



AVTECH ELECTROSYSTEMS LTD.

NANOSECOND WAVEFORM ELECTRONICS  
SINCE 1975

info@avtechpulse.com  
<http://www.avtechpulse.com/>

Tel: 888-670-8729 (USA & Canada) or +1-613-686-6675 (Intl)  
Fax: 800-561-1970 (USA & Canada) or +1-613-686-6679 (Intl)

BOX 5120, LCD MERIVALE  
OTTAWA, CANADA K2C3H5

## INSTRUCTIONS

AV-CTL MODELS

TEST LOADS / ADAPTERS

FOR USE WITH AV-CLZ CABLES

SERIAL NUMBER: 14106, 14107

### WARRANTY

Avtech Electrosystems Ltd. warrants products of its manufacture to be free from defects in material and workmanship under conditions of normal use. If, within one year after delivery to the original owner, and after prepaid return by the original owner, this Avtech product is found to be defective, Avtech shall at its option repair or replace said defective item. This warranty does not apply to units which have been disassembled, modified or subjected to conditions exceeding the applicable specifications or ratings. This warranty is the extent of the obligation assumed by Avtech with respect to this product and no other warranty or guarantee is either expressed or implied.

### TECHNICAL SUPPORT

Phone: 888-670-8729 (USA & Canada) or +1-613-686-6675 (International)

Fax: 800-561-1970 (USA & Canada) or +1-613-686-6679 (International)

E-mail: [info@avtechpulse.com](mailto:info@avtechpulse.com)

World Wide Web: <http://www.avtechpulse.com>

TABLE OF CONTENTS

**WARRANTY.....2**  
**TECHNICAL SUPPORT.....2**  
**TABLE OF CONTENTS.....3**  
**INTRODUCTION.....4**  
**SPECIFICATIONS.....5**  
**BASIC USAGE.....6**

Manual Reference: /filesserver2/officefiles/instructword/av-ctl/av-ctl,ed4.odt.  
Last modified February 8, 2021.  
Copyright © 2021 Avtech Electrosystems Ltd, All Rights Reserved.

## INTRODUCTION

The AV-CTL test loads / adapters allows a user to connect a soldered load to the end of a user-supplied AV-CLZ-type cable, which is used with a variety of Avtech pulse generators.

The AV-CTL test load adapter consists of a female DB-37 connector to which a small circuit board (8 x 50 mm x 1/16") is soldered. Pins 1-19 of the connector are soldered to the top side of the board, and pins 20-37 are soldered to the bottom side.

The DB-37 connector will mate to the end of a user-supplied AV-CLZ-type cable. The user may solder a load between the two sides of the 8 x 50 mm circuit board, as desired.

The AV-CTLX is provided with no resistive load installed between pins 1-19 and 20-37.

Models AV-CTL1, AV-CTL2, AV-CTL3, and AV-CTL4 have a resistance installed between these two sets of pins.

The -ENC option provides an aluminum enclosure to surround the load devices, for safety purposes. This option is recommended when high voltages will be present on the load.

This adapter is intended for use in research, development, test and calibration laboratories by qualified personnel.

## SPECIFICATIONS

Model:	AV-CTLX	AV-CTL1	AV-CTL2	AV-CTL3	AV-CTL4
Load resistance (R <sub>L</sub> , ±10%):	Open circuit	1.0 Ω	1.8 Ω	2.7 Ω	3.6 Ω
Max. pulse current:	200 A	200 A	50 A	30A	25A
Max. average power/current:	75 A	5 Watts			
Resistor type:	N/A	Low-inductance ceramic composition resistors.			
Rise time:	< 5 ns				
Maximum voltage:	Standard (open construction): 55V.      With -ENC option (enclosed): 110V.				
Connector:	DB-37 female. Pins 1-19 = signal, pins 20-37 = ground.				
Temp. range:	+5°C to +40°C				

## BASIC USAGE

The basic mechanical connection scheme for the AV-CTLX is shown below:

