MORE FORTRESS FUN!

Last week, I met with "CJ" and "The Professor" and told them how much I would like a Fortress Fone of my very own to play with. About 1 1/2 hours after they left, they returned with one and gave it to me to open. "The Professor" was able to pick the upper lock after removing the shroud around it. It's only 4 levers. I immediately went to work on it while "CJ" bashed open the coin box. After he opened it, we made the following discoveries:

1. The drill pattern you published in #30 for the front plate would make it almost impossible to get the box open, because the bolts go thru double sets of slots before going into the outer shell of the phone. When the rotary plate is drilled as in #30, it should rotate and retract the bolts.

2. The right-hand bolt is really wide and protects the side lock (interlock).

3. The following cutting pattern would be better than a drilling pattern, providing you have access to the side:

   Front of coin-box
   1/8" wide slot
   1" up above center-line of side key.
   1.1" from front
   .2" down below center-line of side key.

   I will restate the specs on these tones because they are very important and must be known by all TAP readers. The dime sequence is the number of beeps. If the wheel went 5 notches forward, a switch drops, telling the unit to do 35ms bleeps (for a quarter). However, the first bleep will always be 70ms pre-bleep delay, because the coin will just be clear, and all of the pulses (bleeps) are actually symmetrical square waves:

   25¢: 70 ms
   10¢: 35

I will restate the specs on these tones because they are very important and must be known by all TAP readers. The 25¢ tones are 70ms on, 35ms off, 35ms on, 35ms off, 35ms on, 35ms off, 35ms on, 35ms on, 35ms on, 35ms on, 35ms on. The dime is 80ms on, 80ms off, 80ms on. These can be cut down to 70ms if needed, and better be generated digitally, because they'll back up with analog timers, "windows," and analog delays. Then I made a few discoveries myself:

1. Coin Drop Mechanism - In my last letter, I asked about the "coin-sense relay" but couldn't figure how Bell knew about the money. Now I know! First, they use a low current (20mA) high voltage (600) relay to release the money. Second, the relay resets a vane which senses the presence of the money. This vane cannot be checked by the operator. However, she can see the current drain caused by the drop relay pulling in. If the vane hasn't been hit by money, the coin-drop relay won't pull in even when the operator tries to make it. The good part is that she can't check the vane until she drops the money. So it doesn't matter when you drop your nickel, as long as you drop one before each time she collects. Also, she can't check it on the initial three minutes because that drops automatically, and so you can talk for at least three minutes for free.

2. The pay phone red box tones drift with the outside temperature. So... before boxing away, make sure the payphone frequencies match your red box frequencies or you'll get screwed when you drop your 5¢.

3. As I told you last time, the 25¢ set of tones is b b e e p s, the first one twice as long as the rest:

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<th>70 ms</th>
<th>73 ms</th>
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All of the above info is confirmed by an in-depth experiment which can be done on any phone without taking it out of the booth!

1. Drop 5¢ into a pay phone. Listen to the side and hang up. The relay will pull the wheel back once and click.

2. Drop two nickels into the phone, one at a time. Listen to the receiver or the side of the phone. When the second nickel is dropped, two clicks of the relay are heard as if a dime had been dropped.

3. Now for some fun: Drop a nickel, and then a dime. There are three clicks! Amazing, a 15¢ piece!

4. Now try dropping two dimes right together and you'll hear both dimes hit the coin holding chute before you hear four clicks! A 20¢ piece!

5. Try a nickel and a quarter and get six clicks (30¢).

6. If you're fast enough, this will work too: Drop a nickel. Then two dimes together and you'll hear the familiar quarter sequence and get five nickel bleeps.

Whether you are listening to the bleeps thru the receiver or clicks on the side of the phone, you'll find these experiments interesting.

If you don't believe me about the timing of the tones on the 25¢ bleeps, try tape recording them (have a friend call you from a pay phone and drop money) at 7 1/2 ips on a reel-to-reel recorder. Slow down the tape on playback to as slow as possible and mark the tape at the beginning and end of each bleep. When done marking, measure the marks and you can determine the tone durations. You will find most phones adjusted perfectly, whether single tone or mf phones, so the first bleep is twice as long as the rest.

If you should ever have access to a phone in a relatively private place, and wish to record the tones interference-free, get a phone pickup coil from someplace like Radio Shack (bletch!) and place it 3" behind the top keyhole on the right side of the Fortress Fone. It picks up the tones fine there.

Computer Wizard

Some Fortresses must have a mechanism defect. It seems that they will take two dimes or two nickels - a 50% savings! Please advise readers to deposit two nickels first and listen for second dial tone. This is for a 25¢ local call area.

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THE PRINCIPLES OF TWX PHREAKING

by Cheshire

INTRODUCTION

I believe the Western Union Telegraph is, or should be, a valuable resource. Many companies, schools, and individuals use it for their own purposes. Given that, I'm sure most people would agree that it's not a good idea to start tapping into the network of computers that make up the various parts of the system.

IN 1972, THE WESTERN UNION TELEGRAPH OF THE TELEPHONE CO. TOOK A DECISION TO ALLOW AMERICAN TELEPHONES, TELEGRAPHIC DEVICES, AND OTHER INSTRUMENTS TO INTERCONNECT WITH THE INDEPENDENT TELEPHONICAL-BUSINESS NETWORK, AND EXCHANGE IT THROUGH THE TWX PHONE PLUGS. THIS IS A SIMPLE MARCH, OR COURSE, THROUGH THE PHONE PLUG, AND THE TWX NETWORK.

TRANSLATING TAP EXCHANGES

There is an easy way of translating the TAP exchanges. It is done in a simple way. After you plug in your TAP plug, you can see the messages on the screen. When you have finished communicating, you can also see the messages on the screen. Then you can plug out your TAP plug.

TWX AREA CODES ARE USUALLY 314, 264, 909, 264-4991/4092, Sono.

INTRODUCTION Archives been verified and questions to operators. Queen Exasbee 2

PROSPECTIVE TERMINAL SUCH aS been verified and questions to operators. Queen Exasbee 2

LETTERS FROM READERS

Dear TAP,

Perhaps the time of your readers would soon to meet with ships of this type. This is now possible through a satellite-based system. Also available are some emergency operations. Atlantic Oceanographic and Environmental Data Service also has a satellite-based system. The United States Coast Guard, for example, in some cases, could have a satellite-based system.

May the force be with you,

Milo Fonebill

ATTN: MILO FONEBILL

Dear Milo,

Please get in touch with me through the TAP office.

The Editors

COMING NEXT ISSUE !!!

Our next issue, #73, marks the 25th Anniversary of TAP. To mark the occasion, issue #73 will be a special TAP issue on the history of TAP. The issue will include interviews with some of the original TAPers, as well as articles about the history of TAP and its impact on the world of communications. We hope you'll enjoy reading it.

Jeff

This information is available through many publications and on the Internet. The information will not be used for anything illegal or foolish. Reader's Copy would give you more information.

one lonely Canadian
MA BELL IS A CHEAP MOTHER

Phone Call
Is Rated X

Seattle (UPN) — It may work for Superman, but changing your clothes in a public telephone booth can mean trouble for the rest of us.

Police Officer Sted into a glass phone booth next to a public park and exposed himself while changing trousers, police said. He was arrested for changing into blue denim cutoffs while 25 to 30 persons of both sexes looked on.

When I posed for the picture that accompanied the interview article in The Village Voice, reprinted in TAP #48. I had no idea that so many readers and friends would write in to ask where the “Ma Bell Is A Cheap Mother” T-shirts could be bought. The original shirt was made up special for me by a real Bell employee! I find it refreshing to know what Ma Bell employees REALLY think of Ma. As a result of all this reader interest, TAP has a supply of “Cheap Mother” T’s. This T-shirt is available in three colors, yellow, blue, and tan. Sizes — Medium, Large, and Extra Large. Cost: $4.50.