

## OPERATING WITH POWER

The AT2900 Pro can be connected to an external power source either through the crane power connector or via an external power supply to fully exercise the motors and claw. The gray and black cables are used to power specific crane bridges. The stand alone box uses the black cable provided to connect to an external bench power supply or the crane board power connector can be connected directly to the box. We have provided two different connectors because there are 2 vintages of cranes that use one or the other. Available adapter modules indicate which power cable is used. Please refer to our website for available adapters and cables.

You will need an external power supply to bench test a bridge assembly. The Happ Controls supply PE-PS-JUM-P2040 is a perfect choice.

With power applied, the buttons on the right will apply power to motors and claw when pressed. With

the slide switch in the “UP TO HOME” position, the buttons will run the bridge to the “standard” home position.

The slide switch can be slid down to reverse directions. This function can provide some valuable testing functions as well as allowing you to wind and unwind the claw string with power.

## WARRANTY

Amusement Technologies warranties the AT2900 and accessory modules for a period of 90 days. Warranties do not cover items that have been abused or improperly installed. This warranty is limited to the replacement, repair or credit of the defective product. This warranty does not cover any direct or indirect costs, including shipping, arising from the use of this item. A return authorization is required for all warranty returns.



## AT2900 Pro Crane Bridge Tester



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## INTRODUCTION

The AT2900 Pro is a simple to use tool that can dramatically reduce your crane troubleshooting time.

With this device you can immediately determine if there are any defective switches or broken wires in your crane bridge. You can also exercise the motors and claw via the external power cable and right hand side switches. The DB25 connector on the left connects directly to Coast to Coast and Coastal Amusements cranes as well as many other cranes using that bridge connector. Many cranes use the same style CPU with minor variations. There are also adapters available for many other cranes. Please refer to our website for details or to Happ Controls.

**The AT2900 directions assume a “standard” bridge configuration where home position is to the left and front.**

## OPERATION

### LEDs

Remove power from the crane and disconnect the bridge cable from the crane CPU board. Plug the bridge connector directly into the side of the AT2900 or use one of the custom adapters available for your particular crane. The LEDs on the left of the tester monitor the switches and wires in the bridge. By manually manipulating the bridge and switch actuators you can easily determine if the switches are working and the associated wiring is intact. Bridges will frequently get broken wires in their harnesses. Many times the wire is separated inside the insulation and is not immediately visible. By aggressively moving the wiring harnesses around by hand you will be able to see one or another LED flicker or go out. That LED will help you determine where the suspect switch or wire is located.

## MOTOR TEST POINTS

The AT2900 has four sets of motor test points available on the front of the box. The two test points per set are provided simply as a point to measure motor and claw resistance which will also help you determine valid wire continuity to the particular motor and claw. Simply insert the probes of your ohmmeter into the side by side points. You are looking for a resistance value higher than zero ohms (a short circuit) and lower than the “OL” or infinity designation (most likely an open wire) on most meters. The resistance values will vary from crane to crane and the claw will typically be different from the three motor readings which will all probably be very close to each other. With a little bit of experience and trial and error you will become accustomed to the typical readings for a particular crane.