

DETERMINATOR™

MAZ 2

The MAZ 2 **DETERMINATOR™** set works on Mazda vehicles using the code series 10100-12283 on the X222 or similar key blank. When used properly you will be able to generate a key for a vehicle in just a few moments.

The MAZ 2 **DETERMINATOR™** is made on an X131/MZ13 key blank. This key blank was designed for the 7 cut system. We have found that by using this key blank on the Mazda 10 cut system we had better success.



DO NOT ATTEMPT TO USE THE DETERMINATOR™ IN THE IGNITION!!!



The Mazda 10 cut lock system is unique. It incorporates an "anti-read" tumbler design in which the 3, 4, and 5 depths sight read the same. Combining this system with a worn out lock or a tumbler that does not seat properly, makes this a slightly difficult lock to originate a key for. IMPRESSIONING skills will be required to do this. By using the **DETERMINATOR™** in the door lock, and following the instructions with your impressioning skills you will be able to generate a key quite quickly. The Mazda 10 cut lock system impressions well. Use caution on doors with the plastic "optical" shutter, they can be easily damaged.

There is one tool in the MAZ 2 **DETERMINATOR™** set.

The **DETERMINATOR™** determines the depth of a tumbler by trapping the 3, 4, and 5 depth tumblers and passing the 1 and 2 depth tumblers. As you decode the lock record an "1" if the **DETERMINATOR™** passes a tumbler and record a "3" if it is trapped. Cut all "1" cuts to .005 lower than a 1 depth (.310) and cut all "3" cuts to .005 lower than a 3 depth (.280).

THE TOOL

The **DETERMINATOR™** is a decoding tool and a tumbler release tool. The **DETERMINATOR™** has numbers stamped on the side of the blade. These numbers correspond to the tumbler space locations. When the tool is inserted into the lock, the number closest to the face of the lock indicates the space which is being determined.

When the **DETERMINATOR™** traps a 3, 4, or 5 depth tumbler you will use the spring steel release tool to raise the tumbler and withdraw the **DETERMINATOR™** to the next tumbler location. Slide the release tool along the slot in the side of the tool, sloped end first. You will feel it raise the tumbler, slowly pull the **DETERMINATOR™** out a little to the next space and remove the release tool.



The MAZ 2 Determinator™ uses the modified release tool.

STEPS

Use the **DETERMINATOR™** to decode spaces in the door lock.
Cut ODD spaces on one side of the key, cut EVEN spaces on the other side.
EVEN spaces are on the top of the lock.
ODD spaces are on the bottom of the lock.
The door contains spaces 3-10.

You can make your door key on an X131/MZ13 key blank. It is shorter and does not bend as much while impressing. When you get your door key working you will need to transfer it on to a Mazda 10 blank, X222.

The slight "hump" on the X131/MZ13 is where the shoulder is on the X222/MZ27.

OR you can cut the door key on an X222 key blank.

HOW TO USE THE **DETERMINATOR™**

1. Lubricate the passenger door lock with a quick drying spray and run a key blank in and out a few times.
2. Insert the **DETERMINATOR™** fully into the door lock.
3. Slowly pull the **DETERMINATOR™** out of the lock.
4. When the **DETERMINATOR™** traps a tumbler, take note of the space, and record a "3" on your chart.
5. Use the release tool and proceed to the next space.
6. Record only the "3" cuts. When you are done you will have all your "3" spaces, THEN all other spaces will be "1" cuts.
7. Cut a key, insert it into the lock and turn the key. You may want to use your impressing pliers for a little more torque. Use your locksmithing judgement on how far to turn the key.
8. Look for impression marks. Any "1" cut that marked you will cut to a 2 depth. Any "3" cut that marked you will cut to a 4 depth.
9. Insert the key into the lock and turn.
10. Look for impression marks, especially in any 4 depth cut. Lower the spaces with impression marks to the next depth.
11. Once you have a working key for the door, **TRANSFER the cuts to an X222 key blank**, if you used an X131 key blank. Make sure that this key works in the door.
12. You will now need to impression OR progress spaces 1& 2 from the ignition. The ignition is bi-directional, tumblers on top and bottom.

MAZDA 10 CUT 2 SPACE PROGRESSION CHART

KEY 1	KEY 2	KEY 3	KEY 4
1, 2	2, 1	3, 2	4, 1
1, 4	2, 3	4, 3	5, 2
2, 5	3, 4		
4, 5	5, 4		

The Mazda 10 cut system uses an odd/even rotation of tumblers in the lock.
You will never have 2 odd depths in row and you will never have 2 even depths in a row.

FRAMON CUTTING INFORMATION

DETERMINATOR	CUTS START	CUT TO CUT	DEPTHS				
			1=.315	2=.299	3=.284	4=.268	5=.252
MAZ 2	.098	.083	1=.315	2=.299	3=.284	4=.268	5=.252

HPC CARD - CF68