

self serve system

operator's manual



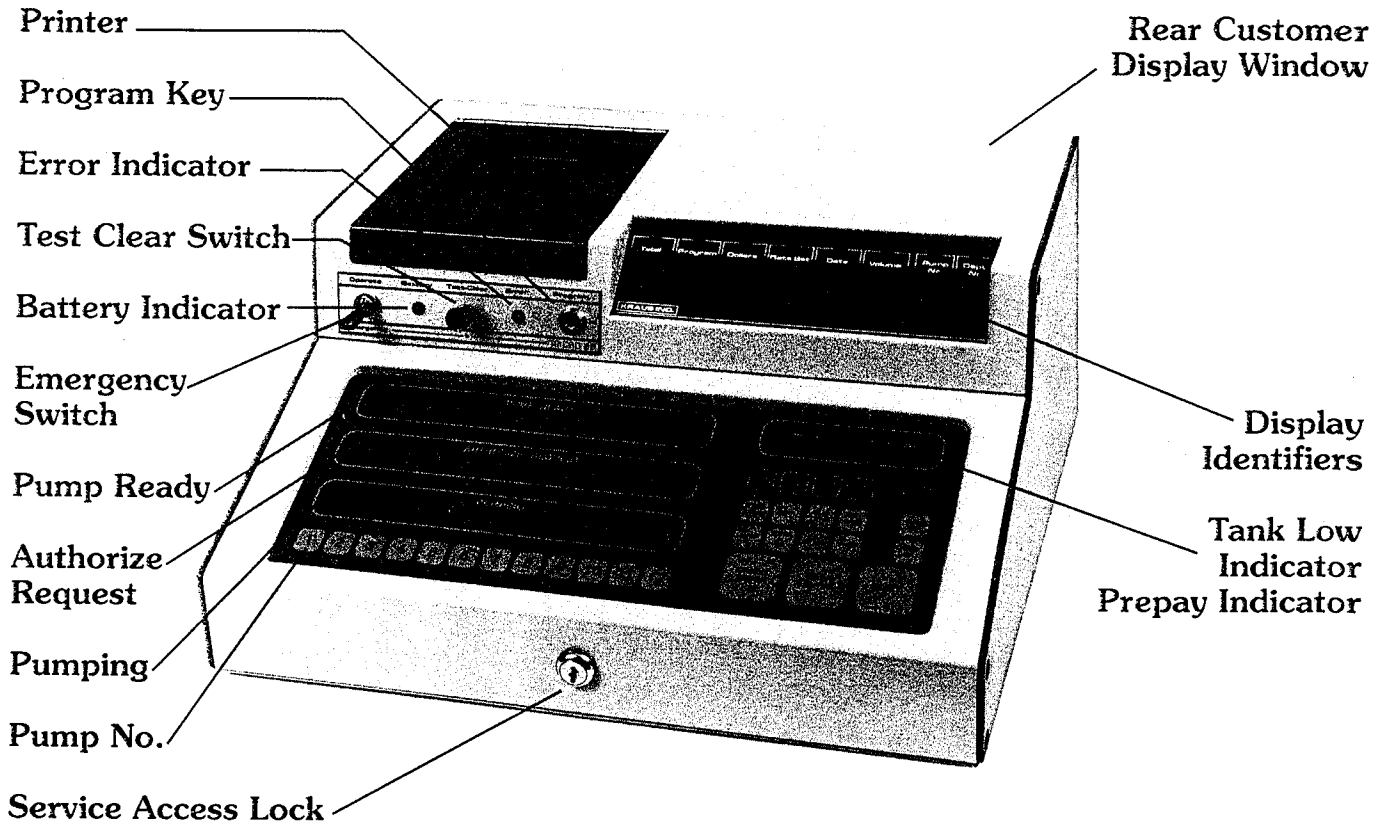
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1 — INTRODUCTION

The console illustration (fig. 1) below shows all lamps, switches, keys and devices which will be discussed in this manual.



Touch tone keyboard

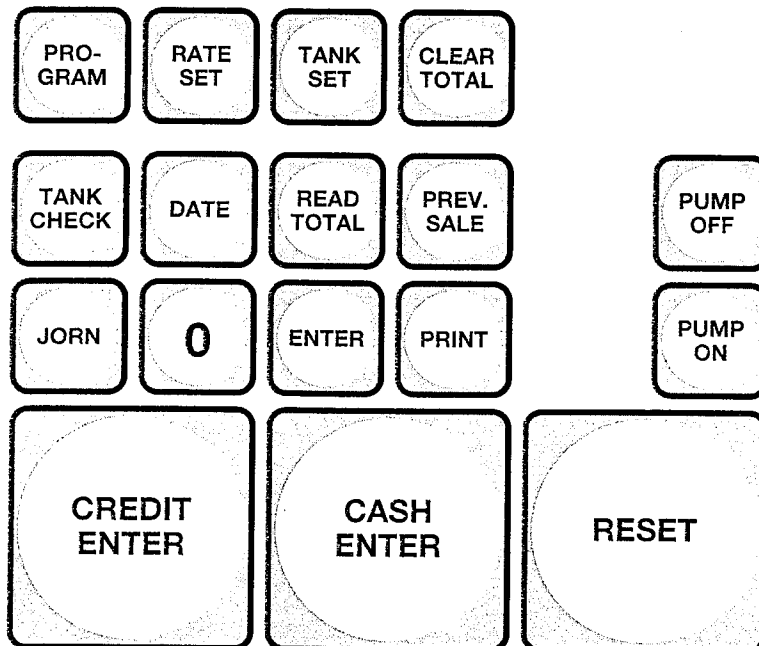


Fig. one

2 — AUTHORIZING, CLEARING & RESETTING PUMPS

To authorize a pump, depress the desired pump number key and then depress:



A light will come on in the "PUMP READY" row (see fig. 1).

The display will show the words "PUMP NO", "DOLLARS" and "VOLUME" and the number of the pump authorized (fig. 2).

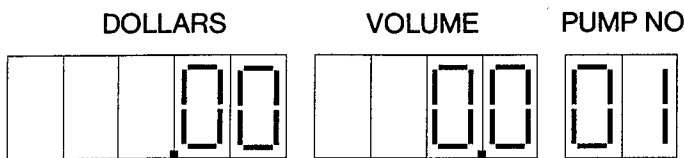


fig. 2

Pump number 1 is now ready to be switched on by the customer.

NOTE: IF CUSTOMER DOES NOT SWITCH PUMP ON WITHIN 10 SECONDS, AUTHORIZATION CAPABILITY WILL SHUT OFF.

When a customer switches on pump number 1, a light in the "PUMPING" row (fig. 1) begins to flash.

As a customer fills his tank, the amount of product and the total dollar sale will be displayed.

If, for example a customer takes 10 gallons of gas from pump number one and the amount he must pay is \$8.50, the display will show the following:

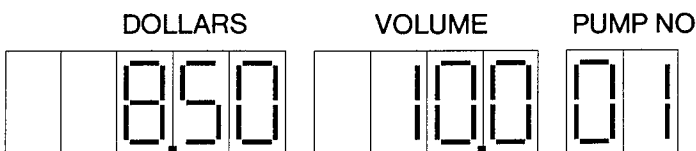


fig. 3

When the customer switches off the pump, the "PUMPING" light will come on steady, indicating that the customer is finished and will be coming in to pay for his product.

If the customer pays cash, depress the appropriate pump number key and then:



The "PUMPING" light will go out, the transaction will be stored in the system's memory and the display will be zeroed for that pump.

THE PUMP IS NOW READY TO BE RESET FOR THE NEXT CUSTOMER.

If the customer pays by credit card, depress the appropriate pump number key and then:



The "PUMPING" light will go out, the transaction will be stored in the system's memory and the display will be zeroed for that pump.

THE PUMP IS NOW READY TO BE RESET FOR THE NEXT CUSTOMER.

If the pump has not been re-authorized and the next customer switches the pump on, you will be alerted by a short audio tone and an "AUTHORIZE REQUEST" light (fig. 1) corresponding to the number of the pump which has been switched on.

To authorize the pump for this customer press the number of the pump the customer wishes to use, then press



The "PUMPING" light will begin flashing and the pump number, dollars and volume will be displayed as previously described.

3 — PREVIOUS SALE RECALL

Each of the twelve hoses is provided with a "previous sale memory". If any pump is reset before the present sale on that pump has been cash or credit entered the present sale will be deferred to the previous sale memory and the lamp in the pumping row will flash rapidly to indicate money outstanding. If there is already money outstanding from a previous sale and the present sale has not been cash or credit entered yet, the MICRO-2 will not allow that pump to be reset until one of the sales has been cash or credit entered.

4 — PUMP SHUT DOWN

If a customer is smoking or his engine is running and you want to turn off his pump without clearing the accumulated sale, simply press the pump number key and then



When a sale is completed by pressing cash or credit enter the MICRO-2 will save the values of the sale in previous sale memory if the lamp in the pumping row is not flashing rapidly (indicating a deferred sale).

To display a previous sale depress the pump number key, then "PREVIOUS SALE". The display lamps will flash to indicate a previous sale.

To return to normal display depress any pump number key.

The pump may be restarted by pressing the pump number key and



5 — TOTALIZERS

5 - 1 There are sixteen locked-out totalizers which provide operator access to: cash & credit totals, cash & credit grand totals, gallon/litre totals, gallon/litre grand totals and shift totals.

5 - 2 Keys 1, 2, 3 and 4 provide access to cash and credit totals for each product which has been programmed into the system (i.e. premium gasoline, regular gasoline, unleaded gasoline, diesel).

To obtain the total cash plus credit sales for any particular product, depress the number of the product and then



The words "DOLLAR SALES" or "TOTAL DOLLARS", "DEPT NO" and the numerical cash plus credit total will be displayed.

EXAMPLE:

Premium gasoline has been assigned product number 1 by the programmer.

Total sales (dollar sales) for premium gasoline is desired.

We press number 1 and then



The following display appears:

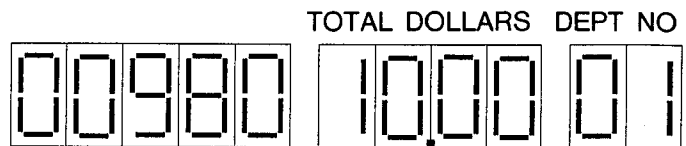


fig. 5


The decimal point is automatically inserted depending on what is being displayed.


N.B. The two groups of numbers under "TOTAL DOLLARS" or "DOLLAR SALES" are read as one nine digit number.


The total sales (cash & credit for premium gasoline is \$98,010.00).

Totals for the product assigned to the other numbers are read by following the same previously described procedure.

i.e.

2 plus  gives: TOTAL CASH & CREDIT for product no. 2

3 plus  gives: TOTAL CASH & CREDIT
for product no. 3

4 plus  gives: TOTAL CASH & CREDIT
for product no. 4

TO RETURN TO NORMAL PUMP DISPLAYS,
DEPRESS ANY PUMP NUMBER KEY AS DESIRED.

5 - 3 Key number 5 provides access to the grand
total cash plus credit sales for all four different
products combined.

To obtain grand total cash plus
credit sales, depress 5 and then



Now read display total as previously described
(Sec. 5 - 2).

EXAMPLE:
Press 5 &



The display shows:

TOTAL DOLLARS				DEPT NO
0	8	8	74	05

fig. 6

READ: \$887,437.82

The grand total sales (cash & credit) for all
products combined is \$887,437.82.

TO RETURN TO NORMAL PUMP DISPLAYS,
DEPRESS ANY PUMP NUMBER KEY AS DESIRED.

5 - 4 Keys 6, 7, 8 and 9 provide access to
gallon/litre totals for each individual product.

To obtain total gallon/litres sold,
depress 6 and then



The words "TOTAL VOLUME", "DEPT NO"
and the numerical total will be displayed.

EXAMPLE:

You want to know how much premium gasoline
has been sold.

Press 6 and then



The display shows:

TOTAL VOLUME	DEPT NO
00980	06

fig. 7

READ: \$980,100.0 gallons of premium gasoline
have been sold.

To read product no. 2 total, depress 7
plus



To read product no. 3 total, depress 8
plus



To read product no. 4 total, depress 9
plus



TO RETURN TO NORMAL PUMP DISPLAYS,
DEPRESS ANY PUMP NUMBER KEY AS DESIRED.

5 - 5 Key 10 provides access to the grand total
gallons/litres for all four products combined.

To obtain grand total gallons/litres
of all products sold, depress 10 and
then



The words "TOTAL VOLUME" and the numerical
total gallon/litre sales will be displayed.

EXAMPLE:

READ: 8,091.7

You want to know how much of all products combined you have sold.

TO RETURN TO NORMAL PUMP DISPLAYS, DEPRESS ANY PUMP NUMBER KEY AS DESIRED.

You press 10 and then



The display shows:

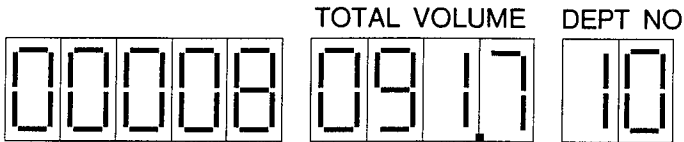
















fig. 8

5 - 6 The total for any shift may be read and/or cleared without destroying the system's memory of the grand total:

CASH/CREDIT	SHIFT NO.	STEPS TAKEN	
To obtain total CASH sales	1	Depress 11 and then	 <p>The total cash sales for the shift will be displayed.</p>
To obtain total CREDIT sales	1	Depress 12 and then	 <p>The total credit sales for the shift will be displayed.</p>
TO RETURN TO NORMAL PUMP DISPLAYS, DEPRESS ANY PUMP NUMBER KEY AS DESIRED			

5 - 7 Totalizers 13 to 16 provide access to total cash and total credit sales for two additional shifts.

EXAMPLE:

CASH/CREDIT	SHIFT NO.	STEPS TAKEN		
CASH total for	1	11 plus		= (totalizer 11)
CASH total for	2	11 plus	 plus 	= (totalizer 13)
CASH total for	3	11 plus	 plus  plus 	= (totalizer 15)
3 SHIFT — CASH TOTALS				
CREDIT total for	1	12 plus		= (totalizer 12)
CREDIT total for	2	12 plus	 plus 	= (totalizer 14)
CREDIT total for	3	12 plus	 plus  plus 	= (totalizer 16)
3 SHIFT — CREDIT TOTALS				
TO RETURN TO NORMAL PUMP DISPLAYS, DEPRESS ANY PUMP NUMBER KEY AS DESIRED.				

6 — PREVIOUS SALE REMINDER

This feature has been added to the MICRO-2 to remind the operator that there is an outstanding previous transaction on one or more pumps (i.e. payment has not been received). The reminder is in the form of a rapidly flashing light in the "PUMPING" row (fig. 1).

If a customer has not yet paid before another customer wishes to use the same pump, depress the pump number then



A rapidly flashing light will come on in the "PUMPING" row.

N.B. DO NOT DEPRESS
AT THIS POINT.



or



When the previous sale customer finally does come in to pay, depress the appropriate pump number and then



This will display the previous amount.

Now depress



or



(as described in 2-2)

The sale is now complete and the rapidly flashing light will return to normal (slowly flashing if the pump is in operation and off if the pump is not in operation).

7 — CLOCK

The clock feature is used in conjunction with the ticket printer to print the date and time on a customer's receipt. The built-in clock will update the time and date automatically and assumes all months have 31 days.

The clock operates in the 24 hour mode:

1:30 A.M. — 1:30 hours

12:30 A.M. — 12:30 hours

2:00 P.M. — 14:00 hours

5:30 P.M. — 17:30 hours

To read time and date (with program key off) depress

To return to normal display depress any other key.



8 — DOT MATRIX PRINTER (Option)

With the printer, you can produce a customer receipt or a hard copy of of the totalizers' contents.

To print a receipt, depress the pump number.

The current sale will be displayed.
Now depress



The printer will print the pump number, dollar amount of sale, quantity of product sale, customer number and date.

To print a receipt for a previous sale, depress the desired pump number key and then



The immediately previous sale or deferred sale for that pump will be displayed.

Now, depress



The printer will print a receipt of the previous sale as previously described.

You may wish to print the contents of all the totalizers.

To print a journal of all the totalizers, depress



The printer will print a journal of the totalizers formatted as follows:

Total money product no. 1
Total money product no. 2
Total money product no. 3
Total money product no. 4
Grand total money
Quantity sold product no. 1
Quantity sold product no. 2
Quantity sold product no. 3
Quantity sold product no. 4
Grand total gallons/litres
Quantity remaining product no. 1
Quantity remaining product no. 2
Quantity remaining product no. 3
Quantity remaining product no. 4

9 — PRE-PAY (Option)

Pre-pay is a method of selling gasoline where a customer pays for the product before he receives it.

This option is particularly useful when gas rationing is required or when there is a problem with drive-offs.

If your MICRO-2 is equipped with the pre-pay option, you can set it to deliver a predetermined amount of product from any hose. The console will shut the pump off automatically after the pre-set amount has been delivered.

When the pre-pay option is installed, the MICRO-2 can be operated in one of three modes:

1. Post-pay only.
2. Post-pay and/or Pre-pay dollars.
3. Post-pay and/or Pre-pay volume.

To change the mode of operation the "PROGRAM" key must be on. If the "DATE" key is depressed the display will go blank. After approximately three seconds the number "1" will be displayed. Three seconds later "2" will appear, then after 3 seconds more "3" will appear.

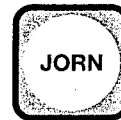
If the DATE key is released while the display is blank the mode of operation will not be changed. If the DATE key is released while "1" is on the display the MICRO-2 will allow only post-pay sales. Releasing the key with "2" on the display will select post-pay and pre-pay dollars mode. If the DATE key is released with "3" on the

Cash sales shift no. 1
Credit sales shift no. 1
Cash sales shift no. 2
Credit sales shift no. 2
Cash sales shift no. 3
Credit sales shift no. 3

If you wish to change shifts, depress



after pressing



N.B. To change shifts,



must be

pressed during printing of totals before grand total gallons/litres is reached on the print out.

display post-pay and pre-pay volume will be selected.

A new date may be entered after releasing the DATE key or the ENTER key may be pressed to return to normal operation.

Once the pre-pay light is on, depress the appropriate pump number key and then



or



The display will go blank and you may now enter the amount of gasoline (in dollars and cents for pre-pay dollars or in gallons/litres for pre-pay volume), that the customer has requested by depressing the appropriate numbered buttons.

If you make a mistake while entering the amount, depress



or

a second time and re-enter the amount.



When you see the amount requested in the display, depress



The pump ready lamp will light and the pre-paid amount will be entered into the selected (cash or credit) totalizer.

The customer may now take his gasoline.

As the customer takes his gasoline, the display will decrement from the pre-paid amount down to zero. When the display reaches zero, the pumping lamp and pump ready lamp will automatically turn off.

10 — TANK LOW INDICATOR

The "TANK LOW" indicator lamp (fig. 1) provides immediate notice to the operator of a low product level.

When any product drops below 1500 gallons, (or 6000 litres) this lamp will come on steady.

11 — TANK CHECK

When the "TANK LOW" light comes on, depress



The words "TOTAL VOLUME" and "DEPT NO" will be illuminated and the total amount of product no. 1 remaining in your storage tank(s) will be displayed as a nine digit number. To move on to product number two, depress



and the total amount of product number two will be displayed. This procedure is repeated for products three and four.

EXAMPLE: "TANK LOW" light comes on

You press



The display shows:

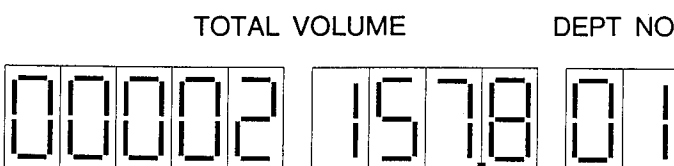


fig. 9

If, for some reason, the customer does not take all of the gasoline paid for, refund him the amount shown by the console on his pump and zero the display for the pump by depressing



or



This will adjust the totalizers.

The pump on, pump off and emergency functions will operate normally in pre-pay mode and you may have many pre-pay sales underway at the same time.

To determine which product is low, you must perform the "TANK CHECK" procedure described in Section 11.

READ: 2, 157.8 gallons of product no. 1

Now, you depress



The display shows:

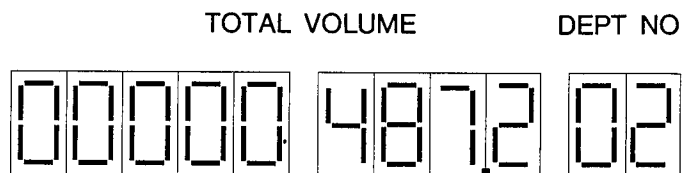


fig. 10

READ: 487.2 Gallons of product no. 2

Since the total remaining of product no. 2 is less than 1500 gallons (6000 litres), we know that this is the product which caused the "TANK LOW" light to come on.

If you wish to read product no. 3 at this point simply depress



Depressing



a third time will display the quantity of product number four.

12 — EMERGENCY SWITCH

The emergency cut-off switch is a toggle switch located at the upper left corner of the console (fig. 1).

Under normal operating conditions, this switch should be in the "OPERATE" position. In the

13 — SYSTEM FAILURE

If the MICRO-2 has a break down due to internal failure, the system may be operated manually by switching the manual/automatic switches (one switch for each pump) located on the left side of the control box to the "MANUAL" position. Each pump, when operated in the "MANUAL" mode, is always authorized to deliver product. The "EMERGENCY" switch on the console is still effective. It is recommended that

14 — BATTERY CONDITION MONITOR

The "BATTERY CONDITION MONITOR LAMP" is located to the immediate right of the "EMERGENCY" switch (fig. 1).

This lamp provides a constant monitor of the auxiliary battery which is the MICRO-2 system's emergency power source in the event of power failure.

When the lamp is off, the battery is holding a

15 — PROGRAMMING

15 - 1 Program access is provided via a key lock marked "PROGRAM". When the key is inserted and turned on, a program may be inserted into the system.

There are seven basic functions accessed by the "PROGRAM" key:

1. Pump Assignments and Slow-Down Points
2. Price
3. Product Quantity
4. Date
5. Program Check

event of an emergency, the switch should be flipped down into the "EMERGENCY" position. This will cut power and fuel supplies to all pumps. The Emergency Switch may also be used to turn off power when shutting down the station for the night.

before any pumps are switched to "MANUAL" that an attempt be made to ensure that all circuit breakers are pushed in. To "RESTART" the system, see "SYSTEM CLEARING" (Section 17).

N.B. If the machine is not used for a period of four consecutive minutes, it will "go to sleep" or shut itself down to conserve energy. This is not to be confused with system failure.

full charge. A flashing lamp means that the battery has been weakened or is not properly connected. When the lamp comes on steady, the auxiliary battery has been totally exhausted.

Under normal conditions, the stand-by battery can hold power on the MICRO-2 for about 1/2 hour each power failure. 1 day is required to completely recharge a dead battery.

6. Clearing Totals
7. System Clearing

15 - 2 There is a provision for twelve hoses to be utilized with MICRO-2. To assign hoses to product number one, depress



then the numbers corresponding to the pumps to be assigned. The display will show the word "PROG".



Now depress

Once

has been depressed, all hose numbers punched in will be assigned to product number one.

The display will now show:

fig. 11

You may now assign hoses to product number two. This process is repeated for all the four products.

EXAMPLE:

To program pumps 1, 5 and 9 to product number one, depress

Now press 1 then 5 and then 9.

Finally depress

Pumps 1, 5 and 9 have now been assigned to product number one.

The display shows "DEPT NO. 2" as illustrated in fig. 11.

You are now ready to punch in hose numbers to be assigned to product number two.

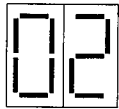
N.B. You must go through all four product numbers (i.e. press ENTER four times).

When product number four pumps have been assigned and the ENTER key is depressed, the display will show the slow-down point (in cents) for pump number one if the Pre-pay option is selected. Any new value between \$0.08 and \$1.36 may be entered as the new slow-down point. If the number entered is not between \$0.08 and \$1.36, \$0.08 will be set as the new slow-down point.

Pressing the ENTER key will display the slow-down point for pump two and a new value may be entered. You must go through all twelve slow-down points to return to normal operation.



DEPT NO



To program price, depress

The word "RATE SET" will appear above the numeric display and product number one current price will be displayed. Now, punch in the desired price (note that the price function provides for one decimal place). The price will be displayed as it is punched in. Now press

The price per gallon/litre will be entered into the memory, the display will move to product number two and the current price for that product will be displayed.

EXAMPLE:

Price to be programmed for product no. 1 is 89.9¢ per gallon.

Depress

then 8 then 9 and then 9.

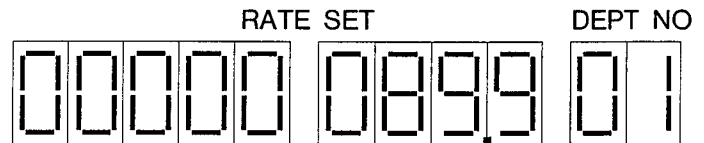


fig. 12

Depress

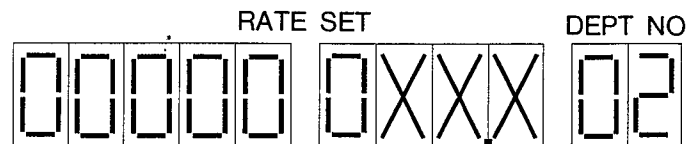
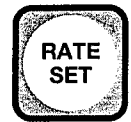


fig. 13

(X's indicate current price per gallon)

15 - 4 When inserting product quantities into the system, you may program in several storage tanks of each product (the number of tanks is irrelevant). Simply add up the amount of each product and insert the product totals into the system.

The first product entered will be designated by the system as product number one. The next product entered will be designated as product number two, etc.



To enter a product quantity, depress



The words "TOTAL VOLUME" will appear above the numeric display and the tank's current level will be displayed. Now depress the quantity of product (gallons/litres) that you wish to enter. The quantity will be displayed along with the product number.

N.B. As gallon/litre capacities are provided for to one decimal place, you must enter the least significant zero.

To send the quantity of product you have punched in to the system's memory, depress



The quantity displayed will then be entered into the memory. You are now ready to insert the quantity for product number two.

EXAMPLE:

First product to be entered is premium gasoline.

There are two 5,000 gallon tanks and both are full (a total of 10,000).

Depress



then 1, then 0, then 0, then 0, then 0 and then 0 again.

The display shows:

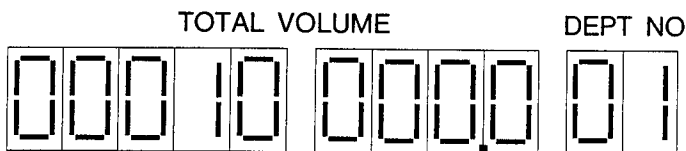


fig. 14

Depress



The display shows:

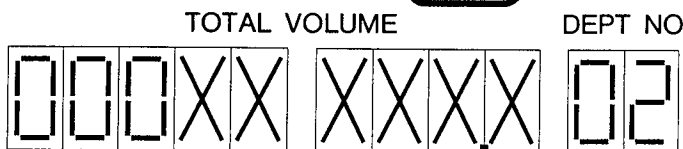


fig. 15

You have now entered the 10,000 gallons into the system and are ready to enter product number two.

Products number 2, 3, and 4 may be programmed by punching in the total number of gallons/litres and as each product number is displayed.



N.B. You must go through all four product numbers (i.e. press four times) before you can return to pump displays.



15 - 5 The date and time need only be entered each month that has less than 31 days.

All months, days, the time and the year must be considered in terms of numbers. For example, January 7, 10:30 P.M. in the year 1978 would become 01 07 22:30 78. This is the date and time data form that can be entered into the system.

To make a time and date program entry, depress



and then key in the appropriate month, day, time, and year in the form described in the preceding paragraph. Depress

The console will send the new date to memory and return to normal operation.



NOTE: The Entry Must Be Made Exactly In This Sequence: MONTH, DAY, TIME AND YEAR.

N.B. When entering the number 10, press 1 and then 0. Depressing 10 will not give you the number 10.

To verify the date stored in the system's memory, depress



(as described in Section 7). The word "DATE" will appear and the date will be displayed.

TO RETURN TO NORMAL PUMP DISPLAYS, DEPRESS



15 - 6 After programming hoses, prices and product quantities, check to see that your programming is correct.

1) To verify hose assignments:

Depress



Indicator lamps in the "PUMPING" row which correspond to hose numbers assigned to product number one will light.

Move through all four products (and twelve slow-down points if in Pre-pay mode) by pressing



2) To verify prices:

Depress



Display will show price per gallon for product number one.

Depress

to display product number two.



Each of remaining products will be displayed as



is pressed.

3) To verify quantities:

Depress



Display will show total quantity of product number one. The remaining product quantities may be displayed by depressing



for each one.

15 - 7 To clear total dollars and gallons/litres of product from the system's memory, depress the number key which corresponds to the total that you wish to clear and then depress



EXAMPLE:

To clear total dollars for product number one:

Depress 1, then



Display will show:

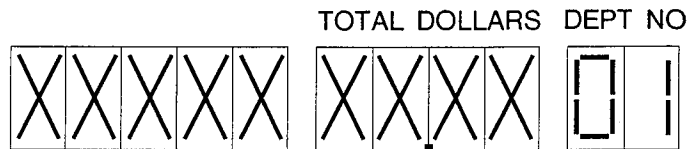


fig. 16

(X's — Total Dollar Figure)

Depress



The display will return to normal pump display.

Clearing totalizer number five will clear totalizers one to five inclusive. Clearing totalizer ten will clear totalizers six through ten inclusive. Clearing totalizer 11 will clear all shift totals (11 to 16) and return to Shift 1.

15 - 8 If you wish to remove the entire program from MICRO-2 and start fresh with re-programming, depress the TEST CLEAR button (fig. 1). The result will be a clearing of all totals, date, pump assignments, prices, tank levels and customer count.

N.B. The above technique should be tried in the event of a system "crash" (failure of the system) BEFORE switching to "MANUAL" operation (see Section 13).

16 — CARE OF THE DOT MATRIX PRINTER

16 - 1 Installing paper

To replace paper roll.

1. Gently lift each end of the paper roll axle until it pops free.
2. Insert axle into new roll of Kraus printer paper.
3. Set roll into position on the printer so that the paper feeds forward from the bottom of the roll. Snap the axle ends into place.
4. Feed print paper into back of printer in paper feed slot at the same time pressing paper feed key on the printer.
5. Clean printer as described in section 16 - 2.

16 - 2 Cleaning Printer

The dot matrix printer is mechanically driven. Periodic service and cleaning will prolong printer life.

1. With a light bristle brush or air supply to clean away dust or lint particles that may restrict moving parts.
2. Lightly oiling printer cam and roller will keep printer running smoothly and reduce risk of jamming.
3. Replace print ribbon every 6 months or when particles of the ribbon are noticed in the mechanism.

17 — CARE AND MAINTENANCE OF THE CONSOLE

The console may be cleaned with a damp cloth and a MILD detergent. Do not use cleaning solvents of any kind.




















Position the unit so as not to block the rear ventilation screens. These screens should be

cleaned once every six months under normal conditions. Cleaning can be done with a damp cloth. Do not get any liquids inside the console.

When cleaning the window do not use abrasive cleaners.

18 — PROGRAMMING CHART

Make Sure PROGRAM KEY is in the On Position

PROGRAM	PROCEDURE
Pump Assignments — Prod. #1 — Prod. #2 — Prod. #3 — Prod. #4	Press  + Hose Numbers +  = Hoses Assigned to Prod. #1 Hose Numbers +  = Hoses Assigned to Prod. #2 Hose Numbers +  = Hoses Assigned to Prod. #3 Hose Numbers +  = Hoses Assigned to Prod. #4
If not equipped with Pre-Pay option, omit following steps and go to Price.	
— Hose #1 Slow-Down Point — Hose #2 Slow-Down Point	Slow-Down Point +  = Slow-Down Point for Hose #1 (in cents) Slow-Down Point +  = Slow-Down Point for Hose #2 Repeat as above for Hose #3 thru Hose #12
Price — Prod. #1 — Prod. #2 — Prod. #3 — Prod. #4	Press  + Price +  = Price Prod. #1 Price +  = Price Prod. #2 Price +  = Price Prod. #3 Price +  = Price Prod. #4
Product Quantity — Prod. #1 — Prod. #2 — Prod. #3 — Prod. #4	Press  + Quantity +  = Quantity Prod. #1 Quantity +  = Quantity Prod. #2 Quantity +  = Quantity Prod. #3 Quantity +  = Quantity Prod. #4
Date & Time	Press  + Month + Day + Time + Year +  = New Date to memory

19 — WARRANTY

Kraus Industries warrants all parts of new equipment for one year, and no more, from date of invoice thereof, when installed in accordance with Kraus Industries' specifications against DEFFECTIVE MATERIAL OR WORKMANSHIP, but not against damage caused by accident, abuse, faulty installation, or improper operation, nor any indirect or consequential damage or loss of product.

Kraus Industries will repair or, at its option, replace without charge, F.O.B. factory, defective parts returned to its factory, transportation charges prepaid. Kraus Industries' obligation under this warranty is limited to repair or replacement as stated herein.

Articles not of Kraus Industries' manufacture specified by the customer are not covered by this warranty. Any changes in design or improvements added to the line of equipment shall not create any obligation to install same on equipment previously sold.

Any unauthorized alteration of, or addition to, articles of Kraus Industries' manufacture voids this warranty.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, and Kraus Industries neither assumes nor authorizes any person to assume for it any liability beyond that stated herein.