

ATS Series Manual



ATS

BayTech Manual Publication

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ABOUT THIS OWNER'S MANUAL

This document provides information required for installing and operating your Bay Tech equipment. It should allow the user to connect, power up, and access an applications menu where peripheral equipment can be controlled. We recommend reading this manual carefully, while placing special emphasis on correct cabling and configuration. If you have any problems with your installation, please contact a BayTech Applications Engineer at **228-563-7334**, or toll free from anywhere in the United States using **1-800-523-2702** or contact us at our Web Site, www.baytech.net.

BayTech manufactures many remote site management products, data switches, data collection multiplexers, remote power controllers, and peripheral print sharers. If you would like information on any of these products, please contact BayTech Customer Service at the above numbers or visit our web site.

Conventions used in this manual include:

CAUTION: This term is used to denote any condition that could possibly result in physical harm to personnel or damage to equipment.

ATTENTION: Ce terme est employé pour dénoter n'importe quelle condition qui pourrait probablement avoir comme conséquence le mal physique au personnel ou les dommages à l'équipement.

IMPORTANT: This term is used to denote conditions that could result in the loss of communications or to highlight the proper functioning of equipment.

IMPORTANT: Ce terme est employé pour dénoter les conditions qui pourraient avoir comme conséquence la perte de communications ou accentuer le fonctionnement approprié de l'équipement.

NOTE: This term is used to denote items of interest to the user.

NOTE: Ce terme est employé pour dénoter des articles d'intérêt à l'utilisateur.

<cr>: Carriage Return or ENTER

<cr>: Le Retour chariot ou ENTRE

The information in this document is subject to change without notice. The statements, configurations, technical data, and recommendations in this document are believed to be accurate and reliable, but are presented without express or implied warranty. Users must take full responsibility for their applications of any products specified in this document. The information in this document is proprietary to Bay Technical Associates, Inc.

In the interest of improving internal design, operational function, and/or reliability, Bay Technical Associates, Inc reserves the right to make changes to the products described in this document without notice.

Bay Technical Associates, Inc does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

BayTech units are in accordance with the general requirements of *Standard for Information Technology Equipment* (ETL listed, conforms to ANSI/UL STD 60950-1-2003 CERTIFIED CAN/CSA C22.2 NO. 60950-1-03,). *Equipment installations are to be in accordance with the Canadian Electrical Code, Part I, CSA C22.1-02; General Requirements – Canadian Electrical, Part II, CSA C22.2 No 0-M91; the National Electrical Code, NFPA 70-2005; and the National Electrical Safety Code, NFPA, IEEE C2-2002.*

We welcome any comments you may have about our products, and we hope that you will continue to look to BayTech for your remote management needs.

This manual is common to all Baytech ATS units

INSTALLATION

UNPACKING

Compare the unit and serial number of the equipment you received to the packing slip located on the outside of the box. Inspect equipment carefully for damage that may have occurred in shipment. If there is damage to the equipment or if materials are missing, contact BayTech technical support at **228-563-7334** or call toll free inside the United States at **800-523-2702**. At a minimum, you should receive the following:

1. The ATS unit.
2. 1 ea. DE-9 (9 pin) PC com port adapter -- 9FRJ45PC-1.
3. 1 ea. RJ-45 cross over cable -- RJ08X007.
4. Rack mounting Kit

NOTE: Keep the shipping container and packing material in the event future shipment is required.

PREPARING THE INSTALLATION SITE

The installation area should be clean and free of extreme temperatures and humidity. Allow sufficient space behind the ATS unit for cabling and receptacle connections. Access to installation site should be restricted to authorized personnel. Installation of these units should be limited to ITE and Telco server environments.

POWER

- **120 VAC Model:** Internal 120 VAC 50/60 Hz (15, 20 or 30 Amps Maximum Load).
- **230 VAC Model:** Internal 230 VAC 50/60 Hz (10, 15, 16, 20, or 30 Amps Maximum Load).
- **208 3ØY VAC Model:** Internal 208 VAC 50/60Hz (20 Amps Maximum Load)

CAUTION: This unit is intended for indoor use only. Do not install near water or expose this unit to moisture. To prevent heat buildup, do not coil the power cord when in use. Do not use extension cords. Do not attempt to make any internal changes to the power source. Do not attempt to modify any portion or component of an ATS Series Unit unless specifically directed to by BayTech personnel. BayTech must perform any internal operations.

ATTENTION: Cette unité est prévue pour l'usage d'intérieur seulement. N'installez pas près de l'eau ou n'exposez pas cette unité à l'humidité. Pour empêcher l'habillage de la chaleur, ne lovez pas le cordon de secteur en service. N'employez pas les cordes de prolongation. N'essayez pas de n'apporter aucune modification interne à la source d'énergie. N'essayez pas de ne modifier aucune partie ou composant d'une unité de série de ATS à moins qu'ait spécifiquement dirigé vers par le personnel de BayTech. BayTech doit effectuer toutes les opérations internes.

CAUTION: High-voltage surges and spikes can damage this equipment. To protect from such power surges and spikes, this unit must have a good earth ground.

ATTENTION: Les montées subites et les transitoires à haute tension peuvent endommager cet équipement. Pour se protéger contre de telles montées subites et transitoires de puissance, cette

unité doit avoir une bonne protection rectifiée ou bonne de la terre de puissance de montée subite.

CAUTION: Before removing or replacing any cables or power cords, unplug both power supply cords located on the ATS Series Unit. Communication to the unit will be disrupted while power is off.

ATTENTION : Avant d'enlever ou remplacer tous les câbles ou cordons de secteur, débranchez les deux cordes d'alimentation d'énergie situées sur l'unité de série d'ATS. La communication à l'unité sera perturbée tandis que le courant est coupé.

CAUTION: Do not exceed the AC current rating for the selected model.

ATTENTION : Ne dépassez pas l'estimation courante à C.A. pour le modèle choisi.

CAUTION: In order to be isolated, the feeding power cords must be detached from the unit.

ATTENTION : Afin d'être isolé, les cordons de secteur de alimentation doivent être isolés à partir de l'unité.

CAUTION: For PERMANENTLY CONNECTED EQUIPMENT, a readily accessible disconnect device (Circuit Breaker rated not to exceed the amperage rating of the unit) shall be incorporated in the fixed wiring between the power source and the Baytech unit. For PLUGGABLE EQUIPMENT, the socket-outlet shall be installed near the equipment and easily accessible. The outlets providing power to the unit shall be protected against over current, short circuit and earth fault by suitable rated protective devices.

ATTENTION: Pour l'ÉQUIPEMENT DE MANIÈRE PERMANENTE RELIÉ, un dispositif aisément accessible de débranchement (disjoncteur évalué pour ne pas dépasser l'estimation d'ampérage de l'unité) sera incorporé dans le câblage fixe entre la source d'énergie et l'unité de Baytech. Pour l'ÉQUIPEMENT QUE L'ON PEUT BRANCHER, la douille-sortie sera installée près de l'équipement et facilement accessible. Les sorties fournissant la puissance à l'unité seront protégées contre le courant, le court-circuit et le défaut de terre finis par les dispositifs protecteurs évalués appropriés.

- **208V/24A 3ØY Rated Model:**
(30A Maximum Over current protection Device).
- **208V/16A 3ØY Rated Model:**
(20A Maximum Over current protection Device)
- **120V/24A Rated Model:**
(30A Maximum Over current protection Device)
- **120V/16A Rated Model:**
(20A Maximum Over current protection Device)
- **230V/24A Rated Model:**
(30A Maximum Over current protection Device)
- **230V/16A Rated Model:**
(20A Maximum Over current protection Device)

Applying power illuminates a green LED for power on and Source 1 and /or Source 2 will be lit on the front panel of the ATS.

Note: due to the 4-relay design the current ATS series permit the input sources to be out of phase to operate normally.

CIRCUIT BREAKER

In the case of power overload, the circuit breaker automatically trips. Determine the cause of the tripped circuit breaker, correct the problem then reset the circuit breaker by depressing the circuit breaker switch. If an overload condition occurs, the status menu is still accessible.

CABLING

RJ-45 Cable

IMPORTANT: The BayTech unit has an RJ45 port, which uses an 8-pin rollover cable to connect to the local EIA232 device, such as a computer terminal or external modem. For those serial computers that do not have an RJ45 connection, an adapter is provided to connect from a DE-9 connector to a RJ-45 connector, (see cable and adapter diagram). An adapter to convert from a DB25 connector to an RJ45 connector is also available from BayTech, upon request. The 8-pin rollover modular cable is configured to operate with either adapter.

CAUTION: All power should be removed from the BayTech unit prior to removing or installing cables and /or adapters.

Adapter signals

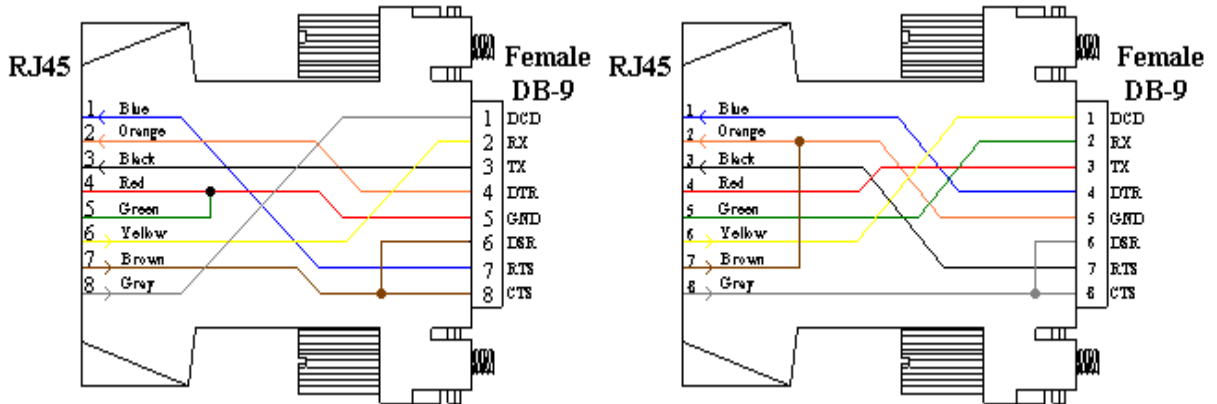
Listed are the pin specifications for the BayTech cable and adapters and the terminal COM ports:

Signal	RS-232 Port (DS)	RS-232 Port (ATS)	COM Port DE-9 Pin	COM Port DB-25 Pin	Signal
DTR	1	1	4	20	DSR
GND	2	2		1	GND
RTS	3	3	7	5	CTS
TXD	4	4	3	2	RXD
RXD	5	5	2	3	TXD
DSR	6	N/C	6	6	DTR
GND	7	7	5	7	GND
CTS	8		8	4	RTS
DTR			4		DCD
DCD		8	1	8	DTR
RI	9			22	

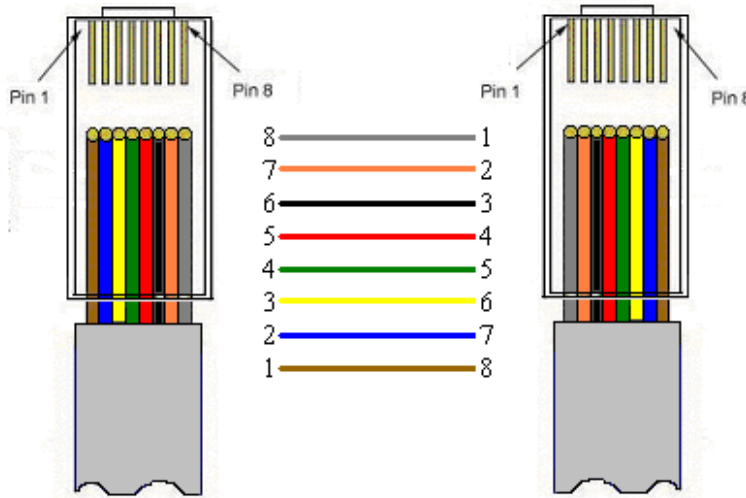
Adapters

9FRJ45PC (With Cisco Interface)

9FRJ45PC-1 (Without Cisco Interface)



RJ08X007



Figures 1 and 2 provide visual representation of an RJ-45 receptacle and plug.

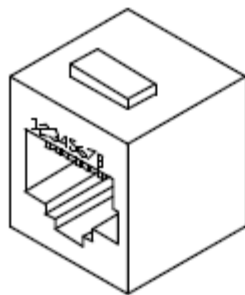


Fig. 1: RJ-45 Receptacle

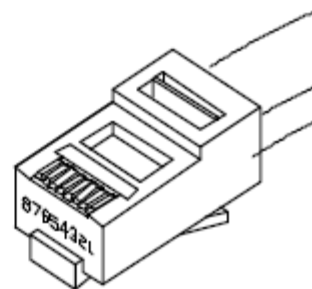
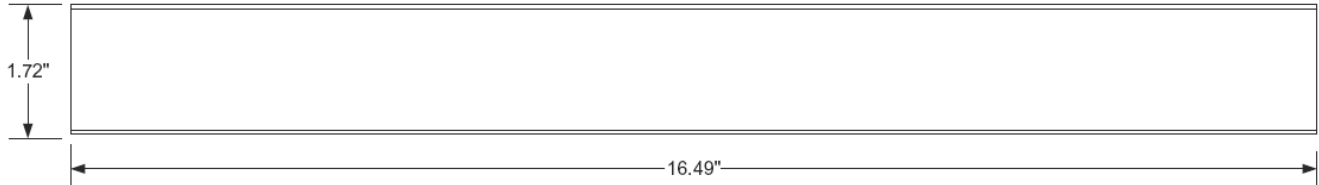


Fig. 2: RJ-45 Plug



AT511 Rear



AT511 Front

Rear Switch & Indicators:

- EIA232 INTERFACE B/C = Set switch to 'B' for normal operations. 'C' changes the pin out to allow for Cisco's PC cable to operate in most cases but not all.

Indicators:

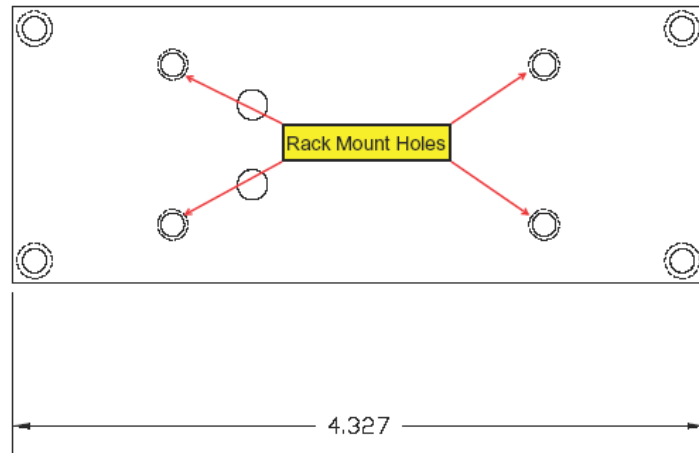
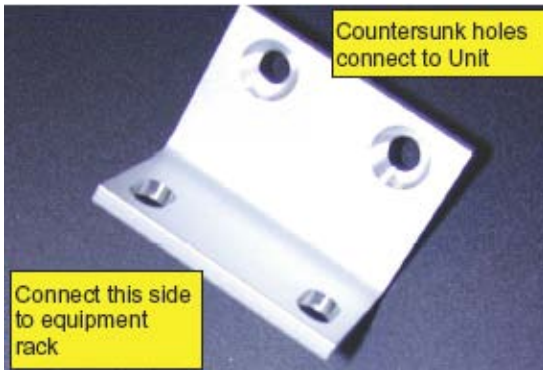
- ALM = Red LED Over-current alarm only
- PWR = Green LED power is connected to the unit through either source 1 or 2
- Source 1 = Green LED lit indicates unit is using Source 1 as the Input power
- Source 2 = Green LED lit indicates unit is using Source 2 as the Input power

Front Switch & Indicators:

- None

Rack mount hardware:

Set of M140C115 brackets and (4) screws to connect bracket to side panel



THIS PAGE COMMON TO ALL 1U ATS-SERIES

2U UNITS USE M140C114 BRACKETS

Local Access Using EIA-232 Serial Connection

Configure host terminal's serial communications parameters to match the ATS.

IMPORTANT: The Factory default serial communications parameters are **9600 bps, 8 data bits, 1 stop bit, and no parity; B/C switch set to 'B'**.

Status Menu

With a proper connection to the unit upon power-up, the status menu is displayed:

```
ATS-11 Series
(C) 2003 by BayTech
F1.05

Option(s) Installed:
True RMS Current
Internal Temperature
True RMS Voltage

Unit ID: ATS11      B0CD5

Input Power Source:  1

      Average Power:      0 Watts
True RMS Voltage 1:   117.4 Volts
True RMS Voltage 2:   119.9 Volts
  True RMS Current:     0.0 Amps
  Maximum Detected:     0.0 Amps

Internal Temperature:  24.0 C

Type "Help" for a list of commands
ATS-11>
```

NOTE: All ATS units use a common Controller board which the firmware identifies it as ATS11 even though this unit may not be.

HELP Options

```
Status <cr>  --ATS-11 Status
  Config <cr>  --Enter configuration mode
  Source n <cr> --Select the input power source, n=1 or 2
  Current <cr> --Display True RMS Current
  Clear <cr>   --Reset the maximum detected current
  Temp <cr>    --Read current temperature
  Voltage <cr> --Display True RMS Voltage
  Logout <cr>  --Logoff
  Logoff <cr>  --Logoff
  Exit <cr>    --Logoff
  Password <cr> --Changes the current user password
  Whoami <cr>  --Displays the current user name
  Unitid <cr>  --Displays the unit ID
  Help <cr>   --This Command
```

Status

Type **'status'** at the prompt to see the current status of the unit.

```
Input Power Source: 1
Average Power:      0 Watts
True RMS Voltage 1: 118.3 Volts
True RMS Voltage 2: 120.7 Volts
True RMS Current:   0.0 Amps
Maximum Detected:   0.0 Amps
Internal Temperature: 27.0 C

Type "Help" for a list of commands
```

Display Current Electrical Characteristics:

Type **'current'** at the prompt to show the unit's True RMS Current and Peak RMS Current, and the ATS will display the following:

```
True RMS Current:    0.0 Amps
Maximum Detected:    0.0 Amps
```

Type **'clear'** at the prompt to reset the Peak RMS Current, the ATS will redisplay the status menu with the new maximum detected current.

Type **'voltage'** at the prompt to display the unit's True RMS Voltage, and the ATS will display the following:

```
True RMS Voltage 1: 117.7 Volts
True RMS Voltage 2: 120.1 Volts
```

Type **'temp'** at the prompt to show the unit's current temperature, the ATS will display the following:

```
Internal Temperature: 27.0 C
```

Logging Out

Type **Logout**, **Logoff**, or **Exit** at the prompt to logoff from the unit.

Current User Password:

Type '*password*' at the prompt to change the current user's password and the ATS will display the following:

```
Enter new Password:
Re-Enter new Password:
```

Identify Current User

Type '*whoami*' at the prompt to determine the current user, the ATS displays the following:

```
Current User: root
```

To change the user logout of the unit and log back in using the new user name.

Unit Identification

Type '*unitid*' at the prompt to determine the Unit ID, the ATS displays the following:

```
Unit ID: ATS18
```

ATS Configuration Menu

```
ATS11>config
Unit ID: ATS18

1)...Manage Users
2)...Enable/Disable Status Menu
3)...Change Unit ID
4)...Change Alarm Threshold
X)...Exit
Enter Request:
```

To select the configuration menu, type '**config**' at the prompt.

Select "Manage Users," from the configuration menu and the following menu appears if the unit has been reset or initial setup:

```
-----
|           User           |
|-----|
A)...Add User
D)...Delete User
R)...Rename User

Enter A, D or R.
Enter Request:
```

Add a User:

Select A), “Add user,” from the User Management Menu. The ATS Unit will display the following:

Enter user name:

Enter the name of the user to be added, followed by <cr>. The ATS will display the User Menu with the added user.

NOTE: User name is case sensitive.

Delete a User:

Select D), “Delete user,” from the User Management Menu. The ATS Unit will display the following:

Enter number for user to delete:

Type the number of the user to be deleted, followed by <cr>. The ATS will display the User Menu minus the deleted user.

NOTE: If an outlet user is deleted and is logged in at the time, the outlet user will be disconnected. If you delete the user in the first position, the ATS will display the following:

You are deleting the current admin user. The next user will become the admin user, do you want to continue. (Y/N)?

Rename a User:

Select R), “Rename user”, from the User Management Menu, the ATS unit will display the following:

Enter user number to rename:

Type the number of the user to be renamed, followed by <cr>. The ATS unit will display the following:

Enter user name:

The ATS displays the User Menu with the renamed user.

Enable/Disable Status Menu

Select “Enable/Disable Status Menu.” from the configuration menu, to enable the Status menu. The ATS will display the option to change the current status:

Enable Status Menu (Y/N)? y

Default setting is Enabled.

If this feature is disabled, only the ATS> prompt appears.

Change Unit ID

Select “Change Unit ID” from the configuration menu. The ATS will display the following:

Current Unit ID: ATS18
Modify (Y/N)? y
Enter New Unit ID:

Change Alarm Threshold

The Current Alarm Threshold allows the user to set the current level for the internal alarm to sound. Select “Change Alarm Threshold.” and the ATS displays the following:

Buzzer alarm value : 12.0 Amps
Modify (Y/N)? y
Enter: 11

Default setting is approximately 80% of unit’s maximum current.

Reset Procedure

On the front panel is a small hole next to the LED. Perform the following steps:

- Insert paper-clip or similar object into the hole
- Press the micro-switch and hold until the last step.
- Remove power from the unit and wait 15 seconds.
- Restore power to the unit and wait 15 seconds.
- Remove paperclip. Unit is at factory default settings.

BayTech Product (US) Warranty

Bay Technical Associates (BayTech) warrants that its products will be free from defects in materials and workmanship under normal use for a period of two years from date of purchase (or date of shipment) from BayTech if proof of purchase is not provided.

During this warranty period, BayTech shall, at its discretion, either repair or exchange any defective product at no charge for labor and materials, or refund the amount paid for the product, less shipping and handling charges. Any replacement and/or repaired products are warranted for the remainder of the original warranty.

The customer is responsible for properly packaging the product and for shipping costs for returns. The customer is liable for loss or damage to the product during shipping, as well as any other fees or charges associated with transporting the product back to BayTech. BayTech will pay return costs for delivery within the Continental United States.

All repair and return shipments must be approved by BayTech and must be accompanied by an RA (return authorization) number. Please refer to our Repair and Return Policy below.

For the initial 30 days from the original date of shipment, any unopened product may be returned to BayTech, accompanied by an RA number. Full purchase price will be refunded, provided that the product is in excellent condition. A product may not be returned after 30 days from the original date of shipment unless approved by BayTech management.

Replacements for defective products may be cross-shipped to the customer at no cost if requested within 30 days of date of purchase. At BayTech's discretion, this period may be extended to 90 days. For additional information or more specific warranty issues, contact BayTech's Technical Support Department at **(800) 523-2702** or **(228) 563-7334**.

Exceptions

This warranty does not cover misuse or minor imperfections that fall within design specifications or that do not materially alter functionality. BayTech does not warrant and is not responsible for damages incurred in shipping and handling or caused by disasters (such as fire, flood, wind, earthquake, lightning, power surges or water).

The warranty will be voided regarding products that have been neglected, altered, abused, misused, or used for purposes other than those for which it was designed.

Under no circumstances shall BayTech be liable for any special, incidental, or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability, or any other legal theory. Such damages include (but are not limited to) loss of profits, loss of the product or associated equipment, cost of capital, cost of substitute or replacement equipment, facilities or services, down time, purchaser's time, the claims of third parties, including customers, and injury to property.

BayTech Extended Warranty

Extended warranties and overnight replacements are available for purchase, but only at the time of product purchase. The extended warranty cost will not exceed 7% per year of the product list price unless otherwise stated in the customer contract or approved by BayTech management. Contact BayTech for further details on this.

Technical Support

BayTech offers Tech Support for the lifetime of the product. A staff of Applications Engineers is on duty to assist with installation, set up or operation issues. Support is available from **8:00 a.m. to 5 p.m.** (CST or CDT), Monday through Friday at the phone numbers or website provided below.

Please have the following information available to help the Applications Engineers answer questions efficiently:

1. BayTech model type
2. Unit serial number
3. Firmware version (if accessible)
4. A list of devices connected to the BayTech unit
5. A general description of the application being used and the intended outcome
6. Information about cables and adapters being used (type, length, place of purchase)
7. The name of the software emulation program being used
8. Printout of the configuration status (if possible)

Bay Technical Associates, Inc.
5239 A Avenue
Long Beach Industrial Park
Long Beach, MS 39560
Telephone: 800-523-2702 or 228.563.7334
FAX: 228.563.7335
Email: support@baytech.net
Website: www.baytech.net

Repair and Return Policy

(Return policy refers to BayTech products purchased and returned for credit or repair.)
A Return Authorization (RA) number must be obtained in all cases before returning the BayTech product. Have the serial number and reason for the return or description of the problem handy. Customers in the Continental U.S. can call 1-800-523-2702 or international customers can call 228.563.7334 to obtain an RA number.

If a product is being returned for credit (based on BayTech approval), the credit will not include shipping and handling charges. Determination of credit amount will be made after BayTech receives the product.

Returns on BayTech products older than 3 months are subject to a 15% re-stocking fee of the list price of the product and will be evaluated on a case-by-case basis. BayTech does not allow returns on products out of warranty or for any type of custom product.

Before dismantling equipment or returning the unit for any reason, always contact BayTech. Attempting to repair a product without BayTech authorization may result in voiding the warranty.

Follow the instructions below for repackaging and shipping. **NOTE: *Power should be disconnected from the power source before servicing or dismantling.***

Return Authorization Process:

1. Contact BayTech to get a Return Authorization (RA) Number. **IMPORTANT:** *BayTech will not accept any returns without an RA number.*
2. Package the unit carefully in its original packaging or similar packaging. The warranty does not cover damage sustained during shipment. Enclose a letter with name, address, RA number, daytime phone number and description of the problem.
3. Mark the RA number clearly on the outside of the package.

NOTE: If the RA number is not on the outside of the box, the package will be returned back to the sender or will sit in Receiving until the customer calls in regarding status of RA.

4. Ship the unit by insured, prepaid carrier to the following address:

**Bay Technical Associates
5239 A Avenue
Long Beach Industrial Park
Long Beach, MS 39560
RA #: 140-xxxxx**

5. Surround your unit with a minimum of two inches of insulation.
6. Be sure to seal the box securely with strapping or packing tape. We do not recommend masking tape or cellophane tape.