

# AMPLIFICATION CFX Manager™ Software Protocol Quick Guide

## Experiment Setup Protocol Tab

The Protocol tab displays a preview of the protocol loaded in the Experiment Setup window (Figure 1).

Click **Create New** to open the Protocol Editor to create a new protocol.

Click **Select Existing** to launch the file browser to load a protocol to use in an experiment or to edit.

Use the Express Load drop-down menu to directly load a protocol to use in an experiment or to edit.

Click **Edit Selected** to open the Protocol Editor to edit the steps of the selected protocol.

Click the **Start Run** tab to proceed and run an experiment with the currently loaded protocol.

## Protocol Editor

The Protocol Editor is used to create a new protocol or edit an existing one (Figure 2).

1. Select any step in either the graphical or text display — the step becomes highlighted in blue. Click on the temperature or dwell time to directly edit the value.

2. Click **Insert Step** to add a temperature step to the protocol.

Click **Delete Step** to remove a highlighted step from the protocol.

3. Click **Add Plate Read to Step** to designate when fluorescence data will be acquired during the protocol. The text on this button changes to Remove Plate Read if the currently highlighted step has a plate read. If you do not want to acquire data at that step, then click **Remove Plate Read**.

4. Click on the number of repeats of a GOTO Step to change the number of cycles in the protocol (Figure 2, Step 4).

Click on the GOTO Step number to change the steps included in the GOTO loop.



Fig. 1. Protocol tab in the Experiment Setup window. Load an existing protocol or create a new protocol for an experiment.

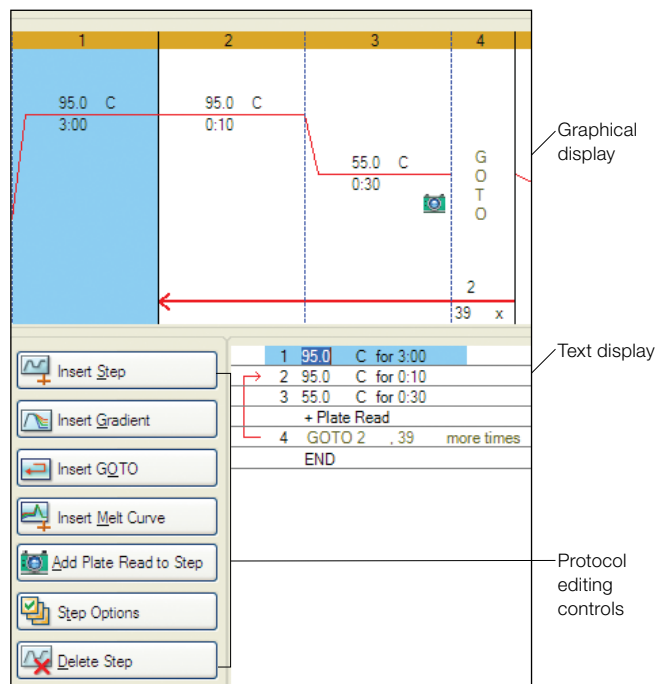
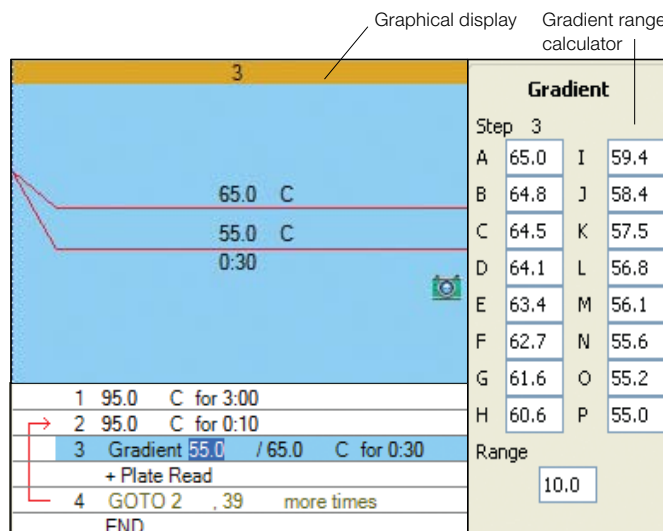


Fig. 2. Protocol Editor. The protocol editing controls are on the left. Both the graphical and text displays can be edited. Step 1 is highlighted and 95°C is selected for editing in the text display.

To add a gradient step:

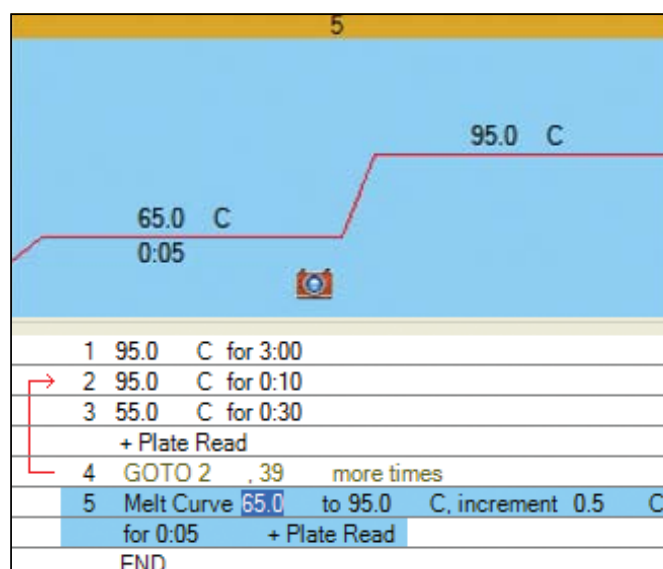
1. Click **Insert Gradient** in the protocol editing controls (Figure 2).
2. To edit the temperature values for the lowest and highest temperatures in the gradient, click on the values in the graphical display, in the text display, or in the gradient range calculator that appears to the right of the text display (Figure 3).
3. Within the gradient range calculator, a specific temperature can be assigned to any row. Each row is then populated with the appropriate temperature to satisfy the specialized range.



**Fig. 3. Insert Gradient step in the Protocol Editor.** A gradient step is highlighted in blue in the graphical and text displays of the protocol. The gradient range calculator appears when a gradient is added to the protocol.

To add a melt curve:

1. Click **Insert Melt Curve** in the protocol editing controls (Figure 2).
2. In the graphical or text display, click on the temperature values to edit the lowest and highest temperatures of the melt curve range (Figure 4, Step 5).
3. Click on the increment value to edit the temperature interval at which data are acquired.
4. Click on the dwell time to edit the incubation time for each temperature increment.



**Fig. 4. Insert Melt Curve step in the Protocol Editor.** A melt curve step is highlighted in blue in the graphical and text displays of the protocol.

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