

## UNFORTUNATE OMISSION

Due to an oversight—perhaps we were using less than 20/20 vision—we inadvertently omitted the address of 50/50 Micro Electronics Inc., whose 50/50 Dual Desktop kit was covered in Gizmo (Popular Electronics, May 1993). The company can be reached at 550 Lakeside Drive, Building 8, Sunnyvale, CA 94086. Their phone number is 408-730-5050. We apologize for any inconvenience caused.—Editor.

## DEFENDING THE FUEL MISER

I disagree with some of the information presented by K.E.S. ("Fuel Miser Efficiency," Letters, Popular Electronics, May 1993), particularly the premise that in a properly designed and balanced warm-air heating system (hot air is incorrect nomenclature), the outlet air temperature should be held to 140° at all times. A system set up like that would surely cause an extreme waste of fuel, with a possible plenum temperature of 160° or more. Such a red-hot plenum certainly cannot be efficient. It's precisely that condition that the Fuel Miser was designed to prevent!

A properly operating warm-air system should have the blower running 100% of the time to maintain comfort. That is called continuous air circulation. To attain that condition, the plenum temperature control thermostat switch should be set to about 90°–100° so that any amount of heat trapped in the heat exchanger during burner-off time will ensure blower operation. The 90° air emanating from the wall registers on a continuous basis will provide sufficient heat during much of the heating season.

The Fuel Miser will work with the warm-air furnace thermostat to keep the plenum from overheating, yet allows the blower to operate continuously for maximum comfort level. If the blower shuts off much of the time, its speed is too high and it should be set lower.

With hot-water systems, the thermostat does control the cir-

culating motor, as K.E.S. says. In that case, when the Fuel Miser opens the thermostat circuit, there is a temporary interruption of the flow of hot water, which in turn results in minimizing the operation of the burner. In the meantime, the hot water already present in the baseboard system continues to deliver heat into the rooms while the precious heat stored in the boiler is conserved. The potential for the Fuel Miser to reduce heating bills in a hot-water system is more dramatic than in a warm-air system because an uncontrolled hot-water system can easily overshoot on milder days.

Since most heating systems in use today are many years old, they do not benefit from such features as outside air

# LETTERS

sensors or microprocessor control. Even so, they can still derive some benefit from the Fuel Miser. Even a 10% decrease in fuel use can amount to a significant savings.  
ANTHONY J. CARISTI

## HAVES & NEEDS

I am searching for the operator's manual for a tube-type oscilloscope. It is a Telequipment S51E, 117-volt/60-Hz made by Tektronix Canada Ltd. I'm hoping a fellow Popular Electronics reader might have a manual. I would gladly pay for any photostat and postage costs. Thanks.

DAVID BJORKMAN  
Box 308  
Elk Point, Alberta  
T0A 1A0, Canada

I'm an avid reader of Popular Electronics, and I hope you, or another reader, can help me. I am trying to locate a manufacturer or distributor who could supply a schematic for a stereo or four-channel reverb unit, but it must be battery- or 12V-operated as I want it for my car.

I know I had one back in the late 1960's, but I don't recall seeing one since then. I did find an equalizer for my car that had an echo effect, but I have a four-channel stereo and it wouldn't work no matter how I hooked it up. I even tried to use it only on the rear speakers. When I turned up the echo/delay I couldn't get any volume, and vice versa. Thanks for any help.  
MICHAEL J. BRICKO  
S52 W23235 Partridge Lane  
Waukesha, WA 53186

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