



Hadar Jacobson

Art in Metal Clay

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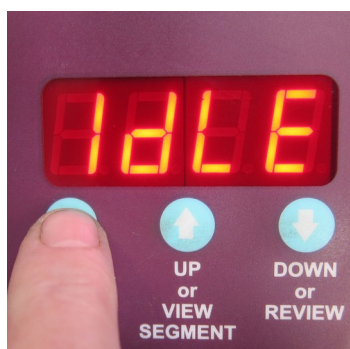
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Programming Instructions for Hadar's Clay™ One-fire Clay (including Flex Clays)

**Demonstrated on a brick, top-loading kiln
with firing schedule of One-fire Brilliant Bronze**



Before programming, the kiln alternately displays the message "IDLE" and the current room temperature (73 in this case).



To start programming, press the left bottom.



User 2 is the program that was selected here by pressing the up or down buttons. On other controllers it may display Pr01 (Program 1) instead.

You can choose a separate program for each clay, or use the same one and change only the final hold temperature.



After pressing the left button again the controller displays rA1, which means the ramp speed you would like to start with.

1800°F per hour is the ramp (the speed at which the kiln reaches the desired temperature), which applies to all types of kilns.



After pressing the left button again the controller displays °F1, which means the temperature you would like the kiln to reach.

1000°F is the temperature at which the binder burns in a brick kiln. In a muffle kiln (such as SC2), the temperature is 1100°F.



After pressing the left button again the controller displays HLd1, which means how long the kiln should hold at the above temperature.

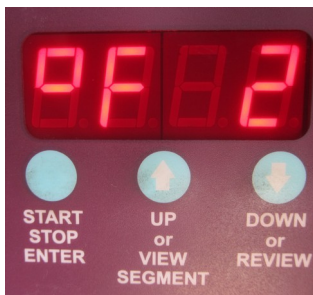
2:00 hours is the longest I ever had to hold for very large pieces or for multiple ones. When you are in doubt, choose 2:00 hours, but for small or few pieces you can choose only one hour.



After pressing the left button again the controller displays rA2, which means the second ramp speed.

The second ramp speed is again 1800°F per hour for all types of kilns.





After pressing the left button again the controller displays °F2, which means the the temperature you would like the kiln to reach the second time around.

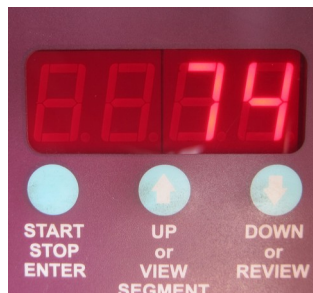
Using One-fire Brilliant Bronze as an example: 1460°F is the temperature at which sintering of One-fire Brilliant Bronze is achieved in a brick kiln. In a muffle kiln (such as the SC2), the temperature is 1510°F. (Other clays have different sintering temperatures; see page 4 for firing temperatures for each clay.)



After pressing the left button again the controller displays HLD2, which means how long the kiln should hold at the above temperature. The hold time is again 2:00 hours.



After pressing the left button again the controller displays rEdI (Ready).



After pressing the left button again the controller displays room temperature, the temperature will start going up and you will hear the kiln clicking.

Programming is complete. The kiln will turn itself off at the end of the firing session. You can leave it to fire overnight and cool, or wait until it is cool enough to handle and take the pieces out. The firing will last 4-5 hours, depending on the type of kiln and the firing temperature. One-fire Copper or Steel, for example, will take longer since the kiln ramps slower when trying to reach high temperatures.

The following page shows the different firing temperatures (i.e., the final temperature) for each of the clays and their combinations. See also at: http://artinsilver.com/One-fire-clays_instruction_manual.pdf.

Firing Schedules for Hadar's Clay™ One-fire Clays (including Flex Clays)

High-Fire

Clay	Color	Firing temperature	
		On its own	Combined with other high-fire clays
White Satin	Silver-like	1680°F (brick) 1730°F (muffle)	1750°F (brick) 1800°F (muffle)
Copper	Red-orange-brown	1900°F (brick) 1950°F (muffle)	1750°F (brick) 1800°F (muffle)
Champagne Bronze	Champagne	1720°F (brick) 1770°F (muffle)	1750°F (brick) 1800°F (muffle)
Dark Champagne Bronze	Darker than Bronze	1700°F (brick) 1750°F (muffle)	1750°F (brick) 1800°F (muffle)
Rose Bronze	Pinker than copper	1720°F (brick) 1770°F (muffle)	1750°F (brick) 1800°F (muffle)
Low-Shrinkage Steel <i>XT</i>	Silvery-Gray	1900°F (brick) 1950°F (muffle)	1750°F (brick) 1800°F (muffle)
Pearl Grey Steel	Silvery-Gray	1825°F (brick) 1875 (muffle)	1750°F (brick) 1800°F (muffle)

Mid-fire

Clay	Color	Firing temperature	
		On its own	Combined with One-fire Copper, One-fire Bronze or Brilliant Bronze, Pearl Grey Steel (mokume-gane)
One-fire Bronze		1510°F (brick) 1560°F (muffle)	1510°F (brick) 1560°F (muffle)
One-fire Brilliant Bronze	Gold-like	1460°F (brick) 1510°F (muffle)	1510°F (brick) 1560°F (muffle)
One-fire Smart Bronze	Champagne-like	1420°F (brick) 1470°F muffle)	N/A

Low-fire

Clay	Color	Firing temperature	
		On its own	Combined with other clays
One-fire White Bronze	Silver	1330°F (brick)	1350°F (brick)

		1380°F (muffle)	1400°F (muffle
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