



# TAYLOR ELECTRONIC DESIGNS

## MODEL 8098 TRANSFORMER LEAKAGE TEST SYSTEM

### Airport Lighting Transformers

Transformers, Connectors, Cables And Most Other Devices

#### **DESCRIPTION:**

The Taylor model 8098 was developed to test and record the leakage of transformers and other devices that require low leakage tests (30uA or less) and high voltage 5-15KV. This stand-alone test system is extremely accurate, fast and user friendly. It will test a typical transformer in 90 seconds. The test unit is capable of providing a measurement in the range of 0 to 30.0uA with a 0.1uA resolution (higher currents available). The test sequence and parameters is controlled by the test system. Data is transferred to a Personal Computer (not included) with the Software provided. The measurement test data can be transferred to any popular spreadsheet (Macro for spreadsheet provided).



#### **FEATURES:**

- \* Automatic Primary (15kv) And Secondary (5kv) Tests
- \* Automatic Ramp Up and Ramp Down
- \* Unique Extremely Low Leakage Grounding Relays With Integral Output Connectors
- \* Excellent For Lab, QC And Production Use
- \* Data Can Be Exported To Most Programs
- \* Adapters Available For Most Devices
- \* Fast Test Set-Up And User Friendly

#### **OPTIONS:**

Barcode Reader Input.

Serial Printer Output.

**Please contact us for other options and custom configurations.**

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**Test System Specifications:**

**Front Panel Operation:**

Power Switch: Power On/Off.

High Voltage Warning Light: Will flash 1/2 second rate when high voltage is present.

Start Switch: Both buttons must be activated simultaneously.

Stop Switch: Used in "emergency" situations. Also used to cancel current test. LCD will display "stopped!" and audio alarm will pulse at 1/2 second rate until it is pressed again. If pressed when testing is not active, only audio alarm will sound.

TA / TAG Switch: Selects Transformer Type.

TAG: Primary Test Only:  
Test voltage = 15kv      leakage current test limit = 2uA

TA:  
Primary Test:              Test voltage = 15kv      leakage current test limit = 2uA  
Secondary Test:          Test voltage = 5kv      leakage current test limit = 2uA

TX / Off Switch:

LCD - will indicate status of transmit (download)

TX (up position) selected when transformer data is ready to be downloaded to host computer.

Once data has been downloaded, switch can be selected to "off". Test system is now ready to start the next batch of transformers (memory is cleared and unit counter is reset).

Fail Test:

Audio alarm will sound continuously and "Failed Test" will be displayed on LCD until "stop" button is pressed (data will be stored in this situation).

High Voltage Low Warning:

LCD will display "high voltage low" and audio alarm will pulse at one second rate until "stop" is pressed twice. Current test data will not be valid therefore it will not be stored.

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Limiter Failure:

LCD will display "limiter failure" and audio alarm will pulse at one second rate until "stop" is pressed twice. Current test data will not be valid therefore it will not be stored.

Redundant Over-current:

"Reset" indicator will light when leakage current has exceeded 120 uA. Reset by pressing "Reset" button and then the stop button. Current test results will not be stored. LCD will display "Stopped!" and audio alarm will sound (continuous tone).

Over-current:

Unit will stop test if leakage current exceeds 40uA. Current test results will not be stored. LCD will display "Stopped!" and audio alarm will pulse at 1/2 second rate until stop button is pressed.

**Specifications:**

Microprocessor board description:

- |                                    |  |
|------------------------------------|--|
| - 8 bit microprocessor             | - all logic CMOS                           |
| - CMOS Ram                         | - all outputs current limited              |
| - Eprom (program/operating system) | - all inputs static/over voltage protected |

LCD: 16 Character Display:

To display the following:

Fail, leakage current, primary test, secondary test,

Barcode, printing, sending, etc.

Leakage current 00.0 to 30.0ua

Interface to host:

Serial interface with handshaking (RS-232, 300 baud)

Audible warning:

For fail, stopped, over current, high voltage, low voltage and Limiter failure.

Memory Storage Format:

Serial number 6 digits (6 bytes)	Pri. Leakage 3 digits (3 bytes)
Sec. Leakage 3 digits (3 bytes)	Transformer type (1 byte)
Maximum records: 400 (one per transformer)	

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High Voltage Section - 15kv/5kv dc:

Flyback type/frequency approximately 20 kHz.

Voltage control is done with low voltage (0 - 24vdc).

Output current is limited to 40 uA.

Primary test voltage: 15kvdc      Secondary test voltage: 5kvdc

Unique extremely low leakage grounding relays with integral output connectors.

Software For Host PC Supplied:

This program will poll data from test stations via the serial port. The data will be stored on a diskette/hard drive (spreadsheet compatible file).

Host requirements: disk drive, serial port and dos 2.11 or later and or Windows.

Dimensions:                    20 " wide x 18 " deep x 10 " high  
Weight:                         48 Lbs.  
Power Source:                 100-240vac 50/60Hz power adaptor to 24VDC @ 4Amp (Supplied).  
   120vac - 50/60Hz - 118 watts (optional)  
Operating  
Temperature:                    Range 0 To 40 C.

Rear Panel:

RS232:                         Standard 9 pin D type connector.  
   (Computer is connected to test unit via the 6 to 24foot 9pin female to 9pin  
   male shielded cable supplied).  
Power Jack:                    5pin DIN  
Test Connectors:                Multipurpose or custom connectors can be supplied.

**Manufactured In Canada:  
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*Preliminary Information*