT SHOWN ON ASSEMBLY.
- 3 TOLERANCE ON CUT LENGTH TO BE ±.13.
- 4 USED ON THE CLS I AND II MACHINES ONLY. REMOVE THE TWO MOUNTING SCREWS SECURING THE PRODUCT DEREELEER AND PLACE THE PRODUCT GUIDE (ITEM 111) ON TOP OF THE MOUNTING BRACKET. REASSEMBLE AND RETIGHTEN THE TWO MOUNTING SCREWS.
- 5 ITEM 127 "T" TERMINATING UNIT CONVERSION KIT 856399-1 CONVERTS APPLICATOR 680020-2 TO A 680020-1.
- 6 ITEM 128 AOM 4A FEED SIDE CONVERSION KIT 856875-1 CONVERTS AN AOM TO RUN APPLICATOR 680020-1.
- 7 ITEM 129 "K" TERMINATING UNIT CONVERSION KIT 856398-1 CONVERTS APPLICATOR 680020-1 TO A 680020-2.
- 8 ADJUSTING THE VALVES (ITEMS 40 AND 47).

8a. FOR 680020-1 ASSEMBLY ONLY.

MAKE SURE THE CAM VALVE (ITEM 84) IS IN THE FULLY DOWN POSITION BEFORE PLACING THE RAM BACK INTO THE APPLICATOR. INSTALL THE APPLICATOR INTO A "T" TERMINATING UNIT, TURNING THE POWER TO THE UNIT OFF WHILE ALLOWING THE AIR TO REMAIN ON. MANUALLY CYCLE THE UNIT, PRODUCT MUST NOT BE PRESENT IN THE APPLICATOR, SO THAT THE RAM IS AT DEAD BOTTOM OF ITS STROKE. LOOSEN THE FOUR SCREWS SECURING THE VALVES (ITEMS 40 AND 47) AND SLOWLY RAISE THE RAM UPWARD UNTIL THE INSULATION CRIMPER LEG (ITEM 78) IS IN THE CENTER OF THE INSERTER (ITEM 18). ADJUST THE LOWER VALVE (ITEM 47) SO IT IS ON THE LOWER LOBE OF THE CAM VALVE (ITEM 84) AND IS ACTUATED, THEN RETIGHTEN THE TWO MOUNTING SCREWS. THIS VALVE WILL CAUSE THE INSERTION CYLINDER TO EXTEND, INSERTING THE HOUSING ONTO THE TERMINATED PRODUCT.

CONTINUE RAISING THE RAM, STOPPING JUST BEFORE TOP DEAD CENTER. NOW POSITION THE UPPER VALVE (ITEM 40) SO IT IS ON THE UPPER LOBE OF THE VALVE CAM (ITEM 84) AND IS ACTUATED, THEN RETIGHTEN THE TWO MOUNTING SCREWS. THIS VALVE WILL CAUSE THE INSERTION CYLINDER TO RETRACT AFTER THE HOUSING IS APPLIED. COMPLETE THE THE UNIT CYCLE TO TOP DEAD CENTER.

CHECK THE ADJUSTMENTS JUST MADE BY PUTTING PRODUCT INTO THE APPLICATOR AND CYCLING THE UNIT UNDER POWER A FEW TIMES AND VERIFY THAT THE CURRENT SETTINGS ARE CORRECT. IF ADJUSTMENTS MUST BE MADE TURN OFF POWER TO THE UNIT, REMOVE ANY PRODUCT AND FOLLOW THE STEPS ABOVE.

NOTE: UNDER MANUAL MODE DAMAGE TO THE HOUSINGS WILL OCCUR WHEN PRODUCT IS APPLIED TO THE APPLICATOR DUE TO TIMING, THIS IS AN ENGINEERED INTERFERENCE AND WILL BE CORRECTED UNDER POWER OF THE UNIT.

8b. FOR 680020-2 ASSEMBLY ONLY.

MAKE SURE THE CAM VALVE (ITEM 84) IS IN THE FULLY UP POSITION BEFORE PLACING THE RAM BACK INTO THE APPLICATOR. INSTALL THE APPLICATOR INTO A "K" TERMINATING UNIT, TURNING THE POWER TO THE UNIT OFF WHILE ALLOWING THE AIR TO REMAIN ON. MANUALLY CYCLE THE UNIT, PRODUCT MAY BE PRESENT IN THE APPLICATOR, SO THAT THE RAM IS AT DEAD BOTTOM OF ITS STROKE. LOOSEN THE FOUR SCREWS SECURING THE VALVES (ITEMS 40 AND 47) AND SLOWLY RAISE THE RAM UPWARD UNTIL THE INSULATION CRIMPER LEG (ITEM 78) CLEARS THE INSERTER BY .03±.03. ADJUST THE LOWER VALVE (ITEM 47) SO IT IS ON THE LOWER LOBE OF THE CAM VALVE (ITEM 84) AND IS ACTUATED, THEN RETIGHTEN THE TWO MOUNTING SCREWS. THIS VALVE WILL CAUSE THE INSERTION CYLINDER TO EXTEND, INSERTING THE HOUSING ONTO THE TERMINATED PRODUCT.

CONTINUE RAISING THE RAM, STOPPING JUST BEFORE TOP DEAD CENTER. NOW POSITION THE UPPER VALVE (ITEM 40) SO IT IS ON THE UPPER LOBE OF THE VALVE CAM (ITEM 84) AND IS ACTUATED, THEN RETIGHTEN THE TWO MOUNTING SCREWS. THIS VALVE WILL CAUSE THE INSERTION CYLINDER TO RETRACT AFTER THE HOUSING IS APPLIED. COMPLETE THE THE UNIT CYCLE TO TOP DEAD CENTER.

CHECK THE ADJUSTMENTS WITH A FEW MANUAL CYCLES OF THE PRESS TO VERIFY CLEARANCES FOR THE TOOLING AND CONTINUING TO ADJUST THE VALVES UNTIL THESE CLEARANCES ARE OBTAINED.

- 9 THE CYLINDER MOUNT (ITEM 31) SHOULD BE ADJUSTED VERTICALLY SO THE INCOMING PRODUCT GOES THROUGH THE STRIP GUIDES (ITEMS 60 AND 95) AND INTO THE INSERTER (ITEM 18) WITHOUT ANY OBSTRUCTIONS TO DISLodge OR STUB ON THE HOUSINGS.
- 10 ADD SHIM BETWEEN POD INSERTER AND HOUSING IF TERMINALS HIT POD INSERTER.

- 11 LOCATE THE REAR KEYS THAT LOCATE THE APPLICATOR TO THE TERMINATING UNIT BASE PLATE. THE SOCKET HEAD CAP SCREW SECURING THE KEY CLOSEST TO THE FRONT OF THE UNIT MUST BE REPLACED WITH A BUTTON HEAD CAP SCREW (ITEM 92 OR 107). THIS CHANGE WILL NOT EFFECT ANY OTHER APPLICATOR.
- 12 BUTTON HEAD CAP SCREW (ITEM 92 OR 107) IS TO BE BAGGED AND SHIPPED ALONG WITH THE APPLICATOR.
- 13 CANNOT RUN 2 WIRES ON LEADMAKER.
- 14 GRIND OFF BOTTOM OF STUD IF IT PROTRUDES BELOW SURFACE OF STRIP GUIDE.
- 15. SPRING LOADED TONKER (P/N 354853-1) MUST BE USED WHEN RUNNING THE APPLICATOR ON A LEADMAKER.
- 16 AIR VALVE CONVERSION KIT, KOMAX 1633069-1 CONVERTS 680020-1 UP TO & INCLUDING REV H TO A 680020-7. AIR VALVE CONVERSION KIT, KOMAX 1633069-2 CONVERTS 680020-1 REV J THRU CURRENT TO A 680020-7.

THIS DRAWING IS A CONTROLLED DOCUMENT.		DMN M. O'BRINE 8-9-93	STE		TE Connectivity Ltd.
DIMENSIONS: INCHES		CHK C. ERISMAN 8-16-93	NAME ULTRA POD FLAG APPLICATOR		
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPD B. WOLFF 8-16-93	PRODUCT SPEC		
0 PLC ± -		APPLICATION SPEC			
1 PLC ± -		SIZE			
2 PLC ± -		CAGE CODE			
3 PLC ± -		DRAWING NO			
4 PLC ± -		RESTRICTED TO			
ANGLES ± -		A100779 C-680020			
MATERIAL	FINISH	WEIGHT	CUSTOMER ACCESSIBLE PRODUCTION DRAWING		
-	-	-	SCALE	SHEET	REV
	1:1	1	3	P3	

REVISIONS				
#	LT#	DESCRIPTION	DATE	BY
-	-	SEE SHEET 1	-	-

SUPERSEDED BY 680020-1

SUPERSEDED BY 680020-1

QTY	REQD	PER	ASSY	PART NO	DESCRIPTION	ITEM NO
18	00	-	-	980282-3	CONNECTOR, TUBING, MALE	137
1	-	-	IN	27319-8	TUBING, POLY-FLOW .156 OD	136
1	-	-	-	23054-1	VALVE, FLOW CONTROL	135
2	2	2	-	2-354779-8	PIN, WIRE DISC (.3130)D	134
2	2	2	-	2-354779-2	PIN, WIRE DISC (.3100)C	133
2	2	2	-	1-354779-8	PIN, WIRE DISC (.3080)B	132
2	2	2	-	1-354779-2	PIN, WIRE DISC (.3050)A	131
2	-	-	-	1424324-1	AIR LINE KIT .250 TO 4MM	130
REF	-	REF	-	856398-1	K TERM. UNIT CONV. KIT	129
REF	-	REF	-	856875-1	AOM 4A CONVERSION KIT	128
REF	-	REF	-	856399-1	T TERM. UNIT CONV. KIT	127
1	-	1	-	986950-1	WASHER, FLAT PRECISION	126
1	-	1	-	679172-1	SPACER	125
AR	AR	AR	-	1-23419-5	SEALANT	124
1	-	1	-	19832-1	TIE, WIRE	123
27	76	27	76	18912-4	HOSE, FLEXIBLE .250 OD	122
25	00	25	00	27319-4	TUBE, PLASTIC .250 OD	121
1	-	1	-	21899-5	WASHER, FLAT 1/2	119
1	-	1	-	690212-1	POST, RAM	118
1	-	1	-	461264-1	PLATE, IDENTIFICATION	117
2	2	2	-	21017-2	SCR., DRIVE #2 X .19 LG	116
1	-	1	-	22309-1	TEE, PIPE FITTING FEMALE 1/8NPT	115
1	-	1	-	22310-1	ELBOW, FEMALE 90	114
2	2	2	-	6-21000-7	SCR., SHC 8-32UNC X 1.75 LG	113
1	-	1	-	692655-5	VALVE ASSEMBLY	112
REF	-	REF	-	768411-1	GUIDE, PRODUCT	111
1	-	1	-	856452-1	BRACKET, PNEUMATIC MOUNTING	110
1	-	1	-	22374-7	VALVE, QUICK EXHAUST 1/8NPT	109
1	-	1	-	690191-5	PLUG, NYLON	108
2	2	2	-	2-21002-2	SCR., BHC 8-32UNF X .50 LG	107
1	-	1	-	1-455750-3	GUARD ASSEMBLY	105
1	-	1	-	22307-1	BUSHING, PIPE, FITTING 1/4NPT	104
1	-	1	-	23791-2	TEE, PIPE, FITTING 1/4NPT	103
1	-	1	-	28580-1	FILTER, MINATURE 1/4NPT	102
2	2	2	-	22311-2	NIPPLE, CLOSE 1/4NPT	101
1	-	1	-	28582-1	LUBRICATOR 1/4NPT	100
1	-	1	-	26108-1	BODY, QUICK CONNECT	99
2	2	2	-	2-21006-1	SCR., SET, SOC 4-40UNC X .25 LG	98
1	-	1	-	18258-3	CONN., TUBING, MALE 1/8NPT-1/4 TUBE	96
1	-	1	-	852762-1	GUIDE, REAR STRIP	95
1	-	1	-	4-21008-0	SCR., SET, SOC FT. PT. 8-32UNC X .25 LG	94
1	-	1	-	2-22278-8	SPRING, COMP. .120 DIA X .63 LG	93
1	-	1	-	852990-1	STRIPPER, HOUSING	91
1	-	1	-	852764-1	SHEAR, REAR	90
1	-	1	-	852765-1	SPACER, LEFT SHEAR	89
1	-	1	-	690124-1	WASHER, RAM	88
1	-	1	-	690125-1	WASHER, LAMINATED	87
1	-	1	-	852771-1	BLADE, SLUG	86
5	5	5	-	2-21000-6	SCR., SHC 8-32UNC X .38 LG	85
1	-	1	-	852772-1	VALVE, CAM	84
1	-	1	-	690142-1	DISC, INSULATION	83
1	-	1	-	354777-1	WIRE DISC, PLASTIC	82
1	-	1	-	2-455888-1	SPACER, CRIMPER	81
1	-	1	-	22281-2	SPRING, COMP. .300 DIA X 1.25 LG	80
1	-	1	-	3-21030-1	PIN, DOWEL .312 DIA X .50 LG	79
1	-	1	-	853491-2	CRIMPER, INSULATION	78
1	-	1	-	852743-2	CRIMPER, WIRE	77
1	-	1	-	21009-6	SCR., SET, SOC 1/4-20UNC X .25 LG	76
1	-	1	-	690191-1	PLUG, NYLON	75
1	-	1	-	23030-1	SCR., SET, SOC 6-32UNC X .25 LG	74
1	-	1	-	690170-1	SPRING, COMP.	73
1	-	1	-	690603-1	SPRING, ASSIST	72
1	-	1	-	23241-6	BALL, STEEL	71

QTY	REQD	PER	ASSY	PART NO	DESCRIPTION	ITEM NO
1	-	1	-	7-21002-9	SCR., BHC 5/16-24UNF X 1.00 LG	70
1	-	1	-	238009-1	BLOCK, CRIMPER SPACER	69
1	-	1	-	852779-1	STRIPPER	68
1	-	1	-	1-21002-6	SCR., BHC 6-32UNC X .25 LG	67
1	-	1	-	852759-1	SLIDE, STRIPPER	66
1	-	1	-	22480-5	WASHER, WAVE SPRING	65
1	-	1	-	852768-1	RAM	64
1	-	1	-	856391-1	CAP, RAM	63
2	2	2	-	3-21000-8	SCR, SHC 10-32UNF X .88 LG	62
3	3	3	-	2-21002-2	SCR., BHC 8-32UNC X .50 LG	61
1	-	1	-	852763-1	GUIDE, FRONT STRIP	60
1	-	1	-	853018-1	PLATE, BASE	59
1	-	1	-	852766-1	SPACER, RIGHT SHEAR	58
1	-	1	-	90545-1	SPRING, TORSION	57
1	-	1	-	852761-1	PLATE, BACK-UP PIVOT	56
2	2	2	-	1-21000-3	SCR., SHC 4-40UNC X .25 LG	55
4	4	4	-	21024-3	WASHER, LOC 6	54
1	-	1	-	852760-1	PLATE, STRIP GUIDE	53
4	4	4	-	3-21002-3	SCR, BHC 1/4-20UNC X .50 LG	52
1	-	1	-	852740-1	ARM, STOCK DRAG	51
1	-	1	-	464452-6	DRAG, STOCK	50
4	4	4	-	21055-5	WASHER, FLAT 6	49
1	-	1	-	1-460680-6	FEED FINGER ASSEMBLY	48
1	-	1	-	986377-1	VALVE, LEVER ROLLER	47
2	2	2	-	22354-6	STUD 8-32UNC X 1.00 LG	46
2	2	2	-	18326-2	ELBOW, TUBE TO MALE 10-32NPT	45
4	4	4	-	18258-1	CONN., MALE TUBE TO MALE THD 10-32NPT	44
1	-	1	-	5-21000-4	SCR., SHC 10-24UNC X .63 LG	43
1	-	1	-	856437-1	HOLD-DOWN, HOUSING	42
2	2	2	-	856689-1	PLATE, NUT	41
1	-	1	-	986376-1	VALVE, LEVER ROLLER	40
4	4	4	-	2-21000-4	SCR., SHC 6-32UNC X 1.00 LG	39
3	3	3	-	2-22733-8	SCR., BHC 1/4-20UNC X .63 LG	38
1	-	1	-	852769-1	HOUSING, APPLICATOR	37
2	2	2	-	852776-1	PLATE, TOP RETAINER	36
2	2	2	-	1-21000-7	SCR, SHC 4-40UNC X .75 LG	35
2	2	2	-	2-21000-9	SCR, SHC 8-32UNC X .75 LG	34
2	2	2	-	21055-6	WASHER, FLAT 8	33
1	-	1	-	986625-1	CYL., AIR, DOUBLE ACTING 1/8NPT	32
1	-	1	-	852774-1	MOUNT, CYLINDER	31
2	2	2	-	1-21000-6	SCR, BHC 4-40UNC X .62 LG	30
1	-	1	-	856081-1	LEAD-IN, HOUSING	29
1	-	1	-	8-21002-9	SCR., BHC 8-32UNC X 1.00 LG	28
2	2	2	-	22733-8	SCR., BHC 8-32UNC X .38 LG	27
1	-	1	-	853088-2	ANVIL	25
1	-	1	-	852767-1	SHEAR, FRONT	24
1	-	1	-	679646-1	BACK-UP, TERMINAL	23
1	-	1	-	852952-1	STOP, WIRE	22
2	2	2	-	3-21000-4	SCR., SHC 10-32UNF X .38 LG	21
2	2	2	-	21055-7	WASHER, FLAT 10	20
1	-	1	-	856295-1	BRACKET, VALVE	19
1	-	1	-	852775-1	INSERTER	18
2	2	2	-	23238-1	INSERT, COUPLING	17
4	4	4	-	21023-6	WASHER, FLAT (#8)	16
2	2	2	-	3-21000-9	SCR., SHC 10-32UNF X 1.00 LG	15
1	-	1	-	21022-2	NUT, FLEX 8-32UNC	14
3	3	3	-	1-21002-8	SCR., BHC 6-32UNC X .50 LG	12
2	2	2	-	2-21006-3	SCR., SET, SOC CUP PT 4-40UNC X .31 LG	11
2	2	2	-	21018-4	NUT, HEX 4-40UNC	10
3	3	3	-	3-22281-5	SPRING, COMP. .300 DIA X .44 LG	9
4	3	3	-	22306-1	ELBOW, MALE 1/8NPT	8
1	-	1	-	986619-1	ELBOW, TUBING MALE 1/8NPT-1/4 TUBE	7
2	2	2	-	4-21000-0	SCR., SHC 10-32UNF X 1.25 LG	6
1	-	1	-	22304-1	NIPPLE, HEX PIPE 1/8NPT	5
1	-	1	-	985836-1	VALVE, TOGGLE 1/8NPT	3
1	-	1	-	1-460277-2	AIR FEED ASSEMBLY	2
1	-	1	-	985883-2	CONN., TUBING, MALE 1/8NPT-1/4 TUBE	1

QTY	REQD	PER	ASSY	PART NO	DESCRIPTION	ITEM NO
QTY	REQD	PER	ASSY	PART NO	DESCRIPTION	ITEM NO

THIS DRAWING IS A CONTROLLED DOCUMENT.

DMN M. O'BRINE 8-9-93  
 CHK C. ERISMAN 8-16-93  
 APD B. WOLFF 8-16-93

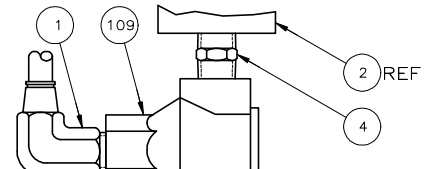
TE Connectivity Ltd.

ULTRA POD FLAG APPLICATOR

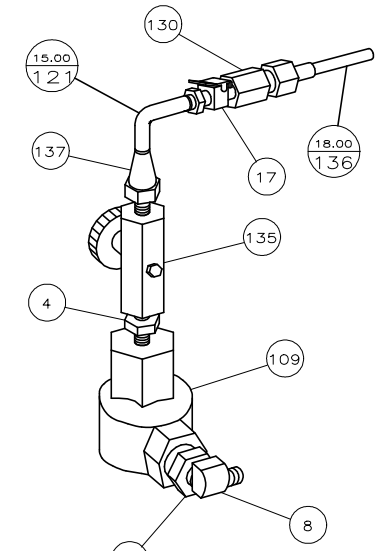
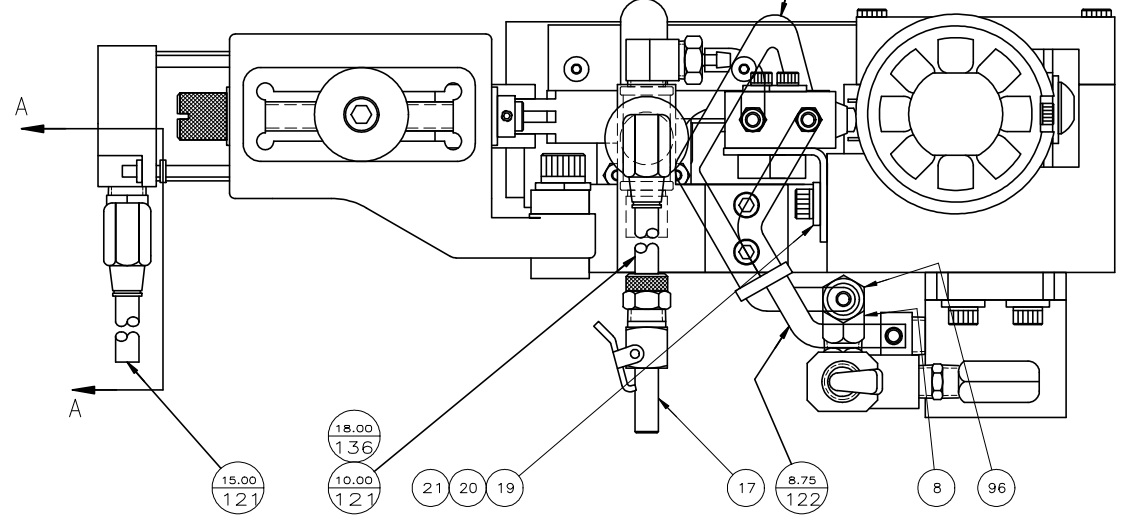
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CUSTOMER ACCESSIBLE PRODUCTION DRAWING SCALE: 1:1 SHEET 2 OF 3 REV P3

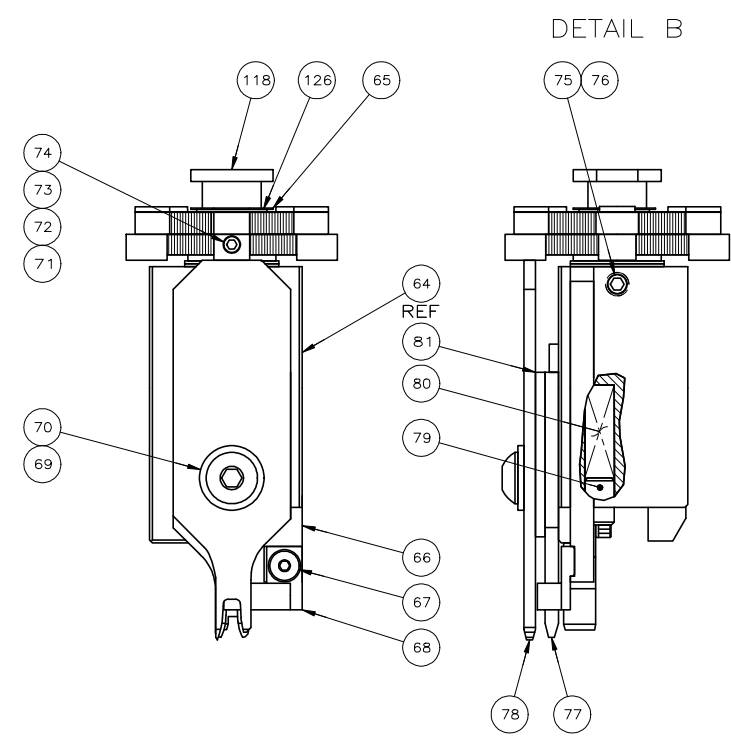
REVISIONS				
P	LTN	DESCRIPTION	DATE	BY
-	-	SEE SHEET 1	-	-



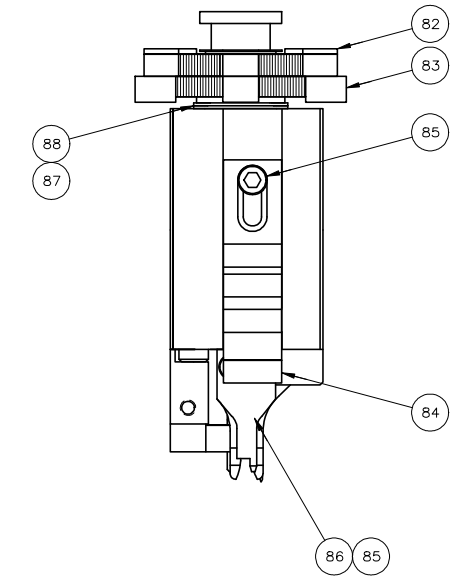
VIEW A-A  
FOR -1 ONLY



DETAIL E  
FOR -7 ONLY

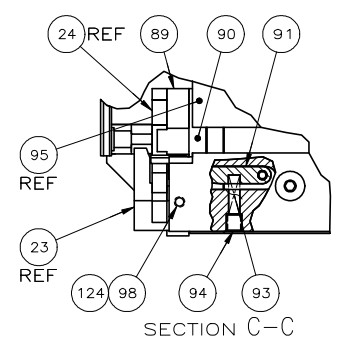
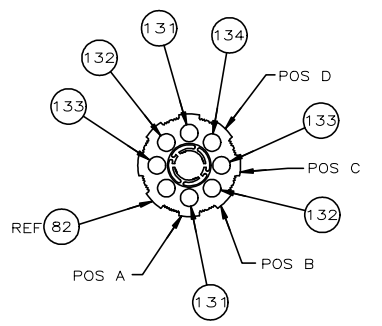
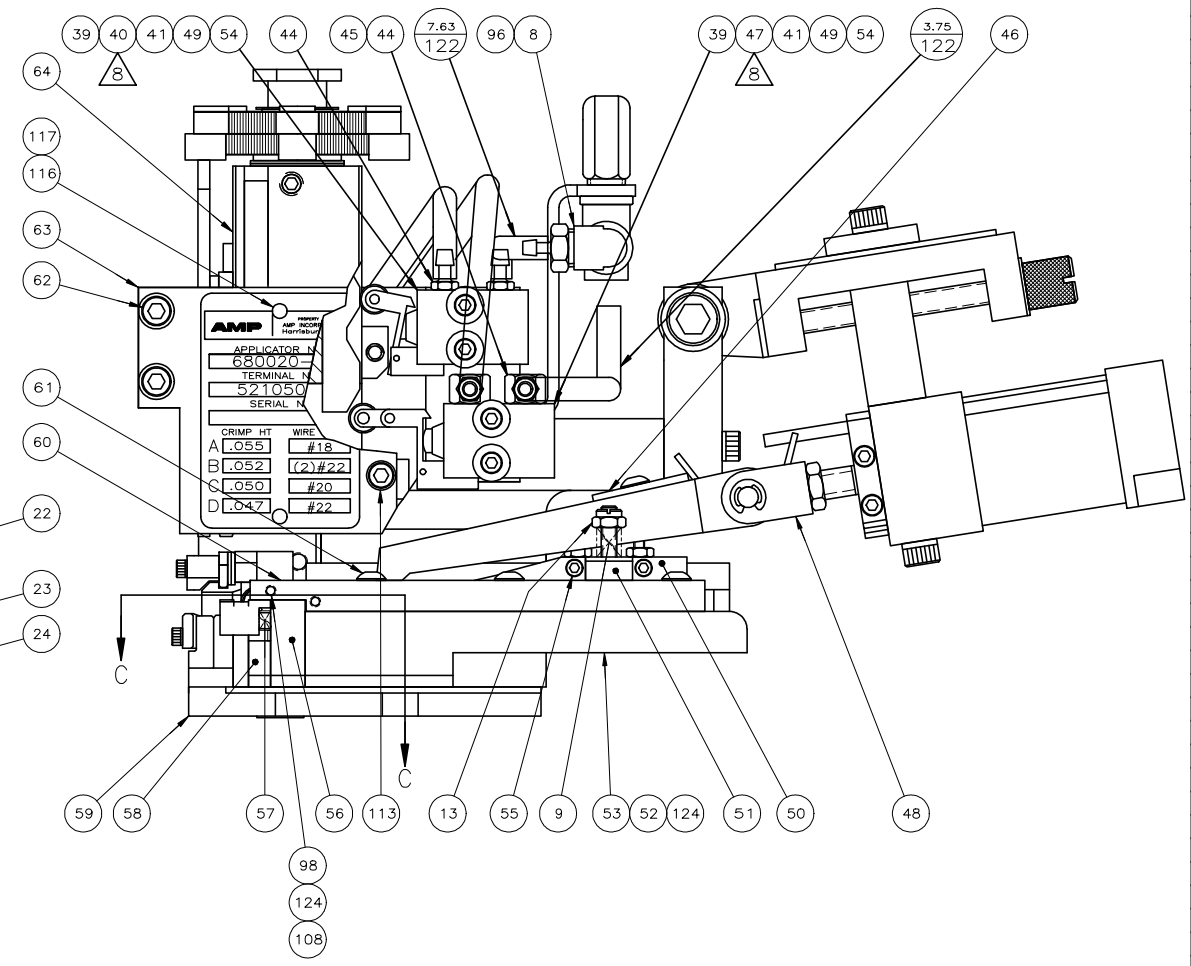
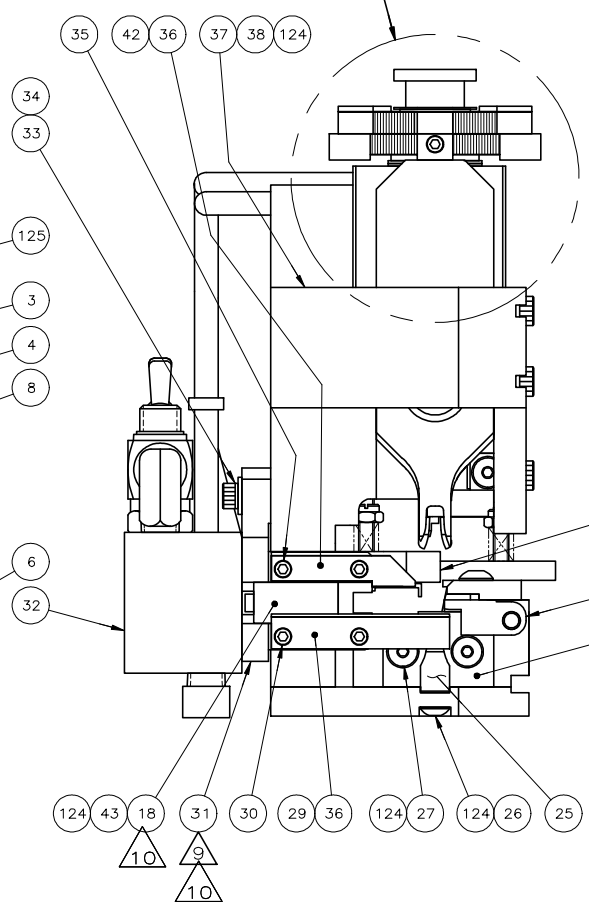
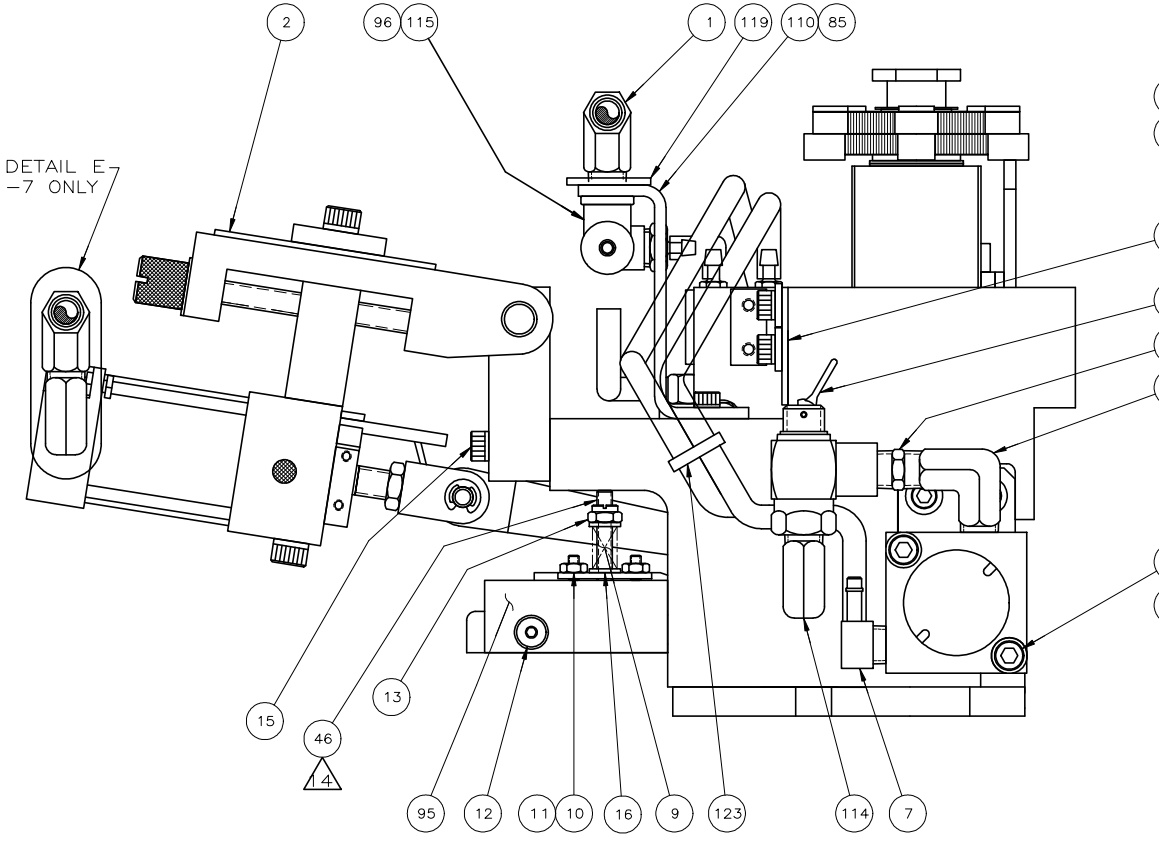


DETAIL B



SEE DETAIL E  
FOR -7 ONLY

SEE DETAIL B



SECTION C-C

AMP	
APPLICATOR N 680020	
TERMINAL N 521050	
SERIAL N	
CRIMP HT	WIRE
A .055	#18
B .052	(2)#22
C .050	#20
D .047	#22

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN M. O'BRINE 8-9-93	TE Connectivity Ltd.	
DIMENSIONS:		CHK C. ERISMAN 8-16-93	ULTRA POD FLAG APPLICATOR	
INCHES		APP'D B. WOLFF 8-16-93	RESTRICTED TO	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		NAME	SIZE CAGE CODE DRAWING NO	
0 PLC	± .005		A100779 C-680020	
1 PLC	± .002		WEIGHT	
2 PLC	± .001		SCALE 1:1 SHEET 3 OF 3 REV P3	
3 PLC	± .0005		CUSTOMER ACCESSIBLE PRODUCTION DRAWING	
4 PLC	± .0002			
ANGLES	± .0001			
MATERIAL	FINISH			