ANITA®
1200P RANGE
PRINTING CALCULATORS

Operating Instructions

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Anita 1211P, 1212P and 1233P Calculators have been designed to help you handle a very wide range of business calculations in the best possible way. The easiest and quickest way.

The chosen examples will help you to make the best use of your machine very quickly. Please do not hesitate in calling us if you feel we may be able to help you further.

You will probably find that the best way to use this Instruction Book is to read the Introductory Pages which explain the operation of every key and then proceed to those examples which you feel are most appropriate to your work.

Installed by : .....

.....

.....

Telephone No : .....

ANITA 1200P range

Electronic printing calculator with three operational registers and three accumulating stores. Printing around a prefixed decimal point of the twelve most significant digits of factors and results by serial drum printer. The decimal point is positioned independantly in all registers

Dynamic range: In excess of 0·000 000 000 001
to 999 999 999 999

Power supply: Two ranges :
adjustable : 190V — 235V/210V — 260V
or 90V — 130V available to special order
30 V A

Tape: Width : 89mm ($3\frac{1}{2}$ inch)
Roll diameter should not exceed
80mm (3·15 inch)

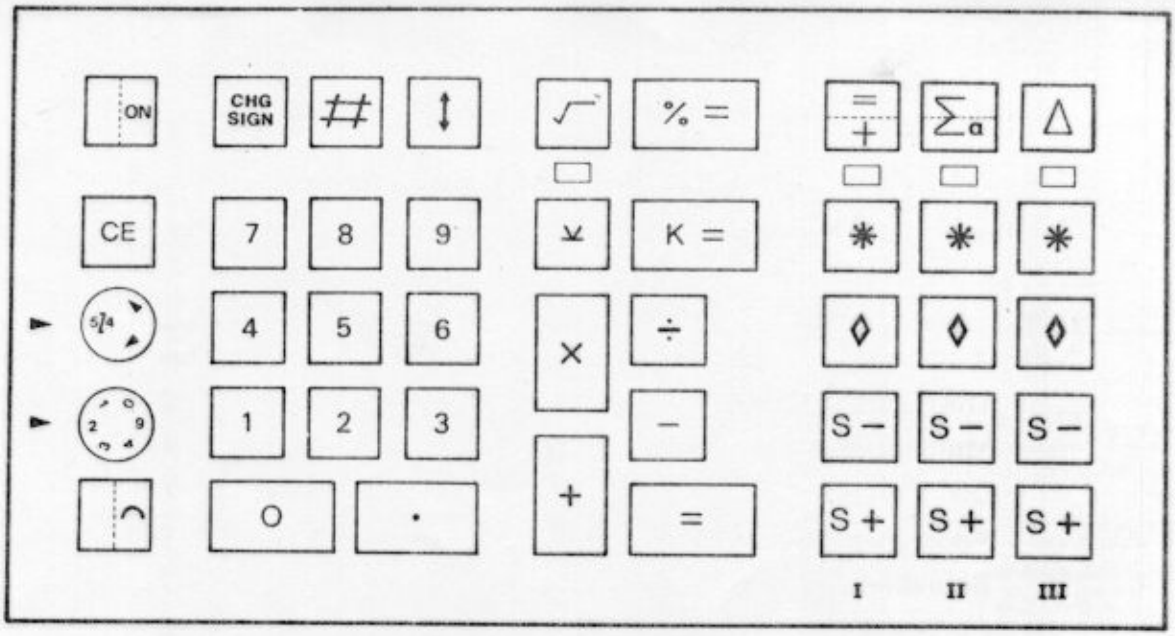
Ribbon: Material : Nylon two colour
Width : 13mm ($\frac{1}{2}$ inch)
Length : 5m
Spool : 40 DIN 2103 (Twin spool)
Caribonum Black/Red Nylon,
Reference D12 group 58, is approved for use
in the U.K.

Dimensions:

Width	270mm	
Depth (overall)	395mm	includes complete
Height (overall)	245mm	tally roll
Weight	7·5kg	

CONTENTS

NOTE :—If the machine is switched off, any calculated result as well as all totals in the store are cleared.
Always print out your result and total before switching off.



MODEL OPTIONS

MODEL NO.	PER CENT % =	SQ. ROOT √	STORE II ∈ 1st No.	STORE III (Item Count)
1211P	YES	NO	NO	NO
1212P	YES	NO	YES	NO
1233P	YES	YES	YES	YES

THE FUNCTION CONTROLS

+ − × ÷

Use these keys between numeric entries in the same order as they would appear in a written sequence. Each indexed quantity is printed on the tape in direct alignment with its appropriate sign.

Touching any of these four arithmetic controls "primes" ANITA to carry out the selected function. The function is performed, and the prime is released by - :

(a) touching another arithmetic key (which reprimes ANITA), or
(b) touching any [=] key, or
(c) touching any [S+] or [S−] key. When ANITA is primed, these behave in the same way as the [=] key, followed by a subsequent automatic Store [+] (or Store [−]) operation.

[=] Prints the last factor indexed followed by the result.

[K] Prints the indexed quantity or reprints last printed amount with the symbol ▽ and stores it in the Constant Factor memory. This key can be used during a calculating sequence without affecting the sequence.

[K=] Used immediately following any arithmetic key, recalls and prints the constant factor and prints the result of the calculation :

constant multiplier	([×], [K=])
divisor	([÷], [K=])
addend	([+], [K=])
subtrahend	([−], [K=])

[%=] Prints the last factor indexed followed by the result of a percentage calculation with the decimal point correctly positioned.

[√] Prints an indexed quantity or a calculated result with the symbol √ followed by its square root.

[↕] This key is used to reverse the factor order if necessary; it prints the last indexed number with the symbol ↷.

[#] Used after indexing prints this item on the tape as a reference or non-added amount. If it is used following a function key prints the sub-total.

[CHG SIGN] Used following an indexed quantity makes the sign of this amount negative.

[CE] Clears a wrongly indexed amount. It does not terminate a sequence when used in this way.

[Δ] Line feed (paper feed) control.

THE STORE CONTROLS

[S+] With ANITA primed, completes a sequence and adds (or subtracts) the result to the selected store.

[S−] With ANITA unprimed adds (or subtracts) any indexed amount directly to the selected store.

[◊] Prints the contents of the store with the symbol ◊I (or ◊II or ◊III) without clearing. The amount is immediately available for further processing.

[✱] Prints the contents of the store with the symbol ✱I (or ✱II or ✱III) and clears the store. As with ◊ the amount is immediately available for further processing.

[= +] When this latch is in the "on" position (▮) and any = key is used the result is automatically added to store I; the S+ and S− keys are inoperative when the machine is in this condition.

[Σ_0] When this latch is in the "on" position (▮) the first factor in any sequence is automatically added to Store II following the use of any arithmetic key. (with the 1233P 1 is also added to the item count in Store III).

THE STORE WARNING LIGHTS

These are illuminated unless the store content is zero.

THE ERROR WARNING LIGHT

The error condition is set if

(a) [=] is touched with a negative number printed or indexed.
(b) An attempt is made to divide by zero.

In either case the numeric keys and all function controls are disabled and the error light is illuminated. Touching [CE] resets the error condition and allows the operator to recommence the calculation.

THE ROUNDING CONTROLS

Through the use of this control, selection of the number of decimal places in the final result is obtained.

In conjunction with the decimal point selection, final results will be :

Rounded 5⌋4

Rounded up ▲

Truncated ▼

When the above controls are to be used this key must be in the "on" (—) position, and rounding only occurs when an [=] key is used.

When this key is in the off (—) position all results will be printed to the maximum of 12 digits.

A two position switch underneath the front of the keyboard allows the operator to choose between a left decimal point selection (high decimal capacity) and a right decimal point selection (twelve whole numbers). You are recommended normally to use the right select position, an automatic override will left select any quantity containing more than six decimal places. The position you choose will not, of course, make any difference to the machines accuracy.

There are three latches on the ANITA 1200P range, two of which, [T] and [Σ] control accumulation in the stores. The third [R] engages the pre-set rounding controls and when this latch is off (—) all results are printed to a maximum of 12 digits. Make sure that these latches are disengaged, i.e. turned out away from the keyboard unless the instructions show otherwise.

MULTIPLICATION

$$12 \times 13 = 156$$

$$14 \times 15 \times 16 = 3360$$

$$2{\cdot}3456 \times 58{\cdot}12345 \times 987{\cdot}654\,321 = 134\,651{\cdot}224\,021$$

12	12•	₵
× 13	13•	×
=	156•	=

The ₵ symbol is always printed against the first number in any sequence. No "clear" symbols need to be printed unless the stores are to be used.

The multiply symbol printed with each multiplier.

The = symbol is printed against all final results.

14	14•	₵
× 15	15•	×
× 16	16•	×
=	3360•	=

2·3456	2•3456	₵
× 58·12345	58•12345	×
× 987·654 321	987•654321	×
=	134651•224021	=

DIVISION

156 ÷ 12 = 13

1985 ÷ 2240 = 0·886 160 714 285

710·775 ÷ 54 ÷ ·000 208 ÷ 99·45 = 636·312 217 194

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156 [÷] 12 [=]

156• [÷]
12• [÷]
13• [=]

[÷] — The first number symbol.

[÷] — The divide symbol, printed with each divisor.

[=] — The result symbol

1985 [÷] 2240 [=]

1985• [÷]
2240• [÷]
0•886160714285 [=]

[=] — This result contains more than six places of decimals and the decimal point has automatically left selected.

710·775 [÷] 54 [÷] ·000 208 [÷] 99·45 [=]

710•775 [÷]
54• [÷]
0•000208 [÷]
99•45 [÷]
636•312217194 [=]

ADDITION AND SUBTRACTION

7				147·25
39	2245		23	23·456
963	·0875	85	156·25	− 49·61
1236	1236·5	−36	−369·5	3·122
2245	3481·5875	49	−190·25	124·218

7	7• ⊕	← The first number symbol.
[+] 39	39• +	
[+] 963	963• +	
[+] 1236	1236• +	
[=]	2245• =	← The result symbol.
		Any amount printed with this sign is still available for further processing. e.g.
[+]	2245• ⊕	←
·0875	0•0875 +	
[+] 1236·5	1236•5 +	
[=]	3481•5875 =	
85	85• ⊕	
[−] 36	36• −	
[=]	49• =	
23	23• ⊕	
[+] 156·25	156•25 +	
[−] 369·5	369•5 −	
[=]	190•25 =	← Credit results are easily identified because they print in red on the tape.

An alternative method of obtaining the result to an addition and/or subtraction sequence is to use Store I

147·25 [S+] I	147•25 + I	
23·456 [S+] I	23•456 + I	
49·61 [S−] I	49•61 − I	
3·122 [S+] I	3•122 + I	
[✱] I	124•218 ✱ I	

ROUNDING

5 ÷ 3		= 1·666 666 666 66
round-off, truncate	to two places of decimals	= 1·67 = 1·66

4 ÷ 3		= 1·333 333 333 33
round-off, round-up	to two places of decimals	= 1·33 = 1·34

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5 ÷ 3 =

5 • ⊕
3 • ÷
1 • 6 6 6 6 6 6 6 6 6 6 6 = Result shown to full capacity.

(5/4) (2) ⟲

5 ÷ 3 =

5 • ⊕
3 • ÷
1 • 6 7 = Result 'rounded-off' to two places of decimals.

(▼) (2) ⟲

5 ÷ 3 =

5 • ⊕
3 • ÷
1 • 6 6 = Result 'truncated' after two places of decimals.

⟲

---

4 ÷ 3 =

4 • ⊕
3 • ÷
1 • 3 3 3 3 3 3 3 3 3 3 3 = Result shown to full capacity.

(5/4) (2) ⟲

4 ÷ 3 =

4 • ⊕
3 • ÷
1 • 3 3 = Result 'rounded-off' to two places of decimals.

(▲) (2) ⟲

4 ÷ 3 =

4 • ⊕
3 • ÷
1 • 3 4 = Result with 2nd decimal place 'rounded-up'.

⟲

ACCUMULATION

12 × 13	156	a) Using [M+]
14 × 15	210	b) Using [S+] I
16 × 32·5 × 3·75	1950	
	2316	

(a) [M+] I

12	12•	⊕
× 13	13•	×
=	156•	= I ← Result prints and adds to store in one operation.
14	14•	⊕
× 15	15•	×
=	210•	= I
16	16•	⊕
× 32·5	32•5	×
× 3·75	3•75	×
=	1950•	= I
[✱] I	2316•	✱ I ← [✱] Reads and clears store.

[M+] I

(b)

12	12•	⊕
× 13	13•	×
[S+] I	156•	+ I ← Result prints and adds to store in one operation.
14	14•	⊕
× 15	15•	×
[S+] I	210•	+ I
[◊] I	366•	◊ I ← A subtotal (running total) available whenever required.
16	16•	⊕
× 32·5	32•5	×
× 3·75	3•75	×
[S+] I	1950•	+ I
[✱] I	2316•	✱ I ← [✱] Reads and clears store.

PERCENTAGES

(a) $2\frac{1}{2}$ % of 46 = 1·15 What % of 52 is 14·3 = 27·5%

b) **Percentage Increase & Decrease**

1971	1972		Difference	%
176	220	=	44	25
400	350		−50	−12·5

(c) **Mark Up**

Cost Price	Selling Price		Difference	%
35	52	=	17	32·69
12·5	29·25		16·75	57·26

Show percentages to two places of decimals

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i)

46 [×] 2·5 [%=]

46 •	₠
2 • 5	× %
1 • 15	=

[%=] key prints the % symbol with × and adjusts the decimal point in the result.

14·3 [÷] 52 [%=]

14 • 3	₠
52 •	÷ %
27 • 5	=

here the % symbol is printed with ÷.

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ii)

220 [−] 176 [÷] [#] [%=]

220 •	₠
176 •	−
44 •	#
176 •	÷ %
25 •	=

Amount of Increase.

Note: [#] used after a function key prints the calculated amount; in this case 220 − 176 = 44

Percentage of Increase

350 [−] 400 [÷] [#] [%=]

350 •	₠
400 •	−
50 •	#
400 •	÷ %
12 • 5	=

Amount of Decrease.

Percentage of Decrease.

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iii)

[½] [2] [CM]

The rounding control has been engaged in order to round the result, in these two examples, to two places of decimals.

35 [CM] [+] 52 [÷] [#] [%=]

35 •	₠
52 •	+
17 • 00	#
52 •	÷ %
32 • 69	=

Difference.

Percentage.

12·5 [CM] [+] 29·25 [÷] [#] [%=]

12 • 5	₠
29 • 25	+
16 • 75	#
29 • 25	÷ %
57 • 26	=

Difference.

Percentage.

[CM]

INVOICE WITH TAX

		£
(a)	21 doz @ £5·60 per doz	117·60
	18½ doz @ £4·35 per doz	80·48
		198·08
	Plus 10% tax	19·81
		217·89

		£
(b)	155 @ £2·17 each	336·35
	146 @ £1·52 each	221·92
		558·27
	Plus 10% tax	55·83
		614·10

With individual invoices calculated using Store I; accumulation of tax amounts in Store II and grand total of invoices in Store III

	[C] [2] [→]		
(a)	21	21.	%
	[×] 5·60	5.60	×
	[S+] I	117.60	+ I
	18·5	18.5	%
	[×] 4·35	4.35	×
	[S+] I	80.48	+ I
	[◊] I	198.08	◊ I
	[×] ·10	198.08	%
		0.10	×
	[S+] I	19.81	+ I ← Tax invoice (a)
	[S+] II	19.81	+ II
	[✱] I	217.89	✱ I
	[S+] III	217.89	+ III ← Total invoice (a)
(b)	155	155.	%
	[×] 2·17	2.17	×
	[S+] I	336.35	+ I
	146	146.	%
	[×] 1·52	1.52	×
	[S+] I	221.92	+ I
	[◊] I	558.27	◊ I
	[×] ·10	558.27	%
		0.10	×
	[S+] I	55.83	+ I ← Tax invoice (b)
	[S+] II	55.83	+ II
	[✱] I	614.10	✱ I
	[S+] III	614.1	+ III ← Total invoice (b)
	[✱] III	831.99	✱ II
		831.99	% ← Gross invoice totals.
	[−] [✱] II	75.64	✱ II ← Total of tax amounts.
	[=]	75.64	−
	[←]	756.35	= ← Net invoice totals.

INVOICE WITH DISCOUNT

	£
147 @ £2·12 each	311·64
105 @ £0·17 each	17·85
19 @ £8·57 per doz	13·57
	343·06
Less 8%	27·44
	315·62

PRICE AVERAGING

	£
50 @ £1·25 each	62·50
165 @ £1·18 each	194·70
78 @ £1·32 each	102·96
	360·16

Show: i) Total value
ii) Total number of articles
iii) Average price to four decimal places of £1

9/4 (2) [→] [=÷]		
147	147•	⊕
[×] 2·12	2•12	×
[=]	311•64	=I
105	105•	⊕
[×] ·17	0•17	×
[=]	17•85	=I
19	19•	⊕
[×] 8·57	8•57	×
[÷] 12	12•	÷
[=]	13•57	=I
[◊]	343•06	◊I
	343•06	⊕
[×] 8 [%]	8•	×%
[%=]	27•44	=I
[✱]I [=÷] [←]	315•62	*I

Gross.

Both percentage rate and discount shown in red.

Nett.

9/4 (2) [→] [=÷] [Σ]		
50	50•	⊕II
[×] 1·25	1•25	×
[=]	62•50	=I
165	165•	⊕II
[×] 1·18	1•18	×
[=]	194•70	=I
78	78•	⊕II
[×] 1·32	1•32	×
[=]	102•96	=I
[=÷] [Σ]		
[✱]III	3•	*II
(4) [✱]I	360•16	*I
[÷]	360•16	⊕
[✱]II	293•	*II
[=]	293•	÷
[←]	1•2292	=

The II symbol printed with ⊕ indicates that the Σ control is engaged and the first number has automatically been accumulated in store II.

Number of items.

Total value.

Number of articles.

Average price.

CONSTANT FACTOR

500	× 2·3975	=	1198·75
753	× 2·3975	=	1805·3175
250·7785	÷ 2·3975	=	104·6
4507·3	÷ 2·3975	=	1880

$$\frac{16{\cdot}8 \times 8{\cdot}4}{12{\cdot}5} = 11{\cdot}2896$$

$$13{\cdot}65 + 2{\cdot}3975 = 16{\cdot}0475$$

$$18{\cdot}14 - 2{\cdot}3975 = 15{\cdot}7425$$

2·3975 [×K]	2 • 3975 ▽	← Constant enter symbol, indicating that a number has been entered to the Constant Factor Memory.
500 [×][K=]	500• ⓒ 2 • 3975 × 1198 • 75 =	← The first number symbol.
753 [×][K=]	753• ⓒ 2 • 3975 × 1805 • 3175 =	
250·7785 [÷][K=]	250 • 7785 ⓒ 2 • 3975 ÷ 104 • 6 =	← No need to re-enter constant now being used as a divisor.
4507·3 [÷][K=]	4507 • 3 ⓒ 2 • 3975 ÷ 1880• =	
16·8 [×] 8·4 [÷] 12·5 [=]	16 • 8 ⓒ 8 • 4 × 12 • 5 ÷ 11 • 2896 =	The Constant Factor is held in a separate register. This example which does not use a Constant shows that calculations can be completed quite independantly of this Register.
13·65 [+][K=]	13 • 65 ⓒ 2 • 3975 + 16 • 0475 =	The amount held in the Constant-Factor memory is available for further use (as illustrated here) and is retained until it is replaced by a new Constant or until the machine is switched off.
18·14 [−][K=]	18 • 14 ⓒ 2 • 3975 − 15 • 7425 =	

ACTUAL/BUDGET PERCENTAGE CALCULATIONS

Actual	Budget	Difference	%
3698	2589	1109	42·84
8523	7852	671	8·55
3654	4789	−1135	−23·70
15875	15230	645	27·69

Find the difference between Budget and Actual and express this difference as a percentage
Find also the Simple Mean and Weighted Mean.

Simple Mean Percentage change 9·23%   Weighted Mean 4·24%

Keys	Printout	Symbol	Notes
5/4 2 [↶] [=/+]↓ [Σ₀]↓			
3698	3698•	⊕ I	Actual
[−] 2589	2589•	−	Budget.
[÷] [#]	1109•00	#	Difference.
[%=]	2589•	÷ %	
	42•84	= I	Percentage.
8523	8523•	⊕ II	
[−] 7852	7852•	−	
[÷] [#]	671•00	#	By using the [#] symbol you can print the difference between Budget and Actual. It also allows the Budget figure to be held and used to obtain the percentage without having to re-enter it.
[%=]	7852•	÷ %	
	8•55	= I	
3654	3654•	⊕ I	
[−] 4789	4789•	−	
[÷] [#]	1135•00	#	
[%=]	4789•	÷ %	
	23•70	= I	
[=/+]↑ [Σ₀]↑			
[✱] I	27•69	✱ I	Net total of percentage column.
[÷]	27•69	⊕	
[✱] III	3•	✱ III	Number of lines.
	3•	÷	
[=]	9•23	=	Simple Mean percentage change
[✱] II	15875•	✱ II	
[−]	15875•	⊕	
15230	15230•	−	
[÷] [#]	645•00	#	Total of Difference column.
[%=]	15230•	÷ %	
	4•24	=	Weighted Mean.
[↶]			

PRO RATING

Show each item as a percentage of the total, to one decimal place

123	13·7%
147	16·4%
258	28·8%
369	41·1%
897	100·0%

123	123• ⊕	
[+] 147	147• +	
[+] 258	258• +	
[+] 369	369• +	
[=]	897• =	← Total of items.
[÷]	897• ⊕	
100	100• ÷	
[=]	8•97 =	
[K]	8•97 ∇	
5/4 (1) [↶] [÷]↓ [Σ]↓		
123	123• ⊕ II	
[÷] [K=]	8•97 ÷	
	13•7 = I	
147	147• ⊕ II	
[÷] [K=]	8•97 ÷	
	16•4 = I	
258	258• ⊕ II	
[÷] [K=]	8•97 ÷	
	28•8 = I	
369	369• ⊕ II	
[÷] [K=]	8•97 ÷	
	41•1 = I	
[✱] III	4• ✱ III	← number of items.
[✱] I	100•0 ✱ I	← proof total.
[✱] II	897• ✱ II	← original total.
[↶] [÷]↑ [Σ]↑		

APPORTIONMENT

Distribute in proportion £13508 over each of the items.

£	£
63 478	6132·52
51 092	4935·92
17 118	1653·75
8 134	785·81
139 822	13508·00

Keys	Print-out		
63 478	63478•	⊕	
[+] 51 092	51092•	+	
[+] 17 118	17118•	+	
[+] 8 134	8134•	+	
[=]	139822•	=	← Total of items.
[÷]	139822•	⊕	
13 508	13508•	÷	
[=]	10•3510512289	=	
[M]	10•3510512289	∇	
⑤/4 ② [ ] [ ] [Σ]			
63 478	63478•	⊕ II	
[÷] [K=]	10•3510512289	÷	
	6132•52	= I	
51 092	51092•	⊕ II	
[÷] [K=]	10•3510512289	÷	
	4935•92	= I	
17 118	17118•	⊕ II	
[÷] [K=]	10•3510512289	÷	
	1653•75	= I	
8 134	8134•	⊕ II	
[÷] [K=]	10•3510512289	÷	
	785•81	= I	
[✱] III	4•	✱ III	← number of items.
[✱] I	13508•00	✱ I	← proof total.
[✱] II	139822•	✱ II	← original total.
[ ] [ ] [Σ]			

WAGES

a)	$37\frac{1}{2}$ Standard hours	£	b)	38 standard hours	
	8 overtime hours = $49\frac{1}{2}$ hrs	22·74		$6\frac{1}{2}$ overtime hours = $47\frac{3}{4}$ hrs	21·94
	plus bonus on 103 units	4·31			3·72
		27·05			25·66
					=£52·71

Rate per hour £0·4594, overtime at time and half

Bonus rate per 100 units £4·18

	·4594 [S+] I 4·18 [⊻] (5/4) (2) [⌐] →	0 • 4594 + I 4 • 18 ∇	
(a)	8 [×] 1·5 [+] 37·5 [=]	8 • € 1 • 5 × 37 • 5 + 49 • 50 =	Total hours.
	[×] [◊] I [S+] II	49 • 5 € 0 • 4594 ◊ I 0 • 4594 × 22 • 74 + II	Hours multiplied by rate.
	1·03 [×] [K=]	1 • 03 € 4 • 18 × 4 • 31 =	Bonus calculation.
	[S+] II [✱] II	4 • 31 + II 27 • 05 ✱ II	Total wage (a).
	[S+] III	27 • 05 + III	Transferred to Store III.
(b)	6·5 [×] 1·5 [+] 38 [=]	6 • 5 € 1 • 5 × 38 • + 47 • 75 =	Total hours.
	[×] [◊] I [S+] II	47 • 75 € 0 • 4594 ◊ I 0 • 4594 × 21 • 94 + II	Hours multiplied by rate.
	·89 [×] [K=]	0 • 89 € 4 • 18 × 3 • 72 =	Bonus caluculation.
	[S+] II [✱] II	3 • 72 + II 25 • 66 ✱ II	Total wage (b).
	[S+] III	25 • 66 + III	Transferred to Store III.
	[✱] III	52 • 71 ✱ III	Accumulation of wages payments
	[✱] I [⌐] ←	0 • 4594 ✱ I	

FOREIGN CURRENCY CALCULATIONS – Using four memory stores.

Given these rates of exchange,

£1 = $2·45
£1 = Kr 15·965
£1 = DM 7·795
£1 = Fr 12·27

convert the following, rounding down to two places of decimals.

a) £225 to Krone
b) $1956 to £
c) 165 D.M. to £
d) 900 Fr to $

(▼) (2) [↓]

2·45 [K]
15·965 [S+] I
7·795 [S+] II
12·27 [S+] III

2 • 45 ▽
15 • 965 + I
7 • 795 + II
12 • 27 + III

255
[×]
[◊] I
[=]

255 • €
15 • 965 ◊ I
15 • 965 ×
4071 • 07 =

1956
[÷]
[K=]

1956 • €
2 • 45 ÷
798 • 36 =

165
[÷]
[◊] II
[=]

165 • €
7 • 795 ◊ II
7 • 795 ÷
21 • 16 =

900
[÷]
[◊] III
[×]
[K=]

900 • €
12 • 27 ◊ III
12 • 27 ÷
2 • 45 ×
179 • 70 =

[✱] I
[✱] II
[✱] III

15 • 965 ✱ I
7 • 795 ✱ II
12 • 27 ✱ III

[↓]

TOTALS & GRAND TOTAL

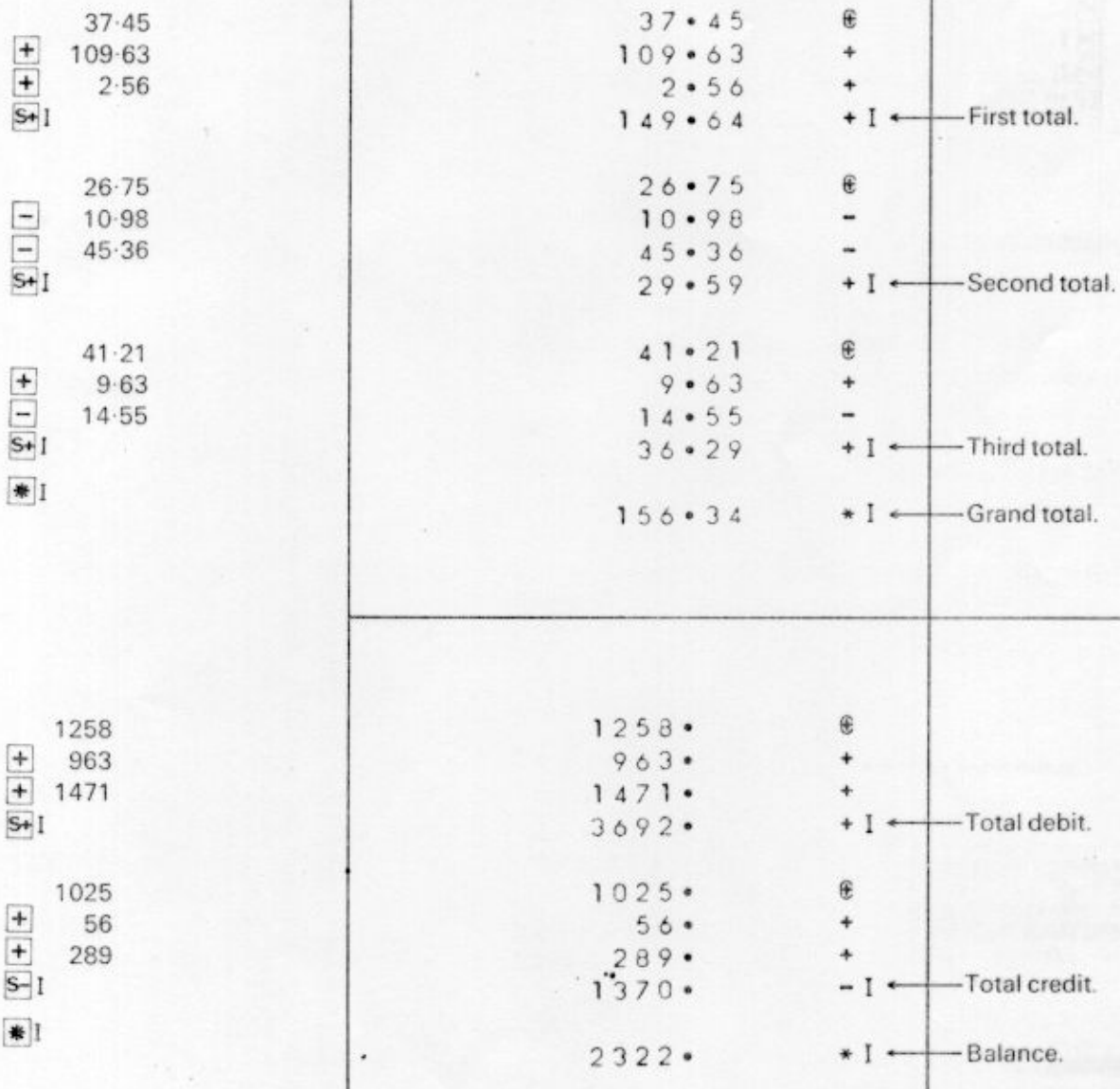
37·45	26·75	41·21
109·63	−10·98	9·63
2·56	−45·36	−14·55
149·64	−29·59	36·29

Grand Total : 156·34

DEBIT & CREDIT

Debit	Credit
1258	1025
963	56
1471	289
3692	1370

Balance 2322



METRIC CALCULATIONS

Calculate the cost of freight
(25·4mm = 1 inch)

472′ 9″ (cubic)	=	13·387 cu m	
185′ 3″ (cubic)	=	5·246 cu m	
264′ 6″ (cubic)	=	7·490 cu m	
729′ 3″ (cubic)	=	20·650 cu m	= 46·773 cu m

@ £14·95 per cu m	£699·26
less 3½% commission	24·47
	£674·79

25·4	25 • 4	₡
×	25 • 4	×
×	25 • 4	×
× 1728	1728 •	×
÷ 1000	1000 •	÷
÷	1000 •	÷
÷	1000 •	÷
=	0 • 028316846592 =	← Conversion factor of cu ft to cu m.
M	0 • 028316846592	V
¼ (3) →		
472·75 × K=	472 • 75	₡ II
	0 • 028316846592	×
	13 • 387	= I
185·25 × K=	185 • 25	₡ I
	0 • 028316846592	×
	5 • 246	= I
264·5 × K=	264 • 5	₡ II
	0 • 028316846592	×
	7 • 490	= I
729·25 × K=	729 • 25	₡ II
	0 • 028316846592	×
	20 • 650	= I
* II	1651 • 75	* I ← Total cu ft.
* III	4 •	* II ← Number of items.
* I	46 • 773	* I ← Total cu m.
(2) Σ	46 • 773	₡
× 14·95	14 • 95	×
=	699 • 26	= I
× 3·5 %	699 • 26	₡ ← Gross freight.
	3 • 5	× %
% =	24 • 47	= I ← Commission.
* I ←	674 • 79	* I ← Net freight.

SQUARING, CUBING, RAISING TO POWERS

$5^2 = 25$ $5^3 = 125$ $5^4 = 625$

$1{\cdot}21^{13} = 11{\cdot}918\,176\,537\,7$ $1{\cdot}05^{15} = 2{\cdot}078\,928\,179\,39$

5 [×] [=]	5 • ⊕ 5 • × 25 • =	← 5^2
5 [×] [×] [=]	5 • ⊕ 5 • × 5 • × 125 • =	← 5^3
5 [×] [=] [×] [=]	5 • ⊕ 5 • × 25 • = 25 • ⊕ 25 • × 625 • =	← 5^4
1·21 [K] [×] [=]	1 • 21 ∇ 1 • 21 ⊕ 1 • 21 × 1 • 4641 =	← $1{\cdot}21^2$
[×] [=] [×] [×] [K=]	1 • 4641 ⊕ 1 • 4641 × 2 • 14358881 = 2 • 14358881 ⊕ 2 • 14358881 × 2 • 14358881 × 1 • 21 × 11 • 9181765377 =	← $1{\cdot}21^4$ ← $1{\cdot}21^{13}$
1·05 [×] [×] [=]	1 • 05 ⊕ 1 • 05 × 1 • 05 × 1 • 157625 =	← $1{\cdot}05^3$
[×] [×] [×] [×] [=]	1 • 157625 ⊕ 1 • 157625 × 1 • 157625 × 1 • 157625 × 1 • 157625 × 2 • 07892817939 =	← $1{\cdot}05^{15}$

SQUARE ROOT

$\sqrt{14789} = 121{\cdot}610\ 032\ 48$

$\sqrt{3{\cdot}5 \times 4{\cdot}5} = 3{\cdot}968\ 626\ 966\ 59$

$\frac{4}{\sqrt{9}} = 1{\cdot}\dot{3}$

$\frac{9}{\sqrt{3^2 + 4^2}} = 1{\cdot}8$

14789 √	14789. √ 121.61003248 =	
3·5 × 4·5 = √	3.5 ⊕ 4.5 × 15.75 = 15.75 √ 3.96862696659 =	
9 √ ÷ 4 I =	9. √ 3. = 3. ⊕ 4. ∿ 3. ÷ 1.33333333333 =	
3 × S↔ I 4 × S↔ I ✱ I √ ÷ 9 I =	3. ⊕ 3. × 9. + I 4. ⊕ 4. × 16. + I 25. * I 25. √ 5. = 5. ⊕ 9. ∿ 5. ÷ 1.8 =	

COMBINED FUNCTIONS

$$\frac{1\,234\,567}{654\,000 + 321\,000} = 1{\cdot}266\,222\,564\,1$$

$$132 - \frac{4{\cdot}75}{1{\cdot}25} = 128{\cdot}2$$

$$(8 \times 17) + (13 \times 14) = 318$$

654 000 [+] 321 000 [÷] 1 234 567 [!] [=]	654000 • ⊕ 321000 • + 1234567 • ↻ 975000 • ÷ 1 • 266222564 1 =	
4·75 [+] 1·25 [−] 132 [!] [=]	4 • 75 ⊕ 1 • 25 ÷ 132 • ↻ 3 • 8 − 128 • 2 =	
8 [×] 17 [=] [M] 13 [×] 14 [+] [K=]	8 • ⊕ 17 • × 136 =	
	136 • ▽ 13 • ⊕ 14 • × 136 • + 318 • =	

$$\frac{(3+5)}{(7+11)} \times \frac{(13+17)}{(19+29)} \times \frac{(31+37)}{(41+53)} = 0{\cdot}200\,945\,626\,476$$

7	7 • ⊕
+ 11	11 • +
S↔I	18 • + I
3	3 • ⊕
+ 5	5 • +
÷	18 • * I
✱ I	18 • ÷
S↔II	0 • 4 4 4 4 4 4 4 4 4 4 4 4 + II
19	19 • ⊕
+ 29	29 • +
S↔I	48 • + I
13	13 • ⊕
+ 17	17 • +
÷	48 • * I
✱ I	48 • ÷
×	0 • 4 4 4 4 4 4 4 4 4 4 4 4 * II
✱ II	0 • 4 4 4 4 4 4 4 4 4 4 4 4 ×
S↔II	0 • 2 7 7 7 7 7 7 7 7 7 7 7 + II
41	41 • ⊕
+ 53	53 • +
S↔I	94 • + I
31	31 • ⊕
+ 37	37 • +
÷	94 • * I
✱ I	94 • ÷
×	0 • 2 7 7 7 7 7 7 7 7 7 7 7 * II
✱ II	0 • 2 7 7 7 7 7 7 7 7 7 7 7 ×
=	0 • 2 0 0 9 4 5 6 2 6 4 7 6 =

STANDARD DEVIATION

Find the Mean and Standard Deviation of the following:

12
13
14
15
16

a) Using the formula

$$\sqrt{\frac{\Sigma x^2 - \frac{(\Sigma x)^2}{n}}{n-1}}$$

to six places of decimals

	[÷/+] ↓ [Σ] ↓			
a)	12 [×] [=]	12 •	⊕ II	
		12 •	×	
		144 •	= I	
	13 [×] [=]	13 •	⊕ II	
		13 •	×	
		169 •	= I	
	14 [×] [=]	14 •	⊕ II	
		14 •	×	
		196 •	= I	
	15 [×] [=]	15 •	⊕ II	
		15 •	×	
		225 •	= I	
	16 [×] [=]	16 •	⊕ II	
		16 •	×	
		256 •	= I	
	[÷/+] ↑ [Σ] ↑	5 •	◊ III	
	[◊] III	5 •	⊕	
	[−] 1	1 •	−	
	[=]	4 •	=	
	[⋈]	4 •	∇	
	[◊] II	70 •	◊ II	
	[÷]	70 •	⊕	
	[◊] III	5 •	◊ III	
	[=]	5 •	÷	
		14 •	=	← Mean.
	[×]	14 •	⊕	
	[◊] II	70 •	◊ II	
	[−]	70 •	×	
	[◊] I	990 •	◊ I	
	[↕]	980 •	∿	
	[÷]	980 •	−	
	[K=]	4 •	÷	
	⊕ ⑥ [→]	2 • 5	=	
	[√]	2 • 5	√	
	[←]	1 • 581139	=	← Standard Deviation.

b) using, $\sqrt{\frac{\Sigma x^2}{n} - \left(\frac{\Sigma x}{n}\right)^2}$

c) Shows how to remove an item, say 15

[◊] II	70.	◇ II
[÷]	70.	⊕
[◊] III	5.	◇ III
[=]	5.	÷
	14.	= ← Mean.
	14.	⊕
[×] [=]	14.	×
	196.	=
[↙]	196.	▽
[◊] I	990.	◇ I
[÷]	990.	⊕
[◊] III	5.	◇ III
[−]	5.	÷
[K=]	196.	−
(24) (6) [↶]	2.	=
[↶]	2.	√
[↶]	1.414214 =	← Standard Deviation.
15 [S−] II	15.	− II
[×]	15.	⊕
[S−] I	15.	×
	225.	− I
	225.	⊕
[÷]	225.	÷
[S−] III	1.	− III
[◊] I	765.	◇ I
[◊] II	55.	◇ II
[◊] III	4.	◇ III
[✱] I	765.	✱ I
[✱] II	55.	✱ II
[✱] III	4.	✱ III

Then proceed to calculate Mean and Standard Deviation as above.

Finally, Clear Stores.

INTEREST CALCULATIONS

a) Calculate the interest on the following sums of money @ 4¾% per annum (365 days)

£ 428000 for 69 days
£2145000 for 136 days
£ 982000 for 104 days

b) £74500 @ 8⅝% compound for 9 years
Show interest and capital

a)

	4·75	
÷	36 500	
=		
		0·000130136986 =
K		
		0·000130136986 ∇
SHIFT 2 ←		
	428 000	
×	69	
× K=		0·000130136986 ×
		3843·21 = I
	2 145 000	
×	136	
× K=		0·000130136986 ×
		37963·56 = I
	982 000	
×	104	
× K=		0·000130136986 ×
		13290·63 = I
* I		55097·40 * I ← Total interest
* II		3555000· * II ← Total principal.
* III ←		3· * III ← Number of items.

b)

	1·08625	1·08625
×		1·08625 ×
×		1·08625 ×
=		1·28170880664 = ← $1{\cdot}08625^3$
		1·28170880664
×		1·28170880664 ×
×		1·28170880664 ×
=		2·10556234425 = ← $1{\cdot}08625^9$
SHIFT 2 ←		
×	74 500 K	2·10556234425
=		74500· ∇
		74500· ×
		156864·39 = ← Capital.
−		156864·39
K= ←		74500· − ← Original Sum.
		82364·39 = ← Interest

TAPE AND RIBBON

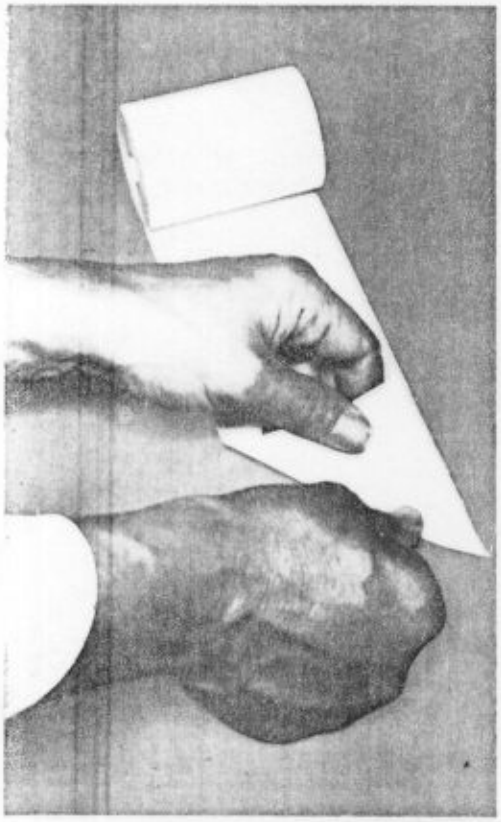
Use only approved tapes and inked ribbons in your ANITA 1200P range, printing calculator. Low grade paper can introduce dust into the printer mechanism, reducing the speed of operation and spoiling the figure alignment. Poor quality fabric ribbons, apart from having a very short useful life, can tear and become entangled in the paper and figure drum drives.

To insert a new roll of tape: Take out the used paper roll by tearing the paper near the spindle. Make sure the ribbon is properly tensioned before switching on then eject the remaining portion of paper with the line feed control **never attempt to pull the paper backwards through the printer mechanism.**

Prepare the new roll by folding the tape as in figure 1 and insert the point of the paper in the slot behind the printer mechanism. Hold down the line feed control when the tape will feed and align itself automatically (see figure2). The paper tear edge lifts up to allow for easy threading at the front. Finally insert the spindle in the new roll and replace.

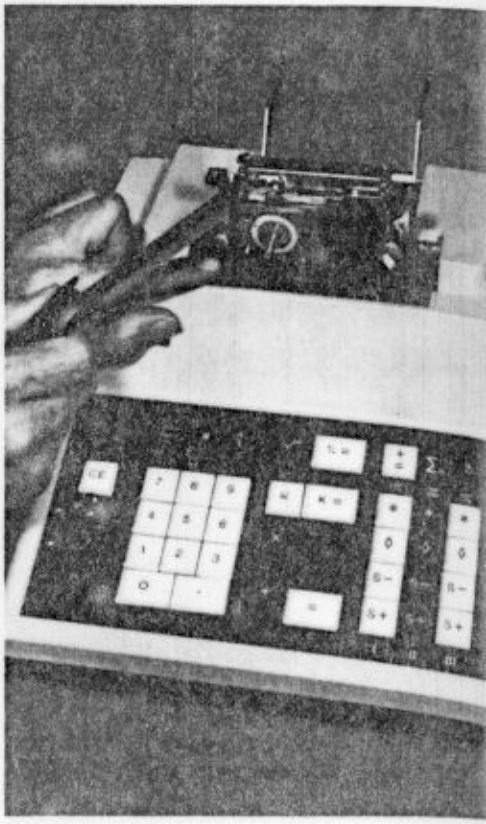
The paper tape holder is spring loaded so that you can choose whichever you prefer of three working positions. To change its position, slide the brackets which support the paper roll to the right and then move up or down as preferred.

To fit a new ribbon: Remove the cover in front on the print head and push gently onto the two lifting lugs in the direction of the arrows. This enables the ribbon mechanism to be raised to its fully extended position. A threading diagram is located on the left hand side of the faceplate. The spools are locked in place by spring loaded arms which should be held down whilst a new spool is fitted (figure 3) . Finally press the mechanism down until it locks into position before replacing the cover.



1

2



3

EXTENDED NUMBER RANGE

The ANITA 1200P range calculators provide conventionally printed results in the range ·000 000 000 001 to 999 999 999 999 and provided the final result lies within this range the decimal point, too will always be printed, e.g.

$$\frac{1\,478\,963{\cdot}258\,96 \times 9\,632\,587\,410{\cdot}36}{987\,456\,321\,025} = 14\,427{\cdot}213\,199\,5$$

If a result exceeds 999 999 999 999 the decimal point will not be printed. It will, however, be retained within the calculating unit because a unique decimal point counter will keep track of its position even when it is outside the range of numbers which can be conventionally printed. If you wish to establish the decimal point position you should divide by 1000 as often as is necessary until the decimal point is visible, e.g.

1) 987 654 × 1 234 565 is printed as 121 932 306 051. If you divide by 1000 the decimal point reappears, i.e. 1 219 323 060·51. The true decimal point position is, of course, three places further to the right, so that the result of the above calculation will be recorded as 1 219 323 060 510.

2) $87\,645\,147^2$ prints as 768 167 179 265
divide by 1000 = 768 167 179 265
divide again by 1000 = 7 681 671 792·65

As division by 1000 has taken place twice the decimal point must be moved sixplaces further to the right. The result of this calculation should be recorded as 7 681 671 792 650 000.

If the result is less than 1 the decimal point will be conventionally printed e.g.

$$\frac{1}{2\,314\,569} = 0{\cdot}000\,000\,432\,045$$

It is however, possible to obtain further figures, up to a maximum of twelve, if you multiply the result by 100 000 000 000. In this example you will be able to record a further six digits – 879 816; (but you must now, of course, ignore the new position of the decimal point).

Although 12 significant figures of numbers whose magnitude is less than 1 can be retrieved whenever required it is not necessary to do so in order to obtain final results of maximum precision. The electronics of ANITA 1200P range are capable of handling at all times, the 12 most significant digits.