

EXPENDABLE PROBE AUTOMATIC LAUNCHER, AL12

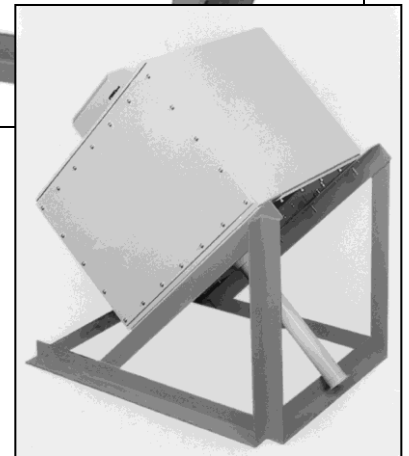
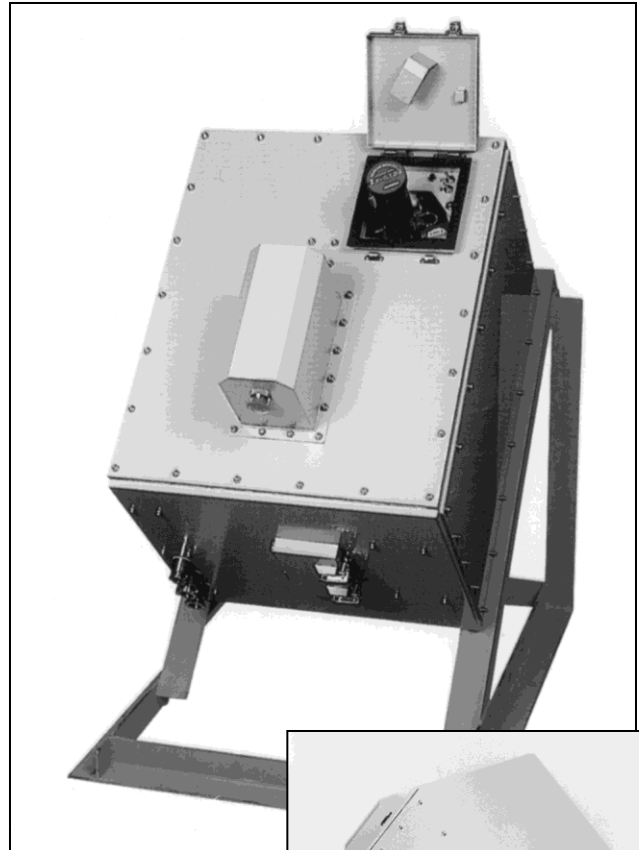
The TSK Autolauncher, the AL12, launches a variety of expendable oceanographic probes. The release of the probes is completely automatic and computer controlled. The highly efficient system helps reduce the manpower costs of probe launches and adds precision to the release operation.

The AL12 Launcher is mounted on the stern of a vessel. A launch tube projects out the back of the unit and over the water surface. The AL12 Controller and a system computer are located remotely and serve to direct operation of the probe launches. Probe data is sent to a separate expendable probe converter, then to the computer for display and storage.

The automatic steps taken by the AL12 prior to a launch include: rotating the Launcher carousel to position the selected probe over the launch tube door, making electrical connection to the probe, pulling the release pin, and opening the launch tube door. After deployment, the probe wire is cut and the launch tube door is closed. The AL12 is then ready for the next probe launch.

AL12 FEATURES

- Automatic detection of the type of probe. The AL12 can search for and choose the type of probe that is to be released.
- Large probe capacity. The compact carousel can hold up to 12 probes, including various XBTs and the XCTD.
- Computer or manual control of launch timing. Launch sequences can be completely automatic or can be triggered manually from the controller.
- Consistent drop conditions. Precise launch time and probe entry conditions add repeatability to the deployments.
- Minimal crew training required. The fully automatic operation allows expendables to be dropped from any vessel, including “ships of opportunity.”



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THE TSURUMI-SEIKI CO., LTD.
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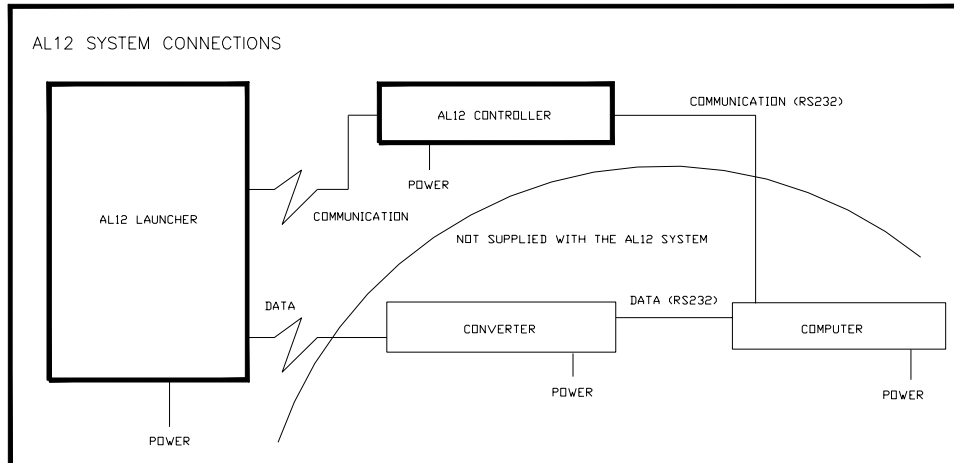
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AL12 SPECIFICATIONS



System Components:

The AL12 components: launcher, controller, power and communication cables, software. Requirements to complete the system (not supplied with AL12): computer with two serial ports, converters for the probes.

Launcher:

Number of probes: Twelve
 Types of probes: T-4, T-5, T-6, T-7, T-10, XCTD
 Power: 110 VAC, 50Hz/60Hz, 100 VA
 Controller communication: Current Loop, 300 BPS
 Temperature range: 0 to 55°C

Controller:

Selectable modes: Manual or automatic
 Minimum drop interval: 4 minutes
 Power: 110 VAC, 50 Hz/60Hz, 50 VA
 Manual mode functions: LAUNCH by probe type, STOP launch, DISPLAY information on LED, ROTATE launcherto next position
 Automatic mode functions: Launch, Check probe status
 Automatic operations: Search for selected probe type, electrically connect probe to launcher, pull release pin, shear wire, close shutter
 Data Output: LED display and digital output to PC
 PC communication: RS232, 300 BPS

Physical Specifications:

	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
Launcher:	544	590	750	170
Launcher Stand (optional):	570	1000	600	45
Launcher Tube:	500 mm (can be ordered to match vessel configuration)			
Launcher to controller data cable:	50 m (maximum is 300 m) twisted pair, 0.5 sq. m			
Launcher to converter data cable:	50 m (maximum is 100 m) 4 conductors, 0.75 sq. m			
Launcher power cable:	10 m (maximum is 100 m)			
Controller power cable:	2 m (maximum is 100 m)			



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