

Agritape Installation and Operating Instructions

Information

- DO NOT plug in Agritape while it is rolled up. The coil will generate excessive heat as it cannot escape the surface of the tape. **DAMAGE WILL RESULT.**
- All Agritape installations must be covered with screening. This includes both bench-top as well as buried installations.
- MIST AND WATERING SYSTEMS will not damage the control units, but they should be shielded from water by a sheet of poly, as should the electrical outlets.
- By installing a Tunnel or Bench Cover of clear poly or vinyl over the bench, further heat can be retained near the crop and even less “on time” will be required to keep the plant at the proper growing temperature.
- The bulb thermostats should always be placed in the soil in a horizontal position.
- Additional receptacles can be added to a control unit by plugging in an outlet strip that is rated 20 AMPS.
- Agritape may be plugged into a GFCI outlet. Occasionally the GFCI will trip when static electrons accumulate on the surface of the heater and flow up the ground wire. This problem can be solved by grounding the screen to a water pipe or other solid ground.
- Round bottomed growing containers can be used on Agritape by putting a layer of sand over the tape to stabilize the containers and to provide more heat transfer surface.

SPECIAL NOTICE

With proper care, your system should last for many years. Agritape is guaranteed for 1 year against defects in materials or workmanship. It is important to carefully inspect the Agritape monthly when in use for signs of damage.

- Use heating tapes only with a thermostatic control unit.
- Do not bury the tape in peat moss, as it is flammable and can ignite from an electrical failure of the tape.

Installation Instructions

1. To insure optimal performance of your Agritape heaters, cover the bench surface with insulation such as aluminum-coated insulation board. (For example, ½” or ¾” Thermax).
2. Roll out the Agritape Heaters, keeping them parallel. If Agritape is buried in soil, be sure it is placed 1” below expected root depth. Be sure tapes do not overlap.
3. Cover heaters with aluminum screening. Screening may be stapled to the bench, but be sure not to staple through or puncture the Agritape. One piece of screen per control unit is usually satisfactory. Buried installations must also have a screen cover.
4. Place control unit within 5 feet of the bench. Shield the control unit from water with a poly cover.
5. Attach the green ground wire from the control unit to the aluminum screen. Be sure that the connection to the screen is very tight. If 2 screens are used to cover a bench, be sure to install the ground wire connection to both screens at the point where they overlap OR use jumper wire to connect the second screen to the first screen ground.
6. Plug in the heaters to the control unit. Outlet strips (rated 20 AMPS) and extension cords (rated 10 AMP or higher) may be used if needed.

7. Plug in your control unit and insert the thermostat bulb horizontally in the first pot or flat. Set the dial for the desired root zone temperature. Set back your space heating thermostat to 50° or 55°. Be sure to check the calibration of the thermostat setting using a soil thermometer. Actual soil temperature can vary from dial settings.
8. The whole system, once installed and tested, may be covered with a thin sheet of black poly to protect the Mylar of the heat mat from direct sunlight and resulting U.V. degradation over a period of time.

* Heat radiates from both sides of tape and may be installed with either side up.

IMPORTANT- Be sure that your electrician has checked the electrical system's ground, as a poor ground will make the Agritape system unsafe if the tape is punctured with a hand tool. Also, be sure that the aluminum screen is installed over the Agritape and is securely connected to the ground wire from the control unit.

If you have questions, call 1-800-336-882.

SPECIAL SAFETY NOTE

The safety of the system depends on a good ground system. Aluminum screening must always be installed over the Agritape heaters on the bench or by the green ground wire from the control unit. If the screen and the Agritape were penetrated with a tool, the current would be carried to the system ground by the screen through the control unit until the fuse or circuit breaker operates. Therefore, it is important that the following is completed before the system is put into operation:

1. Check all fuses and circuit breakers. New fuses should be installed, if necessary.
2. Test the system ground! If faulty, provide a good ground for the system.
3. Make certain that the screening is in place and properly connected to the ground wire.

Other Info

- Agritape operates on 120 volt AC power.
- The AT-1 control unit is a 20 AMP rated device and one should be used with each 20 AMP system.
- The AT-JR is 13 AMP rated.

Agritape is rated as follows:

- 20 watts / ft.
- 0.160 Amps / ft.
- 125 ft / 20 Amps.

GFCI

Agritape generates a static charge on its surface when the current is flowing to generate heat. This static charge is removed from the system via the grounding screen. On occasion as the static charge flows from the grounding screen through the green ground wire into the control unit the GFCI will be tripped as it senses an imbalance in the circuit. When this happens, the screen can be grounded to a separate ground such as a pipe driven into the soil. Once a safe alternative ground connection from the ground screen has been established the system will usually not trip the GFCI. If the GFCI still trips then the green ground wire from the control unit can be safely disconnected and the problem will be resolved.