



NATIONAL STANDARDS COMMISSION
WEIGHTS & MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 5/6A/76

CANCELLED

This is to certify that an approval has been granted by the Commission that the pattern and variants of the

0/3

Gilbarco Transac 11 Self-serve Driveway Flowmeter System

submitted by Gilbarco Aust. Ltd
12-38 Talavera Road
North Ryde, New South Wales, 2113

are suitable for use for trade.

The approval is subject to review on or after 1/7/85.

Instruments purporting to comply with this approval shall be marked NSC No 5/6A/76.

Relevant drawings and specifications are lodged with the Commission.

Signed

Raymond Jack
Acting Executive Director

Descriptive Advice

Pattern: approved 28/8/80

- . Gilbarco Transac 11 self-serve driveway flowmeter system with driveway flowmeters as listed in Table 1.

Variants: approved 28/8/80

1. Without the purchaser's preset panel and indicator fitted to the driveway flowmeter, in which case the system cannot operate in the prepay mode.
2. Without the purchaser's indicator attached to the control console, in which case the system cannot operate in the prepay mode.

Technical Schedule No 5/6A/76 dated 1/9/80 describes the pattern and variants 1 and 2.

Variant: approved 19/10/81

3. The pattern with Calcopac model T350 CC replaced by model T350 CH.

Technical Schedule No 5/6A/76 Variation No 1 dated 16/11/81 describes variant 3.

Variant: approved 6/11/81

4. Without preset facility, and fitted to Wayne 600 and 700 series driveway flowmeters.

Technical Schedule No 5/6A/76 Variation No 2 dated 2/12/81 describes variant 4.

Variant: approved 2/7/82

5. With the Transac 11 control console replaced by a Transac 11-5 control console.

Technical Schedule No 5/6A/76 Variation No 3 dated 28/7/82 describes variant 5.

Variant: approved 25/10/82

6. Driveway flowmeters as listed in Table 1 modified by the fitting of an integrated preset panel, a hosemast and a nozzle boot.

Technical Schedule No 5/6A/76 Variation No 4 dated 19/11/82 describes variant 6.

Variant: approved 5/5/83

7. With driveway flowmeters approved in NSC 5/6A/78 used on sites in combination with driveway flowmeters approved in this approval and connected to either a T11 or T11-5 control console.

Technical Schedule No 5/6A/76 Variation No 5 dated 25/5/83 describes variant 7.

Filing Advice

Certificate of Approval No 5/6A/76 dated 19/11/82 is superseded by this Certificate and may be destroyed.

The documentation for this approval now comprises:

Certificate of Approval No 5/6A/76 dated 25/5/83

Technical Schedule No 5/6A/76 dated 1/9/80 - pages 9 and 10 replaced 23/10/81, pages 5 and 6 replaced 2/12/81

Technical Schedule No 5/6A/76 Variation No 1 dated 16/11/81

Technical Schedule No 5/6A/76 Variation No 2 dated 2/12/81

Technical Schedule No 5/6A/76 Variation No 3 dated 28/7/82

Technical Schedule No 5/6A/76 Variation No 4 dated 19/11/81

Technical Schedule No 5/6A/76 Variation No 5 dated 25/5/83

Test Procedure No 5/6A/76 Variation No 1 dated 16/11/81

Test Procedure No 5/6A/76 Variation No 2 dated 2/12/81

Test Procedure No 5/6A/76 Variation No 3 dated 28/7/82

Figures 1 to 6, 8 and 9, and 11 to 16 dated 1/9/80

Figures 17 and 18 dated 22/6/81

Figures 7 and 10 and 19 to 27 dated 2/12/81

Figure 28 dated 28/7/82

Figure 29 dated 19/11/82

Table 1 dated 2/12/81.



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6A/76

Pattern: Gilbarco Transac 11 Self-serve Driveway Flowmeter System

Submittor: Gilbarco Aust. Ltd,
16-34 Talavera Road,
North Ryde, New South Wales, 2113.

1. Description of Pattern

- 1.1 The pattern is a post-payment and prepayment self-serve driveway flowmeter system, comprising:
- . up to 12 driveway flowmeters, each containing an electronic price-computing indicator, Calcopac Model T350CC (Figures 6 and 7),
 - . a remotely located console for the vendor (Figures 1 and 2),
 - . a purchaser's indicator located adjacent to the control console (Figure 3),
 - . a communications interconnection box (Figure 4), and
 - . a purchaser's preset panel and indicator fitted to the driveway flowmeter (Figure 5).

The system provides the operator with the following supervisory controls for each driveway flowmeter:

- . repeat indications of the price and volume indicated,
- . a prepayment facility in whole dollars.

1.2 Control console

The control console (Figures 1 and 2) comprises:

- . a vendor's indicator shared by all driveway flowmeters,
- . an emergency stop button,
- . a key-operated switch,
- . driveway flowmeter selection buttons,
- . an authorise button,
- . a cash button,
- . a credit button,
- . an 11-button keyboard for entering numerical data into the memory,
- . 4 push-on switches for selecting managerial functions,
- . 3 grade-selection buttons,
- . a pump stop button,
- . a volume/cash display button, and
- . a separate purchaser's indicator connected by cable (Figure 3).

- 1.2.1 Vendor's indicator - which is in three sections, pump, amount and grade; the pump section indicates the number of the driveway flowmeter which has been selected for display; the amount section displays:
- (i) when in post-pay mode, a repeat indication of the price or volume indicated by the driveway flowmeter selected; this indication is only available after the nozzle is returned to its hang-up; and
 - (ii) when in prepay mode, the flashing indication of the amount in whole dollars which has been prepaid and assigned to the driveway flowmeter selected; this indicator will also show the amount delivered to the nearest cent if a nozzle is returned to its hang-up before the prepaid value has been delivered.

The grade light indicates the grade of petrol for the pump selected.

- 1.2.2 Emergency stop button - when selected stops the pump motor of all driveway flowmeters without any loss of data and without terminating any transaction taking place; each driveway flowmeter is individually released, allowing the delivery to be recommenced by pressing the appropriate driveway flowmeter select button and then the AUTHORIZE button.
- 1.2.3 Pump stop button - when pressed after selecting a driveway flowmeter will stop the pump motor of the appropriate driveway flowmeter without any loss of data or terminating the particular transaction. The driveway flowmeter is released as described for emergency functions.
- 1.2.4 Volume/cash button - when pressed changes the price indication on the vendor's indicator to a volume indication and vice versa.
- 1.2.5 Post-pay mode - after a delivery, pressing the appropriate driveway flowmeter select button will display, on the console and on the purchaser's indicator located adjacent to the console, the driveway flowmeter number and the value of the sale.

The transaction is completed by pressing the CASH or CREDIT key; this will allow the driveway flowmeter to be authorised for the next transaction.

- 1.2.6 Prepay mode - before a delivery, pressing a driveway flowmeter select button and keying-in a value by means of the 0 to 9 keyboard, and then the CASH or CREDIT button, will display a flashing indication, to the vendor and to the purchaser, of the driveway flowmeter number and the amount preset.

Pressing the AUTHORIZE button will confirm the transaction and transfer the prepaid value into the system memory and to the pre-paid value indicator on the driveway flowmeter. Once entered, the authorisation cannot be cancelled. If a delivery is terminated before the prepaid value is reached, the driveway flowmeter will be locked out of service for three minutes, during which time pressing the driveway flowmeter select button will then display to the vendor and purchaser the amount delivered. The preset amount can be displayed at any time by selecting the appropriate driveway flowmeter and the "0" key sequentially.

The primary indications displayed by the driveway flowmeter must be retained as a reference until the transaction is completed.

- 1.2.7 Driveway flowmeter status lights -- the row indicates various PAY situations by short or long flashing or continuous display.
- 1.2.8 Integral with the self-serve system are other facilities classified as managerial functions which do not affect the performance of the measuring instrument; the use of these functions does not cause any loss of measurement data or measurement control; these functions are implemented by the use of the key-switch and the four mode buttons:
- (i) Key switch in OFF position: transaction started can be completed but no new transaction can be started.
 - (ii) Key-switch in OPERATOR position:
 - (a) Mode button ON activated; normal transaction is performed.
 - (b) Mode button INVENTORY activated; the volume of each grade of petrol in the supply tank can be displayed and a new value of volume can be added to the present volume.
 - (c) Mode button SHIFT TOTALS activated; the volume of each liquid sold, the value of credit allowed and the cash received during the shift, can be read and the total then reset to zero.
 - (d) Mode button STATION TOTALS: the total volume of liquid sold, the total value of credit allowed and the total value of cash received by the service station, can be displayed.
 - (iii) Key-switch in MANUAL position: the operator can change a particular pump from self-serve to attendant operation or vice versa.

1.3 Purchaser's Indicator

The purchaser's indicator is located near the control console and repeats the control-console indications of pump number and price when the system is in post-pay or prepay modes; the instrument cannot operate in prepay mode without this indicator (Figure 3).

1.4 Communications Interconnection Box

This box comprises 12 switches and two indicator lights (Figure 4) allowing the operator to electrically disconnect any of the driveway flowmeters from the T11 console; the driveway flowmeter can then operate in attendant mode when STAND ALONE mode is selected at the driveway flowmeter (Figure 7).

1.5 Driveway Flowmeters

The driveway flowmeters listed in Table 1 may be used with this system.

Each driveway flowmeter is marked with a pump number (Figure 6).

The component parts of each driveway flowmeter are detailed in the certificates listed in Table 1.

The only changes permitted to the original driveway flowmeter are:

- (i) Each driveway flowmeter will be fitted with a Calcopac Series T350CC electronic price-computing indicator driven from the meter output shaft which rotates at a rate of $4,0 \pm 0,2$ revolutions per litre.

Range:

Volume	999,99 L in 0,01 L increments
Price	\$999,99 in 1 c increments
Unit price	99,9 c/L in 0,1 c increments
Totaliser	9999999 L in 1 L increments
Totaliser	\$9999999 in \$1 increments

- (ii) The provision of an electrical junction box (Figure 10).
- (iii) Modification of dial plates.
- (iv) Provision of a hose supporting mast.
- (v) Provision of a purchaser's preset facility (Figure 5).
- (vi) Modification of nozzle boot (Figure 5).
- (vii) Modification of reset linkage (Figures 11 to 16).

2. Variants

1. Without purchaser's preset panel and indicator fitted to the driveway flowmeter, in which case the system cannot operate in the prepay mode.
2. Without the purchaser's indicator attached to the control console in which case the system cannot be used in prepay mode.

3. Sealing

- 3.1 The cover of the console is prevented from being removed by the stamping plug (Figure 1); the data cables for other equipment are internally connected (Figure 2), with the exception of the cable for the purchaser's indicator, the plug of which is screwed to the console.
- 3.2 The totalisers are located on the top left corner of the computer dial face and are individually sealed with lead and wire (Figure 7).
- 3.3 The top cover of the Calcopac computer casting is sealed by wire passing through holes in two lugs, one on each side, terminating in a lead-plug seal on the computer mounting frame. The meter is sealed in a similar way, the sealing wire terminating in the lead-plug seal on the computer mounting frame (Figures 8 and 9).
- 3.4 The meter output shaft and Calcopac input shaft are protected from interference by a single metal cylinder as shown in Figure 18.

4. Test Procedures

1. Flowmeter performance

For each driveway flowmeter:

- (a) record the unit price set, and the operating mode selected on the driveway flowmeters (self-serve or stand-alone) and on the T11 console (manual mode or operator mode) for returning instrument to normal use after testing;
- (b) select stand-alone mode at the delivery flowmeter (Figure 7) and
- (c) carry out the following tests:
 - (i) Accuracy - the maximum permissible error at any flow rate between maximum and 15 L/min is $\pm 0,3\%$.

- (ii) Gas separation - the progressive opening of the gas-separation test valve should allow flow rate to be reduced to, say, 90%, 80%, 70%, etc., of full flow rate, until either the flow rate becomes less than the minimum of 15 L/min or the flow stops due to the pump losing prime. For all tests prior to reaching the opening of the gas separation test valve at which the flow rate is less than 15 L/min, or the delivery stops due to the pump losing prime, the effect of the admitted air on the accuracy of measurement should not exceed 0,5% of the quantity delivered.

2. Price-computing and volume circuit

In turn for each driveway flowmeter:

- (a) select stand alone mode at the driveway flowmeter.
- (b) set the unit price at or above 100 c/L on both sides of the computer and remove the nozzle from its hang-up - the pump motor must not start.
- (c) set unit price on 50 c/L on both sides of the computer and deliver exactly 6,00; 8,00; 10,00; 12,00 and 14,00 litres, stopping at each volume; without hanging up the nozzle, ensure that the prices indicated are exactly \$3,00; \$4,00; \$5,00; \$6,00 and \$7,00.
- (d) whilst a delivery is in progress alter one unit-price thumb-wheel - the pump motor will stop and the price digits will flash zeroes until the thumb-wheel setting is restored or until the corresponding thumb-wheel on the other side of the computer is altered by the same amount. The pump motor will not re-start until the nozzle has been returned to its holster and removed.

Repeat Test (d) for each thumb-wheel.

3. Reset and Interlock

- (a) Nozzle operated reset (Figures 12,13,14,15,16) - remove the nozzle from the hang up. The indicator will show all blanks, then all 8's, then all blanks, then all 0's, before the pump motor is energised.

- (b) Handle operated reset (Figure 11) -- remove the nozzle from its hang up and then turn the operating handle to the ON position. All 8's and all 0's will be indicated as in the nozzle reset test before the pump motor starts.

The reset linkages for each model driveway flowmeter are shown in Figures 11 to 16. The purpose of these linkages is to ensure that removal of the nozzle or switching to the ON position activates the push button switch on the Calcopac casting.

4. Pump Preset

This test only applies if a preset panel and indicator is fitted to the driveway flowmeter.

- (a) At the driveway flowmeter enter a value on the keyboard to be delivered, say \$2,00.
- (b) Check that the indicator on the preset panel on the driveway flowmeter shows the preset amount.
- (c) Make the delivery -- the dispenser will automatically stop when the exact value is indicated.

5. T11 System

- (a) Ensure that all driveway flowmeters under test are set to self-serve mode. If it is desired to isolate a driveway flowmeter from the Transac system during the tests in order to allow the service station to continue functioning, the particular driveway flowmeter can be isolated from the Transac system by switching it to Stand Alone mode. Alternatively, during tests other than the "emergency stop", half, say, of the driveway flowmeters can be tested at a time, while the other half remains in the normal Operator mode of operation.
- (b)
 - (i) At the console select and authorise a driveway flowmeter by pressing the PUMP SELECT and AUTHORIZE buttons.
 - (ii) Repeat (i) for a number of driveway flowmeters.
 - (iii) For each driveway flowmeter selected in (i) and (ii) above:

- (a) deliver sufficient liquid to cause the price and quantity indicator to move significantly off zero;
 - (b) stop the pump motor by returning the nozzle to its hang-up;
 - (c) record the driveway flowmeter number, and the price and volume indicated on the computer;
 - (d) remove each nozzle from its hang-up bracket and check that the computer does not reset to zero and the pump motor does not start.
- (iv) At the control console press the select button for each driveway flowmeter in turn and check each price and volume display, by pressing the VOL/CASH display button, against the price and volume recorded for each driveway flowmeter (refer step (iii)(c) above); the price and volume displayed will exactly equal the price and volume indicated on the driveway flowmeter.
- (v) Select each driveway flowmeter and complete the transaction by pressing either the CASH or CREDIT key. This will allow the driveway flowmeter to be re-authorized.
- (c) Prepay Mode: The following tests (i) to (ix) only apply if the purchaser's indicator is plugged into the T11 Console and a preset panel and indicator are fitted to the driveway flowmeters which are to be engaged in prepay transactions. If either of these conditions is not the case then refer to paragraph (x) below.
- (i) At the console select a driveway flowmeter, enter a value by the 0-9 keyboard for the product to be delivered, of say, \$2,00; press CASH or CREDIT; then authorise the driveway flowmeter by pressing the AUTHORIZE key.

Check that the preset amount is showing on the console and the purchasers indicator.
 - (ii) Repeat (i) for a number of driveway flowmeters.
 - (iii) At each driveway flowmeter selected:

- . the preset indicator will indicate the preset value;
 - . make a delivery; the driveway flowmeter should automatically stop when the exact value indicated by the preset indicator is reached; return the nozzle to the hang-up position;
 - . at the console press the select button for the driveway flowmeter and the VOL/CASH display button, and check that the volume and price displayed agree with those indications at the driveway flowmeter.
- (iv) For at least one driveway flowmeter, repeat (i), then
- (v) Make a delivery and return the nozzle to its hang-up before the delivery is completed.
- (vi) Remove the nozzle; the pump will not restart.
- (vii) At the console select the driveway flowmeter authorised and used in (iv) and (v); the price of the delivery will be displayed. Complete the transactions by pressing the CASH or CREDIT key.
- (viii) Try to authorise the driveway flowmeter selected in (iv) and (v); this will be impossible for approximately 3 minutes from the time of nozzle hang-up.
- (ix) Check that the purchaser's indicator cannot be unplugged from the control console once the control console has been sealed.
- (x) If there is a driveway flowmeter on site to which a preset panel and indicator are not fitted, and/or there is no purchaser's indicator connected to the control console, try to make a prepay transaction as in 5(c)(i). No indication will show on the console, that is, no prepay transaction is possible without a purchaser's indicator connected to the console, and secondly, where a purchaser's indicator is connected to the console, a driveway flowmeter to which a preset panel and indicator are not fitted cannot be engaged in a pre-pay transaction.

- (d) (i) At the console authorise a number of driveway flowmeters as in (b) (i).
- (ii) Make a delivery from several of these driveway flowmeters and before the delivery is completed operate the EMERGENCY STOP at the console.

All driveway flowmeters will stop delivering.

- (iii) Return at least one nozzle to its hang-up.
- (iv) At the console select and authorise each driveway flowmeter. All the driveway flowmeter pumps will restart except the one on which the nozzle has been returned to its hang-up; for this driveway flowmeter the transaction must be terminated by pressing the CASH or CREDIT key.

Note: if any extra delivery is needed on the driveway flowmeter on which the nozzle was returned to its hang-up a new transaction must be started.

- (v) On all the other driveway flowmeters the delivery and transaction can be continued.
- (e) Return the system to the mode of operation recorded in 4.1 (a) .

TABLE 1

Original Certificate

Driveway Flowmeters

5/6A/13	Wayne 700 Series
5/6A/24	T166A-3R, T166A-4R, T166M-3R, T166M-4R, T167A-3R, T167A-4R, T167K-3R, T167K-4R, T167L-3R, T167L-4R, T171B-3R, T171B-4R, T172B-3R, T172B-4R, T180A-3R, T180A-4R, T180AG-3R, T180AG-4R, T181A-3R, T181A-4R, T181B-3R, T181B-4R.
5/6A/30	T166A-3R, T166A-4R.
5/6A/35	T171C-3R, T171C-4R, T183A-3R, T183A-4R, T184A-3R, T184A-4R.
5/6A/45	T181C-3R, T181C-4R, T180D-3R, T180D-4R.
5/6A/47	T180B-3R, T180B-4R.
5/6A/48	Wayne 600 Series.
5/6A/55	T171D-3R, T171D-4R, T172E-3, T172E-3R, T172E-4, T172E-4R.
5/6A/56	T183B-3R, T183B-4R, T183C-3, T183C-3R, T183C-4, T183C-4R, T184B-3R, T184-4R, T184C-3, T184C-3R, T184C-4, T184C-4R.
5/6A/61	Wayne 700 Series.
5/6A/62	T166AA-3R, T166AA-4R, T166AB-3, T166AB-3R, T166AB-4, T166AB-4R, T167AA-3R, T167AA-4R, T167AB-3, T167AB-3R, T167AB-4, T167AB-4R, T180AA-3R, T180AA-4R, T180AB-3, T180AB-3R, T180AB-4, T180AB-4R, T181AA-3R, T181AA-4R, T181AB-3, T181AB-3R, T181AB-4, T181AB-4R.
5/6A/63	T166AG-3R, T166AG-4R, T166XG-3R, T166XG-4R, T167AG-3R, T167AG-4R, T180AG-3R, T180AG-4R, T181AG-3R, T181AG-4R.
5/6A/66	T166X-3, T166X-3R, T166X-4, T166X-4R.

This Table 1 replaces that in the original Technical Schedule dated 1/9/80



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6A/76

VARIATION No 1

Pattern: Gilbarco Transac 11 Self-serve Driveway Flowmeter System

Submittor: Gilbarco Aust. Ltd,
12-38 Talavera Road,
North Ryde, New South Wales, 2113.

1. Description of Variant

1.1 Variant 3

The pattern with Calcopac Model T350 CC replaced by Model T350 CH (Figure 17).

The stand-alone self-serve switch is as illustrated in Figure 17.

Range for the Model T350 CH is:

Volume	999.99 L in 0.01 L increments
Price	\$999.99 in 1c increments
Unit price	0.5 to 999.9 c/L in 0.1c increments
Totaliser	9999999 L in 1 L increments
Totaliser	\$9999999 in \$1 increments

A Transac 11 system may incorporate a Model T350 CC Calcopac, or Model T350 CH, or both.

1.1.2 Sealing

- (a) The totalisers located on the top left corner of the computer dial face are individually sealed with lead and wire (Figure 17).
- (b) The meter output shaft and Calcopac input shaft are protected from interference by a single metal tube as shown in Figure 18.

TEST PROCEDURE No 5/6A/76

VARIATION No 1

Proceed as described in Technical Schedule No 5/6A/76 dated 1/9/80, pages 6 to 11, with the following alterations:

Test 1(b)

Read Figure 17 for Figure 7.

Test 2(b)

Because the unit price on the T350 CH Calcopac may be set from 0.5 c/L to 999.9 c/L this test is not applicable.

Test 2(c)

In addition to the test already specified, set unit price on \$5/L and deliver exactly 6.00, 10.00 and 14.00 litres, stopping at each volume; without hanging up the nozzle, ensure that the prices indicated are exactly \$30.00, \$50.00 and \$70.00.

Test 2(d)

(Note: Price setting thumbwheels are only operative on one side of Calcopac Model T350 CH.)

Whilst a delivery is in progress, alter one unit-price thumbwheel - the pump motor will stop, the price digits will go blank and the quantity delivered (litres) will remain displayed. The pump motor will not restart until the nozzle has been returned to its holster and again removed.

Repeat Test (d) for each thumbwheel.

Test 4(a)

As the T350 CH Calcopac is approved for unit prices up to 999.9 c/L, the unit price set for this test can be any unit price up to this maximum.



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6A/76

VARIATION No 2

Pattern: Gilbarco Transac 11 Self-serve Driveway Flowmeter System

Submitter: Gilbarco Aust. Ltd,
12-38 Talavera Road,
North Ryde, New South Wales, 2113.

1. Description of Variant

1.1 Variant 4

Without the purchaser's preset panel, to be used with Wayne 600 and 700 series driveway flowmeters described in Certificates of Approval Nos 5/6A/48, 5/6A/13 and 5/6A/61. A purchaser's indicator Model DR02014-001 may be fitted to the console; in this instance even if fitted, the Prepay function is disabled.

Modifications to the reset linkages are illustrated in Figures 19 to 24. A new Table 1 replaces Table 1 dated 1/9/80, and lists all driveway flowmeters with which the Transac 11 may be used.

1.1.1 Sealing

Sealing is as described in paragraph 3 of Technical Schedule No 5/6A/76 except that the wire which seals the Calcopac casting (paragraph 3.3) terminates in a lead-plug seal on the framework of the driveway flowmeter as illustrated in Figures 25, 26 and 27. The meter is sealed as described in the original Certificate of Approval No 5/6A/13, 5/6A/48 or 5/6A/61.

TEST PROCEDURE No 5/6A/76 - VARIATION No 2

Proceed as described in Technical Schedule No 5/6A/76 dated 1/9/80, pages 6 to 11, with the following alterations:

Test 3

For details of reset and interlock (Test 3, page 7), refer to:

- Figure 19 - nozzle operated reset, Wayne 700 series, (Single)
- Figure 20 - handle operated reset, Wayne 700 series, (Single)
- Figure 21 - handle operated reset, Wayne 600 series, (Dual)
- Figure 22 - handle operated reset, Wayne 600 series, (Single)
- Figure 23 - nozzle operated reset, Wayne 700 series, (Dual)
- Figure 24 - handle operated reset, Wayne 700 series, (Dual)



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6A/76

VARIATION No 3

Pattern: Gilbarco Transac 11 Self-serve Driveway Flowmeter System.

Submitter: Gilbarco Australia Ltd,
12-38 Talavera Road,
North Ryde, New South Wales, 2113.

1. Description of Variant

1.1 Variant 5

With the Transac 11 control console replaced by a Transac 11-5 control console, (Figures 2 and 28) as originally approved in 5/6A/78.

Description of the Transac 11-5 control console is as for the Transac 11 control console, paragraphs 1.1 to 1.4 of Technical Schedule 5/6A/76 dated 1/9/80 and updated by Notification of Change No 1 dated 2/12/81.

When a Transac 11-5 control console is controlling driveway flowmeters fitted with T350 CC or T350 CH Calcopacs, the price setting option of the Transac 11-5 control console (approved in 5/6A/78) is disabled .



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6A/76

VARIATION No 4

Pattern: Gilbarco Transac 11 Self-serve Driveway Flowmeter System

Submittor: Gilbarco Aust. Ltd
12-38 Talavera Road
North Ryde, New South Wales, 2113.

1. Description of Variant 6

Driveway flowmeters of Gilbarco manufacture as listed in Table 1, modified by the inclusion of a Calcopac model T350 CH as approved in variant 3, and with an integrated preset panel, hosemast and nozzle boot (Figure 29).

TEST PROCEDURE No 5/6A/76

VARIATION No 3

Proceed as described in Technical Schedule No 5/6A/76 dated 1/9/80 pages 6 to 11 Tests 1 to 5, with the following addition:

- Test 6. Where the system is fitted with a Transac 11-5 control console proceed as follows:
- (a) Ensure all transactions are complete (i.e. all status lights are off and all time delays expired).
 - (b) Turn the key to the MANAGER position - a single "0" will appear on the control console's display.
 - (c) Depress the PRICE SET mode button.
 - (d) Push any grade button (SUP, STD or DIST).
 - (e) Try to enter a price on the keyboard and ensure no indication shows on the console.
 - (f) Return the system to normal operating mode - turn key to the OPERATOR position.



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6A/76

VARIATION No 5

Pattern: Gilbarco Transac 11 Self-serve Driveway Flowmeter System

Submittor: Gilbarco Aust. Ltd
12-38 Talavera Road
North Ryde, New South Wales, 2113.

1. Description of Variant 7

With driveway flowmeters approved in NSC approval No 5/6A/78 used on sites in combination with driveway flowmeters retrofitted with Calcopacs as approved in 5/6A/76.

Either T11 or T11-5 control consoles may be used with this combination of flowmeters, however the price setting option of the T11-5 console is disabled as described for variant 5.

1.1 Markings

Flowmeters approved under NSC No 5/6A/78 should still be marked 5/6A/78 when used as described above.

Consoles may be marked either 5/6A/76 or 5/6A/78.



NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 5/6A/76

CHANGE No 1

The following change is made to the description of the
Gilbarco Transac 11 Self-serve Driveway Flowmeter System
given in Technical Schedule No 5/6A/76 dated 1/9/80:

Pages 5 and 6 and Figures 7 and 10 are replaced by
the attached pages and figures, in which the method
of sealing the totalisers is amended and protection
of the meter output shaft is added (paragraphs 3.2
and 3.4).

Note: This change takes effect immediately. Existing
instruments will be changed when they are
next reverified.

Signed

Executive Director



NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 5/6A/76

CHANGE No 2

The following change is made to the description of the
Gilbarco Transac 11 Self-serve Driveway Flowmeter System
given in Technical Schedule No 5/6A/76 dated 1/9/80.

Pages 9 and 10 of the Technical Schedule are replaced
by the attached pages in which:

- (a) the first part of paragraph 5(c) is rewritten
(page 9); and
- (b) paragraphs 5(c) (ix) and 5(c) (x) are rewritten
(page 10).

Signed

Executive Director



NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 5/6A/76

CHANGE No 3

Gilbarco Transac 11 Self-serve Driveway Flowmeter System

To Table 1 dated 2/12/81, add the following:

Original Certificate

5/6A/100

Driveway Flowmeter

With 4-wheel computers ONLY

Signed

Executive Director

CANCELLED

Cent-no. 012
31-12-90

5/6A/76
20/12/85



NATIONAL STANDARDS COMMISSION

NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 5/6A/76

CHANGE No 4

The following changes are made to the approval documentation for the

Gilbarco Transac 11 Self-serve Driveway Flowmeter System

submitted by Gilbarco Aust. Ltd
12-38 Talavera Road
North Ryde NSW 2113.

In Technical Schedule No 5/6A/76 dated 2/12/81, amend Table 1 as follows:

- a) With reference to the flowmeters listed for 5/6A/24, delete models T180AG-3R and T180AG-4R, and insert models T180B-3R and T180B-4R.
- b) Delete listing for 5/6A/47.

Signed

Acting Executive Director

FIGURE 5/6A/76 - 1



T11 Console

FIGURE 5/6A/76 - 2

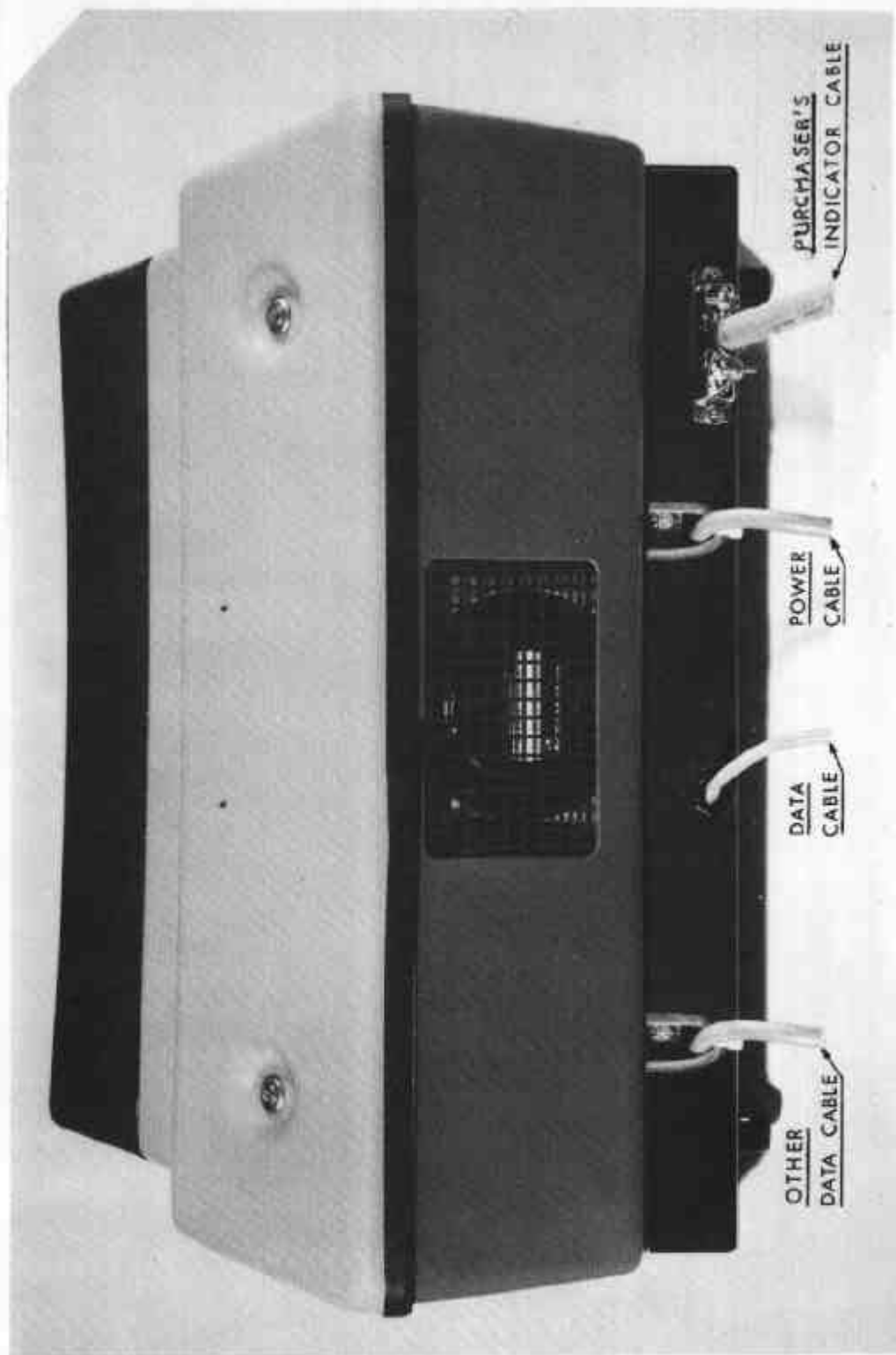
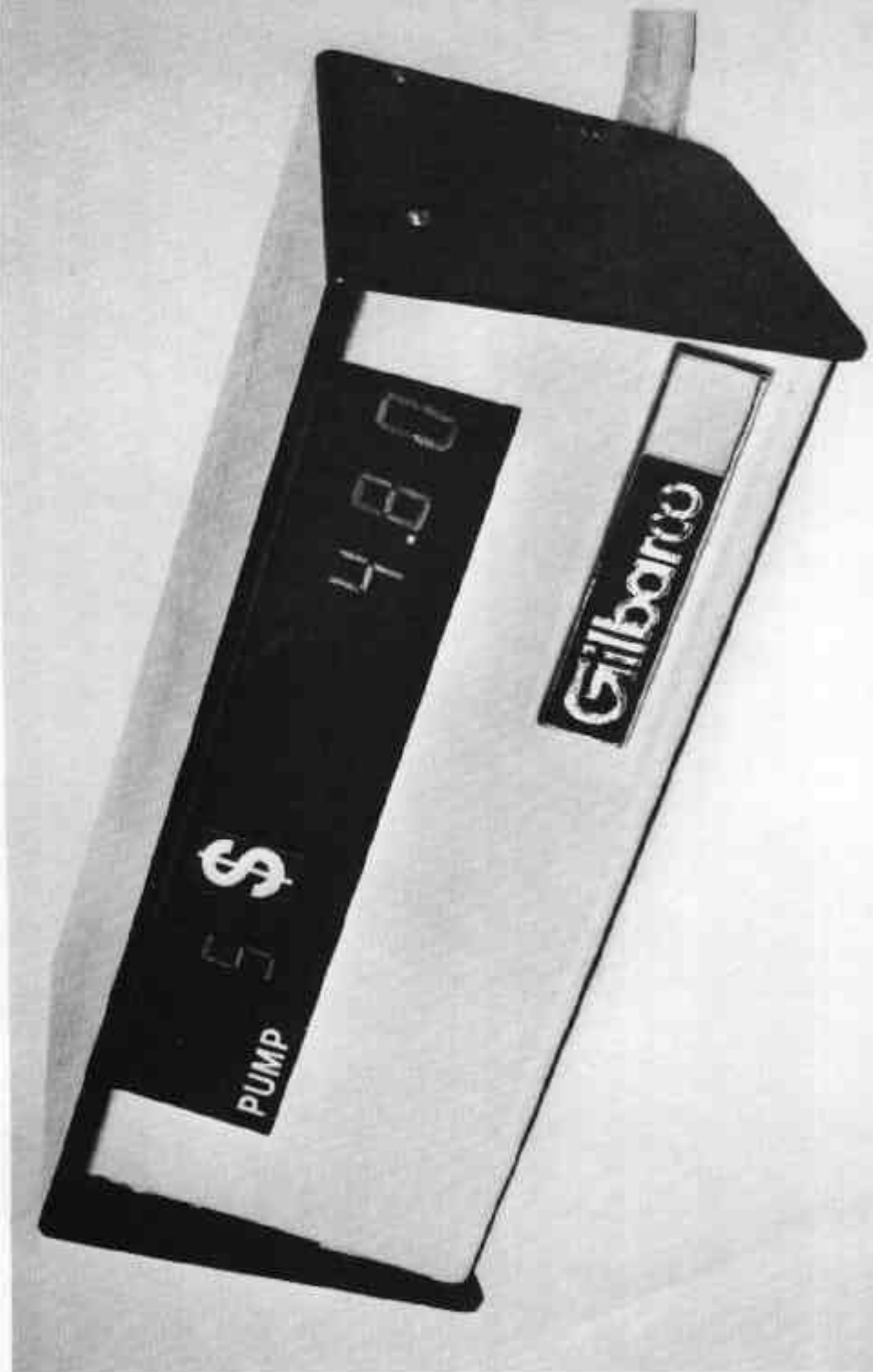
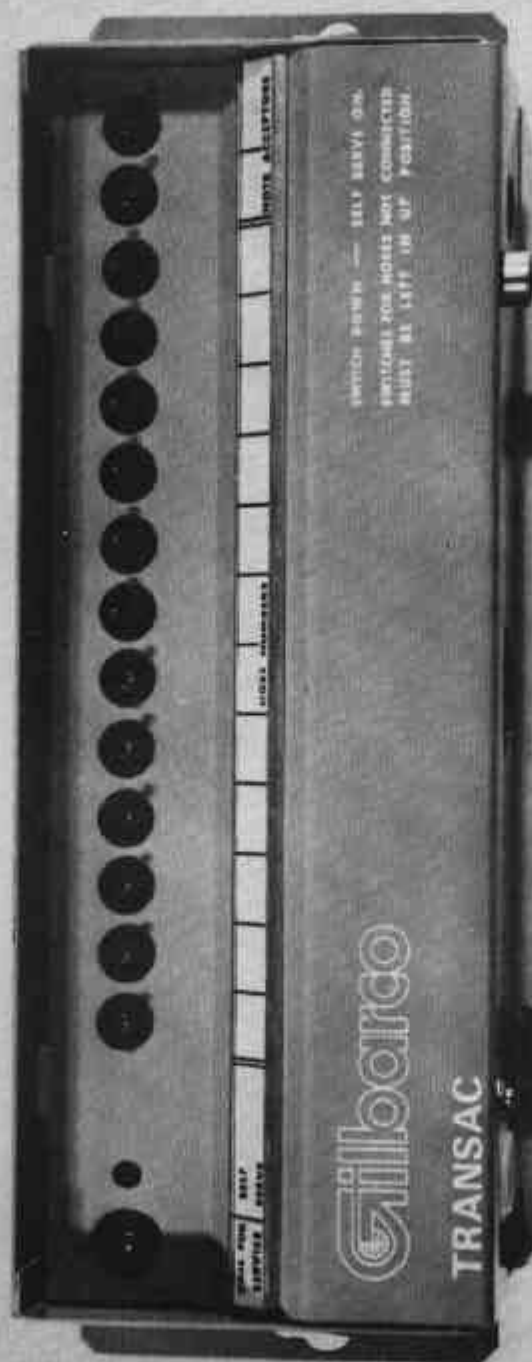


FIGURE 5/6A/76 - 3



Purchaser's Indicator

FIGURE 5/6A/76 - 4

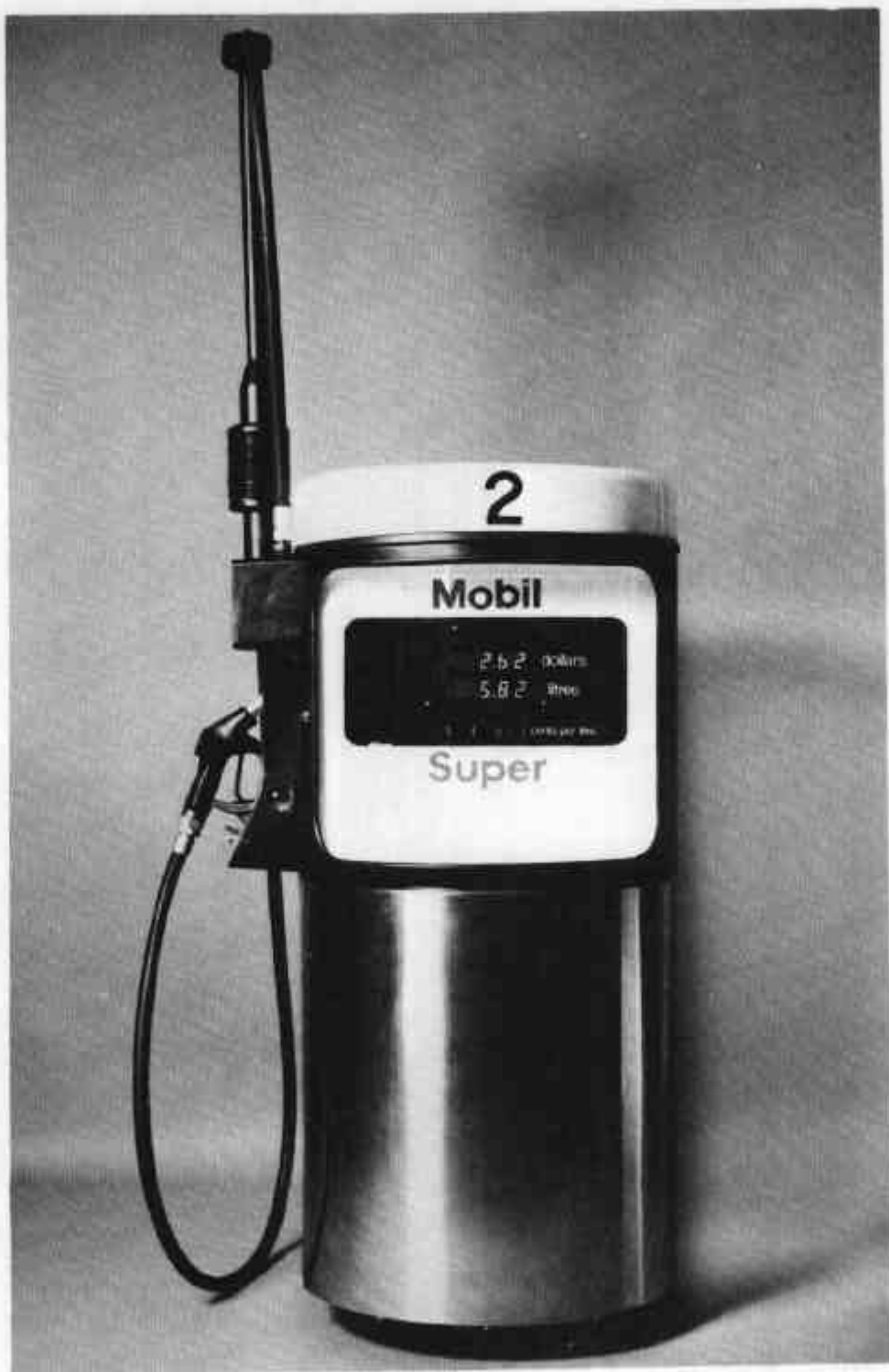


Transac Interconnection Box

RESET
FACILITY.



Driveway Flowmeter with Preset Facility

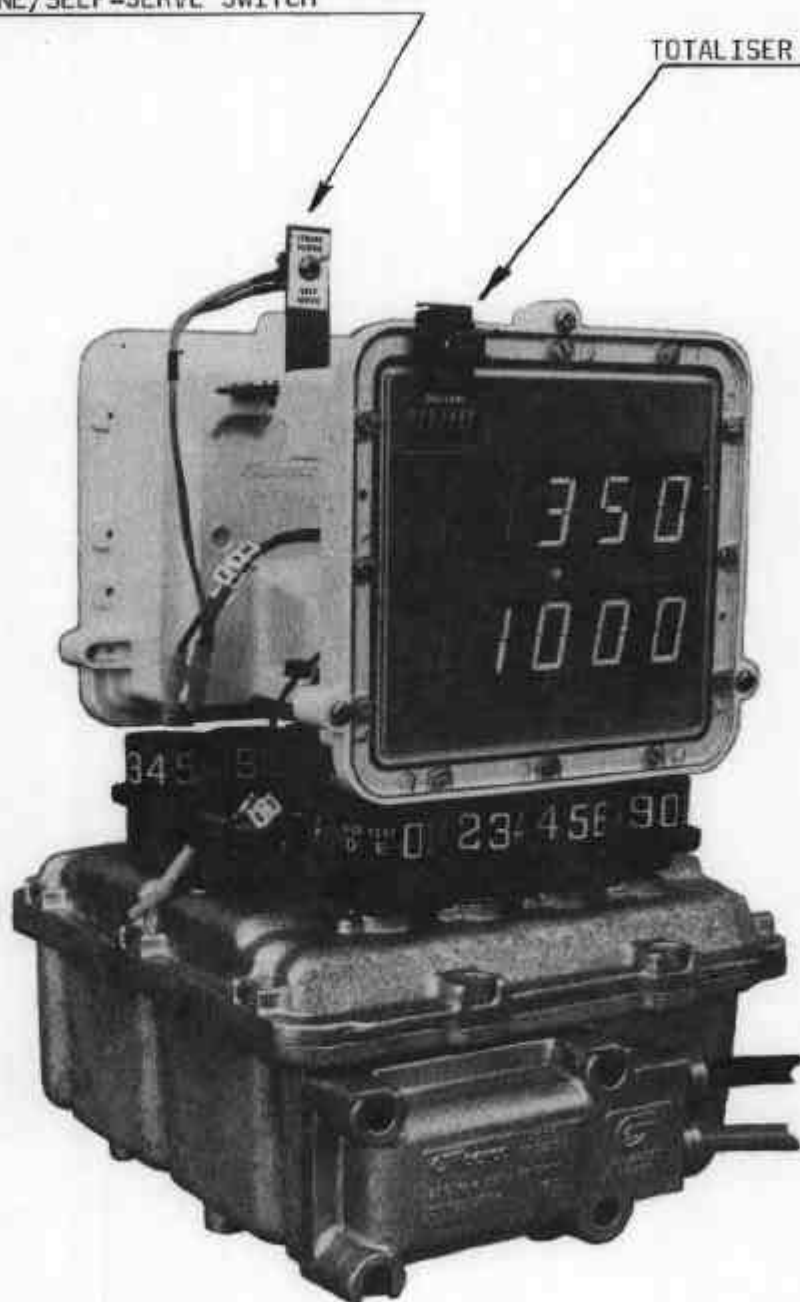


Trimline Driveway Flowmeter, Round Casing

FIGURE 5/6A/76 - 7

STAND ALONE/SERVE SWITCH

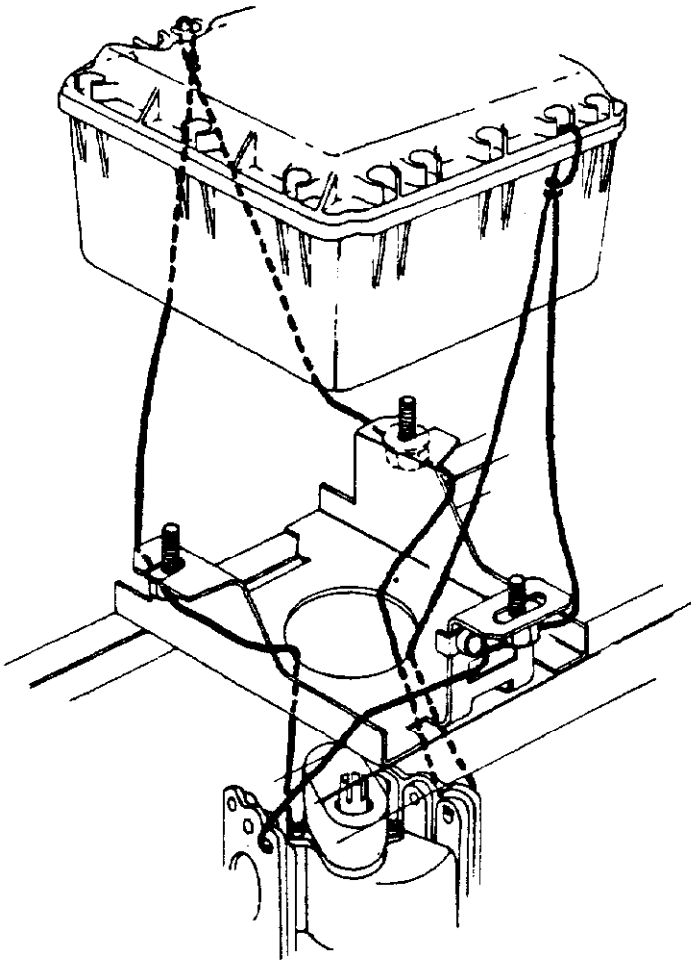
TOTALISER SEAL



Calcopac T350CC

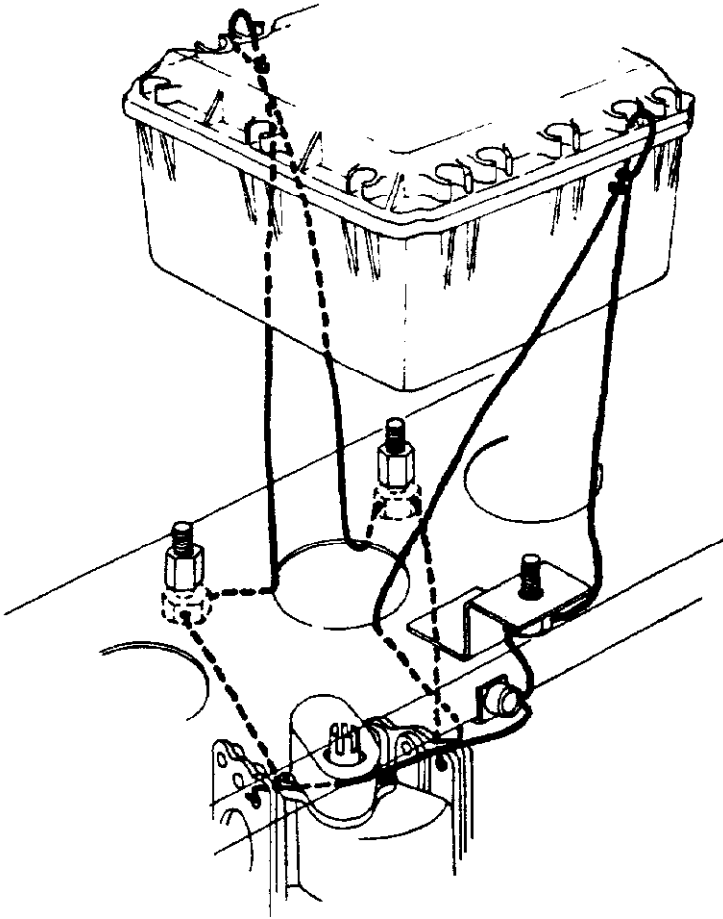
1/9/80
(replaced 2/12/81)

FIGURE 5/6A/76 - 8



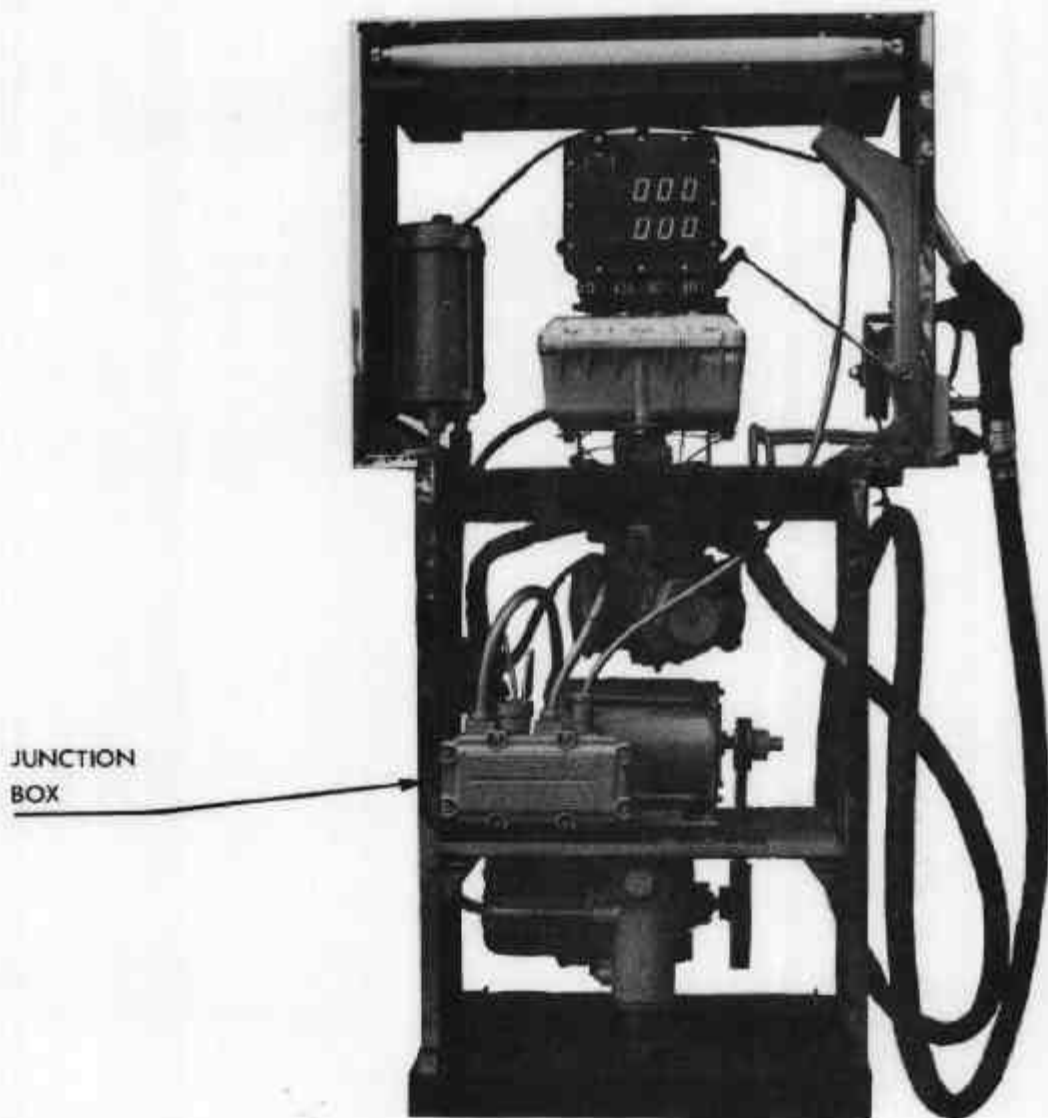
Sealing of Calcopac to Trimline Driveway Flowmeter

FIGURE 5/6A/76 - 9



Sealing of Calcopac to Trimline Driveway Flowmeter
with Round Casing

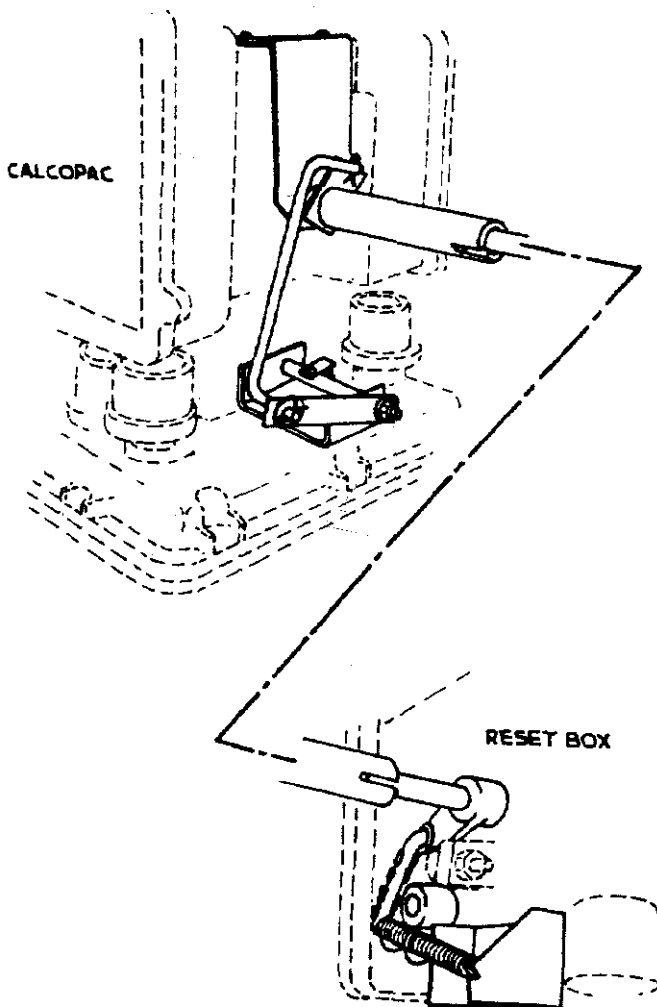
FIGURE 5/6A/76 - 10



Driveway Flowmeter with
Electrical Junction Box

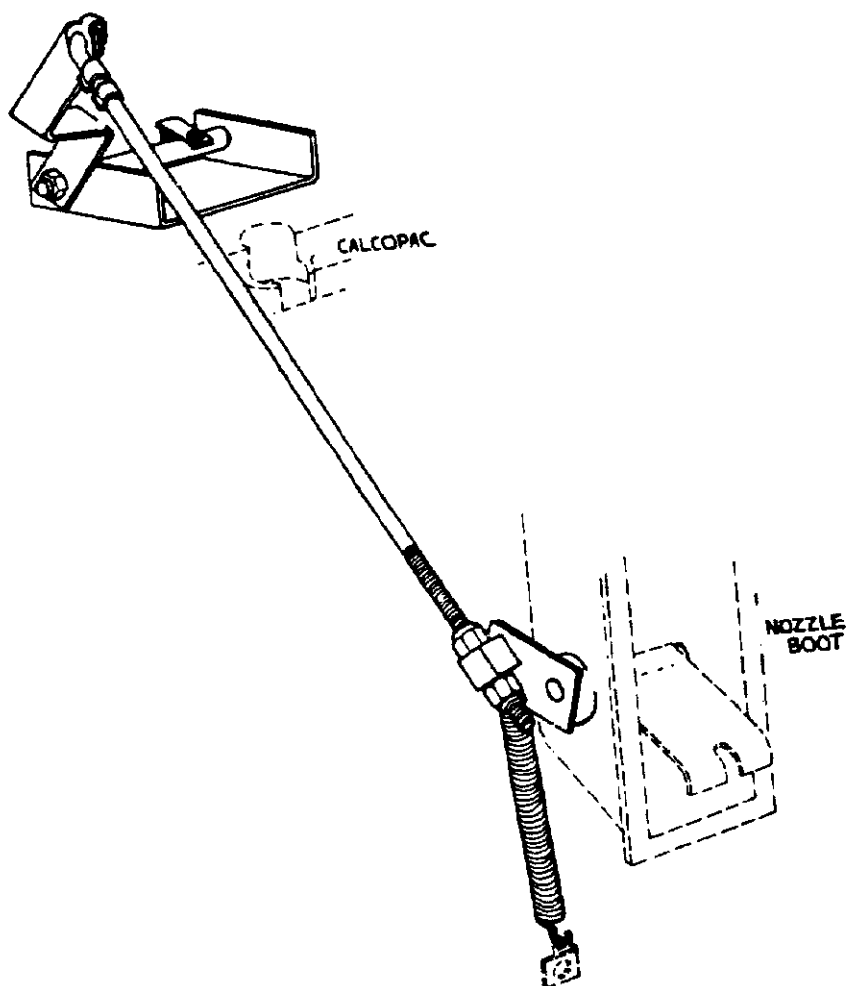
1/9/80
(replaced 2/12/81)

FIGURE 5/6A/76 - 11



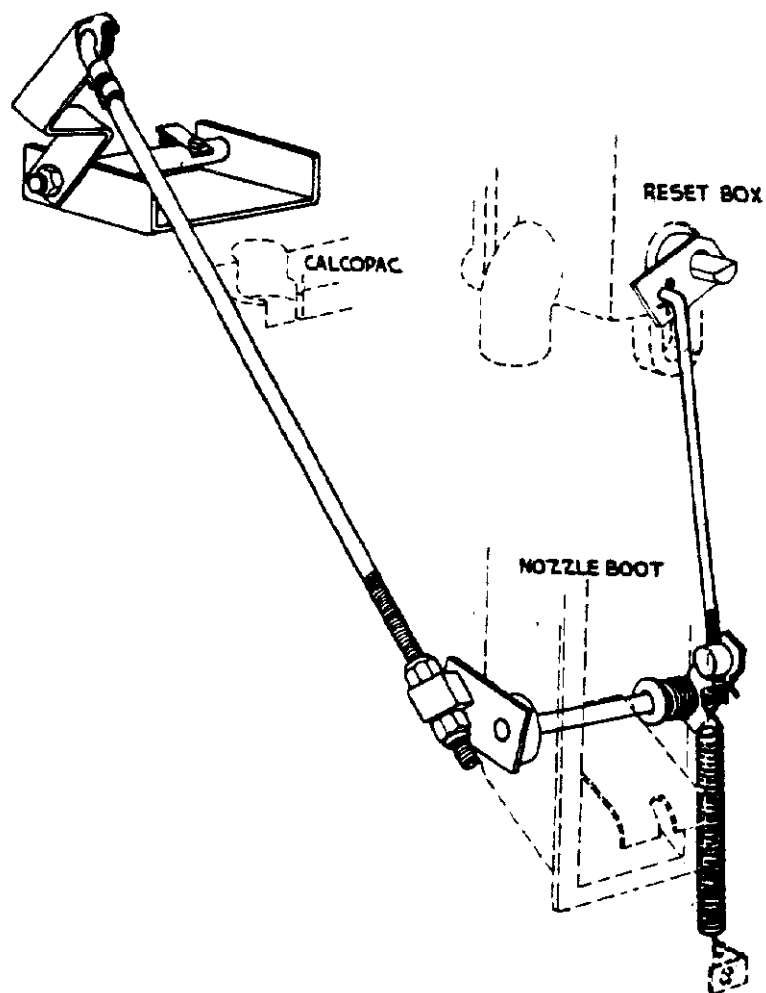
Reset Linkage for Trimline Driveway Flowmeter (Certificate Nos 5/6A/24, 5/6A/30, 5/6A/35, 5/6A/55, 5/6A/62) Retrofitted with Calcopac

FIGURE 5/6A/76 - 12



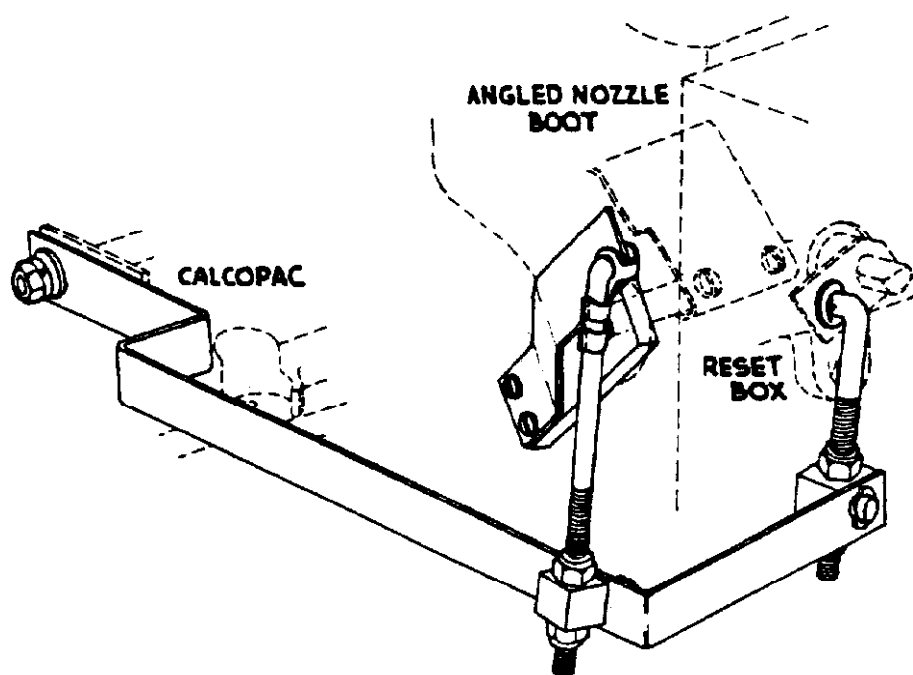
Reset Linkage for Trimline Driveway Flowmeter either new or Retrofitted with Calcopac (Certificate Nos 5/6A/24, 5/6A/30, 5/6A/55, 5/6A/62, 5/6A/63, 5/6A/66)

FIGURE 5/6A/76 - 13



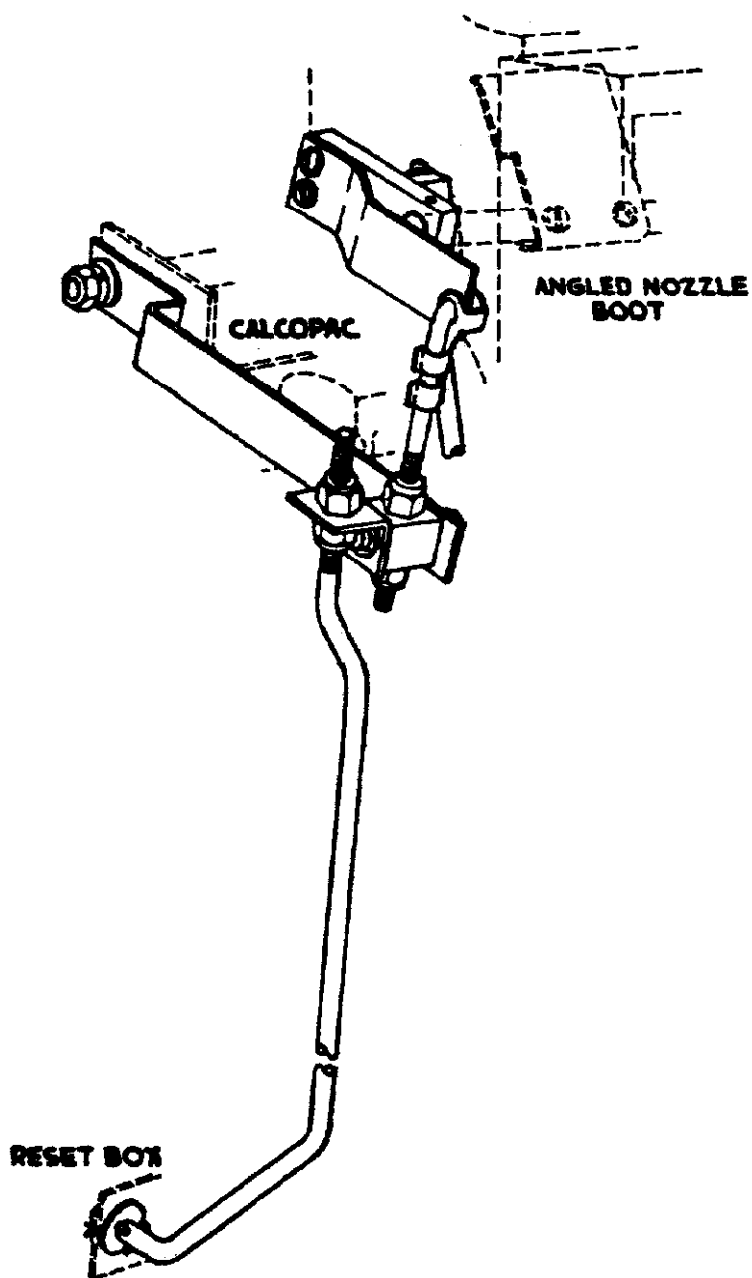
Reset Linkage for Trimline Driveway Flowmeter (Certificate
Nos 5/6A/24, 5/6A/30, 5/6A/55, 5/6A/62, 5/6A/63, 5/6A/66)
Retrofitted with Calcopac

FIGURE 5/6A/76 - 14



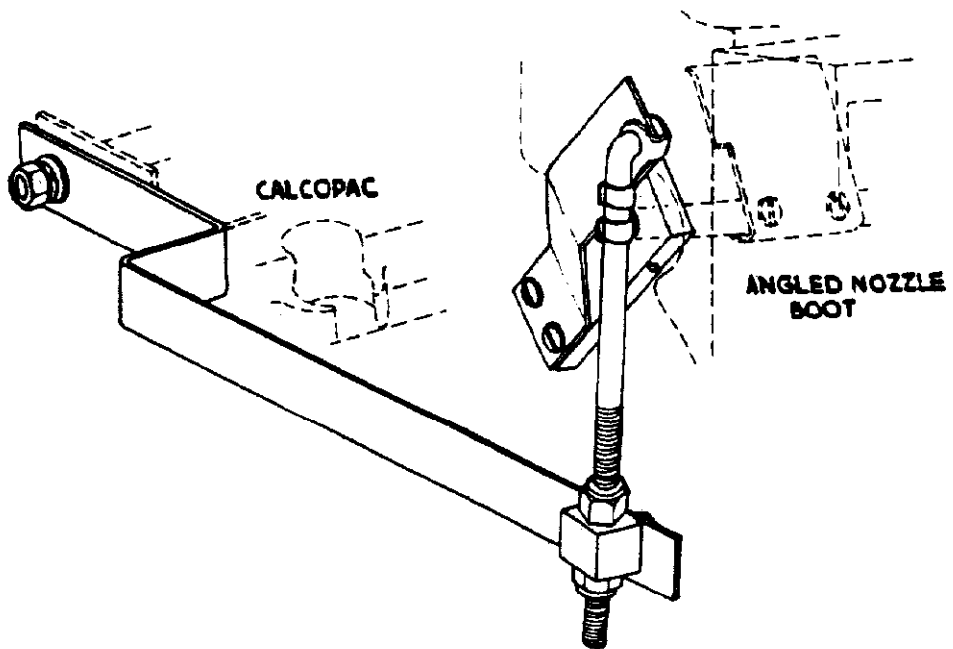
Trimline Driveway Flowmeter with Round Casing (Certificate
Nos 5/6A/24, 5/6A/30, 5/6A/55, 5/6A/56, 5/6A/62, 5/6A/63)
Retrofitted with Calcopac

FIGURE 5/6A/76 - 15



Trimline Driveway Flowmeter with Round Casing (Certificate Nos 5/6A/24, 5/6A/30, 5/6A/55, 5/6A/56, 5/6A/62, 5/6A/63) Retrofitted with Calcopac

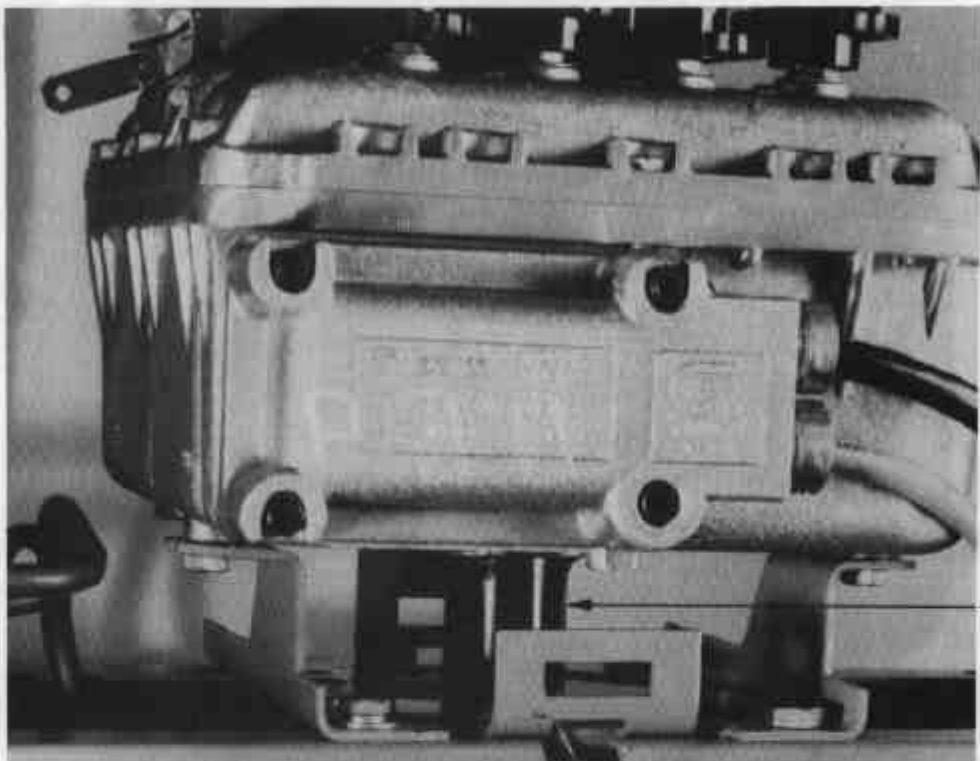
FIGURE 5/6A/76 - 16



Trimline Driveway Flowmeter with Round Casing, Single or Double, with Angled Nozzle Boot (Certificate Nos 5/6A/30, 5/6A/55, 5/6A/56, 5/6A/62, 5/6A/63) Retrofitted with Calcopac



Calcopac T350 CH



METAL TUBE



Sealing of Meter to Calcopac Drive-shaft

FIGURE 5/6A/76 - 19

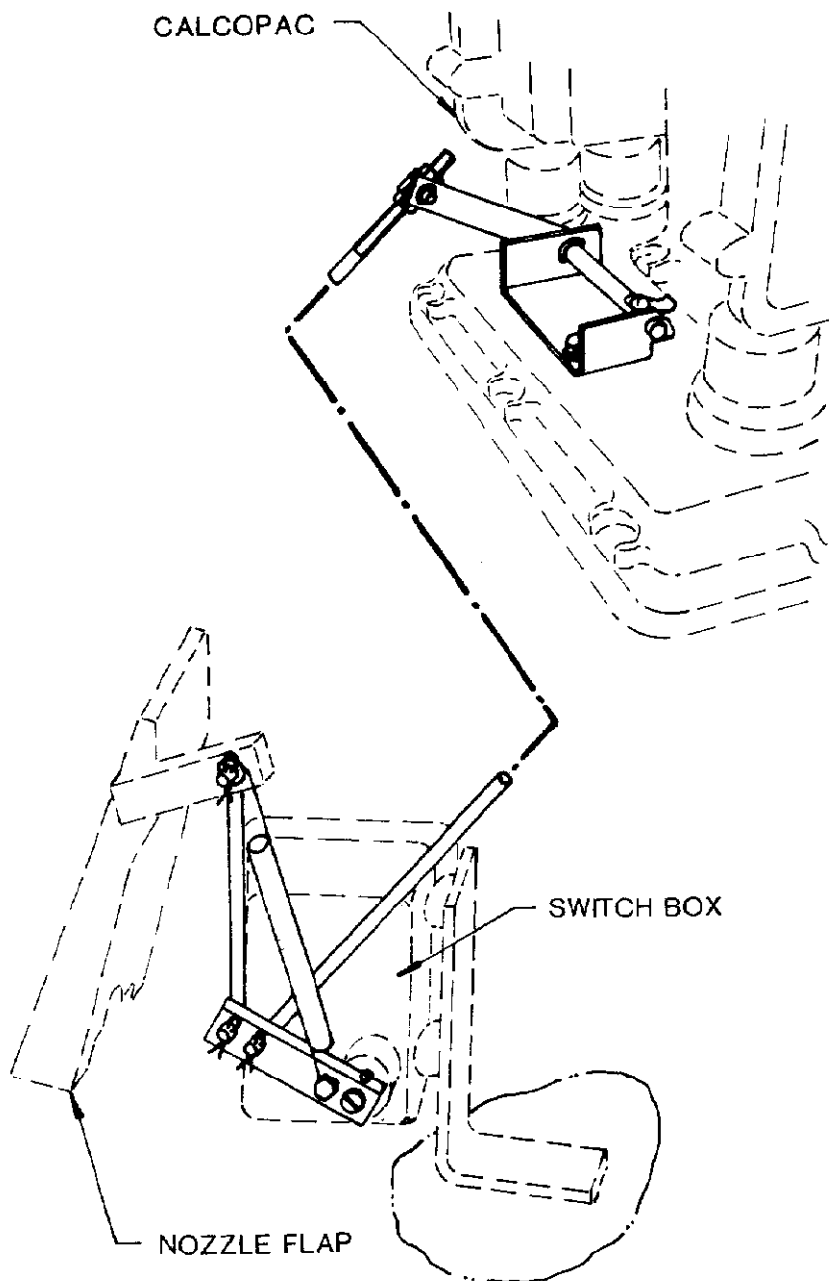
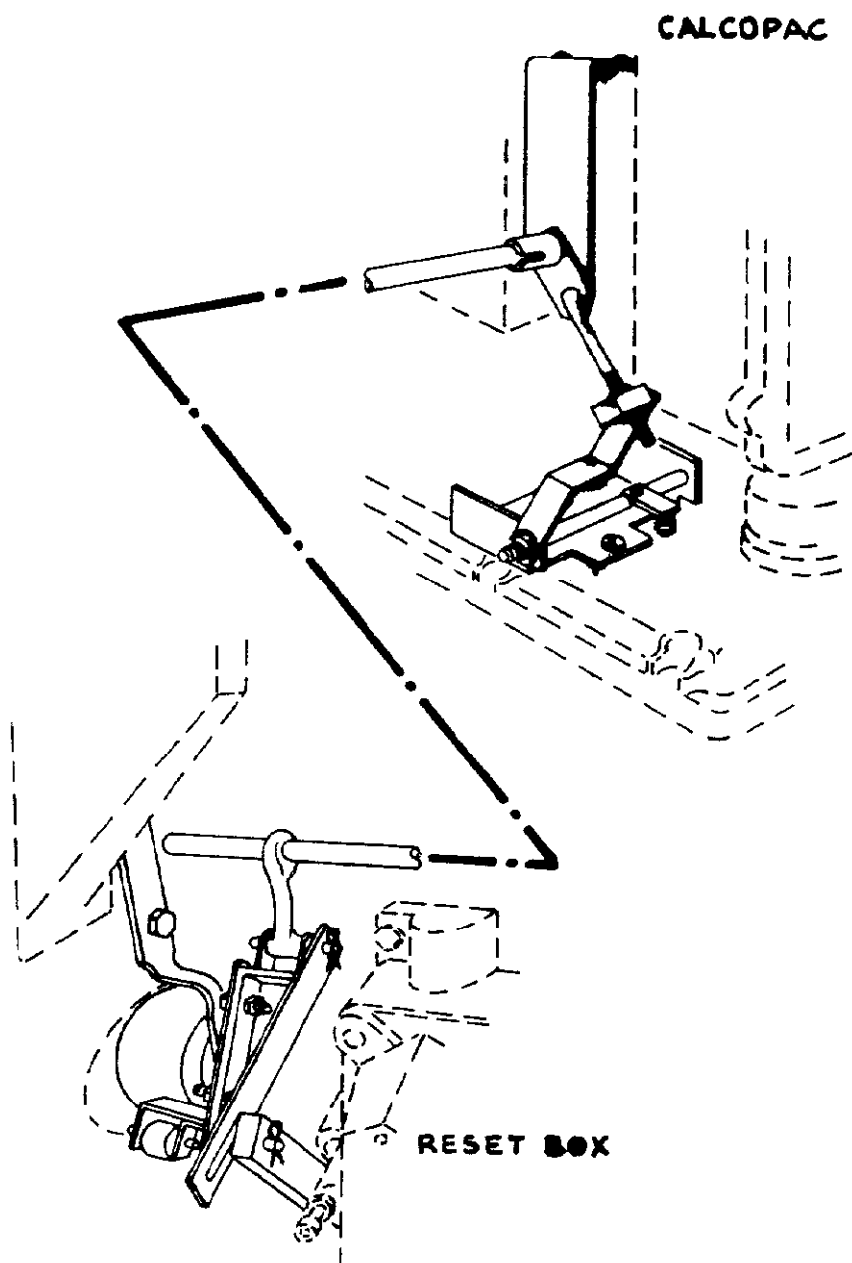
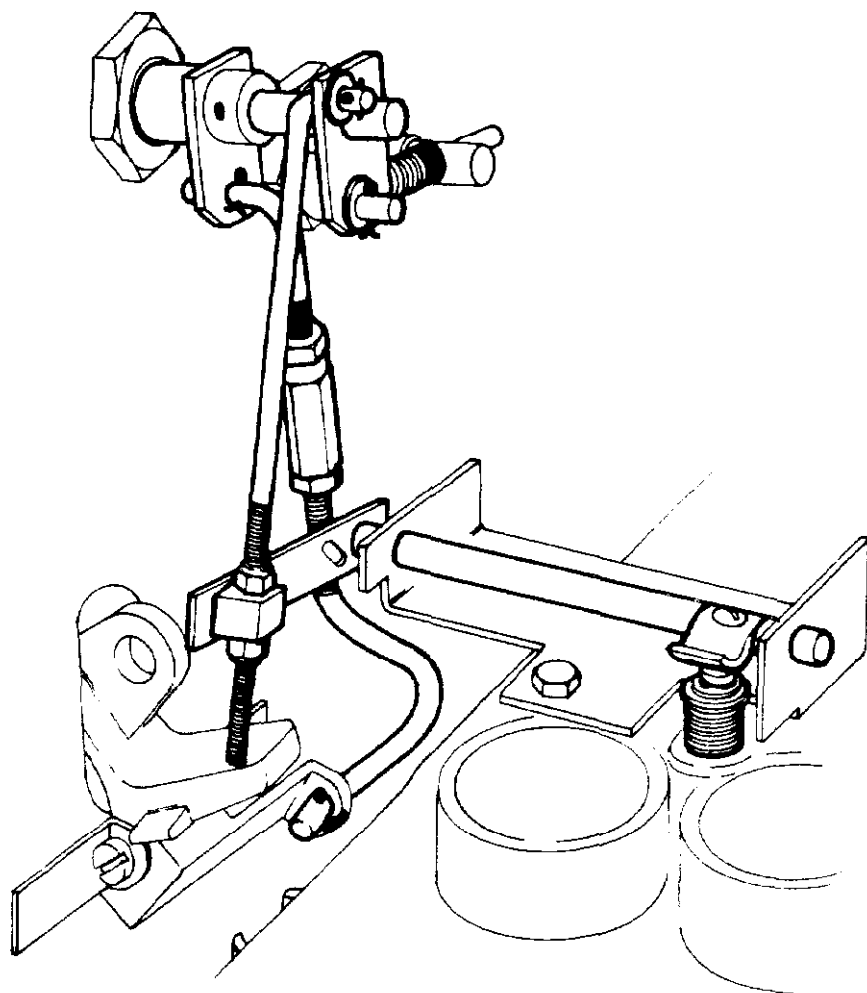


FIGURE 5/6A/76 - 20



Handle-operated Reset, Wayne 700 Series Single

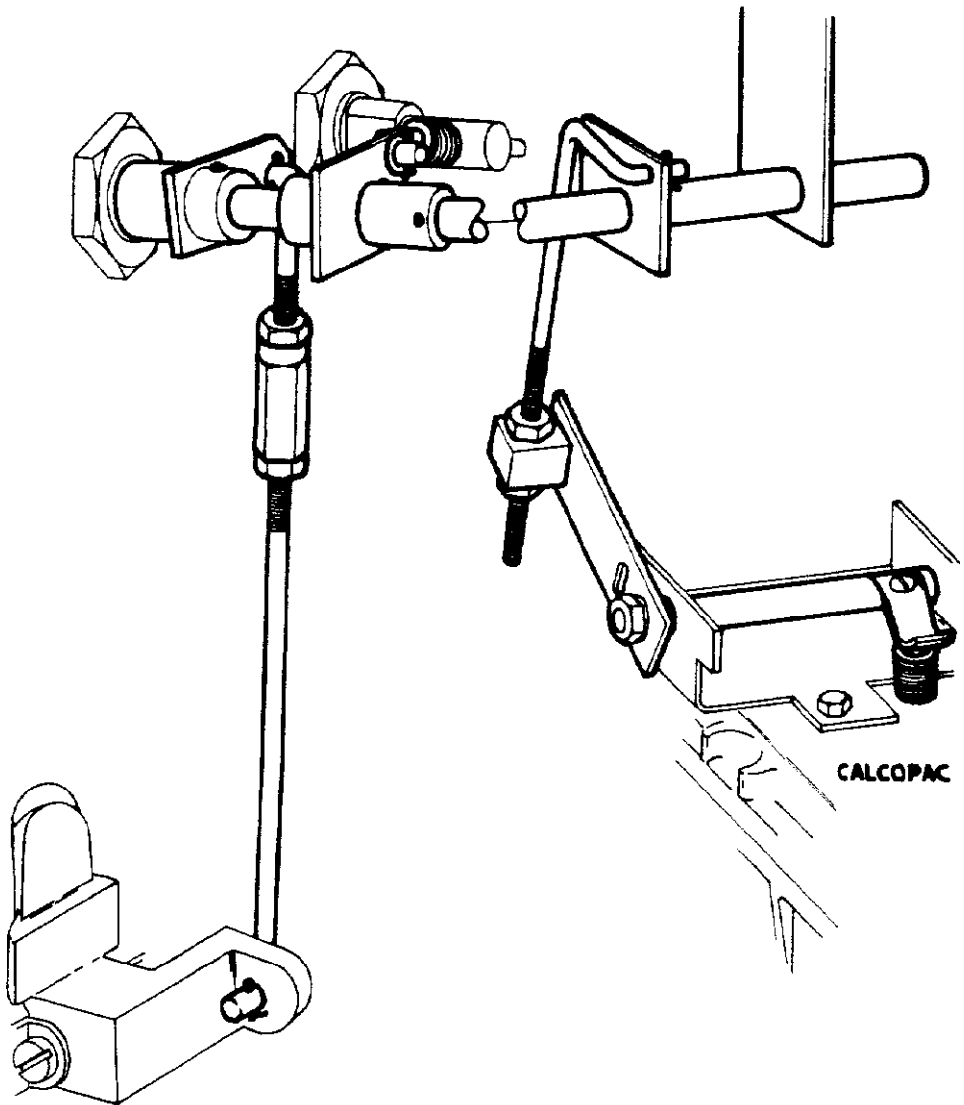
FIGURE 5/6A/76 ~ 21



CALCOPAC

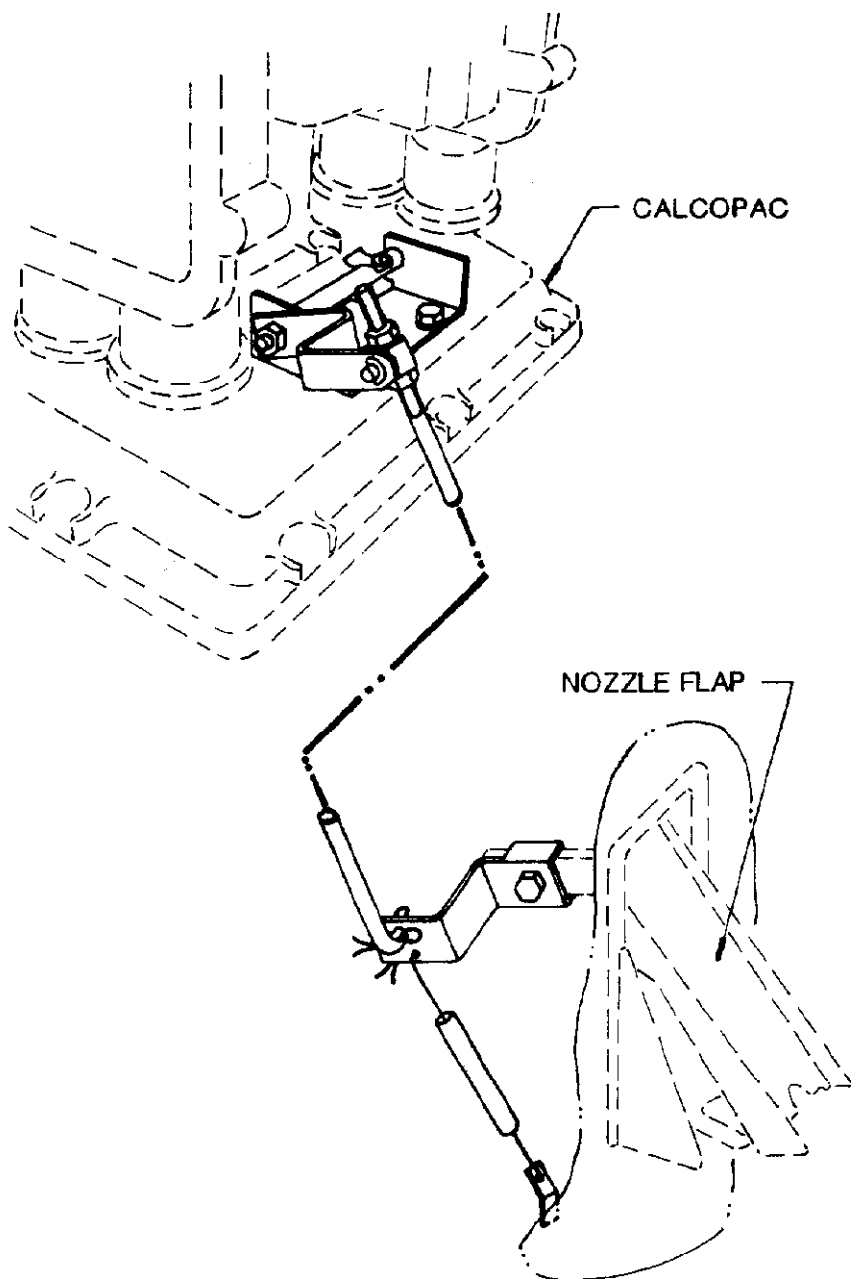
Handle-operated Reset, Wayne 600 Series
Dual Driveway Flowmeter

FIGURE 5/6A/76 - 22



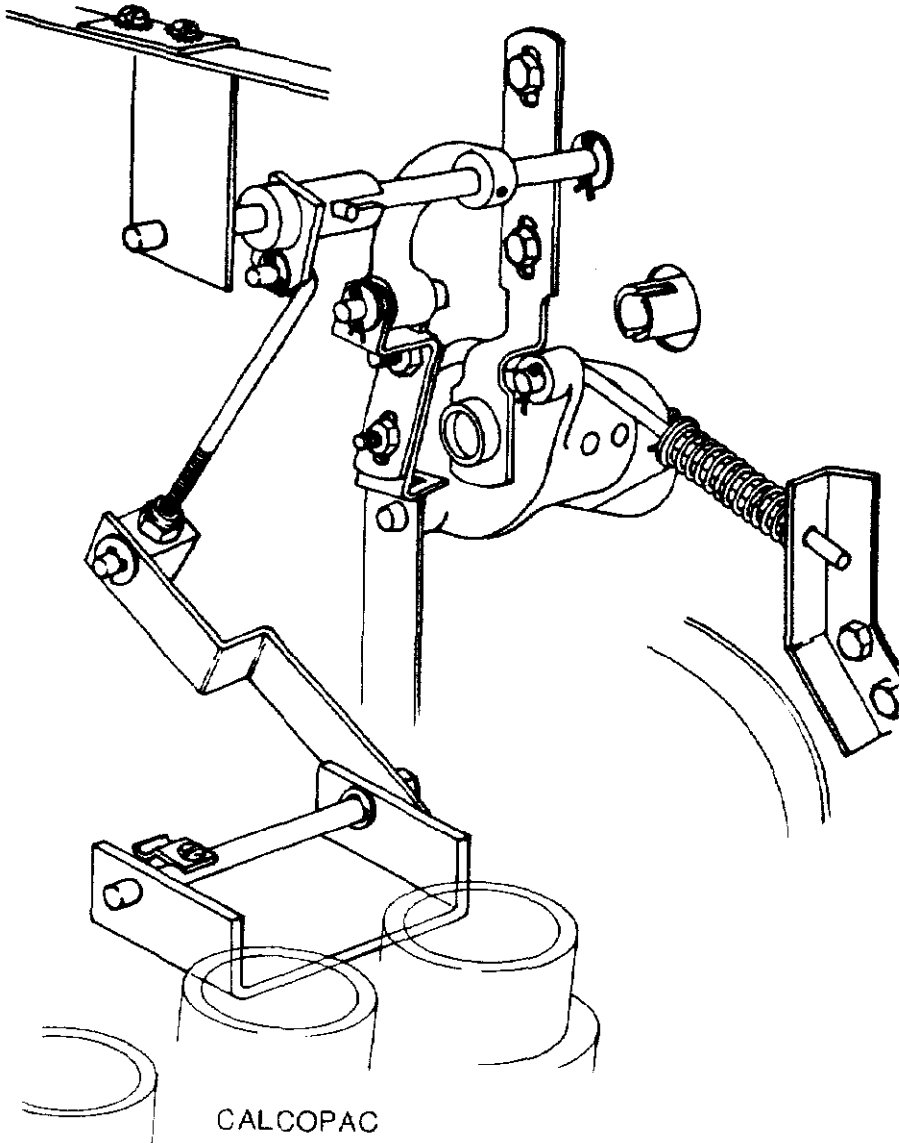
Handle-operated Reset, Wayne 600 Series
Single Driveway Elevator

FIGURE 5/6A/76 - 23

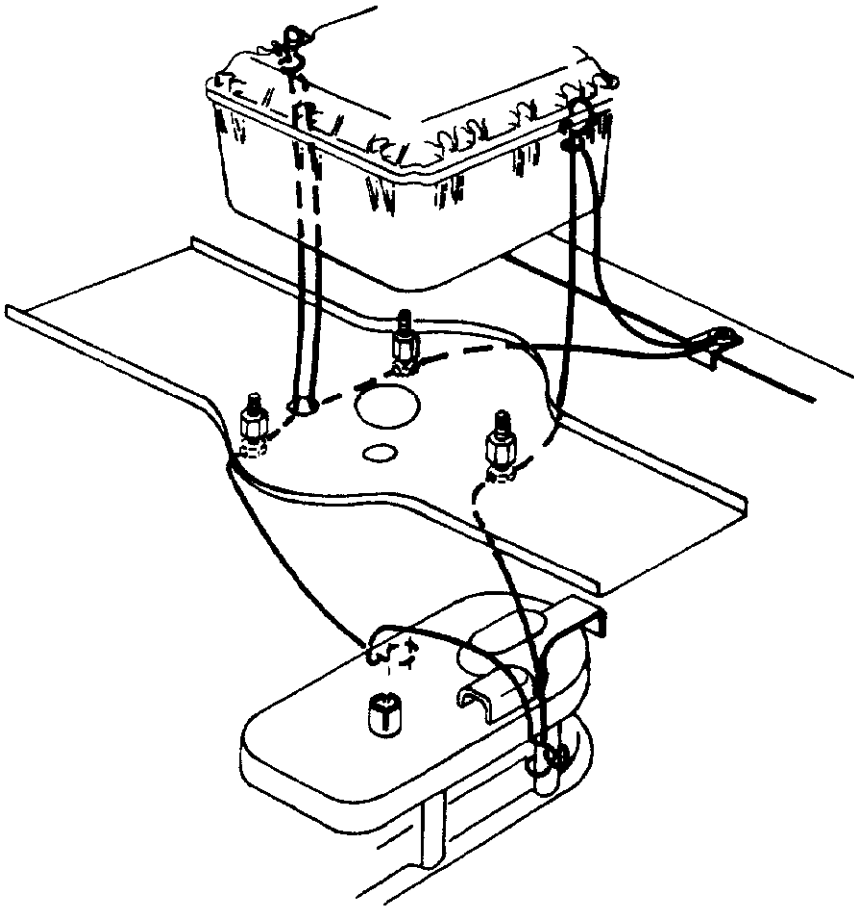


Nozzle-operated reset, Wayne 700 Series
Dual Driveway Flowmeter

FIGURE 5/6A/76 - 24

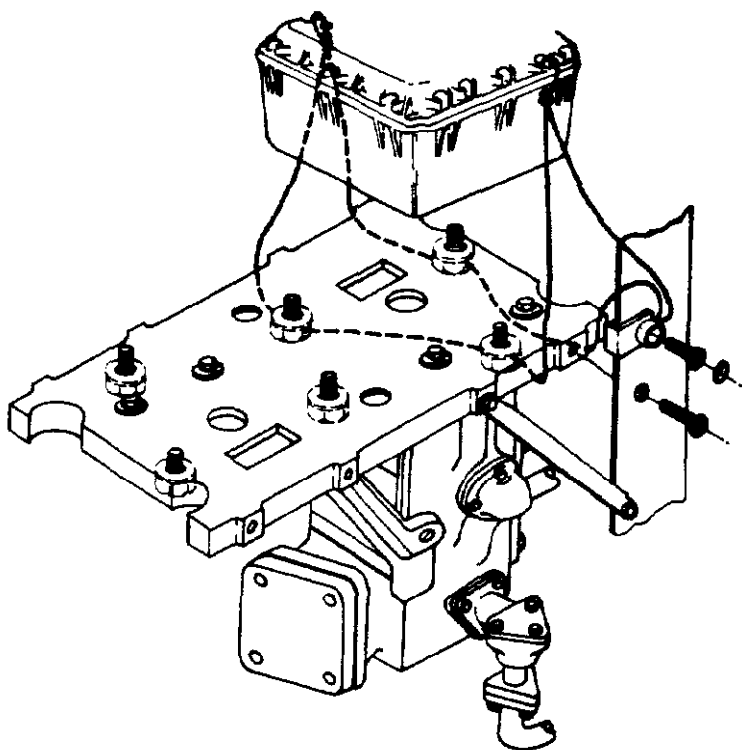


Handle-operated Reset, Wayne 700 Series Dual



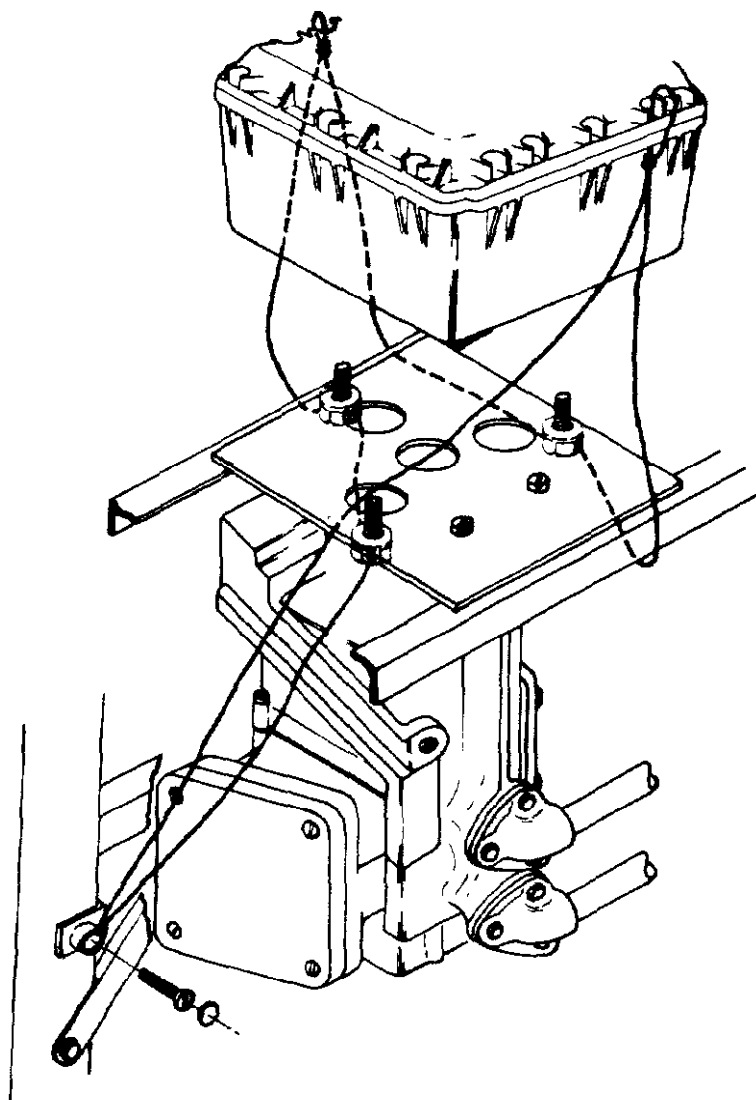
Sealing of Calcopac to Wayne 700 Series
Driveway Flowmeters

FIGURE 5/6A/76 - 26



Sealing of Calcopac to Wayne 600 Series,
(Dual) Driveway Flowmeters

FIGURE 5/6A/76 - 27



Sealing of Calcopac to Wayne 600 Series,
(Single) Driveway Flowmeter

FIGURE 5/6A/76 - 28

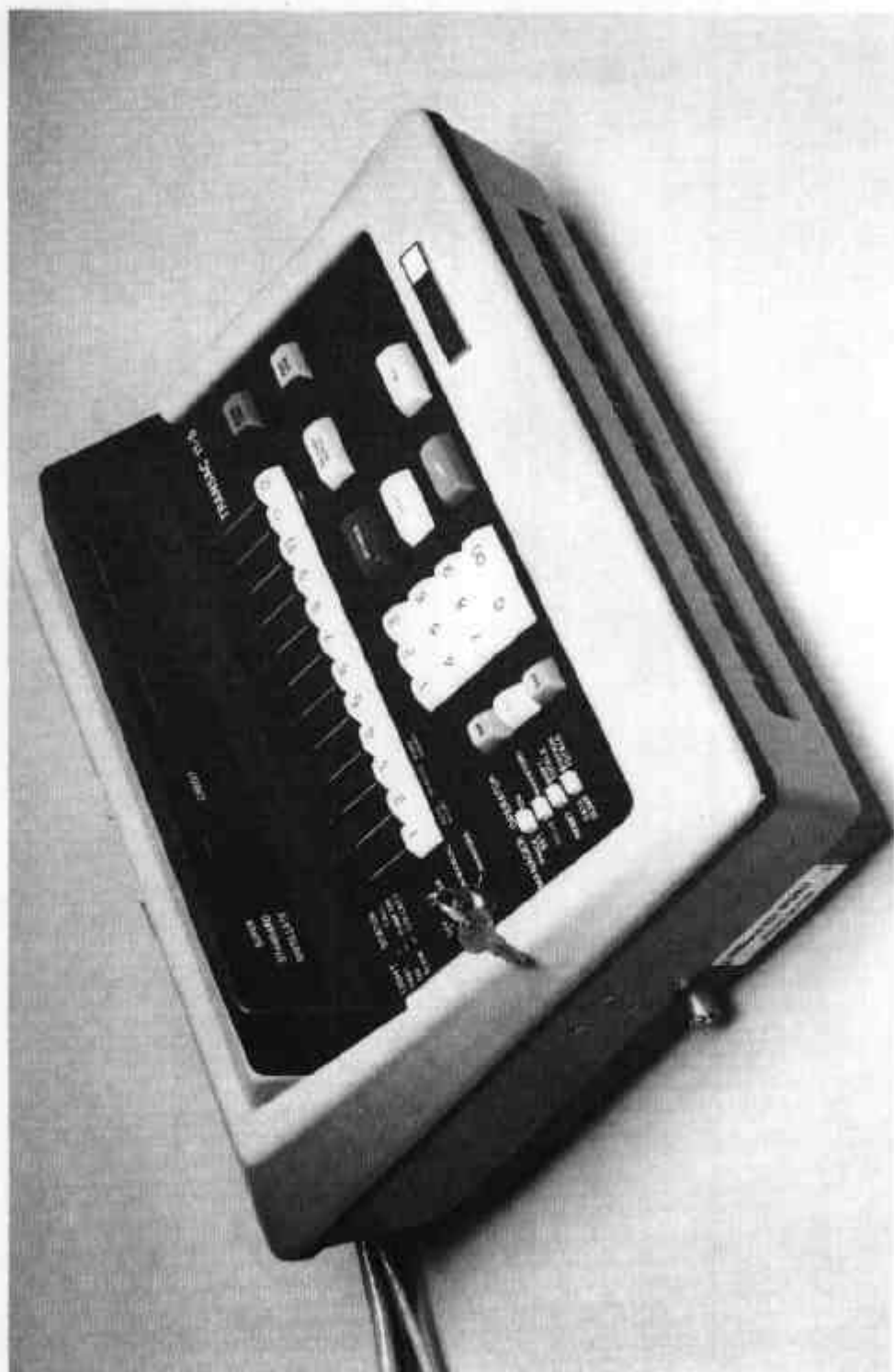


FIGURE 5/6A/76 - 29



Driveway Flowmeter With Integrated Preset Panel,
Hosemast And Nozzle Boot

19/11/82