

Pressing the discount button while the pump handle is in the "ON" position has no effect on the pump.

SETTING THE DISCOUNT PRICE

First set the regular price per litre in the normal fashion, then press and HOLD the DISCOUNT button. At this time the DISCOUNT price is displayed and can be set in the same way the regular price is set. I.E. while the discount button is held you can access and set the discount price.

READING DISCOUNT TOTALIZERS

The pump contains two sets of totalizers. A set of volume and dollar totals for the regular priced sales and a set of volume and dollar totals for the discount priced sales.

First read the regular priced sales totalizers in the normal fashion, then press and HOLD the DISCOUNT button. At this time the DISCOUNT sale totalizers can be read in the same way the regular totals are read. I.E. while the discount button is held you can read the discount sales totalizers.

Grand total volume and dollar sales are the sum of the regular and discount sales volume and dollar totals.

7.0 - AUTOMATIC TEMPERATURE COMPENSATION

The MICON 100IP contains an additional module which can provide both/either electronic calibration of the dispenser meter and/or automatic temperature compensation of the product dispensed.

To install the MICON 100IP, it will be necessary to install the temperature probe and a test well in the meter line. The probe fitting and test well are 1/8" NPT, male thread. The line must be drilled and tapped (drill size Q) to accept the fittings. These fittings are to be as close together as practical and the test well must be accessible to the inspector after installation and must also be within 45 degrees of vertical to facilitate filling the well with fluid. These fittings are supplied with the MICON 100IP. Additional fittings are available upon request.

In addition to the test well and probe fitting, new installations will require two BC-256 label ("CORRECTED TO 15 C"). These labels must be attached to each faceplate of the dispenser and be visible to the customer. These labels are provided with MICON 100IP, gasoline and diesel versions, and additional labels are available upon request.

7.1 - ELECTRONIC CALIBRATOR ADJUSTMENT

The MICON 100IP is equipped with an Automatic Temperature Compensator which also contains an electronic calibration feature. This feature provides the MICON 100IP with the capability of electronically compensating for meter errors of +/- 6.35% with the "Z" option, or +0 to +12.7% with the "P" option. Other ranges are available upon request. The required calibration error is programmed into the ATC via 8 switches located within the explosion-proof housing. These switches are factory set for 0% calibration error. If the meter is correctly calibrated, no further adjustment is necessary.

When the switch on the front display is in the up, or "ATC" position, The ATC readings are shown on the display. The display then indicates as follows:

TOP DISPLAY % calibration (While sw 10 "on")
temperature (While sw 10 "off")

CENTER DISPLAY uncompensated vol.

BOTTOM DISPLAY flow rate/status

for the first 5 seconds after reset a software ID message will be displayed on the bottom display as follows:

2 2 x x
^ ^ ^ ^-- = multiplication factor (1 to 4)
I I I---- = No flow time out of:
I I I 0 = no flow time out
I I I 1 = 15 second time out
I I I 3 = 45 second time out
I I----- = revision number
I----- = version number

After the first 5 seconds after reset and until/unless FLOW BEGINS or a shut down error occurs, the product compensation type will be displayed for one of the following products:

GAS = gasoline
PROP = propane
dESl = diesel fuel

If normal flow begins, the flow rate display will be displayed continuously until/ unless an error occurs. If a pump shut down occurs, the reason code will replace the above message with one of:

bAd = temperature probe defect (valid only if ATC on)
FLO = If shut down due to no flow time out
Err = If pulser error caused shut down

If electronic calibration is required, the following method may be used to calibrate the system:

1) Remove the cover from the housing and place switch #10 on the ATC board in the ON position. Ensure all other switches are set for 0% calibration (factory setting -see tables in this section or observe calibration reading on display).

2) Place the handle switch in the ON position and observe that the MICON 100IP dollars and volume displays reset to zero.

3) Dispense a known volume of product and record the reading on the volume display.

4) Use the formula below to calculate the percentage correction required:

$$\% \text{ CORRECTION} = \frac{-(\text{ACTUAL VOLUME} - \text{REGISTER VOLUME})}{\text{REGISTER VOLUME}} \times 100$$

5) Refer to Table 7.1 on the next page for the closest correction value and set switches 1 through 8 as shown in the table.

Example:	Product dispensed	25.00	Litres
	Register reading	26.360	Litres

$$\% \text{ CORRECTION} = \frac{-(25.000 - 26.360)}{26.360} \times 100 = \underline{-5.159\%}$$

250 -

363.892

31.

TABLE 7.1

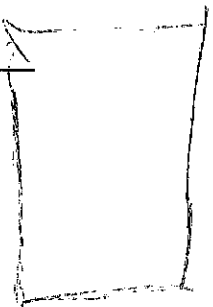
SWITCH SETTINGS FOR 100% CENTER POINT CALIBRATION ("Z" Option)

Switch setting 87654321	Compensation	Switch setting 87654321	Compensation
00000000	-6.40%	C0000000	0.00%
0000000C	-6.35%	C000000C	+0.05%
000000C0	-6.30%	C00000C0	+0.10%
000000CC	-6.25%	C00000CC	+0.15%
00000C00	-6.20%	C0000C00	+0.20%
00000C0C	-6.15%	C0000C0C	+0.25%
00000CC0	-6.10%	C0000CC0	+0.30%
00000CCC	-6.05%	C0000CCC	+0.35%
0000C000	-6.00%	C000C000	+0.40%
0000C00C	-5.95%	C000C00C	+0.45%
0000C0C0	-5.90%	C000C0C0	+0.50%
0000C0CC	-5.85%	C000C0CC	+0.55%
0000CC00	-5.80%	C000CC00	+0.60%
0000CC0C	-5.75%	C000CC0C	+0.65%
0000CC00	-5.70%	C000CC00	+0.70%
0000CCCC	-5.65%	C000CCCC	+0.75%
000C0000	-5.60%	C00C0000	+0.80%
000C000C	-5.55%	C00C000C	+0.85%
000C00C0	-5.50%	C00C00C0	+0.90%
000C00CC	-5.45%	C00C00CC	+0.95%
000C0C00	-5.40%	C00C0C00	+1.00%
000C0C0C	-5.35%	C00C0C0C	+1.05%
000C0CC0	-5.30%	C00C0CC0	+1.10%
000C0CCC	-5.25%	C00C0CCC	+1.15%
000CC000	-5.20%	C00CC000	+1.20%
000CC00C	-5.15%	C00CC00C	+1.25%
000CC0C0	-5.10%	C00CC0C0	+1.30%
000CC0CC	-5.05%	C00CC0CC	+1.35%
000CCC00	-5.00%	C00CCC00	+1.40%
000CCC0C	-4.95%	C00CCC0C	+1.45%
000CCCC0	-4.90%	C00CCCC0	+1.50%
000CCCCC	-4.85%	C00CCCCC	+1.55%
00C00000	-4.80%	C0C00000	+1.60%
00C0000C	-4.75%	C0C0000C	+1.65%
00C000C0	-4.70%	C0C000C0	+1.70%
00C000CC	-4.65%	C0C000CC	+1.75%
00C00C00	-4.60%	C0C00C00	+1.80%
00C00C0C	-4.55%	C0C00C0C	+1.85%
00C00CC0	-4.50%	C0C00CC0	+1.90%
00C00CCC	-4.45%	C0C00CCC	+1.95%

ON
|
C

SWITCH SETTINGS FOR 100% CENTER POINT CALIBRATION ("Z" OPTION)

Switch setting 87654321	Compensation	Switch setting 87654321	Compensation
00C0C000	-4.40%	C0C0C000	+2.00%
00C0C00C	-4.35%	C0C0C00C	+2.05%
00C0C0C0	-4.30%	C0C0C0C0	+2.10%
00C0C0CC	-4.25%	C0C0C0CC	+2.15%
00C0CC00	-4.20%	C0C0CC00	+2.20%
00C0CC0C	-4.15%	C0C0CC0C	+2.25%
00C0CCCO	-4.10%	C0C0CCCO	+2.30%
00C0CCCC	-4.05%	C0C0CCCC	+2.35%
00CC0000	-4.00%	C0CC0000	+2.40%
00CC000C	-3.95%	C0CC000C	+2.45%
00CC00C0	-3.90%	C0CC00C0	+2.50%
00CC00CC	-3.85%	C0CC00CC	+2.55%
00CC0C00	-3.80%	C0CC0C00	+2.60%
00CC0C0C	-3.75%	C0CC0C0C	+2.65%
00CC0CC0	-3.70%	C0CC0CC0	+2.70%
00CC0CCC	-3.65%	C0CC0CCC	+2.75%
00CC0000	-3.60%	C0CC0000	+2.80%
00CC000C	-3.55%	C0CC000C	+2.85%
00CC0C00	-3.50%	C0CC0C00	+2.90%
00CC0CC0	-3.45%	C0CC0CC0	+2.95%
00CCCC00	-3.40%	C0CCCC00	+3.00%
00CCCC0C	-3.35%	C0CCCC0C	+3.05%
00CCCCCO	-3.30%	C0CCCCCO	+3.10%
00CCCCCC	-3.25%	C0CCCCCC	+3.15%
0C000000	-3.20%	CC000000	+3.20%
0C00000C	-3.15%	CC00000C	+3.25%
0C0000C0	-3.10%	CC0000C0	+3.30%
0C0000CC	-3.05%	CC0000CC	+3.35%
0C000C00	-3.00%	CC000C00	+3.40%
0C000C0C	-2.95%	CC000C0C	+3.45%
0C000CC0	-2.90%	CC000CC0	+3.50%
0C000CCC	-2.85%	CC000CCC	+3.55%
0C00C000	-2.80%	CC00C000	+3.60%
0C00C00C	-2.75%	CC00C00C	+3.65%
0C00C0C0	-2.70%	CC00C0C0	+3.70%
0C00C0CC	-2.65%	CC00C0CC	+3.75%
0C00CC00	-2.60%	CC00CC00	+3.80%
0C00CC0C	-2.55%	CC00CC0C	+3.85%
0C00CCCO	-2.50%	CC00CCCO	+3.90%
0C00CCCC	-2.45%	CC00CCCC	+3.95%



SWITCH SETTINGS FOR 100% CENTER POINT CALIBRATION ("Z" OPTION)

Switch setting 87654321	Compensation	Switch setting 87654321	Compensation
OCOC0000	-2.40%	CCOC0000	+4.00%
OCOC000C	-2.35%	CCOC000C	+4.05%
OCOC00CO	-2.30%	CCOC00CO	+4.10%
OCOC00CC	-2.25%	CCOC00CC	+4.15%
OCOC0C00	-2.20%	CCOC0C00	+4.20%
OCOC0C0C	-2.15%	CCOC0C0C	+4.25%
OCOC0C0C	-2.10%	CCOC0C0C	+4.30%
OCOC0CCC	-2.05%	CCOC0CCC	+4.35%
OCOC0000	-2.00%	CCOC0000	+4.40%
OCOC000C	-1.95%	CCOC000C	+4.45%
OCOC0C0C	-1.90%	CCOC0C0C	+4.50%
OCOC00CC	-1.85%	CCOC00CC	+4.55%
OCOC0000	-1.80%	CCOC0000	+4.60%
OCOC000C	-1.75%	CCOC000C	+4.65%
OCOC000C	-1.70%	CCOC000C	+4.70%
OCOC000C	-1.65%	CCOC000C	+4.75%
OCC00000	-1.60%	CCC00000	+4.80%
OCC0000C	-1.55%	CCC0000C	+4.85%
OCC0000C	-1.50%	CCC0000C	+4.90%
OCC000CC	-1.45%	CCC000CC	+4.95%
OCC00C00	-1.40%	CCC00C00	+5.00%
OCC00C0C	-1.35%	CCC00C0C	+5.05%
OCC00C0C	-1.30%	CCC00C0C	+5.10%
OCC00CCC	-1.25%	CCC00CCC	+5.15%
OCC0C000	-1.20%	CCC0C000	+5.20%
OCC0C00C	-1.15%	CCC0C00C	+5.25%
OCC0C0C0	-1.10%	CCC0C0C0	+5.30%
OCC0C0CC	-1.05%	CCC0C0CC	+5.35%
OCC0CC00	-1.00%	CCC0CC00	+5.40%
OCC0CC0C	-0.95%	CCC0CC0C	+5.45%
OCC0CC0C	-0.90%	CCC0CC0C	+5.50%
OCC0CCCC	-0.85%	CCC0CCCC	+5.55%
OCCC0000	-0.80%	CCCC0000	+5.60%
OCCC000C	-0.75%	CCCC000C	+5.65%
OCCC000C	-0.70%	CCCC000C	+5.70%
OCCC000C	-0.65%	CCCC000C	+5.75%
OCCC0C00	-0.60%	CCCC0C00	+5.80%
OCCC0C0C	-0.55%	CCCC0C0C	+5.85%
OCCC0C0C	-0.50%	CCCC0C0C	+5.90%
OCCC0CCC	-0.45%	CCCC0CCC	+5.95%

SWITCH SETTINGS FOR 100% CENTER POINT CALIBRATION ("Z" OPTION)

Switch setting 87654321	Compensation	Switch setting 87654321	Compensation
OCCCC000	-0.40%	CCCCC000	+6.00%
OCCCC00C	-0.35%	CCCCC00C	+6.05%
OCCCC0C0	-0.30%	CCCCC0C0	+6.10%
OCCCC0CC	-0.25%	CCCCC0CC	+6.15%
OCCCCC00	-0.20%	CCCCC000	+6.20%
OCCCCC0C	-0.15%	CCCCC00C	+6.25%
OCCCCCC0	-0.10%	CCCCC00C	+6.30%
OCCCCCCC	-0.05%	CCCCC00C	+6.35%

TABLE 6-2

SWITCH SETTINGS FOR 100% to +112.75% CALIBRATION ("P" Option)

Switch setting 87654321	Compensation	Switch setting 87654321	Compensation
00000000	0.00%	C0000000	+6.40%
0000000C	+0.05%	C000000C	+6.45%
000000C0	+0.10%	C00000C0	+6.50%
000000CC	+0.15%	C00000CC	+6.55%
00000C00	+0.20%	C0000C00	+6.60%
00000C0C	+0.25%	C0000C0C	+6.65%
00000CC0	+0.30%	C0000CC0	+6.70%
00000CCC	+0.35%	C0000CCC	+6.75%
0000C000	+0.40%	C000C000	+6.80%
0000C00C	+0.45%	C000C00C	+6.85%
0000C0C0	+0.50%	C000C0C0	+6.90%
0000C0CC	+0.55%	C000C0CC	+6.95%
0000CC00	+0.60%	C000CC00	+7.00%
0000CC0C	+0.65%	C000CC0C	+7.05%
0000CCCO	+0.70%	C000CCCO	+7.10%
0000CCCC	+0.75%	C000CCCC	+7.15%
000C0000	+0.80%	C00C0000	+7.20%
000C000C	+0.85%	C00C000C	+7.25%
000C00C0	+0.90%	C00C00C0	+7.30%
000C00CC	+0.95%	C00C00CC	+7.35%
000C0C00	+1.00%	C00C0C00	+7.40%
000C0C0C	+1.05%	C00C0C0C	+7.45%
000C0CC0	+1.10%	C00C0CC0	+7.50%
000C0CCC	+1.15%	C00C0CCC	+7.55%
000CC000	+1.20%	C00CC000	+7.60%
000CC00C	+1.25%	C00CC00C	+7.65%
000CC0C0	+1.30%	C00CC0C0	+7.70%
000CC0CC	+1.35%	C00CC0CC	+7.75%
000CCCO0	+1.40%	C00CCCO0	+7.80%
000CCCO C	+1.45%	C00CCCO C	+7.85%
000CCCC0	+1.50%	C00CCCC0	+7.90%
000CCCCC	+1.55%	C00CCCCC	+7.95%
00C00000	+1.60%	C0C00000	+8.00%
00C0000C	+1.65%	C0C0000C	+8.05%
00C000C0	+1.70%	C0C000C0	+8.10%
00C000CC	+1.75%	C0C000CC	+8.15%
00C00C00	+1.80%	C0C00C00	+8.20%
00C00C0C	+1.85%	C0C00C0C	+8.25%
00C00CC0	+1.90%	C0C00CC0	+8.30%
00C00CCC	+1.95%	C0C00CCC	+8.35%

SWITCH SETTINGS FOR 100% to 112.75% CALIBRATION ("P" Option)

Switch setting 87654321	Compensation	Switch setting 87654321	Compensation
00C0C000	+2.00%	C0C0C000	+8.40%
00C0C00C	+2.05%	C0C0C00C	+8.45%
00C0C0C0	+2.10%	C0C0C0C0	+8.50%
00C0C0CC	+2.15%	C0C0C0CC	+8.55%
00C0CC00	+2.20%	C0C0CC00	+8.60%
00C0CC0C	+2.25%	C0C0CC0C	+8.65%
00C0CCCO	+2.30%	C0C0CCCO	+8.70%
00C0CCCC	+2.35%	C0C0CCCC	+8.75%
00CC0000	+2.40%	C0CC0000	+8.80%
00CC000C	+2.45%	C0CC000C	+8.85%
00CC00C0	+2.50%	C0CC00C0	+8.90%
00CC00CC	+2.55%	C0CC00CC	+8.95%
00CC0C00	+2.60%	C0CC0C00	+9.00%
00CC0C0C	+2.65%	C0CC0C0C	+9.05%
00CC0CC0	+2.70%	C0CC0CC0	+9.10%
00CC0CCC	+2.75%	C0CC0CCC	+9.15%
00CCC000	+2.80%	C0CCC000	+9.20%
00CCC00C	+2.85%	C0CCC00C	+9.25%
00CCC0C0	+2.90%	C0CCC0C0	+9.30%
00CCC0CC	+2.95%	C0CCC0CC	+9.35%
00CCCC00	+3.00%	C0CCCC00	+9.40%
00CCCC0C	+3.05%	C0CCCC0C	+9.45%
00CCCCC0	+3.10%	C0CCCCC0	+9.50%
00CCCCCC	+3.15%	C0CCCCCC	+9.55%
0C000000	+3.20%	CC000000	+9.60%
0C00000C	+3.25%	CC00000C	+9.65%
0C0000C0	+3.30%	CC0000C0	+9.70%
0C0000CC	+3.35%	CC0000CC	+9.75%
0C000C00	+3.40%	CC000C00	+9.80%
0C000C0C	+3.45%	CC000C0C	+9.85%
0C000CC0	+3.50%	CC000CC0	+9.90%
0C000CCC	+3.55%	CC000CCC	+9.95%
0C00C000	+3.60%	CC00C000	+10.00%
0C00C00C	+3.65%	CC00C00C	+10.05%
0C00C0C0	+3.70%	CC00C0C0	+10.10%
0C00C0CC	+3.75%	CC00C0CC	+10.15%
0C00CC00	+3.80%	CC00CC00	+10.20%
0C00CC0C	+3.85%	CC00CC0C	+10.25%
0C00CCCO	+3.90%	CC00CCCO	+10.30%
0C00CCCC	+3.95%	CC00CCCC	+10.35%

The closest value listed in Table 7.1 is -5.15% which calls for the switch settings:

8 OFF, 7 OFF, 6 OFF, 5 ON, 4 ON, 3 OFF, 2 OFF, 1 ON

6) Place switch 10 into the ON position.

7) Place the selector switch on the front display board in the ATC (down) position. The dollars display on the front display will now show the meter calibration error which you have programmed into the MICON 100IP. For the above example the display will show "-5.15". If the value shown is not correct, one or more of the switches was incorrectly set.

8) Repeat step 2 above to verify the calibration of the MICON 100IP.

9) Return switch 10 to the OFF position if the MICON 100IP is to be used in the automatic temperature compensation mode. When the ATC feature is used, a temperature probe of the proper type must be connected.

If ATC is not going to be used (I.E. calibration only), leave switch 10 in the ON position.

10) Replace the cover of the explosion-proof housing and install a suitable (legal) seal through the two adjacent drilled cover bolts to ensure the cover can not be removed without breaking the seal.

11) Return the front display selector switch to the NORMAL (upwards) position.

7.2 - AUTOMATIC TEMPERATURE COMPENSATION

In addition to electronic calibration the Automatic Temperature Compensator will compensate the volume of product delivered to the equivalent volume at 15 degrees Celsius. In order to accurately sense the temperature of the product, the probe must be directly immersed into the product as close as possible to the meter. The use of a thermal well is NOT allowed. The following procedure should be used to verify the operation of the ATC:

1) Install and connect the temperature probe.

2) Place the selector switch located on the front display board in the ATC (downward) position.

3) Dispense a convenient volume of product into a test can and record the temperature and volume of the product in the can.

4) The volume indicated on the front display of the MICON 100IP is the UNCOMPENSATED volume. This volume should agree directly with the volume measured in the test can. If it

does not agree, the meter is out of calibration.

5) Calculate the compensated volume in the test can using the actual volume and the temperature of the product in the test can and the appropriate correction tables. The calculated compensated volume should agree with the compensated volume shown on the rear display of the MICON 100IP. If the values do not agree a problem exists in the ATC or its installation.

6) Return the switch on the front display to the upwards position for "normal" display position.

This completes the testing of the ATC. If you encounter any difficulty please contact your service representative.

8.0 - TWO TIER OPTION INSTALLATION

The two tier pricing option requires a version 5 KIL-152 main control board, and a two tier pricing kit. See "MICON 100I Options and Ordering Information". To install the two tier kit, connect the push button switch between the 2nd and 4th wires from the bottom in the 9-pin display harness, as shown in fig. 8. The push button switch can be mounted in a 7/8" hole in the side of the dispenser. An optional keyswitch is available, which can be used instead of, or together with the pushbutton.

NOTE: The old KIL-152 board must be returned to the factory or the new price will be charged for the new board.

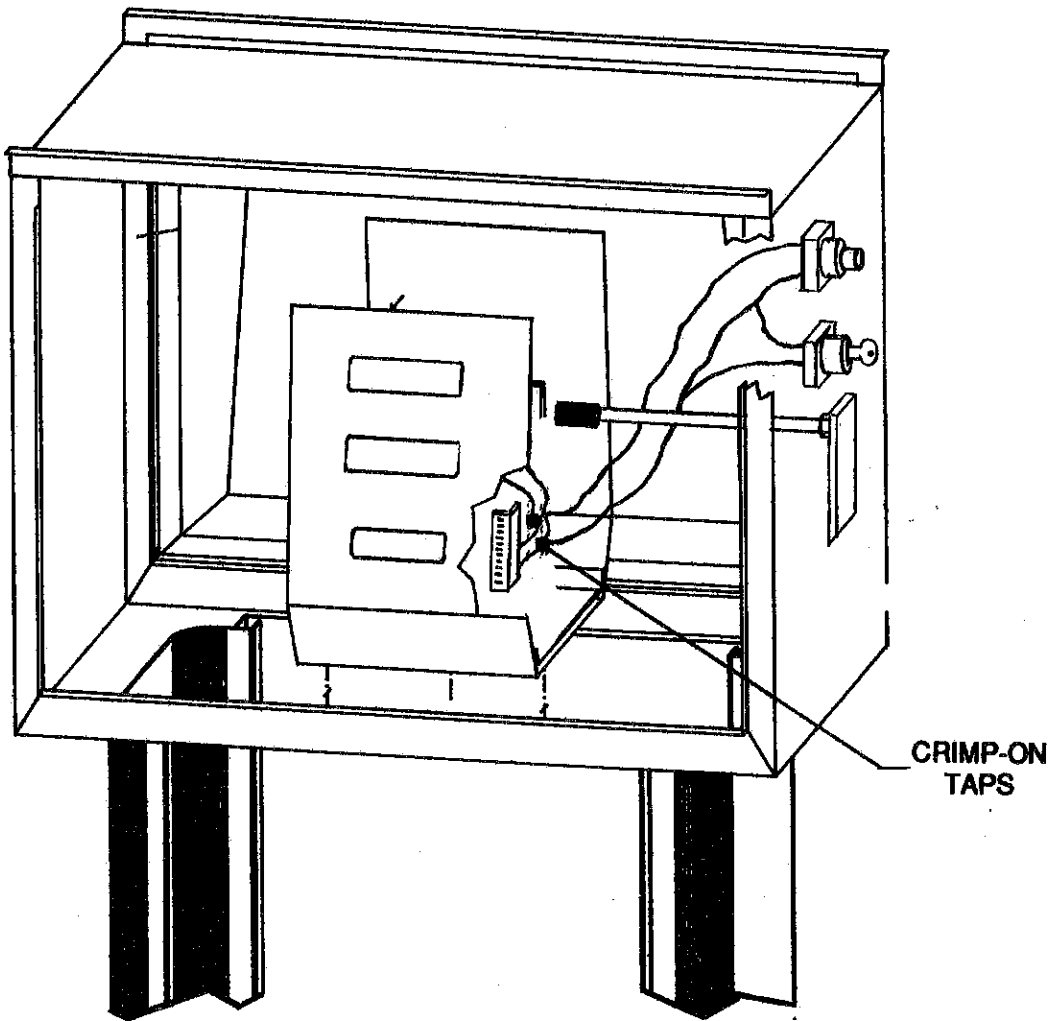


FIGURE 8