Manual dialing E-CALL

**Functional Description**

The user presses the SOS button to actively trigger E-Call. ERA uploads vehicle information data to the ERA operator and uses ERA's built-in communication module to make an emergency call to the 112.

Enabling conditions (a & b):

a. ERA is in the ERA state

b. detected the hw.KL15ON (Power status is KL15 ON)

Trigger conditions (a):

a. The user long presses the E-CALL button

Execution output output（a&b&c&d&e&f&g&h）：

a. ERA detects the hw.EcalIKey signal and ERA starts tmr. EcallLongPress;ERA enters theECALL MODE-CALL CONFIRM state when cal.EcallLongPress（Default : 2s TBD）＜tmr.EcallLongPress＜cal.EcallLongPress（Default : 5s TBD）;

b. ERA sends hw.EcallMute signal（MUTE\_OUT）to IVI；

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c. ERA drives speaker to play prompt sound. ③ : “Tone sound BEEP BEEP” through the hw.ERASoundOutput, and ERA sends hw.EcallIndicator to control the LED light flashes (Refer to the Ecall switch Indicator Drive section), prompting the user to cancel the call; ERA sends MSD message to the ERA operator; ERA needs to determine the network condition. When the network cannot send MSD, SMS is used to send MSD;

c. ERA drives speaker to play prompt sound. ③ : “Tone sound BEEP BEEP” through the hw.ERASoundOutput, and ERA sends hw.EcallIndicator to control the LED light flashes (Refer to the Ecall switch Indicator Drive section), prompting the user to cancel the call; ERA sends MSD message to the ERA operator; ERA needs to determine the network condition. When the network cannot send MSD, SMS is used to send MSD;

d.ERA plays the prompt tone "Tone sound BEEP BEEP", the LED light flashes at 1Hz, and tries to establish a voice call with the ERA operator. b&c&d need to be completed within 1s (according to GOST\_33464 requirements).

d. ERA plays prompt sound "Tone sound BEEP BEEP", meanwhile, ERA control the LED light flashes at 1Hz and attempts to establish a voice call with the ERA operator. b&c&d needs to be completed within 1 second (according to GOST33464 requirements)

e. ERA detected that the user had short pressed the E-Call button before entering the CALL PROCESS, ERA returns to ERA status and sends hw.EcallMute (MUTE\_OUT) to IVI to cancel MUTE

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f. After the voice channel is connected, ERA sends DTMF information to the call center and establishes a call with the ERA operator.

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g. After the phone is connected, enter the CALL ESTABLISHED state,

h. After being connected, users can input voice through the microphone, and ERA drives the microphone through hw.ERAVoiceInput;

Exit conditions (a|b):

ERA detects that the user short-presses the E-CALL key and cancelates the E-CALL

The E-CALL call ends;

b. E-CALL is finished

Notes:

1. After the call is over, ERA sends hw. EcallMute(MUTE\_OUT) to cancel mute to IVI; ERA enters Callback and continues for cal.CallStandby(Default 20min, TBD), ERA enters ERA-normal state after timeout and