ET Manager™ Application Notes

Rain Bird Maxicom^2 Central Control System

The Rain Bird ET Manager (Model ETMi) can provide the Rain Bird Maxicom^2 Central Control System with ET, rainfall amounts, or a sensor interrupt based on rain, low temperature, and high wind conditions. The ET Manager receives hourly weather information broadcast by a Weather Reach Signal Provider who accesses a network of weather stations.

Maxicom^2 site hardware pulse sensor inputs recognize a momentary dry contract switch closure for each 0.01" of ET and/or Rain. These inputs are configured as a Weather Source in the Maxicom^2 software. Maxicom^2 site hardware switched sensor inputs recognize an open or closed switch condition, which can be programmed in the Maxicom^2 software to interrupt irrigation.

Choose one of the two ET Manager advanced output methods to provide sensor input to the Maxicom^2 System:

- **ET and Rain Pulse:** ET and rainfall data is input to the Maxicom^2 site hardware using a "pulse" method. A dry contact switch closure represents 0.01" of ET or Rain. The relays operate in a normally open condition.

- **ET Pulse and Weather Interrupt:** ET data is input to the Maxicom^2 site hardware using a "pulse" method. A dry contact switch closure represents 0.01" of ET. The relay operates in a normally open condition. A Weather Interrupt can be input to the Maxicom^2 site hardware using a switched contact method (open or closed). The Weather Interrupt is utilized to prevent watering if any one of the three Weather Interrupt conditions occurs: rain, freezing conditions, or high wind. The relay operates in a normally closed condition.

Maxicom^2 Site Hardware Requirements

- **ET and Rain Pulse:**
  - **Maxicom^2 Pulse Decoder input:** The ET and Rain Pulse require individual Maxicom^2 Pulse Decoders connected to individual channels on the CCU two-wire path.
  - **Maxicom^2 ESP-SITE Satellites and ESP-SAT Link-Radio Satellites input:** ESP-SITE Satellites and ESP-SAT Link-Radio Satellites can be used for either an ET or Rain input but should not be used for both ET and Rain Pulse input with the ET Manager at this time.

- **ET Pulse and Weather Interrupt:**
  - **Maxicom^2 Pulse Decoder input:** The ET Pulse requires a Maxicom^2 Pulse Decoder connected to the CCU two-wire path.

- **Maxicom^2 ESP-SITE Satellites and ESP-SAT Link-Radio Satellites input:** The ET Pulse requires Sensor Input A or B on a Maxicom^2 ESP-SITE Satellite or ESP-SAT Link-Radio Satellite.
- **Maxicom^2 Sensor Decoder input:** The Weather Interrupt requires either a Maxicom^2 Sensor Decoder connected to the CCU two-wire path.
- **Maxicom^2 ESP-SITE Satellites and ESP-SAT Link-Radio Satellites input:** The Weather Interrupt requires Sensor input A or B on a Maxicom^2 ESP-SITE-Satellite or ESP-SAT Link-Radio Satellite.

ET Manager Wiring

- Remove the jumper on the ET Manager terminal labeled "Jumper."

ET and Rain Pulse

- **ET Pulse:** Use a pair of wires connected to the ET Manager ET pulse output terminals, labeled NOA and A. Select the Maxicom^2 hardware input:

    - **Maxicom^2 Pulse Decoder input:** Connect to the blue and blue/white wires.
    - **Maxicom^2 ESP-SITE-Satellite or ESP-SAT Link-Radio Satellite input:** Connect to either sensor input A or B.

- **Rain Pulse:** Use a pair of wires connected to the ET Manager ET pulse output terminals, labeled NOB and B. Select the Maxicom^2 hardware input:

    - **Maxicom^2 Pulse Decoder input:** Connect to the blue and blue/white wires.
    - **Maxicom^2 ESP-SITE-Satellite or ESP-SAT Link-Radio Satellite input:** Connect to either sensor input A or B.

Note: The Maxicom^2 ESP-SITE-Satellite or ESP-SAT Link-Radio Satellite currently does **not** support two weather inputs. Select either an ET or Rain input to one satellite.

ET Pulse with Weather Interrupt

- **ET Pulse:** Use a pair of wires connected to the ET Manager ET pulse output terminals, labeled NOA and A. Select the hardware input:

    - **Maxicom^2 Pulse Decoder input:** Connect to the blue and blue/white wires.
    - **Maxicom^2 ESP-SITE-Satellite or ESP-SAT Link-Radio Satellite input:** Connect to either sensor input A or B.

- **Weather Interrupt:** Use a pair of wires connected to the ET Manager Weather Interrupt terminals, labeled COM and B. Select the hardware input:

    - **Maxicom^2 Sensor Decoder input:** Connect to the two yellow wires.
    - **Maxicom^2 ESP-SITE-Satellite or ESP-SAT Link-Radio Satellite input:** Connect to either sensor input A or B.

ET Manager System Settings

- **ET and Rain Pulse:**
    - Output Method = ET and Rain Pulse
    - Rain Source = Broadcast
    - Pulse per Minute = 10
    - ET Pulse Duration = 0.2 seconds
    - Rain Pulse Duration = 0.2 seconds

- **ET Pulse with Weather Interrupt:**
    - Output Method = ET Pulse with Interrupt
    - Rain Source = As needed
    - Pulse per Minute = 10
    - ET Pulse Duration = 0.2 seconds
    - Weather Interrupt = Wind, Temperature and Rain as needed

Maxicom^2 System Software Setup

ET and Rain Pulse

CCU Properties

- **CCU Two-Wire / Pulse Decoder:**
    - **ET Pulse input:** Select Channel Properties on an unused channel.
      Device Category = Sensor/Decoder
      Device Type = Site ET Collector (SETC)
      Device Name = ET Manager
      In/Pulse = 0.01 (default)
    - **Rain Pulse input:** Select Channel Properties on an unused channel.
      Device Category = Sensor/Decoder
      Device Type = Site Rain Collector (SRC)
      Device Name = Rain Can
      In/Pulse = 0.01 (default)

- **ESP-SITE-Satellite or ESP-SAT Link-Radio Satellite:**
  - **ET Pulse input:** Select Channel Properties on a Satellite channel.
    Device Category = Satellite with Sensor Input(s)
    Select Sensor Input A or B Properties
    Device Type = ET Gauge
    Device Name = ET Manager
    In/Pulse = 0.01 (default)
  - **Rain Pulse input:** Select Channel Properties on a Satellite channel.
    Device Category = Satellite with Sensor Input(s)
    Select Sensor Input A or B Properties
    Device Type Site Rain Collector (SRC)
    Device Name = ET Manager
    In/Pulse = 0.01 (default)
  - **Note:** Both ET Pulse and Rain Pulse inputs should **not** be used on the same CCU Channel.

ET Pulse and Weather Interrupt

CCU Properties

- **CCU Two-Wire / Pulse Decoder:**
  - **ET Pulse input:** Select Channel Properties on an unused channel.
    Device Category = Sensor/Decoder
    Device Type = Site ET Collector (SETC)
    Device Name = ET Manager
    In/Pulse = 0.01 (default)

- **ESP-SITE-Satellite or ESP-SAT Link-Radio Satellite:**
  - **ET Pulse input:** Select Channel Properties on a Satellite channel.
    Device Category = Satellite with Sensor Input(s)
    Select Sensor Input A or B Properties
    Device Type = ET Gauge
    Device Name = ET Manager
    In/Pulse = 0.01 (default)

- **CCU Two-Wire / Sensor Decoder:**
  - **Weather Interrupt input:** Select Channel Properties on an unused channel.
    Device Category = Sensor/Decoder
    Device Type = Wind Limit Sensor
    Device Name = ET Manager

- **ESP-SITE-Satellite or ESP-SAT Link-Radio Satellite:**
  - **Weather Interrupt input:** Select Channel Properties on a Satellite channel.
    Device Category = Satellite with Sensor Input(s)
    Select Sensor Input A or B Properties
    Device Type = Wind Limit Sensor
    Device Name = ET Manager

Maxicom^2 Weather Source

- **ET:** Configure a new Weather Source and select the CCU Based - ET Gauge as the type. Identify the Site and CCU Channel location of the ET Pulse sensor input.

- **Rain:** Configure a new Weather Source and select the CCU Based - Site Rain Can as the type. Identify the Site and CCU Channel location of the Rain Pulse sensor input.

Maxicom^2 Schedules

- **ET Sensitized Schedules:** The ET Manager can be used as a Weather Source (ET and/or Rainfall) for any Site(s). ET Sensitized Schedules on these Sites can utilize the ET Manager ET and/or Rainfall for automatic runtime adjustments.

- **Rain Watch Schedules:** The ET Manager can be used as a rainfall source for Site Rain Watch operations. Please see the Maxicom^2 User Manual or Schedule Templates for information about creating Rain Watch Schedules.

- **Weather Interrupt Schedules:** The ET Manager Weather Interrupt input can be used by a Sensor Schedule to Interrupt or Cancel irrigation schedules when pre-defined rain, wind or temperature thresholds occur. Please see the Maxicom^2 User Manual or Schedule Templates for information about creating Sensor Interrupt or Cancel Schedules.