Caution:

Do not use old black base tape cassette with auto cut tape system, the front actuator of the system will interfere with black base plate and winding wheel.

Front actuator

Rear actuator

1. **Auto cut tape system consists of auto cut tape blocks and actuator. Auto cut tape blocks are 8mm,12mm,16mm and 24mm block and set on prekit base.**


This long prekit base occupies 20 auto tape slots and can set 5 8mm blocks (25 lane) or 4 8mm (20 lane) and one 12mm block (4 lane) etc. Short prekit base is also prepared for small block usage.

Full flat auto cut tape base is prepared for 7712 or 7702 model. It occupies full tape space on front or rear and can install 5 8mm blocks and 1 12mm block or other combined block.

**To insert tape, cut both sides of leading edge for smooth insertion.**
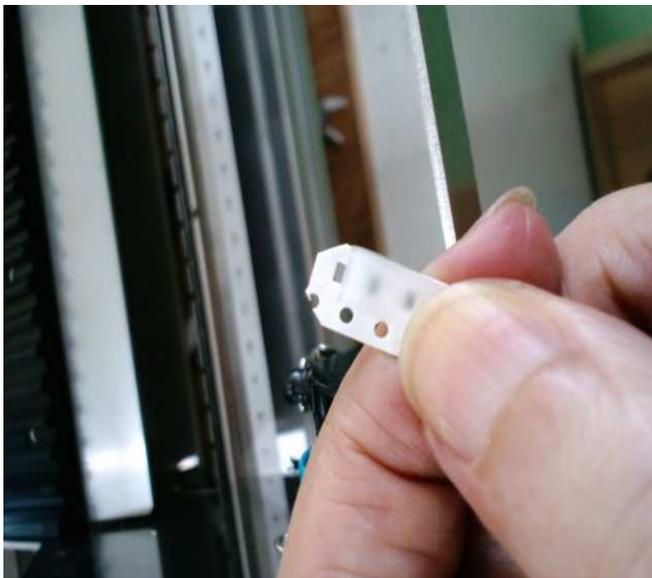
Loosen screws to insert tape since when shipping screws may be tighten. The auto cut tape system intends to peel off cover tape automatically by advancing action but some time it flips up chips and may not work with wider width components so other way to peel off cover tape is prepared as below.

This case the cover tape is peeled off at the end of metal plate as usual auto tapes and edge of cover tape is clipped by rewind reel so the cover tape is gradually peeled off by advancing tape.

Do not clip cover tape at too close to metal plate it may interfere with the actuator on head so approx 3 inches far from the edge .
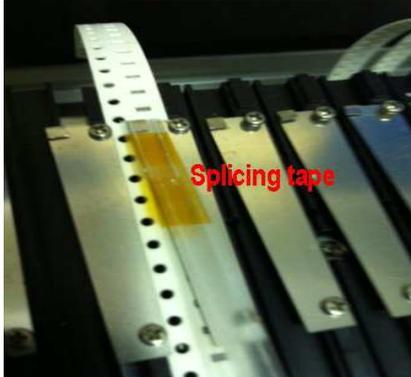
If you can not peel off so long length then splice the edge of cover tape with used cover tape using a adhesive tape (3M's 5413 Capton tape is recommended one) As shown below

Splicing tape

Modified safety pin is used for new shipment instead of alligator clip to avoid interfere with actuator.

Safety Pin
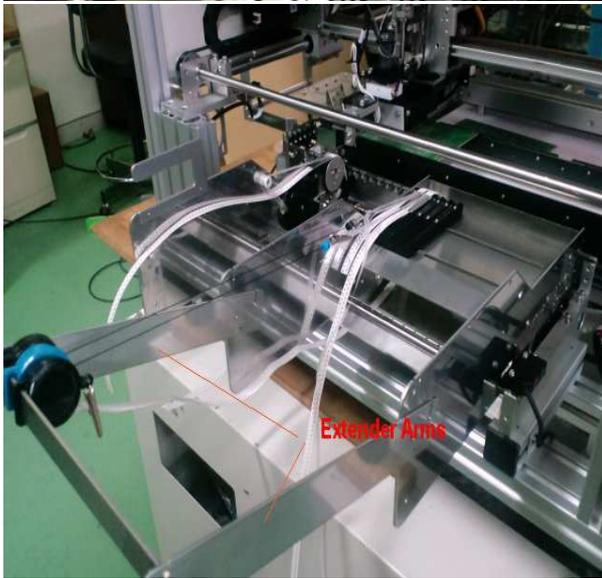
To increase the peel off length, extender arm is prepared. So using extender arm approx 60 pockets length can be peeled off by one rewind action.

Caution

This case rewind wire's pull force is increased and some time it may exceed tape peel off force (approx 200grams) and tape tends to move by pulling force and lost accurate pick up position. Such case ask distributor for peel off weight instead of rewind reel.

Extender Arms

← **Peel Off Weight with clip**

2. Actuator on the head

The actuator on the head advance tape according to the parameters in system constant.

Quick SET

Constant Data

		# 1	# 2	# 3	# 4	# 5	# 6	Remark************
	k 35	32	13	0	0	0	0	X/Y OFFSET 0
	k 36	19	3187	467	-11534			AMERA
	k 37	50	-20	55	27	800	1100	X/Y SKEW tapeOff
▶	k 38	0	0	0	49	900	500	#2 TILT0/90
	k 39	0	0	0	0			#2 TILT18/27
	k 40	0	0	0	0	0	0	#2 OFFSET 90
	k 41	0	0	0	0	0	0	#2 OFFSET 180
	k 42	0	0	0	0	0	0	#2 OFFSET 270
	k 43	0	0	0	0	0	0	#2 OFFSET 0
	k 44	-4451	4488	0	0	80	80	ND HEADOFFSET 23
	k 45	-10	0	80	20	0.6	0	ASER CENTER -660
	k 46	10	10	0	0	0	0	#1 45 deg
	k 47	10	10	0	0	0	0	#1 135 deg
	k 48	10	10	0	0	0	0	#1 225 deg
	k 49	10	10	0	0	0	0	#1 315 deg
	k 50	0	0	0	0	0	0	#2 45 deg
	k 51	0	0	0	0	0	0	#2 135 deg
	k 52	0	0	0	0	0	0	#2 225 deg
	k 53	0	0	0	0	0	0	#2 315 deg

ITEM HELP

k 38 # 5
Auto cut actuator X
offset

Constant data for front actuator model

System constant k37 #3 specifies start tape # for cut tapes and k38 #3 is auto cut start # in cut tape bank so this case it is zero which means auto cut tape starts from #55. k38 #4 is total auto cut tape number.

K38 #2 is y start position of tape push. Zero is 500 (5mm).

K38 #5 is x offset of the actuator so after picks a component up the head moves this offset in x direction to align to advancing hole.

K38 #6 is y stroke to advance tape.

K38 #5 and #6 will need fine adjustment for proper operation.

The test is done in teaching mode of tape data and I command actuates tape advancing system.

CONSTANT DATA

Constant Data

Quick SET

	# 1	# 2	# 3	# 4	# 5	# 6	Remark***********
k 35	0	-36	0	0	0	0	X/Y OFFSET 0
k 36	-42	3199	467	-11534			AMERA
k 37	8.6859	-10.41	28	27	1300	1000	X/Y SKEW tape0ff
k 38	0	0	0	30	850	600	#2 TILT0/90
k 39	0	0	0	46800	-2330	600	#2 TILT18/27
k 40	0	0	0	0	0	0	#2 OFFSET 90
k 41	0	0	0	0	0	0	#2 OFFSET 180
k 42	0	0	0	0	0	0	#2 OFFSET 270
k 43	0	0	0	0	0	0	#2 OFFSET 0
k 44	-4629	4459	0	0	80	30	ND HEADOFFSET 23
k 45	0	0	20	20	0.6	0	ASER CENTER -500
k 46	10	10	0	0	0	0	#1 45 deg
k 47	10	10	0	0	0	0	#1 135 deg
k 48	10	10	0	0	0	0	#1 225 deg
k 49	10	10	0	0	0	0	#1 315 deg
k 50	0	0	0	0	0	0	#2 45 deg
k 51	0	0	0	0	0	0	#2 135 deg
k 52	0	0	0	0	0	0	#2 225 deg
k 53	0	0	0	0	0	0	#2 315 deg

ITEM HELP

k 39 # 4
Auto cut Y position2

Constant data for rear actuator model

Rear actuator model such as 7712 uses system constant k39 for setting. K39 #4 value specifies actuator Y position, #5 value specifies actuator X offset and #6 value is actuator stroke.

Actuator X offset is important for proper operation of the actuator to advance tape. In tape teaching mode after aligning approx center of tape pocket, press T key then head moves to tape advancing position so the actuator will drop on tape sprocket hole if the actuator is pressed by the solenoid. Push solenoid by finger then you can check the actuator is on line of the holes. If not you need to change the X offset value or tape pocket position. Usually The X offset value is adjusted by factory so it should be OK for specially 8mm and 12 mm tapes but for wider width tapes you may need to adjust tape pick up point to align actuator on the hole. (Even the component does not picks up at center it is OK since vision system align it automatically.

Please note to press T key again to return head on pocket if not the tape position may be taught wrong way.

3. How to make auto cut tape data

#	X	Y	A	Strk	Rem********-----	Prt	Indx	Wid	Qy	DT	HA	++++
41	226.1	451.7	0	936		6	1		0	0	0	0
42	239.1	451.7	0	936		6	1		0	0	0	0
43	240	451.7	0	936		4	1		0	0	0	0
44	258.89	451.7	0	936		29	2		0	0	0	0
45	278.1	451.7	0	936		6	1		0	0	0	0
46	291.1	451.7	0	936		6	1		0	0	0	0
47	304.1	451.7	0	936		6	1		0	0	0	0
48	317.1	451.7	0	936		6	1		0	0	0	0
49	330.1	451.7	0	936		6	1		0	0	0	0
50	343.1	451.7	0	936		6	1		0	0	0	0
51	356.1	451.7	0	936		6	1		0	0	0	0
52	369.1	451.7	0	936		6	1		0	0	0	0
53	382.1	451.7	0	936		6	1		0	0	0	0
54	395.07	451.7	0	938		4	1	0	0	0	0	0
55	110.6	6.79	0	988		4	1	8	20	0	0	0
56	120.3	7	0	988		10	1	8	20	0	0	0
57	130.4	7.1	0	988		20	1	8	20	0	0	0
58	140.3	7	0	988		4	1	8	20	0	0	0
59	150.3	7	0	988		4	1	8	0	0	0	0
60	160.3	7	0	988		4	1	8	0	0	0	0

F1-Help F2-Backup F8-Teaching ESC-Return Enter-Confirm

Strk=Stroke Rem=Remark -----=Cut tape X trim Prt=Part type Indx=Index Wid=Ttape width Qy=Rewind #

DT=Dispenser type HA=dispenser additional angle 0-3 ++++=Nozzle lift up 400=8mm

This case the auto cut tape starts from #55 and you must specify index, tape width (Wid) and qy when peeling off by rewind reel , how many parts can be picked up by the end of rewind.

If auto peel off is used then QY is zero and when extender arm is used QY will be 60 (for 8mm).

For 2mm advance tape input 0.5 for Index then the actuator will be activated every next time. For standard 8mm tape if you input 2.1 as index then tape will be advanced 8mm every next time and increase assembly speed slightly. (Be careful for part flip up)
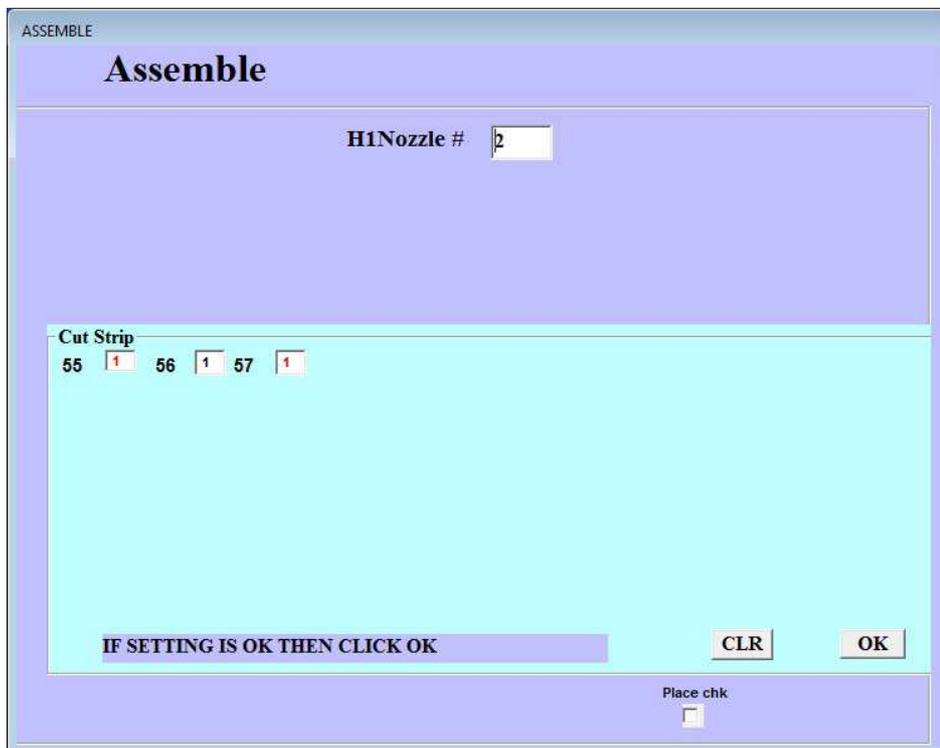
From v2.1.23 the actuator X offset position can be trimmed by adding value under ---- of the remark column. It may be useful for some tape. 1=1/100mm

Rear actuator model will start auto cut tape from 28.

No parts !!
Pull cover tape again Tape# 6
and press SPACE key S to silence

MOVE HEAD

OK   menu   Silent

During assembly when numbers of picked up components reaches to qy then above warning is displayed so extend reel wire and clip the cover tape.

ASSEMBLE

Assemble

H1Nozzle #   2

Cut Strip
55 1   56 1   57 1

IF SETTING IS OK THEN CLICK OK   CLR   OK

Place chk

When to start one PCB assembly above windows opens and red number warns the quantity of some auto cut tapes may not enough to complete one PCB and will stops at middle of assembly to rewind cover tape. Such case you may use several lanes for such components or increase QY of tape data.

4. Numbering of auto cut tape

  Since the auto cut tape blocks can be set as required so some time it is all 8mm blocks and some time it is combination of 8mm and 12mm or 16mm so numbering of tape lane changes case by case.
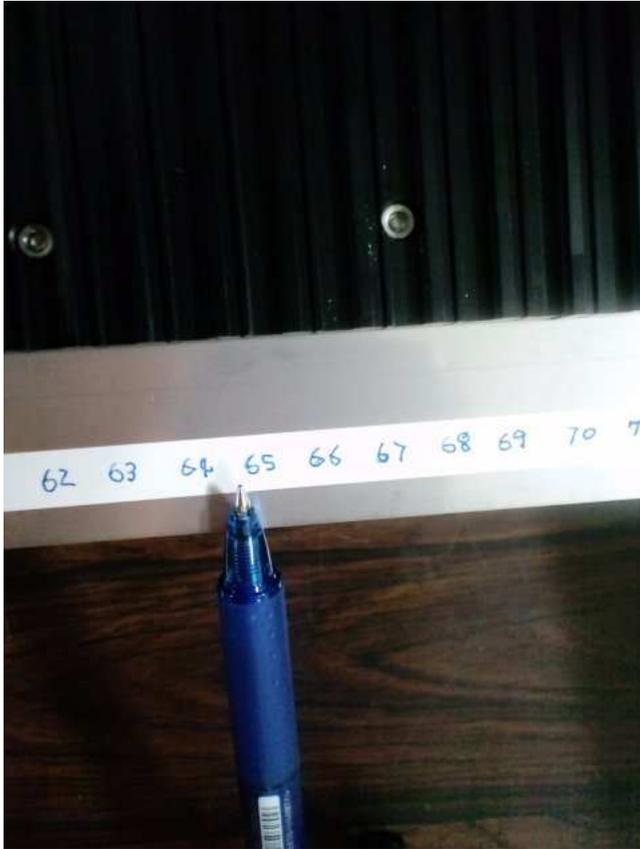
So system uses the friXion ball point pen to write tape number since this ink can be erased by heat of friction when it is scrubbed by eraser and can re write numbers.