SIGNALLING

Serving the Signal and Communication needs of Railroads and Rail Transit Systems.

ART provides custom made electronic equipment along with a range of electronic components, all used by mechanical and track operators, to whom we have provided for over 20 years.

We also service, repair and calibrate a wide range of Signalling and Electronic instruments and equipment as well as servicing other signalling test equipment and devices. ART is the preferred vendor of Authorities for Power Supply repairs and upgrades, as well as, design and engineering for DC Convertors for special applications.
COMPLETE RAIL SOLUTIONS

CATALOGUE OF PRODUCTS

**AUDIO FREQUENCY TRACK CIRCUIT FILTER**
Assists in the measurement of audio frequencies used in track circuits.

*Product Number: 3505*

**AUDIO FREQUENCY TRACK CIRCUIT METER**
Meter to measure the audio frequency used in track circuits. Supplied in a tough carry bag suitable for field and track use. Complete with rechargeable batteries and multimeter test leads. Hard cases available on request for extra charge.

*Product Number: 3507*

**BATTERY VOLTAGE MONITOR**
The Battery Voltage Monitor is used in Level Crossings to monitor the battery voltage levels.

*Product Number: 3508*

**DIODE BLOCK FOR GEC POINT MACHINE**
XP3509 is used in Point Machine Type H.W 4400 single Phase A.C.

*Product Number: 3509*
LAMP PROVING MODULE
The Lamp Proving Module is used to monitor the current flowing in a lamp circuit.

Product Number: 3510

LED LAMP PROVING MODULE WITH SURGE PROTECTION
The Lamp Proving Module is used to monitor the current flowing in a lamp circuit and is fully compliant to EN50121-4 Emission and Immunity of Signalling Apparatus.

Product Number: 3788

PULSE INTEGRATOR
The Pulse Integrator is used in conjunction with a multimeter to measure the positive and negative peak voltages of High Voltage Impulse Track Circuits.

Product Number: 3512

20K SHUNT
Plug into the Multi Meter to give resistance on testing. Provide a 20k to 100k shunt load to help reduce noise.

Product Number: 3513
100K SHUNT
Plug into the Multi Meter to give resistance on testing. Provide a 20k to 100k shunt load to help reduce noise.

Product Number: 3514

TRACK SHUNT TESTER
The Track Shunt Tester is used in signalling application to test and adjust signalling track circuits.

Product Number: 3515

VARISTOR TESTER
The Lighting Arrester and Varistor Tester is used to determine the breakdown voltage of Arrester and Varistors.

Product Number: 3516

VITAL INDICTOR OPTOISOLATOR
The Vital Indication Optoisolator is used in signalling circuits to provide an electrically isolated output.
They are available a 12Vdc, 50Vdc and 120Vac operation and are designed to be mounted on standard DIN rails for easy installation.

Product Number: 3517
**DUAL VOLTAGE REGULATOR**

The Dual Voltage Regulator provides two precision 12Vdc regulated outputs for various signalling circuits. They are designed using a robust Aluminum extruded housing and termination is via a convenient screw type Phoenix connector.

*Product Number: 3638*

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**EUROCARD POWER SUPPLY**

Designed around the reliable MTM Power modules, the Eurocards are universal compact power supplies. With wide input range for worldwide application, they allow efficient cost saving solution for different tasks where medium ranged power is needed.

*Product Number: 3786*

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**ONGOING COMMITMENT**

As part of our commitment to the rail industry, ART continue to provide custom-made electronic equipment. With advances in manufacturing such as 3D printers, ART can quickly produce a cost effective design to suit your needs.
Australian Rail Technology is the distributor for S&C in the Australasian network.

S&C primarily serve the Signal and Communications needs of Railroads and Rail Transit Systems. Complete spec sheets of each product and accessories are available. Contact ART for further information.

www.sandcco.com

CATALOGUE OF PRODUCTS

**Relay Slides**

**331 DC/AC Slide**

Our 331-1 DC/AC Relay Slide embodies all the recommendations that have been received regarding relay slide design over the last thirteen years. Most importantly, this Slide can work with a 10-16 volt DC source to slide DC signal relays and a 10-16 volt AC source to slide AC PO relays, or similar (it cannot be used to test AC vane relays).

**331-5 Recording Slide**

Responding to widespread interest in a relay test set that can record and download test results to a computer, this unit has successfully packaged an AC/DC Recording Slide into the same size package and with all the features of its well known and widely used DC, AC and DC/AC Slides.

**330 Series DC Signal Relay Slides**

“Railroad rugged” smallest comprehensive signal relay tester. Volt and ohmmeter provide simultaneous readouts. Include polarity reversing switch and LED “power-on” indicator. Two models: 2.0A max. output, 3-turn and 10-turn pots. Come in padded case with leads (relay test and local battery). Optional equipment includes: battery packs, AC to DC power supply, in-vehicle chargers, adapter for use with plug-in relays out of the rack, long-reach probes for use with plug-in relays in the rack, searchlight signal testing adapters and shoulder harnesses.

**Accessories and variations Available**
Signalman’s Meter

Model 355 Signalman’s Meter

While the unit is digital, it also offers an analogue display (bar graph) for each scale, for those who prefer such an indication. The use of modern technology allows several additional features that relate to today’s signal maintenance requirements.

- All Functions, All Scales Protected Against Electrical damage
- Fuses, Batteries Front And/OR Side Accessed
- Temperature Range: -40 degF to +140 degF (With Lithium Batteries Furnished)
- All Volts, Ohms and Amps Displays Provided With Analog Bar Graphs
- And more…

Accessories and variations Available

Test Timer Apparatus

410 Signal Test Timer

The Model 410 Signal Test Timer has several capabilities that address various operations and signal related needs. Test data is recorded internally and is downloadable through the use of HyperTerminal, available in various Microsoft Windows configurations.

Portable. Operates on furnished, plug-in 120VAC to 12VDC power supply or local battery, or Battery Kit accessories. Can also be installed on a permanent basis.

Timer Set, complete, for train timing

The Model 410 Train Speed Timer allows the user to time trains, record the data, then download the recorded information on to a computer for analysis and other purposes.

Portable. Operates on furnished, plug-in 120 VAC to 12VDC power supply or local battery, or battery Kit accessories. Can also be installed on a permanent basis.

Accessories Available

e: sales@ar-tech.com.au
p: +61 2 9482 5710
w: ar-tech.com.au
**Data Recorder**

**Model 1010 Portable Data Recorder**

The 1010 Portable Data Recorder (PDR) provides the means to monitor up to sixteen contact closures and/or floating outputs such as those provided by GCP’s ® or VHLC’s ®, and two analogue inputs for tracking voltages, and time/date stamp their activity.

The use of an SD Card to store the comma delimited data will allow long time intervals to be recorded.

**Accessories Available**

**Megohmmeter**

**335/336 Railroad Signal Cable**

**Megohmmeter & Arrestor Tester**

Digital Volt-Ohm Milliammeter. Reads and displays AC and DC colts simultaneously, with Bar Graphs. Substantially reduces testing time. No buttons to push or cranks to turn. Built-in alarms sound when insulation resistance values reach 500K ohms and 200K ohms.

Kits include Megohmmeter/Arrestor Tester, leads, 120 VAC charger, In-Vehicle Charging Adapter, Calibration Check Device, Sweep Cross-Check Adapter and zipped padded case. Available in 250V and 600V.

**Accessories and variations Available**

**Narrow Band Shunt Tester**

**Model 322-2 Shunt Coupler Tester Kit**

This device permits the frequencies, tuning characteristics, Shunts, Couplers, and Transmitters attenuation, thru-put capacities and transmitter output frequencies of each device in the approach “network”, allowing you to determine the source of the problem.

This highly portable device permits the maintainer to bridge or terminate signals into the shunts or couplers under test. It can be moved to the area of the track where the shunts or couplers are in service, maximizing effectiveness and minimizing time required to perform the tests.

**Accessories and variations Available**
Short Finder

**Model 344 Track Circuit Short Finder**
The Model 344 Short Finder has capabilities well beyond finding shorts. Among those other applications are:
- Track insulation tester, including insulated joints
- Locating line and cable shorts
- Identifying high-resistance Bonds & Track Connections
- Noisy air gap arrestors, etc

**Accessories Available**

Cab Signal Code Analyzer

**Model577 Anlyzr, BP, 40Hz, Base Clmp**
Handy tool for setting up and maintaining coded track circuits in cab signal territory. Connects directly to the track for track measurement, or for convenience, has test leads with clips to connect to track wire terminals in the bungalow or case.

Nominal internal hard shunt helps the 577 Cab signal Code Analyzer deliver accurate information on the capacity of the track circuit to maintain proper current levels.

**Accessories and variations Available**

Ground Finder

**Model 360 Ground Finder**
Our Model 360 Ground Finder is a stand-alone tool designed to simplify, expedite and standardize the testing for grounds required by FRA Rules No. 234.249 and 236.107. Testing voltage is 22.5 VDC in both Test (volts) and Confirm (current) modes, reflecting a standard common with several railroads, and out of normal signalling voltage ranges. Unique “touch and go” operation greatly accelerates testing. Built “railroad tough” to withstand the usual working environment, the 360 tester is designed with circuitry that gives protection against damage caused by momentary contact with 110VAC. And, because output is current-limited, connection of the tester to a high-current ground will not damage the tester. Comes with battery, leads, and zipped tool pouch.

**Accessories Available**
Train Stop Inductor Tester

Train Stop Inductor Tester - 400-1
Tester is designed to identify the impedance range of the inductor choke coil with a Laminated Test Bar accessory simulating the on-train receiver. A reading above or below the acceptable range indicates a bad inductor. This test simulates a live, operational environment which is the most complete form of test.

To help ensure that the Tester internal battery is not depleted unnecessarily, the power switch is a dependent push-button. The power switch must be depressed to conduct a test. At all other times the Tester is turned off. The Model 400 Train Stop Inductor Tester comes in a rugged, fiberglass-reinforced, poly-vinyl case complete with leads, charger for the built-in, lead-acid gel cell, and removable, padded shoulder harness.

Independence Bond Tester

Model 401 Impedance Bond Tester - 401-1A
Easily portable Tester used to test conventional impedance bonds (not Wee-Z type impedance bonds). Allows user to determine the impedance of a bond at selectable test frequencies of 60 Hz and 156 Hz. Indicator flashes at 1-2 ohms. Meter reading covers a non-inductive resistance range of zero to 100 ohms. Operates on one 9V battery (included). Push-button controlled LED’s light meter for 15 seconds at a time for night time use. Comes complete with zippered, padded case and leads equipped with BU-11 battery clips for gripping impedance bond terminal lugs.

Track Circuit Digital Voltmeter

Model 506-802 DVM w/Case, Leads
The easy to read, digital “OLED” display shows AC and DC reading of 0-17V simultaneously. Great for taking track voltage readings, or finding opens, the 506-802 AC/DC Voltmeter + also features a spectrum analyser, allowing the operator to see all signals on the track in a spectrum of 0-20KHz (DC is displayed as a zero Hz Signal). Also with the ease of push-button operation, the operator can select each signal to display its frequency and voltage.