```
          TR-1 WITH 99 FORMULAS (UP TO 4 INGREDIENTS)
                (TA-0597-4ING-99FORM-DUMP)
                (TA-0597-2-2ING-99FORM-DUMP)
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 This unit has 99 formulas which control relay outputs to
fill the scale hopper to the correct net weights.
 The system will test for over tolerance of each net
ingredient and will give an alarm output if any ingredient
exceeds its tolerance percentage.
  An alarm will also sound if material does not flow within
an adjustable time period.
  Each ingredient has a total material accumulator and this
data can be printed and cleared at any time.


Calibrate the TR-1 using the main TR-1 calibration manual.
Parameter #00 has been changed to print the scale name.
Set to 00 for no scale name print
Set to 01 to print "CEM"
Set to 02 to print "AGG"

SET-UP:

   Set the following for free fall compensation,
slow feed (for dual speed unit), ingredient tolerance, and
no-flow alarm.

   Free-fall is set to the amount early to stop the
ingredient. For example, to stop the #2 ingredient at 30 lbs.
before the scale reaches the target weight, then set the
free-fall for #2 ingredient to a value of 30.

   If the unit has 2 speeds for each ingredient, then 2
relays will be activated to start the ingredient flow.
The "FAST FEED" relay will drop out at the point set by
the Slow Feed settting.  For example, to stop the "FAST FEED"
relay for the #1 ingredient when the net weight gets within
500 lbs.  of the target, then set the slow feed for
ingredient #1 (Function #5) to a value of 500.

   If the DUMP option is installed, then set Function 0 to the
value that the scale must dump down to before the dump gate
will close.

FUNCTION    0= Dump down to value.

             1= Free-fall for ingredient #1
             2= Free-fall for ingredient #2
             3= Free-fall for ingredient #3
             4= Free-fall for ingredient #4

             5= Slow feed for ingredient #1
             6= Slow feed for ingredient #2
             7= Slow feed for ingredient #3
             8= Slow feed for ingredient #4

            10= Time period before alarm sounds if no product
                flows (Set to the number of display updates)

            11= Tolerance % over-fill for #1
            12= Tolerance % over-fill for #2
            13= Tolerance % over-fill for #3
            14= Tolerance % over-fill for #4

1. Press and hold the FUNCTION button until the data lamp
   lights.
2. Enter the function number desired and press the enter
   button.
3. The display will show the current setting for this
   function.  Use the keypad to alter this value and press
   enter when finished.

FORMULA SELECTION:

   Rotate the formula number thumbwheels to the desired
formula number. (00 to 99)

SETPOINT ENTRY:

1. Press and hold the SETPOINT button until the data lamp
   lights.
2. Enter the ingredient number (1-4) desired, then press
   enter.
3. The display will show the current value for this
   ingredient.
4. Use the keypad to alter the value, then press enter.
5. Repeat steps 1 to 4 for any ingredients to change.

VIEWING THE FORMULA:

 When the sytem is not running a batch, the ID button can be
pushed to view the contents of the selected formula.  The
display will flash thru each setpoint (1,2,3,4).

 When the system is running, pressing the ID button only
shows the formula number of the formula that is running.
This may be used to verify the setting of the thumbwheels
when the start button was pushed. Note that it is possible to
run a different formula for each scale but this is not
advised.

OPERATE:

1. Set the formula number desired.
2. Assure that the scale is empty.
3. Press the GREEN start button, and note that the lamps
   flash to indicate that the system is in the run mode.
4. The system will fill each ingredient that has a value that
   is not zero, or less than the free-fall setting. The
   printer output will identify the ingredient and the amount
   that was loaded into the scale.
5. When finished it will return to the GROSS display mode,
   and the lamps will stop flashing. The printer will print
   the total of all materials loaded.

OPTIONAL DUMP:
 1. Press the DUMP button.
 2. The dump relay will activate until the gross weight gets
    down to the value set by FUNCTION #0.

NOTES:

To stop the system before finishing the complete batch, press
the RED button or the "CLEAR" button.

To override a tolerance alarm, press the GREEN start button.

INVENTORY TOTALS:

1. When the system is not running, press the PRINT button.
2. The printer will print the total weight used for each
   ingredient.
3. The display will show all dashes.
4. To clear the totals, press the CLEAR button.
5. To keep the totals, press the ENTER button.