



Commercial and Consumer

Technical Report

TF200 Customer Complaint

1. Initial Report

1.1 Background

A suspect TF200 reported as being involved in a customer complaint, was received from Mr Peter Gamble, 8/242 Exhibition Street Melbourne, Friday 6 May 1994.

The suspect TF200 was an Exicom telephone with manufacturing date of week 13 year 1993.

The customers name is Mr A. Smith, Tel 055-267230, from Cape Bridgewater, Portland Victoria.

The investigating technician was Mr Ross Anderson.

The suspect TF200 was replaced by Mr Ross Anderson on 27 April 1994.

1.2 Reported Fault Symptoms

Mr Ross Anderson reported on a Customer Equipment Fault Label the following comments:

The customer said the phone stays off-hook when hung up.

Mr Anderson then advised that it stays connected for 2 seconds after hang-up.

Mr Anderson then reported that on 28 April 1994, he tested the phone at his depot, and when first plugged in it would not disconnect when hanging up. After several minutes of being plugged in it would then hang up with the 2 second delay. He reported that it took up to 15 seconds if the phone was left unplugged for a period of time.

1.3 Initial Inspection

The suspect TF200 telephone when received was found to be very dirty around the keypad with what appeared to be a sticky substance, possibly coffee.

The investigating technician had engraved the customers phone number, the date and his name into the top cover and the customer also engraved his signature.

1.4 Confirmation of Fault.

10 May 1994

The suspect TF200 was connected to a CustomNet Line on 10 May 1994 and checked for the reported fault symptoms. The simple test included the establishment of a call to the suspect telephone, confirming that the telephone functioned normally, and then hanging up the suspect telephone.

The handset of the suspect TF200 was then tapped near the microphone and it was confirmed that the tapping could be heard at the other telephone for up to 10 seconds. After approximately 10-15 seconds the loop was lost.

The line was disconnected and the handset was taken off-hook and the line re-connected, dial tone was received immediately. This process was repeated with the handset off-hook and the switchhook operated manually to hang up the telephone. When the line was connected, dial tone was received immediately the switch was released.

A call was then made to confirm operation of the keypad. A call was successful and the switchhook was once again operated. Conversation was still possible for some 15-20 seconds, then the call was lost, no dial tone was received. When the switchhook was released again dial tone was received.

The suspect telephone was carefully opened to check for any internal physical damage, and was found to have a significant amount of some tacky substance in the base. The substance was still tacky to the feel and was suspected to be coffee stains. The tacky substance was also evident around the membrane switchhook area. There was no other apparent physical damage evident to the telephone circuit board.

It was noted that the tacky substance was also under the membrane switchhook and was causing the membrane to attached to the surface of the telephone case.

There was also evidence of the tacky substance around other surfaces within the telephone case implying that the if a spillage had occurred and had got into the telephone that the customer may have tried to shake the substance from the phone thus causing it to splash around the inside of the case.

1.5 Preliminary Conclusion

The mis-operation of the phone suggests a failure of the switchhook circuitry or the membrane switch.