



Design and Manufacture of Video Pipeline Inspection Systems
A Full Service Company
www.rstechserv.com

1315 Controller



OPERATIONS MANUAL



Made in the USA

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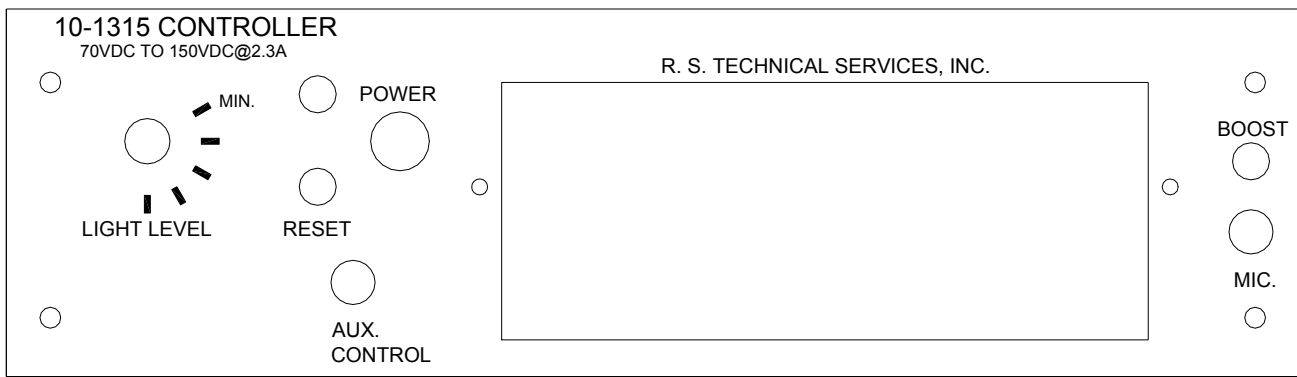
Product Overview

The 1315 Controller/Power Supply provides the power and control signals for the operation of video equipment used for underground pipeline inspection via a push cable and/or single conductor cable.

Standard voltage cameras used with RST transports transmit video signals back to the 1315 Controller/Power Supply.

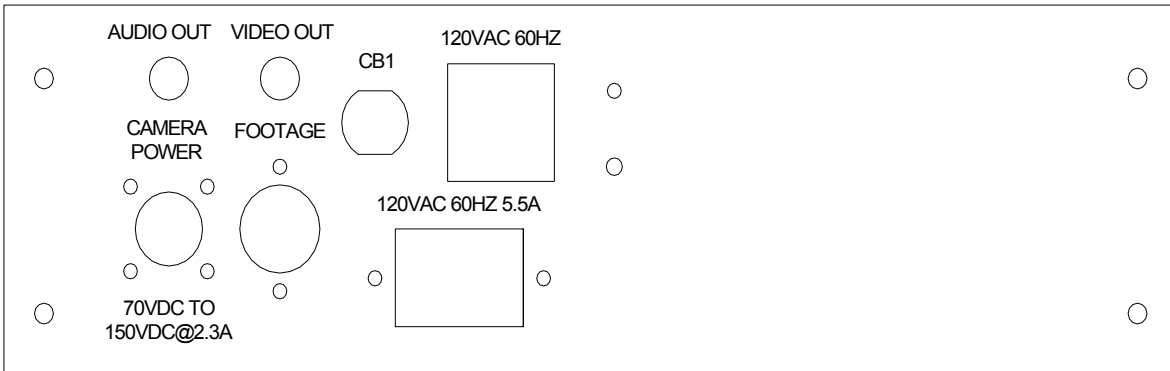
The signals are then processed into an NTSC (National Television System Committee) video format.

Controller Panels Functions Identifications:



Front Panel:

POWER	On/off power switch
POWER LED	Illuminates when power is on (green)
RESET LED (flashing red)	Illuminates when over current is detected
LIGHT LEVEL	Switch to increase camera power.
AUX. CONTROL	Jack for auxiliary control of a camera or tractor.
BOOST	Boost button to increase camera voltage to reel.
MIC	Jack for an optional microphone
OVERLAY	Outlet panel for an optional video titler, footage counter or computer overlay.



Rear Panel:

- | | |
|-----------------------------------------------------|----------------------------------|
| AUDIO OUT | Jack for VCR/MONITOR INPUT |
| VIDEO OUT | Jack for VCR/MONITOR INPUT |
| CAMERA POWER | Power to reel |
| FOOTAGE IN | Jack for footage counter overlay |
| CB1 | Circuit breaker |
| 120VAC 60HZ receptacles for VCR/ Monitor combo unit | |
| 120VAC IEC for power plug. | |
| Typical power requirement 120VAC 5.5A 59-62 HZ. | |

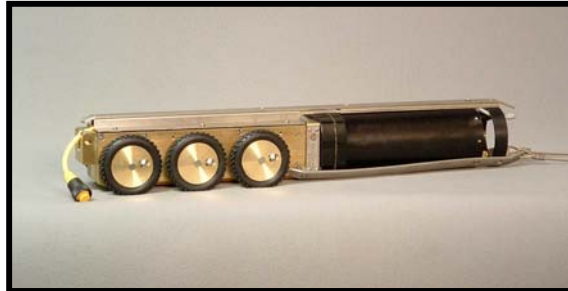
SAFETY LISTING

The Controller/Power Supply, Model 10-1315, It is designed to conform with Standard for Safety of Power Units other than Class 2 (ANSI/UL 1012, 6th Edition, 1996)

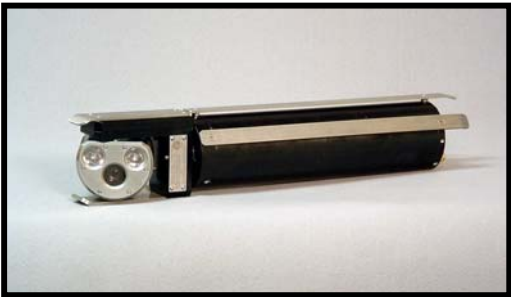
Standard for Safety of General Use Power Supplies-Industrial Products (CAN/CSA C22.2 No. 107.1-95)

Equipment Compatibility

The RST 10-1315 controller is designed for use with LISTED RST equipment.



RST Main Line Tractors



Omni Eye II Zoom



Omni Eye III Zoom

Operator and Equipment Safety



CAUTION: NEVER HOOK UP OR DISCONNECT EQUIPMENT WITH POWER TURNED ON!

It is important to be familiar with operations, maintenance, and safety issues when working with RST equipment.

Read the entire manual before operating the equipment.

The Inspection System requires a steady supply of 120VAC to operate properly. Before starting the generator or connecting power plug, make sure that ALL equipment has been turned OFF. Turn down the controls for camera power and cable reel speed. After all equipment has been checked, connect the power cord. If a generator is to be used, allow the generator to warm up for a few minutes. Note: Refer to the appropriate generator operator's manual for starting.

To prevent personal injury or damage to equipment, **turn off Camera power**. When making electrical connections, width adjustments and when maintaining the tractor or camera, disconnect all power to the control station before servicing.



Caution: Before turning on equipment, plug the Auxiliary Control Box into the Auxiliary Control jack on the controller power supply.

Equipment Operation

Controller Setup:

Turn the POWER switch to **OFF**.

Turn the (camera) LIGHT POWER control knob to **MINIMUM (MIN.)**. (Fully counter-clockwise to the left.)

CAUTION

The camera lamps may be damaged, when 1315 Controller is powered up and the LIGHT INTENSITY is not set to minimum voltage.

Connect the camera cable with the (type N) connector from the reel to the **CAMERA jack** at the back of the controller.

Connect the footage cable (optional) connector from the reel to the **FOOTAGE jack** at the back of the controller.

Plug in the **AUX. CONTROLLER** cable into the control panel jack (**AUX. CONTROL**).

Plug in the microphone cable into the control panel jack (**MIC.**).

Check again that the ON/OFF switch is turned **OFF**.

Connect the power cord from the controller to a 120VAC grounded power source. (Note: fans will run while unit is plugged into 120VAC.)

Turn the ON/OFF switch to **ON**.

While a video inspection is in process, the light intensity of the camera is adjusted by using the light intensity control knob.

Turning control knob clockwise will increase the light intensity.

Turning control knob counter clockwise will decrease the light intensity.

Note: on some mainline cameras it may be necessary to push the **BOOST** button (controller must be turned off to deactivate the **BOOST**) Boost button is not recommended to be used the 1300 series camera used on a push reel.

To help maintain the life of the lamps, it is recommended that the camera lamp intensity be reduced when the camera on but is not in use.

An overload/fault protection circuit is included in the controller/power supply.

In the event of a current overload, the power supply will shut down and the **RESET LED will light**.

Turn the ON/OFF switch **OFF**.

Turn the camera LIGHT LEVEL control knob to **MINIMUM**.

After doing this, if the **RESET LED is not lit**.

Wait 60 seconds.

Turn the ON/OFF switch back **ON**.

Video inspection can then be resumed.

If the **RESET LED is still lit**, turn the OFF/ON switch back **OFF** and correct the problem.

Options

Auxiliary hand held controller for camera and tractor control.

Footage overlay unit.

Computer Software Data Overlay.

DD Lite Footage Overlay.

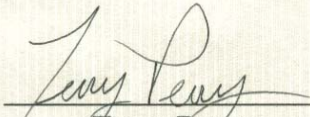


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SALES SERVICE PARTS



EACH PIECE OF R.S. TECHNICAL SERVICES, INC. MANUFACTURED EQUIPMENT IS SUBJECT TO STRICT STANDARDS OF QUALITY AND WORKMANSHIP ESTABLISHED BY OUR ENGINEERING AND QUALITY ASSURANCE DEPARTMENTS.

THROUGH A SYSTEMATIC INSPECTION PROGRAM, THE QUALITY ASSURANCE INSPECTION PROCEDURES ENSURE THAT ALL THE EQUIPMENT AND PARTS MEET OR EXCEED THOSE STANDARDS.


TERRY PERRY
QUALITY ASSURANCE MANAGER



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LIMITED WARRANTY POLICY

R.S. Technical Services, Inc. (RST) warrants all items of our manufacture for defects in materials and / or workmanship for one (1) year from date of receipt by the Customer. (unless otherwise stated)

This policy is limited to items manufactured by RST. i.e. Cameras, Reels, Controllers, Data Displays, Winches and Tractor Transport Vehicles.

In the event of any malfunction or failure of the equipment, the customer is required to request authorization from RST to return defective parts or components by calling the RST toll-free number- **1-800-767-1974** and requesting a MRA number. (see Figs. 1 & 1A for an example of the form.)

The returned parts or components shall include a packing list, part identity, and the reason for the return of the part.

Freight costs are the responsibility of the Customer unless otherwise agreed to by RST.

All in warranty equipment in need of repair shall be shipped to:

R.S.Technical Services, Inc.
1327 Clegg St.
Petaluma, CA 94954

or

R.S.Technical Service, Inc
292 Midland Trail
Mt. Sterling, KY 40353

RST shall at our option, repair or replace any defective part or component in our service facility, or ship the customer a replacement component or part.

The customer shall return the defective part or component within ten (10) working days after receipt of the replacement for credit.

Not covered by this policy are expendable or wear-out items i.e. light bulbs, drive belts, cable connectors.

The generator, monitors, VCRs and air conditioner shall be covered by the Manufacturer's warranty and any services shall be referred to each Manufacturer's service organization.

No warranty shall be applicable to malfunctions due to damage, neglect, wear, misuse, or improper handling or repairs to any part of the equipment.

Improper repairs are deemed to be repairs made by persons other than factory authorized personnel or repairs not made in accordance with and covered by the manufacturer's service manuals, or repairs utilizing parts or materials not equal to those furnished by the manufacturer.

NOTE: Any un-authorized repairs of any RST equipment will invalidate the warranty.

The responsibility of R.S.Technical Services is set forth above.

RST shall not be liable for any consequential or incidental damages to persons or property resulting from use of or any breaches of warranty expressed or implied, to this (these) products.



MERCHANDISE RETURN AUTHORIZATION (MRA) POLICY

All equipment sent in for repair or parts returned for replacement or credit MUST be accompanied by a completed Merchandise Return Authorization (MRA) form.

If equipment or parts are received by R.S. Technical Services, Inc. (R.S.T.), without an MRA form or with a partially completed form, the equipment or parts will be held until an MRA form is received.

Call either your Dealer or the R.S.T. Customer Service Department, whichever is appropriate, to obtain an MRA number.

The MRA form must contain all of the following information:

MRA Number

Date

Business name

Shipping address

Billing address

Serial Number(s) of the equipment

Contact name

Telephone number of contact person

Fax number of contact person

PO number

Estimate requirements

Detailed description of problem(s)

If returning parts, indicate whether a warranty replacement or a credit is expected.

Provide the number of the invoice to be credited, model and serial numbers of the equipment being sent in for repairs.

ESTIMATE REQUIRED

If a customer has requested an estimate before the equipment is repaired, an estimate will be prepared as soon as possible. A Customer Service representative will then contact the customer to provide the estimate and obtain approval to proceed with the repair. Upon acceptance of the estimate, R.S.T. will repair the equipment. If the estimate is not accepted within 30 days, the equipment will be returned to the customer in the same condition in which it was received.

COD TERMS

If a customer is on COD terms, Customer Service will contact them to provide the cost of the repair or parts (including tax, freight and handling charges) and advise them the equipment or parts will be shipped COD. Upon receiving approval from the customer to proceed with the repair, R.S.T. will repair the equipment. If the customer decides not to have the equipment repaired, the equipment will be returned to the customer in the same condition in which it was received.

PARTS RETURN POLICY

R.S.T. will issue a full refund, (except freight), on parts returned within 90-days of the date of purchase with the provision that the parts were returned in new condition.

By completing the MRA form as indicated above, repairs and issuance of credits will be expedited, and loaners will become more available to customers.



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**THE FOLLOWING MRA FORM AND INSTRUCTIONS
ARE PROVIDED FOR YOUR CONVENIENCE**

MAKE COPIES OF THE FORM FOR YOUR USE.

FILL OUT THE FORM COMPLETELY AND OBTAIN AN MRA NUMBER

MAKE A COPY OF THE COMPLETED FORM FOR YOUR RECORDS

INCLUDE THE ORIGINAL WITH THE EQUIPMENT OR PART (S) THAT ARE BEING RETURNED.



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Merchandise Return Authorization (MRA)

Date _____

MRA # _____

R.S. Technical Services, Inc.

Customer Service Telephone: 1.800.801.1199

1327 Clegg Street, Petaluma, CA 94954

Customer Service Fax: 1.707.769.8806

SECTION I

Company Name _____

Shipping Address _____

City, State, Zip _____

Contact: _____ Telephone No: _____

Fax No: _____

SECTION II

If your merchandise **IS NOT** covered by warranty,
please check the appropriate box.

Expedite, no P.O. required
OR

Expedite, use P. O. #: _____
OR

Estimate required

Serial number(s) _____

SECTION III

What merchandise are you returning? _____

Why are you returning this merchandise? (Be specific. If more space is required, use the back of this page)

All merchandise sent in for repair, replacement or credit **MUST** be accompanied by a completed MRA form including the MRA number assigned by either R.S.T. or your Dealer. If you are returning parts for credit, please indicate the invoice number to be credited. This will expedite issuance of the credit.