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THE TURBOGRAFX-16 GOES INTO THE S H R I N K I N G MACHINE

BY ANDY EDDY



VG&CE first reported on the possibility of a TurboGrafx-16 portable in the *News Bits* section of our February 1990 issue, then showed you an artist's representation of the unit in our April 1990 *News Bits*. Unfortunately, little news has since come out of Japan, where the machine is being developed, about this much anticipated game player.

As this issue was going to press, VG&CE acquired more data and pictures on the "Game Tank," the working title for the TG-16 portable. It was scheduled to be on display for the Summer Consumer Electronics Show in Chicago (June 2-5, 1990), which leads us to think—and the reliable sources of our grapevine back this up—that the portable will be ready for introduction in America this Christmas. VG&CE will update you as to when the TG-16 portable, as yet unnamed, is firmly announced for purchase in this country.

Specifications and Details

As we've already noted in our previous coverage, the TurboGrafx-16 portable (we'll refer to it as the TGP) will play all existing TurboChip games, which is its obvious advantage. Unlike the Lynx and Game Boy, NEC won't have to develop and produce another software line to support the portable.

That's the strength of the TGP: It's identical to the TG-16 from a hardware standpoint. Lots of readers call to ask us about specifications, mainly resolution, and want to know which system is strongest. These days it's not so much resolution that's important anymore, but instead the number of colors that can be displayed simultaneously. In the TG-16's case—and, therefore, the TGP—the specs report that up to sixteen 16-color palettes can be put on-screen simultaneously, which means 256 different colors out of a possible 512.

Colors and resolution aren't the only things that the TGP will borrow from its big brother. It will also use the same processor, handle 1.5 MIPS

(million instructions per second) and allow up to 64 sprites per screen with up to 16 colors per sprite.

Similar to the Game Boy and Lynx, which were constructed with built-in networking capabilities for multiplayer games, the TGP will also feature a communication-link cable that will allow two-player games. For this reason, NEC will start developing games that take advantage of this capability, rather than offering TGP-specific software. Rumor has it that the first game the communication link will be tested on is a head-to-head air-hockey contest, with each person seeing his perspective of the action on each TGP.

The TGP, much like the Game Boy in size and shape, is equipped with all the necessities—bells and whistles too. On the lower half of the face, just under the screen and speaker slots, are the controls. Not only does it have the standard directional rose and buttons for **SELECT**, **RUN**, "I" and "II" functions (as on the TurboGrafx controllers), it's also been furnished with "turbo" switches to individually alter the rate of autofiring by each "I" and "II" button. Additionally, the TGP will have a stereo-headphone jack for personal game play.

Thanks to the diminutive size of the TurboChips, the "cartridges" that hold the game information, the TGP doesn't need a large cartridge slot. At the top rear of the unit, there is a small opening where the TurboChip fits snugly. In contrast, talk of an NES

or SMS portable eventually leads to discussions of size and how much bigger a portable game machine would have to be built in order to handle those bulky cartridges—not a concern with the TGP.

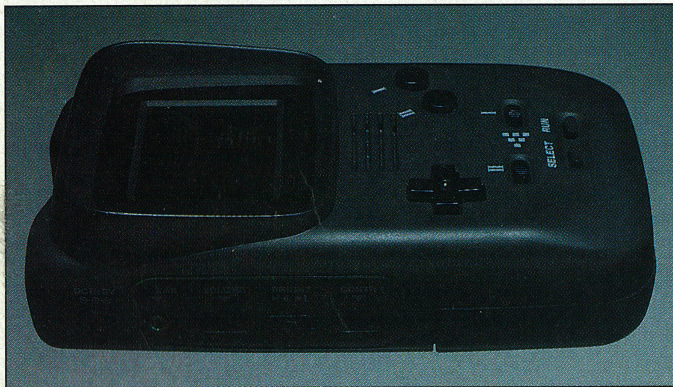
What would a portable be without battery power? The TGP requires six "AA" batteries to run, which NEC figures will last a minimum of 3-5 hours during normal usage. The plan is also to offer a rechargeable battery pack, an AC adapter and a car cigarette-lighter cable, but it hadn't been decided at press time which of those items would be optional and which would be part of the TGP package.

As we spent time with a prototype of the TGP at the R&D laboratories in Japan, we were amazed at how crisp the picture was. It was so clear, we could easily read the numbers and characters on the power-up capsules as we played *Blazing Lasers*. Similarly, the charts and maps of *Military Madness* were crystal clear. The credit for the high-quality visuals goes to the type of screen used: an MIM Active Matrix LC (liquid crystal) display. "Active Matrix" means that each dot on the screen has a separate transistor controlling it, so the screen information can be updated quickly without smearing or blurring.

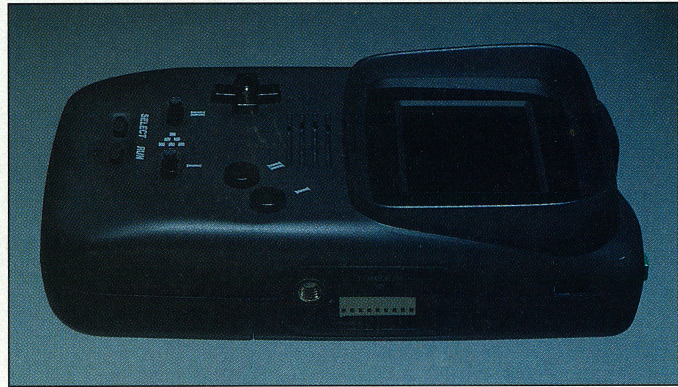
Unfortunately, using active-matrix screens is costly and can slow down production. Epson, NEC's TGP display manufacturer, rejects any screen with even one nonworking dot.

TABLE OF SPECIFICATIONS

Base Unit:	185mm x 110mm x 46mm (approx. 7 1/4" x 4 1/4" x 1 3/4") 410 grams w/o batteries (approx. 14 1/2 ounces) 560 grams w/batteries (approx. 20 ounces) (identical to TurboGrafx-16 in hardware specifications otherwise)
Screen:	39.7mm x 51.1mm (approx. 1 1/2" x 2") 312 x 238 dots (74,256 dots total)
Tuner:	113mm x 52mm x 40mm (approx. 4 1/2" x 2" x 1 1/2") 150 grams (approx. 5 1/4 ounces)



The left-side view of the TurboGrafx-16 portable keeps most of the controls close at hand (from left to right): a jack for off-board DC power, the stereo-headphone jack, a volume knob, a two-position brightness switch and a variable contrast knob.



A peek at the right side of the TGP yields perhaps the most exciting feature, a port that will hold the optional television tuner. This device will not only turn the TGP into a fully functioning TV, but also lets you use it as a monitor for other video sources, like a VCR or camcorder.

Speaking of the display, the resolution of the TGP is 312 x 238 for a total of 74,256 dots. This makes for not only a good picture for video-game playing, but also for TV watching. And the TGP won't be limited by available lighting, as is the case with Nintendo's Game Boy. The TGP will be equipped with a florescent backlight with a life span of approximately 4,000 hours of use.

It's Not Just for Games

Did we say TV watching? Well, as we noted in the February issue, NEC is also planning to produce an optional tuner (with a rumored target price of \$79) that can couple to the TGP, turning it into a fully functional UHF/VHF television. This tuner, though equipped with a telescoping rod antenna, will also have a separate antenna input.

The coup de grace is that the tuner will also feature audio- and video-input jacks. This will allow the TGP to operate as a monitor for a camcorder, VCR or other video

device. As with the TG-16—which NEC is positioning as a home-entertainment device thanks to its CD unit—the TGP is more than just a video-game system. What will NEC think of next?

Stocking Stuffer

Unfortunately, that's all the information we have—though it makes for a nice dream machine. It might be pushing it to expect that NEC could bring the TGP out by Christmas 1990, but knowing the determination that the company has displayed so far and its Japanese roots, it's even money that you could be holding a TGP in your hands by New Years Day 1991.

My palms are getting sweaty just thinking about it. 🙄



The compact size of the TurboChips makes it easy for NEC to work a portable around them. A slot at the top rear of the TGP holds the cartridge (in this case, the Japanese version of *Bonk's Adventure*); the door at the bottom opens to house six "AA" batteries.

You Could Win a TurboGrafx-16 System!

VIDEOGAMES & COMPUTER ENTERTAINMENT and NEC Technologies have joined together to offer our lucky readers the chance to win a TurboGrafx-16. The winner, picked at random, will receive a brand-new TG-16 game system, a TurboStick controller and assorted TurboChip games.

To enter, just send your name, address and phone number on a postcard to

VIDEOGAMES &
COMPUTER ENTERTAINMENT
9171 Wilshire Blvd., Suite 300
Beverly Hills, CA 90210
Attn: TG-16 Contest

All entries must be received by August 31, 1990, and the winner will be announced in the December issue of VG&CE. Best of luck to you!