OPERATING INSTRUCTIONS

FOR

UNIVERSAL CODE KEY CUTTING MACHINE

Manufactured by

ILCO UNICAN CORP.

U.S.A.: 400 Jeffreys Rd., P.O. Box 2627, Rocky Mount, NC 27802-2627 • Tel.: (919) 446-3321
Canada: 5795 De Gaspé Ave., Montreal, Que. H2S 2X3 • Tel.: (514) 273-0451

OPERATING INSTRUCTIONS

for

The Universal Code Key Cutting Machines - Numbers 178U - 2178U - 178UA - 2178UA - 178UB - 2178UB - 178UC - 2178UC - 178FS - 2178FS

FOREWORD

The engineering principle of this machine provides for the accurate cutting of keys by code, consistent with the space and depth dimensions used by a given lock manufacturer.

Even though different lock manufacturers use different space and depth arrangements in their respective key bitting systems, the Universal Machine with its new "versatile" discs, enables the operator to do code key cutting in a comprehensive and precise manner.

(A) GENERAL INSTRUCTIONS

Operating Speed - 1000 to 1150 R.P.M.

DO NOT cut steel keys with milling cutters.
Keep machine clean.
Keep all working parts well lubricated.

The machine part names and numbers mentioned in these instructions have reference to the diagramatic drawing and parts list shown on page 14.

(B) GENERAL INFORMATION

There are no two machines which are identical in every minute detail and recognizing, on the other hand, the degree of accuracy required in code key cutting, it becomes apparent that we must provide a means whereby discs made for general use can be properly adapted to your particular machine. To this end, we have supplied Set Up KEYS which will guide you in establishing and maintaining critical dimensional control, simply and effectively.

Anticipating (possibly) your question - why doesn't the factory do this themselves before shipping the machine(?) - our answer is this: - Even under the best of handling conditions while in transit, the machine gets jostled about and loses its adjustment, so you would have to re-adjust it anyway.

(C) THE SET UP KEYS

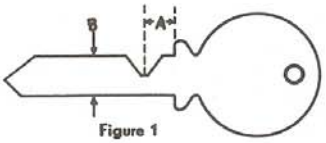


Figure 1

This is a special key made of Nickel Silver with a first cut located at a precise distance from the shoulder to coincide with such dimension of a given lock manufacturer. This cut, incidentally, is the exact size and shape of the proper cutter specified for use in each instance.
(Dimension A - Fig. 1).

Beyond this cut, all the way to the tip, the width of the Set Up Key is machined down to equal the No. 1 or No. 0 bitting of that particular lock manufacturer (depending upon whether his system starts with a No. 0 or a No. 1 bitting). (Dimension B - Fig. 1)

Each Set Up Key has an identifying number stamped on its bow. An accompanying Chart lists the following corresponding information for each Set Up Key:

a. The decimal dimension from shoulder to first cut.
b. The decimal dimension of the No. 1 (or No. 0) bitting.
c. No. of depths
d. The cutter to use.
e. The proper discs to use.

The Number of Set Up Keys included with your machine will vary - depending upon which outfit you purchased.

(D) PURPOSE OF THE SET UP KEYS

As you can see from the above, the Set Up Key provides "starting" critical dimensions for a given lock manufacturer's key cutting system. It is used to establish setting marks for the Space and Depth Discs so that you can proceed in completing the code cutting process.

Important, too, these Set Up Keys provide an accurate means for a periodic check to maintain correct dimensional control of your equipment.

(E) HOW TO POSITION THE SET UP KEY

Tilt Carriage (No. 39) into an upright position by pulling Trigger (No. 12) towards you.

Loosen Key Clamp (No. 11A) enough to permit insertion of the Set Up Key between its jaws. The Set Up Key should rest firmly against the Key Rest and its shoulder should rest firmly against the raised Shoulder Stop of the Key Gauge Rod Assem. (No.91), thusly:

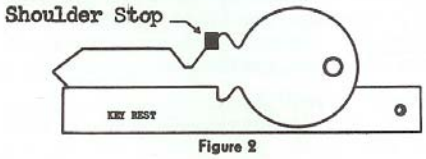


Figure 2

Apply finger pressure along the top of the Set Up Key to maintain this position. Tighten the wing nut (No. 46).

Release the Key Gauge Rod Assem. (No. 91) so that its Shoulder Stop springs away (down) from the Set Up Key.

Tilt the Carriage (No. 39) back into operating position (horizontal), making sure that the Latch (No. 22) securely engages its retaining channel. The Set Up Key is now properly positioned.

We suggest that you practice doing this a few times to familiarize yourself with the procedure.

(F) DISCS

There are two sizes of discs. The smaller is the Space Disc, so called because it governs the spacing of the key bittings. The larger is the Depth Disc, so called because it governs the depth of the key bittings.

Each disc contains a series of holes and graduations, thusly:

SPACE DISC

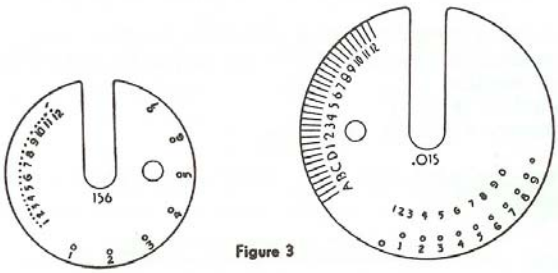


Figure 3

(G) THE SPACE DISC

Each Space Disc has a series of holes numbered consecutively starting with No. 1, except for discs used for cutting locker keys which are numbered in the reverse order starting with No. 7. The Space Disc bears its catalog number which also designates the decimal dimension between spaces. For Example: Space Disc .156 denotes that the spacing between holes provides for a .156" spacing between the cuts on a key. This would be the Space Disc to use in cutting keys where the lock manufacturer has adopted a .156" system.

It is not enough to know but the spacing dimension - we must also know where to begin (how far from the shoulder the first bitting is made). The graduations on the left side of the disc are the setting marks and their individual selection is determined by the Set Up Key in a manner that we will describe later on.

Each graduation on the Space Disc changes the position of a bitting in relation to the shoulder of the key by .025". To make the bittings .025" closer to the shoulder, rotate the disc one graduation clockwise. To make the bittings start further away from the shoulder by .025", rotate the disc one graduation counter-clockwise.

(H) HOW TO POSITION THE SPACE DISC.

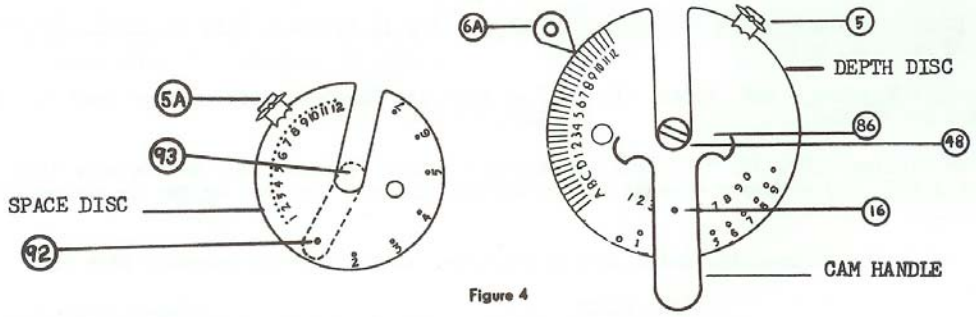


Figure 4

The Space Disc fits on the left hand side of the Carriage (No. 39). See Fig. 4. Lift the Lifter Pin on the Spacing Arm Assembly (No. 92), slide the disc under it so that the disc slot fits around the Center of the Worm and Stud Assembly (No. 93). Push in all the way - until bottom of the slot fits snugly around the Center Stud. Position the setting mark section under the Clamp (No. 5A) area. As you maintain finger pressure on the disc, rotate the Spacing Arm Assembly (No. 92) so that its pin will drop into the No. 1 hole.

The Spacing Arm assem. (No. 92) is now engaged to the Space Disc. Any movement on its part will correspondingly move the Space Disc and in this manner, you can select any setting mark to be opposite the pointer of Clamp (No. 5A). This clamp is tightened when disc is "set".

Repeat the entire process a few times - just for practice.

(I) THE DEPTH DISC

Each Depth Disc has a series of holes numbered consecutively in two series, a bottom scale from 0 to 9, and a top scale from 1 to 0. The scale to use depends upon the lock manufacturer's key bitting system - as to whether he starts with a No. 0 bitting or a No. 1 bitting.

The Depth Disc bears its catalog number which also designates the decimal dimension between one bitting depth and the next. This is known as the depth increment, or the depth drop. For example: Depth Disc .015 denotes that the depth drop between a No. 1 key bitting and a No. 2 key bitting is .015"; between a No. 2 key bitting and a No. 3, the same, etc. This would be the depth disc to use in cutting keys where the lock manufacturer has adopted a .015" depth drop system.

Again, we must not only know what the depth drop is, but where to begin. The line graduations on the left side of the disc are the setting marks and their individual selection is determined by the Set Up Key in a manner that we will describe later on.

Each line graduation on the Depth Disc changes the depth of a key bitting by .005". To make the bittings .005" shallower, rotate the disc one graduation clockwise. To make the bittings .005" deeper, rotate the disc one graduation counter-clockwise.

(J) HOW TO POSITION THE DEPTH DISC

The Depth Disc fits on the right hand side of the Carriage (No. 39). See Fig. 4. To insert it, first loosen the Depth Disc Clamp (No. 5). Lift the Depth Cam Pin (No. 16), slide the disc under it so that the disc slot fits around the Cam Stud (No. 48). Push in all the way - until the bottom of the slot fits snugly around the Center Stud.

Position the setting mark section opposite the Depth Disc Pointer (No. 6A). As you maintain finger pressure on the disc, move the Cam Handle so that the cam Disc Pin (No. 16) will drop into the right hole, depending upon the series of keys you are cutting. Some manufacturers use a "0" start cut, whereas some use a "1".

The Cam Assem. (No. 86) is now engaged to the Depth Disc. Movement of the Cam Handle will correspondingly move the Depth Disc and in this manner, you can select any setting mark that you desire to be opposite the Pointer (No. 6A). The Depth Disc Clamp (No. 5) is tightened when disc is "set".

Repeat the entire process a few times - just for practice.

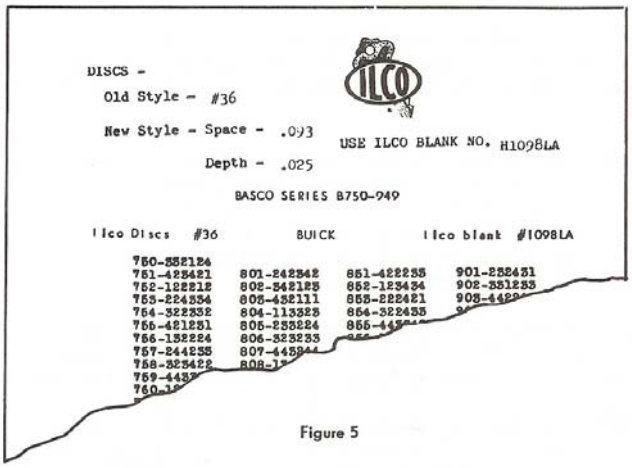
(K) CODE KEY CUTTING PROCEDURE

Up to this point, we have discussed the Set Up Key, the Space Disc and the Depth Disc - each has been described, its purpose noted and an explanation of how it is inserted into the machine. We will now explain how each is used to accomplish its main purpose - the cutting of keys by code.

Let us assume, for example, that we wish to cut a Basco auto key No. B750. We would proceed as follows:

Step 1 - Refer to the Automotive Code Book No. ACB-1. The Code Sheet on this series tells us that the bittings for this key are 33212 (Fig. 5). Both the Code Sheet and its Statistic Sheet (Fig. 6) tell us to use:

Space Disc - .093
Depth Disc - .025
Ilco Key Blank No. H1098-LA
Cutter No. 8UC



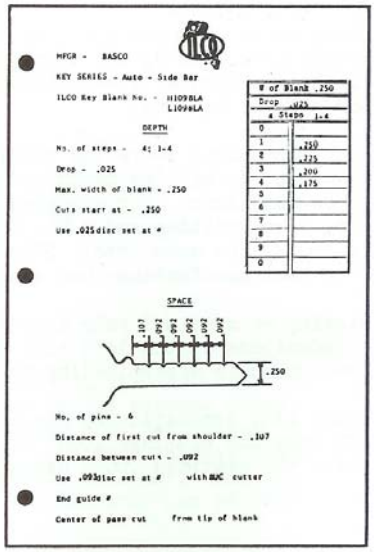


Figure 6

Step 2 - If Cutter No. 8UC is not already on your machine, put it on.

Step 3 - Refer to the Set Up Key Chart. This tells us to use the Set Up Key No. SUK-2

Step 4 - Insert this Set Up Key into the machine as described in Paragraph E.

Step 5 - Advance the Carriage so that the notch in the Set Up Key fits snugly into the cutter (Fig. 7) Counter-clockwise movement of the Cam Handle will advance the Carriage - clockwise movement of the Cam Handle will withdraw the Carriage.

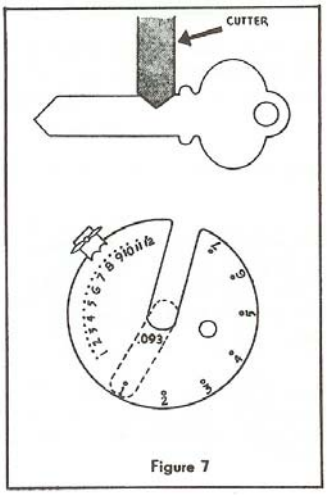


Figure 7

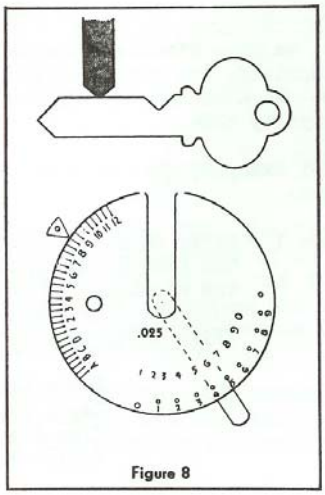


Figure 8

Step 6 - Insert the Space Disc. .093 (as described in Paragraph H). Catch the No. 1 Hole with the Lifter Pin (Fig. 7). Do this carefully so that the Set Up Key will not shift from position.

Step 7 - Clamp the disc securely. Read the graduation mark under the clamp pointer. This is the space setting mark for this series Record it on the Statistic Sheet.

Step 8 - Withdraw the Carriage from the Cutter. Shift Carriage to the right by rotating the Space Arm until flat edge of key is opposite Cutter (Fig. 8).

Step 9 - Disconnect Motor Belt.

Step 10- Insert the Depth Disc .025 (as described in Paragraph J).

Step 11- Advance Carriage gradually towards cutter and rotate the cutter by hand as you do so.

Step 12- When the Cutter just touches the Set Up Key, rotate the disc so that the Cam Disc Pin (No. 16) will drop into the first hole, giving a No. 1 reading on the top scale (or a No. 0) reading on the bottom scale). BE CAREFUL NOT TO DISTURB THE POSITION OF THE CAM HANDLE AS YOU DO THIS.

Note: Every cutter has a high spot. The "touch" should be to this high spot.

Step 13- Clamp the Depth Disc securely. Read the line graduation mark opposite the Pointer. This is the depth setting mark for this series. Record it on the Statistic Sheet.

Step 14- Withdraw the Carriage from cutter. Remove the Set Up Key. Connect Motor Belt.

Step 15- Insert Ilco Key Blank No.H1098-LA in the same manner as you did the Set Up Key.

Step 16- You are now ready for cutting the key whose bitting is 3-3-2-1-2-4.

Step 17- Start Motor. Engage the Spacing Arm in the No. 1 hole of Spacing Disc. Advance the Key into the cutter to make a No. 3 bitting. (Release the Cam Pin Lifter when the Cam Pointer passes the No. 2 mark and the Depth Disc Pin will automatically drop into the next hole to give you a No. 3 depth reading).

Step 18- Having cut this bitting, withdraw the Carriage.

Step 19- Engage the Spacing Arm in the No. 2 Hole of the Spacing Disc.

Step 20- The cut in this space is also a No. 3 bitting and we proceed as we did in Step 17.

Step 21- Repeat the process, cutting a No. 2 bitting in the third space, a No. 1 bitting in the fourth space, a No. 2 bitting in the fifth space and a No. 4 bitting in the sixth space.

Step 22- The key is now finished. Tilt up the Carriage and remove it from the Key Clamp.

Once you have determined the setting marks for the discs of a lock series and recorded them on the appropriate Statistic Sheet, it is unnecessary to repeat the prescribed usage of the Set Up Key. Proceed directly with the positioning of the Space and Depth Discs to the setting marks already established.

However, where maximum accuracy is required, especially on master key work, it is recommended that the applicable Set Up Key be used in each instance. Periodically, too, use the Set Up Keys for the purpose of making re-adjustments whould cutter or machine wear indicate the need.

MASTER KEYING

This machine is ideally suited to the accurate cutting of keys for a master key system.

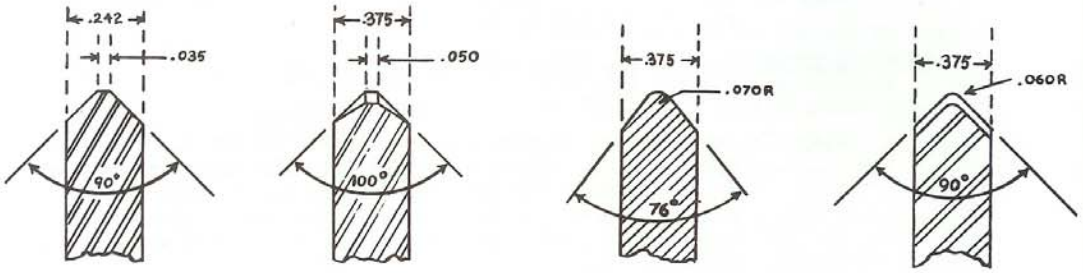
You will be able to do a master key job as it is done at the factory, namely, by first predetermining the master key combinations. This can be done either from available charts on master key systems or by establishing your own system.

Doing the master key job by this method will enable you to avoid the accidental interchangeability of key combinations which condition frequently results from a haphazard or inadequately planned approach.

By keeping a record of the key combinations, you will be able to make additional keys by code and also if called upon to expand the master key system at some future date, you could do so in a scientific manner.

CUTTERS

The use of the right cutter is essential to fine code key cutting and good working keys. Exhaustive research in this field has resulted in a line of four cutters whose dimensions are as follows:



The cutter thickness, angle, bottom dimension (flat or radius) have been carefully calculated to further the degree of accuracy you should be able to perform with this machine.

Our statistical data includes a guide for the selection of the right cutter to use. We strongly suggest that you follow our cutter recommendations.

KEY RESTS

The No. 26A Key Rest is standard with all Universal Machines. The following Key Rests are offered as auxiliary equipment for use as described:

KEY RESTS

22B
FOR HOLDING NARROW KEYS

27B
FOR "BEST" KEYS

23CH
FOR HOLDING "CHICAGO" KEYS

OTHER RESTS AVAILABLE

26AZ
STOP FOR FLAT STEEL KEYS

26C
FOR EXTRA WIDE BLANKS

26CZ
FOR EXTRA WIDE FLAT STEEL KEYS

MISCELLANEOUS

Note: Our new "versatile" discs can also be used with older models of the Universal Machine and may be purchased separately.

Note: Plain discs (unmarked and undrilled) may be purchased should you wish to make your own for a special purpose.

Note: The Key Rests listed can also be used on older models of the Universal Machine and may be purchased separately.

Note: Should you desire additional Set Up Keys (Listed) to those included with your outfit, they may be purchased separately. Set Up Keys can also be used with older models of the Universal Machine.

Note: Machine comes supplied with adapters for Schlage corrugated keys.

MACHINE ADJUSTMENTS

Should the spacing or depth of key bitting of your Universal Machine ever need adjustment, it can be done in the following manner:

SPACING ADJUSTMENTS

Step 1 - Select any Set Up Key. Position and secure it in the Key Clamp. Insert the appropriate Space Disc and secure it into position at its setting mark. Apply the proper cutter.

Step 2 - Position the Spacing Arm Assem. (No. 92) in the No. 1 Hole.

Step 3 - Loosen the Set Screw (No. 42) located on the right hand side of the Carriage Spindle (No. 59).

Step 4 - Rptate the Carriage Spindle (No. 59) one way or the other until the notch in the Set Up Key can be advanced (by cam Manipulation) to fit snugly into the cutter. A screw driver slot in the right end of the spindle will facilitate the operation.

Step 5 - When this cutter-notch fit is accomplish, tighten the Set Screw (No. 42). The machine is now adjusted for the spacing of all keys.

DEPTH ADJUSTMENT

Step 1 - Select any Set Up Key. Position and secure it in the Key Clamp. Insert the appropriate Depth Disc and secure it into position at its setting mark. Apply the proper cutter.

Step 2 - Disconnect Motor Belt.

Step 3 - Loosen Set Screw (No. 42) at top of Cross Slide (No. 77)

Step 4 - Position the Cam Disc. Pin (No. 16) in the first hole.

Step 5 - Move Carriage (No. 39) to the right so that the flat edge of the Set Up Key is opposite the cutter (as shown in Fig. 8)

Step 6 - Turn Adjusting Screw (No. 19) to the left or right with a screw driver until you arrive at the point where by rotating the pulley by hand, the high point of the cutter just touches the key.

Step 7 - When accomplished, tighten the Set Screw (No. 42) at top of Cross Slide (No. 77). The machine is now adjusted for the depths on all keys

CAUTION

Should you have a cutter re-sharpened, you will find it to your advantage to re-establish new setting marks for each Depth Disc affected and record the new markings in your Statistic Sheets, rather than re-adjust your machine.

SET UP KEY CHART

MANUFACTURER	SET-UP KEY	DISTANCE FROM SHOULDER	CUT START	NUMBER OF DEPTHS	DEPTH DISC	SPACE DISC	CUTTER
American Juncunc	SUK75	.158	.279	1 - 8	.015	.125	8UC
American Motors Pre '70 - USE B & S DISC							
American Motors '70 Up	SUK3	.150	.250	1 - 5	.025	.093	8UC
Arrow (New)	SUK1	.265	.335	0 - 9	.014	.155	14MC
Arrow (Old)	SUK1	.265	.335	0 - 6	.020	.155	14MC
Arrow (Heavy Duty)	SUK76	.265	.315	0 - 9	.014	.155	14MC
Assa	SUK77	.180	.330	1 - 6	.018	.165	8UC
Austin Healy (Union)	SUK78	.150	.235	0 - 5	.015	.095	8UC
* B & S (Side Bar)	SUK2	.107	.248	1 - 5	.025	.093	8UC
B & S (Disc Except Side Bar)	SUK3	.150	.250	1 - 5	.015	.093	8UC
@ Best (Old)	SUK4	.830	.317	0 - 9	.0125	.150	14MC
@ Best (New)	SUK79	.830	.315	0 - 6	.018	.150	14MC
Bommer Letterbox	SUK80	.195	.280	0 - 4	.018	.125	8UC
Challanger	SUK5	.213	.320	0 - 8	.015	.156	14MC
Chicago Disc	SUK6	.139	.250	1 - 5	.015	.093	8UC
Chicago Pin	SUK7	.156	.266	1 - 7	.016	.140	8UC
Chrysler '56 - '67	SUK65	.146	.255	1 - 5	.025	.140	8UC
Chrysler "CV" Side Bar - USE B & S SIDE BAR							
Chrysler '68, DP & DS Series	SUK72	.146	.246	1 - 5	.025	.140	8UC
Chrysler '69 Up, EP & ES Series	SUK72	.146	.246	1 - 6	.020	.140	8UC
* Clinton 1023	SUK81	.326	.325	0 - 9	.0125	.156	14MC
Corbin (Cabinet) 2A	SUK8	.219	.332	0 - 9	.014	.156	14MC
Corbin 4R	SUK10	.172	.277	0 - 8	.014	.125	8UC
Corbin (Cabinet) B4R	SUK11	.172	.281	0 - 9	.0125	.125	8UC
Corbin (Cabinet) 6A	SUK9	.259	.332	0 - 9	.014	.156	14MC
Corbin T Series	SUK16	.197	.250	1 - 0	.014	.125	8UC
Corbin (New)	SUK15	.250	.343	1 - 0	.014	.156	22MC
Corbin (Old)	SUK14	.197	.333	1 - 0	.014	.156	22MC
Corbin Reg. Disc	SUK12	.156	.250	1 - 6	.015	.095	8UC
Corbin Spec. Disc for Small Padlocks	SUK13	.118	.205	1 - 4	.020	.095	8UC
Corbin (Baz)	SUK82	.175	.270	0 - 6	.0125	.125	8UC
Corbin (4T)	SUK83	.175	.284	0 - 8	.0125	.125	8UC
Corbin 60 Series	SUK15	.250	.343	1 - 6	.028	.156	22MC
Craftsman C1096CN	SUK27	.277	.320	0 - 9	.018	.156	14MC
Craftsman C1096LN	SUK33	.250	.308	0 - 7	.018	.140	14MC
Dexter '69 Up	SUK70	.216	.320	0 - 9	.015	.155	14MC
Dexter Pre '69	SUK17	.216	.325	0 - 7	.020	.155	14MC
Dexter Disc	SUK3	.150	.250	1 - 5	.015	.093	8UC
Dexter (Close-Pin) N1054KD	SUK84	.180	.325	0 - 7	.020	.125	8UC
Dominion	SUK18	.280	.325	0 - 7	.015	.156	14MC
Eagle-Harloc	SUK70	.216	.320	1 - 9	.018	.155	14MC
* Eagle (A36A Disc)	SUK85	.183	.240	1 - 5	.015	.093	8UC
Eagle 1119	SUK23	.251	.310	0 - 5	.019	.156	14MC
Eagle (Long Disc) 1014J	SUK12	.156	.250	1 - 5	.015	.093	8UC
Eagle (Small Pin-Short Space) (PTA)	SUK20	.173	.275	1 - 9	.018	.125	8UC
Eagle (Small Pin-Long Space) 1014DX	SUK19	.208	.276	1 - 9	.018	.155	8UC
Eagle 1-50	SUK22	.180	.280	1 - 9	.018	.156	8UC
Eagle (A42GX Ser.)	SUK86	.156	.280	1 - 5	.015	.093	8UC
Elgin - SEE CRAFTSMAN							
Falcon (New) 1054WD	SUK87	.237	.315	0 - 9	.018	.156	36MC
Falcon Removable Core - SEE BEST							

cont'd

MANUFACTURER	SET-UP KEY	DISTANCE FROM SHOULDER	CUT START	NUMBER OF DEPTHS	DEPTH DISC	SPACE DISC	CUTTER
9 Ford Double Sided	SUK51	.803	.208	1 - 5	.020	.150	14MC
Ford '52 - '64 (1127DU)	SUK24	.199	.240	1 - 5	.020	.125	8UC
Ford Pre '52 (1125)	SUK25	.170	.195	1 - 5	.020	.125	8UC
* General	SUK88	.183	.315	0 - 9	.020	.160	14MC
General Motors - SEE B & S SIDE BAR							
Goal	SUK89	.216	.330	1 - 6	.023	.165	14MC
Harloc - SEE EAGLE-HARLOC							
Hudson (Letter Box)	SUK80	.195	.280	0 - 6	.018	.125	8UC
Hurd (J Series)	SUK26	.142	.230	0 - 9	.0125	.125	8UC
Hurd (1-50)	SUK90	.140	.205	0 - 5	.020	.125	8UC
ILCO Large Pin (KX Series)	SUK27	.277	.320	0 - 9	.018	.156	14MC
ILCO (HF 1501 - 1550) 1054F	SUK33	.250	.308	0 - 9	.018	.140	8UC
ILCO (XR Ser.) 1154G	SUK28	.162	.270	1 - 7	.018	.140	8UC
ILCO (TT & DB Series) 1054MT & 1054FN	SUK91	.277	.320	0 - 6	.018	.156	36MC
ILCO CR Ser. X1054JK	SUK28	.162	.270	1 - 7	.018	.125	8UC
ILCO (C8000-9599)	SUK31	.192	.270	1 - 7	.015	.125	8UC
ILCO (GN7000-8599)	SUK32	.146	.270	1 - 7	.018	.140	8UC
ILCO (LB500-999) L1054B	SUK30	.140	.250	1 - 5	.015	.095	8UC
ILCO DF & U Series	SUK30	.140	.250	1 - 5	.015	.095	8UC
ILCO (All-51)	SUK31	.192	.270	1 - 6	.020	.125	8UC
ILCO (Most Disc)	SUK29	.127	.250	1 - 5	.020	.095	8UC
ILCO 420 Series (A1001ABM)	SUK118	.266	.325	0 - 7	.020	.156	14MC
Illinois	SUK3	.150	.250	1 - 4	.020	.093	8UC
Keil 1079B	SUK35	.245	.320	0 - 9	.018	.160	14MC
Keil 1054F	SUK36	.250	.312	0 - 7	.018	.140	14MC
Kwikset 1176D	SUK37	.247	.328	1 - 7	.030	.150	36MC
Kwikset 1176	SUK37	.247	.328	1 - 7	.023	.150	36MC
Lockwood Std. 1004	SUK27	.277	.320	0 - 9	.018	.156	14MC
Lockwood-Chantrell	SUK38	.277	.338	0 - 9	.018	.156	14MC
Lockwood Small Pin 1004M	SUK92	.185	.270	1 - 7	.018	.125	8UC
MG (FR1-1250)	SUK93	.150	.266	0 - 5	.020	.140	8UC
Master Padlock (Large) 1092	SUK39	.185	.275	0 - 7	.015	.125	8UC
Master Padlock (Small) 1092B	SUK40	.136	.210	0 - 5	.015	.125	8UC
Mazda (VH Series)	SUK93	.150	.266	0 - 5	.020	.140	8UC
Mercedes-Benz (YMOS) (A001-100)	SUK94	.150	.259	2 - 5	.020	.125	8UC
National Cash Register	SUK95	.297	.265	1 - 9	.0125	.125	8UC
National EZ 1177N	SUK36	.250	.312	0 - 6	.020	.156	14MC
National (Rockford) Disc 1069	SUK12	.156	.250	1 - 4	.025	.093	8UC
National (Rockford) Large Pin	SUK23	.251	.310	0 - 9	.0125	.150	14MC
National (Rockford) N1-25	SUK41	.150	.263	0 - 9	.0125	.140	8UC
National (Rockford) 1064 Small Pin	SUK96	.150	.275	0 - 9	.0125	.140	8UC
National (Rockford) Letterbox	SUK97	.155	.268	0 - 9	.0125	.140	8UC
National (Rockford) 1064 Bank Drawer Locks	SUK41	.150	.263	0 - 9	.0125	.140	8UC
National (Rockford) (C101-575)	SUK42	.546	.275	0 - 9	.0125	.140	8UC
Norwalk Std. 1017 - 1017B	SUK43	.260	.310	0 - 6	.020	.156	14MC
Norwalk Sec. 01017BL	SUK44	.185	.340	0 - 6	.015	.156	14MC

cont'd

MANUFACTURER	SET-UP KEY	DISTANCE FROM SHOULDER	CUT START	NUMBER OF DEPTHS	DEPTH DISC	SPACE DISC	CUTTER
Opel (YMOS) K1-150, P1-150	SUK98	.138	.248	1 - 4	.020	.095	8UC
Opel (HUF) SL1-240	SUK99	.138	.254	1, 3, 5	.030	.095	8UC
Porsche (HUF) SD1-750	SUK100	.130	.265	1 - 5	.015	.095	8UC
Reading 1019 - 1019D	SUK101	.200	.345	0 - 9	.015	.155	14MC
Reese Padlocks 1140G	SUK102	.250	.256	1 - 8	.015	.125	8UC
Russwin (D Ser.) 1011D1	SUK15	.250	.343	0 - 9	.015	.156	22MC
Russwin Std. 1011	SUK46	.250	.328	0 - 9	.015	.156	22MC
Russwin (70 Series)	SUK15	.250	.343	1 - 6	.028	.156	22MC
Russwin (Old) 1012	SUK48	.250	.315	0 - 6	.020	.156	22MC
Russwin (Old, Obs.)	SUK49	.375	.315	0 - 6	.020	.156	22MC
Russwin (Old) 4 Cut on 6 Pin	SUK47	.250	.326	0 - 6	.020	.156	22MC
Russwin (Small) 1F-X1000XR	SUK16	.196	.250	1 - 0	.014	.125	8UC
Sargent (U & R) 1009 - 01010	SUK52	.216	.328	1 - 0	.0125	.156	20MC
Sargent (Sec.) 1007 - 1010	SUK52	.216	.328	1 - 0	.020	.156	20MC
Sargent (Small) 1010B	SUK54	.141	.286	1 - 0	.0125	.125	8UC
Sargent (Small Sec.)	SUK55	.191	.328	1 - 0	.0125	.125	8UC
Schlage (All Pins) 1145	SUK56	.231	.335	0 - 9	.015	.156	14MC
Schlage (Wafer) 1307A - 1307W	SUK57	.275	----	1	-----	.125	Spec. 14MC
Sears - SEE CRAFTSMAN							
Security	SUK35	.243	.320	0 - 6	.015	.155	14MC
Segal-Earle (New) 1022	SUK103	.245	.315	0 - 6	.020	.156	14MC
Segal-Earle (Old) 1022	SUK59	.262	.315	0 - 6	.020	.156	14MC
Skillman (R1001EN)	SUK60	.197	.328	1 - 0	.014	.156	22MC
Slaymaker (Pin) 1074B	SUK104	.220	.320	1 - 6	.025	.155	8UC
Slaymaker (Padlock Disc) 1120D	SUK105	.160	.282	2 - 4	.030	.093	8UC
Slaymaker (#66 Padlock)	SUK106	.167	.295	1 - 5	.025	.150	8UC
Studebaker (Pin)	SUK53	.150	.222	1 - 4	.018	.140	8UC
Studebaker (Disc)	SUK58	.125	.232	1 - 4	.020	.095	8UC
Taylor (Disc)	SUK107	.193	.210	1 - 4	.020	.095	8UC
Taylor (Small Pin)	SUK108	.142	.255	1 - 4	.020	.140	8UC
Taylor (Large Pin)	SUK69	.240	.322	1 - 7	.020	.155	14MC
Tel-Lock	SUK109	.125	.185	1 - 4	.015	.125	8UC
Triumph (DOM) FR1-1250	SUK93	.150	.266	0 - 5	.020	.140	8UC
Triumph (Motorcycle)	SUK71	.160	.238	1 - 3	.030	.093	8UC
* Viro (Padlocks) VR91	SUK110	.313	.306	1 - 7	.016	.156	14MC
* Viro (Padlocks) VR91AR	SUK111	.313	.268	0 - 6	.016	.156	14MC
Volkswagon (HUF) F1-2160	SUK112	.160	.275	1 - 5	.020	.140	8UC
Volkswagon (KLOB) H5000-5999	SUK108	.140	.255	0 - 6	.020	.140	8UC
Wall (Padlock)	SUK113	.225	.300	1 - 4	.015	.155	14MC
* Walsco	SUK114	.323	.330	0 - 9	.015	.155	14MC
Weiser (Old) 1054WB	SUK61	.237	.320	0 - 9	.018	.156	36MC
Weiser (New) 1054WD	SUK87	.237	.315	0 - 9	.018	.156	36MC
* Welch 1123	SUK62	.339	.330	0 - 9	.015	.175	20MC
Weslock 1175N	SUK63	.220	.325	0 - 7	.015	.156	36MC
Wilson-Bohannon 621, 622, 6600, 6210 1071	SUK115	.200	.315	1 - 8	.015	.160	14MC
Wilson-Bohannon (659 Small)	SUK116	.125	.205	1 - 7	.015	.140	8UC
XL (K Series) 1180	SUK117	.185	.240	1 - 4	.020	.125	8UC
XL (X Series)	SUK117	.185	.240	1, 3, 5, 7	.015	.125	8UC

cont'd

MANUFACTURER	SET-UP KEY	DISTANCE FROM SHOULDER	CUT START	NUMBER OF DEPTHS	DEPTH DISC	SPACE DISC	CUTTER
Yale (Most Disc)	SUK64	.125	.250	1 - 5	.020	.095	8UC
Yale (Auto) - SEE CHRYSLER '56 - ' 67							
Yale (GF Disc)	SUK30	.140	.250	1 - 5	.020	.095	8UC
Yale (Small Pin) 997	SUK50	.146	.250	1 - 7	.018	.140	8UC
Yale (Large Pin) 998-999	SUK67	.200	.320	0 - 9	.019	.165	14MC
Yale (Large Sec. Spec.)	SUK67	.200	.320	0 - 7	.025	.165	14MC
Yale (PX Small Padlock)	SUK68	.129	.205	1 - 4	.020	.095	8UC
Yale (GF501-750) 01122AR	SUK30	.140	.250	0 - 4	.020	.095	8UC
Yale (YE1-30) 997LA, 997DE	SUK66	.844	.250	1 - 7	.018	.140	8UC
FOREIGN AUTO SUPPLEMENT - SET UP KEY CHART							
Datsun/Nissan '70 Up M4001-M8000 N1001-N2000	SUK127	.155	.275	1-4	.020	.099	8UC
*Datsun/Nissan X0001-8000 Y0001-8000	SUK128	.100	.280	1-4	.020	.085	8UC
*Honda '76 Up 1001-1700 2001-2700	SUK126	.100	.276	1-3	.030	.098	8UC
*Honda (Civic) to '76 2001-4949	SUK129	.097	.284	1-4	.020	.091	8UC
*Honda (Accord LX) '82 3001-4481	SUK130	.098	.276	1-3	.030	.098	8UC
Mazda '70 Up 2500-4600 5000-6100	SUK124	.310	.315	1-3	.030	.098	8UC
*Mazda '70 Up (Trunk and Gas)	SUK125	.090	.235	1-4	.020	.100	8UC
Subaru '70 Up F001-F1000 W001-W1000	SUK127	.155	.275	1-4	.020	.099	8UC
*Toyota '69 Up F5951-F9680 K0001-K4400 P7001-P8500 R0401-R3730 S5951-S9680	SUK122	.100	.278	1-4	.020	.098	8UC
Toyota 1001-2500 3001-4500 5001-6500	SUK123	.178	.268	1-4	.020	.106	8UC
*Toyota '69 Up A001-A4640 M5551-M9280 N1921-N2200 T3400-T7899	SUK121	.084	.278	1-4	.020	.098	8UC
*Opel/Isuzu C6001-C7000	SUK122	.100	.278	1-4	.020	.098	8UC
*Arrow, Colt, Challenger, Sapporo H001-H4640	SUK122	.100	.278	1-4	.020	.098	8UC
*LUV (Chevrolet) '73 Up B5001-B6000	SUK121	.084	.278	1-5	.020	.098	8UC
FORD - '85 10 Pin	SUK131	.201**	.211	1-5	.026	.093	8UC
GM SPECTRUM	SUK13	.118	.325	1-4	.028	.118	8UC

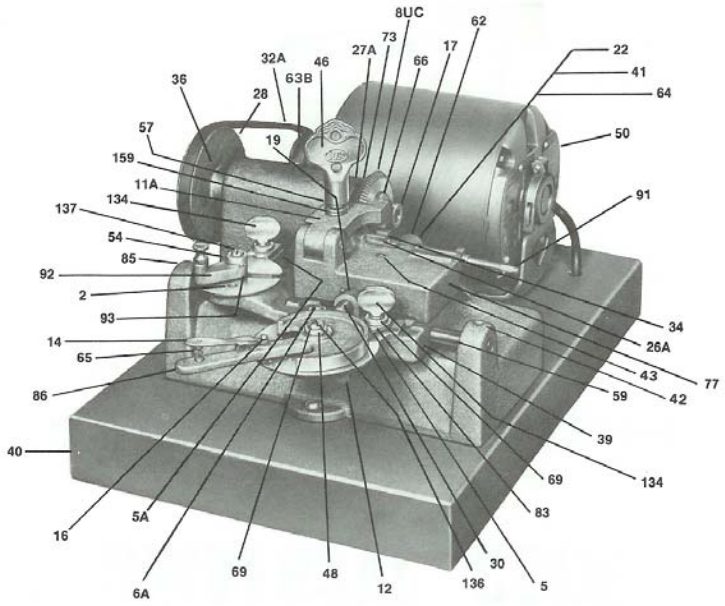
SPECIAL INSTRUCTIONS:

- Keys listed above have symetrical bittings, that is, the same cuts appear on both sides of the keys.
- To produce a double sided code key, make cuts on one side of a blank, only.
- With this "Half Cut" code key, use a duplicating cutting machine and a second blank. Copy the bittings of the half code key onto both sides of the second blank.

* Set up in second space

**Tip to center, first cut

* - Set Up in Second Space
@ - Locate from Tip of Key



Ref. No.	Part No.	Description	Qty. Per Machine
5	B2415179	178-5 Depth Disc Clamp	1
5A	B2415187	178-5A Spacing Disc Clamp	1
6A	102719U	178-6A Pointer	1
11A	B2495087	117-11A Key Clamp	1
12	B2415173	178-12 Trigger	1
14	B2415174	178-14 Cam Pin Lifter	1
16	B2415178	178-16 Cam Disc Pin	1
17	151095	N-17 Hex Nut	1
19	B2415176	178-19 Cross Slide Screw	1
22	199931	178-22 Latch	1
26A	129187	26A Key Rest	1
27A	101041	2K-27A Bushing	2
28	194110	2K-28 Fibre Thrust Washer	1
30	B2572128	178-30 Carriage Spindle	1
32A	129092	2K-32A V Belt	1
34	B2572071	177-34 Key Rest Pin	1
36	B2400048	2K-15A Pulley	1
39	B311-01989	178-39Z Carriage Assy.	1
40	B2495116	1-236 Wood Base	1
41	B2415170	178-41 Latch Screw	1
42	174653	5-42 Socket Set Screw	2
43	174506	5-52 Socket Set Screw,	1
		5/6 - 18X 5/16 Flat Point	
46	103780U	2584 Wing Nut Assy.	1
48	129204	178-48 Cam Stud	1
50	129330	¼ H. P. 110V Motor	1
NS	129207	178-52 Drive Shaft	1
54	B2415172	178-54 Spacing Arm Washer	1
57	B2572109	3-57 Key Clamp Stud	1
59	129208	178-59 Carriage Worm Spindle	1
NS	B34422003	177-60 Vise Spring	1
62	184018	178-62 Cross Slide Spring	1
63B	129024	1-63B Oil Cup	1
64	184011	178-64 Latch Spring	1
65	B2575152	178-65 Cam Pin Lifter Spring	1
66	B2415083	177-66A Beveled Collar	1

Ref. No.	Part No.	Description	Qty. Per Machine
69	B2415169	178-69 Cam Stud Washer	3
73	B2415082	177-73A Plain Collar	1
83	B2575172	178-83 Disc Clamping Spring	2
86	B311-01768	178-86 Cam Assy.	1
91	B311-01798	178-91 Key Gage Rod Assy.	1
92	B311-01799	178-92 Spacing Arm Assy.	1
93	B311-01961	178-93 Worm & Stud Assy.	1
134	174860	S-134 Screw, Thumb	2
136	172448	S-136 Machine Screw	1
137	172420	10-24 x 1½ RHMS	1
159	BC0230XXXX	1-59 Thrust Bearings	1
N. S.	137128	177-5 Wrench	1
N. S.	BC0232XXXX	4-16 Ford Adapter	2
N. S.	129193	2584 Switch	1
N. S.	129050	1-231 Motor Pulley	1
N. S.	153057	GP-1 Groove Pin,	1
		3/32 x ½ Type 2	
N. S.	153464	GP7 Groove Pin,	1
		¼ x 1¼ Type 2	
N. S.	B2495183	178-3 Cam	1
N. S.	153475	RP-13 Roll Pin, 1/16 x 7/16	1
N. S.	194080	W-1 Flat Washer; ¾ O. D. -	11
		5/16 I. D. - 1/16 Thk.	
N. S.	151076	N-16 nut, ½-20 sqa.	7
N. S.	172051	S64 Machine Screw	7
		¼ - 20 x 1½	
N. S.	129074	K-2 Hex Key	1
N. S.	129109	K-3 Hex Key	1
N. S.	129167	26C Key Rest	
N. S.	129186	22B Key Rest	
N. S.	129183	27B Key Rest	
N. S.	129182	23CH Key Rest	
N. S.	129169	38B Key Rest	
N. S.	B2215068	26AZ Key Rest	
N. S.	B2215067	26CZ Key Rest	

ILCO UNICAN CORP.
Rocky Mount, N.C. 27802 • Montreal, Que. H4P 2G7

125792
Rev. 686
Printed in Cana