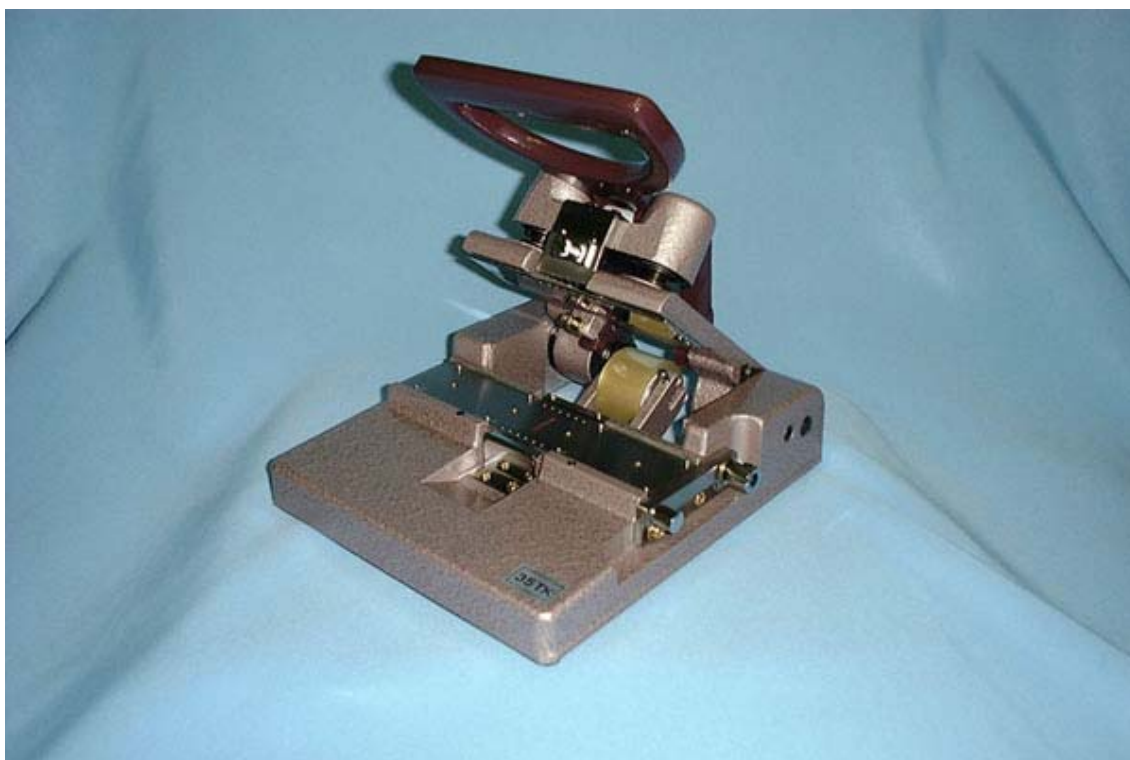


# Maintenance Manual

## HANDY TAPER

### FILM SPLICER 35TK



*Made in Japan*

# TOKYO SEIKI CO.,LTD.

(  Please read the following precautions before use to prevent any accidents. )

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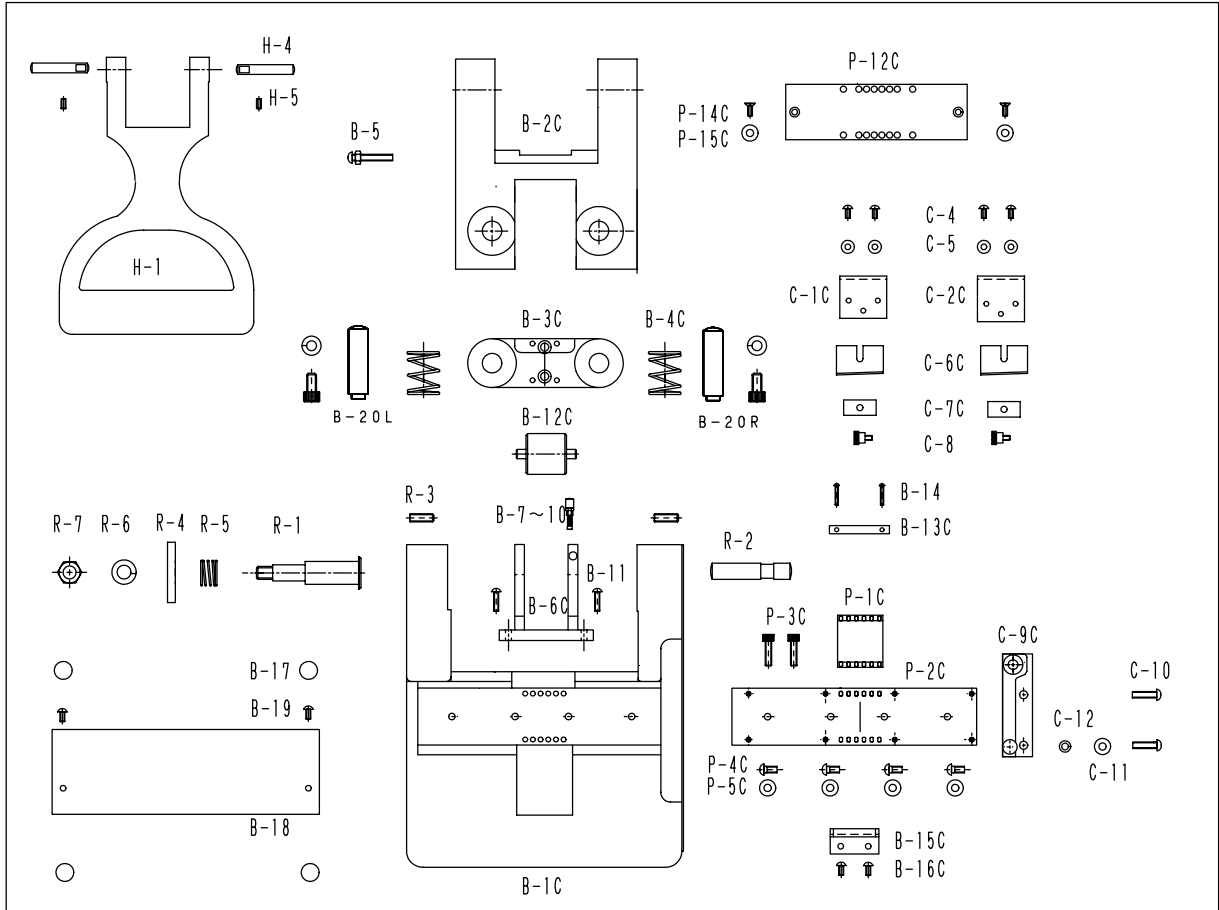
## Tape Splicer Parts list (35TK)

June 20, 2002

Ref #	35TK Parts#	NTParts #	Description	Qty.	Weight (g)		Remarks
					Net	Total	
1	C-6C	NT-6B	Tape Cutter Blades		15		10pcs in case
2	C-7C	NT-7B	Blade Pressure Plate		4		
3	C-8	NT-8	Blade Positioning Screw		3		
4	C-1C	NT-1B	Rear Blade Holder		25		Ref #6 included
5	C-2C	NT-2B	Front Blade Holder		25		Ref #6 included
6	C4/C5	NT-2C	Blade Holder Screw		1.5		
7&8	P-1C/2C	NT-35PD	35mm Perf Punch and Dice		210		Ref #9/10 included
9	P-3C	NT-35PC	Punch Mounting Screw		5		
10	P-4C/5C	NT-35DC	Die Mounting Screw		5		
11	C-9C	NT-9B	Film Cutter Assembly		80		Ref #12 included
12	C-10/11/12	NT-9C	Film Cutter Mounting screw		5		
13	B-6C	NT-16B	Tape Holder Bracket		55		
14	B-12C	NT-12B	Tape Holder Roller		35		
15	B-7/8/9/10	NT-12C	Tape Roller Retainer		2		
16	B-6C/12C/11	NT-28B	Complete Second Tape Holder		95		Set of Ref #13&14
17	B-3C	NT-3B	Perforater Punch Bace		360		
18	B-20L	NT-38L	LH Guide Post w Washer (left)		40		M6 Bolt included
19	B-20R	NT-38R	RH Guide Post w Washer (Right)		40		M6 Bolt included
20	B-4C	NT-4	Guide Post Spring		5		
21	B-2C	NT-22B	Upper Jaw		850		
22	B-5	NT-11C	Handle Stop Screw & nut		8		
23	P-12C	NT-21B	Stripper Plate		60		
24	P-14C/15C	NT-21C	Stripper Plate Screw		2		
25	H-1	NT-11	Handle		250		Ref #22&26 included
26	H4/5	NT-4H	Handle Pivot Pin w/ set screw		10		
27	R2	NT-22H	Upper Jaw Pivot Pin		40		
28	R1/6/7	NT-28	Upper Jaw Pivot Pin bolt and nuts		70		
29	R5	NT-225	Upper Jaw Spring		5		
30	R4	NT-224	Upper Jaw Spacer		50		
31	B-18	NT-18B	Base Clean-out Plate		50		Ref # 32 included
32	B-19	NT-18C	Base Plate Mounting Screw		2		
33	B-13C	NT-13B	Rear Tape Guide		8		
34	B-14	NT-13C	Rear Tape Guide Screw		1		
35	B-15C	NT-15B	Front Tape Guide		20		
36	B-14	NT-15C	Front Tape Guide Screw		2		
37	B-17	NT-17B	Rubber Feet (4)		4		

Total            0 g

# TAPE SPLICER 35TK



**“PRECAUTIONS WHEN USING THE SPLICER.  
PLEASE READ THE FOLLOWING CAREFULLY  
BEFORE USING THE SPLICER”**

Precautions when using or maintaining the splicer



**CAUTION :** When cutting film and attaching splicing tape, make sure that the handle (H-1) is completely open !! If the handle is not in this position, it could result in injury to your hands or fingers.



**CAUTION :** Sufficient care should be taken when replacing the tape!! Accidents can be caused if your hand or fingers come into contact with the tape blade (C-6)



**CAUTION :** Sufficient care should be taken when cutting the film!! Do not get your fingers caught in the cutter (C9) or cutter blade as this may result in injury.



**CAUTION :** Make sure that the splicer itself doesn't fall down or be dropped as this may result in injury.

## Repairs to Tape Splicers

The Following explains how to carry out minor repairs to the Tape Cutting Blades and Film cutter.

Problems other than these should be referred to the manufacturer. Overhauling, repairs or replacement of parts depends on frequency of use.

Defective part	Condition	Possible cause	Remedial Action
<b>Punch Die</b>	Imperfect perforation	Adhesive stuck to die blade	Remove adhesive using solvent And a tooth brush
	Ditto	Blade worn out	If the above method fails to solve the problem, return to manufactures
<b>Tape Cutter</b>	Does not cut tape Difficult to cut tape	Adhesive stuck to die blade or blade worn out	Replace with new blade (Take particular care when handling the blade.)
	inaccurate tape cutting (longer or shorter than width of film)	Above mentioned causes or incorrect positioning of blade with cutter	Positioning of blade with cutter must be readjusted.
	Film is cut	Ditto	Incorrect clearance (more than 10 $\mu$ ) Realign
<b>Film Cutter</b>	Difficult to cut precisely	Incorrect positioning of cutter blade	Reposition cutter, realign cutter ,
	Does not cut	Worn out	Replace
<b>Handle and shaft</b>	Rattling	Loose stopper screw, Shaft (guide post) come out	Tighten screw, Replace shaft
	Will not move	Broken , rusted shaft, Shaft spring worn out, tape meshed in Blade Dies, P/D shifted	Replace broken parts , oil rusted parts, Realign meshing of Tape Dice, if P/D has shifted, return to manufacturer for repairs.
	Broken or worn down	Metal fatigue, etc.	Replace
<b>Tape Reel and Roller</b>	Roller rattles, Roller slips off	Stopper screw loose, Reel stopper damaged	Tighten screw, Replace reel stopper
<b>Splicer unit</b>	Splicer rattles	Rubber pads damaged. Rubber pads fall off. Handle shaft falls off.	Replace, Replace shaft
<b>Bottom cover plate</b>	Rattles	Loose screw, Screw falls out	Tighten screw , Replace

## ADDITIONAL PRECAUTIONS WHEN USING THE SPLICER



**DON'T !**

1. Do not adjust or loosen the CAP screw which is supporting guide post B-20 L/R.
2. Do not adjust or loosen the screw which is supporting P-1C punch blade.
3. Do not allow the screws supporting R-1 and R2 to become loose.

\*\*\*\*\*TROUBLE SHOOTING\*\*\*\*\*

**A) When the handle does not move up and down smoothly or the handle does not return.**

### Possible cause 1 :

Glue is still adhering to the punch dice or splicing tape or the dice is incorrectly positioned.

### Corrective measure 1 :

Apply a little oil to the perforation hole of the dice and move the handle up and down. The glue on the punch dice will be removed and the handle will be smooth. Or use a tissue soaked with paint thinner or alcohol on the perforation hole surface and remove the oil by moving the handle up and down.

### Corrective measure 2 :

Correct the position of the dice. Do not move the punch.

### Possible cause 2 :

Wearing out of B-20L/R's spring through metal fatigue  
Should the guide post have insufficient oil

### Corrective measure 1 :

Remove the handle and replace the B-4C (Please refer to the handle replacement procedure.) In case of insufficient oil, replenish oil to the guide post (B-20L/R) in its present position.



*Caution ! Please carry out the above only after removing the blade (C-6C).  
Use sufficient care when doing this.*

**B) The rolling of handle (H-1) is not smooth.**

**Possible cause :**

Run out of grease between B-2C and R-4

**Corrective measure :**

Lubricate with thick oil or disassemble the handle and lubricate it.

**C) The perforation punch becomes dull.**

**Possible cause :**

The clearance has increased between the punch dice. Or the punch dice blade has become dull.

**Corrective measure 1:**

Sharpen the punch blade using an oil stone.

**Corrective measure 2 :**

Polish the perforation hole surface of the dice with an oil stone.

**Corrective measure 3:**

Replace the punch dice

(Please remove the oil completely moving the handle up and down using a tissue soaked with paint thinner or alcohol on the surface of the perforation hole.)



*Caution ! Please carry out the above only after removing the blade (C-6C).  
Use sufficient care when doing this.*

# Maintenance Manual

**Replacement of Tape Cutter(C-6C/C-6)**  **Take particular care when handling the blade.**

Figure 1 **Front Blade Holder(C-2C)**



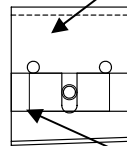
Please refer to CAD diagram..

- 1 Loosen Blade Positioning Screw (C-8).
- 2 Pull Tape Cutter Blades (C-6C) downward to remove.
- 3 Insert new Tape Cutter Blades (C-6C) into the space between Blade Holder and Blade Pressure Plate (C-7C). During this process, make sure the edge of Tape Cutter Blades (C-6C) are placed on the stopper pin (Rounder protrudence)
- 4 Firmly tighten the Blade Positioning Screw ( C-8 ).
- 5 Secure the Tape Cutter Blades (C-6C) with the left side pointing slightly downwards.

Figure 2 **Rear Blade Holder(C-1C)**

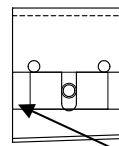


Position where Cutter Blades meet



**Front Blade Holder (C-2C) Fig1**

with the left side pointing slightly downwards



**Rear Blade Holder (C-1C) Fig 2**

with the left side pointing slightly downwards



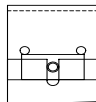
Figure 3



Figure 4



Figure 5



If it is found difficult to replace Tape Cutter Blades(C-6C),  
dismantle Stripper Plate (P-12C) for easier access.

### **Correct assembly**

Make sure the ends of the Tape Cutter Blades (C-6C) come into contact with the Blade Holder Stopper Pin. (rounded protrudence)

### **Incorrect assembly**

It might prove dangerous if a space remains between the Tape Cutter Blades and the Blade Holder Stopper Pin.

## Replacement of Film Cutters(C-9C/C-9/C-9C-70)



**CAUTION** : Sufficient care should be taken when cutting the film!! Do not get your fingers caught in the cutter (C9) or cutter blade as this may result in injury.

Figure 10



- 1 When the edges of the Film Cutters (C-9C) become dull, sharpen with an oilstone.
- 2 Should the edges of the Film Cutters (C-9C) become completely dull, replace with new ones.
- 3 Note that the levels of the f **Film Cutters( C-9C )& Dice** should be the same.
- 4 Care should be taken regarding the position of the Film Cutter Mounting Screw so as to avoid the damage as shown in Fig 11.

Figure 11

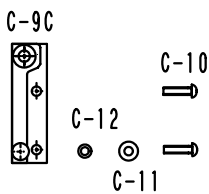


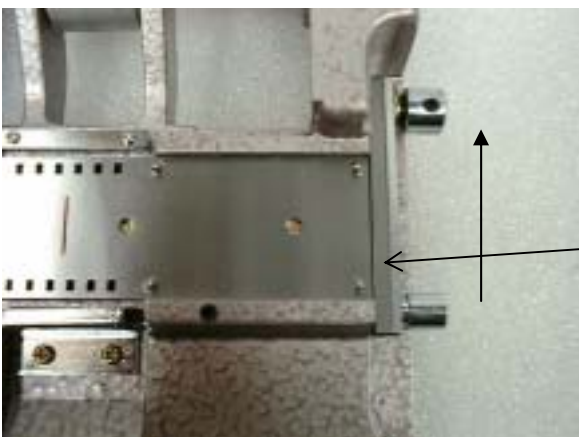
Figure 12



- 5 If part of the film has shrunk, cut out the shrunken sections as explained in Fig 12
- 6 When replacing the Film Cutter (C-9C) refer to Fig12 for correct positioning.

Figure 13

Rear



- 7 Adjust the Film Cutter (C-9C) slightly to the rear as shown in Fig 13.
- 8 **Remove any grease etc. adhering to the Film Cutter ( C-9C).**
9. When centering, the gap can be easily adjusted by placing a small strip of paper between the Cutter Blades..

## Replacement of Handle (H-1)

Figure 14



Figure 15



Figure 16



Figure 17



### **Removing**

- 1 Loosen screw (H-5).
- 2 Loosen the Handle Stop Screw and Nut (B-5)  
Easy attachment of the handle can be carried out by loosening the Handle Stop Screw. (about 5 turns)
- 3 Extract the Handle Pivot Pin (H-4).  
If it is difficult to remove, gently tap the pin with a small hammer.
- 4 Care should be taken when removing the Handle Pivot Pin (H-4) as the Tape Roller Retainer (B-7/8/9/10) could become bent..

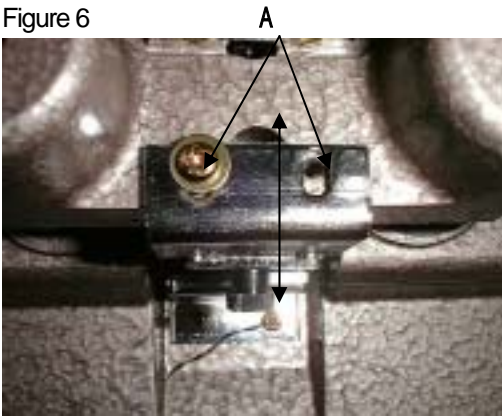
**To assemble, simply follow the dismantling instructions above in reverse while making sure that the upper section of the Punch Base (B-3C) and that of the guide post section (B-3C) match.**

**For Specialists Only**



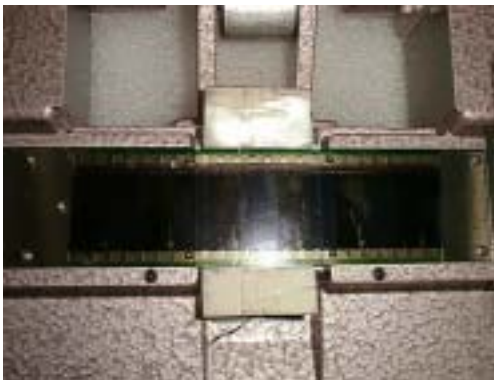
**Replacement of Tape Cutter(C-6C/C-6) # Take particular care when handling the blades.**

Figure 6



- 1 Fine adjustment of the Tape Cutter (C-6C) position can be carried out at the front and back using the slot of the blade holder as a guide as shown in Fig.6.

Figure 7



- 2 Care should be taken when assembling the Blade Holder especially with regard to the film edge. Placing a strip of white paper below the film to act as a guide is recommended.

Figure 8



- 3 For fine adjustment, gently tap the Blade Holder with a small hammer.

Figure 9



- 4 If the Blade Holder has moved too far forward, it can be retracted by using a Phillips screw driver. Adjustment of section A (as shown in Fig.6) , can be carried out with a screwdriver and a small hammer.

**For Specialists Only**

**Replacement of Perf Punch and Dice (P-1C/2C) # 1**

Figure 18



**1 Attaching the Dice ( P2-C)**

Adjust the position of the Film Cutter so that the space between the two sections of film to be spliced is as thick as one sheet of paper. When this is attained, tighten up the die mounting screw.

Figure 19



- 2** After confirming the direction and position of the Punch, carefully match up the Perf Punch (P-1C) with the Dice. The position of the Perf Punch should ideally be 1mm below the dice.. Clearance between the Perf Punch and dice should be approximately  $\mu$  m. Assembly should be carried out very carefully when securing the end of the punch.

**N.B. The Stripper Plate (P-12C) should be removed when carrying out the above operation.**

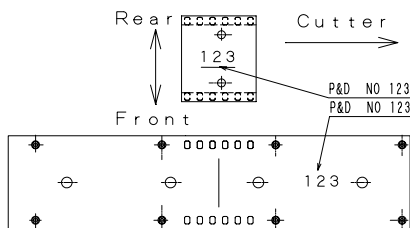


Figure 20



- 3** Make sure that Perf Punch ( P-1C) and the Punch Base ( B-3C) are aligned together with no spaces.

**For Specialists Only**

**Replacement of Perf Punch and Dice(P-1C/2C) # 2**

Figure 21



- 4 Tighten up the Punch Mounting Screw (P-3C)  
Once the screw is sufficiently tight, loosen slightly.  
This will ensure that the Punch remains in the precise position.

Figure 22



- 5 To prevent the Punch Mounting Screw (P-3C) from becoming loose, further tighten the screw as shown in Fig.22.
- 6 The Pull Punch Base ( B-3C) should be pulled upwards to secure the Guide Post Spring.
- 7 Apply the Tape Cutter as explained in " Replacement of Tape Cutter"
- 8 Apply the Handle as explained in "Replacement of Handle" (H-1) Confirm that the Punch and Dice match evenly when the Handle is pulled down.
- 9 If the Punch and Dice do not match evenly, repeat steps 1 to 18 again.

**Please prepare a set of tool shown as below.**

