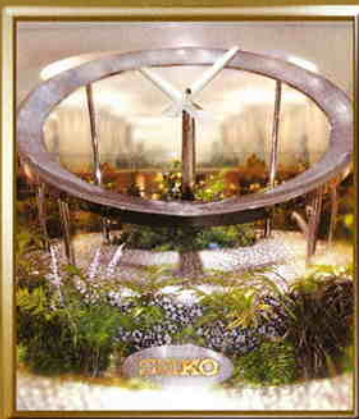


SEIKO

SYSTEM CLOCKS Catalogue



SEIKO TIME SYSTEMS INC.

MASTER CLOCK

WALL-MOUNT TYPE



QC-55301 / 55302

QC-5500 Series
QC-55101 / 55102
QC-55201 / 55202
QC-55301 / 55302

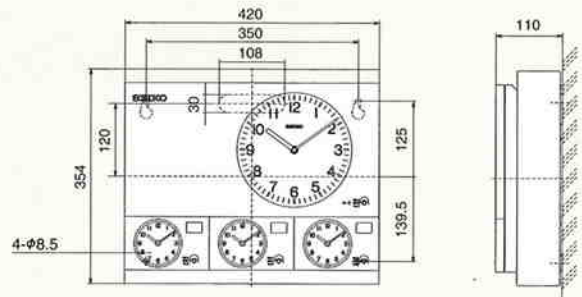
SEIKO QC-5500 Series is a high-precision quartz master clock. By connecting with an external master clock generating 30-sec polarized signal output, time correction can be made. Models operating on AC 110 V (QC-55X01) and AC 220 V (QC-55X02) are available.

(1) Master clock function (QC-5510X, QC-5520X and QC-5530X)

Up to 30 secondary clocks can be connected to each channel (if the current consumption of each secondary clock is 12 mA).

(2) External synchronization function

By connecting with an external master clock generating 30-sec polarized signal output, the loss/gain of the clock is corrected automatically.



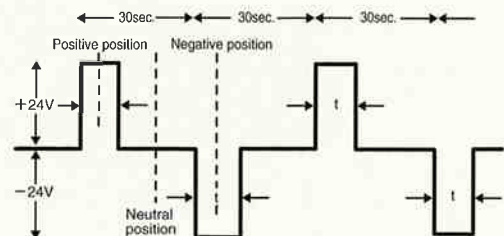
QC-55301 / 55302

CONTENTS		SPECIFICATIONS			
FUNCTIONS	Model No.	QC-55101 / QC-55102	QC-55201 / QC-55202	QC-55301 / QC-55302	
	Number of secondary clock circuits	1 circuit	2 circuit	3 circuit	
MASTER CLOCK	Crystal oscillator frequency	4.194304 MHz			
	Time accuracy	Weekly rate of less than ± 0.7 seconds ($+5^{\circ}\text{C} \sim +35^{\circ}\text{C}$); no accumulated error after time correction			
	Time display	Master clock	Year, month, date hour, minute, and seconds; and Digital display in 24-hour indication (not displayed during power failure)		
		Monitor clock	30-second interval hand movement		
	Time setting	Master clock	Setting of year, month, date, hour, minute and seconds		
		Monitor clock	60X speed quick advance of hands by APC system		
	Daylight saving time	Setting of year, month, date and hour for start date, and month, date and hour for end date			
	Secondary clock driver	Driving signal	DC 24 V 30-sec. polarized signal; Pulse width of 0.5 sec.; No-contact		
		Max. number of secondary clocks to drive	30 units	60 units	90 units
		Maximum driving capacity	12 mA/unit; 30 units / circuit		
			360 mA	720 mA	1,080 mA
		Backup power	DC 24 V; Built-in sealed Ni-Cd rechargeable battery		
Battery protection		Overdischarge prevention circuit			
Signal voltage detection	Signal voltage stopper function (stops output when secondary clock driving voltage lowers)				
External synchronization	DC 24 V 30-sec. polarized signal; Every hour except 7, 19, 0, and 12 o'clock; Synchronizable loss/gain range ... Less than 15 seconds				
Synchronization output	RS-422				
Input power supply	QC-55X01: AC 110 V $\pm 10\%$ or DC 24 V $\pm 10\%$ QC-55X02: AC 220 V $\pm 10\%$ or DC 24 V $\pm 10\%$				
Power consumption	21 W	32 W	42 W		
Power failure backup	Master clock	Approx. 5 years (no indication on digital display, counting by internal clock only)			
	Secondary clock driver	30 hours (in case of power failure of more than 30 hours, hands are adjusted automatically after recovery.)			
Operational temperature range	$-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$				
Outer dimensions	W420 \times H354 \times D110 (mm)				
Weight	Approx. 7.0 kg	Approx. 7.2 kg	Approx. 7.5 kg		
Enclosure	Front panel: ABS and stainless steel, pearl gray with a slight gloss Rear panel: Stainless steel, pearl gray with a slight gloss				
Accessories	Plastic foot, 4 pcs; Miniature fuse; Instruction manual; Mounting hole drilling template; and Insulated crimp terminal				
Options	Rack mounting fittings (in accordance with EIA Standard)				

How to Drive Secondary Clocks

Accuracy and Synchronization of Secondary Clocks

The role of the secondary clock in a time-keeping system is to accurately reproduce the time signal supplied by the master clock. The master clock and secondary clocks are connected electrically, and the quartz oscillation frequency of 4.194304 MHz / sec. from the master clock is reduced in several stages by the frequency diving LSI and finally transmitted to the secondary clock as a 30-sec. polarized signal of ± 24 V DC. The secondary clock converts this electrical signal into mechanical energy and, with the same precision as the master clock, simultaneously displays the correct time.



INDOOR SECONDARY CLOCKS (24V)

WALL TYPE/ROUND TYPE

Power consumption of a wall type secondary clock is 12mA. Input signal of a wall type secondary clock is 30 sec. polarized signal/DC 24 V.

260-mm Diameter Round Type



SC-200C

Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Cream
Thickness — 40mm
Weight — 1.0kg



SC-201

Dial — Aluminum, Silver
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Semi-mat black
Thickness — 40mm
Weight — 1.0kg

300-mm Diameter Round Type



SC-304

Dial — Brass, White hairline finish
Hour marker — Brass, Black
Hands — Aluminum, Black
Outer Frame — Polished chromium finish
Thickness — 46mm
Weight — 2.0kg



SC-306

Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Cream
Thickness — 40mm
Weight — 1.5kg

310-mm Diameter Round Type



SC-300 SC-300C

(cream color) is also available.

Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Gray
Thickness — 40mm
Weight — 1.5kg



SC-302

Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel cream
Thickness — 40mm
Weight — 1.5kg



SC-305

Dial — Aluminum, Silver
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Semi-mat, Black
Thickness — 40mm
Weight — 1.5kg



SC-316 SC-316C

(cream color) is also available.

Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, White
Thickness — 40mm
Weight — 1.5kg

410-mm Diameter Round Type



SC-400 SC-400C

(cream color) is also available.

Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Gray
Thickness — 55mm
Weight — 2.5kg



SC-419

Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, White
Thickness — 55mm
Weight — 2.5kg

SQUARE TYPE/DOUBLE-FACED SUSPENDED TYPE

Power consumption of a wall type secondary clock is 12mA, Input signal of a wall type secondary clock is 30 sec, polarized signal/DC 24 V,
Power consumption of a double-faced secondary clock is 24mA.

Square Type with Standard Frame



SC-320 SC-320C

(cream color) is also available.

Dimensions — 310W×310H×45Dmm
Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Gray
Weight — 2.0kg



SC-323K

Dimensions — 310W×310H×75Dmm
Dial — Cloth covered, Black
Hour marker — Brass, White hair-line finish
Hands — Brass, White hair-line finish
Frame — Steel, Cream
Speaker — Max. input 4W
With output transformer
Input impedance : 7kΩ
Output impedance : 8kΩ
Weight — 2.0kg



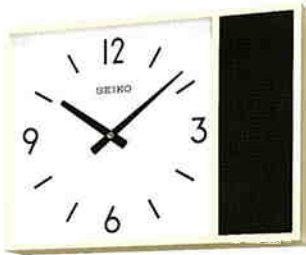
SC-324

Dimensions — 310W×310H×45Dmm
Dial — Aluminum, Silver
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Semi-mat black
Weight — 2.0kg



SC-420C

Dimensions — 400W×310H×55Dmm
Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Cream
Weight — 2.5kg



SC-422K

Dimensions — 420W×310H×75Dmm
Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Cream
Speaker section — Cloth covered, Black
Speaker — Max. input 4W
With output transformer
Input impedance : 7kΩ
Output impedance : 8kΩ
Weight — 3.0kg

Square Type with Wood Finish



SC-322 SC-421

Dial — Wood, Walnut finish
Hour marker — Brass, White hairline finish
Hands — Brass, White hairline finish
*SC-322 : 300W×210H×45Dmm (1.0kg)
*SC-421 : 420W×295H×45Dmm (1.5kg)

Double-faced Suspended Type



SC-360

Dimensions — 312mm Dia×150Dmm
Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Gray
Pipe — 34mm Dia×360Dmm
Weight — 8.0kg



INFORMATION

		Distance (m) ~ Master Clock to Secondary Clocks ~									
		100	200	300	400	500	600	700	800	900	1,000
Number of Secondary Clocks / Circuits	~5										
	~10	φ1.2 (mm)									
	~15				φ1.6 (mm)						
	~20							φ2.0 (mm)			
	~25							φ2.6 (mm)			
	~30							φ3.2 (mm)			

DOUBLE-FACED BRACKET TYPE/RECESSED TYPE

Power consumption of a double-faced secondary clock is 24mA, Power consumption of a recessed type secondary clock is 12mA.

Double-faced Bracket Type



SC-460

Dimensions — 400W×310H×180Dmm
Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Gray
Flange — 250W×50H×100Dmm
Weight — 8.0kg



SC-461

Dimensions — 400W×310H×180Dmm
Dial — Steel, White
Hour marker — Black
Hands — Aluminum, Black
Frame — Steel, Gray
Flange — 50W×250H×100Dmm
Weight — 8.0kg

Recessed Type



Sharp, straight-bar type hour marker

SC-340

SC-440

Movement cover — Brass, White hairline finish
Hour marker — Brass, White hairline finish
Hands — Brass, White hairline finish

*SC-340 : 300mm diameter(1.0kg)
 *SC-440 : 400mm diameter(1.2kg)



Straight-bar type, with numerals for the quarter-hours

SC-341S

Movement cover — Brass, White hairline finish
Hour marker — Brass, White hairline finish
Hands — Brass, White hairline finish
Weight — 1.0kg

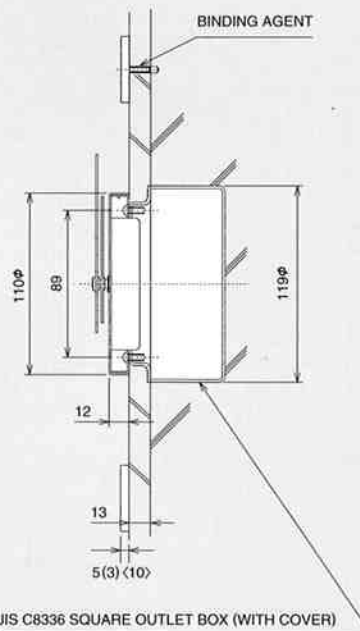
Circular type hour marker

SC-342

Movement cover — Brass, White hairline finish
Hour marker — Brass, White hairline finish
Hands — Brass, White hairline finish

*SC-342 : 300mm diameter(1.0kg)
 *SC-441 : 400mm diameter(1.2kg)

Mounting Structure



* () SC-341S / < > SC-441

Option Equipment for Secondary Clocks

FA-300

Hand Adjuster with jack plug

Among secondary clocks driven by a master clock, the FA-300 is used for adjusting the hands of a large-sized secondary clock mounted on a wall in a very high position. By the signal from the FA-300, the clock is adjusted apart from a signal from a master clock.



Specification

Built-in battery — 006P (9V×3=27V)
Operating time — Approx. 100 minutes (2,000 Ω load)
Hand moving speed — Approx. 30 times
Output terminal — Jack plug type
Frame — Steel, Gray

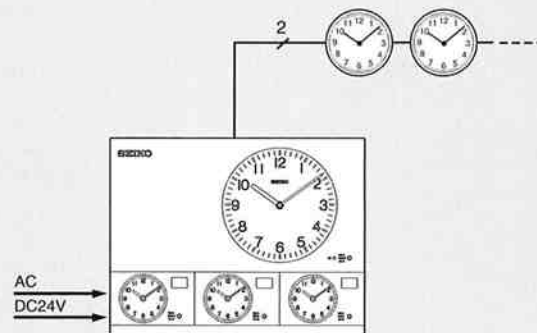
FA-301

Jack-plug plate for single-faced clocks

FA-302

Jack-plug plate for double-faced clocks

Up to 30 secondary clocks can be connected to each channel (if the current consumption of each secondary clock is 12 mA).



QUARTZ TIMER

An intelligent timer for offices, schools, factories, and other locations.

Melody time signals are programmable for up to one week.



CONTENTS	SPECIFICATIONS
Input power supply	AC 90V-120V, AC 200V-240V, 50/60Hz
Power consumption	approx. 4.0W
Power failure backup	Clock : 24 hours, program : 10 weeks
Operating temperature range	-10°C~+50°C
Time accuracy	Within ±3 sec./month (+5~+35°C)
Signal output	2 independent channels (dry contact signal)
Contact out put capacity	AC 125V / 5A , AC 250V / 3A, DC 30V / 5A
Program setting range	In 1-minute increment
Dimensions	W270×H372×D58.5 (mm)
Weight	approx. 2.0 kg (main body)

QBT-30

Announces the start of work, lunchtime, and the end of work with beautiful melodies. Refined design and outstanding function make this a necessity for every office.

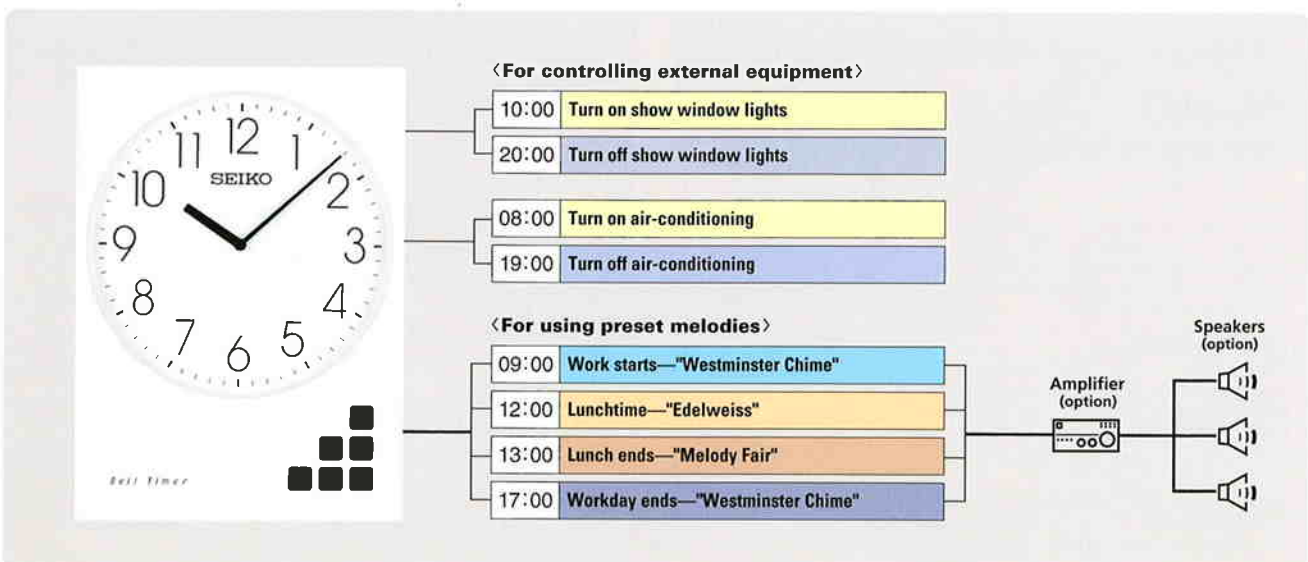
- Up to 60 programs can be set a week at a time.
- Different settings for each day of the week are OK. Resetting for different times each day is simple and convenient.
- The 10 melodies can be combined as preferred.
- External output can be used to manage lighting, air-conditioning, and so on.

- Westminster Chime (40 Sec.)
- Edelweiss (42 Sec.)
- Melody Fair (43 Sec.)
- Chim Chim Cheree (40 Sec.)
- Bibbidi-Bobbidi-Boo (30 Sec.)
- Yuyake Koyake (40 Sec.)
- Going Home (45 Sec.)
- Etude Op. 10, No. 3 (45 Sec.)
- Beauty and the Beast (44 Sec.)
- A Whole New World (41 Sec.)

*Each title is played twice.

For example, a setting like this is easy to do!

Manage time at school or in the office or the way you've always wanted to!



DIGITAL CLOCKS

INDEPENDENT CLOCK

For indoor / outdoor rain proof Type



RBC-200N
Wall type



RBC-302N
Suspended type (Double-faced)



RBC-303N
Bracket type (Double-faced)

CONTENTS	SPECIFICATIONS	
Model No.	RBC-200N (Wall type)	RBC-302N, 303N (Double-faced type)
Digit height	200mm(Orange)	200mm(Yellow)
Dimensions	950W×380H×184Dmm	950W×380H×300Dmm
Weight	30kg	65kg
Accuracy	Within ±0.2 sec./day at normal temperature	
Operational temperature range	-20°C ~ +60°C	
Input power	AC(50/60Hz) Time synchronization with the master clock is possible.	
Current consumption	Approx. 1.6A (Including 0.7A for internal illumination)	Approx. 1.9A (Including 0.7A for internal illumination)
Internal illumination	FL-32W×1 (With automatic flasher)	
Display	Magnetic inversion system Changeover between 12-and 24-hour indications	
Power failure compensation	Approx. 10hours	
Case	Steel, Metallic brown Front : Transparent glass (Thickness : 3mm)	

*Please turn off the illuminating light while the clock is shone directly by the sun in the daytime.

For Indoor Type



SLC-100W
Wall type



SLC-120E
Wall type



SLC-102W
Suspended type (Double-faced)



SLC-122E
Suspended type (Double-faced)

CONTENTS		SPECIFICATIONS	
Model No.		SLC-100W(Wall type) SLC-102W(Double-faced type)	SLC-120E(Wall type) SLC-122E(Double-faced type)
Digit height		100mm(White)	120mm(Orange)
Dimensions	Wall type	620W×170H×60Dmm	670W×200H×60Dmm
	Double-faced	626W×176H×170Dmm	676W×200H×170Dmm
Weight	Wall type	3.5kg	3.8kg
	Double-faced	12.5kg	13.5kg
Accuracy		Within ±0.2 sec./day at normal temperature	
Operational temperature range		-10°C ~ +50°C	
Input power		AC(50/60Hz) Time Synchronization with the master clock is possible.	
Current consumption	Wall type	Approx. 0.1A	Approx. 0.2A
	Double-faced	Approx. 0.2A	Approx. 0.4A
Display		White/Orange LED Changeover between 12-and 24-hour indications	
Case		Plastic, Yellowish white	

*A hand adjuster is optional.

WEEKLY DIGITAL CLOCKS

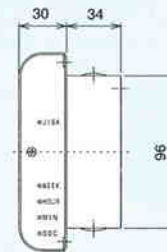


WDC-402

Display — LED(White)
 Digital height — Time : 40mm, Day : 10mm

In addition to its single usage, this weekly digital clock is uniquely designed in such a way that it can form an original world time clock by applying multiple units. No need for a master clock since it is a twin synchronous system. (A power box is required when multiple clocks are used to form a world time clock.) The installation can be either wall type or recessed type. And a map panel of your design can be prepared on request.

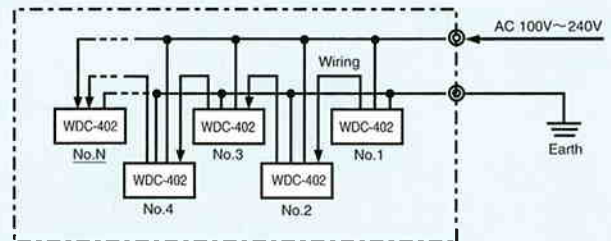
Mounting Structure



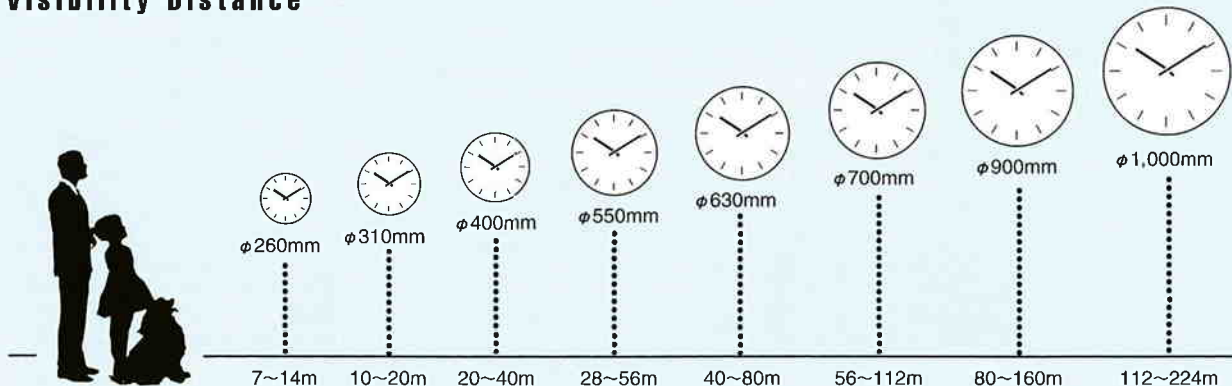
Configuration of Weekly Digital Clock (Simple substance)



Configuration of Weekly Digital Clock (Plurality)



Visibility Distance



OUTDOOR CLOCKS

LARGE-SIZED WALL CLOCKS (OUTDOOR/RAINPROOF)

Dial of a large-sized clock is made of steel except for internal illumination type which is made of acrylic resin. Input signal of a wall type secondary clock is 30 sec. polarized signal/DC 3.6 V. Cost for installation work is not included. Power consumption of ϕ 550- and ϕ 700-mm types is 18 mA, and that of ϕ 900- and ϕ 1,000-mm types is 60 mA.

550-mm Diameter



FC-503

Frame — Steel,
Coffee brown color
Cover glass — Polycarbonate
Thickness — 90mm
Weight — 4.7kg

900-mm Diameter



FC-903

Frame — Steel,
Coffee brown color
Cover glass — Polycarbonate
Thickness — 150mm
Weight — 21kg

700-mm Diameter



FC-703

Frame — Steel, Coffee brown color
Cover glass — Polycarbonate
Thickness — 99mm
Weight — 7.5kg

FC-7131

Internal illumination type

Thickness — 170mm
Weight — 11.5kg

All the other specs. are the same as those of FC-703.

1000-mm Diameter



FC-103

Frame — Steel,
Coffee brown color
Cover glass — Polycarbonate
Thickness — 150mm
Weight — 25kg



FC-707

Frame — Stainless steel polished
Cover glass — Polycarbonate
Thickness — 99mm
Weight — 7.0kg

FC-7171

Internal illumination type

Thickness — 170mm
Weight — 10.7kg

All the other specs. are the same as those of FC-707.



FC-108

Frame — Stainless steel polished
Cover glass — Polycarbonate
Thickness — 150mm
Weight — 25kg



FC-7191

Internal illumination type

Frame — Steel, Coffee brown color
Cover glass — Polycarbonate
Thickness — 170mm
Weight — 11.5kg

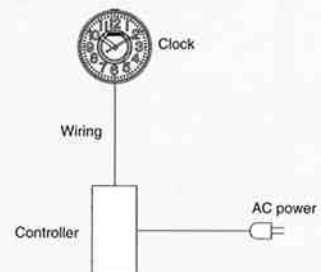
Protector for 700-mm outdoor wall clock



TK-S2

Frame — Stainless steel,
Coffee brown color
Photo example: TK-S2 furnished on
FC-703.

Configuration of Large-Sized Wall Clock



LARGE-SIZED DOUBLE-FACED POLE CLOCKS (RAINPROOF)

Cost for pole and installation work are not included. Input signal of a pole clock is 30 sec. polarized signal/DC3.6 V. Power consumption of a pole clock is 18mA×2.

700-mm Diameter



FC-7831

Internal illumination type

Frame — Steel, Coffee brown color
Cover glass — Polycarbonate
Thickness — 300mm
Weight — 20kg



FC-7851

Internal illumination type

Frame — Steel, Coffee brown color
Cover glass — Polycarbonate
Thickness — 300mm
Weight — 20kg



FC-7871

Internal illumination type

Frame — Stainless steel
Cover glass — Polycarbonate
Thickness — 300mm
Weight — 18.5kg

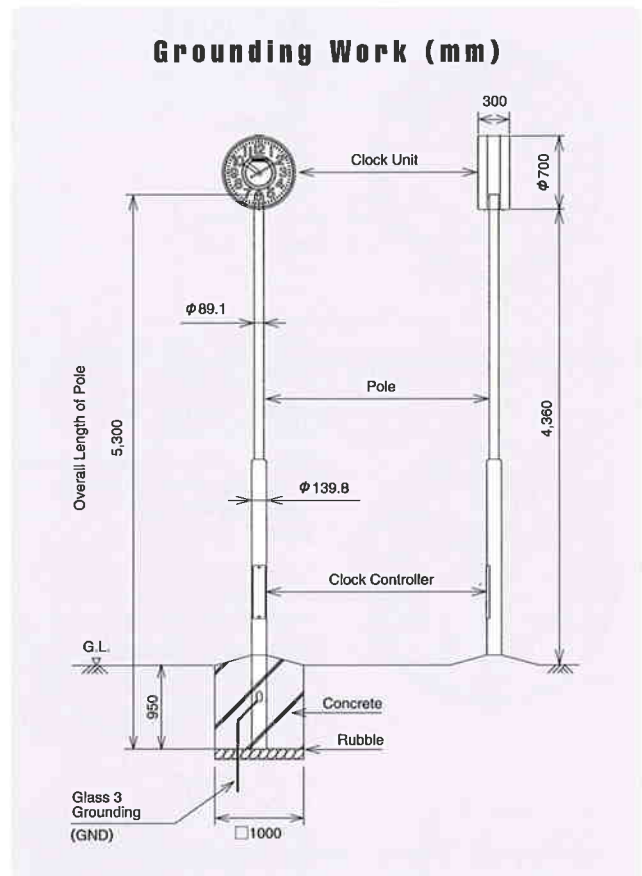


FC-7891

Internal illumination type

Frame — Steel, Coffee brown color
Cover glass — Polycarbonate
Thickness — 300mm
Weight — 20kg

Grounding Work (mm)



(Pole and base are shown here for reference purpose only.)

Controller



AP-4031

When installing a secondary clock, a controller for exclusive use with it is required (optional).

Controller Case



QF-BOX

LARGE-SIZED SUSPENDED TYPE CLOCK (OUTDOOR/RAINPROOF)

700-mm Diameter



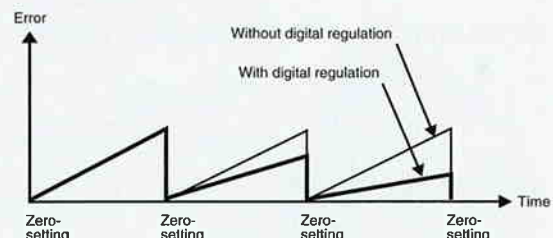
FC-7631

Double-faced type with internal illumination

Frame — Steel, Coffee brown color
Cover glass — Polycarbonate
Thickness — 300mm
Weight — 21kg
Input voltage — DC 3.6V
Current consumption — 18mA×2

Digital Regulation

Gain or loss of the clock controller can be detected and corrected automatically by every zero-setting operation if conducted at regular intervals. This function is called the digital regulation.



Remarks:

In case that an output voltage from a master clock is DC 24 V (except QC-5500 Series), you need a resistor adaptor R-700 or R-900 (optional) which has to be connected between the FC-series and the master clock.

SOLAR-POWERED CLOCKS

Wall Type : Cost for installation work is not included, Double-faced Pole Type : Cost for pole and installation work are not included.

Wall Type



QF-503

Frame — Steel, Coffee brown color
Cover glass — Polycarbonate
Thickness — 99mm
Weight — 4.7kg



QF-703

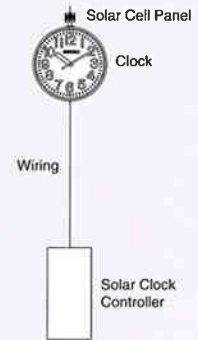
Frame — Steel, Coffee brown color
Cover glass — Polycarbonate
Thickness — 99mm
Weight — 7.5kg



QF-707

Frame — Stainless steel
Cover glass — Polycarbonate
Thickness — 99mm
Weight — 7kg

Configuration of Wall Type Solar Clock



Double-faced Pole Type



QF-787

Frame — Stainless steel
Thickness — 300mm
Weight — 18kg



QF-783

Frame — Steel, Coffee brown color
Thickness — 300mm
Weight — 19.5kg



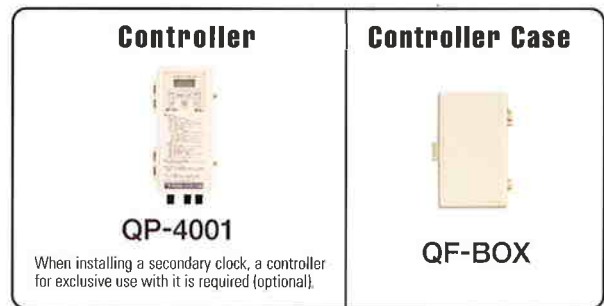
QF-785

Frame — Steel, Coffee brown color
Thickness — 300mm
Weight — 19.5kg

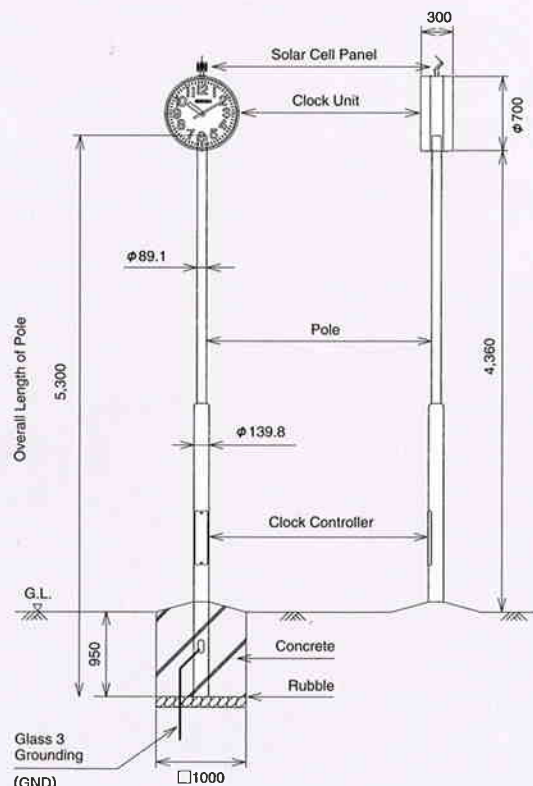


QF-789

Frame — Steel, Coffee brown color
Thickness — 300mm
Weight — 19.5kg



Grounding Work (mm)



(Pole and base are shown here for reference purpose only.)

SEIKO

SYSTEM CLOCKS Catalogue



SEIKO TIME SYSTEMS INC.