



## INSTRUCTIONS

### BREAK-IN PERIOD

Like any fine piece of machinery, your precision-engineered Bachmann train will work best after a few hours of actual running time. Do not run consistently at full speed. Frequent starts and stops and running at various speeds will ensure many years of trouble-free operation.

### SMOKE UNIT

**(Your locomotive's outer box and/or label will indicate if it is equipped with smoke).**

Your locomotive MAY be equipped with a smoke-generating feature. To operate your locomotive's smoke feature, put 3 or 4 drops of smoke (Item No. 00251) down the smokestack. PLEASE DO NOT add smoke to a locomotive that is not equipped with a smoke-generating feature as this can damage the locomotive.

### TROUBLESHOOTING TIPS

1. If your locomotive doesn't run, check the following:
  - Check that the power pack is plugged in.
  - Check that the track is wired and assembled properly.
  - Make sure all locomotive wheels are on the track.
2. For some styles of power packs, if your locomotive doesn't run but the headlight (if equipped) glows, you may not have your track connected to the DC terminals on the power pack. Be sure to make your track connections according to the power pack manufacturer's instructions.
3. Keep your track and the metal wheels of the locomotive clean with a track cleaner. Bachmann's Rail & Road Track Cleaner (Item No. 99992) is recommended. Dirt will cause your locomotive to run erratically. **DO NOT USE STEEL WOOL TO CLEAN YOUR TRACK!** Bachmann's line of HO scale track-cleaning rolling stock is also recommended to dry-clean your track. Visit your local hobby retailer for more information.

## LUBRICATION AND MAINTENANCE

For the best care and maintenance of your motive power, rolling stock, and track, we recommend lubricating metal-to-metal and other moving parts after every 24 hours of use. **Do not lubricate motors or electrical pick-ups with oil.** Bachmann offers a full line of premium-grade *E-Z Lube*® lubricants, including Light Gear Oil, Heavy-Duty Grease, Heavy Gear Oil, and Conductive Contact Lubricant.

Each of the lubricants has a specific purpose. We recommend Bachmann's Light Gear Oil (Item No. 99984) for use on all gears, bearings, valve gears, and side rods. Our Heavy Gear Oil (Item No. 99983) lubricates for extended periods of time and should be used for larger locomotive gears only. For applications requiring heavier viscosity products, such as Large Scale trains, it is best to use Heavy-Duty Grease (Item No. 99982). And for superior electrical pickup, contact maintenance, and track cleaning, your choice is Conductive Contact Lube (Item No. 99981). Your local hobby retailer can also recommend other appropriate lubricants.

Proper lubrication is important but **MUST NOT BE OVERDONE**. Apply oil by dipping the end of a toothpick into the oil and applying just one drop where needed. Wipe off excessive oil. Too much lubrication can cause slipping drive wheels or even a short circuit.

**Lubricate carefully. Be sure your lubricant is compatible with plastic.** Check for any dirt or lint between the brush and armature and also between the pick-up strip and wheels, which can cause a "jerky" operation.

With proper maintenance, you can extend the life and enjoyment of your railroad equipment for many, many years. We urge you to establish a sensible maintenance schedule and to use our *E-Z Lube*® products for professional care.

## FOR SERVICE OR TO ORDER SPARE PARTS, CONTACT:

**BACHMANN INDUSTRIES, INC.**  
1400 EAST ERIE AVENUE  
PHILADELPHIA, PA 19124 USA  
[service.bachmanntrains.com](http://service.bachmanntrains.com)

**BACHMANN EUROPE PLC.**  
MOAT WAY, BARWELL  
LEICESTERSHIRE LE9 8EY  
UNITED KINGDOM  
[www.bachmann.co.uk](http://www.bachmann.co.uk)

**BACHMANN (CHINA) LTD.**  
RM. 5203/TOP OF THE OUTSTANDING  
PARK NO. 18  
WUWEI ROAD, PUTUO DISTRICT  
SHANGHAI  
CHINA  
PC: 200331  
[www.bachmannchina.com.cn](http://www.bachmannchina.com.cn)

**Note: Some parts may only be available as components of a larger subassembly.**

