MAINTENANCE CENTER OPERATION
1 X N FREQUENCY DIVERSITY
SERIAL ALARM REPORTING
DR 6/11-135A AND 135EC
CONTROL POINT EXPLANATIONS

CONTENTS PAGE

This section contains an explanation of the control points for terminal and repeater stations. These control points are listed alphabetically by abbreviations.

Each control point explanation contains the following information:

- Recommended control point abbreviation (User can convert if another choice is made.)
- Control point name
- Processing type
- Explanation of control point
- Confirming scan point indication.

This practice is reissued to revise control point explanations. The practice is used in binder 421-100-001.

TERMINAL CONTROL POINT EXPLANATIONS

CH ( ) LINE SW

CONTROL POINT NAME: Receiving Channel ( ) Manual Line Switch.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control requests the protection channel line transmission circuits to be used in place of the channel ( ) circuits for the service on channel ( ). Operation of this control will not introduce hits or errors to the channel ( ) service. If the protection channel is being used by another channel or if the protection channel has failed, the manual line switch will not operate. (See " Remote System Operations" tab for transmission block diagram.)

CONFIRMING SCAN POINT INDICATIONS:

RCVG CH ( ) LINE SWITCH

RCVG CH ( ) MANUAL SWITCH

RCVG PROT IN USE

TMTG CH ( ) LINE BRIDGED TO PROT at the far-end transmitting terminal station.

CH ( ) MAN LO

CONTROL POINT NAME: Receiving Channel ( ) Manual Lockout.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control operates the manual lockout for channel ( ) and is intended to be used for a channel that is not carrying service. If the channel fails, the manual lockout will not allow automatic protection and the RCVG CH ( ) SERVICE ALARM will not operate.

CONFIRMING SCAN POINT INDICATIONS: RCVG CH ( ) MANUAL LOCKOUT.

CH ( ) MAN RESET

CONTROL POINT NAME: Receiving Channel ( ) Manual Reset.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control RESETS any of the following remote controls:

- CH ( ) LINE SW
- CH ( ) SPAN SW
- CH ( ) MAN LO.

CONFIRMING SCAN POINT INDICATIONS: RCVG CH ( ) MANUAL SWITCH or

RCVG CH ( ) MANUAL LOCKOUT scan point should clear.

CH ( ) P-TEST

CONTROL POINT NAME: Receiving Channel ( ) Performance Test.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control starts a 15-minute performance test period for the receiver of channel ( ). If the RCVG CH ( ) PERFORMANCE ALARM scan point exists when this control is operated, it will clear. During the 15-minute performance test-active period, any intermittent error bursts, misframe, or error rates worse than the maintenance threshold will generate the RCVG CH ( ) PERFORMANCE ALARM scan point. If the test period finishes and the performance alarm has been generated, the alarm will return to either the on or cleared state that existed when the test period was begun. If the test period finishes and the performance alarm has not been generated, the alarm will remain off (even if on when test was started) and the performance monitor will clear its 24-hour data-memory.

During the 15-minute test period, the RCVG CH ( ) PRFRMC INTERMITTENT scan point will reflect misframes and/or the occurrence of intermittent error bursts worse than 10^{-5}. Also, the RCVG CH ( ) PRFRMC ERROR RATE scan point will reflect any error rate performance worse than the maintenance threshold. Note that if this control is sent while the performance test is still active, a new 15-minute test period will begin.

If additional information is required, refer to the Continuous Performance Monitoring section under the " Test" tab of the Maintenance Support O&M manual.

CONFIRMING SCAN POINT INDICATIONS: RCVG CH ( ) PRFRMC TEST ACTIVE (for a period of 15 minutes).

CH ( ) SPAN SW

PROCESSING TYPE: Momentary.

CONTROL POINT NAME: Receiving Channel ( ) Manual Span Switch.

CAUTION: Operating this control will cause momentary misframes on the transmission line.

EXPLANATION OF CONTROL POINT: This control requests that the protection terminating and line transmission circuits be used in place of the channel ( ) circuits for the service on channel ( ). All channel ( ) active circuits are bypassed by this manual span switch. Operation of this control causes a momentary misframe to the channel ( ) service. If any protection circuits are in use or have failed, the control will not operate. (See " Remote System Operations" tab for transmission block diagram.)

CONFIRMING SCAN POINT INDICATIONS:

RCVG CH ( ) SPAN SWITCH

RCVG CH ( ) MANUAL SWITCH

RCVG PROT IN USE

TMTG CH ( ) SPAN BRIDGED TO PROT at the far-end transmitting terminal station.

CONT ALM RESET

CONTROL POINT NAME: Terminal Control System Alarm Reset.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control will reset any control system alarm that occurred from an intermittent failure. It also causes the exerciser to run in case the failure is only detectable during protection switching activity. This control provides remote assessment of the seriousness of the control system failure if dispatch for repair needs to be deferred.

CONFIRMING SCAN POINT INDICATIONS: None, although an existing TERM CONTROL SYSTEM ALARM may clear indicating repair of the control system can be deferred.

EXERCISER TEST

CONTROL POINT NAME: Terminal Exerciser Test.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control can be sent at any time and instructs the terminal to perform control system diagnostic tests and protection switch exercising. Switch exercising includes verifying protection switch signaling to the far-end transmitting terminal and verifying errorless switch alignment, but does not include completing the receiving end switch. When no switch activity is taking place, switch exercising is automatically performed every 60 minutes.

CONFIRMING SCAN POINT INDICATIONS: There is no remote indication for this control unless the diagnostic tests or switch exercising should fail; then the TERM CONTROL SYSTEM ALARM will be reported.

PROT ACC SW

CONTROL POINT NAME: Receiving Protection Access Switch.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control connects the access service inputs and outputs to the protection channel in a nonpreemptible mode. Therefore, the protection channel is not available to automatically protect failed regular channels.

CONFIRMING SCAN POINT INDICATIONS:

RCVG PROT ACCESS SWITCH

RCVG PROT IN USE

TMTG PROT ACCESS SWITCH at the far-end transmitting terminal station.

PROT MAN LO

CONTROL POINT NAME: Receiving Protection Manual Lockout.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control requests manual lockout of the protection channel. It is used to prevent automatic switching of failed regular channels to protection circuits while the protection channel is being repaired. If the protection channel is in use because of a line switch, span switch, or access switch, this control will not operate.

CONFIRMING SCAN POINT INDICATIONS: RCVG PROT MANUAL LOCKOUT.

PROT MAN RESET

CONTROL POINT NAME: Receiving Protection Manual Reset.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control resets any of the following remote controls:

- PROT MAN LO
- PROT ACC SW
- PROT PRE SW.

Refer to the explanations of each of these controls for an understanding of what each does.

CONFIRMING SCAN POINT INDICATIONS: RCVG PROT MANUAL LOCKOUT or

RCVG PROT ACCESS SWITCH or

RCVG PROT ACCESS PREEMPTIBLE scan point will clear.

PROT P-TEST

CONTROL POINT NAME: Receiving Protection Performance Test.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control starts a 15-minute performance test period for the protection receiver. If the RCVG PROT PERFORMANCE ALARM scan point exists when this control is operated, it will clear. During the 15-minute performance test-active period, any intermittent error bursts, misframe, or error rates worse than the maintenance threshold will generate the RCVG PROT PERFORMANCE ALARM scan point. If the test period finishes and the performance alarm has been generated, the alarm will return to either the on or cleared state that existed when the test period was begun. If the test period finishes and the performance alarm has not been generated, the alarm will remain off (even if on when test was started) and the performance monitor will clear its 24-hour data-memory.

During the 15-minute test period, the RCVG PROT PRFRMC INTERMITTENT scan point will reflect misframes and/or the occurrence of intermittent error bursts worse than 10^{-5}. Also, the RCVG PROT PRFRMC ERROR RATE scan point will reflect any error rate performance worse than the maintenance threshold. Note that if this control is sent while the performance test is still active, a new 15-minute test period will begin.

If additional information is required, refer to the Continuous Performance Monitoring section under the " Test" tab of the Maintenance Support O&M manual.

CONFIRMING SCAN POINT INDICATIONS: RCVG PROT PRFRMC TEST ACTIVE (for a period of 15 minutes).

PROT PRE SW

CONTROL POINT NAME: Receiving Protection Access Preemptible Switch.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control connects the access service inputs and outputs to the protection channel in a preemptible mode. This allows the regular in-service channels to continue having the protection channel available if an automatic protection switch is needed.

CONFIRMING SCAN POINT INDICATIONS:

RCVG PROT ACCESS SWITCH

RCVG PROT ACCESS PREEMPTIBLE

RCVG PROT IN USE

TMTG PROT ACCESS SWITCH at the far-end transmitting terminal station.

REGENERATOR CONTROL POINT EXPLANATIONS

CH ( ) AC P-TEST

CONTROL POINT NAME: Receiving Channel ( ) AC Performance Test.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control starts a 15-minute performance test period for the receiver of channel ( ). If the RCVG CH ( ) AC PERFORMANCE ALARM scan point exists when this control is operated, it will clear. During the 15-minute performance test-active period, any intermittent error bursts, misframe, or error rates worse than the maintenance threshold will generate the RCVG CH ( ) AC PERFORMANCE ALARM scan point. If the test period finishes and the performance alarm has been generated, the alarm will return to either the on or cleared state that existed when the test period was begun. If the test period finishes and the performance alarm has not been generated, the alarm will remain off (even if on when test was started) and the performance monitor will clear its 24-hour data-memory.

During the 15-minute test period, the RCVG CH ( ) AC PRFRMC INTERMITTENT scan point will reflect misframes and/or the occurrence of intermittent error bursts worse than 10^{-5}. Also, the RCVG CH ( ) AC PRFRMC ERROR RATE scan point will reflect any error rate performance worse than the maintenance threshold. Note that if this control is sent while the performance test is still active, a new 15-minute test period will begin.

If additional information is required, refer to the Continuous Performance Monitoring section under the "Test" tab in the Maintenance Support O&M Manual.

CONFIRMING SCAN POINT INDICATIONS: RCVG CH ( ) AC PRFRMC TEST ACTIVE (for a period of 15 minutes).

CH ( ) BD P-TEST

CONTROL POINT NAME: Receiving Channel ( ) BD Performance Test.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control starts a 15-minute performance test period for the receiver of channel ( ). If the RCVG CH ( ) BD PERFORMANCE ALARM scan point exists when this control is operated, it will clear. During the 15-minute performance test-active period, any intermittent error bursts, misframe, or error rates worse than the maintenance threshold will generate the RCVG CH( ) BD PERFORMANCE ALARM scan point. If the test period finishes and the performance alarm has been generated, the alarm will return to either the on or cleared state that existed when the test period was begun. If the test period finishes and the performance alarm has not been generated, the alarm will remain off (even if on when test was started) and the performance monitor will clear its 24-hour data-memory.

During the 15-minute test period, the RCVG CH ( ) BD PRFRMC INTERMITTENT scan point will reflect misframes and/or the occurrence of intermittent error bursts worse than 10^{-5}. Also, the RCVG CH ( ) BD PRFRMC ERROR RATE scan point will reflect any error rate performance worse than the maintenance threshold. Note that if this control is sent while the performance test is still active, a new 15-minute test period will begin.

If additional information is required, refer to the Continuous Performance Monitoring section under the " Test" tab in the Maintenance Support O&M manual.

CONFIRMING SCAN POINT INDICATIONS: RCVG CH ( ) BD PRFRMC TEST ACTIVE (for a period of 15 minutes).

PROT AC P-TEST

CONTROL POINT NAME: Receiving Protection AC Performance Test.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control starts a 15-minute performance test period for the protection receiver. If the RCVG PROT AC PERFORMANCE ALARM scan point exists when this control is operated, it will clear. During the 15-minute performance test-active period, any intermittent error bursts, misframe, or error rates worse than the maintenance threshold will generate the RCVG PROT AC PERFORMANCE ALARM scan point. If the test period finishes and the performance alarm has been generated, the alarm will return to either the on or cleared state that existed when the test period was begun. If the test period finishes and the performance alarm has not been generated, the alarm will remain off (even if on when test was started) and the performance monitor will clear its 24-hour data-memory.

During the 15-minute test period, the RCVG PROT AC PRFRMC INTERMITTENT scan point will reflect misframes and/or the occurrence of intermittent error bursts worse then 10^{-5}. Also, the RCVG PROT AC PRFRMC ERROR RATE scan point will reflect any error rate performance worse than the maintenance threshold. Note that if this control is sent while the performance test is still active, a new 15-minute test period will begin.

If additional information is required, refer to the Continuous Performance Monitoring section under the " Test" tab in the Maintenance Support O&M manual.

CONFIRMING SCAN POINT INDICATIONS: RCVG PROT AC PRFRMC TEST ACTIVE (for a period of 15 minutes).

PROT BD P-TEST

CONTROL POINT NAME: Receiving Protection BD Performance Test.

PROCESSING TYPE: Momentary.

EXPLANATION OF CONTROL POINT: This control starts a 15-minute performance test period for the protection receiver. If the RCVG PROT BD PERFORMANCE ALARM scan point exists when this control is operated, it will clear. During the 15-minute performance test-active period, any intermittent error bursts, misframe, or error rates worse than the maintenance threshold will generate the RCVG PROT BD PERFORMANCE ALARM scan point. If the test period finishes and the performance alarm has been generated, the alarm will return to either the on or cleared state that existed when the test period was begun. If the test period finishes and the performance alarm has not been generated, the alarm will remain off (even if on when test was started) and the performance monitor will clear its 24-hour data-memory.

During the 15-minute test period, the RCVG PROT BD PRFRMC INTERMITTENT scan point will reflect misframes and/or the occurrence of intermittent error bursts worse than 10^{-5}. Also, the RCVG PROT BD PRFRMC ERROR RATE scan point will reflect any error rate performance worse than the maintenance threshold. Note that if this control is sent while the performance test is still active, a new 15-minute test period will begin.

If additional information is required, refer to the Continuous Performance Monitoring section under the " Test" tab in the Maintenance Support O&M manual.

CONFIRMING SCAN POINT INDICATIONS: RCVG PROT BD PRFRMC TEST ACTIVE (for a period of 15 minutes).

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