

Operating Specifications

- **Display** 256 color active back lit LCD
- **Power Source** AC adapter/lithium ion rechargeable batteries
- **Interfaces** Serial port for direct printing from Validator™ and USB port for uploading/downloading files to/from a laptop/PC
- **Operating System** Linux
- **Keypad** Full navigation set with easy alphanumeric data entry and soft key functions.

Physical Characteristics

Physical Dimensions

- **Main Unit**
Size: 22.9 x 11.4 x 5.3 cm
(9 x 4.5 x 2.1 inches)
Weight: 710 grams (1 lb 9 oz.) with battery
- **Remote**
Size: 14.2 x 11.2 x 4.4 cm
(5.6 x 4.4 x 1.8 inches)
Weight: 341 grams (12 oz.) with battery

Environmental

- Operating temperature: 0 to 50°C (32 to 122°F)
- Storage temperature: -20 to 70°C (-4 to 158°F)
- Humidity: 10% to 85%, non-condensing

Interfaces

- USB cable assembly
- 32 MB compact flash card

Test Connectors

- 8-position shielded modular jack (data)
- 6-position modular jack (telephone)
- F-coax (video) and dual banana jack (security, speaker, etc.)

Cable Types

- Shielded or unshielded Cat3, 5, 5E, 6
- Telephone, coax, speaker wire, security, fire, and alarm

Battery Type

Rechargeable, removable lithium ion packs

Maximum cable length for testing for split pairs

Up to 1500 feet, depending upon cable type

Signal Quality Testing on Network Cable

- Wiremap up to 8 locations at a time
- Length of cable (TDR) distance to Opens and Shorts
- SKEW
- NEXT—All combinations on all pairs (12)
- Channel Response
- Echo Testing (Return Loss)—impedance mismatches
- Signal to Noise Ratio
 - Attenuation
 - Amplitude
 - Return Loss

Performance and Speed Certification

- Supports IEEE802.3 speed criteria up to 1 gigabit with full Bit Error Rate Test (BERT)
- Test interconnect specifications per TIA568/570
- Measures the quality of the signal through the cable against set criteria on cable data-carrying capability in real time. 100Mbit/gigabit speeds
- Real-time testing of the performance capability of the cable
- Measures signal quality in actual link environments that could account for cable inadequacies. Physical installation, kink, loops etc., physical terminations, dry shorts, miswires etc.

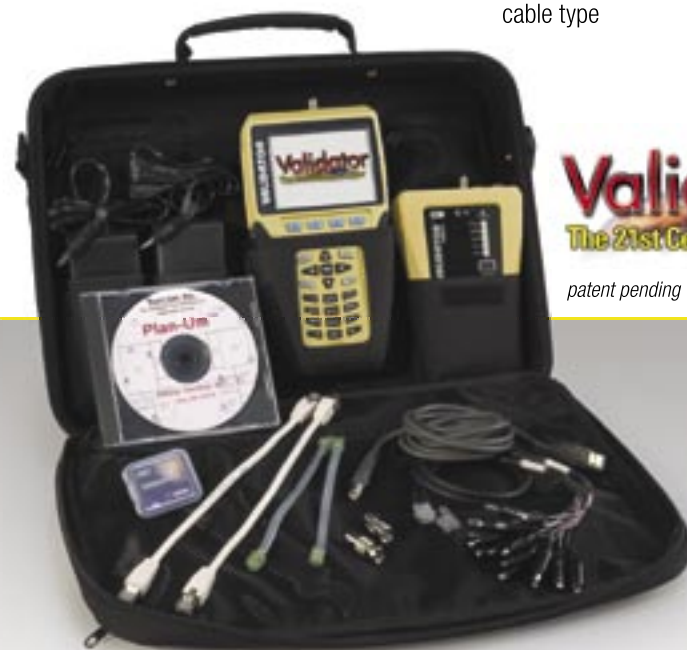
Validator
The 21st Century Certifier

patent pending

Specifications subject to change.

Validator™ Kit (NT950) includes

- Validator™ Main Unit and Smart Remote
- 2 lithium ion rechargeable long-life batteries
- 2 AC adapter/charger units
- 4 adapter cable assemblies
- USB cable assembly
- Compact flash card
- Plan-Um™ design layout software
- Deluxe carrying case with cushioned sides



Test-Um Inc.
The Intelligent Test Solutions Company

805-383-1500 • FAX 805-383-1595 • www.test-um.com

Network/Cabling Certifier

- Tests to TIA 568/570 interconnect standards
- Certifies CAT5, CAT5E, and CAT6 cables to be IEEE compliant to 1 gigabit speed
- Tests coax, telephone, audio, and security cables
- Powerful Plan-Um™ design software included
- Creates and prints job reports
- Wiremap new or existing cable systems
- Simple to use



Validator™ gives you 4 steps to more professional, productive and profitable installations...

Validator
The 21st Century Certifier

patent pending

Define the Job, Make the Tests, Print the Results, Store the Data...



Removable
32 MB compact
flash memory
card included

No other tester/certifier does so much, so easily and so economically.

Validator measures and presents fast and clear SPEED and PERFORMANCE results up to 1 gigabit. The included powerful Plan-Um™ software ties together all the different cable criteria that are found in complex voice/data/video installations and presents concise information in printed reports, while storing data for future use.

Speed certification assures your customer that the cabling will do the job it is rated to do. Attached components, switches, hubs, routers and systems will then operate at maximum efficiency.

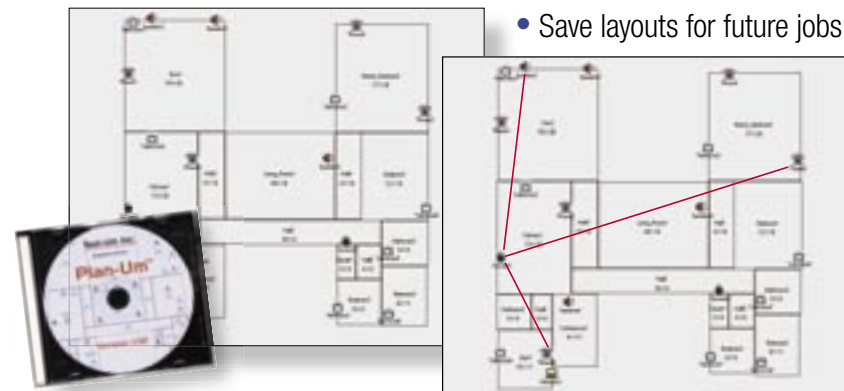
Completing and billing a cable installation job has never been easier. Simply layout your customer's requirements in a matter of minutes, then define cable types and runs. Test/certify each cable run. Print the results and attach them to your invoice. That's all there is to it.



dedicated I/O ports for
network, telephone, coax and paired cables

1. Layout

- Create custom floor plans
- Show specific ports:
network, telephone, cable
- Indicate cable runs
- Print or e-mail layout
for approval
- Save layouts for future jobs



Powerful Plan-Um™ software included

2. Certify

- Certifies to IEEE802.3 speed criteria. Test/certify network cables to 1 gigabit speed, using live digital data packets in a full Bit Error Rate Test (BERT). Other typical TIA568 measurements include NEXT, Attenuation, Return Loss, SKEW and overall Signal-to-Noise Ratio (SNR).

- Measure cable length and distances to opens and shorts using advanced TDR technology

- Skew and signal/noise ratio results shown on faulty cables

ID	Type	To	From	Result
Cable001	CAT5	01Phone01	01Panel01	✓ 1000
Cable002	CAT5E	01Net01	01Panel01	✓ 1000
Cable003	RG6	01TV01	01Panel01	✗ FAIL
Cable004	CAT3	01Phone02	01Panel01	✓ PASS
Cable005	CAT6	01Net02	01Panel01	✓ 1000
Cable006	Fire	01Fire01	01Panel01	✓ PASS
Cable007	Audio	01Sph01	01Panel01	✓ PASS

Test Results		2004 Oct11		Test-Um Inc.	
Untitled1.job		100%		VALIDATOR	
Cable001		Testing...		1000Mb	
Test Time: 10/11/2004 10:53 AM		CAT5E			
Expected	Results				
1	1	1			
2	2	2			
3	3	3			
6	6	6			
4	4	4			
5	5	5			
7	7	7			
8	8	8			

Test Results		2004 Oct11		Test-Um Inc.	
Untitled1.job		100%		VALIDATOR	
Cable001		Testing...		1000Mb	
Test Time: 10/11/2004 10:53 AM		CAT5E			
Length	Skew	SNR			
Max: 300ft	Max: 35ns	Min: 20db			
A	182ft	0.0	25.5		
B	188ft	6.0	25.6		
C	183ft	2.0	25.8		
D	186ft	2.0	26.0		
BERT Results: 0 errors					

Test Results		2004 Oct11		Test-Um Inc.	
Untitled1.job		100%		VALIDATOR	
Cable001		Testing...		1000Mb	
Test Time: 10/11/2004 10:53 AM		CAT5E			
PASS					

- Wiremap individual runs to locate and identify cable routes

- Test telephone, coax, security/alarm cables for continuity, proper termination and polarity

- Clear test results

- Shows the actual error rate in the BERT test

3. Document & Archive

- Verify all tests are done against the plan
- Shows PASS/FAIL, cable length and speed rating
- Print End of Job Report for billing purposes

VALIDATOR™

Test-Um Inc.
The Intelligent Test Solutions Company

Cable Test Schedule

Date: 12.10.04
Time: 1:30 pm

Site Information

Job ID: 041112
Residential
John Henderson
(800) 777-8888
john@test-um.com
8700 Canyon Street

Springfield
MO
65802
USA

Contractor Information

Test-Um Inc.
Northridge
(800) 360-5000
info@test-um.com
800 Cable Plaza

Camarillo
CA
93012
USA

Certified by:

(INSTALLER SIGNATURE)

(INSTALLER COMPANY)

Cable Schedule

CABLE ID TO	FROM	TYPE	CBL CAT	USE	LENGTH	RESULT
Cable001	01Phone01	01Panel01	CAT5	Phone	330.0	✓ PASS
Cable002	01Phone02	01Panel01	CAT5	Phone	330.0	✓ PASS
Cable003	01TV01	01Panel01	RG6	TV	4.0	✓ PASS
Cable004	01TV01	01Panel01	RG6	TV	2.0	✓ PASS
Cable005	01Phone01	01Panel01	Audio	Speaker	3.0	✓ PASS
Cable006	01Phone01	01Panel01	Audio	Speaker	10.0	✗ FAIL
Cable007	01Phone01	01Panel01	Audio	Speaker	11.0	✓ PASS
Cable008	01Phone01	01Panel01	Audio	Speaker	11.0	✗ FAIL
Cable009	01Phone01	01Panel01	Fire	Fire	8.0	✓ PASS
Cable010	01Phone01	01Panel01	Fire	Fire	1.0	✓ PASS
Cable011	01Phone01	01Panel01	CAT5	Phone	340.0	✓ PASS
Cable012	01Phone01	01Panel01	CAT5	Phone	340.0	✓ PASS
Cable013	01Phone01	01Panel01	CAT5	Data	31.0	✓ PASS
Cable014	01Phone01	01Panel01	CAT5	Data	31.0	✓ PASS
Cable015	01Phone01	01Panel01	CAT5E	Data	10.0	✓ PASS
Cable016	01Phone01	01Panel01	RG6	TV	4.0	✓ PASS
Cable017	01Phone01	01Panel01	CAT5	Phone	330.0	✓ PASS
Cable018	01Phone01	01Panel01	CAT5	Phone	330.0	✓ PASS
Cable019	01Phone01	01Panel01	RG6	TV	4.0	✓ PASS
Cable020	01Phone01	01Panel01	Fire	Fire	8.0	✓ PASS
Cable021	01Phone01	01Panel01	RG6	TV	4.0	✓ PASS

- Store finished jobs for reference in doing future adds, moves or changes
- Store data on either a laptop/PC or in flash card memory up to 2 GB. Thousands of jobs can be saved!
- Use archived info when upgrading or changing previously installed systems