

2024-2025

Cold Weather/Breakdowns Procedures and Guidelines



Bus Garage

Cold Weather Guidelines (2024-2025)

Bus Garage Staff & Drivers Cold Weather Preparations

Cold Weather Consideration's for running busing

Bus Breakdowns Guidelines

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Coach Bus Drivers Reminders:

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Blizzard Warning Means

Bus Garage Staff and Drivers Cold Weather Preparations

Drivers

Start blending fuel if temperature is going to get lower than **20** above. Go to straight #1 if temperature starts going lower than **5** above.

-20 below and colder all drivers report in **15** minutes early in the AM and PM. Start your bus for warm-up then keep your bus running on fast idle until departure time.

Snow and ice days Inspected Auto Chains function before departing shop.

At **-20** and colder, if you're going to fuel, fuel before your afternoon run as the mechanic is in the shop until the last route bus arrive back. (Don't make him wait any longer than need be.)

In Shop Staff

-5 and colder the mechanic will make sure to have a spare bus inside for the AM run. (Woody)

-15 and colder have **1** spare inside & relief driver on standby (Woody)

-20 have Service Attendant report in by **5:45 AM**. (Woody)

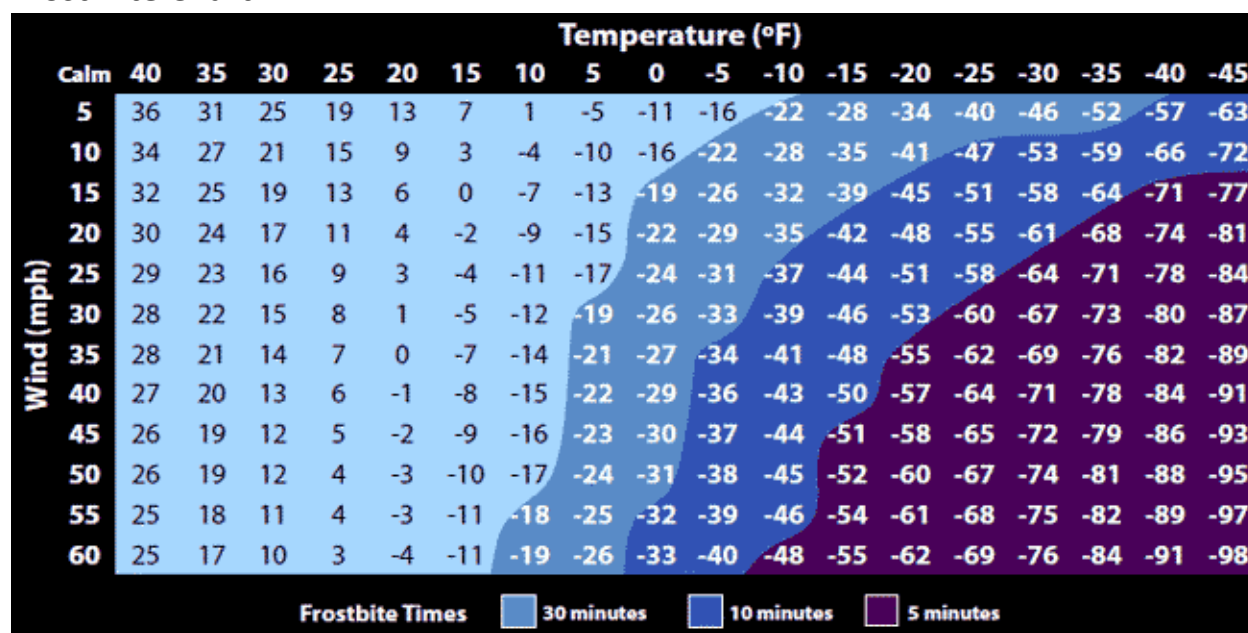
-20 have mechanic stay in the shop until the last bus is in. (Seth)

-25 have a spare in shop, mechanic before going home (Seth)

-30 have a spare in shop (Seth in the PM) and 2nd spare started outside and running on fast idle **1st** thing in the AM (Woody)

Cold Weather Consideration's for running busing

Frost Bite Chart



Rural bus routes AM runs

Temperatures = **-25 to -45 below** evaluate if we run

Temperature = **-45 below and colder** no bussing

Wind-chill = **-25 to -50 below** evaluate if we run

Wind-chill = **-51 below** and colder no bussing

In-city bus routes AM runs

Temperatures = **-35 to -50 below** evaluate if we run

Temperature = **-51 below** and colder no bussing

Wind-chill = **-40 to -51 below** evaluate if we run

Wind-chill = **-52 below** and colder no bussing

Rural bussing PM (Make sure students can get into a warm sanctuary before unloading)

Temperature = run busses home up to **-45 below/ -45 to -50 below** evaluate/ **-51 below** no bussing

Wind-chill = run busses home up to **-55 below /- 55 below** and colder no bussing

Activity trips

Up to **-20 below** can depart / **-20 to -35 below** check with Transportation Dir. / at **-36 below** day time running only

NOTE: Do not drive on closed and severe driving conditions roads, evaluate black ice roads before travel.

Yellow Bus Driver's Winter Driving Guidelines

Do Not Travel on Closed or Emergency Only Travel Roads

Diesel Fuel:

The start of the cold weather lower than **20 above** you start rotating fueling from **#2 dyed** diesel and **#1 dyed** diesel. Note this will be on most years about the middle of November. If temperature starts going lower than **5 above** fuel with **straight #1**.

Year around please use the **Diesel Fuel Additive (1oz per 10 gallons)** when the weather starts to get cold - **below 5 above** use **#1 dyed diesel** with **additive** (if your fueling and you know a cold snap is coming use **#1 dyed** fuel) remember that we always run on the upper half of the fuel tank, keep your fuel level above $\frac{1}{2}$ full year around.

DEF:

Always run with the DEF level about **50 %**.

Plugging in bus:

If the temperate is below **25 degrees** plug the bus in when parking in the back shop and on overnight trips.

Start up in warm weather:

Turn key, wait until -wait to start light- goes out. About **2 to 3 minutes** warm-up in warm weather is the entire warm up time you need. After leaving do not give full throttle until the engine has warmed up near operating temperature.

Start up in cold weather:

Turn key, wait until -wait to start light- goes out. About **5 to 10 minutes** warm-up in cold weather is the entire warm up you need. After leaving do not give full throttle until the engine has warmed up near operating temperature.

Fast idle:

In cold weather and warm do not put bus on fast idle until the engine has ran for a few minutes.

Webasto Heater:

Usage of the heater will help the warming up of your bus and help keep your bus in operational temperature range. Remember to turn the heater off when parking a night.

Warming Inside of bus up:

After startup, turn your driver heater on, after you have left wait until the engine has warmed up close to operating temperature before you activate the rest of your heaters and turn on your aux heat pump to circulate the coolant to the rest of the heaters.

Driving snow and ice:

If possible, reduce your vehicle speed and select a lower range before losing traction. Select the range that will not exceed the speed expected to be maintained. Accelerate or decelerate very gradually to prevent the loss of traction. It is very important to decelerate gradually when a lower range is selected. It is important to reach the selected lower range before attempting to accelerate. This will avoid unexpected downshift during acceleration.

NOTE: If ABS is activated; the transmission clutch is automatically disengaged.

Auto Chains:

Remember to use your auto chain, get in the practice of raising and lowering your chains. Lower them whenever you feel the need for more traction and raise them when the need for extra traction has passed.

ONSPOT are very safe for ice and packed snow of 4-8 inches depth, depending on snow density. The chief safety advantage is the ability to actuate in 1.0 to 1.5 seconds when adverse conditions are encountered unexpectedly. This means you can have increased traction for breaking or accelerating at any time it's needed.

Q: How fast can I go and turn ONSPOT chains on?

A: ONSPOTs should be engaged and disengaged with the vehicle moving. The system can be turned on with the vehicle going as fast as 25 mph, but can be engaged as long as the wheels are spinning.

Q: How fast can I go with the chains engaged?

A: Up to 35 mph.

Q: Do ONSPOTs work in reverse?

A: Yes, as the chain wheel hits at the tire centerline and the chain wheel is driven by centrifugal force. The system will provide traction in forward or reverse.

Coach Driver's Winter Driving Reminders:**Do Not Travel on Closed or Emergency Only Travel Roads****Fuels:**

Year around please use the Diesel Fuel Additive - 1oz per 10 gallons. When the weather starts to get cold (below 10 above) use #1 dyed diesel with additive (if you're fueling and you know a cold snap is coming use #1 dyed fuel)

Plugging in bus:

If the temperature is below 25 degrees, plug the bus in when parking in the back shop and on overnight trips.

Start up in Bus Garage (warm shop):

Let bus buildup air pressure before pulling out, if you're leaving right away, do not apply full throttle until the engine has warmed up to operating temperature.

Start up in back shop and overnight stays:

In warm weather buildup air pressure before pulling out, if you're leaving right way do not apply full throttle until the engine has warmed up near operating temperature.

In cold weather, a 10 minute warm up should be good - then do not apply full throttle until the engine has warmed up near operating temperature.

Fast idle:

In cold and warm weather, do not put bus on fast idle until it has ran for a few minutes.

Release of park brake:

Wait until the air pressure has fully built up, then push in your push-pull parking brake valve, then apply a full service brake application, this should release the parking brakes - if not repeat.

Yellow Bus & Coach Bus**Activity Trip Travel Guidelines for Adverse Road Conditions:****Do Not Travel on Closed or Severe Driving Conditions
Roads**

Prior to Departure check road reports, the transportation director or activity director will make the final decision to travel if the previous assessment indicate hazardous road conditions exists.

After Departure:

The activity advisor/ coach and the bus driver will mutually determine if travel should be continued. In the event of a disagreement, the **Bus Driver** has final determination, the transportation director or activity director is to be notified as soon as possible.

A **BLIZZARD WARNING** MEANS SEVERE WINTER WEATHER CONDITIONS ARE EXPECTED OR OCCURRING. **FALLING AND BLOWING SNOW WITH STRONG WINDS AND POOR VISIBILITIES ARE LIKELY. THIS WILL LEAD TO WHITE-OUT CONDITIONS...MAKING TRAVEL EXTREMELY DANGEROUS. ALL TRAVEL AND OUTDOOR ACTIVITY IS STRONGLY DISCOURAGED.**

AN **ICE STORM WARNING** IS ISSUED WHEN SIGNIFICANT AMOUNTS OF ICE ACCUMULATION IS EXPECTED. THE ICE MAY DOWN TREES AND POWER LINES...RESULTING IN POWER OUTAGES. **TRAVEL WILL BE EXTREMELY DIFFICULT IF NOT IMPOSSIBLE. PERSONS IN THE WARNED AREA ARE ADVISED TO REMAIN INDOORS.**

A **WINTER STORM WARNING** FOR HEAVY SNOW MEANS SEVERE WINTER WEATHER CONDITIONS ARE EXPECTED OR OCCURRING. SIGNIFICANT AMOUNTS OF SNOW ARE FORECAST THAT WILL MAKE TRAVEL DANGEROUS. **IF YOU MUST TRAVEL...KEEP AN EXTRA FLASHLIGHT...FOOD...AND WATER IN YOUR VEHICLE IN CASE OF AN EMERGENCY.**

A **WINTER STORM WATCH** MEANS THERE IS **A POTENTIAL FOR SIGNIFICANT SNOW...SLEET...AND OR ICE ACCUMULATIONS THAT MAY IMPACT TRAVEL.** STAY TUNED TO NOAA WEATHER RADIO OR YOUR FAVORITE SOURCE OF WEATHER INFORMATION FOR THE LATEST UPDATES.

A **WINTER WEATHER ADVISORY** MEANS THAT PERIODS OF SNOW WILL CAUSE TRAVEL DIFFICULTIES. BE PREPARED FOR SLIPPERY ROADS AND LIMITED

VISIBILITIES...**AND USE CAUTION WHILE DRIVING.**

A **WIND CHILL ADVISORY** MEANS THAT VERY COLD AIR AND STRONG WINDS
WILL COMBINE TO GENERATE LOW WIND CHILLS. THIS WILL RESULT IN
FROST BITE AND LEAD TO HYPOTHERMIA IF PRECAUTIONS ARE NOT TAKEN.
**WIND CHILLS OF 20 TO 40 BELOW CAN CAUSE FROSTBITE WITHIN
30 MINUTES.**