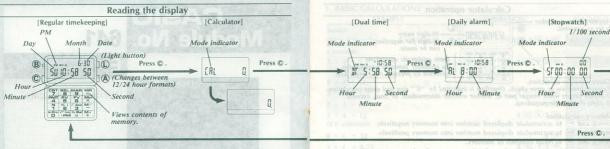
# CASIO Module No. 641

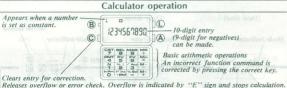
User's Guide

Warranty Certificate



(Reversion to regular timekeeping) The watch reverts to regular timekeeping mode when © button is pressed after operation, regardless of mode.

[6], @ and [60] in sequence.



Releases overflow or error check.	Overflow is indicated by "E" sign and stops calculated of answer whether intermediate or final, exceeds
(Memory calculation)	
Press and M- to accumulate d	splayed number into memory negatively.
Press and M+ to accumulate d	splayed number into memory positively.
Press (A) and (MR) to recall content	s of memory.
Press and Min to store displaye	d number into memory. To clear contents of memory
press 0, & and Min in sequence.	

1.	BASIC	CALCULATIONS	
		EXAMPLE	

**OPERATION** READ-OUT

EXAMPLE				
Basics:	EXX			
$(12 - 0.5) \times 3$	7 = 4.928571429			
Constants:				
3 + 4 = 7				
(4 is constant)	X 45 @ (or @ ) HH			
8 + 4 = 12				
3 - 4 = - 1	X 23 @ (or @ ) E			
8 - 4 = 4				
$3 \times 4 = 12$				

12 - - 5 X 3 ÷ 7 =

8 =

4 - - 3 = 8 = 4 × × 3 = 12.

(4	is	co	nst	ant)	
8	×	4	=	32	

ry,

 $3 \div 4 = 0.75$  $8 \div 4 = 2$ 

8 =

4 ÷ ÷ 3 = 8 =

0.75

4.928571429

12.

EXAMPLE OPERATION MONTAJUD IREAD-OUT	[Scientific calculation] See [Individual Calculation   See [Individual Calculation]]
EXAMPLE STANDAL STANDA	EXAMPLE OPERATION READ-OUT
3 🗙 🗶 ≡	Roots: Valgeb ing work line "IVAS", bermoreg en et mudellustes
3 12 17 28 8 8 1 7 7 8 1 8 1 8 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	vod(S) pelse et nottsius kes bestred mette veggseit ben bestreg 2 ፟ € 1.414213562
Memory calculation:	Yan Mawan A 2 8 1.414213502
$12 \times 45 + 56 \times 78 - 90 \times 23 = 2838$ 0 (MEMORY CLEAR) 0.	VB1 and of these noticities lainead nationable and 81 ๋ ♥ ๋ ♠ ♥
12 × 45 (A) (or (L) ) #+ 540.	In 1.23 Insurved of payons calculation results (end of payons 1.23 (a) In 1.23 (a) In 1.23 (b) In 1.23
30 × 70 % (01 € ) = 1 4306.	Collection (Eq. (Eq. (Eq. (Eq. (Eq. (Eq. (Eq. (Eq.
90 ★ 23 ♠ (or ♠ ) ► 2070.	appeared to a constallment and loan calculation, for beginning of paymer2.59
♠ (or ♠ ) MA 2838.	Common logarithms:
3 × 4 = 12 4 × 13 (E) 3 (E) 4 × 12	TO THE PROPERTY OF THE PROPERT
	log 1.23 ≈ ln 1.23 ∻ ln 10 ≠ la
8 + 4 - 2	
E .	

#### 2. FINANCIAL CALCULATIONS

A-INVERSE kev

Press after entering numerals to select financial or scientific calculation to be performed. "ENT" will show on display when (A) is pressed and disappear when desired calculation is selected.

D-ANSWER key Press before selecting financial calculation result to be displayed. "ANS" will show on display when D is pressed and disappear when result is displayed, "END" is displayed for installment or loan calculation results (end of payment period). For Prn , Int , Acc , Bal press © and then each calculation key

after performing calculation. In installment and loan calculation, for beginning of payment period press ( twice (display shows "BGN").

B — Financial data clear key Press before starting financial calculation to clear all previous financial data.

C-All clear/clear entry key Press to clear entry. Also, press after calculation to clear everything except contents of memory.

2.1. Compound interest calculation 2.1.A. Compound interest initial deposit

EXAMPLE: How much principal must be initially deposited to accumulate \$10,000 at the end of 2 years if the annual interest rate is 4% and principal and interest are compounded every 3 months?

THE PERSON BY	OPERATION	READ-OUT
(DATA CLEAR)	(B)	0.
(NUMBER OF PERIODS)	2 × 4 = A N	8.
	Multiply period by 4.	RINCIPAL + IN
	4 ÷ 4 = A %	1.
the to receive a return of \$7,000 an al\$4,000kg. Audi for 10 years and principal and interest and	vide annual interest rate	
TARGET) ASSUME OF PRINCIPAL ASSOCIATION OF THE STATE OF T		10000.
(PRINCIPAL)	(L) PV	9234.832225

2.1.B. Total amount of principal and intere	interest calculation te	2.1. Compound	2.2.6. Payback	OPERATION noish	READ-OUT
EXAMPLE: What is the total amount of printing the following the followin	ncipal and interest on a \$5,00 d annually over a period of 7 OPERATION	0 principal at years?  READ-OUT	(PRINCIPAL) (TOTAL AMOUNT OF PRINCIPAL AND INTER	4000 <b>A</b> PV 7000 <b>A</b> PV	4000. 7000.
(DATA CLEAR)	B anombst	0.	(INTEREST RATE) MOSTARAGO	□ %i	5.755705033
(NUMBER OF YEARS)	7 (N)	7.	10 00 00 00 00 00 00 00 00 00 00 00 00 0		
(ANNUAL INTEREST)	6 ( %)	6.	2.1.D. Compound interest period EXAMPLE: How many years will it take to re	ach \$10,000 if you denosit (	
(PRINCIPAL)	5000 A PV	5000.	annual interest compounded mon	thly?	314 % TRADETERM
(PRINCIPAL + INTEREST)	(D) FV	7518.151295	15 (X) 12 (=) 00 (8) 0 (10) 21	OPERATION	READ-OUT
2.1.C. Compound interest investment			(DATA CLEAR)	(B) ARE BORROWED)	0.
EXAMPLE: What is the interest rate require			(MONTHLY RATE)	5.4 ÷ 12 = A %i	0.45
investment if the money is inves are compounded annually?	sted for 10 years and principa	and interest	(PRINCIPAL)	500 A PV	500.
Wideling And State of the State	OPERATION	READ-OUT	(TOTAL AMOUNT OF PRINCIPAL AND INTER	REST) 10000 (A) FV	10000.
(DATA CLEAR)	<b>B</b>	(3A) × 0.	(PERIODNUMBER OF MONTHS	(L) N	667.2150283
(PERIOD)	10 A N	10.	(NUMBER OF YEARS)	÷12 =	55.60125236
					10

2.2. Loan calculation 2.2.A. Borrowing money

(AMOUNT THAT CAN BE BORROWED)

—beginning of payment period—

EXAMPLE: How much can be borrowed if you have a \$450 per month payback capability and the annual interest rate is 7.5% compounded monthly and the payback period is 15 years?

OPERATION READ-OUT

	OTERATION	KLAD-OUT
(DATA CLEAR)	(B)	0.
(PAYMENT)	TM & 000 WILL IN TAKE TO PEACH \$10,000 IF YOU	450.
(INTEREST RATE)	7.5 ÷ 12 = A %i	0.625
(PERIOD)	N S = 21 X 12	180.
AMOUNT THAT CAN BE E  end of payment period—	CORROWED)	48543.04207

#### 2.2.B. Payback

EXAMPLE: What will be the monthly payment on a loan of \$2,000 borrowed for 24 months at a 6% annual interest rate with interest compunded monthly?

READ-OUT	OPERATION	OPERATION	READ-OUT
(DATA CLEAR)		B	2/12/2 A 1 0
(PERIOD)		24 A N	08 200 24
(INTEREST RATE)		6 ÷ 12 = A %i	0.5
(AMOUNT BORROWED)		2000 A PV	2000
(MONTHLY PAYMENT) —end of payment period—		USER OF MONTHS)	88.64122053
(MONTHLY PAYMENT)  —beginning of payment pe		CHARLO SALES	
			Lio animinate

2.2.C. Loan payment period 2.2 D. Effective interest rate EXAMPLE: How long will it take to pay back a loan of \$30,000 borrowed at a 5.5% AXI EXAMPLE: What is the annual interest rate for a \$50,000 loan when paid back at \$640 annual interest rate by making a monthly payment of \$420? per month over a period of 25 years? **OPERATION** READ-OUT **OPERATION** READ-OUT (DATA CLEAR) (DATA CLEAR) 30000 A PV 25 X 12 = A N 30000. (PERIOD) 300 (AMOUNT BORROWED) (MONTHLY PAYMENT) (MONTHLY PAYMENT) = \$1 + 8 420 A PMT 420. 640 A PMT 640 (AMOUNT BORROWED) 5.5 ÷ 12 = A % 50000 A PV (INTEREST RATE) A DOOS 50000 (INTEREST PATE... MONTHLY) (PERIOD... NUMBER OF MONTHS) -end of payment period-(D N 86.7238448 -end of payment period-1,2491 ÷ 12 = 7.226987067 X 12 = (PERIOD... NUMBER OF YEARS) (INTEREST RATE... ANNUALY) 14.9892 -boir (D (D N) 86.2387687 (PERIOD... NUMBER OF MONTHS) (INTEREST PATE... MONTHLY) -beginning of payment period--beginning of payment period-(D (D %i) 1.2665 (PERIOD... NUMBER OF YEARS) 7 186564058 X 12 = (INTEREST RATE... ANNUALY) 15.198

2.2.E. Installment savings total amout of principal and interest

EXAMPLE: What is the total amount of principal and interest when deposits are \$100 per month, annual interest rate is 6% and number of years is 5 years with interest compounded monthly?

THU-UASH MOHARIO		
CONTRACTOR AN	OPERATION	READ-OUT
(DATA CLEAR)	(B)	0.
(PERIOD)	5 X 12 = A N	60.
(INTEREST RATE) (A) 00000a	6 ÷ 12 = A %	0.5
(DEPOSIT AMOUNT)	100 A PMT	100.
(TOTAL AMOUNT OF PRINCIPAL AND INTERES —beginning of payment period—		7011.888064
(TOTAL AMOUNT OF PRINCIPAL AND INTERES —end of payment period—	(T) Openod—	6977.003049

2.2.F. Installment savings monthly deposit

EXAMPLE: What is the installment savings monthly deposit required to accumulate a savings of \$5,000 over a 10 year period when the annual interest rate is 6% and is compounded monthly?

READ-OUT	OPERATION	OPERATION		READ-OUT
(DATA CLEAR)			B	A 4 4 0.
(PERIOD)		10 × 12 = (	AN	120.
(INTEREST RATE)		6 ÷ 12 = 0	A) %i	0.5
(TOTAL AMOUNT OF LAND INTEREST)	PRINCIPAL	5000 (	A FV	5000.
(MONTHLY DEPOSIT)  —beginning of payme		-boling (	D PMT	30.35845869
(MONTHLY DEPOSIT) —end of payment per	riod—	DE MONTHS)	D PMT	30.51025098

2.2.G. Installment savings number of deposits

EXAMPLE: What are the number of monthly deposits required to accumulate \$10,000 in savings by depositing \$200 per month at an annual interest rate of 6%

compoun	aca monuny.		
READ-OUT	OPERATION	OPERATION	READ-OUT
(DATA CLEAR)		<b>B</b>	MARIDATO.
(INTEREST RATE)	10 × 12 = 0	6 🛨 12 🖃 角 %	(00 0.5
(MONTHLY DEPOSIT	6 F12 E 60	200 A PMT	200.
(TOTAL AMOUNT OF	F PRINCIPAL AND INTERES	T) 10000 (A) FV	10000.
(PERIOD NUMBER —beginning of paym (PERIOD NUMBER		O O N	44.5405879 3.711715658
(PERIOD NUMBER —end of payment pe		(D) N	44.74018929
(PERIOD NUMBER	OF YEARS)	÷ 12 =	3.728349108

2.2.H. Installment savings interest

EXAMPLE: What is the interest rate required to accumulate a total amount of principal and interest of \$8,000 by making monthly deposits of \$50 per month for a period of 10 years?

OPERATION SEAG-OUT	OPERATION		READ-OUT
(DATA CLEAR)		B	0.
(PERIOD) @ @ 0000A	10 × 12 =	AN	120.
(MONTHLY DEPOSIT)	50	A PMT	50.
(TOTAL AMOUNT OF PRINCIPAL AND INTER	EST) 8000	A FV	8000.
(INTEREST RATE MONTHLY) —end of payment period—		(L) %i	0.4631
(INTEREST RATE ANNUAL)	(D PRINCIPAL)	12 =	5.5572
(INTEREST RATE MONTHLY) —beginning of payment period—	(	(L) %i	0.4561
(INTEREST RATE ANNUAL)	>	(12 =	5.4732

2.2.1. Annual payments EXAMPLE: What is the monthly payment on a purpose of buying a house at a 10 find the Int. Prn. Bal. and Acc. for	a loan of \$40,000 borrowed 1% annual interest rate for 1 r the 1st and 10th monthly	for the 5 years? Also, payments.	OPERATIO (10TH MONTH) (10TH MONTH REMAINING	done profit ra	10.
OPERATION READ-OUT	OPERATION	READ-OUT	(10TH MONTH REMAINING BALANCE)	(L) Bal	10 38997.90601
(DATA CLEAR)	(B)	(30.33.) AT 0.)	(10TH MONTH ACCUMULATED		10
(AMOUNT BORROWED)	40000 A PV	40000.	INTEREST) See See	(L) Acc	3296.326484
(PERIOD)	15 × 12 = A N	180.	(10TH MONTH PAYMENT TO		10
(INTEREST RATE)	10 = 12 = 12	0.833333333.	INTEREST)		325.8491575
(MONTHLY PAYMENT)	PMT D PMT	429.8420472.	rchasing price be when the selling price of an item is \$980 to the selling price is \$29%. OT THINDH HTHOM HT01)		10
(1ST MONTH PAYMENT TO INTEREST)	(L) (Int	333.3333334	PRINCIPAL) R RILANISO	(L) [Prn]	103.9928897
(1ST MONTH PAYMENT TO PRINCIPAL)	( Pro	96.50871385			IDATA CLEARS
(REMAINING BALANCE)		1			
	(D) Bal	39903.49129			
		19			20

EXAMPLE 3: What will the profit rate to the selling price be when the purchasing price of 2.3. Price/cost/margin calculation EXAMPLE 1: What will the selling price be when the purchasing price of an item is \$480 an item is \$70 and the selling price is \$150? and the profit rate to the selling price is 25%? clowed the a low seconds when timeds READ-OUT **OPERATION** READ-OUT (DATA CLEAR) (DATA CLEAR) (PURCHASING PRICE) 70 A CST (PURCHASING PRICE) (SELLING PRICE) 150 A SEL (PROFIT RATE) (PROFIT RATE) 640. (SELLING PRICE) What will the purchasing price be when the selling price of an item is \$980 and the profit rate to the selling price is 20%? OPERATION READ-OUT 0. (DATA CLEAR)

784.

(A) MAR 20. (PROFIT RATE) 980. (SELLING PRICE) 980 A SEL

(PURCHASING PRICE)

(L) CST



- 511 10:58 50
  - displayed.
  - 2) To set seconds to zero, press 0 on a time signal Press Oor Cto shift flashing digit(s). Digit(s) to be changed will flash.



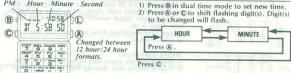
4) Press appropriate numerals keys to enter time and date.

4M or PM can be entered by pressing in 12-hour format.

Year can be set up to 2084 by entring the last two digits of year.

(Auto-retrieve function) Display automatically returns to regular timekeeping mode display if no button is ressed for

a few minutes. 5) Press ® to complete setting.



Setting dual time

Mode indicator

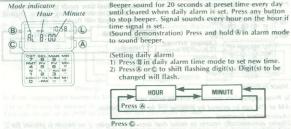
3) Press appropriate numerals keys to enter new time.

AM or PM can be entered by pressing in 12-hour format.

(Auto-retrieve function) Display automatically returns to initial dual time mode display if no button is pressed for 2

to 3 minutes. 4) Press ® to complete setting.

#### Daily alarm operation



3) Press appropriate numerals keys to enter new time.

AM or PM can be entered by pressing in the 12-hour format.

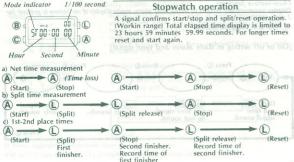
(Auto-retrieve function)

Display automatically returns to initial daily alarm mode display if no button is pressed for 2 to 3 minutes.

4) Press ® to complete setting.

[On or off setting of daily alarm and time signal]





### Care of your watch

- Battery life is calculated from when the battery is loaded at the factory. At first sign
  of power fade (no light or dim display), have battery replaced at dealer or Casio
  distributor.
- This watch contains precise electronic components. Never attempt to open the case or remove the back cover.
   Watches are ranked A through C according to the water resistance chart below. Check the ranking of your watch to determine processing.

Rank	Case Designation	Splashes, rain, etc.	Swimming, car- washing, etc.	Snorkeling, diving, etc.	Scuba
A*	as gasoline, cleaning solvent	No	atch to None ch	No our	No
В	WATER RESISTANT	Yes	No	No	No
C**	50M WATER RESISTANT	Yes	Yes	No	No

\* This watch is not water-resistant, so be careful not to get it wet.

\*\*Caution—50 metres water resistant models—do not operate push buttons below the surface of the water.

 A waterproof rubber seal is used to guard against water and dust. As rubber deteriorates with time, the seal should be replaced periodically (every 2—3 years).  Should water or condensation appear in the watch, immediately have the watch checked. Water can corrode electronic parts inside the case.

 Avoid exposing the watch to temperature extremes.
 Although the watch is designed to withstand impact under normal use, it is inadvisable to subject it to severe impact, rough usage or drops onto hard surfaces.
 Avoid fastening the band too tightly. You should be able to insert your finger inside

the band.

Clean the watch and bracelet with a soft cloth, dry or moistened with mild soap.

Never use volatile chemicals (such as benzine, thinners, spray cleaners, etc.).

Gold plated surfaces can be kept in good condition by regular wiping with a soft damp cloth. Discoloration can be removed with detergent.

Always store your watch in a dry place.

Awoid exposing the watch to strong chemicals such as gasoline, cleaning solvent, aerosol spray, adhesive agent, paints, etc. The chemical action caused by such liquids will destroy the seals, case and finish.

Be careful not to rub off the silk screen process printing on the watch band. (Some models only)

NOTE: THERE IS NO WAY unit components can be damaged or malfunction, due to misoperation of buttons. If confusing information appears on the display it means entry sequence was incorrect. Please read the manual and try sqain.

## Specifications

Accuracy at normal temperature ± 15 seconds a month Display capacity:

 Regular timekeeping mode: hour, minute, second, am/pm, year, month, date and day Time system: Auto-calendar pre-programmed until the year 2084

Calculator mode

Capacity: 10 digits
Basic calculations: Arithmetic calculations, constants, memory calculations.

Function calculations: Roots, logarithms, exponentials Financial calculations: Compound interest calculations, loan calculations, installment calculations, price/cost/margin calculations

Dual time mode
 Daily alarm mode

Hourly time signal function

Stopwatch mode
 Measuring capacity: 23 hours 59 minutes 59.99 seconds

Measuring unit: 1/100th of a second

Measuring modes: Normal time, net time, lap time and 1st-2nd place times Battery: One lithium battery (Type: CR-1616)

Approx. 2 years on type CR-1616 (beeper: 20 seconds/day, light: 1 second/day)

## CASIO U.S.A. WARRANTY

- U.K. customers—Please send watches to CASIO ELECTRONICS CO. LTD.
- SERVICE CENTRE, London for servicing.

   U.S. customers—Please send watches to CASIO SERVICE CENTER, NJ for servicing.

This product, except the case (including buttons), band and battery is warranted by Casio, Inc. to the original purchaser to be free from defects in material and workmanship under normal use for a period of one year from the date of purchase. During the warranty period, and upon proof of purchase and the date of purchase, the product will be repaired or replaced (with the same or similar model) at our option, without charge for either parts or labor at Casio Authorized Service Center, listed below. There is a \$4.95 charge for handling and insurance. To obtain warranty service please send the product, a sales receipt or other proof of purchase and the date of purchase, and a check or money order in the amount of \$4.95 payable to one of the appropriate Authorized Service Center listed below. This warranty does not apply to a product that has been misused, abused or altered. Without limiting the foregoing, leakage of the battery, bending or dropping of the unit, or visible cracking of the LCD display are presumed to be defects resulting from Appendix 2 years on Type CR 1616 (become 20 seconds downline) sugar on Type CR 1616 (become 20 seconds)

NEITHER THIS WARRANTY NOR ANY OTHER WARRANTY EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY, SHALL EXTEND BEYOND THE WARRANTY PERIOD. NO RESPONSIBILITY IS ASSUMED FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION DAMAGES RESULTING FROM MATHEMATICAL ACCURACY OF TEH PRODUCT. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Casio Repair/Parts Center, 175-10 Rt. 46 West, Fairfield, NJ, 07006, 201-575-5695 Honolulu Time Services, 2929 Kapiolani Blvd., Honolulu, HI, 96826, 808-732-7997 It's About Time, 5746 Buford Highway N.E., Doraville, GA, 30340, 404-458-6051 Parsec Enterprises, 717 West Windom P.O. Box 195, Peoria, IL 61650, 309-637-1450 Precision Watch Service Ctr., 11078 Morrison Lane, Dallas, TX, 75229, 214-241-2622 Star Tron-ics Inc., 273 West 500 South Unit 9, Bountiful, UT, 84010, 801-298-4600 Time Masters Rpr/Ctr, 17945 Sky Park Circle #B, Irvine, CA, 92714, 714-540-2641 Time Masters Rpr/Ctr II, 3131 W. Artesia Blvd., Torrance, CA, 90504, 213-324-8692 Watch Works, 5414C Walnut Avenue, Irvine. CA, 92714, 714-551-0204

#### Warranty Certificate

## THIS WARRANTY CERTIFICATE IS VALID ONLY FOR SERVICE IN THE COUNTRY OF PURCHASE.

Should this watch malfunction under normal use, it will be repaired without charge for a period of one year from the date of purchase. If the watch requires service within the warranty period, request repair or adjustment at the store where purchased or the authorized Casio watch distributor, presenting the watch together with this warranty certificate. The customer shall not have any claim under this warranty for repair or adjustment expenses it:

- (1) The trouble is caused by improper, rough or careless treatment.
- (2) The trouble is caused by a fire or other natural calamity.
- 3) The trouble is caused by improper repair or adjustment made by anyone other than the authorized Casio watch distributor or its retailers.
- (4) The case, band, glass or battery is damaged or worn.
- (5) This warranty certificate is not presented when requesting service.
- (6) The name and address of the authorized distributor or the retailer are not stamped in the warranty certificate.
- 7) The date of purchase, model name and manufacturing number are not entered in the warranty certificate.

#### **GUARANTEE CERTIFICATE**

ATE OF PURCHASE:	
OFFICIAL DEALER STAMP:	

Casio Computer Co., Ltd. Shinjuku-Sumitomo Bldg., 2-6 Nishi-Shinjuku, Shinjuku-ku, Tokyo, Japan 21621212223333

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