Advanced Leak Detection Module Manual

Setup Guide

Table of Contents

ADVANCED LEAK DETECTION MODULE – INTRODUCTION

Congratulations on your purchase of this Apex AquaController expansion accessory. The Apex Advanced Leak Detection Module (ALD) provides the ability to quickly detect and respond to water, whether salt or fresh, in places where it does not belong. Once detected you may chose to sound an alarm (Display module required), send an email, turn off pumps or anything you imagine that can be programmed on your Apex!

FEATURES

- Easily connects to ANY Apex via the AquaBus interface
- Four independent leak detection channels
- Multiple ALD modules can be used on one Apex
- Solid-Surface and Low-Profile ALD Probes available (sold separately), 8' cables
- Compatible with all Apex Systems

PHYSICAL INSTALLATION

⚠ WARNING: Your Apex Base Unit must be running firmware version 4.20_1B13 or higher to support the Advanced Leak Detection Module (ALD). The current firmware version can be checked from the Apex Display on the Self Test screen. If needed, please upgrade the Apex Base Unit firmware to 4.20_1B13 or higher before proceeding with the installation. See the *Apex Setup and Programming Guide* for firmware upgrade instructions.

The Apex ALD module should be securely mounted in a location free from moisture (the ALD probes are an obvious exception to this). Use wood screws through the mounting tabs of the expansion module case or if mounting on drywall, use drywall anchors (mounting hardware not included).

- Mount all modules above the water line of the aquarium.
- Be sure to utilize drip loops on all power cords, AquaBus cables and probe cables.

⚠ WARNING: Water damage to the module will void your warranty! Mount all modules in locations safe from moisture exposure.

INITIAL CONNECTIONS

Plug one end of the included AquaBus cable into either of the AquaBus ports on the ALD and the other end into an available AquaBus port anywhere on your existing Apex system. It makes no difference which AquaBus port is used and you do not need to power down the system when connecting AquaBus accessories as the system is plug-and-play.

⚠ WARNING: NEVER plug standard USB devices into any AquaBus connector or AquaBus accessories into computer USB ports. Damage to the AquaBus accessory and/or USB device may result.

STARTUP

As soon as the ALD is connected to an active AquaBus, the module will power up and begin to initialize. When first connected to an Apex Base Unit (through the AquaBus), the ALD will automatically be assigned an AquaBus address and be added to the Apex configuration. The LED Status indicator on the ALD will flash yellow while it is being initialized. This only takes a second or two. Once initialized, the LED Status indicator will be solid green. The LED Status indicator will flash when the ALD is powered on and communication with the Apex Base Unit is lost.

VERIFY THE INSTALLATION

Verify the ALD was initialized and added to the Apex configuration:

Apex Display: Setup – Module Setup – Modify Name – from this screen, you can see all AquaBus modules installed on the system.

Web Interface: Configuration – Module Setup – Verify the ALD is listed in the Apex Module List and note the module number assigned to it. The switch names will be based on this number.

Four (4) switches will be automatically created. Their names are dependent on the Aquabus module number that was assigned to the ALD but follow the same syntax as any other switch on an expansion module: SwxY_1, SwxY_2, SwxY_3 and SwxY_4 where 'Y' is the Aquabus module # assigned to the ALD (the program examples below assume an Aquabus # of 5 was assigned. Your number may be different).

CONFIGURING AND TESTING THE ALD

There is no configuration necessary with the ALD. Once the switches are automatically created the first time it's connected to the Aquabus, they're ready to use in a program. Since the ALD sensors function as switches (as compared to outlets) they won't appear in any outlet configuration, but they're there. You can see them in your Unused Tiles on the Dashboard.

Testing the ALD probes is easy. Once you've added code to your selected outlets (see below) you can test the response of the ALD probes by touching a damp paper towel or even a wet finger across the metal probe sensors. You will see how sensitive the ALD probes and you can confirm your program changes are working properly.

PROGRAMMING EXAMPLES

Refer to the Apex Setup and Programming Guide or the Comprehensive Reference Manual for instructions on how to configure and program outlets. These examples will help you quickly program your system to use the ALD to alert you of a potential problem.

SIMPLE EMAIL OR SOUND ALARM EXAMPLE

(add to your email or SndAlm outlet program – note the sound alarm requires a Display module)

Before the ALD:
Set OFF
If Temp > 82.0 Then ON
If pH > 8.5 Then ON

<u>After adding the ALD:</u>
Set OFF
If Temp > 82.0 Then ON
If pH > 8.5 Then ON
If Swx5_1 CLOSED Then ON   (remember your switch # may be different)

SIMPLE PUMP SHUT-DOWN EXAMPLE
 (add to all your pump programs – return, ATO, skimmer, UV, reactor, etc.)

<u>Before the ALD:</u>
Set ON
If FeedA 005 Then OFF

<u>After adding the ALD:</u>
Set ON
If FeedA 005 Then OFF
If Swx5_1 CLOSED Then OFF   (remember your switch # may be different)

NEPTUNE SYSTEMS LIMITED WARRANTY

Neptune Systems warrants this product to be free from defects in material and workmanship for a period of 1 year from the date of purchase. If repair or adjustment is necessary and has not been the result of abuse, Neptune Systems warrants this product to be free from defects in material and workmanship for a period of 1 year from the date of purchase. If repair or adjustment is necessary and has not been the result of abuse, misuse, or accidental damage, within the 1-year period, please return the product with proof of purchase, and correction of the defect will be made without charge.

For your protection, items being returned must be carefully packed to prevent damage in shipment and insured against possible damage or loss. Neptune Systems will not be responsible for damage resulting from careless or insufficient packaging. Before returning please obtain a return authorization (RMA) number from Neptune Systems. Returned merchandise will not be accepted without a RMA number. To obtain assistance with your Neptune Systems product, contact Neptune Systems technical support by phone or via the Technical Support Contact Web Page at https://www.neptunesystems.com.

Except for the warranty set forth above, Neptune Systems is not responsible for any damages including, but not limited to, consequential damage occurring out of or relating to the delivery, use or performance of Neptune Systems' products. Buyer's remedies for breach of warranty shall be limited to repair, or replacement and full or partial adjustment to purchase price.

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Advanced Leak Detection Module V4

The symbols to the right mean that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.