

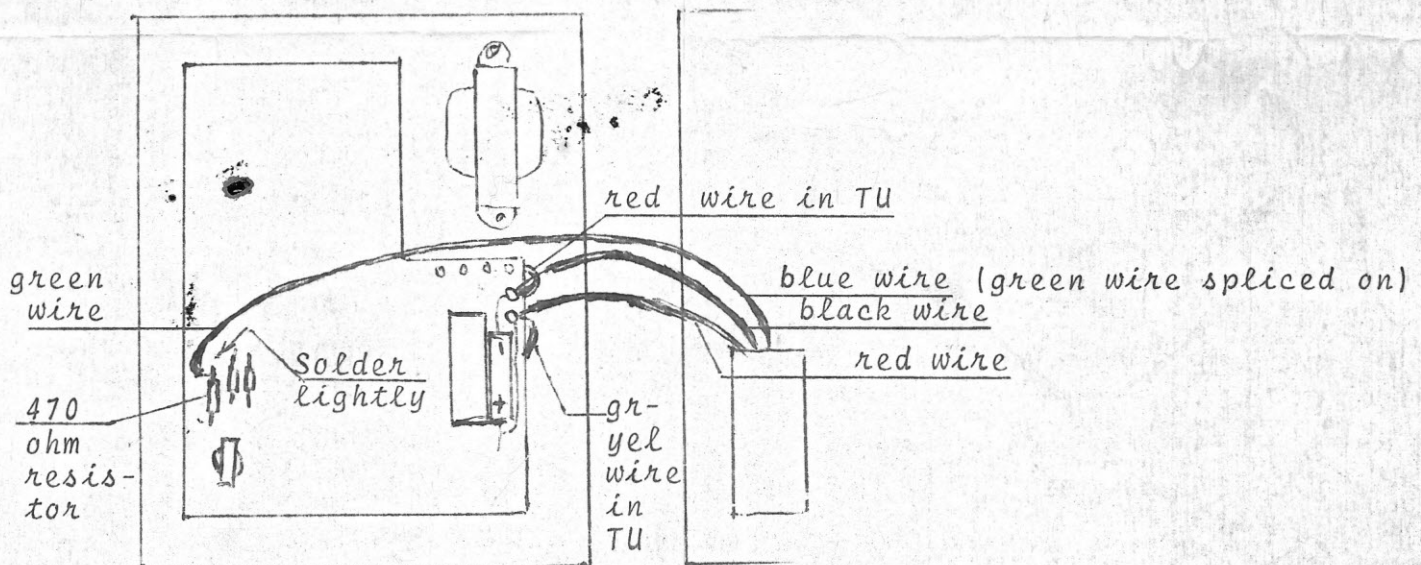
TELEPRINTER ANSWERBACK UNIT
(FIGS-BELL-LTRS response type)

Introduction:

This is an electronic device for retrofitting existing Phonetype Terminal Units for addition of an answerback facility. The printed circuit itself is fastened on the side of a new black cover, along with two push buttons and a zip cord coming out the side, leading to a leaf switch contact assembly. There are three wires which must be connected to the Phonetype TU's printed circuit, as will be instructed. Once this is done, and the switch properly mounted in the teletypewriter machine, then the equipment is ready to operate, with answerback facility installed.

Installation:

Open the Phonetype TU, by unscrewing four Allen-head screws and lifting the black cover off. This cover should be put in a safe place, for possible replacement at a future time. Place the new black cover, with answerback unit, on the right side of the opened TU chassis, its front facing you. The new cover will stand on its right side, with the short wires being accessible for soldering on certain points on the TU's printed circuit as indicated below.



Solder the end of the green wire lightly to the (upper) wire leading out of the 470-ohm resistor. Use a small pencil soldering iron, of about 30-watt size, and do not overheat the connection, as it is connected to a printed circuit foil below. A tab of solder should hold the wire nicely without falling off.

For a test, apply power to the TU, with its cradle plugged in. Push together the open contacts on the answerback unit's

leaf switch assembly with your fingers. Make this a quick closure, and observe the neon monitor lamp on the TU. It should flash briefly, indicating the generation of a LTRS signal from the answerback unit. There should be a definite delay between the switch closure and the response--perhaps 1/2 second. If the answerback unit responds as indicated, then you may place the new black cover on the TU.

Mounting on the machine:

The leaf switch assembly has a special bracket fitted on. This bracket was shaped so as to fit on a Model 15 teletypewriter, using a single screw which will be found just on the typing base, between the pivots which hold the bell clapper lever. You will have to take the TTY cover off, remove the paper roll. Looking down from the top, you will easily notice the bell clapper lever and its pivot points. Right in the middle between these pivot points you will see a large hexagonal-headed screw.

With a large screwdriver, remove this screw, insert it in the leaf switch assembly's special bracket, with leaf switch uppermost, then install the whole works in place. Use one of the washers, if necessary, inasmuch as the location where the screw sits has a recessed area; put the washer underneath to "build up" this recessed area to make the bracket sit level with the surrounding metal area.

Adjust the leaf switch by bending the leaves up or down until operation of the bell clapper lever just about makes the leaf switch contact together. Try this bell clapper by hand and by sending to the machine a bell signal, and watch the answerback response.

The Modus Operandi:

The answerback unit contains two multivibrator-type circuits; one introducing a 1/2 second delay, and the other generating a (approx.) 20-millisecond *space-bit* signal. This single space-bit signal is the start portion of an all 5-mark signaling pattern; this is the LTRS key signal.

Hence, when the answerback unit is activated by sending to the machine a FIGS signal and then a BELL signal (upper case S), the bell rings, closes the aforementioned leaf switch for an instant, and then the answerback unit generates a LTRS signal. This results in a noticeable downshift of the TTY platen from FIGS to LTRS.

