



## User Report

# Multidyne Connects Robin Miller Filmmaker

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### BETHLEHEM, Pa.

I used to be that distribution amplifiers were just infrastructure necessary for getting clones of each source to multiple destinations. Working properly, they contributed nothing on-screen. But even as analog NTSC rides toward the sunset, the best is just coming out — including a pair of new “smart” DAs from Multidyne.

Think of it: A DA smart enough to automatically normalize off-standard video or one that would keep overloaded audio from distorting.

So, with this in mind, when it came time for Robin Miller, Filmmaker Inc. to build our latest remote video “truck,” I settled on two new criteria. The truck had to be compact and capable. Also, it couldn’t be an actual truck — it had to be a handtruck.

While that meant fewer crosspoints and DAs, it still had to match the high performance of real trucks. It would have to work for doing the “splits,” stand-alone corporate work, sports events, concerts and an occasional breaking news uplink that we do.

In my experience, these applications cried out for labor-saving devices that could catch failures such as mis-termination, cable loss, signal fade, audio-all-over-the-place, etc. It had to catch them and fix them and even save a shot or feed.

I had a Multidyne TS-12 Test Signal Generator that has performed flawlessly. So when it came to both video and audio auto-DAs, I turned once again to Multidyne.

Multidyne’s DAs come as cards for rack-mounted, powered trays and as standalone,

self-powered boxes. The standalone units run on AC or 12V DC for portability. Tray cards have the advantage of high density in studio systems integration.

The cards in the VAGC know when video is too low or high and instantly make it 100IRE. They also sense high-frequency loss or excess and correct for it. In fact, it takes thousands of feet of any 75 Ohm cable — from low-loss 8281 to high-loss 3C2V — and, almost like an automatic proc amp, EQs and level-corrects on the fly.

### ELEGANT AND FOOLPROOF

How it does this is elegant and nearly fool proof. Multidyne assumes that sync was 40 IRE leaving its source, and adjusts itself so it is 40 IRE again, thereby restoring video to its original level. It won’t adjust too far and you set where it will limit peak white in excess of 100IRE.

Similarly, the VAGC design assumes burst was 40IRE and adjusts high frequencies back to nominal — reshaping response according to the characteristics of either 8281 or RG59 cable. Video cut in half by accidental double-termination or weather change is fully restored. During a live news event, there might not be time to find the errant terminator switch or wait for better weather.

I tested the unit by taking some off-standard sources such as VHS and manually proc’d the low video, low chroma playback. The VAGC restored the video on both the scope and monitor. You can’t expect more than that.

On the audio side, the AAGC-200 can be either eight isolated mono or four stereo outputs per channel. Intended for use along side the VAGC, this DA uses sampling and control circuitry that can be user-configured or bypassed for any application. The card can

be jumpered to simulate a stereo limiter or configured for a straight 1 x 8 mono or 2 x 4 stereo set up for programming likely to have soft passages such as dramas or concerts.

### TESTING, TESTING

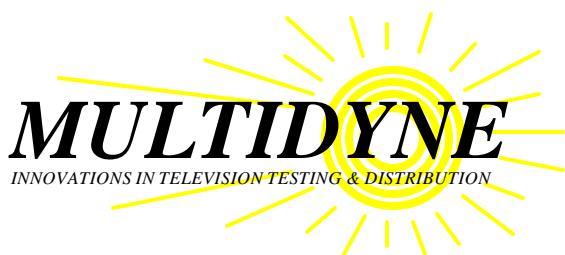
As the “acid” test, I injected 100mA at 60Hz between pin 1 and chassis of all inputs and outputs. This turns common-mode impedances that will convert inevitable external ground potential differences into glorious hum. These Multidyne DAs passed

the “pin 1 problem” test with flying colors.

All in all, I am glad both VAGC and AAGC devices are installed in my master control and in my remote package. They solve many an analog distribution problem. Their well-manufactured premium parts make me confident of reliable, stable service and long life. ■

*Robin Miller is president and CTO of Robin Miller, Filmmaker Inc. (www.filmmaker.com). A nationally recognized producer with 52 awards, including a Peabody, Robin is also a broadcast engineering consultant (BSEE, SMPTE, AES). He can be reached by phone (610-691-0900) or e-mail (rmiller@itw.com).*

*The opinions above are the author’s alone. For more information, contact Multidyne (phone: 800-4TV-TEST, Web: www.multidyne.com) or circle Reader Service 328.*



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