

**BACK**

# J

## ENGINE TUNE-UP EQUIPMENT



## TIMING ADVANCE TESTER



- **Characteristics**

Measurement of ignition timing and advance angle of distributor.

This memory type tester permits correct measurement if the engine speed varies after measuring.

- **Specification**

Model		DACS-010-1B
Engine Applicable		2, 4-cycle engine, rotary engine
Measuring Items		Advance 0 – 60° Tachometer 0 – 1,600rpm, 0 – 8,000rpm
Dimensions	mm	310(L) × 200(W) × 130(H)
Weight	kg	Approx. 3.5

## TACHO DWELL TESTER



- **Characteristics**

Measurement of engine speed, dwell angle, and point resistance voltage.

Tachometer hook-up is simple with clamp-on test lead, regardless of cylinder numbers.

- **Specification**

Model		DACS-010-2B
Engine Applicable		2, 4-cycle engine, rotary engine, 1, 2, 3, 4, 5, 6, 8-cylinders
Measuring Items		Tachometer 0 – 1,600rpm, 0 – 8,000rpm Dwell angle 0 – 120° Point resistance voltage OK-zone indication
Dimensions	mm	310(L) × 130(W) × 200(H)
Weight	kg	Approx. 3.5

## BOLT AMPERE TESTER



- **Characteristics**

Measurement of voltage and amperage of AC and DC.

Model		DACS-010-3B
AC Voltage	V	0 – 25, 50, 250, 500
AC Amperage	A	0 – 25, 50, 250, 500
DC Voltage	V	-5 – +25, -10 – +50, -50 – +250, -100 – +500
DC Amperage	A	-5 – +25, -10 – +50, -50 – +250, -100 – +500
Dimensions	mm	310(L) × 130(W) × 200(H)
Weight	kg	Approx. 3.5

## COIL CONDENSER TESTER



- Characteristics  
Measurement of coil winding ratio and coil performance.  
Check alternator diodes.

Model	<b>DACS-010-4A</b>	
Measuring Items	kΩ	Coil resistance 0 – 100kΩ, 0 – 1kΩ Capacitance 0 – 0.5 μ F Diode check (for alternator) LED indication Coil winding Rratio 0 – 200 Power test OK-zone indication
Dimensions	mm	310(L) × 200(W) × 130(H)
Weight	kg	Approx. 3.5

## TACHO TIMING TESTER



Model	<b>DACS-001-3B</b>	
Engine Applicable	Gasoline engine 12V exclusive use. Rotary engine	
Engine Revolution	rpm	0 – 1,600, 0 – 8,000
Dwell Angle		0 – 120°
Voltage	V	0 – 2, 0 – 20
Point Resistance		Decision of OK-zone
Dimensions	mm	200(W) × 105(D) × 54(H)
Weight	g	630

## DIGITAL ENGINE TACHOMETER



Model	<b>DET-610</b>	
Engine Applicable	2, 4-cycle 1, 2, 3, 4, 5, 6, 8-cylinders gasoline engine	
Measuring Method	Nontouch	
Detecting Distance	cm	1 – 10
Response	sec.	0.5
Accuracy	rpm	± 10
Dimensions	mm	113(W) × 62(D) × 8.5(H)
Weight	g	57

# ENGINE TUNE-UP EQUIPMENT

## DWELL P/S TACHO TESTER



Model	ME-1B
Engine Applicable	1, 2, 3, 4, 5, 6, 8-cylinder gasoline engine (except cam-angle of 1-cylinder gasoline engine)
Measuring Item - Range	OFF, Battery check, 1,500rpm, 7,500rpm. Cam-angle, point resistance
- Engine Revolution rpm - Cam-Angle	0 - 1,500, 0 - 7,500 2-cylinder 0 - 180° 3-cylinder 0 - 120° 4-cylinder 0 - 90° 5-cylinder 0 - 72° 6-cylinder 0 - 60° 8-cylinder 0 - 45°
Power Source	SUM-3 × 4 (6V) with battery check device
Dimensions mm	221(W) × 142(D) × 46(H)
Weight kg	Approx. 1.05

## TACHO DWELL TESTER



Model	DACS-001-1B
Engine Applicable	2, 3-cycle engine, rotary engine 2, 3, 4, 5, 6, 8-cylinders
Engine Revolution rpm	0 - 1,600, 0 - 8,000
Dwell Angle	0 - 120°
Voltage V	0 - 2, 0 - 20
Point Resistance	Decision of OK-zone
Dimensions mm	100(W) × 200(D) × 54(H)
Weight g	420

## TUNE UP TESTER



Model	DACS-1VL	
Tune-up Section	Applicable Engine	4-cycle gasoline engine: 1, 2, 3, 4, 5, 6 and 8-cylinder engines. 2-cycle gasoline engine: 2 and 3-cylinder engines (Partly checked by conversion) Rotary engine.
	Engine Tachometer rpm	0 - 1600, 0 - 8000 Automatic Lo/Hi selection, with LED indicator.
	Dwell Angle Meter, Point Resistance Tester, Voltmeter, Vacuum Gauge, Ignition Timing.	0 - 90deg, indication of OK-zone, judgment of result 0 - 20, 0 - 1,000kpa (0 - 76cmHg) with timing light.
Checker section	Engine Speed	4-cylinder engines, 800, 4,000rpm, 2-point check
	Dwell	4-cylinder engines, full and 1/2 dwell, 2-point check
Power Source	DC 12V car battery	
Accessories	Vacuum hose 2m × 2	
Dimensions mm	375(W) × 180(D) × 240(H)	
Weight kg	Approx. 5	

## NEW FINE TUNER (PORTABLE TUNE-UP TESTER)

• **Characteristics**

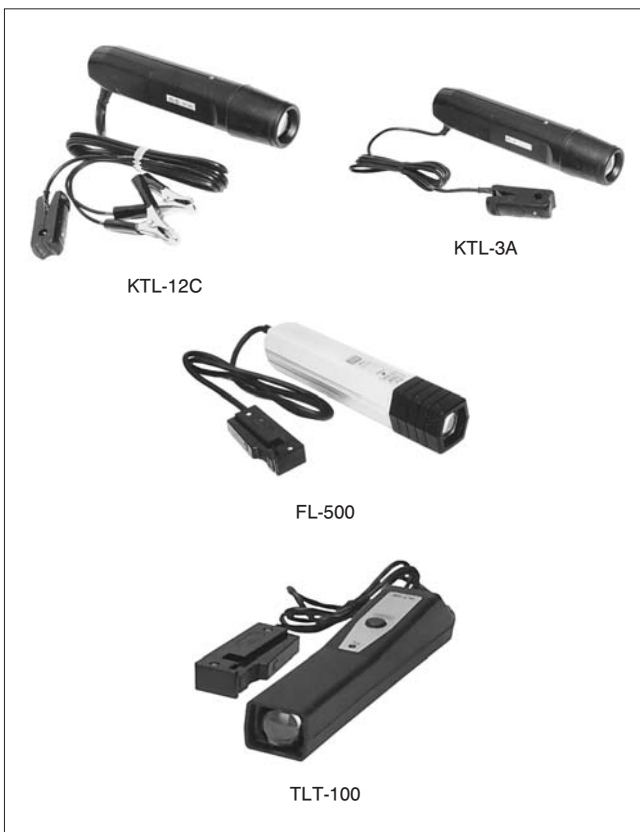
Coordinating with emission control cars, fuel injection devices, and turbocharged cars, a vacuum pressure pump and fuel pressure gauge are equipped as standard with the

indications divided into digital and analog depending upon their characteristics. This is an ideal tune-up tester conforming to "One tester in each stall".



Model		DACS-100-1B
Target Engine		Gasoline engine 4-cycle 1, 2, 3, 4, 5, 6, 8-cylinder rotary engine
Engine Rotation Signal Detection	SYNC	Primary or secondary side clamping method
	Green Clip	IG. coil (-) or rotation terminal
Engine Tachometer	rpm	Lo 0 – 1,600 Hi 0 – 8,000
Dwell		0 – 199.9°
Point voltage	V	DC 0 – 19.99 (Static measurement)
Voltage	V	DC 0 – 199.9
Current	A	0 – 199.9
Resistance	ohm	0 – 199.9/1999/199.9 k
Pressure	MPa	0 – ± 0.098 (0 – ± 1kgf/cm <sup>2</sup> )
	KPa	0 – 101.08 (0 ± 760mmHg)
Fuel Pressure	MPa	0 ± 0.49 (0 ± 5kgf/cm <sup>2</sup> )
Dimensions	mm	490(W) × 190(D) × 330(H)
Weight	kg	Approx. 12
Option		Dedicated stand (DACs-100-S1)

## TIMING LIGHT



Model	KTL-12C	KTL-3A	FL-500
Power Source	DC-12V	Dry cell SUM-1 × 2	Dry cell SUM-1 × 2
Cord Length	m	1.5	1.5
Length	mm	240	240
Weight	g	430	480

• **With Tacho Meter Type**

Model	TLT-100
Power Source	SUM-3 × 4
Cord Length	m
Length	mm
Weight	g
Pick-up Method	Plug cord clip on

# ENGINE TUNE-UP EQUIPMENT

## SPARK PLUG CLEANER TESTER



Model	<b>PC-727</b>	
Electric Source	V	AC 1-ph
Air Pressure	MPa	0 – 1.4
Dimensions	mm	W 350 × D 300 × H 400
Weight	kg	Approx. 8

## SPARK PLUG CLEANING COMPOUND



Model	<b>A-80</b>	
Capacity	kg	2

## SPARK PLUG GAP GAUGE



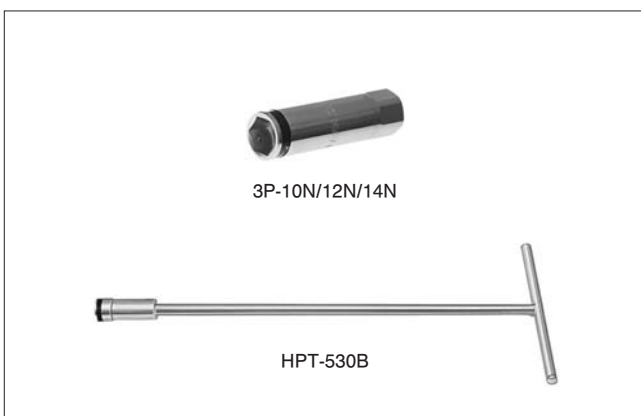
Model	<b>No.22MN</b>	
Leaves	mm	0.11, 0.12, 0.13, 0.65, 0.7, 0.75, 0.8, 0.9, 1.0
Leaf Length	mm	45
Overall Length	mm	93
Weight	g	40

## SPARK PLUG WRENCH SET



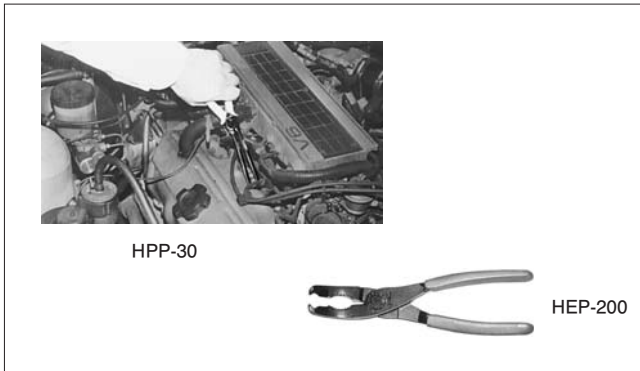
Model	Sq. Drive mm(inch)	Case Size mm	Weight kg
<b>No.3-5S</b>	9.5 (3/8)	230(W)×100(D)×35(H)	1.1

## PLUG WRENCH



Model	Plug Appli. mm	Sq. Drive mm(inch)	Length mm
<b>3P-10N</b>	16.0 (M10)	9.5 (3/8)	80
<b>3P-12N</b>	18.0 (M12)	9.5 (3/8)	80
<b>3P-14N</b>	20.8 (M14)	9.5 (3/8)	120
<b>4P-14N</b>	20.8 (M14)	12.7 (1/2)	375
<b>HPT-500B</b>	10	–	500
<b>HPT-530B</b>	14	–	530

## PLUG CORD PLIER & HOSE PINCH-OFF PLIER



• Plug Cord Plier

Model	Length mm	Weight g
<b>HPP-30</b>	300	230

• Hose Pinch-Off Plier

Model	Size mm
<b>HEP-200</b>	210(W) × 44(D) × 15(H)

## CIRCUIT TESTER



Model	DACS-001-2A	BM805	BM318	3244
DC Voltage V	2/4/20/40	400.0m/4.000/40.00/400.0/1000	999.9m/9.999/99.99/600.0	420m/4.2/42/420/500
AC Voltage V	250/500	400.0m/4.000/40.00/400.0/1000	999.9m/9.999/99.99/600.0	4.2/42/420/450
DC Amperage A	200m/20	} 400.0 μ /4000 μ /40.00m } 400.0m/4.000/10.00	4.00m/10.00	—
AC Amperage A	—		4.00m/10.00	—
Resistance Ω	× 1/10/100, × 1K	400.0/4.000k/40.00k/400.0k 4.000M/40.00M	999.9/9.999k/99.99k/999.9k 4.000M/40.00M	420/4.2K/42K/420K/4.2K/42M
Diode Check	—	Test Current 0.25mA Open Circuit voltage < 1.6VDC	Test Current 0.2mA Open Circuit Voltage < 3.5VDC	—
Electric Source	1.5V (SUM-3) × 1	IEC LR03 0.5V SUM-4 × 2	JIS006P 9V	CR2032 × 1 (DC3V)
Dimensions mm	100 × 200 × 54	97 × 198 × 55	82 × 160 × 48	55 × 9.5 × 109

## TWIN DISPLAY CLAMP METER



Model	DT-1000
Measurement	DC current + DC voltage, AC current + Frequency/Duty ratio/Pluse width AC Voltage + Frequency/Duty ratio/Pluse width Resistance (4000Ω, 20.0kΩ) Temperature (-30° C - 150° C)
Dimensions	mm 640(W) × 330(D) × 200(H)
Weight	g 310



# ENGINE TUNE-UP EQUIPMENT

## VOLTAGE REGULATOR TESTER



Model		DACS-010-RT
Electric Source	V	DC 9 – 15
Dimensions	mm	240 (L) × 132 (W) × 180 (H)
Weight	kg	Approx. 3

## INSULATION TESTER



Model	3213-41	3213-42	3213-43
Testing Voltage (DC)/MΩ Range	100V/ 20MΩ	250V/ 50MΩ	500V/ 100MΩ
Applicable Measuring Range MΩ	0.02 – 20	0.05 – 50	0.1 – 100
Center Scale Mark MΩ	0.5	1	2
Measuring Range of AC Voltage V	0 – 150	0 – 250	0 – 300
Measuring Value of Lowest Resistance MΩ	0.1	0.25	0.5

Model	3213-44	3213-45	3213-46
Testing Voltage (DC)/MΩ Range	500V/ 1,000MΩ	1,000V/ 2,000MΩ	125V/ 20MΩ
Applicable Measuring Range MΩ	1 – 1,000	2 – 2,000	0.02 – 20
Center Scale Mark MΩ	20	50	0.5
Measuring Range of AC Voltage V	0 – 300	0 – 300	0 – 250
Measuring Value of Lowest Resistance MΩ	0.5	1	0.1

## BATTERY SUPPORTER



Model	BS-1
Power Source	SUM-3 × 8pcs.



## BATTERY TESTER



<b>Model</b>		<b>PB-12</b>
Applicable Battery		6 - 12V, 6 - 150AH
Measuring Time	sec.	3
Graduation	V	12 - 0 - 12 (Min. 1)
Dimensions	mm	80(W) × 300(D) × 150(H)
Weight	kg	1

## BATTERY TESTER



<b>Model</b>		<b>BT-121</b>
Applicable Battery		2, 6, 12V, 6 - 120AH
Dimensions	mm	134(W) × 79(D) × 263(H)

## DIGITAL BATTERY TESTER



- Integrated Printer type tester.
- Tests starting and charging system voltage and displays result.
- Bad cell detection.

<b>Model</b>		<b>MDX-P300B</b>
Display		LCD
Availabe For		JIS (72)      CCA (100 - 1400) EN (100 - 900)    IEC (100 - 550) DIN (100 - 550)    SAE (100 - 1400)
Voltage Range		Test Range DC12V Down to 8V
Volt Meter		0.9 - 300VDC    +/- 0.05VDC
Dimensions	mm	230 × 102 × 65

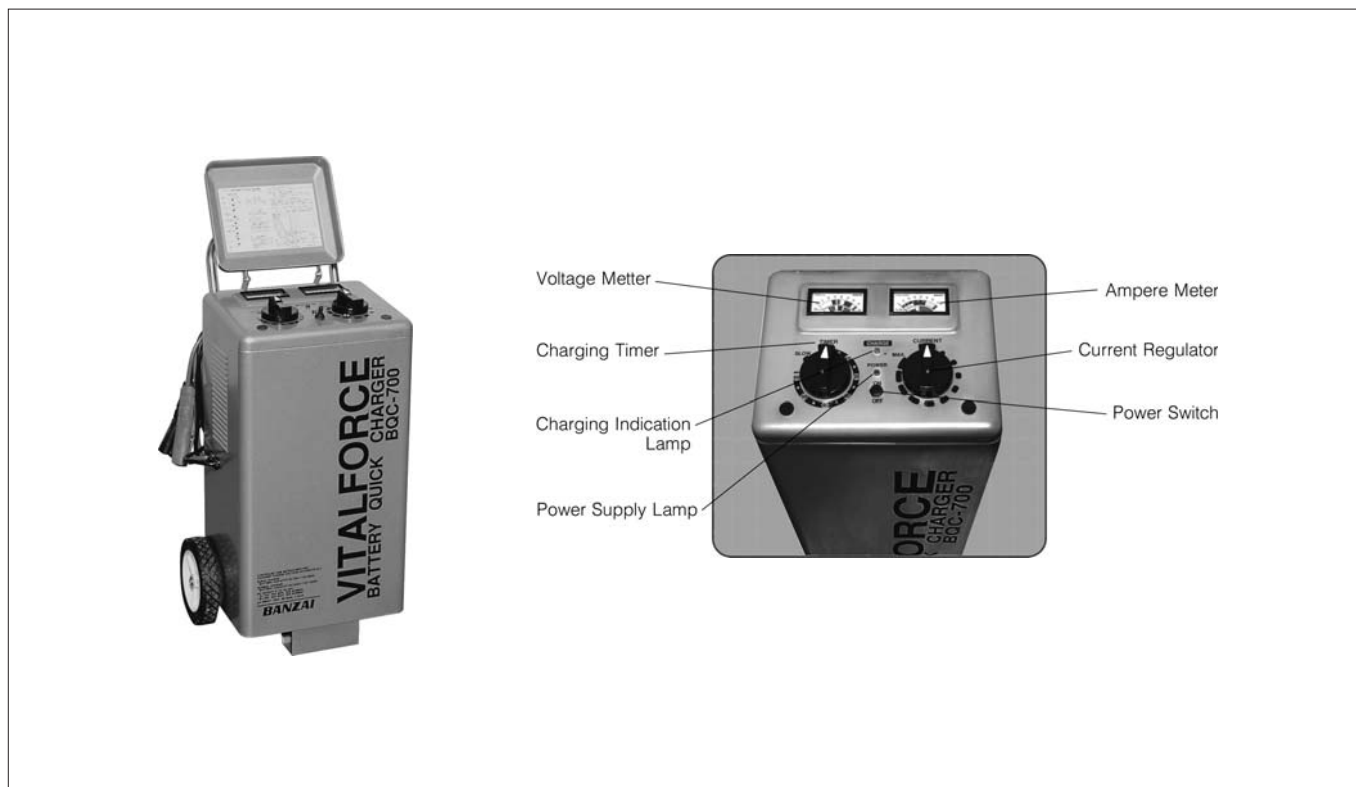
## BATTERY CHARGER



HRC-3510

<b>Model</b>		<b>HRC-3510</b>	<b>HRC-7520</b>
AC Input		1-ph., 50/60Hz 410VA	1-ph., 50/60Hz 1.4kVA
AC Output		6 - 12V, 20A 18 - 24V, 10A	6 - 48V, 20A
Dimensions (L) × (W) × (H)	mm	200 × 320 × 300	270 × 255 × 400
Weight	kg	13	18

## BATTERY QUICK CHARGER



Model		BQC-1000		BQC-700		BQC-550	
Application	Quick	12V/10Ah – 24V/200Ah		6V/2Ah – 12V/50Ah		6V/2Ah – 12V/50Ah	
	Normal	12V/10Ah – 24V/200Ah		6V/24Ah – 12V/120Ah		6V/24Ah – 12V/120Ah	
AC Input		AC200V/220V, 1 $\phi$ 50/60Hz, 3.0KVA		AC100V, 1 $\phi$ 50/60Hz, 1.4KVA		AC100V, 1 $\phi$ 50/60Hz, 1.2KVA	
DC Output	Voltage	DC12V	DC24V	DC6V, 12V	DC18V, 24V	DC6V, 12V	DC18V, 24V
	Amp. (Max)	100A	100A	70A	35A	55A	27.5A
	Amp. (Rat)	80A	80A	50A	25A	40A	20A
Engine Starting Aid		120A		100A		100A	
Dimensions mm		H 895 × W 430 × D 358		H 795 × W 430 × D 358		H 795 × W 430 × D 358	
Weight kg		Approx. 52		Approx. 31		Approx. 30	

## BOOSTER CABLE & CLIP



### • Booster Cable

Model	Capacity A	Cable Dia. mm × Length
<b>BC-241</b>	100	14 $\phi$ × 2.5m
<b>BC-243</b>	300	30 $\phi$ × 4.0m

### • Clip

Model	Capacity A	Opening × Length mm	Remark pcs./set
<b>C-100B</b>	100	40 × 145	2
<b>C-230</b>	300	40 × 170	2

## BATTERY STARTER



Model	BS-A	BS-B	BS-C
Valid Size of Battery Table (L) × (W) mm	205 × 320	205 × 550	485 × 550

## START BOOSTER



Model	SB-5000A	
Starting Ampere	A	600
Battery	12V, 16AH	
Cable Length	m	1
Dimensions	mm	355 × 155 × 280
Weight	kg	9

## PORTABLE ENGINE STARTER



Model		CRX-1200	CRX-1210	CM-240	CM-360	CM-480
Output	V	DC 12	DC 12	DC 12/24	DC 12/24	DC 12/24
Output	A	350	400	350	400	600
Applicable Battery	AH	100	120	120 × 2	170 × 2	200 × 2
External Battery Charging Ability	V, A	12, 5	12, 5	12, 5	12, 5	12, 5
Lighting Time		26W 3 hours	26W 6 hours	25W 8 hours	25W 12 hours	25W 16 hours
Width	mm	200	200	200	200	200
Length	mm	300	300	320	400	475
Height	mm	300	350	370	410	410
Weight	kg	10	15	16	20	25
Caster		×	×	×	○	○

## BATTERY FILLER



Model	Capacity ℓ	Weight kg
<b>BF-10</b>	4	1.3

## POLYATHYLEN FUNNEL



Model	$\phi$ × Height mm	Weight g
<b>EC-1</b>	175 × 160	50

## BATTERY-SYRINGE



Model	Length mm	Weight g
<b>HM-6</b>	250	100

## POLYATHYLEN MEASURE



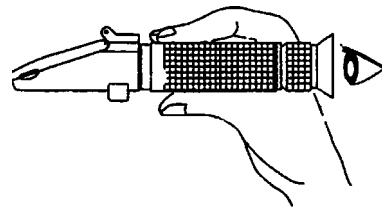
Model	Capacity ℓ	Weight g
<b>EC-2</b>	2	200

## BATTERY & COOLANT HYDROMETER



This is an optical hydrometer using a property of light such that the refractive index depends on the concentration of the liquid.

Model	Length mm	Weight g
<b>UFB-N2E</b>	160	140

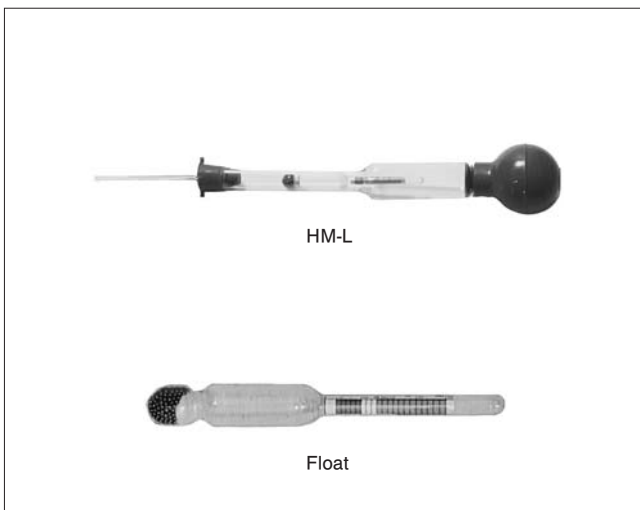


## BATTERY HYDROMETER SET



Model	<b>HM-100</b>	
Contents	HM-L Hydrometer	2
	100° C Thermometer	1
	HM-6 Syringe	1
Case Size	mm	360 × 143 × 62
Weight	kg	1.5

## BATTERY HYDROMETER



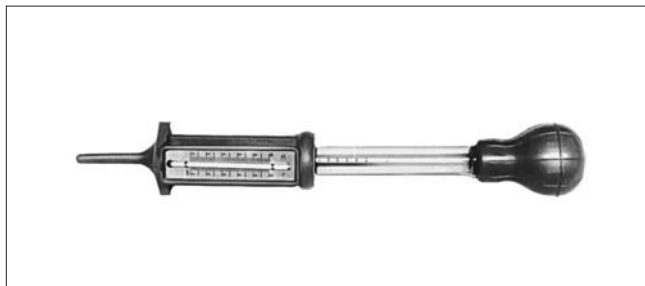
### • Hydrometer

Model	Length mm
<b>HM-L</b>	335
<b>HM-LS</b>	275

### • Float

Model	Used for
<b>HM-LF</b>	HM-L
<b>HM-SF</b>	HM-LS

## COOLANT HYDROMETER



### • Coolant Hydrometer

Model	Note	Length mm
<b>HM-10B</b>	W/Thermometer Ethylene-glycol	350

### • Float

Model	Used for
<b>F-10</b>	HM-10B