

**TECHNICAL NOTE 04-02**  
**WATER RESTRAINT SYSTEM**  
**Power and System Control Panels**  
**Fuse Locations and Sizes**  
**February 21, 2002**

**Introduction**

This technical note describes the locations and sizes of the fuses utilized in the Water Restraint System (WRS). Hydro-Force has also developed a fuse kit that is listed below.

**Technical Information**

There are several fuses protecting various parts of the WRS. Most of the fuses are located in the Power Control Cabinet (PCC) and the System Control Cabinet (SCC). Please note that the fuses shown for the 24VDC power supply and the SCC are located differently in the first systems (Group 1) delivered and installed. These fuses are installed in the SCC for all Group 2 systems. Group 1 systems are those installed in MCSP, SQ, SATF, PVSP, NCSP, and CCI, B Facility (3 of the 4 systems). All others are Group 2.

The fuses are listed below based on the function that is receiving power through this fuse. Attached are drawings of each fuse holder for reference. The fuse locations are numbered from either the left (if the fuse block is horizontal) or bottom (if the fuse block is vertical)

<u>System</u>	<u>Fuse Location</u>	<u>Size (amp.)</u>	<u>Type</u>
Pump activate-24 VDC	PCC, slot 1	5	Auto spade
Compressor power	PCC, slot 2	5	Auto spade
Lower Bermad, activate	PCC, slot 3	2	Auto spade
Water fill valve, activate	PCC, slot 4	2	Auto spade
Alfa level Power, 24 VDC	PCC, slot 5	2	Auto spade
Power, vert. nozzle motor	SCC, slot 1	15	Auto spade
Power, horiz. nozzle motor	SCC, slot 2	15	Auto spade
Upper Bermad, activate	SCC, slot 3	5	Auto spade
Nozzle valve, activate	SCC, slot 4	2	Auto spade
Chemical valve, activate	SCC, slot 5	2	Auto spade
Audible device activate	SCC, slot 6	2	Auto spade
VCR alarm control	SCC, slot 7	2	Auto spade
AC power strip	SCC, slot 8	2	Auto spade
Power Supply, 24 VDC	SCC, top of block	20	Auto spade

System	Fuse Location	Size (amp.)	Type
Power Supply, 110 VAC	Rear of power supply	12	Cartridge (sp)
Microcomputer, 24 VDC	Inside, encl. see dwg.	2	Mini-cartridge
Microcomputer, 12 VDC	Inside, encl. see dwg.	0.5	Mini-cartridge
Control panel, 12 VDC	Inside, encl. see dwg.	0.5	Mini-cartridge
480 volt transformer, pri (2)	PCC, top of trans.	5	KLDR-5
480 volt trans, 120 VAC sec.	PCC, top of trans.	10	FNM-10

The attached drawings provide the locations of each of the fuses described above.

Hydro-Force has developed a fuse kit to support normal maintenance. The following is a listing of the fuses contained in the fuse kit. To obtain a fuse kit please contact Hydro-Force.

Fuse Type	Amperage	Quantity
Automobile spade type	20	1
Automobile spade type	15	1
Automobile spade type	5	2
Automobile spade type	2	2
Special cartridge	12	1
Mini-cartridge	2	1
Mini-cartridge	0.5	1

### Logistic Support

For replacement parts and further technical assistance call the Hydro-Force office on (619) 478-2600 voice or (619) 478-2555 facsimile.