



ADC-3000's DS-16 Local Monitor/Control Board

DS-16 Local Control Unit located inside the Power Distribution Panel Enclosure The Walton De-ice ADC 3000 Antenna De-icing Control System is just like ADC 2000 except it can handle up to 6 heaters and has the capability to monitor propane fuel consumption. The ADC 3000 consists of a rack mounted Remote Control/Status Unit (DP-9) that communicates with the Local Control (DS-16)/Power Distribution Panel located on or near the antenna. These Local and Remote Units work in unison to provide the most up to date and cost effective Antenna De-ice Control System in the industry. This system can also serve as the Rain Blower Controller if the antenna is fitted with a Rain Blower.

When coupled with the Walton Hot Air De-icing System, the ADC 3000 Automatic De-ice Control System is designed to maintain ice free conditions on the Reflector, Feed and Subreflector without assistance

from site personnel. The logical and Straightforward controls and indicators provide simple yet versatile operation.

DS-16 Local Control Unit located inside the Power Distribution Panel Enclosure

The DS-16 Local Control Unit is located inside the Power Distribution Panel Enclosure, which is mounted on or near the antenna. Together they provide rain and snow detection, basic monitoring functions and switching power for the heaters. At the Local Control Unit Power Distribution Panel, the operator will have access to three LED indicators. The PRECIP LED indicator will show if the sensor is indicating moisture. The COLD LED indicator will show if the Thermister is indicating the air temperature is below the trigger point. The Run LED indicator will show if the DS-16 local controller is operating properly. The Operator will also have access to the System Bypass Switch and the Thermal Disc bypass switch for testing and emergency operation.

The Local Control Unit communicates with the Rack Mounted Remote Control/Status Panel via a dedicated 4-wire RS-422 serial link, along with a summary alarm relay contact. The interconnecting cable will be a #2 multi conductor cable with an overall shield. DS-16 Local Control Unit which will be integrated into the Power Distribution Panel

Features

- Automatic Activation Lowers De-icing Operational Costs
- Reliable Rain and Snow Detection
- Replaceable Precipitation Sensor
- Can operate as a Rain Blower and De-ice Control System.
- Adjustable Temp. Trigger Point and Delay Off Cycle
- Selectable Low Temperature Cutoff Monitors each Heater for "Blower On", "Call for Heat", "Heater Failure" and "Over Temp"
- Monitors Feed Horn and Subreflector Heater/Blower for "Blower On", "Feed Heater On" and "Sub Heater On"
- Remote Rack Mounted Unit can communicate with the Customer's M&C system via a RS-232 or addressed 4 wire RS-485 "Party Line". It is also IP Addressable through a separate optional port.
- Propane Fuel consumption monitoring capabilities.

ADC-3000's DP-9 Remote Control/Status Unit



From the Remote Control/Status Panel (DP-9) the operator is able to select between Automatic Operation, De-ice Manual On and Rain Blower Manual On.

When in the automatic mode, the Rain Blower (if supplied) will activate when the precipitation sensor detects moisture but the Temperature is above the trigger point.

The De-icing System will activate when the precipitation sensor detects moisture, and the temperature falls below the adjustable (34o F to 44o F) temperature trigger point. When the De-ice Manual On is selected, the system is activated, just as if the precipitation sensor indicated moisture, and the temperature was below the trigger point. When the Rain Blower Manual On is selected the Rain Blower (if supplied) will be activated.

The Remote Panel is equipped with System status LED indicators for "Antenna Wet", Antenna Icy", De-ice On", "Feed Heat On", "Sub Heat On" and "Rain Blower On".

Additionally, the Remote Panel has LED status indicators for up to 6 heaters. These LED indicators show, "Blower On", "Call For Heat", "Heater On", "Heater Failure" and "Over Temp".

LED indicators showing 50% and 20% Propane Fuel consumption are also located on the Remote Control/Status Panel (DP-9). All of this status is available to the customers M&C system via RS-232 or an addressed 4 wire RS-485 "party Line M & C interface. The port for this interface is located on the Rack Mounted (DP-9) Remote Control/Status Unit.