

TECHNICAL NOTE 12-01
WATER RESTRAINT SYSTEM (WRS)
Microcomputer Firmware Configuration Management

Dated: September 10, 2001

Introduction

The proper WRS software/firmware configuration is very important to the operation of the system. Since the WRS is software controlled, the version of the software will determine that all the correct features are installed and operating in each system. **This document provides the current software configuration** including the documentation of the current formal software release and new features that may be added by the latest formal software release.

In addition to the software configuration, there are selectable numerical values within each WRS that can be tailored to match the unique performance of each system. It is important that the settings of the selectable values be recorded for future maintenance and operational use. A form containing the selectable values is attached inside each microcomputer unit and a copy of the same information is included with the system documentation. This information must be used in conjunction with the Microcomputer Programming Manual when servicing or changing the microcomputer system.

Current Software Configuration

Each microcomputer and each control panel contains two programmable integrated circuits that contain the program information. Each of these units is a one-time-programmable (OTP) device that cannot be reprogrammed in the field. Each device includes a tag that is marked with a number indicating the software number and the date of manufacture.

As of the date of this Technical Note the following are the latest formal release software configurations. **NOTE: As of this date, all systems must include this software release to be considered fully operational.**

Microcomputer Unit

PLCC device (square device with 52 contacts, 13 on each side)

Marking: WGT01-120 Date of Manufacture: 30-05-01 or later

DIP device (rectangular device with 40 legs, 20 on each side)

Marking: WGT01-286 Date of Manufacture: 30-05-01 or later

Control Panel Unit

PLCC device (square device with 52 contacts, 13 on each side)

Marking: WGT00-446 Date of Manufacture: 15-01-01 or later

DIP device (rectangular device with 40 legs, 20 on each side)

Marking: WGT00-310 Date of Manufacture: 15-01-01 or later

Software Numerical Values

Each WRS has several variables that can be changed in the software to alter the WRS system operation under certain conditions. Please refer to the microcomputer programming manual for programming information.

Each value must be recorded for each system during final installation and testing. This information will be placed inside each microcomputer with a copy provided with the system maintenance information. During any maintenance action or during normal preventative maintenance actions, the settings in each microcomputer must be compared with the values listed on the card to verify that the program is operating as installed. Any discrepancy shall be reported to the maintenance department immediately in writing.

Program Record

The following card must be filled out and installed using tape on the inside of the microcomputer door. A second copy of the same information shall be returned to Hydro-Force to be included in the maintenance information. The Program record card is as follows:

WATER RESTRAINT SYSTEM PROGRAM RECORD			
Institution: _____			
Name Program: _____			
Record Date: _____		Technician: _____	
Software: Computer: plcc/dip: ____/____ Control: plcc/dip: ____/____			
4th screen			
WT _____	AD _____	PR _____	NV _____
NW _____	NA _____	LI _____	BL _____
6th screen			
PN _____	PA _____	PW _____	CN _____
	CA _____	CW _____	
7th screen			
SD _____	ST _____	RD _____	ED _____
	DD _____	AT _____	
8th screen			
HA _____	HB _____	HC _____	HD _____
VA _____	VB _____	VC _____	VD _____