
Bird spikes, indeed! Merry Christmas, mate.
CHEERS!

Sitting and writing straightforward, serious technical literature as we do day after day, every so often we feel we have to let go and scribble something absolutely foolish. What results is usually a sendup, written or drawn, of our own publications or products.

There is no doubt a handful of lugubrious souls who feel that the product that brings in our daily bread is a sort of sacred cow, but we figure, what the hell, if you can't laugh at yourself, who can you laugh at?

Some of you may have seen odd samples of these scribblings before, but herein we present for the first time under one cover all the silliness produced over the past few years which is innocent enough to leave lying around the house. We hope you get a chuckle or two out of it.

The Technical Publications Staff

Disclaimer: This collection was originally written and drawn on the backs of old envelopes on commuter trains and on our own free time. (That's our story and we're sticking to it).

We begin with some advice from our marketing consultant ...

DOOLITTLE & DRINKMORE
Marketing Consultants
5633 Madison Ave.
New York City, N. Y.

October 26, 1972

Brüel and Kjær
Nærum, Denmark

Hiya fellas,

With regard to your recent inquiry concerning how to improve your export sales, we would recommend one change immediately in your corporate image. This is the name of the firm itself.

As you know, there has been a tremendous upsurge of nationalism around the world since WWII, and people have begun to regard foreign goods with more and more hostility and suspicion. We have found that export sales can be greatly improved by forming trade subsidiaries in the country concerned bearing a name more acceptable to the natives. Goldberg, for instance, would not go down very well in Algeria, whereas Mont D'or would.

We therefore submit the following foreign branch name for your consideration:

England	.....	P.E.R. Brewell-Kerr Ltd.
France	.....	Bruleau Fréres
Ireland	.....	Brool O'Kerry
Italy	.....	Brullo Chierre
Spain	.....	Brulio Quiero
Greece	.....	Brulokeropoulos
Armenia	.....	Brulokiarian
Russia	.....	Brükho Chervy (Брюхо Червь)
Saudi Arabia	.....	Bru El Karif
Ghana	.....	Brulundi Mkeru
India	.....	Brulomanyam Kehru
Japan	.....	Bururo Kiyeru
China	.....	Bu Lo Qian (不 堵 錢)

As far as the USA goes, any old name would do, even the present one. After all, Brüel and Kjær could be two local yokels from Cleveland. Still we could run something zippy, like "Shake Rattle and Roll Measurements Inc.", up the flagpole and see if anybody salutes it. Think it over and get back to us a.s.a.p.

Yours Truly,

Bernie

Bernard J. Schlockmeister
European Area Manager

rjf

And the answer from Cleveland

SHAKE, RATTLE & ROLL MEASUREMENTS, INC.
1 Flagpole Place
Cleveland, Ohio 44000

October 31, 1972

Mr. B. J. Schlockmeister
DOOLITTLE AND DRINKMORE
Marketing Consultants
5633 Madison Avenue
New York, New York

Dear Mr. Schlockmeister:

You utter bum! To think that you would let the cat out of the bag. We paid you good money to help us set up Shake, Rattle & Roll Measurements, Inc. so that B & K could get more navy business. Now you go around talking about it. We would like to run you up the flagpole or vice versa....with or without the salute!

And another thing....you're not couth....In Europe you don't write to people "Hiya fellas." You address people by title like Dear Mr. ☐ Miss☐ Mrs.☐ *-----or Dear Esq. (England only). It may not seem a big thing to you but you can be sure Bruel would Kjaer.

So let's say no more about Shake, Rattle & Roll Measurements, Inc.

Yours truly,

SHAKE, RATTLE & ROLL MEASUREMENTS, INC.

JOHN FORRESTAL
Government Sales Manager

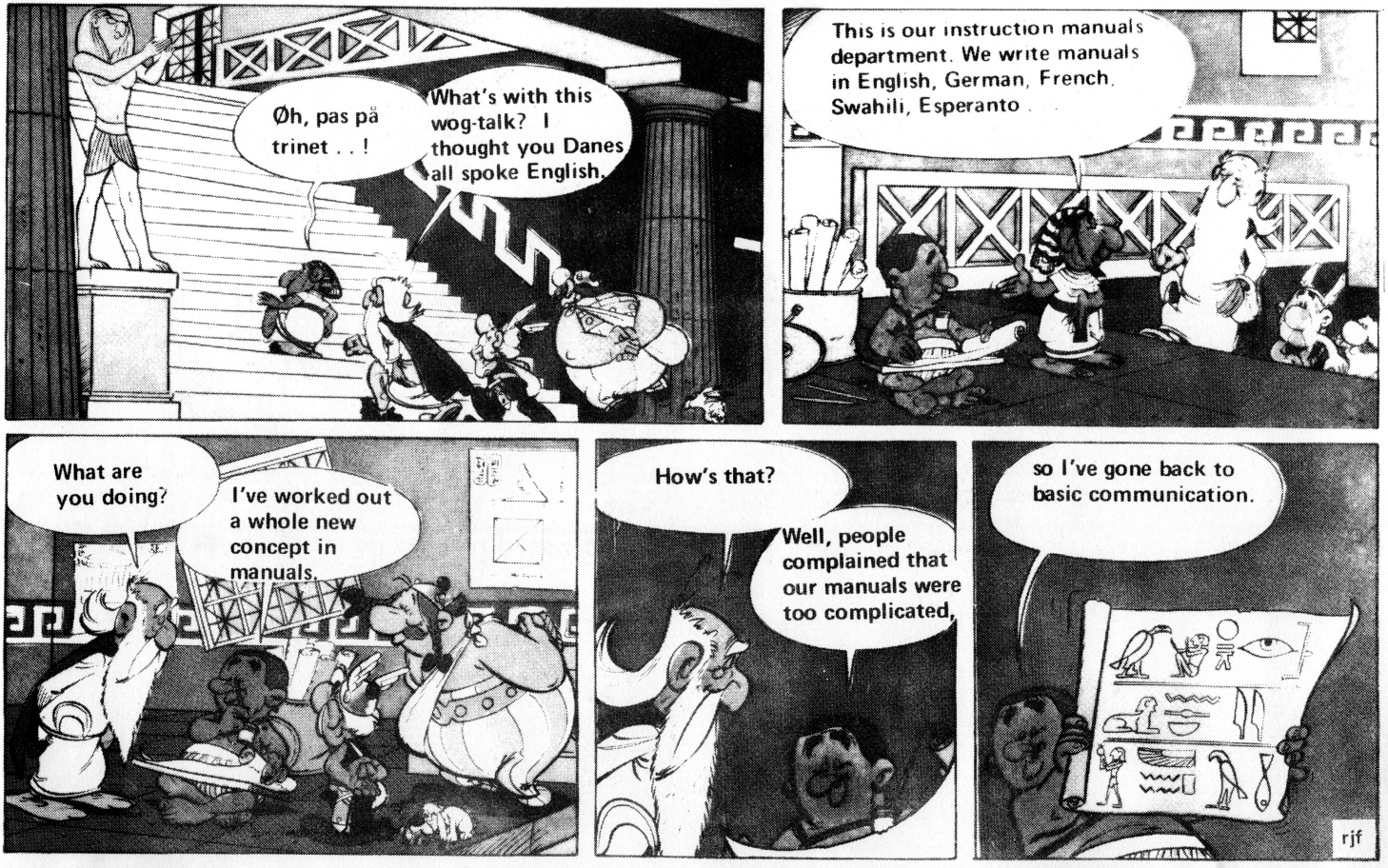
*Check appropriate box

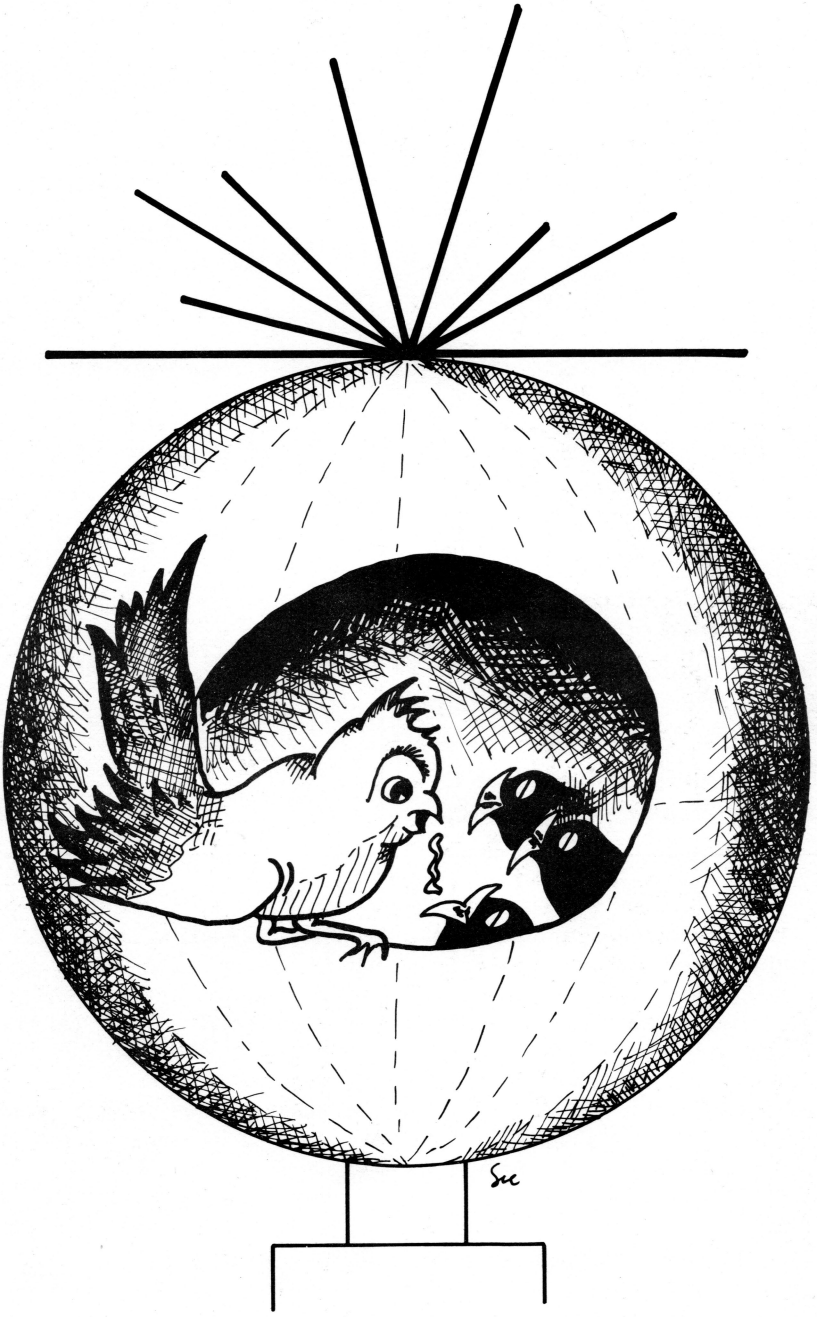
You run it up -- We'll salute it!

cc: Jens August Jensen

br

A tour of the factory ...





Some product data you'll never see ...

Tentative type 2129

Mobile Sound Source

FEATURES:

- Small size for portability and ease of handling
- Continuously variable output over a wide dynamic range
- Extended frequency range
- Individual specifications

This new lightweight model is a useful accessory in any sound measurement laboratory. After a few years' development by the customer himself, the Sound Source can provide that essential commodity: staff.

Produced after nine months' continuous development and years of planning and research, the new Sound Source features a flexible, waterproof outside case which is designed to permit internal expansion as maturity progresses. Construction is conventional, but unique design features are incorporated which will ensure distinctive characteristics as the case matures. Sound pressure level at the coupler cavity is initially of the order 100 dB (A, or lin) except between the hours of 01.00 and 06.00 when the subjective level is closer to 130 dB. Frequency of response varies be-

tween 0 and 120 howls per minute, dependent on input and provocation.

As the unit matures, the sound output tends to increase as noise producing accessories come into extensive use. Bandwidth of output also tends to increase and the resultant effect, unless carefully controlled using a compressor loop, can lead to instability.

The fully integrated power supply has an automatic warning mechanism to signal that recharging should be performed, after which (at least over the first year of use) the normal "burping" procedure should be followed. Internal cleansing is automatic and frequent, and the only routine maintenance (apart from recharging) is occasional washing of the outer case. Particular care should be taken during this washing that the coupler of the Sound Source is not permitted to become immersed in the washing water, since this would lead to internal damage. The washing procedure becomes less essential as the unit matures until after 5 — 7 years a marked preference is found for its complete omission.

The final maturity of the customer developed product is critically dependent on the initial running in period of the first 10 years. To assist in this, the built-in compressor loop is a special feature. It cannot be emphasised strongly enough, however, that the compressor loop can occasionally become unstable if the necessary lubrication is not applied. Unfortunately this lubrication process itself is often very expensive, particularly so at the present state of Middle East politics. The Instruction Manual for the unit (available as an optional extra from our collaborator Dr. Spock) gives useful guidance on this subject, however.

Tentative Specifications*

Frequency Range:
200 — 12000 Hz

Dynamic Range:
20 — 130 dB

Input Resistance:
Inversely proportional to time since last input

Output:
Double ended

Dimensions:
550 x 150 x 200 mm

Weight:
3 to 4 kg

Accessories:
Wide range available to satisfy demand

Standard Delivery, Minimum Time:
9 months

* The right is reserved to change specifications as the model is further developed.

dm

type 9303

fly trap

Brüel and Kjær has a long history of fighting environmental noise pollution in all its forms through development of precision analytical equipment. In keeping with this tradition we are proud to announce the completion of our fully automatic Fly Trap. This represents a breakthrough for the firm, as this is the first time we're attacking a noise source directly.

With the Type 9303 installed in your home or office you can automatically eliminate the annoying sound of flies buzzing around. No longer will it be necessary to get out of bed in the middle of the night to chase a nocturnal marauder with a fly swatter in hand, or chase an errant fly around your desk with a rolled-up copy of Sound and Vibration Bulletin. The Brüel and Kjær Type 9303 eliminates flies quickly, neatly, and finally.

The Type 9303 requires a minimum of maintenance, and once installed by our expert staff, no adjustment is necessary. Further, it requires no operator but runs year round in all climatic conditions completely automatically.

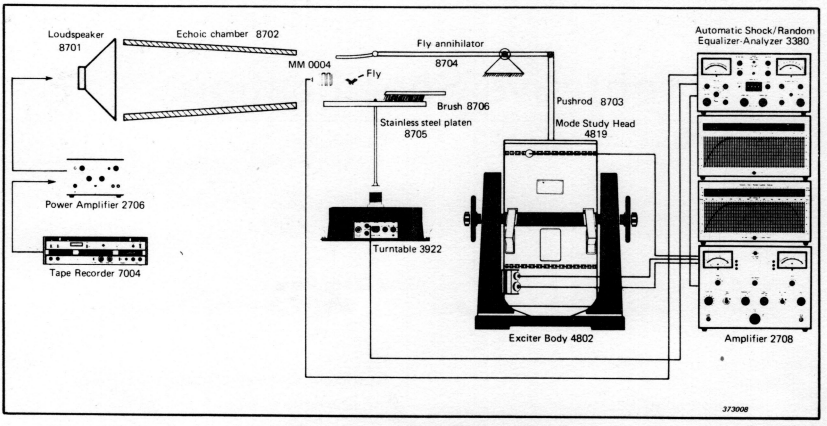


Fig.1. The Type 9303 Fly Trap

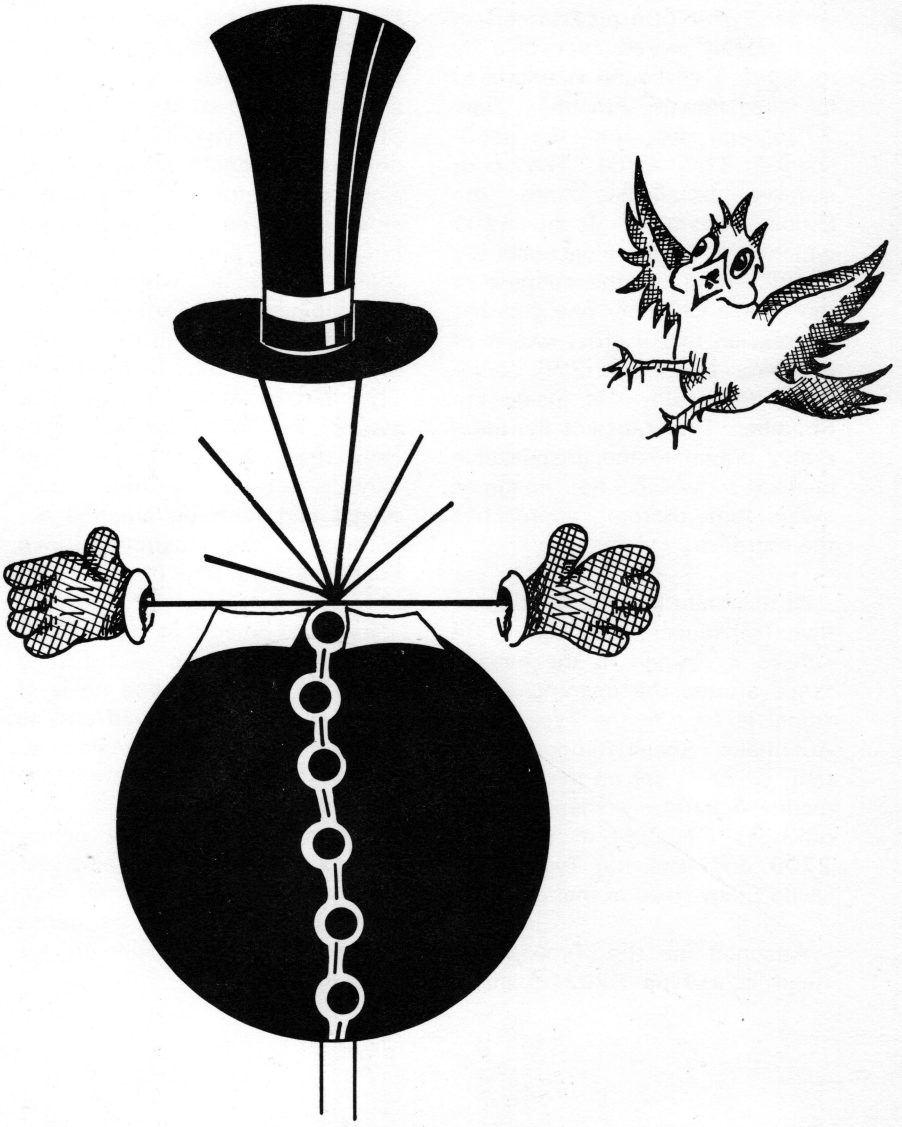
Fig.1 shows a schematic layout of the Type 9303. The Tape Recorder Type 7004 plays a perfect high fidelity reproduction of a fly in flight. This sound is amplified by the Power Amplifier Type 2706 and fed into the loudspeaker Type 8701. The loudspeaker broadcasts into the Echoic Chamber Type 8702 which has a special acoustically "hard" lining. At the opening of the Echoic Chamber one gets the impression that a great swarm of flies are buzzing around something delightfully vile inside the Chamber. The transient fly, inexorably drawn to the unspeakable pleasures which he imagines await him therein, approaches the entrance.

At this point in time, the Capacitive Transducer Type MM 0004 senses a change in the capacitance around the opening and a signal is sent to the Type 3380 Automatic Shock/Random System, which is set up in its Shock mode. A carefully shaped shock pulse is amplified in the Type 2708 and sets the Type 4819 Mode Study Head in motion.

Attached to the Type 4819 Head is a Type 8703 Pushrod, coupled via a pivoting connection to the Type 8704 Fly Annihilator. The shock pulse pivots the Fly Annihilator on its fulcrum with devastating speed and the fly is smashed against the Stainless Steel Platen Type 8705. Having delivered its death blow, the Fly Annihilator returns to its zero position. The Type 3380 now sends out another pulse to the Type 3922 Turntable, which makes one complete 360° rotation. This causes the corpus delicti to be swept off the Platen by the Brush Type 8706. At the end of one sweep, the Turntable automatically stops. A suitable container can be set up near the brush, which can then be emptied according to the customers own wishes and the time of year.

It will be noted that, as the System is based on the "Set a fly to catch a fly" theory, the noise of the actual fly is removed only to be replaced by the noise of the simulated flies. But, this is actually no great problem because; first, the sound emitted by the Echoic Chamber is directional, and second, what little sound is transmitted is drowned out by the gentle susurrus of the blower in the Type 4802.

rjf



The picture we left out of the Level Recorder manuals ...

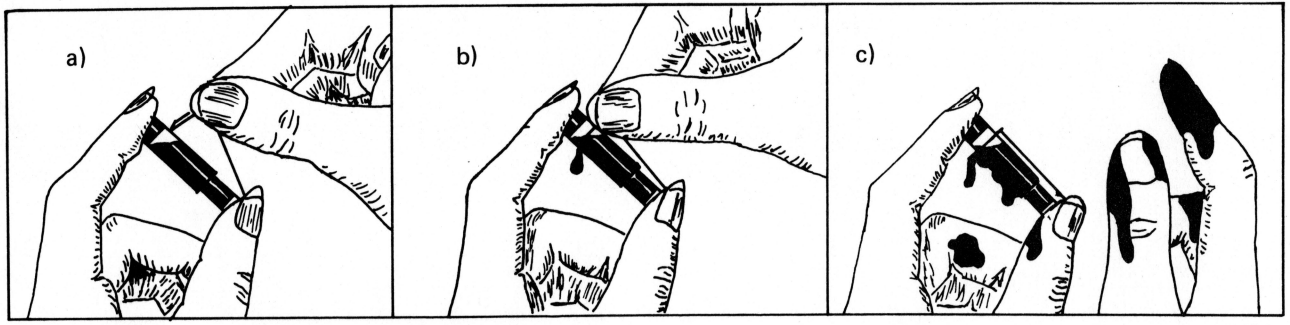


Fig. 3.4. Mounting the ink cartridge on the pen. 241036

Loading the Ink Pen with an Ink Cartridge

Refer to Fig.3.4.

1. Remove the cleaning needle from the Ink Pen.

2. Place the lug at the rear of the Ink Pen into the recess at the thin end of the Cartridge (Fig.3.4a). Hold the two as shown in the illustration and pierce the outer wall of the cartridge with the sharpened end of the ink feed tube.

3. Turn the Ink Pen and cartridge over (Fig.3.4b) and pierce the opposite inner wall of the cartridge.

4. Push the ink feed tube through until the body of the Cartridge lies parallel with the body of the Ink Pen.

Note: The Cartridge should always be pierced where the airlock is; this will prevent any spilling if you are lucky, otherwise you can always get someone else to load it for you.

rc/sp

News from the Factory

After hours of patient work B & K scientists have at last succeeded in isolating the single decibel. Although the decibel has been known as a theoretical quantity for many years it was only recently that a clue to its physical existence was discovered when an old B & K Sound Level Meter was returned for repair. Servicemen could find no fault and yet the instrument refused to function. Eventually it dawned on engineers that the instrument was choked with old decibels and a programme of research was started to find some way of removing used decibels from similar instruments.

The breakthrough came with the discovery that under the right conditions decibels could be absorbed in water. From here it was but a short step to the isolation of the decibel itself. The technique was simple. Visitors to the factory were taken to the Water-Tank Room and shown a B & K price list. The resulting decibel-rich scream was absorbed in the water tank which was made specially reverberant to keep the decibels active for as long as possible. The water was evaporated away leaving the decibels grouped in clusters on the tank floor. These clusters were split up and the decibels were then ground and polished into single units.

For commercial applications the decibels are fitted with a screw thread which accepts the mating screw on a hertz. Decibels are available in ten-packs (European market) or handy six-packs (USA market). For manufacturers' use complete kits of dB can be supplied ready for mounting inside generators. For example the B & K range of oscillators use the grouped set of ten-packs plus singles plus a range of microbels (for fine adjustment of output). The noise generators use the special decibel dust which is obtained as a by-product of the initial grinding process.

The evaporative water-tank method can be used to trap naturally-occurring dB. First experiments have been made using reverberant swimming baths in which the dB(A) specimens are absorbed. Unfortunately the loudest sepcimens of dB(A have been observed only when the water has almost completely evaporated — from people still attempting to dive in — and so trapping has not really been complete. A portable reverberant water-tank is being used near airports to trap large numbers of EPNdB but little commercial use can be made of these since they are very loosely woven and usually fall to pieces when handled. However, enough dB(A)s and EPNdBs have been trapped to show that naturally-occurring dBs are usually contaminated with large amounts of hertz of

different kinds plus fair quantities of decibel dust. A typical EPNdB absorbed from a low-flying 707 contained 80% of bloodibels, 15% hertz and 10% dirtibels of dust. (The total of 105% is typical of the imprecise nature of EPNdBs.) This contamination prevents natural dBs from being used in any but their own environment, — and to ensure that this is done, natural dBs are distinguished by their environmental names. Some examples are listed:

Noise made by	**decibel type**
water running out of a plug-hole	Gurglibel
Monkey in a cold climate	Bluebells
Political speeches	Dumbel
Audience at a political speech	Gullibel
Road drills	Damnabel
Salesmen's speech	Incredibel
Laughter	Risibel
French waiter refusing a tip	Impossibel
All other noises	Indefinabel

When decibels have been absorbed in water (or other suitable solvents) it is not always necessary to evaporate away the solvent to study the dB. Heating the solution drives off the dB although sometimes the high temperature breaks down the dB structure. The relation between temperature and dB emission has been known for centuries. The ancient method was to heat the solution — water or oil, or even molten lead — and then to drop in some slave; modern techniques classify the resulting emission as dB (AAAAAAH). Relics of this can still be heard in modern life; many people emit dB (warbels) when they stand inside bathrooms in company with hot water.

It follows that climatic temperatures influence natural dB. Most people recognise that the hotter countries are also the noisiest. This raises the thought that it might be possible to generate negative dB at low temperatures. Field work has been done using samples of the Danish Singing

Snake transported to the Arctic and allowed to find its own dB level. On release the Snakes sang their usual song but as the cold got through to them the song dwindled, disappeared, and then started up again in negative-dB issuing from their tails. Unfortunately these negative-dB could not be trapped partly because no solvents were available and partly because the Snakes soon stopped singing; some died of cold, others were eaten by an unmusical Polar Bear, and the remainder were returned to Denmark for psychiatric treatment. The Polar Bear wandered off to its pad and everyone thought that the negative-dB exercise had ended in failure. But no; the Polar Bear became ill. Apparently this Bear could no longer converse with its fellows. On its own, it could bark, but with any other bear present its barks disappeared. Most of the bears blamed this on phase cancellation and sent their ailing colleague to Denmark for a phase lift. Here, acoustic experts trembled with joy as they realised that the bear's barks were composed of negative-dB. The water-tank was brought into use and soon samples of negative dB were laid out in rows awaiting incorporation in the new B & K Sound Suppression Degenerator. The polar Bear itself suffered the usual fate of most visitors to Denmark by managing to get itself stuffed. It now stands in the B & K Museum along with two of the original Danish Singing Snakes which froze to death in the Arctic.

rew

Artificial Armpit Type 6969

The Artificial Armpit Type 6969 was developed by Brüel & Kjær to meet the demand for an objective deodorant calibrator. It conforms with the BS 678433: 1970, IEC 79002 and DIN 773385 standards for artificial armpits.

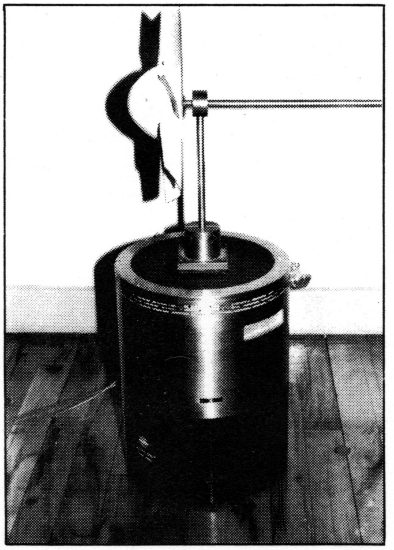
It is based upon a patented Brüel & Kjær Electronic Funk Synthesizer which produces a carefully blended funk over a 24 hour period, based upon an average of 1300 different armpits studied at B & K's research headquarters in Nærum. The synthesizer can be operated continuously for a month without re-charging. The Brüel & Kjær Artificial Armpit Re-Charging Set Type 7333 containing 1 liter each of tri-methyl amine, nitrobenzene, concentrated ammonium hydroxide, and a small cylinder of hydrogen sulfide at 200 psi, is available upon request.

The Artificial Armpit Type 6969 can be obtained singly or as part of the Deodorant Calibration Set Type 9394; consisting of Artificial Armpit, Gas Sampling Apparatus, Mass Spectrometer, pH Meter, Gas Spectrophotometer, Analytical Balance and Electron Microscope. The kit can be easily transported in a medium size van and requires only 4 or 5 skilled technicians and an analytical chemist to operate it.

rjf

New! A Wind-Powered Shaker

(reprint from United Press item)

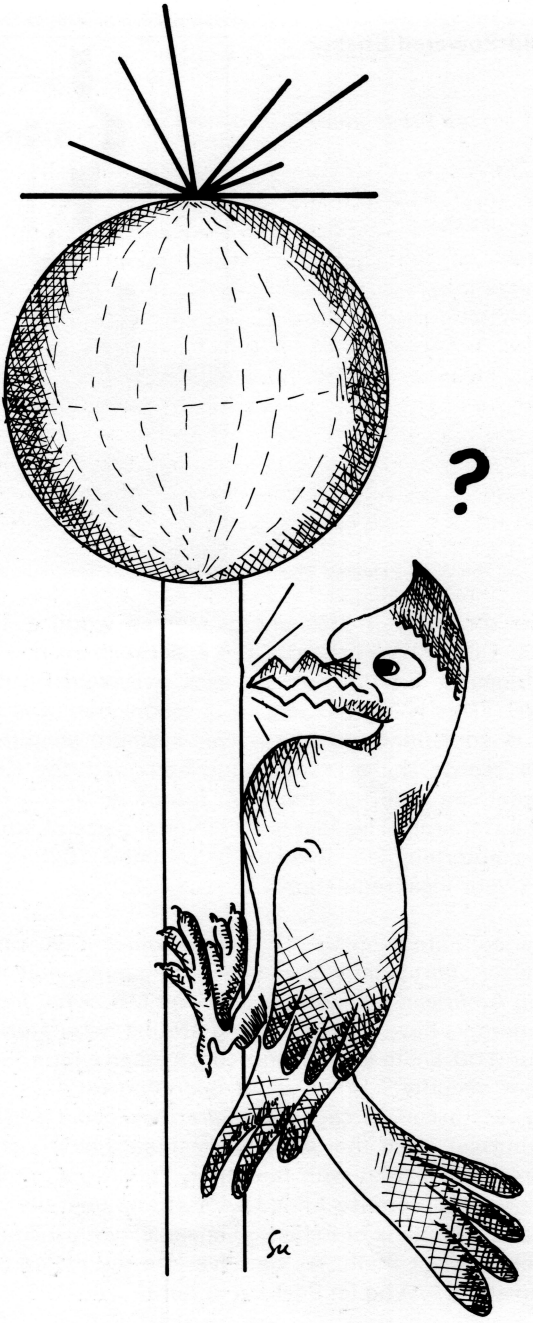


The Wind-Powered Shaker

A welcome discovery in this energy-starved world is the Brüel and Kjær wind-operated shaker. Said a B & K spokesman at the official unveiling ceremony at Nærum Pub, an exclusive watering place in Wonderful Copers, "This is a real wedding of techniques, and as in all weddings there is something old (the power system), something new (the high erg per zephyr shaker), something borrowed (the Kitchen Breeze fan) and something blue (deleted from the photo at the request of the U.S. Attorney General). This last is an optional piece of equipment developed for the entertainment industry in Denmark. Before ordering you should check your local regulations."

B & K engineers are keeping very hush about the working principle of the new shaker, particularly the unique frequency and level controls. "Our two big American competitors, DU and MB, who, incidentally, are planning a merger, have been snooping around here lately, trying to get a line on our 100 knots per second compressor circuit, so we've been tightening our security." What about operation on days when there is no wind, he was asked. "I can see where that would present a problem in some countries", said the B & K spokesman, holding down his notes with one hand and his hat with the other, "but we don't worry about it here." The press conference ended as a strong gust blew his notes off the lectern and a phalanx of industrial spies, cleverly disguised as reporters, scrambled to get them. As he dove into the meleé the B & K man was heard to shout, "Who let Packard in here?"

rjf



Noisy radios?

Raucous P. A. systems?

Neighbour's hi-fi too loud?

Cut these noise complaints by using the new B & K Silent Loudspeaker. Support this major step sideways in the fight for a noise-free environment. Urge your friendly neighbourhood noise fiend to fit a Silent Loudspeaker to his doo-dahs and ensure a peaceful night's sleep for yourself. And your dog. Dazzle him with the superb technical specification of this carefully-researched product from the factories of the world's leading manufacturer of acoustical knick-knacks. Show him the absolutely flat frequency response of this technical wonder: confuse him with the zero distortion figures obtainable only from this unit. Get him absolutely knotted with the fantastic low magnetic field from the triple-cored double-acting single-point zero-impedance drive unit. Point out the COMPLETE INDEPENDENCE of the output from the input — never before achieved except by accident. Pick him off the carpet roll him into a corner and hit him with the UNCONDITIONAL GUARANTEE THAT NOTHING WILL COME OUT!

Yes, after many trials the B & K engineers have come through with this new weapon in the fight against community noise. By introducing the SPECIAL OBLOMOV gap into the loudspeaker drive leads a completely NOISE-FREE product is ensured. IDEAL FOR PUBLIC ADDRESS SYSTEMS AT POLITICAL MEETINGS! You will not hear a word of the nonsense spoken! No more lies!

And that is not all. The SPECIAL OBLOMOV GAP can be fitted to any high-quality loudspeaker at a cost of only a few hundred kroner! Send a thick stamped addressed envelope now (plus cheque) for your very own PRECISION SPECIAL OBLOMOV GAP! rew

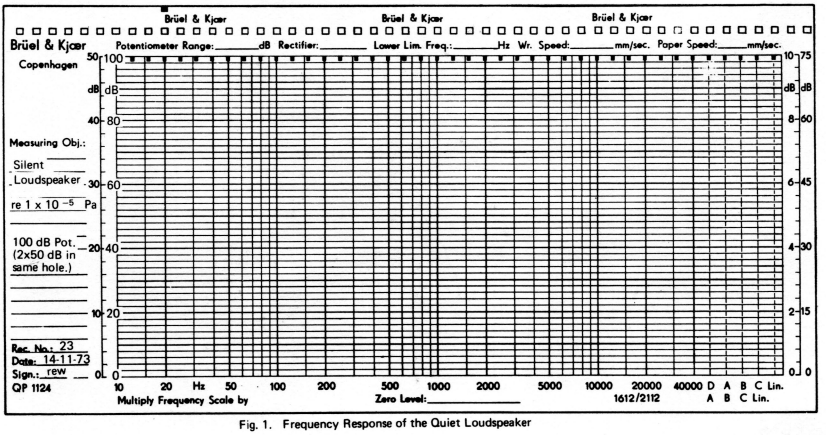


Fig. 1. Frequency Response of the Quiet Loudspeaker

Lost

We have been requested to pass on a distress call from our Development Laboratory: a prototype instrument loaned to our advertising department for photography has been mislaid. Now, normally our advertising department does not make mistakes, but there is a distinct possibility that the prototype of the as yet unreleased Miniature Sound Level Meter Type 2215 has become mixed with the bulk stock of our key ring fobs. It is an unfortunate coincidence that these key rings are stored close to the photographic studio. Towards the end of a three day session photographing the 2215, our photographer returned from his coffee break and released that the 2215 had disappeared. The possibility of industrial espionage cannot be ruled out, but it seems more likely that a passing salesman picked up the 2215 together with a handful of key rings. Since we see our salesmen only very infrequently, we have been unable to interview all possible visitors to the key ring stock and it is possible the 2215 has even reached one of our agencies without anyone realising it. Would you therefore please check your stock of key rings to ensure that the 2215 is not among them — perhaps you could also ensure that it has not been passed by mistake to a customer since development work is not yet complete, and we urgently request its return.

To help with identification of the 2215, the following technical data is added — needless to say it should be treated as strictly confidential. The two pictures taken before its disappearance are also shown.

Fig.2. The Sound Level Meter Type 2215

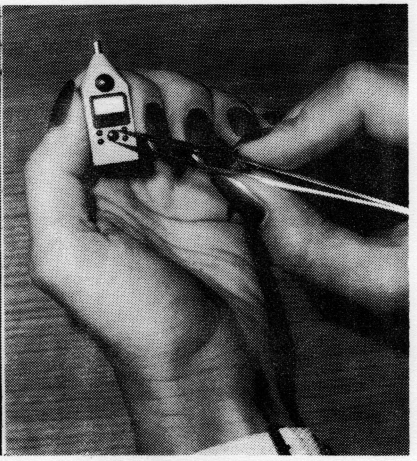


Fig.3. Setting the Attenuators

Pre-Release Information on Miniature Sound Level Meter 2215

The 2215 is intended as the sound level meter of the future. It is anticipated that within the next few years the noise problems of our society will have been solved to the extent that the noise of spiders crawling up the walls (and the occasion cries of "Oops") will be distinctly disturbing. For public health investigation of such problems, the Miniature Sound Level Meter Type 2215 (Fig.1) has been developed as a millibel meter. It is fitted with a low polarisation voltage development of the 4138 Eighth Inch Condenser Microphone*.

In all other respects the 2215 is conventional design with miniaturised thick film circuitry. For convenience, however, the attenuators are ganged on a single switch (Fig.2).

Other applications envisaged for the 2215 include the standard industrial noise survey (a mouse could be trained to carry the 2215 into factory areas normally inaccessible to the factory inspector — in particularly quiet applications the mouse could of course wear carpet slippers), architectural acoustics models, and objective evaluation of the silent loudspeaker. It may of course be used as an input detector for the Type 9303 Fly Trap.

The 2215 is powered from a 12 V car battery.

---

* This microphone itself is a significant step forward in technology, following the inverse polarisation rule of the earlier Half Inch Microphones. It will be remembered also that this principle was applied in the evolution of the 4125 microphone from the 4133 via the 4148 where sensitivity was increased while reducing polarisation voltage.

dm

And a lecture you'll (hopefully) never have to sit through

B & K lecture no. 35

Hertz

Hertz are a fundamental part of sound. Each hertz has a definite length which corresponds exactly to the wavelength of the frequency associated with that hertz. A combination of a hertz and a decibel produces a sound having:

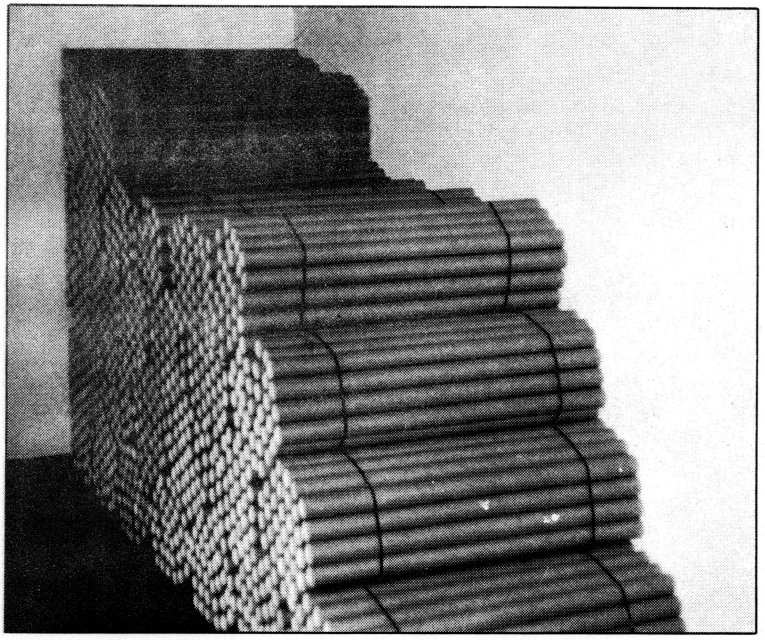
Frequency — determined by the length of the hertz,
and Amplitude — determined by how many decibels are screwed on to the end of the hertz.

Hertzes can be obtained in any length. At very short lengths the hertz tends either to disappear inside the decibel or to get dropped somewhere and lost. Workers with such short hertz are familiar with these problems and use special acoustical tweezers for handling these tiny quantities. Another useful technique is to fix small hertz to very small decibels so avoiding what is called the intra-decibel screwing loss (where the hertz disappears entirely up the decibel). Ultra-small decibels are collected from the B & K decibel plant either by the chemical reduction of decibel-rich fluids or by pasting together small amounts of decibel dust left over from the decibel grinding process described elsewhere.

Long hertz produce different problems. Theoretically there is no limit to the length of a hertz although no-one has yet defined what happens to a hertz so long that it has to be wound around the world. Some feel that the winding process would bend the hertz and produce distortion: Others think that the evenly-spread gravitational force would remove any distortion. The longest hertz known is that which was laid in the Great Karroo a few years ago. Unfortunately parts of it were eaten by Singing Snakes before real measurements could be made.

In practice long acoustical hertz don't usually get much above 12 metres in length. Even so, 12 metres present quite a handling problem. The danger is that bad storage will bend the hertz so that two frequencies are produced. If the hertz is dropped on the floor then real damage can occur and the frequency becomes almost impossible to define. In such a case the hertz has to be returned to the factory to be cut up into smaller hertz. Straightening a bent hertz is almost impossible. Normally hertz are hung up on special reverberant hooks so that bending is avoided. For delivery to customers they are cut down and packed in the special cylinders which visitors to the factory often ask about. In our own factory we use multiple hertz-holders known as beat frequency oscillators. These use the Poisson ratio principle of putting an elastic hertz into a box: one end is clamped (fixed end) and the other is fitted to a drum attached to a dial. The operator twists the dial, the drum stretches the hertz, and a frequency sweep emerges. This is the only application in which bent hertz have any use.

Other storage problems emerge at high temperatures. Again the long hertz are the worst affected. Some peeling of the outer skin takes place,



Stacks of Hertz ready for shipping

weakening occurs and the hertz bends. Occasionally the outer skin falls away almost completely so that when a decibel is screwed to the end the whole thing breaks up into gigglyhertz.

Apart from bending, damage to the ends is a common cause of hertz failure. Continual screwing of decibels is bad for the hertz and can lead to all kinds of trouble with the sharp tip. Fraying, bending and even breakage can occur, completely destroying the hertz's usefulness. Liberal use of decibel grease is advised between the screw thread of the hertz and the decibel. All traces of decibel dust should be cleared away before screweing together the two items. Such dust can accumulate into lumps and jam the whole operation, leading to jitter in either frequency or output.

For applications requiring multiple contacts between a hertz and a decibel special circuits have been devised. The hertz and the decibel lie in the open, the hertz hanging down and just brushing the top of the decibel. When contact is required a squirt of decibel grease is aimed at the junction: contact is made and the hertz oscillates. The best example of this technique is seen in large organs, where tall vertical pipes hold the hertz upright. The decibels are packed into the bottom of the pipe and the decibel grease is held in a central reservoir from which it is pumped by the application of air at high pressure.

The highest amplitude at which a hertz can oscillate is determined mainly by the number of decibels attached to its end. As many as twelve ten-packs can be screwed together to give a 120 dB (ZUM) but for amplitudes above this the heavy-duty thick-skinned hertz is advised. These heavy hertz have some disadvantages; sideways oscillation gives rise to the characteristic heavy-hertz sighs which are troublesome at low levels of oscillation. The main danger from heavy hertz is that they may topple over and fall on the operator: this is why it is so dangerous to work at high sound levels. Specially rigid heavy hertz have been used up to 200 dB (SPLAT) at sea level — the theoretical maximum — but this can be doubled to 400 dB (WHAM) by using phase-locked negative hertz obtained in the usual way by freezing a Danish Singing Snake.

The lowest sound level at which a hertz will oscillate is difficult to define since instead of screweing the hertz into the decibel the extremely small micro-mini-bel has to be balanced on top of the hertz. Workers use the B & K Microbel Sound Level Meter for the Detection of Barefoot Spiders. With this, it is just possible to pick up about -25 dB re 10^{-5}

mini-niti-grits. This is only three kroner above the Absolute Level of Exhaustion.

Hertz occur in large amounts in nature. Few natural hertz are pure; most have been bent through making bad contacts with natural processes. It is difficult to repair these and instead it is preferred to take them in their natural mixed state and separate them not into single hertz but into allied groups. Typical groups are found lying in ponds near airports: mixed up with EPNdB and decibel dust these groups don't have much use. By far the most dangerous hertz are those which drop off the ends of supersonic aircraft. These aircraft fly so high that very long hertz are generated and these are usually attached to large lumps of decibels. They fall from the sky with terrific force, breaking objects on the ground where they fall. On open ground, they hit once and bounce up into the air again, causing the characteristic N-wave ground pressure pattern.

Birds sitting in trees often generate fairly pure hertz especially when their tiny tums are empty and so have enough space to store the fundamental gob from which bird-hertz are made. This can be proved by stuffing a bird with acoustically absorbent bread: the bird's song declines and if the stuffing continues the birdsong ceases and the bird becomes too damned heavy to fly, let alone sing. One case has been reported of an exceptionally greedy sparrow which ate so much that it sprained both ankles yet it still tried to continue singing. The song was recorded on the B & K Type 4921 Bird Sanctuary: after the bird exploded the song was played back to bird experts who recognised the signal: "Thank you, I've had enough."

Other natural sound sources include the well-known Danish Singing Snake which is so useful to acousticians, because of its behaviour at low temperatures. It is said that the early Danes would leave their settlements on the Irrawaddy to fight their enemies, carrying Singing Snakes. The enemy, hearing the snakes, would ask how it was done. "You blow down this hole" said the Peruvians. So the enemy did, not realising that the snakes were venomous. The snake would bite them and they would step back saying "It hurts" and then drop dead. In this way the plains of Alaska were completely cleared of Australians and that is why the Danes are living today in Denmark. It is also the origin of the word "Hertz".

Tight Spot

I looked into the editor's office, on some pretext or other, and found him busy on this jolly little publication. While we talked about nothing of any consequence, as is always the case when one is engaged in conversation *with him,* he said, almost *sotto voce,* "we haven't had your contribution yet for the Christmas Mag". With a dry mouth and a tightness in the back of my throat I croaked, "Oh! was I expected to? The book looks quite full" "Dere's a blank spot at da back which don't look too good", he replied in his best Brooklyn accent. "Well er ... I'll see what I can do .... when do you want it by ?", I asked. "Tomorra", he grated, and reminded me that just about everybody else had contributed something. He said no more and continued to pore over his drawing board as if I wasn't there. I took the hint and quietly slinked out in a state of confusion.

Once away from his place I began to rack my brain. "What on Earth can I write about?", I said to myself, knowing full well that my creative powers had definitely been stinted since writing technical literature. Then inspiration came in her own inimitable surprising way ... tell a funny story .. it always works ... well it always seems to work at weddings ... well sometimes ... oh, well, here it is ...

A fellow was driving his car through the City one day, when presently he came to a set of traffic lights and was obliged to stop. While he waited for the lights to change he got his pipe out and proceeded to light it. In the meantime the lights changed from red to amber and from amber to green. Our friend was at this point in a cloud of smoke and was a bit late in reacting. By the time he got his car into gear and was about to move off, the lights changed from green to amber and back to red. This put our friend in a somewhat embarassing situation, which affected his powers of concentration. By the time the lights changed from red to amber, our friend had changed into first gear and stalled the engine. When the lights changed from amber to green he was completely flummuxed and was feverishly trying to start his car which did not cooperate at all. By this time the drivers behind were in a state of not inconsiderable agitation and vented their frustration noisily via their horns. The effect on our friend was disastrous. He completely messed up the next opportunity when the lights, after reverting to amber and then to red, changed to amber and back to green again. He was in a state of almost complete hysteria when a friendly policeman came up and capped it all be enquiring, "ello, ello, ello, ain't we got no colours you like sir?

WV


B
K