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# Trimble SV170 Control Box

## Cab-mounted display for GCS900

## General Description

The Trimble® SV170 in-cab display is a fully sealed, solid-state rugged, Microsoft® Windows® CE-based field computer used in the Trimble® GCS900 system. The SV170 has a front-loading data card so that the data card slot is always accessible, no matter where you locate the display. The slim, rugged display is designed with a positive contact keyboard to allow reliable operation even while the machine is moving during rough grading operations. A color screen shows graphical and textual displays for easy-to-read operation.

**System information at your fingertips** – The guidance information is viewed onscreen with simple at-a-glance displays suitable for use on a mobile machine. Textual and graphical displays are easily configured. The information for precise guidance and quality control of the system sensors is easy to understand. Using the SV170 makes it easy to keep the machine on grade and on line. Within the system, the display operates much like a set of plans that are permanently available to the operator; both a plan view and side views of the machine and the design surface are available.

**Built to Last –** The SV170 uses a processor with low power consumption for reliable field operation. The Unlike computers designed for office use that require a fan for cooling the unit, the SV170 is fully sealed with no moving parts. This feature ensures operation in wet and dusty conditions, from open cab mount to four-wheel ATV operation. Even the card slot is fully sealed. With its front-loading capability, the SV170 is designed to reduce the buildup of dirt and water commonly found with data card slots that are top loaded.

## Key Features and Benefits

- Clear graphical color display on 140 mm (5.5") LCD screen allows easy viewing

- Customizable screen displays and audio warnings to suit operator preferences

- Industry-standard J1939 CAN system interface allows "plug and play" integration of the GCS900 sensors into your system.

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## Standard Features

- Rugged, ergonomically designed display

- Positive contact backlit keyboard

- Display bracket – both pole mount and U-bracket mounts are included

- 100% sealed cast aluminum housing with no fan

- Fully sealed card slot

- Input connection – single power and data connector (39-pin Mil-spec)

- J1939 CAN industry standard interface

- QVGA active matrix LCD, 16-color, sunlight-readable display

- Microsoft$^®$ Windows$^®$ CE Operating system

- Quick start – Once the system is installed, all the necessary settings and operator preferences are stored for faster restarts

## Specifications

| Physical characteristics | Specifications |
|---|---|
| Size | Height:   232mm (9.0") <br> Width:    186mm (7.1") <br> Depth:     88mm (3.5") |
| Weight | < 2.72 kg (6 lb) |
| Display | 140 mm (5.5") diagonal, QVGA (320 x 240) active matrix LCD, 16-color, sunlight-readable, scratch-resistant, low-glare glass |

| Environmental characteristics | Specifications |
|---|---|
| Temperature | Operating:       -30°C to +60°C (-22°F to +140°F) <br> Storage:           -40°C to +85°C (-40°F to +185°F) |
| Humidity | 100% fully sealed, weatherproof |
| Housing | Fully sealed, cast aluminum housing sealed to <br> 34.5 kPA (5 psi) |
| Mounting | Shock-resistant tilt and swivel pole mounting bracket |

| Technical characteristics | Specifications |
|---|---|
| Electrical Input Voltage | 9 to 32 VDC |
| Power | 20 W (maximum 25 W) |

**SV170 39-Pin Connector**

| Pin | Description | | Pin | Description |
|-----|-------------|---|-----|-------------|
| A | Beeper Gnd | | X | Beeper |
| B | Switch input 0 | | Y | Switch Input 1 |
| C | Reserved | | Z | Reserved |
| D | Battery + In | | a | Reserved |
| E | Battery + Out | | b | Reserved |
| F | Battery – In | | c | Reserved |
| G | Battery – Out | | d | CAN shield 0 |
| H | Reserved | | e | CAN shield 1 |
| J | CAN L 0 | | f | RS-232 RTS 0 |
| K | CAN H 0 | | g | RS-232 CTS 0 |
| L | CAN H 1 | | h | RS-232 RXD 0 |
| M | CAN L 1 | | i | RS-232 TXD 0 |
| N | RS-232 TXD 2 | | j | Reserved |
| P | RS-232 RXD 2 | | k | Switch input 2 |
| R | RS-232 SGND 2 | | m | Chassis Gnd |
| S | RS-232 SGND 1 | | n | Awake Gnd |
| T | RS-232 RXD 1 | | p | Awake |
| U | RS-232 TXD 1 | | q | RS-232 SGND 0 |
| V | Reserved | | r | Chassis Gnd |
| W | Reserved | | | |