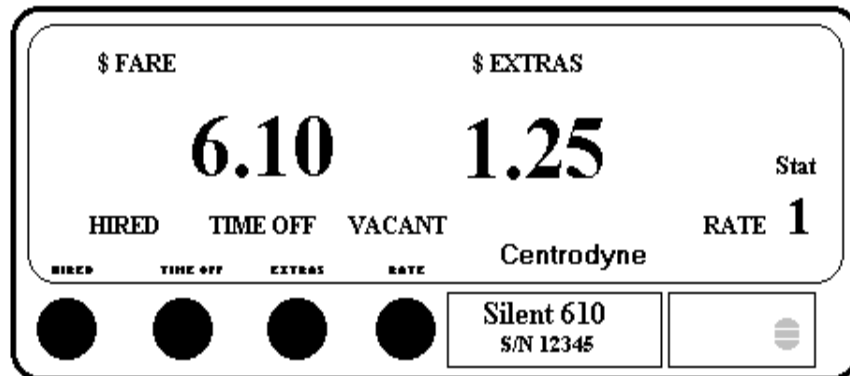


THE "SILENT 600"* ELECTRONIC TAXIMETER SERIES
OPERATION, INSTALLATION AND PROGRAMMING MANUAL



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1.1 Taximeter Mode

Operation of the taximeter is controlled by the 4 push buttons on the face of the unit.

1.2 Hired Time On State

Press switch # 1 once to engage or HIRE the taximeter. On entering the HIRED state the meter will be automatically in Time On operation.

While in the HIRED state it will not be possible to change to any other state except HIRED TIME-OFF.

1.3 Hired Time Off State

When in HIRED state, press switch # 2 once to enter Hired Time Off State. Time charges will not be accumulated in this state.

In this state the operator may sum the fare and extras, if programmed, by pressing switch # 3 once, and if appropriate, the Tax amount may also be displayed.

While in HIRED TIME-OFF state it will be possible to change only to HIRED Time On or VACANT states.

1.4 Vacant State

To enter the VACANT state, from the Hired Time Off state, press switch # 1 once.

1.5 Statistics Mode

The Statistics mode can be entered only from the VACANT state by pressing switch # 3 once. To display the complete list of statistics, continue pressing switch # 3.

STATISTICS

<u>ITEM</u>	<u>DESCRIPTION</u>
1	Total Fares
2	Total Extras
3	Total Tax
4	Total Miles (or KM)
5	Total Paid Miles (or KM)
6	Number of Trips
7	Calibration
1 ¹	Time of Day
2 ¹	Date
3 ¹	Year - Day of Week

Notes 1: Requires RTC (real time clock) factory option and, these item numbers flash to identify clock/calendar.

OPERATING INSTRUCTIONS

Operation of the taximeter is controlled by the 4 push buttons on the face of the unit.

HIRED

When the taximeter is off or "VACANT", you may hire the meter by pressing the HIRED button once. The meter will display the initial or drop charge in the fare display and the word HIRED will be displayed. When the taximeter is HIRED the meter will automatically be in TIME ON.

While in the HIRED state it will not be possible to change to any other state except HIRED TIME-OFF.

HIRED - TIME-OFF

After the taximeter has been HIRED you may place the meter in TIME-OFF by pressing the TIME-OFF button once. The meter will now display TIME OFF. Time charges will not be accumulated in this state.

To resume accumulating time charges, press the TIME-OFF button once.

While in the HIRED TIME-OFF state it is only possible to change to HIRED Time On or VACANT states.

EXTRAS

If EXTRAS are programmed into your meter, ensure the meter is HIRED TIME ON and press the EXTRAS button once. The extras amount will appear in the EXTRAS display. Continue to press the EXTRAS button to add to the amount currently displayed (the extras increment is pre-programmed).

While in the HIRED Time-On state it is only possible to change to HIRED TIME OFF.

SUMMING FARE AND EXTRAS

To add the FARE and EXTRAS amount, ensure the meter is HIRED TIME-OFF, and press the Extras button once. The meter will now display the total of the Fare and Extras in the Fare display, for five seconds.

VACANT

To place the meter in VACANT or off state, ensure the meter is HIRED TIME-OFF, and press the HIRED button once. The meter will display the word VACANT.

RATE

If more than one rate is programmed into the taximeter (maximum of 4), you may change RATES when the meter is VACANT. To change rates, ensure meter is VACANT, and press the RATE button to select Rates 1 through 4.

STATISTICS DISPLAY

The STATISTICS or TOTALS may be viewed when the meter is VACANT. Press the Extras button in succession to display the following on the taximeter;

<u>ITEM</u>	<u>DESCRIPTION</u>
1	Total Fares
2	Total Extras
3	Total Tax
4	Total Miles
5	Total Paid Miles
6	Number of Trips
7	Calibration
1 ¹	Time of Day
2 ¹	Date
3 ¹	Year - Day of Week

Notes 1: Requires RTC (real time clock) factory option and, these item numbers flash to identify clock/calendar.

STATISTICS RECEIPT

From the VACANT state, to print a statistics receipt, press the Extras button once to enter statistics, and then press the Time button to print the receipt.

FARE RECEIPT

The customer fare receipt is printed from the VACANT state. At the end of the trip, after the meter has been placed in VACANT, press the Time button once to print the fare receipt. The total fare will be displayed on the meter.

PAPER FEED

Paper should be loaded into the meter when VACANT. See over for instructions.

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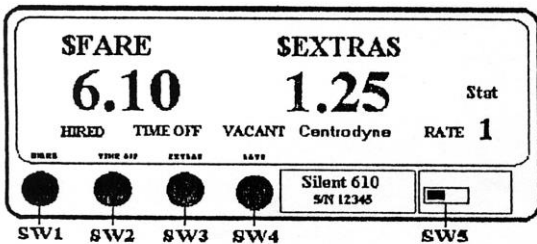
	SWITCH	VACANT	HIRED	TIME-OFF	STATISTICS
SW1- Hired/Vacant	SW1	HIRED	---	VACANT	RESET STATS or PAPER FEED (620)
SW2 - Time On/Off	SW2	TEST (610) OR PRINT RECEIPT (620)	TIME OFF	TIME ON	PRINT STATS RECEIPT (620)
SW3 – Extras or Statistics	SW3	STATS	INCREMENT EXTRAS	SUM FARE & EXTRAS or ADD/DISPLAY TAX AMOUNT	INCREMENT STATS
SW4 – Rate	SW4	INCREMENT RATE	---	---	RESET STATS

NOTES 1: If stats reset is allowed, go to stats position "1" and immediately press SW1 then SW4. Enter password if programmed.

2: Tax option and method must be programmed.

TO SELECT	PRESS SWITCH	COMMENTS
HIRED	SW1	Meter must be VACANT. Meter is automatically TIME ON
EXTRAS	SW3	Meter must be HIRED and TIME ON.
TIME OFF	SW2	To return to TIME ON press SW2 again.
VACANT	SW1	Meter must be TIME OFF to go VACANT.
STATISTICS	SW3	Meter must be VACANT.
RATE	SW4	Meter must be VACANT.
PRINTING	SW2	For customer receipt meter must be VACANT and in STATS for STATS receipt
PROGRAMMING	SW5	Meter must be VACANT

SILENT 610 INSTALLATION



STATS #	DESCRIPTION
1	Total Fares
2	Total Extras
3	Total Tax
4	Total Miles (or KM)
5	Total Paid Miles (or KM)
6	Number of Trips
7	Calibration
1 ²	Time of Day
2 ²	Date
3 ²	Year - Day of Week

Notes 1: Requires RTC (real time clock) factory option and, these item numbers flash to identify clock/calendar.

A. Black wire, Cable 1 - Connect to black wire of transducer. For vehicles with electronic speed sensors, connect this wire to vehicle ground (-). (Note:1 & 2)

B. White wire, Cable 1 - Connect to Red wire of transducer. For vehicles with electronic speed sensors, connect this wire to the speed signal output of the sensor. (Note:1 & 2)

C. Black wire, Cable 2 - Connect to vehicle ground (-).

D. Red wire, Cable 2 - Connect using a 2 amp (SILENT 610) or 4 amp (SILENT 620) in-line fuse to + 12 volts at the fuse box or directly to the

positive (+) post at the battery.

E. Green or White wire, Cable 2 - SEE NOTE IN DIAGRAM BELOW. If relay option employed, connect to post 85 using a 1/2 amp fuse to allow meter to drive dome/top light relay. Connect post 86 to ground, post 30 via switch and fuse to + 12 volts battery, post 87A to dome or top lights, and post 87 to cheater lights if required.

CAUTION: ENSURE LOCATION OF METER DOES NOT INTERFERE WITH AIR BAG DEPLOYMENT.

NOTE: 1. Ensure the taximeter internal speed signal jumper has been selected properly, i.e., select electronic for vehicle speed sensors (usually magnetic) that provide an analog or varying amplitude signal (low amplitude), and select mechanical for Centrodyne transducers or sensors that provide a digital, on/off, high/low type signal. See last page of this document for Speed Signal Jumper Selection.

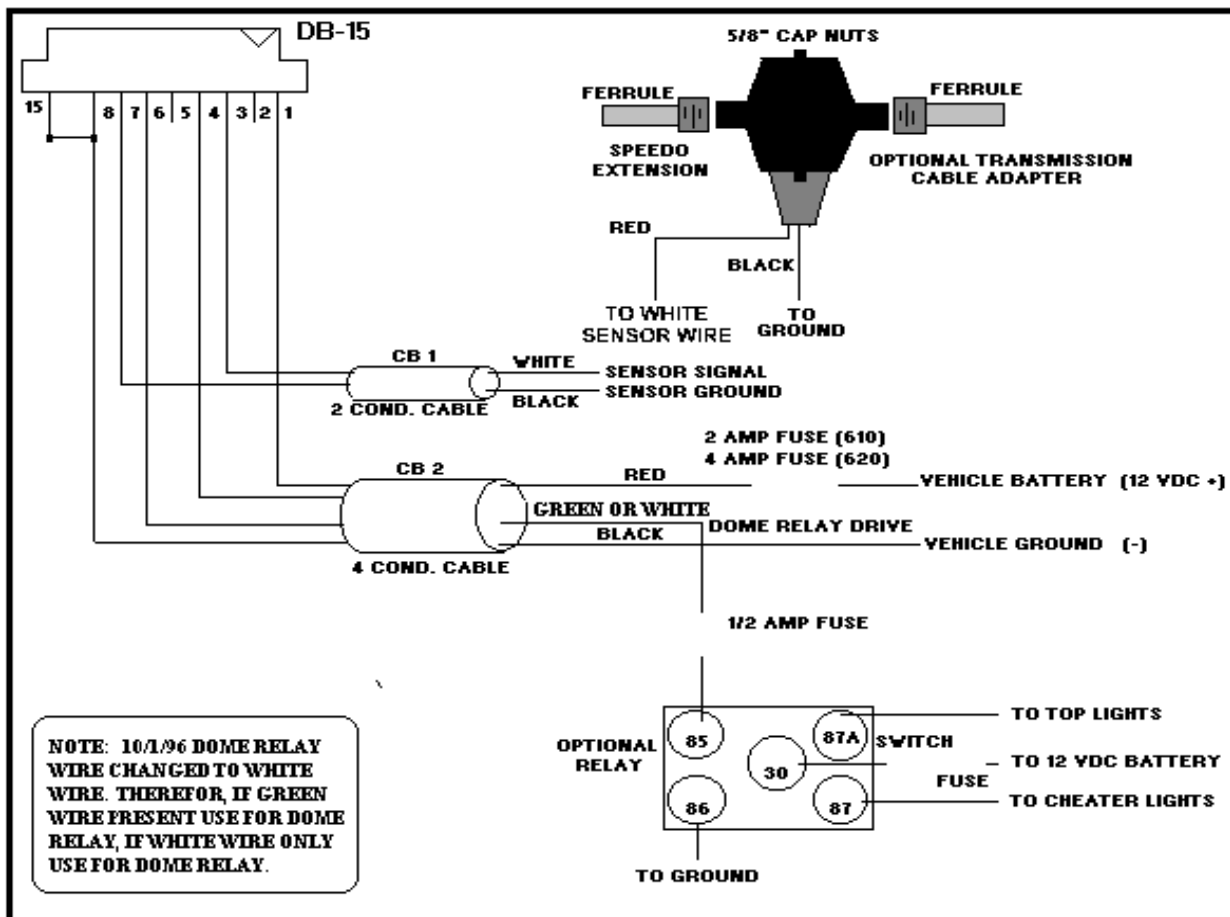
3.1 Programming Mode

The Silent 610 electronic taximeter is programmed using the four push button switches on the front of the taximeter. When the meter is VACANT, programming of distance calibration, rate, etc., is accomplished by removing the programming access panel and sliding the programming switch (SW5) to the left (slide SW5 to the right to return to normal taximeter mode). This requires breaking the seal wire. (see fig. # 3.1)

3.2 Push Switch Programming

The items which can be programmed via the push switches are divided into the following 9 categories. Slide SW5 to the left to enter programming mode. You may press SW1 to step through the available group numbers listed below. The Group Number is shown in the Rate display above SW5.

Group Number Group Heading



0	Calibration
1	Rate 1
2	Rate 2
3	Rate 3
4	Rate 4
5	Factory Setting - DO NOT CHANGE
6	Factory Setting - DO NOT CHANGE
7	Factory Setting - DO NOT CHANGE
8	Printer Text
9	Password Entry/Edit

NOTE: If the taximeter has the "Password" protection option, no editing of the above groups is allowed until the correct "Password" has been entered.

3.3 Group 0 - Calibration

To calibrate the meter for your vehicle, drive vehicle to the beginning of a measured mile, slide SW5 to the left to enter programming mode. Press SW1 to select GROUP 0, shown in the Rate display (see fig. 3.1). Press SW2 and the current meter calibration is displayed in the Fare window (see fig. 3.2). Press SW4 and the last number in the Fare display will flash (if the number is not flashing, the meter has the "Password" option, see section 3.7). Drive vehicle over the measured mile and the Fare display will show the speed calibration as you drive. At the end of the mile, stop the vehicle, press SW4 and the displayed calibration will be entered into the meter. The calibration range that may be entered is 200 to 64,000 pulses per mile (effective 11/95).

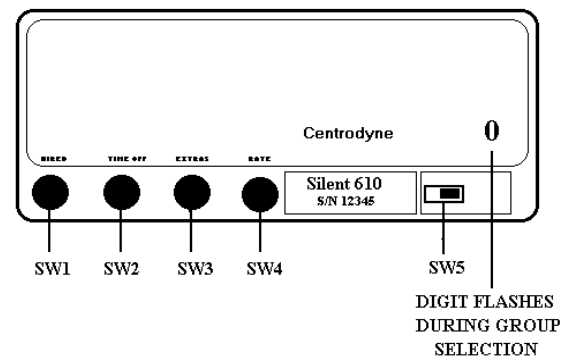
The taximeter will not be as accurate if you use the vehicle odometer in place of a measured mile. If vehicle calibration is known, the calibration number may be entered using the same pushbutton sequence described in Rate programming.

3.4 Group 1-4 Rate Programming

The items that need to be programmed for your fare or tariff are listed below. Slide SW5 to the left to enter programming mode, press SW1 until RATE 1 is shown in the Rate display. Press SW2 and the flag drop is displayed in the Fare display and a "1" is displayed in the Extras display. Press SW2 to step through the list of Items. The Item number, 1 through 8, is shown in the Extras display and the amount or value is shown in the Fare display.

ITEM	Description	Example	Meter Display
1 = Flag Drop	Initial dollar charge	\$ 1.25	001.25
2 = Drop Distance	Fraction of mile fare increments at	1/10 of mile	00.100
3 = Distance Rate	Dollar amount charged per mile	\$ 1.00	001.00
4 = Time Rate	Dollar amount charged per hour	\$ 10.00	010.00
5 = Fare Increment	Amount charged per fraction of mile		
6 = Extra Increment	Amount charged for extras		
7 = Maximum Extras	Max charge allowed for extras		
8 = DO NOT USE	DO NOT USE-LEAVE AT 000.00		

To change the Flag Drop, press SW2 until Item "1" is shown in Extras display. Press SW4 and the last number in the Fare display will flash (if the number is not flashing, the



meter has the "Password" option, see section 3.7). Press SW3 to change the flashing digit to the number you want. Press SW2 and the number to the left will flash. Press SW3 to change the flashing digit to the number you want. Press SW2 and the number to the left will flash. Press SW3 to change the flashing digit to the number you want. Repeat this sequence until the Flag Drop you want is displayed. Press SW4 and the displayed Flag Drop will be entered into the meter.

Press SW2 and the decimal drop distance is displayed. Continue using the same sequence as above to change the drop distance. Following are a few examples of drop distances in decimal value:

$1/10 = .100$	$1/9 = .111$	$1/8 = .125$
$1/7 = .143$	$1/6 = .167$	$1/5 = .200$
$1/4 = .250$	$1/3 = .333$	$1/2 = .500$

Follow the above procedure to program the remainder of the rate (and same procedure for rates 2, 3, and 4).

3.5 GROUP 8 PRINTER TEXT

ITEM 1,2,3,4,5,6,7,8,9¹

Eight text lines may be programmed for the customer receipt and statistics printouts. Item 1, 2, 3 and 4 are printed at the top of the receipt and item 5, 6, 7 and 8 are printed as the last 4 lines of the receipt. For the statistics printout only item 1 to 4 are printed at the top of the printout. Before you edit these text lines, first see the ASCII table and text programming sheet at the end of this document for organizing the text lines you want to be entered. Item or line "9" is the title for the statistics receipt (factory set as "TOTALS") and may be changed if required.

Slide SW5 to the left, press SW1 until an "8" is shown in the rate display on the right. Press SW2 until "1" is shown in the extras display and the fare display shows a 3-digit value and a 2-digit pointer, a decimal point separating the two parts (see fig. 3-3). By pressing SW2 the meter will step through the eight printer lines, identified in the extras display with a 1 through 8 ("9" is title for statistics receipt).

With the text programming sheet provided in this document filled out, press SW2 until the printer line you want to change is shown in the extras display (1 to 8). The fare display shows a 3-digit value and a 2-digit pointer, that are separated by a decimal point. Press SW3 to step through the 16 character positions in a text line, shown on the right side of the Fare display after the decimal point.

Press SW3 to select the character you want to change. Press SW4 and the digit to the left of the decimal point in the fare display will flash. Using your text programming sheet, press SW3 to change the flashing digit to the correct value, press SW2 and the digit to the left will now flash. Press SW3 to change the flashing digit to the correct value, press SW2 and the digit to the left will flash. When you have entered the correct value, press SW4 to record the value into memory. Press SW3 to select the next character position, and use the same button sequence as above to change the value.

Continue this procedure to enter all eight lines. If a line is not required, ensure 000 is entered for the ASCII value for each position in the line.

FORMAT: CCC.LL. CCC is an ASCII decimal code for the required letter (refer to ASCII table) and LL is the position in the line for the letter. There are 16 positions in a line. RANGE OF CCC: 032.01 127.16, RANGE OF LL: 1 -16.

NOTE 1: For use with SILENT 620 PRINTER and REMOTE PRINTER.

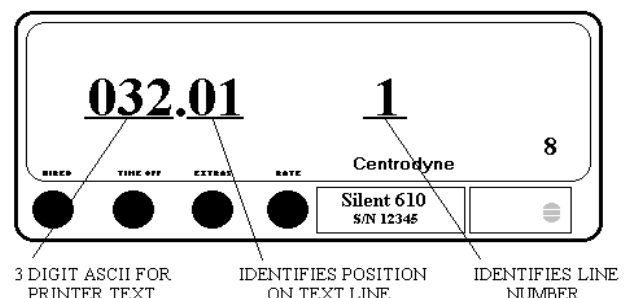
STATISTICS RESET:

1. To enable the reset statistics feature, first slide the programming switch to the left.
2. Press switch # 1 (Hired button) until "5" is displayed on the far right of the meter.
3. Press switch # 2 (Time button) once. You should have a "1" in the Extras display and 5 digits in the Fare display, example "01001".
4. You will need to change the first zero from the right in the Fare display (underlined above). To do this, press switch # 4 (Rate button) once and the first digit on the right will start to flash on and off.
5. Press switch # 2 and the second digit from the right will flash on and off.
6. Press switch # 3 to change the digit to a "1". A "1" in this position enables statistics reset and a "0" disables statistics reset.
7. Press switch # 4 to record changes (digit stops flashing).
8. If you wish to protect the statistics reset with a password, press switch # 1 until a "6" is shown on the far right of the meter. Press switch # 2 until a "5" is shown in the Extras display. Enter a 5 digit password into the Fare display using the normal button procedure.
9. Slide the program switch to the right to return to taximeter operation.
10. To reset statistics, from VACANT, press the switch # 3 (Extras button) once to enter statistics, then immediately press switch # 1 (Hired button) and then switch # 4 (Rate button). The statistics should now be reset, unless a password is required, in which case the Fare display will show "00000". Now enter correct password to reset statistics.

3.7 GROUP 9 PASSWORD ENTRY/EDIT

If this option is enabled, no editing of data is allowed until the correct password is entered (however, viewing the data is permitted). Enter the password as follows:

Slide SW5 to the left, press SW1 until a "9" is shown in the Rate display on the right, and press SW2 to display all 0's in the Fare display. Press



SW4 and the digit on the right in the Fare display will flash. Press SW3 to change the flashing digit to the correct value, press SW2 and the flashing moves to the left one position. Press SW3 to change the flashing digit to the correct value, press SW2 and the flashing moves to the left one position. Continue using the same button sequence until the correct password is displayed and press SW4 to enter the password into memory. If it is accepted, the taximeter exits GROUP 9 and goes to GROUP 0. Taximeter will not accept an incorrect password.

To enter a new password enter the current password as above. Return to GROUP 9, and you may now enter a new password (don't forget it). RANGE 00000 - 99999.

Printable character table for S620 strings

ASCII Table

Char	Dec	Char	Dec	Char	Dec
SPACE	32	B	66	d	100
!	33	C	67	e	101
"	34	D	68	f	102
#	35	E	69	g	103
\$	36	F	70	h	104
%	37	G	71	i	105
&	38	H	72	j	106
'	39	I	73	k	107
(40	J	74	l	108
)	41	K	75	m	109
*	42	L	76	n	110
+	43	M	77	o	111
,	44	N	78	p	112
.	45	O	79	q	113
/	46	P	80	r	114
0	47	Q	81	s	115
1	48	R	82	t	116
2	49	S	83	u	117
3	50	T	84	v	118
4	51	U	85	w	119
5	52	V	86	x	120
6	53	W	87	y	121
7	54	X	88	z	122
8	55	Y	89	{	123
9	56	Z	90		124
:	57	[91	}	125
;	58	\	92	~	126
<	59]	93		127
=	60	^	94	CR	13
>	61	~	95	LF	10
?	62		96		
@	63	a	97		
A	64	b	98		
	65	c	99		

SILENT 620 STRING PROGRAMMING SHEET

LINE 1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

LINE 2

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

LINE 3

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

LINE 4

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

=====

LINE 1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

LINE 2

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

LINE 3

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

LINE 4

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

TO REPLACE THE PAPER ROLL

OPEN THE TOP COVER OF THE SILENT 620 AND REMOVE THE OLD PAPER CORE. HOLDING THE PAPER ROLL OUTSIDE OF THE METER, EXTEND A FEW INCHES OF PAPER INTO THE CASE, ENSURING THE PAPER HAS BEEN CUT INTO A LONG "V" AND THE SHINY/GLOSSY SIDE IS DOWN. GENTLY FEED THE PAPER INTO THE LOWEST SLOT UNDER THE PRINT HEAD, UNTIL THE "V" PORTION OF THE PAPER COMES OUT THE TOP OF THE PRINT HEAD AND MAY BE PULLED OUT BY HAND. IF REQUIRED, TO ASSIST IN LOADING THE PAPER. SW1 MAY BE PRESS FOR A PAPER FEED, IN STATISTICS MODE ONLY.