OPERATION AND MAINTENANCE
TERMINAL STATION
1×N FREQUENCY DIVERSITY
DR6/11-135A AND 135EC
STATION ALARM TROUBLE ISOLATION

CONTENTS PAGE

Published by
The AT&T Documentation Management Organization

1. GENERAL

This practice is used to troubleshoot the Terminal Bay in a 1×N Frequency Diversity, DR6/11-135 Digital Radio System. All terminal station trouble-clearing begins in the Terminal Station Alarm Trouble Isolation flowchart. This flowchart and all referenced flowcharts are based on a logical trouble hierarchy. Follow the instructions and logical flow of the alarm-clearing flowcharts unless you are familiar with the equipment and understand the details of the system and station maintenance. Be familiar with the admonishments in the MAINTENANCE tab and with the tables in the SERVICE PROTECTION tab.

1.1 UPDATE INFORMATION

This practice is reissued to update Figure 1—Station Alarm-Reporting Signal Path. The practice is used in binders 421-102-001AC, 421-102-001, 421-102-002AC, 421-102-003AC, 421-102-004AC, 421-102-080, 421-102-090, and 421-102-100.

2. TERMINAL STATION TROUBLE ISOLATION FLOWCHART

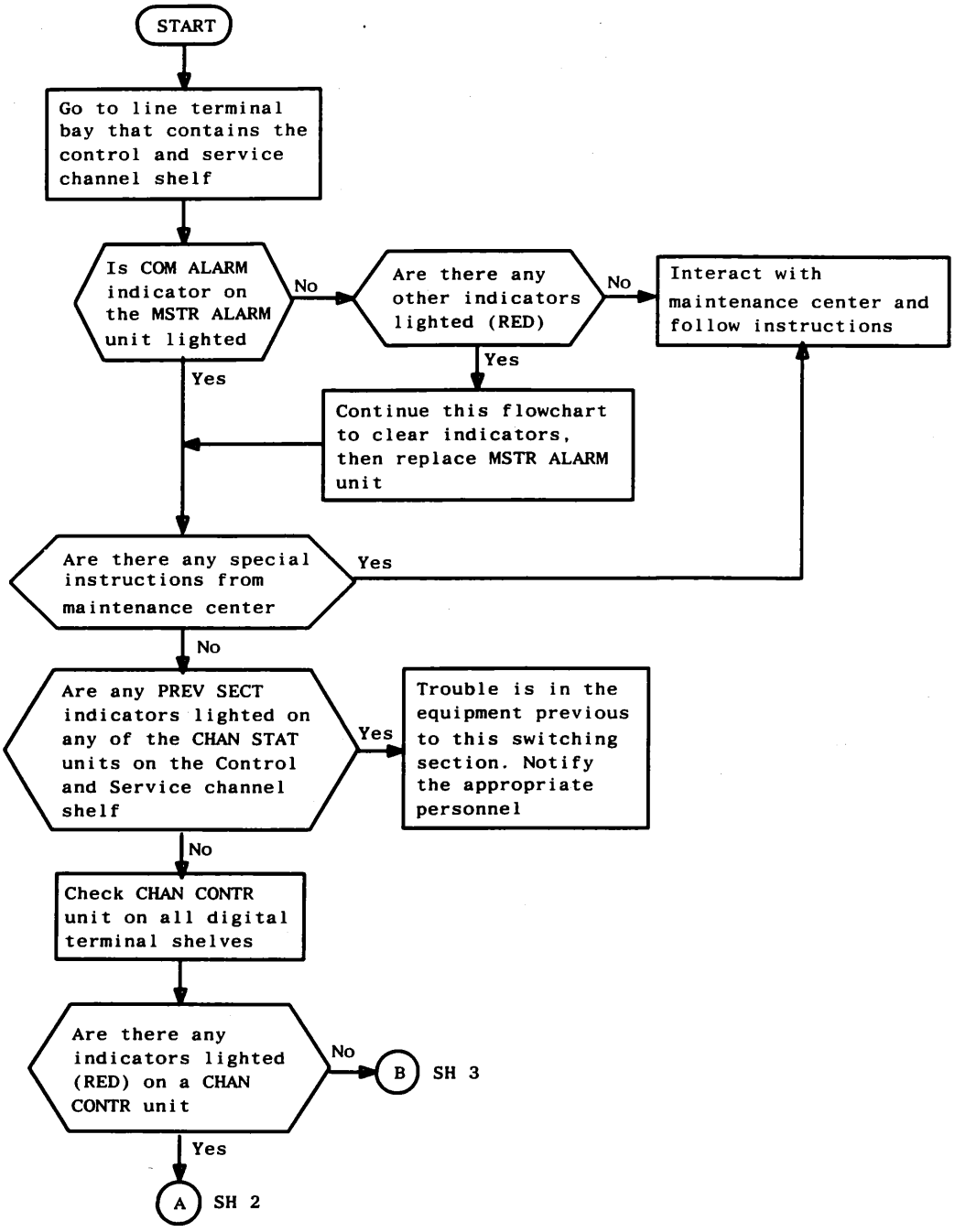
This flowchart is the starting point for isolating troubles in a terminal station. Isolate the troubles in ***one*** direction of transmission at a time. Use local equipment indications to determine if the trouble is in a radio receiver, radio transmitter, or line terminal bay.

Transmission-related alarms are centralized, per channel, on the CHAN CONTR unit of the associated digital line terminal shelf. Any station alarm (unless equipped with the direct radio-reporting option) generates the COM ALARM indicator on the MSTR ALARM unit. The MSTR ALARM unit is in the control and service channel shelf of the initial line terminal bay.

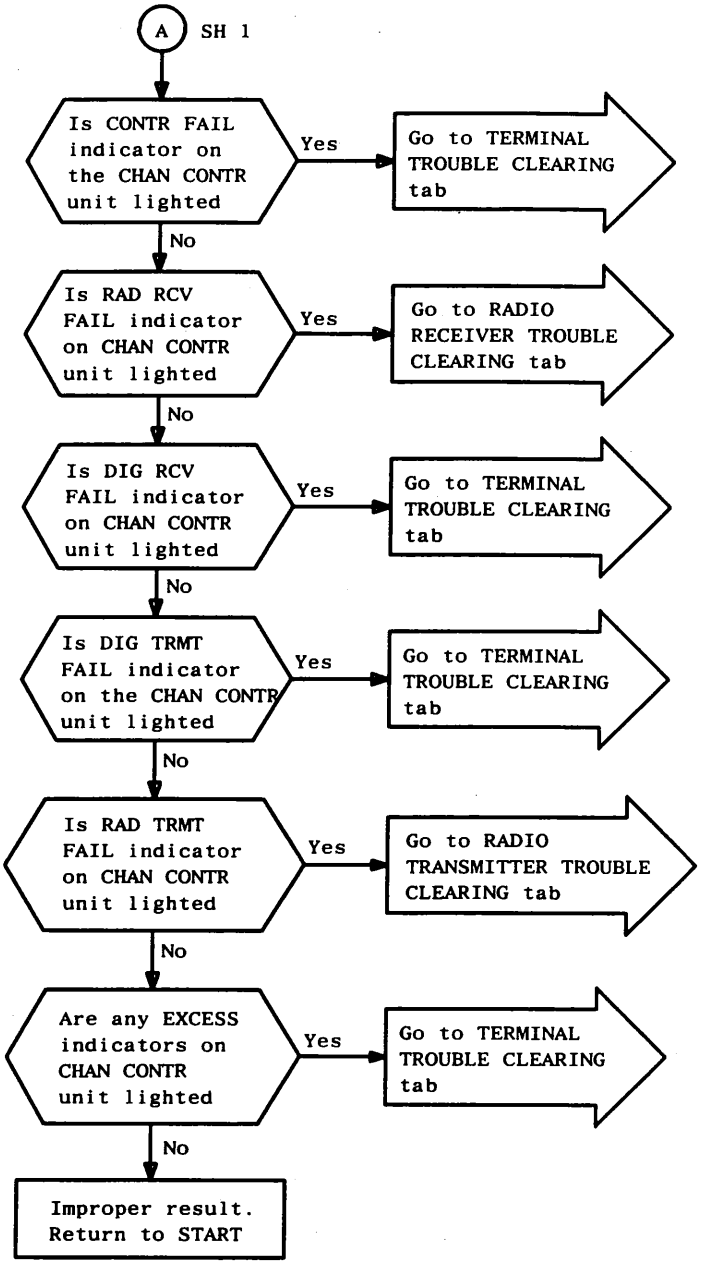
If there are no local alarms, call the maintenance center to confirm proper dispatch. If this station is reporting remote alarms without local indications, suspect a problem in the alarm-reporting circuitry. If local alarms clear without any action being taken, report to your technical support group and determine the next course of action.

3. STATION ALARM-REPORTING HIERARCHY

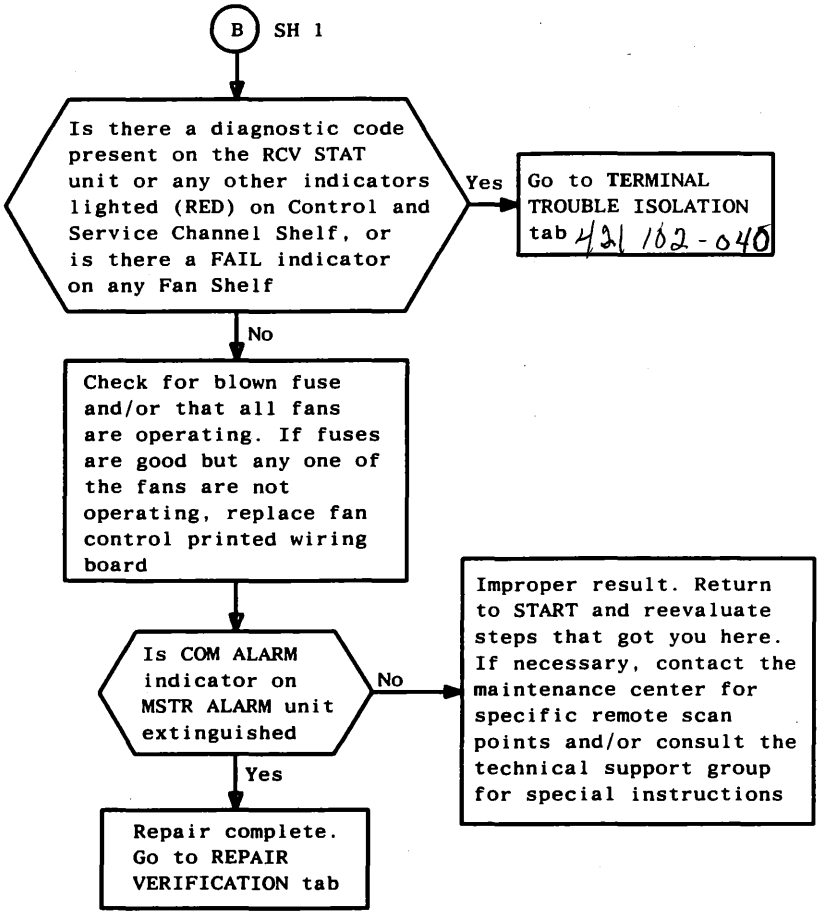
Figure 1 illustrates the terminal station alarm-reporting signal path. It shows how the unit alarms are combined and processed before reporting or activating a specific alarm or status indicator. In rare cases, the alarm-reporting or the local alarm-indicating circuits can fail and cause false or misleading alarms. Suspect this situation if the equipment appears to be working properly and there are remote or local alarms, or if there is an identified system or equipment trouble and the associated remote or local alarms are not activated. When an alarm-reporting circuit fails, the trouble is probably in one of the units initiating the alarm or in one of the units in the alarm-reporting path. Figure 1 should be useful when isolating and repairing such failures.



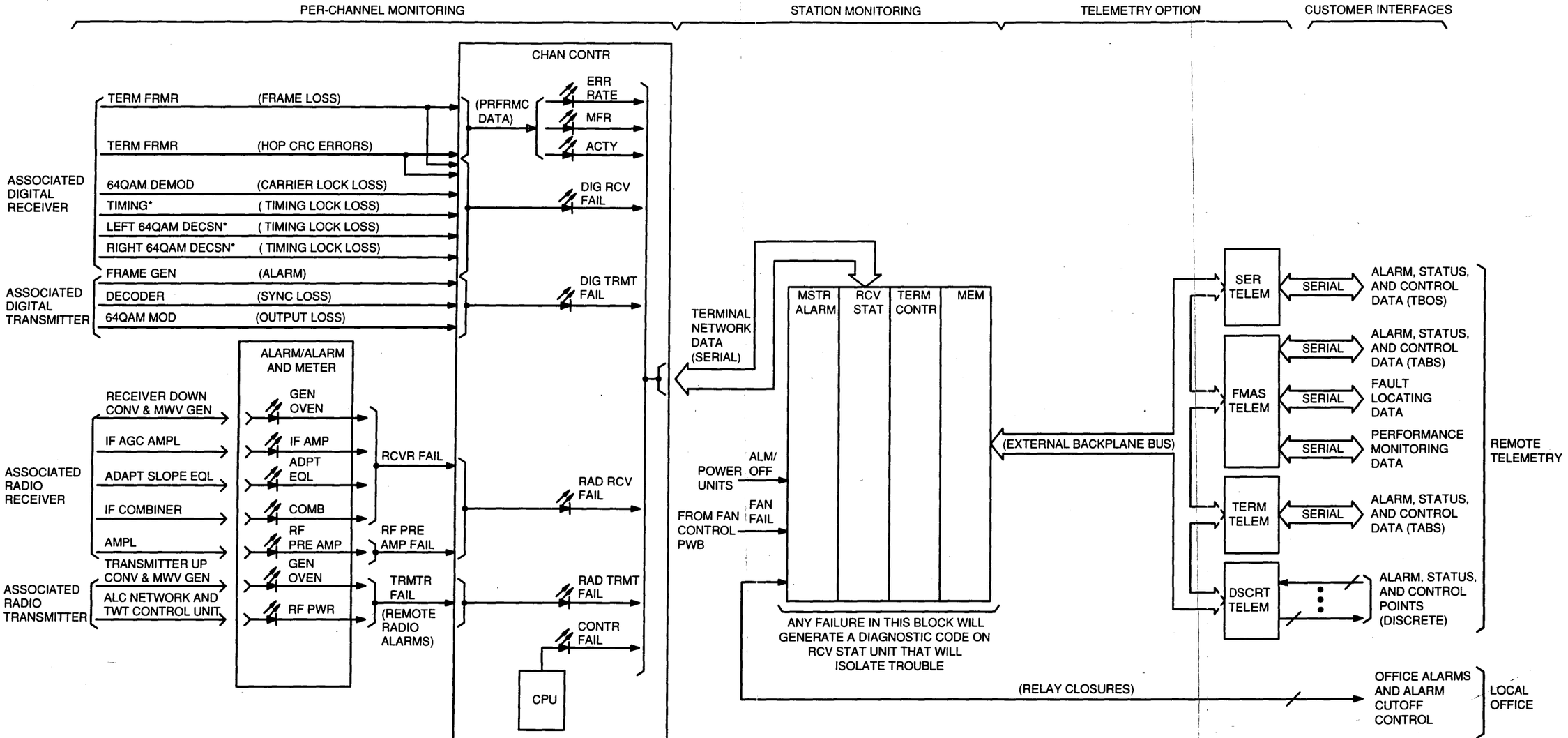
Flowchart 1–Terminal Station Alarm Trouble Isolation (Sheet 1 of 3)



Flowchart 1–Terminal Station Alarm Trouble Isolation (Sheet 2 of 3)



Flowchart 1–Terminal Station Alarm Trouble Isolation (Sheet 3 of 3)



* FOR SYSTEMS EQUIPPED WITH DIGITAL TE (DTE) THE TIMING LOCK LOSS SIGNAL COMES FROM THE TIMING CIRCUIT PACK. FOR SYSTEMS WITHOUT DTE THE TIMING LOCK LOSS SIGNALS COME FROM THE DECISION CIRCUIT PACKS.

Figure 1 – Station Alarm-Reporting Signal Path