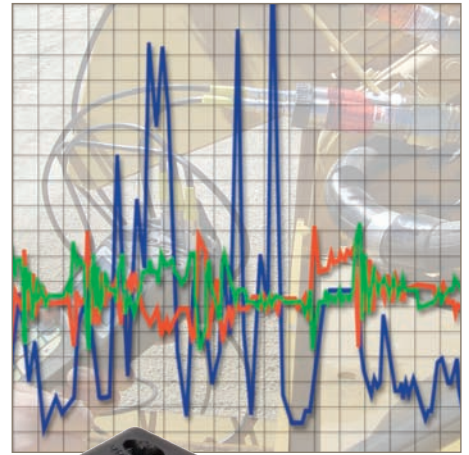


# The Parker Service Master Easy

Diagnostic Meter



## Fast Measuring & Analysis Capability...

coupled with a more efficient and user-friendly interface. This multi-channel instrument offers accuracy, expanded memory and intuitive performance to meet your most demanding expectations.

Offering the latest in sensor recognition technology, the Parker Service Master Easy gives you the ability to measure and store data relating to pressure, flow, temperature and rotational speed simultaneously, or switch between them with ease.

On site data storage – has never been easier or as powerful. The 0.25 ms scanning rate catches even the most instantaneous pressure spikes, flow surges and temperature changes. More than one million data points allow you to store or download the data to your PC.



## Contact Information:

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qcd\_sales@parker.com

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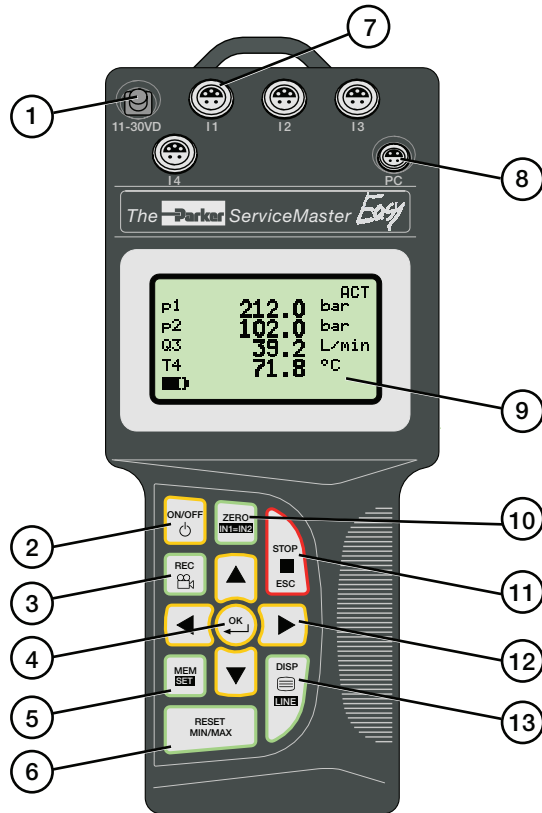
## Model SCM-340-2-02 Features:

- Ideal for both hydraulic and pneumatic systems
- Easy, intuitive operation
- Large legible display
- Auto sensor recognition
- MIN/MAX Memory
- Multiple sensor inputs
- Battery monitoring
- Plug and Play Software Recognition
- Simultaneous Multi-line Display



ENGINEERING YOUR SUCCESS.

# The Parker Service Master Easy Diagnostic Meter



## Function Descriptions

- 1 11-30 VDC Power Supply Connection
- 2 ON/OFF Meter On and Off
- 3 REC Record Measured Values
- 4 OK Confirms Function or Value
- 5 MEM/SET Memory Configuration/Main Menu (device settings)
- 6 RESET MIN/MAX Delete Min/Max Values
- 7 I1 - I4 Sensor Input Ports
- 8 Meter - PC Connection for USB Cable
- 9 Meter Display 128 x 64 Pixel Display
- 10 Zero/IN1=IN2 Zero or Offset an Input / Set IN1 Equal to IN2
- 11 STOP/ESC Stop or Terminate Functions
- 12 ARROWS Select Line and Function Values
- 13 DISPLAY/LINE Min/Max/Actual or %FS Display

## Technical Data

### Meter

- Digital LCD Text Display
  - 128x64 pixels
  - 72x40 mm screen
- Character Height 6 mm
- Display of Pressure, Temperature, Flow and Rotational Speed
  - Pressure in PSI and Bar
  - Temperature in °F and °C
  - Flow in GPM and l/min.
  - Rotational Speed in RPM

### Inputs

- Four 5-pin push-pull style connectors
- Automatic Sensor Recognition for pressure, temperature, flow and rpm
- 12 Bit A/D Converter (4096 steps)
- Selectable scanning rate in 1 ms intervals
- Burst Mode 0.25 ms (input 1 only)

### Functions

- Differential Value Measurement
- MIN/MAX Memory
- On line data transfer
- Battery level indicator
- Power calculation (display only)
- Flow run-out (display only)
- Auto power off

### Output

- USB 2.0 interface

### Power Requirements

- Internal rechargeable Ni-MH battery
- Recharge circuit for use with external power supply.
- Operating time - 8 hours
- Charge time - 3 hours
- Excitation voltage (12-30 VDC)

### Memory Functions

- Memory capacity
  - 1,000,000 data points max
  - 250,000 points per curve
- Variable measuring period up to 100 hours
- Manual and automatic triggering

### Ambient Conditions

- Operating Temperatures 32°F to 122°F (0°C to 50°C)
- Storage Temperatures -4°F to 140°F (-20°C to 60°C)
- Protection class IP54

### Housing

- Glass reinforced polyamide
- 12-Key tactile touch membrane

- EMC Protection
  - Electromagnetic interference (DIN/EN 50081, Part 1)
  - Immunity to emitted interference (DIN/EN 50082, Part 2)

### Dimensions

- Length/Height/Width
  - 9.25 x 4.19 x 2.09
  - (235 x 106 x 52 mm)

### Weight

- 1.2 lbs (700 grams)

## Accessories Expand the Functionality



### Temperature Sensor

for Serviceman and the Parker Service Master Easy. Can be used with Parker flow sensors or with an SCTA-1/4 port adapter. Accuracy: ±1.5% Full scale Temperature range: -13°F to 257°F

**Part Number** (Temperature range: -25°C to 125°C)  
SCT-150-04-02

## Pressure Transducer Options

- Six measurement ranges:  
Vacuum to 8,750 PSI
- Color coded for easy identification
- Corrosion resistant stainless steel housing
- Accuracy of .5% Full Scale (FS)
- Available with PD, PDP or EMA style diagnostic couplings



### Transducer Technical Data



	PD ** -0100	PD ** -0600	PD ** -1500	PD ** -4000	PD ** -6000
Measuring Range (Pressure)	-14.5 to 235 PSI	0 to 870 PSI	0 to 2175 PSI	0 to 5800 PSI	0 to 8700(1) PSI
Color Code	Blue	Green	Yellow	Orange	Red
Measuring Range (Temp.)	-13°F to 221°F	-13°F to 221°F	-13°F to 221°F	-13°F to 221°F	-13°F to 221°F
Max. Overload Pressure	290 PSI	1450 PSI	3625 PSI	14500 PSI	14500 PSI
Output Signal (Volts)	-0.2 to 2	0 to 3	0 to 3	0 to 3	0 to 3
Hysteresis (% FS Typical)	0.1	0.05	0.1	0.08	0.05
Repeatability (%FS Typical)	0.08	0.13	0.13	0.1	0.1
Non-conformity (%FS)	0.25	0.2	0.2	0.28	0.25
Response Time	1 ms	1 ms	1 ms	1 ms	1 ms
Excitation Voltage	7-12 VDC	7-12 VDC	7-12 VDC	7-12 VDC	7-12 VDC

(1) Maximum Rated Pressure for PD Series Couplers is 6000 PSI.  
 (2) Maximum Rated Pressure for EMA Series Couplers is 9000 PSI.

### Materials of Construction

Transducer . . . . .Stainless steel  
 Diaphragm. . . . .Stainless steel  
 Coupler . . . . .Zinc Plated steel  
 Seal. . . . .Fluorocarbon

### Temperature Range

Working. . . . .-4° to 185°  
 Fluid . . . . .-13° to 221°  
 Storage . . . . .-40° to 257°

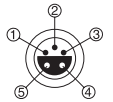
### Output

Accuracy . . . . .0.5% FS  
 Load . . . . .2m ohms  
 Response time . . . . .<1 ms  
 Output signal to noise . . . . .0.1%FS  
 Resonant frequency. . . . .100 KHz

### Voltage Requirement

7 to 12 VDC excitation voltage  
 Permissible ripple . . . . .±2% ss  
 Current requirement. . . . .5 mA

### Cable End (Pin Out)



Pin	Mark	Wire Colors
1	P	yellow
2	T	white
3	+	brown
4	-	green
5	SK	grey

Special Note: All Parker SensoControl hand-held diagnostic meters are equipped with the same 5-pin push-pull style connector ports. Accessories such as pressure sensors, temperature sensors, flow meters, tachometers and cables are all interchangeable between Serviceman and the Parker Service Master Easy meters.

## Quality of the Parker Service Master Easy



### SCRPM Tachometer

for Serviceman and the Parker Service Master Easy Meters. Displays a precision measurement of rotational speed. 5-pin push-pull style connector.

**Part Number**  
SCRPM-220

### Technical Data

Measuring Range . . . . .20 – 10,000 RPM  
 Measuring Distance. . . . .0.1 – 19.5 in  
 Accuracy . . . . .0.5%  
 Excitation Voltage . . . . .7 – 9 VDC  
 Output Signal . . . . .0 – 3 VDC  
 Resolution . . . . .5 RPM

### Tachometer Adapters

Contact adapter for belt drive/wheel.

**Part Number**  
SCRPMA-001

Focus adapter for confined areas.

**Part Number**  
SCRPMA-002



### Voltage Adapter

for use with Auxiliary Sensors to Serviceman and the Parker Service Master Easy. Input: 0 - 20 MA or 0 - 10 VDC Accuracy: 0.25% FS

**Part Number**  
SCMA-VADC-250



## SensoControl Flow Sensors

These flow sensors are a compact light-weight aluminum diagnostic tool capable of measuring pressure, temperature and flow from a single test point in a hydraulic system.

These flow sensors are designed to be used with a wide variety of hydraulic fluids. This design also minimizes the effect of viscosity changes. These units are manufactured from solid aluminum bar stock and are rated to 6000 PSI\* and temperatures of 0°F to +350°F. They are available in four sizes with flow measuring ranges from 0.2 – 160 GPM.

Flow sensors are provided with a choice of PD, PDP or EMA style diagnostic ports and are designed to be used with Serviceman™ and the Parker Service Master Easy equipment.



### Flow Sensors Technical Data

Pressure Rating*	6000 PSI
	<i>* SCFT-7160 is rated to 5000 PSI</i>
Fluid Temperature Range	0°F to +350°F
Ambient Temperature Range	0°F to +120°F
Media/Compatibility	Petroleum Based Fluids <i>(Contact factory for use with water based hydraulic fluids)</i>
Flow Measurement Accuracy	±1.0% Full Scale
Voltage Input	+7 to 12 VDC <i>(Supplied by SensoControl meter)</i>
Current Requirement	6mA
Response Time	50 ms
Viscosity Range	11 to 50 cSt

### Material Specifications

Flow Block	Anodized Aluminum
Turbine	Stainless Steel
Bearings	Stainless Steel
Seal Material	Nitrile
Electrical Connection	5 Pin Push-Pull Style

### How to Order

Measuring Range	Flow Sensor with PD Nipple	Flow Sensor with PDP Nipple	Flow Sensor with EMA Nipple	Inlet/Outlet Port Configuration	Length inches	Height inches	Width inches
0.2 – 4 GPM (1 – 15 l/min)	SCFT-0004-PD	SCFT-0004-PDP	SCFT-0004-EMA	3/4-16 ORB	5.35	4.61	1.46
1 – 16 GPM (4 – 60 l/min)	SCFT-0116-PD	SCFT-0116-PDP	SCFT-0116-EMA	1 1/16-12 ORB	7.48	5.12	2.44
3 – 80 GPM (10 – 300 l/min)	SCFT-0380-PD	SCFT-0380-PDP	SCFT-0380-EMA	1 5/16-12 ORB	7.48	5.28	2.44
5 – 160 GPM (20 – 600 l/min)	SCFT-5160-PD	SCFT-5160-PDP	SCFT-5160-EMA	1 5/8-12 ORB	8.35	5.91	2.44



#### 5 pin to 5 pin Cables

Flow sensor, transducer and temperature probe cables for both Serviceman and the Parker Service Master Easy.

<b>Length</b>	<b>Part Number</b>
10 ft (3 m)	SCK-102-03-02

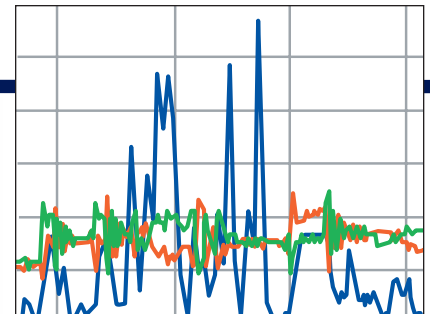
#### Extension Cable

16.4 ft (5 m)	SCK-102-05-12
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#### Adapters

See Catalog 3800 for the available adapters used in conjunction with the Parker Service Master Easy diagnostic equipment.



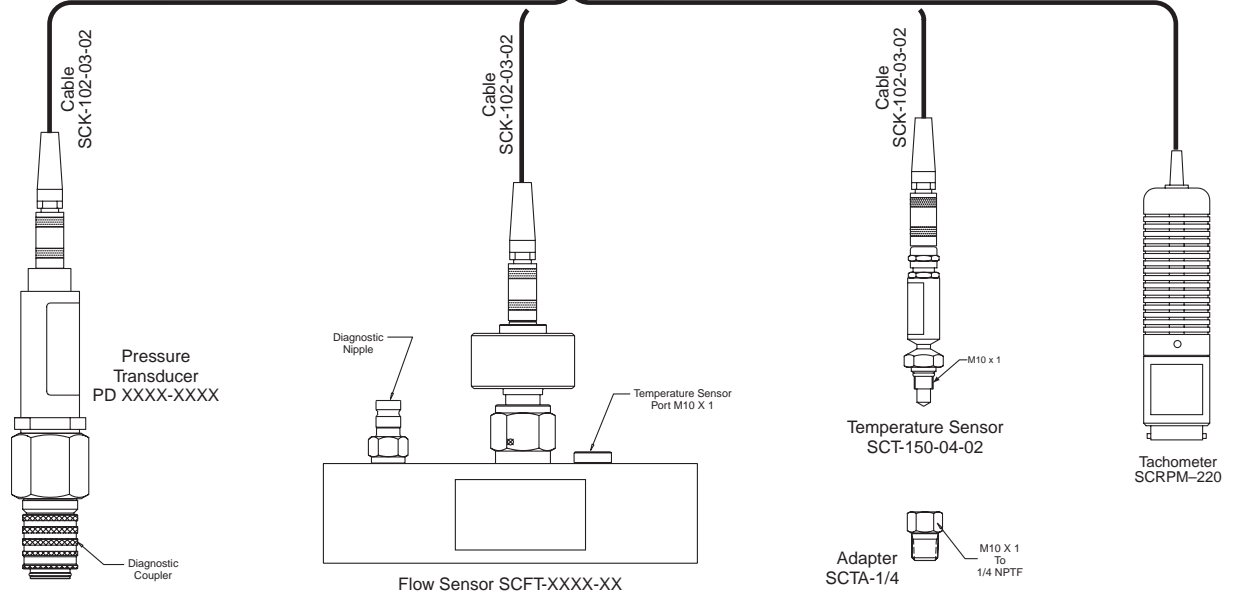
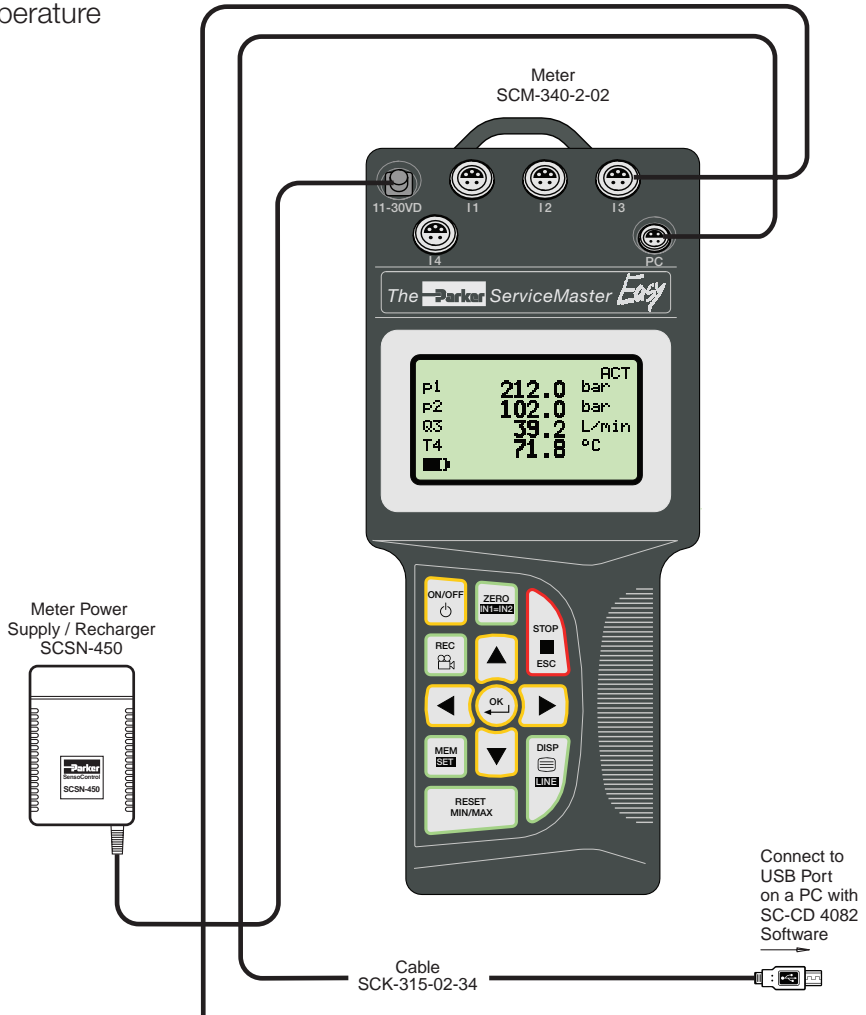
#### SensoWIN™ Software

for data transfer to a PC (Windows 2000 and newer).

**Part Number**  
SC-CD 4082

# Schematic

Measures and Documents Flow, Pressure, Voltage, Current, Temperature and Rotation Speed



## Test Meter Kits

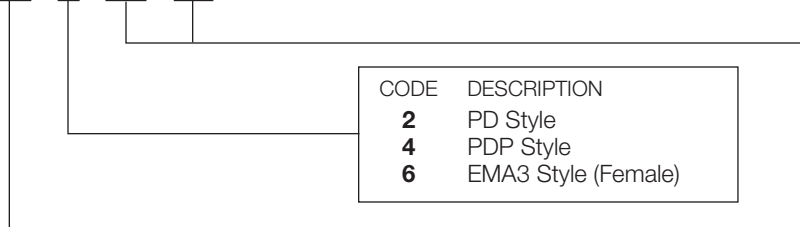


### The Parker Service Master Easy 340 Test Meter Kit Includes:

The Case . . . . . SC-690  
 The Parker Service Master Easy Meter . . . . . SCM-340-2-02  
 2 Transducers (see ordering Information below)  
 2 Transducer Cables (10 Ft.) . . . . . SCK-102-03-02  
 Power Supply . . . . . SCSN-450  
 SensoWin Software 4.03 . . . . . SC-CD 4082  
 Usb Computer Cable . . . . . SCK-315-02-34  
 Operating Manual (incl. with the Parker Service Master Easy Meter)

#### Code for Ordering Kits:

**PDSME XX - X - XX - XX**



CODE	DESCRIPTION
2	PD Style
4	PDP Style
6	EMA3 Style (Female)

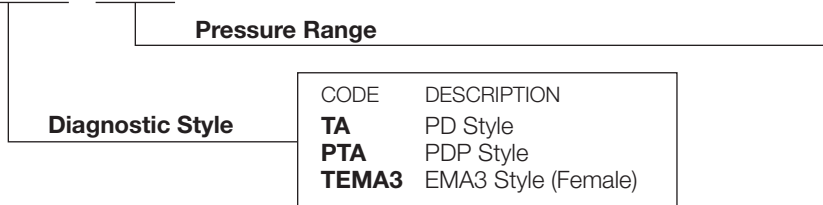
CODE	PRESSURE	COLOR
01	-14.5 – +145 PSI	Blue
06	0 – 870 PSI	Green
15	0 – 2175 PSI	Yellow
40	0 – 5800 PSI	Orange
60	0 – 8700 PSI	Red

CODE	DESCRIPTION
34	The Parker Service Master Easy 340 Meter

## Additional Transducers

#### Code for Ordering Separately:

**PD XXXXXX - XXXX**



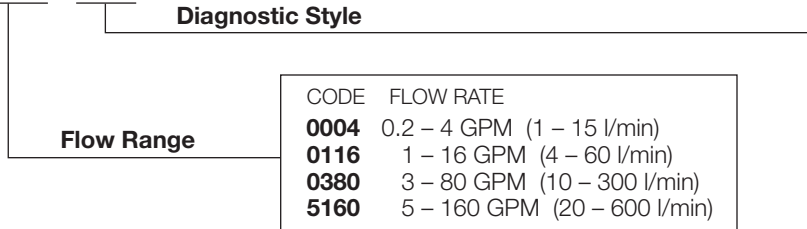
CODE	DESCRIPTION
TA	PD Style
PTA	PDP Style
TEMA3	EMA3 Style (Female)

CODE	PRESSURE	COLOR
0100	-14.5 – +145 PSI	Blue
0600	0 – 870 PSI	Green
1500	0 – 2175 PSI	Yellow
4000	0 – 5800 PSI	Orange
6000	0 – 8700 PSI	Red

## Flow Sensors

#### Code for Ordering Separately:

**SCFT-XXXX - XXX**



CODE	FLOW RATE
0004	0.2 – 4 GPM (1 – 15 l/min)
0116	1 – 16 GPM (4 – 60 l/min)
0380	3 – 80 GPM (10 – 300 l/min)
5160	5 – 160 GPM (20 – 600 l/min)

CODE	DESCRIPTION
PD	PD Style
PDP	PDP Style
EMA	EMA Style

Bulletin 3800-SM EZ



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