

Technical Bulletin

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Summary: General Information – 2500-575 Heated Auxiliary Scanner Cover – Type III

Critical (Affects safe operation of system)

Informational

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Subject: General information for use of-2500-575 Heated Auxiliary Scanner Cover – Type III

This Technical Bulletin provides the information necessary to install and operate the 2500-575 heated auxiliary scanner cover for Type III bearing and wheel scanners.



The 2500-575 Heated Auxiliary Scanner Cover is designed to prevent accumulations of snow and ice on top of a Type III bearing or wheel scanner during extended periods of low ambient temperatures in inclement weather. **The covers are intended to be used seasonally !** As such they should be removed and stored in the signal bungalow when sustained ambient temperatures are above 40 degrees F.

Each cover is fabricated from .090 aluminum alloy (5052-H32) with welded seams at each corner. Each cover has an over temperature safety device installed on the back panel. The device is intended to regulate the heat on the top surface of the cover to a maximum of 220 degrees F. A warning label is applied to this surface to prevent accidental human contact and potential injury.

!! USE CAUTION WHEN HANDLING THIS DEVICE !!

A flexible silicone heater pad rated at 365 watts / 120 VAC watts covers the inside top surface of the cover. The heater pad is installed such that the entire top surface and approximately 50% of the front panel receive direct radiation.

The heater is protected from abrasion against the scanner casting by the application of a layer of Thermo-Tech insulation.

Power input wiring to the heater is routed from a junction box on the back panel of the cover, through a grommet and up the back panel to the heater. The heater wires are covered with a 1/8" layer of closed cell foam that is adhered directly to the back panel of the cover. All side panels of the cover have the closed cell foam pads to reduce vibration and provide a snug fit on the Type III scanner.

The auxiliary covers are intended to be used temporarily during periods of freezing inclement weather. Therefore each cover is supplied with a 100' power cord assembly with a heavy duty three prong plug.

Input Voltage	Current Draw
115 – 130 VAC	2.8 – 3.2 Amps Per Cover

Care should be taken not to overload the outlets inside the bungalow. This could affect the reliable operation of the covers once they are placed in service.

Installation:

The 2500-575 Heated Auxiliary Covers are designed to simply drop down over the scanner cover casting of the Type III scanner. Once the cover is in place be sure the opening is oriented at the proper end of the scanner and the grill of the Rodent Screen is visible. You should see approximately 1/2 inch of the scanner cover casting at the front of the auxiliary cover opening. This is the correct orientation.

Once the heated cover is seated on the scanner cover, install the Velcro retention strap and run it under the scanner mount to the Velcro loop pads on both sides of the cover. Press the Velcro surfaces firmly together to prevent the cover from rising due to vibration.

Extend the power cord to the bungalow and route it inside to a convenient receptacle. Plug the cord into the outlet. The Auxiliary Cover heater should immediately begin to heat the top surface of the cover.

!! BE CAREFUL !!

!! THE TOP SURFACE OF THE COVER CAN REACH TEMPERATURES OF 220 DEGREES F.

Repeat the previous steps for each scanner at the site.

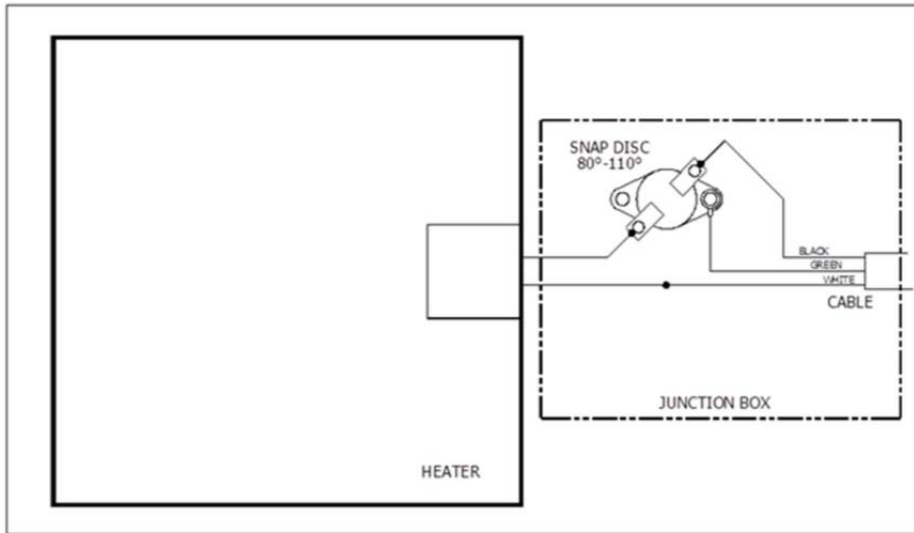
The 2500-575 Heated Auxiliary Scanner Covers have been extensively tested on in-service scanners with no detectable loss of recorded temperature on bearings or wheels due to warm reference surfaces around the scanners field of view.

Expected Cover Temperature and Cycle Times Relative to Ambient

Ambient Temp °F	Max Cover Temp °F	Snap Disc Open Temp °F	Snap Disc Close °F	Time for cycle Minutes
-40	177			
-20	184			
0	203			
20	218			
32	220	220	99	4
40	221	221	95	5
60	215	215	90	8

Note: The snap disc controller is mounted on the side of the cover which typically runs several degrees cooler than the top surface.

Appended Information



Note: The power cord used with the heated auxiliary covers is a product of Carol Cable Company.

Brand Name	Super-Vutron
Operating Temperature Range	-40 to + 160 F
Conductor Gauge and Count	14 / 3
Conductor Material	Copper Strand
Insulation Rating	600 Volt
Color	Yellow
Length Per Cover	100 Feet

The power cord is designed for use as a service cord in industrial application. It remains flexible at -40F, has high resistance to UV and is rated for rough service.