

DETERMINATOR™

TOY 2

The TOY 2 **DETERMINATOR™** set works on all Toyota/Geo vehicles using the X217 (TR47) key blanks. The code series is 10000-15000. When used properly you will be able to generate a key for a vehicle in just a few moments.

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

THE TOOL

The **DETERMINATOR™** is a decoding tool and a tumbler release tool. (2 release tools)

The **DETERMINATOR™** works by trapping the 3 and 4 depth tumblers. It will pass the 1 and 2 depth tumblers.

The **DETERMINATOR™** has numbers stamped on the side of the blade. These numbers correspond to the tumbler space locations.

When the **DETERMINATOR™** traps a 3 or a 4 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, sloped end first, along the slot in the side of the tool that has the tumbler space numbers. You will feel it raise the tumbler, slowly pull the **DETERMINATOR™** out a little to the next space and remove the release tool. If the **DETERMINATOR™** traps a tumbler in space 4 or 7 you will need to use **BOTH** release tools. Insert one release tool fully into the lock along the slot in the side of the tool that has the tumbler space numbers, and then insert the other release tool on the other side of the blade. You will feel each split tumbler move up as you insert the release tool. Once you have released each side, slowly pull the **DETERMINATOR™** out to the next space THEN remove the release tools. You can also do this if you have trouble releasing any other trapped tumbler. If one of the regular tumblers has trouble releasing, simply try the release tool on the other side of the blade.

WARNING:

The lock Systems on these vehicles incorporate split tumblers (half tumblers) in spaces 4 and 7. You must be careful as not to bend or damage these tumblers when generating a key. When you trap a tumbler you will know that it is a 3 or 4 depth tumbler. You will cut a 3 ½ depth cut in that particular space, **EXCEPT** for spaces 4 and 7. If you trap a tumbler in space 4 or 7 cut it as a 3 depth. On spaces that were passed, you know that they are a 1 or a 2 depth tumbler. You will cut a 1 ½ depth cut in those spaces, **EXCEPT** for spaces 4 and 7. If space 4 and/or 7 passed, cut it as a 1 depth. Once you have decoded the lock and have cut your key with the appropriate cuts as explained above, you will now impression carefully. If space 4 and/or 7 mark you will lower them down one full depth. If the other spaces mark you will cut them down as well. Keep in mind that the MACS is 2. You will never have a 1 depth beside a 4 depth. Once you get your key to turn, (use your locksmithing judgment on how far to turn the key) you can re-cut the key with the exact cuts.

BEFORE YOU MAKE YOUR KEY MAKE SURE YOU HAVE READ AND UNDERSTAND THE INSTRUCTIONS.

NOTE: I have seen on some 98-99 Camrys, door locks containing space 2-8. If you get your key to turn in the door locks and trunk lock, and space 1 was decoded as a 1 depth, you will want to progress space 1 from the ignition to obtain a working key.

INSTRUCTIONS CONTINUED ON NEXT PAGE



The TOY 2 Determinator™ uses 2 modified release tools.

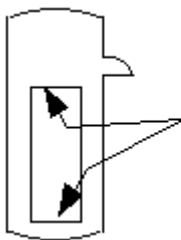
STEPS

1. Degrease 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 with slight clockwise pressure applied to the head of the tool.
4. When the **DETERMINATOR™** traps a tumbler, take note of the space, and record it as a 3 ½ depth on your chart. EXCEPT for space 4 and/or 7, record a 3 depth.
5. Release the clockwise pressure and use the release tool(s) and proceed to the next space.
6. Record only the spaces that get trapped. When you are done decoding BOTH sides of the lock, then ANY space that DID NOT trap you will make as a 1 ½ depth. EXCEPT for space 4 and/or 7, which you will cut as a 1 depth.
7. Cut a key and insert it into the lock and turn. You may want to use your impressing pliers for a little more torque. Use your locksmithing judgement on how far to turn the key. **USE CAUTION AS TO NOT BEND THE TUMBLERS.**
8. Look for impression marks. Any space that marked cut it down to the next depth. If a 3 ½ cut marked make it a 4 depth. ON spaces 4 and 7, if you see a mark, it should be quite large. Take it down one full depth. If it was a 1 depth make it a 2 depth. If it was a 3 depth make it a 4 depth. If either spaces 4 or 7 did not mark, leave them as they are.
9. Once you get your key to turn, simply re-cut another key with the correct depths as you have determined.

NOTE: You can try ½ cuts in all 8 spaces in the ignition. As soon as you feel the key turning, stop and look for the spaces that have an impression mark. Lower those spaces to the next depth. Recut the key with the necessary adjustment. **BE CAREFUL OF THE SPLIT TUMBLERS.**

Sometimes you may have trouble catching a deep tumbler on these locks. Let's examine the tumblers and see what is going on.

First let us look at a "normal" tumbler.



In a normal tumbler the window is flat on the top and bottom.

Now let's see what a TR 47 tumbler looks like. Notice the rounded corners.

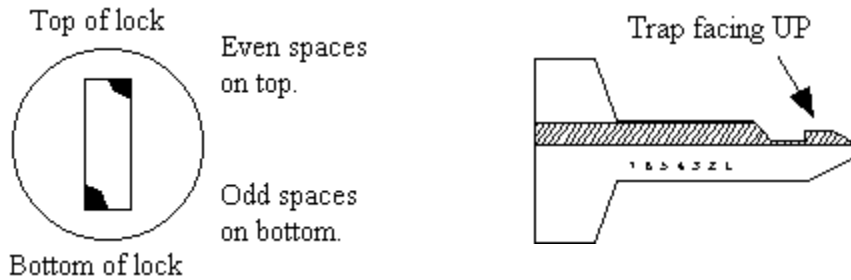


This is the part that rides on the key, and is what the Determinator is trying to trap. It is the part that you see when you look into the lock.

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So, when you look into the keyway, you see what appears to be ½ tumblers in all of the positions. It is a bidirectional lock. This is shown below.

The Determinator, being milled on both sides to accommodate the split tumblers in spaces 4 and 7, may have trouble trapping these full tumblers. Because the tumblers are not flat all the way across, the Determinator can trap only the “bump” on these tumblers. So, how do we get the Determinator to trap?? Easy, when you insert the Determinator into the lock with the trap facing up, put a slight twist on the head of the key in the clockwise direction. This will cause the trap to move to the right so that it is now behind the “bump”. When you insert the Determinator with the trap facing down, you should also twist in a clockwise direction. This will cause the trap to move to the left and trap the “bump” on the bottom.



NOTE: If needed, visually inspect the lock to see the tumblers and their positions.

FRAMON CUTTING INFORMATION

DETERMINATOR	CUTS START	CUT TO CUT	DEPTHS			
			1=.323	2=.299	3=.276	4=.252
TOY 2 (tip stop)	.368	.090	1=.323	2=.299	3=.276	4=.252
			1½=.311	2½=.288	3½=.266	

HPC CARD - XF208