

Recipe Storage

The IQ plus 800/810 recipe storage option provides a multiple number of stored recipes and one working recipe. Each recipe consists of a fixed number of setpoints plus the batching mode. In addition a one to seven character name can be defined. Recipes are configurable in size between 1 to 255 setpoints, and the number of recipes supported depends on the size selected (from 774 recipes at 1 setpoint to 5 recipes at 255 setpoints).

All stored recipes can be defined from the *SETPNTS* configuration submenu or by using EDP commands. Also, a stored recipe can be selected as the current working recipe from the front panel, with EPD commands, or with pushbutton input. The *SETPPOINT* key can be used to modify the working recipe without changing the stored recipe. The working recipe can also be saved as a stored recipe using an EDP command.

Defining the Number of Setpoints per Recipe

Under the *SETPNTS* configuration submenu, go left from *RECIPE1* to *NUMOFSP*. Go down and use the *SETPPOINT* and *CLEAR* keys to select the maximum number of setpoints per recipe. The maximum number of recipes is automatically calculated. Going left from *NUMOFSP* displays the maximum recipe. The following table indicates the possible number of recipes for each number of setpoints and Figure 1 on the following page illustrates the navigational menu for setting up a stored recipe.

Setpoints	Recipes	Setpoints	Recipes	Setpoints	Recipes	Setpoints	Recipes
1	774	6	193	11	110	16	77
2	483	7	168	12	101	17	73
3	351	8	148	13	94	18	69
4	276	9	133	14	87	19	66
5	227	10	120	15	82	20*	62*
21	59	26	48	31	40	36	35
22	56	27	46	32	39	37	34
23	54	28	45	33	38	38	33
24	52	29	43	34	37	39	32
25	50	30	42	35	36	40	31
41	30	51-53	24	72-75	17	117-128	10
42	30	54-55	23	76-79	16	129-142	9
43	29	56-57	22	80-85	15	143-160	8
44-45	28	58-60	21	86-91	14	161-183	7
46-47	27	61-63	20	92-98	13	184-214	6
48	26	64-67	19	99-106	12	215-255	5
49-50	25	68-71	18	107-116	11		



Caution

Changing the number of setpoints per recipe will erase all currently stored recipes.

**Default*

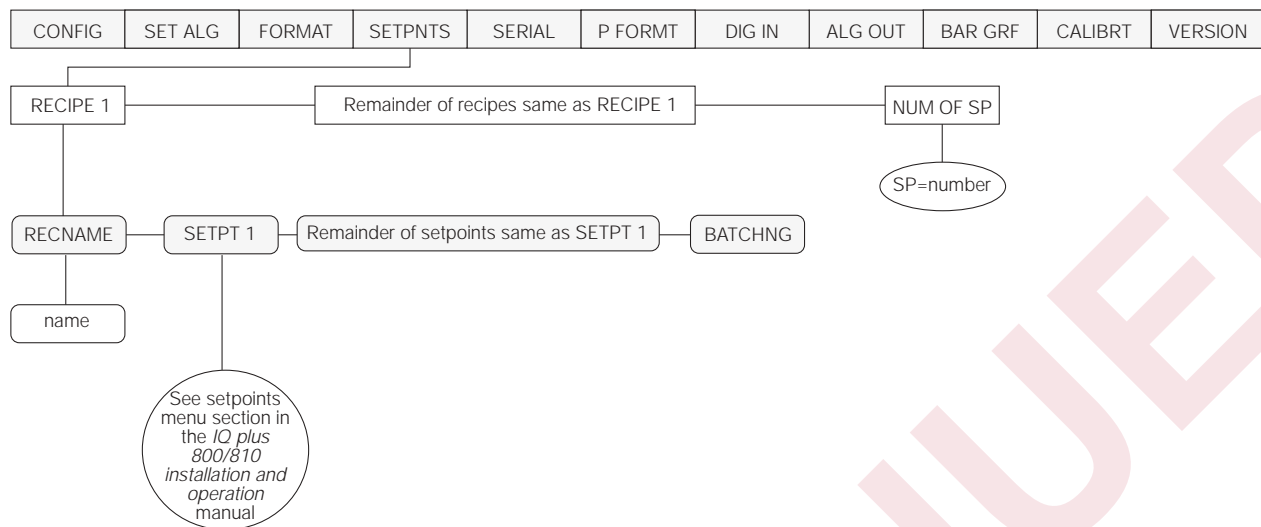


Figure 1. Recipe Storage Navigational Menu

Defining or Modifying a Stored Recipe

Under the *SETPNTS* configuration submenu, use the *SETPOINT* and *CLEAR* keys to select the recipe number you want to define. Go down from the selected recipe header to define the setpoints and the batching mode.

Default Recipe

The last (highest numbered) recipe will be used as a template in defining any new recipes. If the last recipe hasn't been defined, all new recipes will start with no batching and no setpoints defined.

To Copy a Stored Recipe into the Working Recipe Location

There are two ways a stored recipe can be selected as the working recipe. They are:

- Keying in a recipe number using the IQ plus 810 front panel
- By a pushbutton interface

In either case, the specified recipe will be loaded after the currently running batch sequence (if any) completes.

IQ plus 810 Panel Interface

Enter a number corresponding to one of the stored recipes and press *NEW ID*. The indicator prompts, *NEW REC* and copies the recipe into the working recipe (if a batch is currently running, the new recipe will be loaded when the current sequence finishes or is terminated). Return to the normal operating mode by pressing the *GROSS/NET* key, or wait until the display switches back.

Pushbutton Interface

Close the switch corresponding to the desired recipe.

NOTE: *The recipe will be the working recipe only as long as the switch remains closed. The recipe will be used until the button is released.*

Again, if a batch is running, the recipe will be switched at the end of the current sequence.

Displaying the Working Recipe

While in normal operating mode, you can press **NEW ID** to verify which recipe was last copied to the working recipe location. The indicator responds by displaying the recipe name of the current recipe, or *RECIPEn*, *RECIPnn*, or *RECInnn* (where n, nn, or nnn = recipe number) if no name was defined.

Once again, return to the normal operating mode by pressing **GROSS/NET**, or wait until the display switches back.

Modifying the Working Recipe

The values for the setpoints in the working recipe can be changed from the front panel by using the **SETPOINT** key, as described in PN 42100, *IQ plus 800/810 Installation and Operation* manual. Changes to the working recipe do not affect the stored recipes. To undo the changes to the working recipe, copy the original stored recipe into the working recipe location.

Printing the Working Recipe Name

The new *RN* print format command is provided to allow printing of the current recipe name as part of a ticket.

EDP Commands

The working recipe can be modified using the EDP commands listed in the setpoints submenu in the *IQ plus 800/810 Installation and Operation* manual. You can use these EDP commands in both the normal operating and setup modes. You must use upper case letters for the commands.

NOTE: *In the normal operating mode, it is the operator's responsibility to ensure that no batch sequence is being processed while changes are being made to the working recipe via the EDP commands.*

NEW EDP COMMANDS FOR RECIPES	
RECIPE	Corresponds to the recipe number affected by RECIPESAVE and RECIPERECALL commands.
RECNAME	Specifies the one to seven character recipe name.
RECIPESAVE	Copies the working recipe into the recipe previously selected with the RECIPE command.
RECIPERECALL	Copies the recipe designated by RECIPE command into the working recipe.
RECIPEDUMP	Sends all setpoint parameter settings for the current working recipe to the EDP port. Is similar to DUMPALL, but dumps only the setpoint parameters.
DUMPRECIPES	Sends all setpoint parameter settings for all defined recipes to the EDP port.

Note: *The DUMPALL EPD command only transmits the setpoint settings for the working recipe.*

Pushbutton Operation

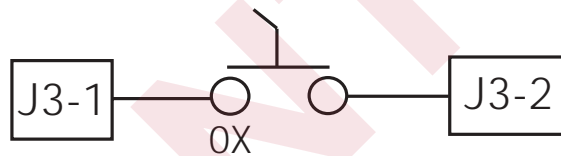
An IQ plus 810 with the recipe storage option can be operated using pushbuttons to select the working recipe with the inclusion of the remote keyboard hardware board. Up to 28 recipes can be selectable. The remote keyboard connector (J3) should be wired as follows:

Recipe	Pin	Recipe	Pin	Recipe	Pin	Recipe	Pin	Recipe	Pin
1	2	7	11	13	15	19	8	25	26
2	21	8	12	14	16	20	30	26	24
3	3	9	31	15	17	21	32	27	4
4	35	10	13	16	22	22	34	28	6
5	27	11	14	17	23	23	25		
6	29	12	33	18	5	24	7		

All of the input pins on the remote keyboard connector are normally high (5VDC). To select a recipe, hold its pin low. Pins 1, 9, 10, 18, 20, 28, and 36 are all ground pins.

When a recipe is selected, *NEW REC* is displayed momentarily and the selected recipe is copied into the working recipe (if a batch is currently running, the new recipe will be loaded when the current sequence finishes or is terminated). Then the indicator displays the recipe name, or *RECIPEn*, *RECIPnn*, or *RECInnn* (where n, nn, or nnn = recipe number) if no name was defined. The instrument will return to the normal operating mode by pressing *GROSS/NET*, or when the display timer expires.

In the example shown below, recipe 1 is selected as the working recipe when the switch is closed.



Restrictions

There are restrictions when using the recipe storage option.

- The truck program has been removed. This includes the *TARE200* parameter and the *TRWIN* and *TRWOUT* print formats.
- To reduce the storage requirements for a setpoint, preact, hysteresis, and band value are mutually exclusive. Only one of these can be used within a single setpoint definition.

Initial Power Up

Due to the time required to initialize the recipe storage, the initial power up sequence can take up to 15 seconds, during which time the display check (all lights on), will be displayed. At the end of the sequence, if the word *RESET* is displayed, turn the power off and then back on to continue.

Revolution

The IQ plus 810 recipe storage software is not supported by Revolution™. Refer to the *IQ plus 800/810 Installation and Operation Manual*, PN 42100, and the EDP command section of this addendum for information on saving and transferring data to and from a PC.