

Technical Bulletin

Bulletin No. 043 Rev C
Subject: Non-Rain Master Wireless Rain Sensor for use with RME Sentar II and RME Eagle Controllers

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Product Applicability: RME Sentar II, RME Eagle
Approved by: Support Services
Release Date: February 6, 2009
Distribution: APPROVED FOR GENERAL RELEASE

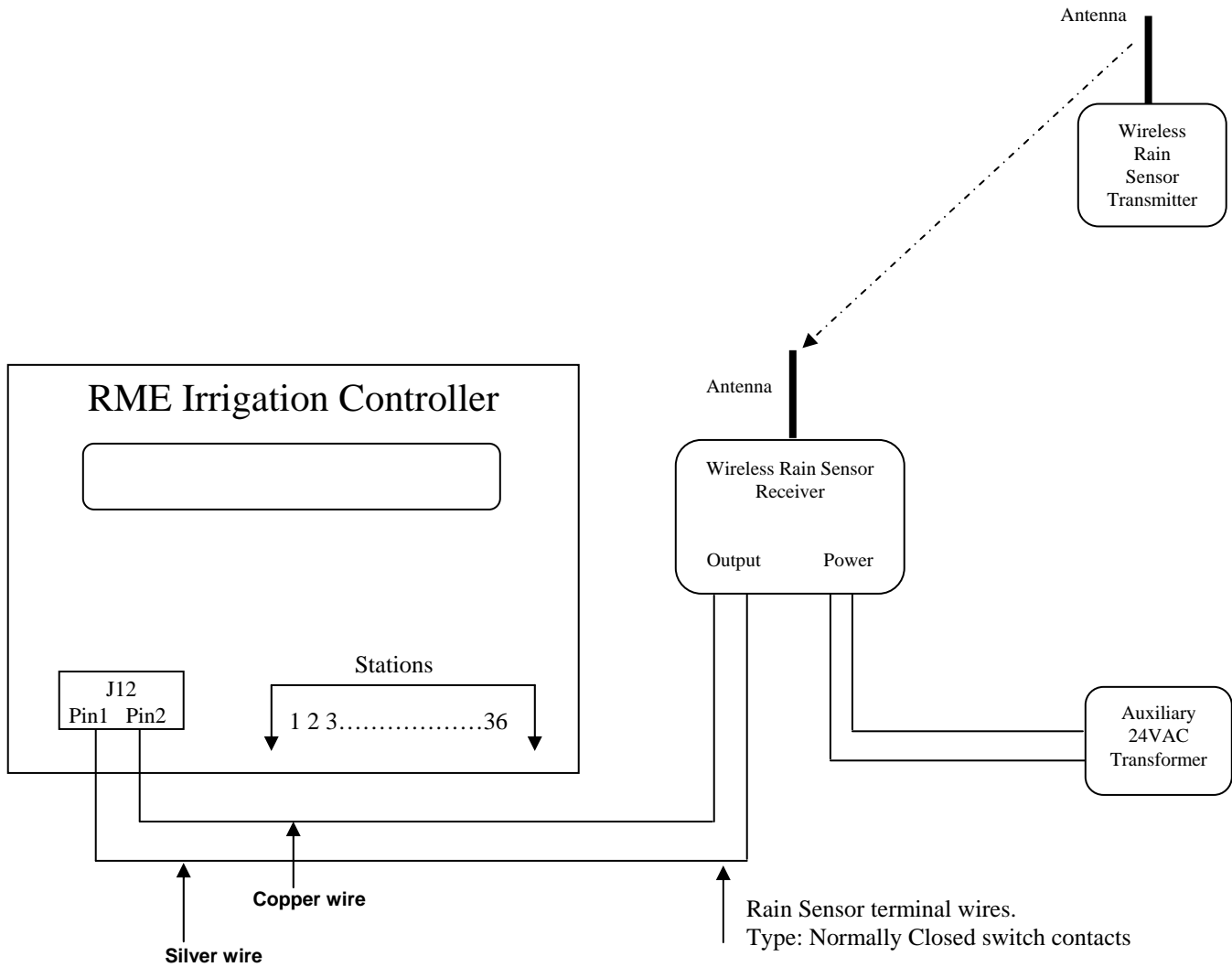
1.0 INTRODUCTION

A Rain Sensor is used as a water conservation device that interfaces an irrigation control system to actual rain conditions that will affect the landscape. Without a sensor to monitor the presence of rain, the controller simply irrigates based on pre-programmed irrigation schedules. Interfacing a rain sensor to the controller provides monitoring of real-time rain conditions, eliminates unnecessary irrigation and reduces water consumption.

A Wireless Rain Sensor system is comprised of a rain sensor/transmitter module and a receiver/interface module. The sensor/transmitter module senses the rain status and communicates that status to the receiver/interface module. The receiver/interface module translates information to the controller as a switch condition; closed switch (DRY condition) or open switch (WET condition). The receiver/interface module installs near the irrigation controller and is powered by an *auxiliary 24 VAC transformer*. The receiver's sensor output connections are directly connected to the corresponding rain sensor input connection on the RME Irrigation Controller as depicted in Figure 1.

NOTE: This Technical Bulletin is provided by Rain Master as information for the installation of a Wireless Rain Sensor for use on the Rain Master RME Sentar II and RME Eagle controllers. The diagram in Figure 1 is for illustration purposes only and does not specify or detail all products or components presently available, but is provided to clarify the concept.

WARNING: Rain Master does not recommend splicing or interconnecting the Wireless Rain Sensor to the controller's transformer. Doing so may result in damage to the controller and WILL VOID the manufacturer's warranty. Power for the Wireless Rain Sensor MUST BE provided by an auxiliary 24 VAC transformer.



**Figure 1- Wireless Rain Sensor Connections
(Prior to January 2009)**

2.0 HARDWARE UPDATES

As of January 2009, the RME Eagle and RME Sentar II controllers support most modern 2-wire rain sensor configurations as well as Irritrol® wireless Rain Sensors that require a 24 VAC source. The controllers have been redesigned to provide the 24 VAC source at the J12 connector, pins 7 and 8 as depicted in Figure 2.

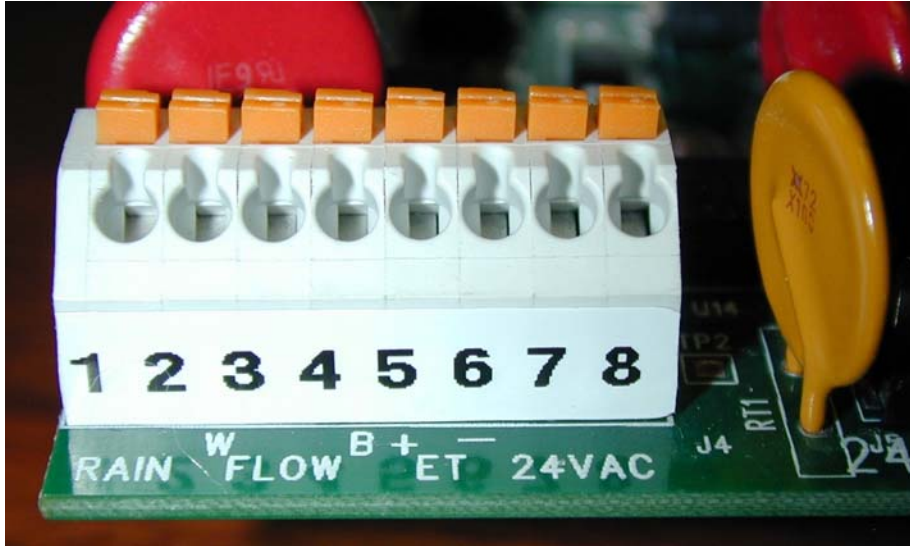


Figure 2 – J12 Connector with 24 VAC Source Connections

3.0 SENSOR CONFIGURATIONS

SENSOR NAME	J12 PIN #	COMMENTS
Rain Sensor	1	} 2-Wire Sensors } Wireless Sensors
Rain Sensor	2	
Rain Sensor	7	
Rain Sensor	8	
Flow +	3	
Flow –	4	
ET +	5	
ET –	6	

Figure 3 – J12 Connector Assignments

WARNING: ALWAYS TURN POWER OFF before changing or modifying field, sensor or power wiring within the controller. Dangerous voltage and current exist within the controller which may damage the controller if improperly connected or shorted.

Figures 4 – 7 depict four possible sensor configurations.

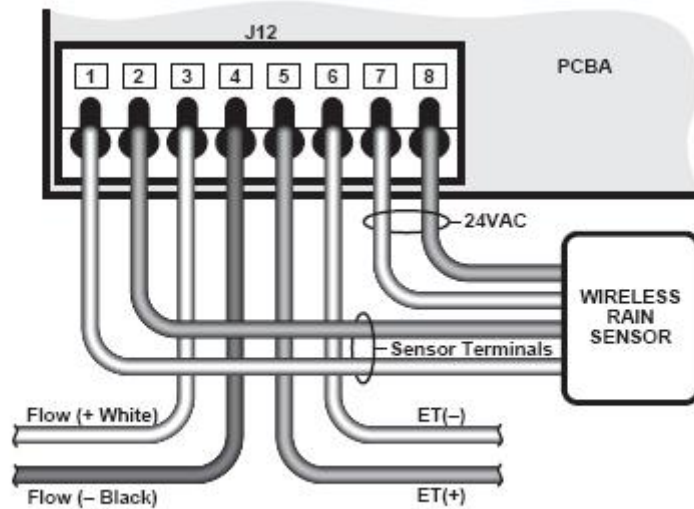


Figure 4 – J12 Sensor Connections with Wireless Rain Sensor in a Wall Mount Enclosure

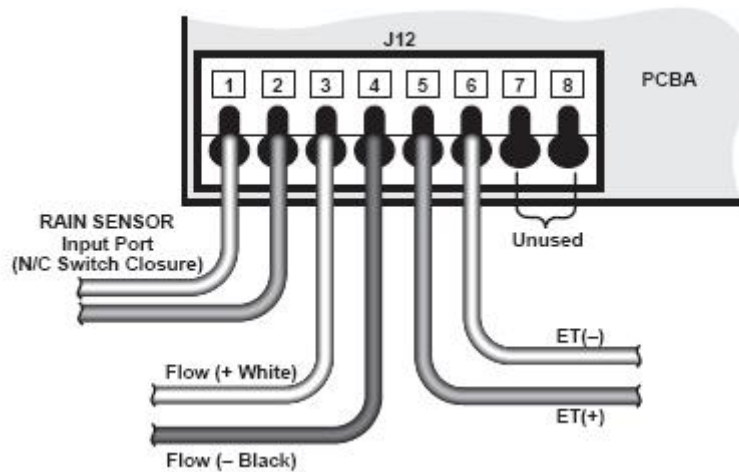


Figure 5 – J12 Sensor Connections with 2-Wire Rain Sensor in a Wall Mount Enclosure

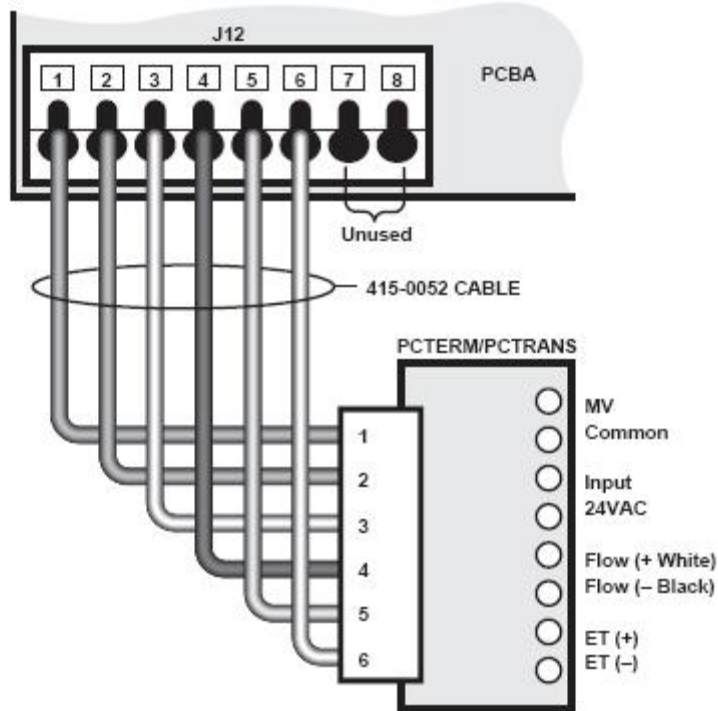


Figure 6 – J12 Sensor Connections with 2-Wire Rain Sensor in a Pedestal Enclosure (Typically used in conjunction with the Weather Center)

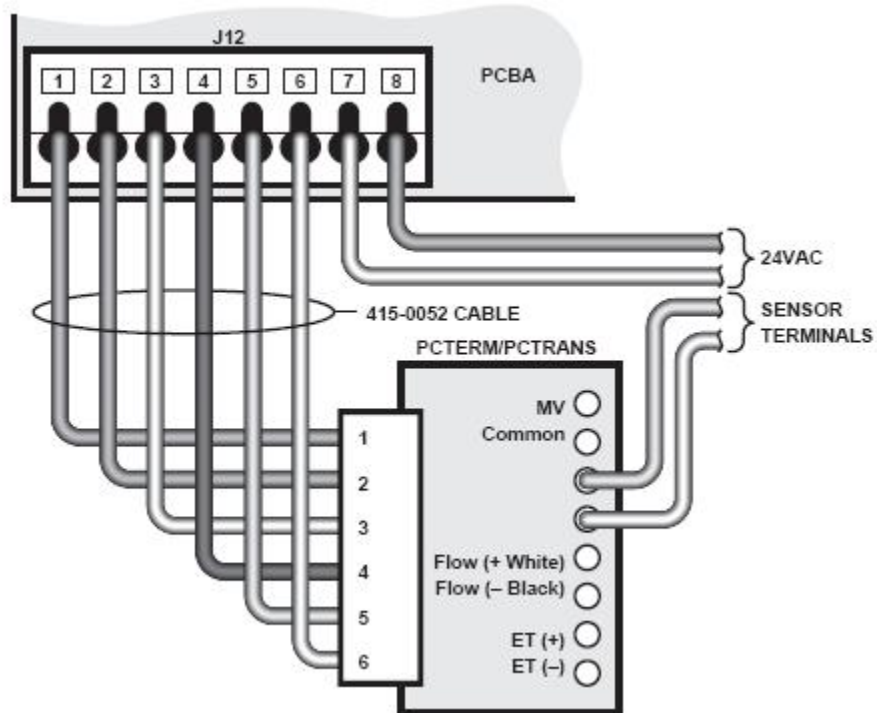


Figure 7 – J12 Sensor Connections with Wireless Rain Sensor in a Pedestal Enclosure (Typically used in conjunction with the Weather Center)