

General Information on EZ Pro Controller Models 8674(R) through 8694(R).

General Description:

The EZ Pro is an AC Powered Irrigation Controller. The Primary input voltage is stepped down from line voltage (120VAC 60Hz Domestic, 230VAC 50Hz Export) to 24VAC (nominal), which then energizes the DC power supply and supplies power for the zones. The secondary is protected by a 1A Raychem® polyswitch (self-resetting current limiter). A microcontroller aboard the Front Panel Module controls a user interface which consists of 3 knobs and a 4 button keypad. The microcontroller keeps time using a 32kHz quartz oscillator and schedules when to turn on the appropriate zones according to what was programmed in on the user interface. The microcontroller also supplies limited diagnostic information as to the presence or absence of a fault on a zone and discontinues operation of a faulty zone. The outputs consist of 4 through 24 zones which can only be turned on one at a time, along with a secondary output (called the Pump/Master Valve) which may or may not be turned on based upon user programming.

86xxR models incorporate a radio module, which allows for extension of the user interface to a handheld device. The radio consists of a Zinc encased 2.4GHz Spread Spectrum Radio.

All of the Models use an identical enclosure, transformer, and control electronics. The only major differences between models is the number of available zones, the type of enclosure lock, inclusion of radio module, and physical size of interconnect. Instructions will be supplied appropriate to the language of the country in which the unit is sold.

A circuit breaker device will protect the input of the transformer since the transformer must be wired to local codes. A statement will be added to the instructions stating that a disconnect device must be wired to the primary input of the controller.

Table of Export Model Numbers and their differences

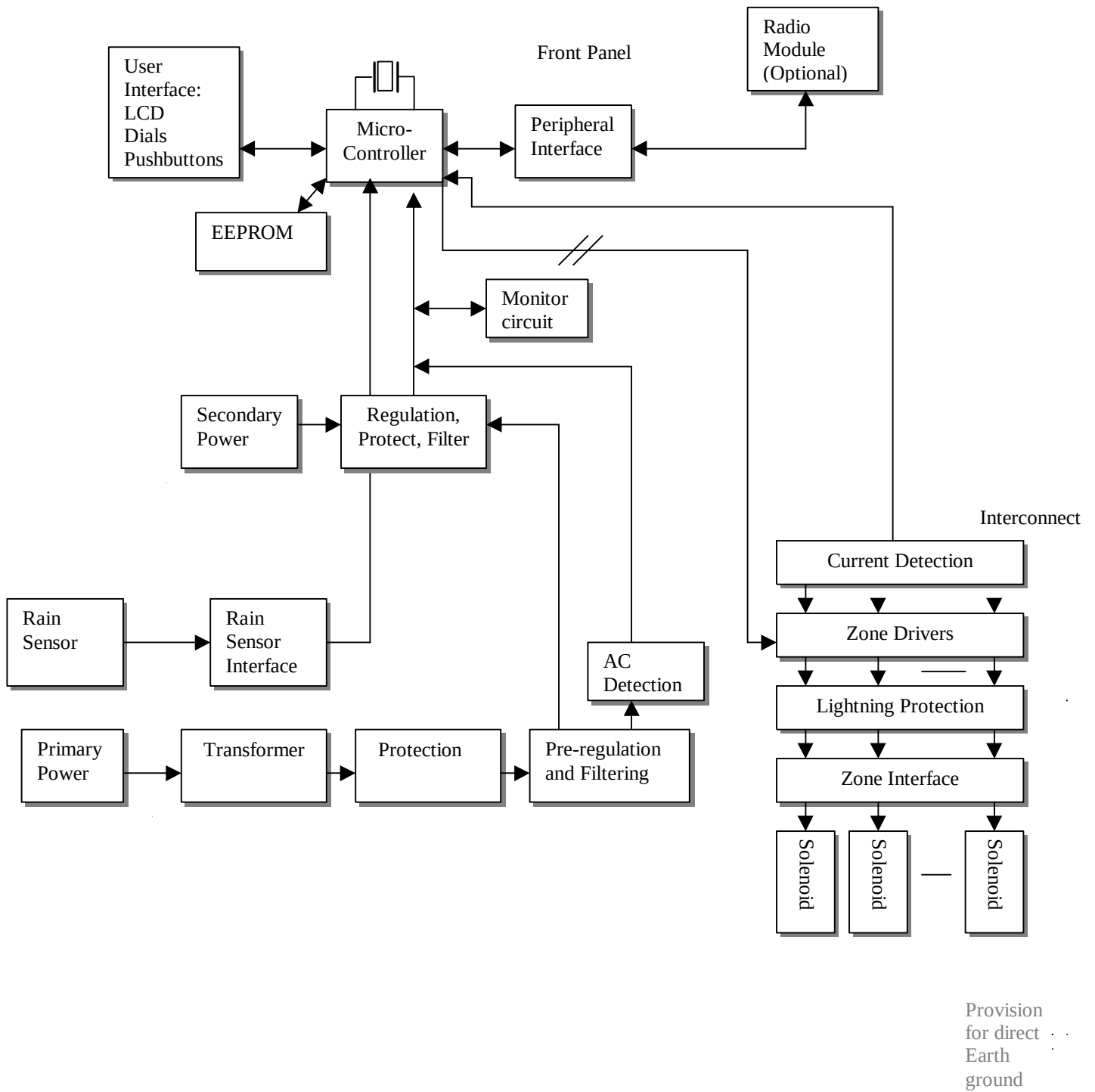
Model	Description	Differences		
		# Zones	Lock	Interconnect
8674	4 Zone Irrigation Controller		4 Plastic	Small
8676	6 Zone Irrigation Controller		6 Plastic	Small
8678	8 Zone Irrigation Controller		8 Plastic	Small
8682	12 Zone Irrigation Controller		12 Metal Key	Large
8686	16 Zone Irrigation Controller		16 Metal Key	Large
8690	20 Zone Irrigation Controller		20 Metal Key	Large
8694	24 Zone Irrigation Controller		24 Metal Key	Large
8674	4 Zone Irrigation Controller with Radio Module		4 Plastic	Small
8676	6 Zone Irrigation Controller with Radio Module		6 Plastic	Small
8678	8 Zone Irrigation Controller with Radio Module		8 Plastic	Small
8682	12 Zone Irrigation Controller with Radio Module		12 Metal Key	Large
8686	16 Zone Irrigation Controller with Radio Module		16 Metal Key	Large
8690	20 Zone Irrigation Controller with Radio Module		20 Metal Key	Large
8694	24 Zone Irrigation Controller with Radio Module		24 Metal Key	Large

General Information

Transformer Output Current	1.25A
PolySwitch protection	1A
Microprocessor primary oscillator	32.768 kHz
Microprocessor secondary oscillator	4.194304 MHz
Tested Enclosure is the same material that will be used in production	
GE Cylolac KJB	

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1 Product Block Diagram



System Overview

The addition of the EZ Command and radio modules to the system allows the user to have a mirror of the interface at the front panel to the user carrying the Command. The LCD display on the command mirrors the display on the controller, and the Command periodically sends the dial position and any key-presses.

The EZ Pro and Command communicate to the radio modules using a custom serial protocol. Only data conforming to the protocol will be passed between the radios.

Block diagram of a basic EZ Pro and Command system

