

## EMC & RF Instrumentation Solutions

**Honesty In Instrumentation** 

Prima EMC Model ISO7637-TP2b,4

ISO 7637-2 Pulse 2b, 4

The Model ISO7637-TP2b,4 Automotive Transient Generator is designed for testing to the ISO 7637-2



Specification. The instrument is designed for ease of use via the large 7 inch easy to read and navigate color touch screen. Built in test standards allow for immediate testing while user defined routines are just a tap away via the touch screen. The ISO7637-TP2b,4 is built for ruggedness and longevity with quality and dependability being first and foremost.

The ISO7637-TP2b,4 simulates Pulse 2b transients from DC motors acting as generators after the ignition is switched off. In addition Pulse 4 simulates supply voltage reduction caused by energizing the starter motor circuits of internal combustion engines. Spikes associated with starting are not included in the pulse 4 ISO 7637 specification.

The Model ISO7637-TP2b,4 specifications exceed many of the ISO 7637 requirements allowing for greater testing flexibility.

## Specifications

| Pulse 2b          |    | 12 volt System           | 24 volt System      |
|-------------------|----|--------------------------|---------------------|
| Test Voltage      | UA | 13.5 volts +/- 0.5 volts | 27 volts +/- 1 volt |
| Pulse Voltage     | Us | 10 volts                 | 20 volts            |
| Source Resistance | Ri | 0 Ω to 0.05 Ω            |                     |
| Pulse Rise Time   | Tr | 1 ms +/- 0.5 ms          |                     |
| Pulse Fall Time   | T1 | 1 ms +/- 0.5 ms          |                     |
| Voltage Zero Time | T2 | 1 ms +/- 0.5 ms          |                     |
| Pulse Duration    | Td | 0.1 s to 3 s             |                     |
| Pulse Period      | Т  | 0.3 s to 9.9 s           |                     |
| Repetitions       | Ν  | 1 to 99 times            |                     |

| Pulse 4             |     | 12 Volt System           | 24 Volt System         |
|---------------------|-----|--------------------------|------------------------|
| Stable Voltage      | UB  | 13.5 volts +/- 0.5 volts | 27 volts +/- 1 volt    |
| First Voltage Drop  | Us  | -5 volts to -8 volts     | -10 volts to -20 volts |
| First Voltage Drop  | t7  | 10 ms to 50 ms           | 40 ms to 120 ms        |
| Duration            |     |                          |                        |
| First Voltage Drop  | t10 | 5 ms                     | 10 ms                  |
| Fall Time           |     |                          |                        |
| Second Voltage Drop | Ua  | -2 volts to -6.3 volts   | -4 volts to -13 volts  |
|                     |     | with  Ua  ≤  Us          | with $ Ua  \leq  Us $  |
| Second Voltage Drop | t9  | 0.2 c to 25 c            |                        |
| Duration            |     | 0.3 \$ 10 23 \$          |                        |
| Drop Rise Time      | t8  | ≤ 50 ms                  |                        |
| Stable Voltage      | t11 | 4 ms to 150 ms           |                        |
| Recovery Time       |     | 4 ms to 150 ms           |                        |
| Source Resistance   | Ri  | 0 Ω to 0.02 Ω            |                        |
| Max EUT Current     |     | 54 amps                  |                        |
| Repetitions         | Ν   | 1 to 99 times            |                        |

## General Equipment Specifications

| Primary Power    | 110 vac to 240 vac                  |
|------------------|-------------------------------------|
| Environment      | Temperature: 15° C to 35° C         |
|                  | Humidity: 45% to 75%                |
|                  | Atmospheric Pressure: 86 to 106 kPa |
| Dimensions       | 450 mm x 430 mm x 310 mm            |
| Remote Interface | USB GPIB                            |