

# Snow Shield

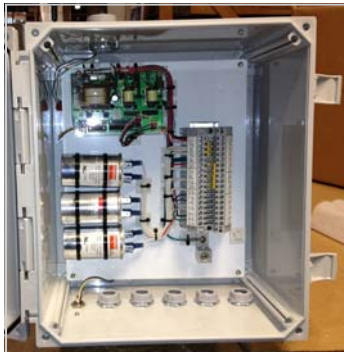
# Ice Quake



## 4.5 meter Antenna Ice Quake De-Icing System



The Snow Shield and Ice Quake System can be installed in any weather conditions. The Snow Shield Cover and Ice Quake System also incorporate a redundancy factor. If the Ice Quake System should lose power, in most conditions the Snow Shield Cover will continue to shed the ice and snow keeping the antenna from losing signal and you staying on the air.



The Ice Quake System is automatically activated by the DS-4 LCU moisture and temperature sensing control unit. An optional DP-7IQ Remote Monitor/Control Unit can also be added.

The Ice Quake System can also be activated during a rain event to reduce the water sheeting on the reflective surface of the antenna to reduce rain fade.

Each Ice Quake Unit (3 per antenna) only requires 45 watts of power at either 120VAC 60 Hz. or 220/230VAC 50 Hz. to De-Ice the 4.5 meter antenna's entire (full) reflector. The Ice Quake Unit is rated for 10,000 plus hours of operation.



# De-Icing System

The first and only **“Green”** De-Icing System on the market

After only a few years of operation, the Ice Quake System will pay for itself !



Annual Snow & Freezing Rain Fall in Hours	Cents per Kilowatt Hour Commercial Charges	2.4 to 3.0 meter Antennas Full Reflector De-Icing Systems		3.2 to 4.2 meter Antennas Full Reflector De-Icing Systems		4.3 to 4.8 meter Antennas Full Reflector De-Icing Systems		5.0 to 6.3 meter Antennas Full Reflector De-Icing Systems	
		Annual costs shown below		Annual costs shown below		Annual costs shown below		Annual costs shown below	
		Electric Heat 4000 watts	IQ System 45 watts	Electric Heat 6000 watts	IQ System 90 watts	Electric Heat 12000 watts	IQ System 150 watts	Electric Heat 45000 watts	IQ System 200 watts
450	\$0.19	\$342.00	\$3.85	\$513.00	\$7.70	\$1,026.00	\$12.83	\$3,847.00	\$17.10
350	\$0.19	\$266.00	\$2.99	\$399.00	\$5.99	\$ 798.00	\$ 9.98	\$2,992.00	\$13.30
250	\$0.19	\$190.00	\$2.14	\$285.00	\$4.28	\$ 570.00	\$ 7.13	\$2,137.00	\$ 9.50
150	\$0.19	\$114.00	\$1.28	\$171.00	\$2.57	\$ 342.00	\$ 4.28	\$1,282.00	\$ 5.70
50	\$0.19	\$ 38.00	\$0.43	\$ 57.00	\$0.86	\$ 114.00	\$ 1.43	\$ 427.00	\$ 1.90

The chart above shows the costs savings of using the Walton Ice Quake System over the conventional electric heater pad or heat tape systems. Shipping, installation and maintenance would be another cost saving factor using the Ice Quake System.

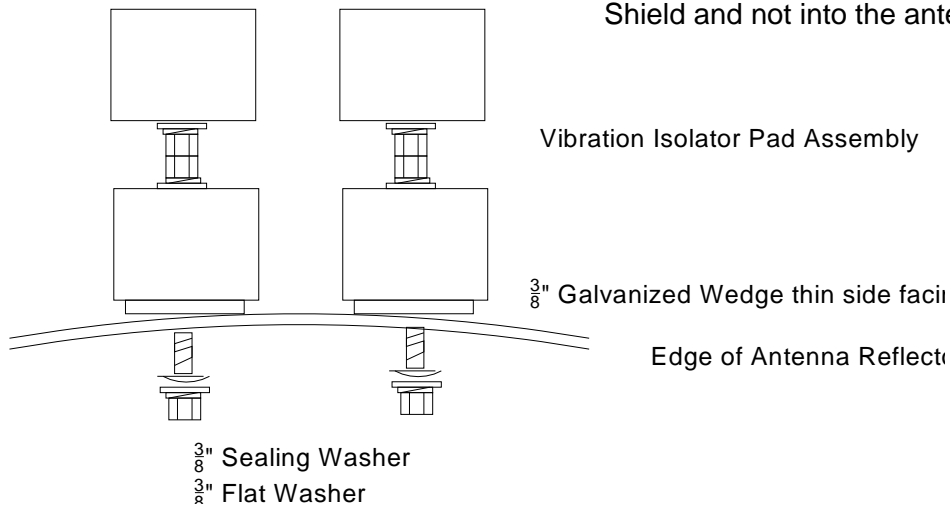


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Snow Shield

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The Ice Quake Assemblies are installed on the edge of the antenna reflector by drilling 2 each 3/8" holes into the edge of the reflector and mounting the vibration isolator pads. These pads cause the vibration to transfer into the Snow Shield and not into the antenna's reflector





# Icequake

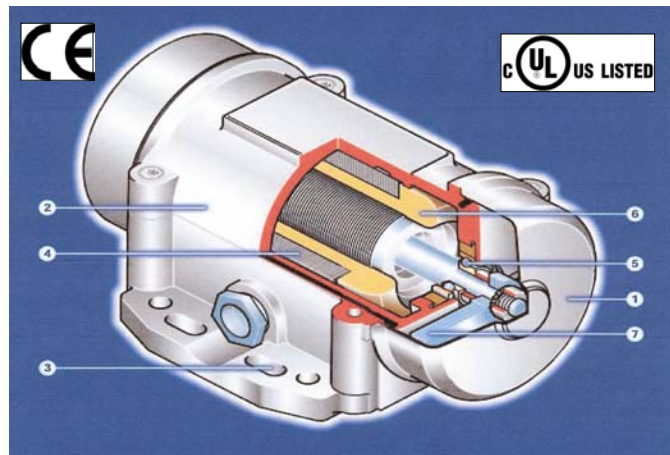
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The new Micro Series represents the natural evolution of the previous series produced by Italvibras. Experience acquired throughout years of work and specific workshop tests, have allowed significant improvements to be applied to both the technical aspects and design of the new Micro vibrators, so much so that the product has become even more reliable.

The Micro Series has been designed for continuous use in industrial processes that require smaller size electric vibrators with lower centrifugal force.

Micro electric vibrators feature IP65 mechanical protection, a highly resistant light aluminum alloy casing and stainless steel weight covers. Lubrication is not required as long life maintenance-free type bearings are used.



1. Weight covers in stainless steel that combine high mechanical strength with the protection guaranteed by stainless steel.
2. Aluminum casing with surface polishing treatment.
3. The fixing center-distances, which are identical to those of the previous Micro series, ensures perfect interchangeability.
4. Stator insulated by means of the impregnation process, guaranteeing perfect insulation and the utmost protection against damage from the vibration process
5. Ball bearings set in specifically researched positions to ensure top-most efficiency throughout the stress caused by the centrifugal force.
6. The windings are subjected to the strict tests established by the standards in all pieces produced under CSA, UL and CSA guidelines.
7. The lamellar eccentric weights can be regulated in steps by changing the actual number of weights mounted.



# 24VAC Ice Quake System

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18/2 outdoor rated cable runs from Moisture Grid Assembly to Ice Quake



18/2 outdoor rated cable runs from Transformer to Ice Quake's Moisture Grid Assembly. 25 feet of cable is include in each system. Additional cable can be pur-

120 VAC or 220 VAC to 24 VAC Transformer rated at 100 VA plugs into standard wall outlet.



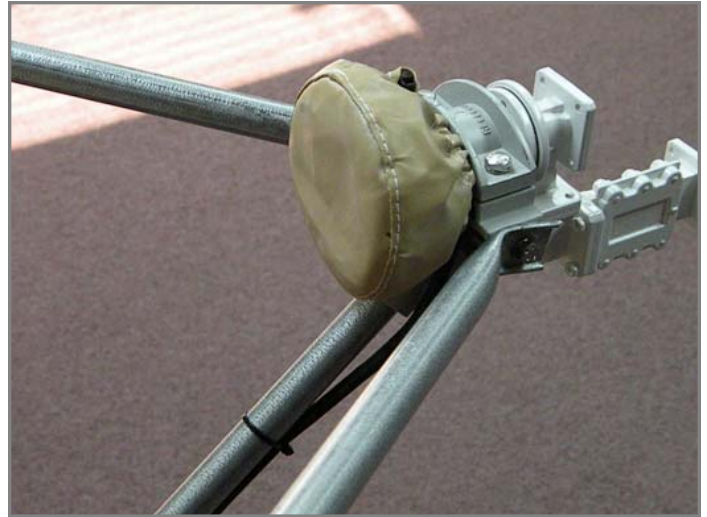


# Gore-Tex Feed Horn Covers Passive and Heated

De-Ice

Heated

Optional Feed Horn Covers can either be passive or heated. The Passive cover is the same PTFE Coated GORE-TEX ® Fabric that is used to manufacture the antenna reflector cover. PTFE has the lowest coefficient of friction of any solid, and therefore does a good job of preventing ice and snow accumulation on the feed. For an even higher level of performance, Walton offers a Heated Feed Cover. The Heated Feed Cover is also the PTFE Coated GORE-TEX ® Fabric that has a 24 VAC, 12 watt Silicon Heater Pad that is located inside the Feed Horn Cover and can operate at 220/230 VAC 1 phase 50 Hz. or 120 VAC 1 phase 60 Hz.





# DS-4 Sensor/Controller

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The DS-4 LCU is used to control the Ice Quake System on antennas 2.1 and larger. The Ice Quake System will automatically activated using a moisture/temperature sensing unit. This unit closes a 30amp 1 pole relay in the event that there is moisture present and the temperature is 39 degrees or below.

The DS-4B Rain/Snow Sensor Controller

- Automatic Activation means Lower Deicing Costs
- Reliable Rain and Snow Detection
- Full 30A @ 240VAC Control
- Field Strap for 100-120/200-240 VAC Operation
- Replaceable Precipitation Sensor
- Easy Installation, Full Access to Electronics
- 8 Different Functions, 1 Part Number
- Adjustable Temperature Trigger Point
- Adjustable Delay Off Cycle
- Selectable Low Temperature Cutoff
- Smart "Manual On" Operates for One Delay Off Cycle







# DP-7IQ De-Ice Controller

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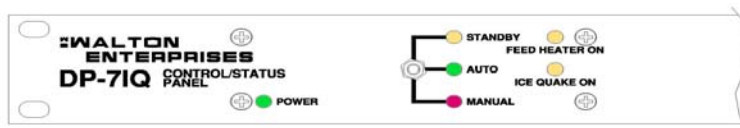
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## DP-7IQ Remote Monitor/Control Unit

The DP-7IQ is mounted on a 1.75" X 19" standard, single rack mount panel. The black powder finish assures high indicator visibility, even from a long distance. Termination of the cabling from the local unit is easily made through the rear mounted terminal blocks on the back of the unit. All connections to the unit are clearly marked on the rear of the panel to simplify installation. A de-pluggable terminal block for interface also makes swap-out a snap. Control Leads going to the DS-4 Local Control/Sensor are optoisolated in order to improve noise immunity, reduce ground loop problems, and provide circuit protection. This also allows the DP-7IQ to be mounted up to 1200 feet away from the Local (DS-4) Control/Sensor. Dry contact I/O for customer monitor and control equipment is also provided for monitoring the status of the deicing system along with allowing full remote **Manual On** activation, no matter what position the DP-7IQ control Switch is in. A panel indicator will show a remote M&C **Manual On** command.

### Key Features of the DP-7IQ

- Inexpensive Assurance of Proper De-icing Operation
- Full Remote Control for Testing
- M & C Interface for Station Control/Monitor
- 100-120VAC Standard, 200-240 VAC Optional
- Controls can be located up to 1200 Feet from the Local Antenna De-ice Controls
- Stand or High Density Configurations Available



The DP-7IQ remote control/status display panels coupled with the DS-4 provides a low cost method to remotely monitor and control your Ice Quake System. The DP-7IQ provides basic **Ice Quake on** Status for the Ice Quake System, along with **Manual on**, **Automatic**, and **Standby** control capabilities. The DP-7IQ also has a Feed Heater On Indicator.