Pento-stamp

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This puzzle has 3 identical pentacubes and 3 different non-planar tetracubes. You can create a 3x3x3 cube as a starter - there is only 1 solution.

Now remove one tetracube (of course I'm not going to tell you which one 😃) and build two full 3x3 layers (the bottom and the middle one) and a pentomino shape in the top layer. Use the box to keep your pieces in place. There are 12 different top layers you can create (7 pentominoes, some of them in different positions / mirrored). Check the pictures below, the numbers indicate how many solutions you can find in all three combinations of pieces.

If you are asking where is T pentomino and mirror F shape, ehm, you are allowed to cheat on those two 😃. Just remove one pentacube instead of one tetracube and find the unit cube you can leave empty, but it cannot be visible from the outside (use the box to cover the bottom layer). Pentomino T has 3 solutions, mirror F has three as well.

What about top layer tetrominoes? Sure, no problem, remove one pentacube and ... you know what to do. There are at least two solutions for each position of every tetromino that fits into 3x3 square.