

COMTEST V36H



A COMPLETE V36/RS449 INTERFACE TROUBLESHOOTER FOR SPEEDS UP TO 10MB. OFFERING FEATURES LIKE VOLTAGE STRENGTH AND GROUND POTENTIAL DIFFERENCE TEST

The logical design makes it easy to read and use. It runs over 20 hours on one single 9 volt battery. All 13 interface signals are monitored in line with the breakout system. Two unassigned monitors enable the user to test the unassigned lines, make signal strength tests and catch short duration events. It is a time and trouble saving tool for engineers who install, repair or use V36 equipment.

TECHNICAL INFORMATION:

- HI/LO, high impedance, monitors on all signal lines.
- High speed monitors (10Mb) for all balanced signals.
- Two extra monitors with trap to test short duration events.
- Signal Strength test for 0.3, 0.6, 1 and 2 volts.
- Ground Potential Difference test.
- Galvanically separated 1.5 volt DC source.
- One balanced and two unbalanced terminations.
- Runs 20 hours from one single 9 volt battery.
- Two dual gender ribbon cables.
- Logical face plate, easy to read and use.

The Comtest V36H offers many features not available on other testers of its kind. Although several times faster than products of its kind, it uses less battery power. The 1.5 volt source is provided by a separate AAA size battery and galvanically separated.

The Ground Potential Difference test is an important feature needed if different grounds (wall outlets) are used. The "in line" GPD tests for voltages over 2 volts, the V11 monitor/trap allows test of Ground Potential Differences as low as 0.3 volt. The Signal Strength Adapter allows the user to test for signal levels of 0.5, 1, 2 and 3 volts of GPD or the balanced interface lines.

The Comtest V36H breaks all 37 interface lines and has access sockets on both sides of the switches, making it possible to break and crosshatch all lines by means of the switches and the jumper cables supplied with the unit. The two dual gender ribbon cables assure 100% connectivity in any type of configuration. All contacts are gold plated to ensure good electrical contact.

It is housed in a moulded, durable ABS plastic case, with the battery compartment on the backside. The logical face plate is easy to read and gives all information needed to test the V36 interface.

The Comtest V36H runs over 20 hours on a single 9 volt battery. It can also be powered by an optional 9 volt (stab. / min. 100mA) mains adapter.

Size of main unit: 150 x 105 x 20 mm

Weight: 295 grams.

Full technical information is provided on panels in case and on the back.

Ground Potential Differences: G.P.D. develops when systems are wrongly grounded or use different grounds, using different wall outlets or UPS. This test is recommended. G.P.D. not only causes problems for the installation of the signal state, it can destroy your equipment and even be hazardous to yourself. Read chapter "Traps & Tricks" in the user manual for more information.
To test G.P.D. open all dual in line switches. LED on Φ 19 lights if G.P.D. is over 2 volts. For a more accurate test (300mV) use the extra V. 11 monitor, connect A traps to the left and right socket Φ 19, the pulse trap shows short duration pulses.
Signal Strength Adapter: This product complies with the norms for V36. The minimum voltage needed according to the standard reference for the in-line monitor is too low to assure a reliable communication. The Signal Strength test allows testing for the real voltage strength. For V.11 connect A respective B of the signal line to Φ 19 of the extra monitor. Signals exceeding the selected voltage will light the LEDs. For V.10 connect the signal line to the unassigned S.E. monitor. Signals exceeding the selected voltage will light the LEDs. The trap will trigger according to selected range.

Pin	EIA	Description	CCIT	Source
4	22	SD	103	DTE
6	24	ST	114	DCE
6	24	RD	104	DCE
7	28	RS	108	DTE
8	26	RT	116	DTE
9	27	CS	106	DCE
11	29	DM	107	DCE
12	51	TR	108.2	DTE
16	31	RR	105	DCE
17	58	TT	119	DTE
1	.	Signal	101	.
2	W	Signal Rate Indicator	112	DCE
3	.	unassigned	.	.
10	LL	Local Loopback	140	DTE
14	RL	Remote Loopback	143	DTE
18	IC	Incoming Call	128	DCE
18	IF	Signal Frequency	126	DCE
18	SR	Signal Rate Selector	111	DTE
18	TM	Test Mode	142	DCE
19	S G	Signal Ground	102	.
21	R.C	Receive Common	102a	.
21	.	unassigned	.	.
28	IS	Terminal In Service	.	DTE
32	SS	Select Standby	116	DTE
33	SES	Signal Equality	110	DCE
34	NS	New Signal	.	DTE
36	SB	Standby Indicator	117	DCE
37	SC	Send Common	109a	.

V36H Box Panel

Power:

20 hours by one 9 Volt alkaline battery or 9V/100 mA stab. external source (2.5mm monoplug, + on top) plus one 1.5 V AAA batt. for the DC Source. Power LED is off, or blinking if the battery is more than 90% empty.

V36 Interface	Balanced (V. 11)	Single Ended (V. 10)
Red LED	A min. 300mV > B	> 300mV higher S.G.
Green LED	B min. 300mV > A	> 300mV below S.G.
Input Impedance	> 2K Ω	> 4 K Ω
Dynamic Response	max. 10Mb	Line monitor > 50Kb Ext. monitor > 1Mb
Pulse Trap	Faster than 20ns	Faster than 20ns
Source	galvanically separated 1.5V through 165 Ω	\pm 5V through 330 Ω
Termination	120 Ω balanced	2 X 120 Ω to S.G.

V36H Back Panel

The Comtest V36H comes complete with two dual gender cables, Signal Strength adapter jumper cables, batteries, user's manual and case for transport.

For further information, please contact: