

CASIO.

016S SA (英) (西) Printed in Japan

**OPERATION MANUAL
MANUAL DE OPERACION**

CASIO MQ-200

(英) (西)



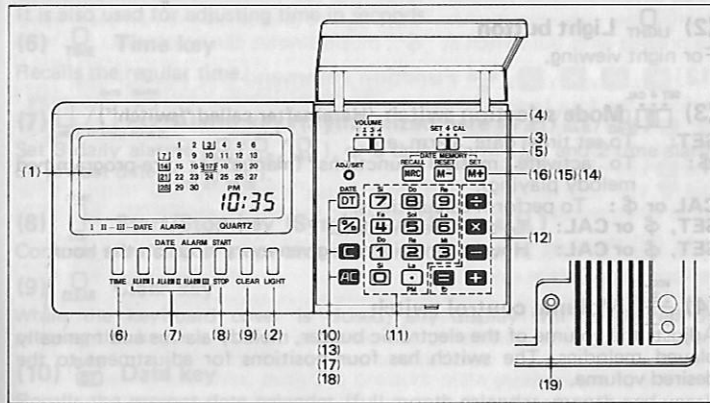
Dear customer,
 Thank you very much for purchasing our unique electronic product. To utilize its comprehensive features please read through this booklet and become familiar with its many abilities.

**Special care should be taken not to damage the unit by bending or dropping. For example, do not carry it in your hip pocket.*

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1/GENERAL GUIDE



(1) Read-out

(2) LIGHT Light button

For night viewing.

(3) SET & CAL Mode selection switch (Hereinafter called "switch")

SET: To set time, date, alarm, etc.

&: To activate musical functions (manual or pre-programmed melody playing).

CAL or &: To perform calculations.

SET, & or CAL: To set time and date.

SET, & or CAL: Hourly time signal is given every hour on the hour.

(4) VOLUME Volume control switch

Adjusts the volume of the electronic buzzer, melody alarms and manually played melodies. The switch has four positions for adjustment to the desired volume.

(5) ADJ/SET Set button

Sets time and date.

It is also used for adjusting time in seconds.

(6) TIME Time key

Recalls the regular time.

(7) ALARM I / ALARM II / ALARM III Alarm keys (Symbolized here as AL-I / DA-II / DA-III)

Set 3 daily alarms (AL-I / DA-II / DA-III), or a daily alarm (AL-I) and 2 time alarms on pre-set dates (DA-II / DA-III).

(8) START/STOP Start/Stop key (Symbolized here as S/S)

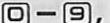
Controls start/stop of stopwatch or countdown alarm.



(9) CLEAR Clear key






While the keyboard cover is closed, any display will be cleared by pressing this key.





(10) DATE Date key


Recalls the present date calendar (full-month calendar, month and year).



(11) ,  Numeral and decimal point keys


Enter numerals. For decimal places, use the  key in logical sequence. The  key also operates the "PM" sign in time setting. When these keys are pressed with the switch at "♯", musical notes can be played.

(12) , , , ,  Function command and equal keys


Perform the four basic calculations. An incorrect function command (, , , ) is automatically cleared by pressing the correct function command key.

The  key obtains an answer.

The  key also activates and deactivates alternately the hourly time signal when pressed after the  key with the switch at "SET".


(13)  Percent key

Performs percentage calculations.

(14)  Memory plus key


Adds the displayed number to the contents of the memory, and obtains answer in four basic calculations and automatically adds it to the contents of the memory.

It also sets date memory.

(15)  Memory minus key

Subtracts the displayed number from the contents of the memory, and obtains answer in four basic calculations and automatically subtracts it from the contents of the memory.

It also clears date memory.


(16)  Memory recall/clear key

Recalls the contents of the memory without clearing, and clears them when pressed twice successively.


It also makes the date memory more noticeable by erasing the signs of present date and/or date alarm.

(17)  Clear key

Clears entry for correction; also releases overflow or error check.

(18)  All clear key

Clears all calculating registers except the memory; also releases overflow or error check.

(19)  All reset switch

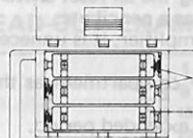
After replacing batteries, push the pressure plate in the back of the unit with a pointed object.

2/CARE OF YOUR UNIT

- * Since the unit contains precise electronic components, never attempt to disassemble it.
- * Be careful not to drop the unit or mis-handle it.
Avoid operating the keys roughly.
- * Avoid using the unit in extreme temperatures (below 32°F or 0°C, or above 104°F or 40°C). Also protect the unit from extremely dusty or humid conditions.
- * Never use volatile fluid such as lacquer thinner, benzine, etc. when cleaning the unit.

3/BATTERY MAINTENANCE

The unit is operated on three AA size manganese dry batteries — one for the speaker amplifier, two for the calculator and clock.



- For battery life, refer to specifications.
- When the battery power decreases the whole display darkens, the volume level lowers or does not sound at all. Batteries should then be renewed. Be sure to replace both batteries.
- When the display is clear but the volume is decreasing, replace the battery for the amplifier only.

Replacement of batteries

- 1) Slide open the battery compartment cover on the back of the unit.

2) Install new batteries with the polarity as indicated. Replace the battery compartment cover.

* Removing the batteries clears all preset data (except for the battery of the amplifier).

Make sure that "0." is displayed by pressing the all reset switch on the back of the unit with a pointed object such as a pencil etc.

(When replacing only the battery for the amplifier, it is unnecessary to press the all reset switch.)

* Do not leave dead batteries in the battery compartment as they may cause malfunctions.

* Remove the batteries when not using for an extended period.

* It is recommended that batteries be replaced every 18 months to prevent the chance of malfunctions due to battery leakage.

CAUTION

Be sure to insert batteries with correct polarities (+, -) to prevent the possibility of battery burst.

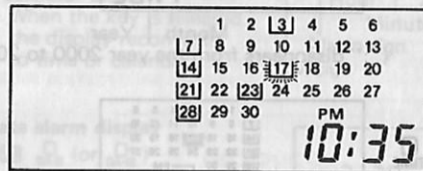
Note:

a) Avoid unnecessary pressing of numeral keys or the \square key while in the "♫" mode, as continual usage of sound will shorten battery life. (To save battery life, the duration of a note is limited to about 1 to 2 minutes with one press.)

b) Original batteries supplied with the unit are estimated to last 15 months for the clock and calculator from the date of installment at the factory, not from the date of purchase.

4/USAGE

4-1 READ-OUT EXAMPLES

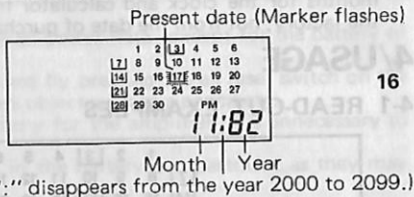


- \square . . . Sundays and/or significant dates which were set by yourself.
 \square . . . Present date and/or pre-set date(s) of date alarm.
PM . . . PM sign

● **Calendar display**

(Full-month calendar,
month and year)

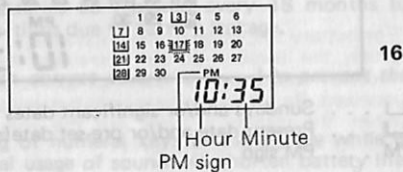
DATE
DT



● **Time display**

(Full-month calendar,
hour and minute)

TIME



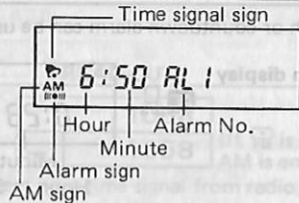
● **Daily alarm display**

a) AC AL-I (DA-II or DA-III)

b) AL-I (DA-II or DA-III)

(during time or
calendar display)

b') When the key is released
the display reconverts
to time or calendar.



● **Date alarm display**

a) AC DA-II (or DA-III)

b) DA-II or DA-III (during time
or calendar display)

b') When the key is
released the display
reconverts to time
or calendar.



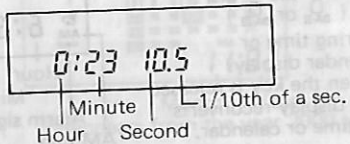
KEY OPERATION

READ-OUT

Ref. page

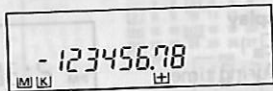
* Stopwatch or countdown alarm can be used as needed.

● Stopwatch display



25

● Calculation display



32

Note:

If the unit is left displaying the calendar (with month/year), alarm time or calculation for approximately 6 minutes, the display reverts to the calendar (with hour/minute).

4-2 CLOCK

■ Setting time

Ex.) Setting 10:58' PM

OPERATION

READ-OUT

Switch → "SET"

AC 1058

1058

PM

PM

1058

(If is not pressed AM is entered.)

Now press with pointed object on a time signal from radio, telephone or other correct time indicator.

(Time signal of 10:58' PM)

PM 10:58 00

Note:

* When setting 3:08' AM or 3:00' PM, press or .

* After setting time, move the switch to "⊕" or "CAL" position.

■ Readjusting an error up to ±30 seconds

* Gains or losses within 30 seconds can be corrected by pressing to match a time signal with the display of calendar (with hour/minute) or time.





Ex.) Readjusting a gain (when second display is 01 to 29.)

OPERATION	READ-OUT
 	PM 10:58 18
 	PM 10:58 00

(Time signal of 10:58' PM)

→ (18 second gain is adjusted to zero.)




Ex.) Readjusting a loss (when second display is 30 to 59.)

OPERATION	READ-OUT
 	PM 10:58 35
 	PM 10:59 00

(Time signal of 10:59' PM)

→ (25 second loss is adjusted to zero.)

■ Hourly time signal

- * The hourly time signal can be set and deactivated by pressing   , alternately, with the switch at "SET".
- * When set, "" will appear on the display and the time signal will be given every hour on the hour.

4-3 CALENDAR

* Since the calendar is permanently programmed (from January 1, 1901 to December 31, 2099), no date adjustment is required for irregular months or leap years. After replacing batteries, however, the present date must be set.

■ Setting calendar

Ex.) Setting November 4, 1982

OPERATION	READ-OUT
Switch → "SET"	
 821104	

Switch → "SET"

 821104

821104

Present date (Thursday)

ADI/SET



	1	2	3	4	5	6
	8	9	10	11	12	13
	15	16	17	18	19	20
	22	23	24	25	26	27
	29	30				

11:82

- * The calendar can be set by entering only the last 2 digits for the year, 1901 to 1999. Enter the full 4 digits for the year, 2000 to 2099.
- * After setting calendar, move the switch to "⌘" or "CAL" position.

■ Optional calendar display (Jan., 1901 to Dec. 2099)

Switch → "CAL" or "☼"

Ex.) Reading July, 1950

OPERATION

READ-OUT

AC 5007 DATE DT

						1	
[2]	3	4	5	6	7	8	
[9]	10	11	12	13	14	15	
[16]	17	18	19	20	21	22	
[23]	24	25	26	27	28	29	
[30]	31						

7:50

Ex.) Reading February, 2001

OPERATION

READ-OUT

AC 200102 DATE DT

			1	2	3		
[4]	5	6	7	8	9	10	
[11]	12	13	14	15	16	17	
[18]	19	20	21	22	23	24	
[25]	26	27	28				

201

■ Reading the next month and last month

OPERATION

READ-OUT

Switch → "CAL" or "☼"

(The present month)

AC DATE DT

						1	2	3	[4]	5	6
[7]	8	9	10	11	12	13					
[14]	15	16	17	18	19	20					
[21]	22	23	24	25	26	27					
[28]	29	30									

11:82

(Ex: Nov., 1982)

(The next month)

+

[5]	6	7	8	9	10	11					
[12]	13	14	15	16	17	18					
[19]	20	21	22	23	24	25					
[26]	27	28	29	30	31						

12:82

(The month after)

+

[2]	3	4	5	6	7	8					
[9]	10	11	12	13	14	15					
[16]	17	18	19	20	21	22					
[23]	24	25	26	27	28	29					
[30]	31										

1:83

(The present month)

AC DATE DT

[7]	8	9	10	11	12	13					
[14]	15	16	17	18	19	20					
[21]	22	23	24	25	26	27					
[28]	29	30									

11:82

(The last month)



(The month before)



■ Date memories

* Any significant dates within 12 months can be set on the calendar by the "□" marks – holidays, birthdays, etc.

Ex.) Setting Nov. 3 and 23, 1983

OPERATION

READ-OUT

Switch → "SET"

AL 8311 DATE DT

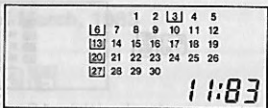


3



Month Date

SET
M+



23 SET
M+



Ex.) Setting all Saturdays of March, 1983

OPERATION READ-OUT

Switch → "SET"

AC 8303 DATE DT

	1	2	3	4	5
[8]	7	8	9	10	11
[13]	14	15	16	17	18
[20]	21	22	23	24	25
[27]	28	29	30	31	

3:83

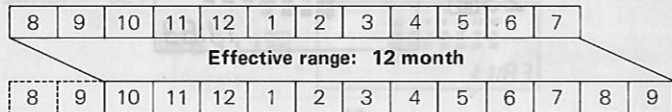
⊗ SET M+

	1	2	3	4	[5]
[8]	7	8	9	10	[12]
[13]	14	15	16	17	[19]
[20]	21	22	23	24	[26]
[27]	28	29	30	31	

3:83

* Any dates can be memorized within 12 months. Entering a date outside the 12-month period may clear a previous setting.

Ex.) A memorized date, Dec. 15, 1982, will be cleared by setting Dec. 3, 1983.



* To release memorized dates use the **RESET M-** key instead of **SET M+**.

Ex.) Releasing Nov. 23, 1983

Switch → "SET"

AC 8311 DATE DT 23 RESET M-

Ex.) Releasing all Saturdays of March, 1983

Switch → "SET"

AC 8303 DATE DT ⊗ RESET M-

*** Recalling memorized dates**

If a memorized date corresponds to the present date or date alarm, which is shown by a flashing mark, the memorized date cannot be recognized.

In this case, it can be easily identified while pressing **RECALL MRC** which will stop the mark flashing.

4-4 ALARM

* Three alarm times can be preset.

Alarm-I (_{AL-I}): Daily alarm

Date alarm-II and III (_{DA} and _{DA-III}): Daily alarms or date alarms (time alarms on pre-set dates)

	Melody setting	Electronic buzzer setting
Alarm-I	"HEIDENRÖSLEIN" (Schubert)	Electronic buzzer (20 secs.)
Date alarm-II	"YANKEE DOODLE" (American folksong)	
Date alarm-III	"HORCH, WAS KOMMT VON DRAUSSEN REIN" (German folksong)	

* Each melody will be played three times at pre-set time.

* When alarm-II and/or alarm-III are set as date alarms, the pre-set dates are shown by flashing marks ("□") on the calendar.

Ex.) Setting alarm-I to 10:15' PM (Melody)

OPERATION

READ-OUT

Switch → "SET"

AC 1015 _{PM} _{AL-I}

PM 10:15 AL 1

The "Ⓜ" sign indicates that alarm-I is set.

Ex.) Setting alarm-III to 8:05' AM on Dec. 3 (Electronic buzzer)

OPERATION

READ-OUT

Switch → "SET"

AC 805 1203 _{DA-III}

AM 8:05 12.03.
MONTH DATE

The dot shows that electronic buzzer sound is selected.

Hour | Minute | Month | Date

Designation of electronic buzzer sound

The "Ⓜ" sign indicates that alarm-III is set.

* To stop the melody or buzzer, press _{AL-I}, _{DA-II} or _{DA-III}.

* After setting alarm time, move the switch to "Ⓜ" or "CAL" position.

Try an easy-to-play tune.

The image shows three staves of musical notation in treble clef, 4/4 time. Each staff has a sequence of notes and rests. Below each staff are fingerings in numbered boxes. The first staff has fingerings: 1 1 5 5 6 6 5— 4 4 3 3 2 2 1—. The second staff has fingerings: 5 5 4 4 3 3 2— 5 5 4 4 3 3 2—. The third staff has fingerings: 1 1 5 5 6 6 5— 4 4 3 3 2 2 1—.

4-7 CALCULATION FUNCTION

- * Set the switch to "CAL" or "¢".
- * Press the **AC** key, prior to starting calculations.
- * Calculations do not affect the other functions: clock, calendar, alarm, etc.
- * If another function is activated while calculating, calculation is cleared except the contents of the memory.
- * Overflow is indicated by the "E" sign and stops further calculations.

Overflow occurs:

- When the integer part of an answer, whether intermediate or final, exceeds 8 digits. However, the significant digits of the answer are given and the decimal position is 8 digits to the right.
- When the integer part of an accumulated total in the memory exceeds 8 digits.

To release the overflow check, press the **AC** or **C** key.

AC clears the entire machine except the memory.

C clears only the "E" sign, and the displayed approximate number can be utilized in subsequent calculations.

EXAMPLE	OPERATION	READ-OUT
---------	-----------	----------

1234567×10000	1234567×10000	123.4567E
$= 12345670000$	Answer reads: 12345670000	

(To start a new calculation) **AC** 0.

1234567×10000	123.4567E
C	123.45670
$\times 10$	1234.567

Memory protection:

The content of the memory is protected against overflow, and the accumulated total is recalled by the **MRC** key after the overflow check is released by the **AC** or **C** key.

5/SPECIFICATIONS

■ CLOCK

Accuracy: Within ± 3 seconds per day (18°C – 32°C or 65°F – 89°F).

Read-out: 12-hour system digital display of hour, minute, second and PM.

Adjustment: Readjustment of an error within ± 30 seconds at one touch.

Hourly time signal: Hourly time signal is given every hour on the hour.

■ CALENDAR

Programmed range: January 1, 1901 to December 31, 2099.

Read-out: Year, month, date and day with full-month calendar.

Date memory: Dates (month and date) pre-settable.

■ ALARM

Alarm-I: Daily alarm (pre-programmed melody or electronic buzzer)

Date alarm-II/III: Daily alarms or time alarms on pre-set dates (pre-programmed melodies or electronic buzzer).

■ STOPWATCH

Measuring capacity: Up to 23 hours, 59 minutes, 59 seconds and 9/10ths of a second.

Measuring step: 1/10th of a second.

■ **COUNTDOWN ALARM**

Time setting: Up to 23 hours and 59 minutes.

Timing step: 1/10th of a second.

Buzzer: Electronic buzzer (Sounds for 10 seconds)

■ **MUSICAL FUNCTION**

Manual or pre-programmed melody playing.

■ **CALCULATOR**

Abilities: Four basic calculations, constants for $+/-/x/\div$, memory calculations, percentage calculations and various kinds of practical calculations.

Capacity: 8 digits

Read-out: Liquid crystal display.

Decimal point system: Full-floating with underflow.

Overflow check: Indicated by the "E" sign, looking the calculator.

■ **MAIN COMPONENT**

One chip C-MOS-LSI.

■ **POWER CONSUMPTION**

0.16W

■ **POWER SOURCE**

Three AA size manganese dry batteries (UM-3 or SUM-3):

The unit gives approximately 15 months continuous operation on type UM-3.

■ **AMBIENT TEMPERATURE RANGE**

0°C – 40°C (32°F – 104°F)

■ **DIMENSIONS**

40H x 150W x 70mmD (1-9/16"H x 6"W x 2-3/4"D)

■ **WEIGHT**

202g (7.1 oz) including batteries

Date : décembre 2018
Scan : casio.ledudu.com

CALCULATION EXAMPLES EJEMPLOS DE CALCULOS

- * Set the switch to "CAL" or "⌘" when calculating.
Be sure to press **AC** prior to starting calculations.
- * Para calcular, coloque el interruptor en "CAL" o "⌘".
No olvidar de tocar el botón **AC** antes de comenzar con los cálculos. En los ejemplos de operaciones, se usa un punto para indicar las fracciones decimales y una coma para la separación cada tres dígitos.

EXAMPLE EJEMPLO	OPERATION OPERACION	READ-OUT LECTURA
--------------------	------------------------	---------------------

Basic calculations
Cálculos básicos

$$(12+3) \times 89 \div 7 = 190.71428$$

12 +	12. ⏏
3 ×	15. ⏏
89 ÷	1335. ⏏
7 =	190.71428

* To perform a problem commencing with a negative figure, press **AC** **=** ENTRY in sequence.

* Para realizar un problema que comience con una cifra negativa, presionar **AC** **=** ENTRADA en esa secuencia.

$$(-8) \times 5 \div 4 = -10$$

AC = 8 × 5 ÷ 4 =	-10.
---	------

Constant calculations
Cálculos constantes

* The "[K]" sign appears when a number is set as a constant.

* El signo "[K]" se presenta al operar con un número como constante.

$$3 + 1.2 = 4.2$$

$$1 \text{ [K]} 2 \text{ [K]} + 3 \text{ [K]} =$$

[K]	4.2 ⏏
[K]	7.2 ⏏

$$6 + 1.2 = 7.2$$

$$6 \text{ [K]} =$$

$$4 - 5.6 = -1.6$$

$$5 \text{ [K]} 6 \text{ [K]} - 4 \text{ [K]} =$$

[K]	-1.6 ⏏
[K]	3.4 ⏏

$$9 - 5.6 = 3.4$$

$$9 \text{ [K]} =$$

$$2.3 \times 12 = 27.6$$

$$12 \text{ [K]} \times 2 \text{ [K]} 3 \text{ [K]} =$$

[K]	27.6 ⏏
[K]	54. ⏏

$$4.5 \times 12 = 54$$

$$4 \text{ [K]} 5 \text{ [K]} =$$

$$23 \div 4 = 5.75$$

$$4 \div 23 =$$

5.75

$$56 \div 4 = 14$$

$$56 =$$

14.

$$2.5^2 = 6.25$$

$$2 \square 5 \times \times =$$

6.25

$$2.5^3 = 15.625$$

$$=$$

15.625

$$2.5^4 = 39.0625$$

$$=$$

39.0625

$$\frac{1}{4} = 0.25$$

$$4 \div 1 =$$

0.25

$$\frac{1}{4^2} = 0.0625$$

$$=$$

0.0625

$$\frac{26}{12+45} = 0.4561403$$

$$12 \oplus 45 \div \div 26 =$$

0.4561403

Percentage calculations

Cálculos de porcentaje

12% of 1500
12% en 1500

$$1500 \times 12 \%$$

180.

Percentage of 660 against 880
Porcentaje de 660 contra 880

$$660 \div 880 \%$$

75.

15% add-on of 2500
15% de aumento sobre 2500

$$2500 \times 15 \% \oplus$$

2875.

25% discount of 3500
25% de descuento sobre 3500

$$3500 \times 25 \% \ominus$$

2625.

Mark-up

What will the selling price and profit be when the purchasing price of an item is \$480 and the profit rate to the selling price is 25%?

Recargos

¿Cuál será el precio de venta y la ganancia cuando el precio de compra de un artículo es de \$480 y la relación de ganancia sobre el precio de venta es del 25%?

$480 \div 25 \%$

640.Selling price: \$640
Precio de venta: \$640(Subsequently)
(Subsecuentemente)**=****160.**Profit: \$160
Ganancia: \$160**Increase/decrease**

If you made \$80 last week and \$100 this week, what is the percent increase?

Subas y bajas

Si la semana anterior Ud. ganó \$80 y esta semana \$100, ¿cuál es el porcentaje de suba?

$100 \div 80 \%$

25.

(%)

Memory calculations**Cálculos de memoria*** Be sure to press the **MRC** key twice successively prior to starting a memory calculation.

When a number is stored in the memory, the "M" sign appears on the display.

* Asegúrese de presionar la tecla **MRC** dos veces sucesivas antes de comenzar los cálculos con memoria.

Cuando se almacena un número en la memoria, el signo "M" aparece en la pantalla.

$53 + 6 = 59$

MRC MRC 53 + 6 M+

$23 - 8 = 15$

23 - 8 M+

$56 \times 2 = 112$

56 x 2 M+

$+) 99 \div 4 = 24.75$

99 ÷ 4 M+

210.75

MRC

M	59.
M	15.
M	112.
M	24.75
M	210.75

$$7+7-7+(2\times 3)+(2\times 3)$$

$$= 19$$

MRC MRC 7 M+ M+ M- 2 x 3 M+ M+ MRC

M 19.

$$12 \times 3 = 36$$

$$45 \times 3 = 135$$

$$\begin{array}{r} -) 78 \times 3 = 234 \\ \hline 135 \end{array}$$

MRC MRC 3 x x 12 M+

M K X 36.

45 M-

M K X 135.

78 M+

M K X 234.

MRC

M K X 135.

$$\frac{85+26}{43-18} = 4.44$$

MRC MRC 43 = 18 M+

M 25.

85 + 26 ÷ MRC =

M 4.44

Invoicing/Facturación

Article Artículo	Quantity Cantidad	Unit price Precio unitario	Discount Descuento	Amount Monto
A	250	\$56	5%	\$13,300.00
B	380	96	8	33,561.60
C	420	73	7	28,513.80
Total				75,375.40
5% sales tax/5% de impuesto a la venta				3,768.77
Grand total/Total general				\$79,144.17

MRC MRC 250 x 56 x 5% - M+

M 13300.

380 x 96 x 8% - M+

M 33561.6

420 x 73 x 7% - M+

M 28513.8

MRC

M 75375.4

x 5%

M 3768.77

+

M 79144.17