TextlinkTM

Instruction Manual



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TEXTLINKTM

1. Introduction

Isco's TEXTLINK[™] software uploads data from the Model 581 Rapid Transfer Device (RTD). The RTD is a pocket-sized data collection unit that automatically collects the available data from Isco instruments such as 6700 Samplers, 4100 Series Flow Loggers, or 4200 Series Flow Meters.

Back in the office, the RTD connects to your personal computer (PC) with Isco's RTD Power/Data Transfer Cable. With a few keystrokes, TEXTLINK uploads the text reports and partition data collected from the field sites. TEXTLINK will save the data as files, or route the data directly to your printer.

If you are saving the files, you designate the report type and the file path. TEXTLINK can produce two different report types: Plain Text and Comma Separated. Plain text reports format the data into easy-to-read columns on full-length pages. You can print the plain text reports with DOS commands or edit the report with word processing software. A plain text example is shown in *Figure 9* on page 7.

TEXTLINK produces comma separated reports to import data easily into your spreadsheet software. TEXTLINK provides a heading at the beginning of each file to identify the unit, then lists each line of data. Text is enclosed with quotation marks, while the numerical data is not. Each reading component is separated by a comma. A comma separated report example is shown in *Figure 10* on page 8.

TEXTLINK is a DOS application that runs on an $IBM^{\textcircled{B}}$ PC or compatible computer. *Table 1* lists the computer requirements.

Table 1: Computer Requirements				
Computer:	IBM PC or compatible			
Operating System:	DOS 3.0 or later (DOS 5 recommended) Microsoft Windows® not required			
Microprocessor:	8088, 80286, 80386, 80486, or Pentium [®] <i>80386, 80486, or Pentium recommended</i>			
Memory:	400 Kbytes RAM minimum			
	Transferring data from a <i>full</i> RTD may temporarily require up to 25 Mbytes of free hard disk space.			
Floppy Disk Drive:	3 ¹ /2" 720 Kbyte floppy drive or 5 ¹ /4" 360 Kbyte minimum			
Serial Port:	1 minimum			
Display:	LCD, gray scale, color or monochrome; IBM, CGA, EGA, or VGA compatible VGA recommended.			

2. Installing TEXTLINK

Install the TEXTLINK software by simply copying the program file to your PC's hard disk. The instructions below are provided to copy the program to the root directory of your PC's hard disk. However, you may find it easier to manage the program and data files if you create specific directories, and a batch file or icon to start TEXTLINK. Consult your DOS or Microsoft[®] Windows[®] manuals for more information.

These instructions assume that drive C is your PC's hard disk and drive A is a 3½ inch floppy disk drive. Substitute the appropriate drive letters if your PC is configured differently. Follow the steps below.

- 1. Insert the TEXTLINK software disk into your PC's 3½ inch floppy disk drive. (Note: TEXT-LINK is available on 5¼ inch disks upon request. Please contact the factory.)
- 2. At the C:\ prompt, copy the TEXTLINK program to your hard drive. Type – COPY[space]A:TEXTLINK.EXE[space]C: and press ENTER. On the screen you will see:

C:\COPY A:TEXTLINK.EXE C: 1 file(s) copied

Connecting the RTD Power/Data Transfer Cable

There are three connectors on the RTD Power/ Data Transfer Cable (supplied with the RTD). The nine-pin connector attaches to the serial port of your PC. The transformer box plugs into a 120 volt AC wall outlet (contact the factory for 240 VAC operation) to provide 12 volts DC to power the RTD. Attach the six-pin connector to the RTD.

Figure 1: Cable Connections



Note

If your computer has a 25-pin serial port, use a 9-pin to 25-pin adaptor. The adaptor can be purchased from most computer supply outlets.

3. Configuring TEXTLINK

The Settings configure TEXTLINK so it can communicate with an RTD and a printer. The settings also select the format and destination of the reports.

To configure the TEXTLINK settings:

- 1. Start TEXTLINK. If you used the provided installation instructions, type "TEXTLINK" at the C:\ prompt and press Enter.
- 2. TEXTLINK opens the "About TEXTLINK" window. (See *Figure 2*.) Press Enter.
- 3. TEXTLINK displays the Current Default Settings window. (See *Figure 4*.) Review the settings.
 - Comm Port The serial communications port used to communicate with the RTD
 - Printer Port where the printed reports and log file will be sent.
 - File Path Where the reports with a File destination will be sent.
 - Type of Output Plain Text or Comma Separated.
 - Destination Save as a file or print.
- 4. If you need to change the settings, use the arrow keys to highlight the CHANGE SET-TINGS option and press Enter.

Figure 2: About TEXTLINK Window

5. Refer to *Figure 5* and make the necessary changes.

TEXTLINK displays the current settings within parentheses. To change a setting, use the arrow keys to highlight the desired option, and then press Enter. You can also move through the settings with the Tab and Shift-Tab keys.

TEXTLINK will only accept valid port settings. For example, you cannot select a port that does not exist. Please note that TEXTLINK only ensures that the ports exist; it will not check to see if your connections are correct, or if the printer is out of paper, off line, etc.

The default File Path is the drive and directory where you have installed TEXTLINK. To change the File Path setting, you must use an existing path. TEXTLINK will not create directories.

6. Save the current settings by highlighting the Done box and pressing Enter. This writes your settings to the TEXTLINK.INI file.

If you choose not to save the settings, highlight Cancel and press Enter. TEXTLINK will not write the changes to the TEXTLINK.INI file.







TEXTLINK

Figure 4: Current Default Settings Window



Figure 5: Change Settings Windows



4. Uploading RTD Data

TEXTLINK *interrogates* the RTD to upload the data to your PC. Interrogating reads the contents of the RTD and temporarily writes the data to your hard disk. From this raw data, TEXTLINK *builds* the plain text or comma separated reports. Building a report compiles and formats all of the partition and text data collected from a single unit.

After TEXTLINK builds a unit report, it saves or prints the report according to your settings. TEXT-LINK repeats this process for each unit. When all of the reports are completed, TEXTLINK deletes the raw RTD data from your hard disk.

Follow the steps below to upload the RTD data.

- 1. Connect the RTD to your PC. Refer to *Figure 1* on page 1. The yellow LED on the RTD will start flashing.
- 2. Start TEXTLINK. If you used the provided installation instructions, type "TEXTLINK" at the C:\ prompt and press Enter.

- 3. TEXTLINK opens the "About TEXTLINK" window. (See *Figure 2.*) Press Enter.
- 4. TEXTLINK alerts you if it finds a Log File from a previous session. If you see the "Existing log file has been found" window (*Figure 3*), you must select the Erase or Append option before continuing with the RTD upload.

The Erase option clears the log file. The Append option saves the file and attaches the new RTD transfer histories to the end of the log file.

Selecting the View option displays the contents of the Log File. See "Viewing the Log File" on page 5.

5. TEXTLINK displays the Default Settings window (*Figure 4*). Review the settings. Change the settings if required, then highlight the START TRANSFER option using the arrow keys and press Enter.



Figure 6: TEXTLINK Interrogations

- 6. TEXTLINK opens the Textlink RTD Status window (*Figure 6*). The green LED on the RTD will start flashing as TEXTLINK wakes up the RTD. TEXTLINK automatically starts the unit interrogations. You may cancel the interrogations by pressing the Enter key. TEXTLINK will then ask if you wish to skip the current unit, cancel all interrogations, or to continue interrogating.
- 7. When TEXTLINK completes all of the unit interrogations, the green LED on the RTD stops flashing. TEXTLINK then builds the unit reports. If you are using the Output to File setting, the reports are automatically saved in the directory specified by the File Path setting.

If you are using the Output to Printer setting, TEXTLINK displays a Print Report window (*Figure 7*) for each unit. The window shows you the size of the report (in total pages) and asks you to choose one of three options:

- PRINT sends the unit report to the printer.
- SAVE aborts the print, but saves the unit report. TEXTLINK saves the file with a ".PRT" file name extension.
- ABORT aborts the print and TEXTLINK will not save the unit report.

Select an option using the arrow Keys and press Enter.

Figure 7: Print Report Window



8. The RTD transfer is complete when TEXT-LINK displays the Log File.

Note

If your transfer is unsuccessful, check the RTD Power/Data Transfer Cable connections, and ensure the port settings are correct. Unplug the six-pin RTD connection for a few seconds, then repeat steps 1 through 8.

5. Viewing the Log File

The Log File contains a history of the RTD transfers and reports built by TEXTLINK. Refer to *Figure 8*.

Move through the Log File with the Up/Down Arrow keys, Page Up/Page Down keys, or the Home and End Keys. You can also print the Log File by using the Left/Right Arrow keys to highlight the PRINT option and pressing Enter.

A typical entry will list the unit number, the unit and site description, the power status when available, and the partitions loaded by TEXTLINK. The Log File continues with the output of each unit report, listing where the report was written (saved) or printed. When you are done viewing the Log, select the Close option using the Left/Right arrow keys and press Enter.

The Log File is saved until you restart TEXTLINK. When the program starts, it looks for the Log File. When found, it displays the "Existing log file has been found" screen (*Figure 3*). From this screen you can View, Erase, or Append the Log File.

Selecting the View option displays the contents of the Log File. The Erase option clears the log file. The Append option saves the file and attaches the new RTD transfer histories to the end of the log file.

🗹 Note

The Append option can create a very large Log File. Periodically erase the Log File to prevent it from occupying too much disk space.

TEXTLINK File Names

TEXTLINK automatically names the report files as they are saved. The file names are always eight characters long, and have a three character extension. For example:

SI4567AA.CSV

The first two characters are always "SI." The next four characters are the last four numbers of the device ID. A device ID is a unique, factory-set number that identifies each instrument.

The next two characters differentiate between multiple files of the same unit. TEXTLINK searches the file path for other files that contain the last four digits of the device ID and use the same extension.

Figure 8: Log File



If none are found, the file is assigned the characters "AA." If files are found, it is assigned the next available characters. This progresses through the alphabet until "ZZ."

> SI4567AA.CSV, SI4567AB.CSV... ...SI4567ZY.CSV, SI4567ZZ.CSV

There are three possible file name extensions: TXT, CSV, and PRT. TEXTLINK assigns a TXT extension to Plain Text reports and a CSV extension to Comma Separated Values reports. A PRT file name extension indicates the text report was originally created for the printer, but instead was saved as a TXT file.

Using TEXTLINK Reports - Plain Text

The Plain Text option builds the ASCII reports with up to 80 characters per line, and approximately 55 lines per page. Each page includes a header at the top to identify the unit, and a page number at the bottom. The unit's partition data is placed into easy-to-read columns. A Plain Text report example is shown in *Figure 9*.

Some Isco instruments can hold up to twelve data partitions. However, with an 80 character-per-line limit, the reports can only show six partitions at a time. If more than six partitions were uploaded, TEXTLINK builds the reports to display the readings in the first six partitions, and then continues with the remaining partitions. TEXTLINK will not build columns for empty partitions.

You can view or print the reports with DOS commands (such as C:\TYPE SI4567AA.TXT|MORE or C:\PRINT SI4567AA.TXT). Refer to your operating system manual for instructions. Additionally you can use word processing software to edit, print, and save the report.

Using TEXTLINK Reports - Comma Separated

The Comma Separated option builds a delimited ASCII text report for use in a spreadsheet. A Comma Separated report example is shown in *Figure 10*.

TEXTLINK separates each piece of information with a comma to specify the contents of a cell. Text is enclosed in double quotation marks while the numerical data is not. Each report includes a header at the beginning to identify the unit and the time and date the report was built. All times and dates also appear as a decimal number using the 1900 date system. Many spreadsheet programs can calculate and display the times and dates more efficiently when using this system.

All of the available partitions and reading types are listed in the column heading. However, TEXT-LINK will not create columns for empty partitions. Each partition uses two columns – one for the numerical data, and one for the units of measure.

Figure 9: Plain Text (TXT) File Example

_				_			Report Heading. This line appears	
4250	EFFLUENT A			09:49 Fri 22	2 Dec 1995		at the top of each page. It lists the	
Time	Part A Level (ft)	Part B Sample	Part C Rainfall (in)	Part D Flow (cfs)	Part E Velocity (ft/s)	Part H Temp (deg 7)	model number, site description, and the time and date TEXTLINK built the report.	
Tue 05 12:49 12:50 12:51 12:52 12:53 12:55 12:55 12:57 12:58 12:57 12:58 12:59 13:00 13:01 13:02 13:03 13:04 13:05 13:06 13:07 13:08 13:09 13:10 13:12 13:13	Dec 1995 0.51	Bottle #1	0.00 0.00	6.69 6.69 6.69 6.69 6.69 6.69 6.69 6.69	$\begin{array}{c} 16.68\\ 16.68\\ 16.67\\ 16.68\\ 16.67\\ 16.67\\ 16.67\\ 16.67\\ 16.67\\ 16.67\\ 16.67\\ 16.67\\ 16.67\\ 16.68\\ 16.67\\ 16.68\\ 16.67\\ 16.68\\ 16.67\\ 16.68\\ 16.67\\ 16$	73.5 73.58 73.58 73.58 73.58 73.58 73.58 73.58 73.58 73.58 73.58 73.58 73.58 73.58 73.76 73.76 73.76 73.58 73	Column Headings. This line lists up to six partition names and reading types. If the unit has more than six, the remaining partitions will follow on later pages. Note that "Part F" and "Part G" are missing. TEXTLINK does not build columns for empty parti-	
4250	EFFLUENT A			09:49 Fri 22	2 Dec 1995			
Time	Part I pH	Part J D. Oxygen (mg/l)	Part K T.D.S. (mg/l)	Part L Cond. (mS/cm)			When TEXTLINK completes the readings in the first six columns, it lists the remaining partitions.	
12:49 12:50 12:51 12:52 12:53 12:54 12:55 12:56 12:57 12:58 12:59 13:00 13:01 13:02 13:03 13:04 13:05 13:06 13:07 13:08 13:09 13:10 13:11 13:12	$\begin{array}{c} 7.00\\$	4.70 4.70 4.70 4.80	4.20 4.20 4.20 4.20	0.45 0.45			Text reports generated by the instru-	
Text Re	eports 🖝						ment follow the partition data.	
05DEC9	5 13:18 INTERRO)GATED						
PROGRAI	1 DESCRIPTION							
LEVEL U FLOW RA TOTALIS VELOCIS RAINFAN PH UNIS DISSOL	UNITS OF MEASUR ATE UNITS OF ME ZED VOLUME UNIT FY UNITS OF MEZ LL UNITS OF MEZ TS OF MEASURE: /ED OXYGEN UNIT	RE: FT EASURE: CFS TS OF MEASURE ASURE: FT/S ASURE: IN pH TS OF MEASURE	5 5: CF 5: MG/L					

	en", "Part K", "T.D.S.", "Part L", "Cond." "mS/cm" 20, "mg/l", 0.45, "mS/cm" "mS/cm" "mS/cm" "mg/cm" <i>Partition Data. Each line includes the Day, Date. Time. Time. Code, and all available readings.</i>	
Column Headings. This line lists the partition name and reading type for each partition. Note that "Part F" and "Part G" are missing. TEXTLINK does not cre- ate columns for empty partitions.	 ww, "Part E", "Velocity", "Part H", "Temp. ", "Part I", "pH", "Part J", "D. Oxyrefs', 16.68, "ftt/s", 73.58, "deg F", 7.00, "pH', 4.70, "mg/l", 4.20, "mg/l", 0.45 D.00, "in", 6.69, "cfs', 16.68, "ftt/s", 73.58, "deg F", 7.00, "pH', 4.70, "mg/l", 10.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", 10.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", 10.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", 10.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.667, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.667, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58, "deg F", 7.00, "pH', 4.80, "mg/l", .0.45 Cefs', 16.67, ftt/s", 73.58	ports generated by instru- follow the partition data. these reading times. These cells will be empty.
Report Heading. This line appears at the beginning and end of the partition data. It lists the model number, site description, and the date and time TEXTLINK built the report.	<pre>v4250", "EFFLUENT A ", "Fri", "22 Dec 1995", "09:50", 35055.40972 "Part N" Level" " Part B", "Sample", "Part C", "Rainfall, "Part D", "Fil "The", "05 Dec 1995", "12:49", 35038.53403, 0.51, "ft", "D.00" in", 6.69) "The", "05 Dec 1995", "12:49", 35038.5342, 0.51, "ft", "D.00" in", 6.69) "The", "05 Dec 1995", "12:51", 35038.53611, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "12:51", 35038.53611, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "12:55", 35038.53613, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "12:55", 35038.53819, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "12:55", 35038.53038.53819, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "12:55", 35038.54097, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "12:56", 35038.54097, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "12:56", 35038.54167, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "12:56", 35038.54167, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "12:56", 35038.54167, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "13:01", 35038.54167, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "13:01", 35038.54167, 0.51, "ft", "D.00, "in", 6.69) "The", "05 Dec 1995", "13:01", 35038.54167, 0.51, "ft", "D.00, "in", 6.69] "The", "05 Dec 1995", "13:01", 35038.54167, 0.51, "ft", "D.00, "in", 6.69] "The", "05 Dec 1995", "13:10", 35038.54167, 0.51, "ft", "D.00, "in", 6.69] "The", "05 Dec 1995", "13:10", 35038.54653, 0.51, "ft", "D.00, "in", 6.69] "The", "05 Dec 1995", "13:11", 35038.5453, 0.51, "ft", "D.00, "in", 6.69] "The", "05 Dec 1995", "13:11", 35038.55417, 0.51, "ft", "D.00, "in", 6.69] "The", "05 Dec 1995", "13:11", 35038.5553, 0.51, "ft", "D.00, "in", 6.69] "The", "05 Dec 1995", "13:11", 35038.5573, 0.51, "ft", "D.00, "in", 6.69] "The", "05 Dec 1995", "13:11", 35038.5573, 0.51, "ft", "D.00, "in", 6.69] "The", "05 Dec 1995", "13:11", 35038.5553, 0.51, "ft", "D.00, "in", 6.69] "The", "05 Dec 1995", "13:11", 35038.5553, 0.51, "ft", "D.00, "in", 6.69] "Th</pre>	"LEXEL UNITS OF MEASURE: FT" PLOM RATE UNITS OF MEASURE: CFS" PTOM RATE UNITS OF MEASURE: CF" WELOCITY UNITS OF MEASURE: FT/S" "RAINFALL UNITS OF MEASURE: IN" "RAINFALL UNITS OF MEASURE: IN" "PH UNITS OF MEASURE: PT/S" "PH UNITS OF MEASURE: PT/S" "TEMPERATURE UNITS OF MEASURE: OF" "TEMPERATURE UNITS OF MEASURE: OF" "YSI 600 CONNECTED: YES"

TEXTLINK

Figure 10: Comma Separated Value (CSV) Report Example

6. How to Get Help

For help, contact Isco's Technical Service Department:

Teledyne Isco Environmental Product Support Teledyne Isco, Inc. P.O. Box 82531 Lincoln, NE 68501

Telephone:

U.S.A. and Canada (toll free): (866) 298-6174 Outside U.S.A: (402) 464-0231 FAX: (402) 465-3001

E-mail: iscoinfo@teledyne.com

7. Accessories

581 Rapid Transfer Device (RTD)	. 68-6700-056
Includes RTD, RTD Power / Data Transfer Cable, and instruction manual	
581 RTD only	. 60-9004-027
581 RTD Power/Data Transfer Cable	. 60-9004-077
581 RTD Instruction Manual	. 60-9003-085
Sampler RTD Extension Cable (25 ft.)	.60-3774-012
TEXTLINK [™] Software	. 60-2544-045
Flowlink [®] 5.1 Software	. 68-2540-200
Flowlink [®] Pro Software	. 68-2540-276

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TEXTLINK

Teledyne Isco One Year Limited Factory Service Warranty *

Teledyne Isco warrants covered products against failure due to faulty parts or workmanship for a period of one year (365 days) from their shipping date, or from the date of installation by an authorized Teledyne Isco Service Engineer, as may be appropriate.

During the warranty period, repairs, replacements, and labor shall be provided at no charge. Teledyne Isco's liability is strictly limited to repair and/or replacement, at Teledyne Isco's sole discretion.

Failure of expendable items (e.g., charts, ribbon, tubing, lamps, glassware, seals, filters, fittings, and wetted parts of valves), or from normal wear, accident, misuse, corrosion, or lack of proper maintenance, is not covered. Teledyne Isco assumes no liability for any consequential damages. This warranty does not cover loss, damage, or defects resulting from transportation between the customer's facility and the repair facility.

Teledyne Isco specifically disclaims any warranty of merchantability or fitness for a particular purpose.

This warranty applies only to products sold under the Teledyne Isco trademark and is made in lieu of any other warranty, written or expressed.

No items may be returned for warranty service without a return authorization number issued from Teledyne Isco.

The warrantor is Teledyne Isco, Inc. 4700 Superior, Lincoln, NE 68504, U.S.A.

TELEDYNE ISCO

A Teledyne Technologies Company

* This warranty applies to the USA and countries where Teledyne Isco Inc. does not have an authorized dealer. Custo mers in countries outside the USA, where Teledyne Isco has an authorized dealer, should contact their Teledyne Is co dealer for warranty service.

In the event of instrument problems, always contact the Teledyne Isco Service Department, as problems can often be diagnosed and corrected without requiring an on-site visit. In the U.S.A., contact Teledyne Isco Service at the numbers listed below. International customers should contact their local Teledyne Isco agent or Teledyne Isco International Customer Service.

Return Authorization

A return authorization number must be issued prior to shipping. Following authorization, Teledyne Isco will pay for surface transportation (excluding packing/crating) both ways for 30 days from the beginning of the warranty period. After 30 days, expense for warranty shipments will be the responsibility of the customer.

Shipping Address:	Teledyne Isco, Inc Attentio 4700 Superior Street Lincoln NE 68504 USA	n Repair Service	
Mailing address:	Teledyne Isco, Inc. PO Box 82531 Lincoln NE 68501 USA		
Phone:	Technical Support	(800)775-2965 (lab instruments)	
		(866)298-6174 (samplers & flow meters)	
	Sales & General Information: (800)228-4373(USA & Canada)		
Y Fax:	(402) 465-3001		
Email:	iscoservice@teledyne.com	Web site: www.isco.com	

