

## TECHNICAL NOTE – RL2400S

### CONTROLLOGIX 555X SERIES

#### Cabling an RL-2400S Radio Modem to an Allen Bradley ControlLogix

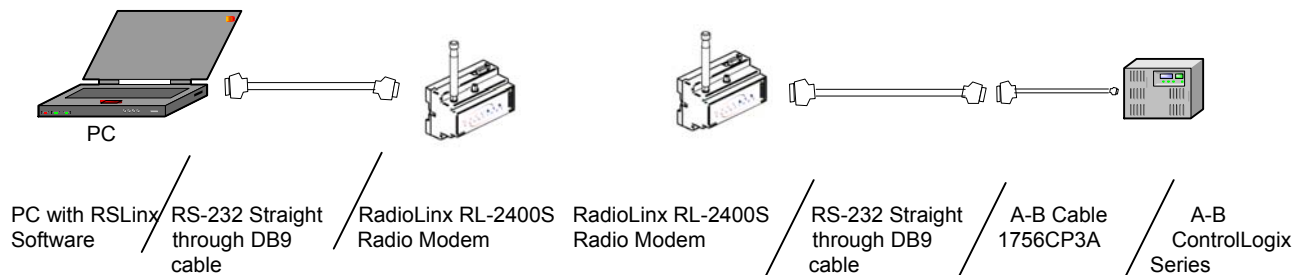
FlexLogix, CompactLogix, ProcessLogix and SoftLogix are also compatible with proper A-B communication cable.

**Objective:** This Application Connection Guide describes how to interface the AB ControlLogix PLC to the RL-2400 radio modems, RL-2400S.

**Note:** It is recommended that you connect directly from your PC to the ControlLogix PLC and establish communication in DF1 Mode before connecting the radios.

#### Allen Bradley ControlLogix

The following shows the proper cable configuration when using master and remote RL-2400 modems to communicate from a PC (RSLinx) to a remote ControlLogix.



#### Configuring the Wireless RL-2400S Radios to the ControlLogix PLCs

Following are the configuration steps to establish a communication link between the RL-2400 radio modems and the ControlLogix PLC. Using the RL-2400 Setup & Diagnostic Software, select a new network, either Point-Point or Point-Multipoint Broadcast. If a single PC is communicating with a single PLC, a Point-to-Point network will work. If a single PC or Master PLC is connected to multiple PLCs, then a Point-Multipoint Broadcast network is needed.

Once the network has been created or selected, the radio's serial parameters need to be configured for the master and each remote radio within the network. The following radio settings are needed to communicate between the PC and the PLC:

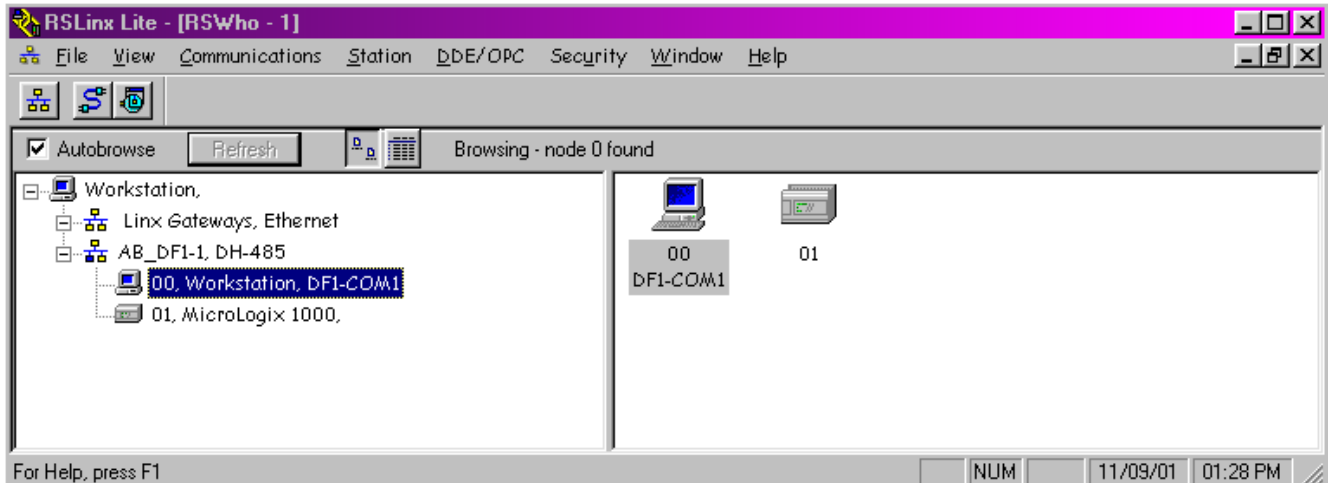
- Baud rate 19200 (or your preferred baud rate)
- Parity none
- Data bits 8
- Stop bits 1
- Handshake None

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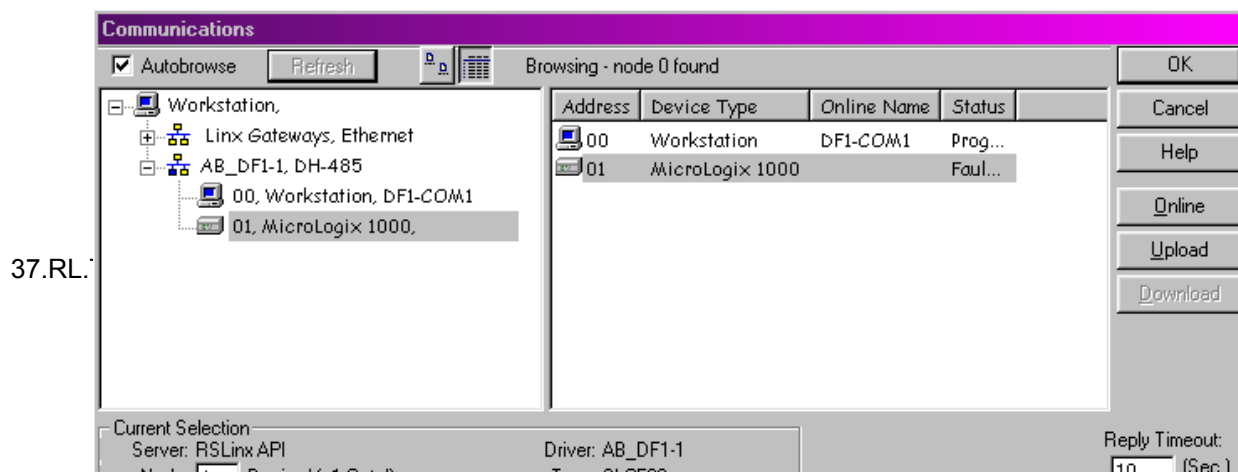
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The ControlLogix PLC wireless network is ready to be tested. The following steps will determine if the radio modem connections are properly configured:

1. Open *RSLink*
2. Go to *Communications / Configure drivers*
  - Delete all drivers that are in *configured drivers*
  - Click *Available Driver Types*
  - Select *RS-232 DF1 Devices*
  - Click *Add New*, Type in name
  - Click *Auto Configure*, software will now go out and look for the correct PLC
  - Auto configure should bring back *Auto Configuration successful!* when done
  - Note serial port configuration, these are the settings the RL-2400 radios will use
  - Click *OK*
  - Close the *configure drivers* window



3. On the left side of screen (see figure), click your new station icon, the PLC icon should appear.
4. To verify the connection:
  - Highlight *connection*
  - Go to *Communications*
  - *Driver diagnostics*
  - Total packets sent should equal received packets
  - Close window



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5. Open RSLogix software.
  - Go to *Comms*
  - Click *System Comms*
  - Click your A-B driver (figure above), then click *OK*
  - Go to *Comms, Upload*, This should now upload the setting for the PLC into the software  
 You now can click *Go Online*, and should now be communicating with the PLC with RSLogix
  
6. To verify connection, double click "*processor status*" from the left window (shown below) and click on the *Comms* tab. Both the primary protocol and the active protocol should be DF1.

