

FCC MAIL SECTION

DUPLICATE ORIGINAL  
FCC 93-201

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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

DISPATCHED BY  
In the Matter of

Amendment of Parts 2 and 15 to )  
Prohibit Marketing of Radio Scanners ) ET Docket No. 93-1 ✓  
Capable of Intercepting Cellular )  
Telephone Conversations )

REPORT AND ORDER

Adopted: April 19, 1993

; Released: April 22, 1993

By the Commission:

INTRODUCTION

1. By this action, the Commission amends Parts 2 and 15 of its rules to prohibit the manufacture and importation of radio scanners capable of receiving frequencies allocated to the Domestic Public Cellular Radio Telecommunications Service.<sup>1</sup> This action implements statutory requirements set forth in the Telephone Disclosure and Dispute Resolution Act (TDDRA), Pub. L. 102-556. The rules being adopted are intended to increase the privacy protection of cellular telephone users without unduly restricting legitimate uses of scanners.

BACKGROUND

2. The Domestic Public Cellular Radio Telecommunications Service ("Cellular Radio Service") provides telephone service to mobile customers. Cellular telephones use frequencies in the bands 824-849 MHz and 869-894 MHz to connect their users to other cellular system users and to the Public Switched Telephone Network.

3. As defined within our rules, scanning receivers, or "scanners," are radio receivers that can automatically switch between four or more frequencies anywhere within the 30-960 MHz band.<sup>2</sup> In order to control their potential to cause harmful interference to authorized radio communications, the rules

<sup>1</sup> The Commission's regulations regarding the Domestic Public Cellular Radio Telecommunications Service are set forth in Part 22 of the FCC rules, 47 CFR Part 22, Subpart K.

<sup>2</sup> See 47 CFR Section 15.3(v).

require that scanners receive an equipment authorization (certification) from the Commission prior to marketing.<sup>3</sup> The Electronic Communications Privacy Act of 1986, Pub. L. 99-508, in part, made it illegal to intentionally intercept cellular communications or to manufacture equipment primarily useful for the surreptitious interception of cellular communications.<sup>4</sup> However, the Commission was not given specific authority to deny equipment authorization to scanners that receive cellular frequencies. As a result, we have routinely authorized scanners capable of receiving cellular frequencies.<sup>5</sup>

4. On October 28, 1992, the President signed the TDDRA into law. Section 403 of the TDDRA amends Section 302 of the Communications Act of 1934 (47 U.S.C. Section 302(d) (1) and (2)) by requiring that by April 26, 1993 (180 days after enactment of the TDDRA), the Commission prescribe and make effective regulations denying equipment authorization for any scanning receiver that is capable of:

- receiving transmissions in the frequencies allocated to the domestic cellular radio service,
- readily being altered by the user to receive transmissions in such frequencies, or
- being equipped with decoders that convert digital cellular transmissions to analog voice audio.

Further, Section 302(d) (2), as amended by the TDDRA, provides that, beginning one year after the effective date of the regulations adopted pursuant to paragraph (d) (1), no receiver having such capabilities shall be manufactured in the United States or imported for use in the United States.<sup>6</sup>

5. In accordance with the TDDRA, we adopted a Notice of Proposed Rule Making (Notice) proposing to deny equipment authorization to scanning receivers

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<sup>3</sup> See 47 CFR Sections 15.101(a) and 2.1031 et seq.

<sup>4</sup> See 18 U.S.C. Sec. 2511, 2512.

<sup>5</sup> In the past five years, 22 different models of scanning receivers capable of receiving cellular telephone transmissions have been issued grants of equipment authorization. During this same period, ten other models capable of tuning frequencies between 806 and 900 MHz except for the cellular bands have also been authorized. Several publications currently on the market describe relatively simple modifications that users can make to many of the latter scanning receivers to enable that equipment to receive cellular telephone transmissions.

<sup>6</sup> See Telephone Disclosure and Dispute Resolution Act, supra, Section 403. Section 403 also requires that the Commission report to Congress, by June 1, 1993, on available security features for both analog and digital cellular radio signals. This reporting requirement will be dealt with separately from this proceeding.

that: 1) tune frequencies used by cellular telephones; 2) can be readily altered by the user to tune such frequencies; or, 3) can be equipped with decoders that convert digital cellular transmissions to analog voice audio.<sup>7</sup> The Notice requested comment on a proposed definition of "readily altered by the user." The Notice also proposed to deny equipment authorization (notification) to frequency converters that tune, or can be readily altered by the user to tune, cellular telephone frequencies.<sup>8</sup> To assist us in determining compliance with these requirements, we proposed to require applicants for certification of scanners, and for notification of frequency converters used with scanners, to include in their applications a statement stating that the device cannot be easily altered to enable a scanner to receive cellular transmissions.

6. Some 46 parties filed comments on the Notice and 6 parties filed reply comments.<sup>9</sup> A large number of commenters, presumably most of them scanner enthusiasts, oppose adoption of any rules that would restrict the tuning capabilities of scanners.<sup>10</sup> Manufacturers of scanners and cellular service providers in general support the Commission's proposed changes. However, several commenters ask for clarification or expansion of the rules. Issues raised in the comments are discussed below.

#### DISCUSSION

7. In accordance with the TDDRA, we are adopting new rules restricting scanners and associated frequency converters generally as proposed in the Notice. Based on the comments, we are adopting several minor changes to the rules as proposed.

8. Scanning receivers: Although many commenters request that we decline to enact rules denying equipment authorization to scanning receivers capable of

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<sup>7</sup> See Notice of Proposed Rule Making in ET Docket No. 93-1, adopted January 4, 1993, 8 FCC Rcd 359 (1993).

<sup>8</sup> There are a number of frequency converters on the market that convert cellular radio transmissions in the 800 MHz band to lower frequencies. These devices can be easily used in conjunction with scanners that receive frequencies below 800 MHz to enable the reception of cellular telephone transmissions. These converters are receivers subject to authorization under the notification procedure. See 47 CFR Section 15.101.

<sup>9</sup> Appendix A contains a list of the commenting parties.

<sup>10</sup> These included James Arconati, Frank Carson, Cellular Services Group, Inc., Michael Costello, Gregory Doerschler, George DuBois, Electronic Equipment Bank, Brian Fish, Steven Garrison, Jerome Jancuk, John Langner, Late Night Software, Jack Mor, Brian Morgan, Ray Murray, Jiro Nakamura, Alex Griffiths, Craig Paul, PrivaFone, George Raetz, Lawr Salo, Steven Sergeant, Eric Snyder, David Truran, William Wells, Duane Whittingham, Charles Wilkinson, Mike Youngberg and Roy Zimmer.

receiving cellular telephone transmissions, enactment of such rules is required by the TDDRA. Several commenters request that we also prohibit scanners from being able to receive signals from other similar radio services, such as the Personal Communications Service and the Specialized Mobile Radio Service.<sup>11</sup> Such action goes beyond the requirements of the TDDRA and, as such, is beyond the scope of this proceeding. Accordingly we are amending our rules to provide that scanning receivers must be incapable of operating (tuning) within the frequency bands allocated to the Domestic Public Cellular Radio Telecommunications Service.

9. Frequency converters: As discussed above, we also proposed to deny equipment authorization to frequency converters used with scanning receivers that can tune, or be readily altered by the user to tune, cellular telephone frequencies. A number of commenters suggest that the TDDRA does not give us authority to ban frequency converters that can be used with scanners to monitor cellular telephone transmissions.<sup>12</sup> Grove Enterprises and others indicate that restricting frequency converters from being able to tune cellular frequencies would require significant design changes and could cause financial hardship to companies that manufacture and market frequency converters. Uniden America Corporation ("Uniden"), a scanner manufacturer, argues that frequency converters, which are currently subject to the equipment authorization procedure of notification, should be subject to certification, just like scanning receivers.

10. While the TDDRA does not specifically address frequency converters it does prohibit the authorization of scanning receivers that are capable of being readily altered by the user to receive cellular transmissions. Frequency converters that tune cellular frequencies can be easily and readily used, with virtually any existing scanner, to intercept cellular communications. Rather than prohibit all scanners because of the availability of frequency converters, we believe it is more prudent to restrict the tuning capability of these converters.<sup>13</sup>

11. We recognize that frequency converter designs are typically not very sophisticated compared to those of scanning receivers, and that banning frequency converters capable of converting cellular transmissions will significantly increase the design complexity necessary for converters to comply with our technical standards. We further recognize, as several commenters note, that there are very legitimate uses for converters that convert 800 MHz

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<sup>11</sup> Southwestern Bell Mobile Systems and GTE Service Corporation request inclusion of PCS frequencies, and Fleet Call requests inclusion of SMR frequencies.

<sup>12</sup> These include James Cassel, George DuBois, Grove Enterprises, Inc., Thomas Hartoin, Brian Roberts, Philip Snider, Bernhard Ulfers and William Wells.

<sup>13</sup> None of the comments in this proceeding have indicated to us that there is a method of preventing scanner-converter combinations from receiving cellular transmissions that would be less disruptive to scanner manufacturers, retailers or users.

and 900 MHz signals down to lower frequencies.<sup>14</sup> Even though the restrictions we proposed for converters will undoubtedly make it more difficult and expensive to purchase 800 MHz and 900 MHz converters for legitimate purposes, we believe the intent of the TDDRA leaves us no choice but to adopt them.<sup>15</sup>

12. Regarding Uniden's suggestion to require certification of frequency converters, we do not believe that adding this additional burden is necessary. Scanners are subject to a more comprehensive application process than frequency converters because we have determined that scanners are more likely to cause interference to authorized radio communications than converters. We believe we can properly enforce the ban on reception of cellular frequencies by converters if they remain under the notification procedure, and thus we see no need for converters to be certified.

13. Definition of "readily altered by the user": In the Notice, we proposed to require that scanning receivers and frequency converters capable of being "readily altered by the user" include, but not be limited to, those for which the ability to receive transmissions in the cellular bands can be added by clipping the leads of, or installing, a simple component such as a diode, resistor and/or jumper wire; or by replacing a plug-in semiconductor chip. There is general support for the proposed definition. The Cellular Telecommunications Industry Association ("CTIA") requests that we, in addition, require that: 1) microprocessors be used to control the tuning circuitry of all scanners and frequency converters; and, 2) blocking out of cellular frequencies be done internal to these microprocessors. Uniden and the Consumer Electronics Group of the Electronic Industries Association ("EIA/CEG") argue that manufacturers should be granted a reasonable amount of discretion in their receiver designs as long as they are consistent with the statutory objective. Furthermore, Frank Carson and Jeffrey Krauss suggest that requiring significant changes to scanners, such as modifying the microprocessor in order to block out cellular frequencies, could add significantly to the cost of scanners without providing a significant protection against the interception of cellular telephone calls. Finally, BellSouth Corporation, et al. ("BellSouth") requests

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<sup>14</sup> While the new rules are targeted only towards the cellular frequencies in the 800 MHz band, the American Radio Relay League ("ARRL") expresses concern that they will have an impact on converters used by amateur radio operators for reception of signals in the 902-928 MHz amateur band. ARRL requests that we modify our proposed rules to specifically state that converters designed for reception of the 902-928 MHz frequencies by amateur radio operators are in compliance with our rules. We do not agree such a modification is appropriate because it would not adequately ensure that such converters would not be readily available and commonly used to intercept cellular communications.

<sup>15</sup> Based on several comments, we are modifying the rule slightly from that proposed to indicate that it applies to frequency converters "designed or marketed for use with scanning receivers" rather than to frequency converters "used with scanning receivers," as proposed. We do not believe it appropriate to restrict cable television converters or other devices that might be able to receive cellular telephone transmissions but were not designed for that purpose.

that our definition of devices that can be "readily altered by the user" include scanners and converters that can be programmed to receive cellular transmissions by entry of an access code or by reprogramming a memory module.

14. After reviewing the comments, we conclude that our proposal will adequately prohibit the use of scanner and frequency converter designs that can be easily altered by the user to receive cellular frequencies. However, to add clarity to the rules, we are adopting BellSouth's suggested changes.<sup>16</sup> We are rejecting the changes proposed by CTIA, because they would severely and unnecessarily restrict the ability of scanning receiver manufacturers to produce new and innovative product designs and to respond in a cost-effective manner to the requirements of the TDDRA. As proposed, we are also requiring that scanners be incapable of converting digital cellular transmissions to voice audio.

15. Documentation: In the Notice, we proposed to require applicants for equipment authorization of scanners and frequency converters to include in their applications a statement that their devices cannot be readily altered to receive cellular telephone transmissions. We also solicited comments on whether additional information, such as why the device cannot be readily altered, should be required. Vanguard Cellular Systems, Incorporated ("Vanguard") and Southwestern Bell Mobile Systems, Incorporated ("Southwestern Bell"), both cellular service providers, and CTIA ask that applicants be required to submit detailed explanations of why their devices cannot be easily modified to receive cellular frequencies. Uniden, a scanner manufacturer, objects to such a requirement, adding that the current FCC rules (47 CFR Section 2.939) dictate the circumstances under which an equipment authorization might be revoked and provide sufficient incentive for the grantee to ensure compliance.

16. It is very important that we review the designs of scanner and frequency converter equipment before granting equipment authorizations because, should we authorize a model that is later found to be easily modified, it would be very difficult and costly for the grantee to recall the units that had already been sold. Consequently, we will require that information be provided by applicants for scanning receiver certification and frequency converter notification describing why their devices cannot be easily modified. We note that we currently require a similar statement with regard to security coding features on cordless telephones,<sup>17</sup> and that requirement seems to have been effective in that case.

17. Transition provisions: We proposed to deny equipment authorization to all scanners and converters whose applications for equipment authorization do not comply with the rules adopted herein and are filed on or after April 26, 1993. We also proposed to ban the manufacture and importation,

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<sup>16</sup> This prohibition on reprogrammable scanners applies to units that can have cellular coverage restored by reprogramming a memory chip from either the scanner's keyboard or an external device, such as a personal computer.

<sup>17</sup> See 47 CFR Section 15.214.

effective April 26, 1994, of all scanners and converters that do not comply with the rules adopted herein including ones that we have granted equipment authorizations to. The proposed rules would allow existing authorized scanners and frequency converters that can receive cellular frequencies to be sold and used indefinitely, provided they are manufactured and imported prior to April 26, 1994. BellSouth recommends that we deny authorization to all scanners and converters that have applications pending on April 26, 1993. EIA/CEG objects to this proposal, stating that it is inappropriate for us to deny an equipment authorization to a product that complies with the rules in effect at the time its application is submitted. Since the TDDRA requires us to "make effective regulations denying equipment authorization" to affected scanners and converters by April 26, 1993,<sup>18</sup> [emphasis added] we are modifying our rules in accordance with BellSouth's recommendation.

18. BellSouth further requests that, on April 26, 1994, we revoke the grants of equipment authorization for all scanning receivers and converters that do not comply with the technical standards ultimately adopted in this proceeding, thus prohibiting the sale of all such devices after April 26, 1994. This would place a significant hardship on all manufacturers, retailers and users that might wish to sell existing scanners and converters, and would be extremely difficult to enforce. Furthermore, as EIA/CEG points out, such action would go beyond what is required by the TDDRA. Accordingly, we are denying this aspect of BellSouth's request.<sup>19</sup>

19. Cellular scanners for legitimate users: Harris Corporation ("Harris"), GTE Service Corporation ("GTE"), Electronic Equipment Bank ("EEB"), NYNEX Mobile Communications Company ("NYNEX"), McCaw Cellular Communications, Incorporated ("McCaw"), CTIA and Uniden request that we clarify our rules to specifically exempt scanners and converters that are marketed exclusively to law enforcement agencies and cellular system operators from the technical standards adopted in this proceeding. Such an exemption is provided for by Section 403(c) of the TDDRA.<sup>20</sup> We agree with these commenters that an exemption is needed for devices intended to be marketed to law enforcement agencies and cellular system operators and are modifying the proposed

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<sup>18</sup> See Telephone Disclosure and Dispute Resolution Act, supra, Section 403.

<sup>19</sup> Electronic Equipment Bank questions whether it will be permissible to sell used scanners capable of receiving cellular frequencies. The answer is "yes," as long as the scanners are FCC-certified and were manufactured and/or imported prior to April 26, 1994. Equipment sellers, especially those trading in used equipment, should note, however, that FCC-certified scanners that have been modified (such as by clipping a diode to enable reception of cellular frequencies) are no longer FCC-certified and may not be legally marketed.

<sup>20</sup> Section 403(c) of the TDDRA provides that "This section shall not affect section 2512(2) of title 18, United States Code." See Telephone Disclosure and Dispute Resolution Act, supra, Section 403(c).

Section 15.121, accordingly.<sup>21</sup>

20. Enforcement of new rules: Tandy Corporation ("Tandy") and EIA/CEG express concern about our intended methods of enforcing the rules adopted in this proceeding. Tandy, which sells scanners through Radio Shack, Computer City and other affiliated stores, requests that we not hold retailers strictly liable for marketing scanners that can be readily altered by the user to receive cellular frequencies, provided such scanners have been FCC-certified.

21. Generally, we will not hold retailers responsible for marketing scanners that were certified and are subsequently found to be readily alterable. However, we may require that retailers cease marketing such products, and a violation of such a requirement would be grounds for enforcement action. Furthermore, any retailer marketing a scanner that also performs alterations to that scanner so customers can receive cellular frequencies will be violating FCC rules and the Communications Act, and therefore will be subject to appropriate enforcement sanctions.

#### PROCEDURAL MATTERS

22. Final Regulatory Flexibility Analysis. Pursuant to the Regulatory Flexibility Act of 1980, 5 U.S.C. 603, our final analysis is as follows:

I. Need for and purpose of this action: This action is required by the Telephone Disclosure and Dispute Resolution Act (Pub L. 102-556).

II. Summary of issues raised by the public comments in response to the Initial Regulatory Flexibility Analysis: Jeffrey Krauss argues that the rules proposed in the Notice could affect far more small entities than the 50 or fewer manufacturers we have suggested. Mr. Krauss says users of scanning receivers, including thousands of small businesses and tens of thousands of individual citizens, could be affected because the new rules will require manufacturers to redesign their products and these manufacturers will likely pass the redesign cost along to end users.

III. Significant alternatives considered and rejected: While it is possible that the rules being adopted in this proceeding may raise the cost to consumers of certain types of scanners, this action is required by law, and we have found no less burdensome method of complying with the TDDRA.

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<sup>21</sup> EEB, GTE and Harris question the effect of this proceeding on very expensive scanning receivers that are not likely to be purchased by the general public. The rules being adopted here apply to all scanners, regardless of cost.

EFFECTIVE DATE

23. The TDDRA requires that the rules adopted in this proceeding become effective on or before April 26, 1993. Accordingly, due to the limited time available to meet this requirement, we find good cause for the rules adopted herein to become effective upon publication in the Federal Register. See 5 U.S.C. Section 553(d).

ORDERING CLAUSES

24. Accordingly, IT IS ORDERED THAT under the authority contained in Sections 4(i), 302 and 303 of the Communications Act of 1934, as amended, and the Telephone Disclosure and Dispute Resolution Act, Parts 15 and 2 of our Rules and Regulations ARE AMENDED as set forth in Appendix B below. These rules and regulations are effective upon publication in the Federal Register. IT IS FURTHER ORDERED THAT this proceeding IS TERMINATED.

25. For further information on this proceeding, contact David Wilson, Technical Standards Branch, Office of Engineering and Technology, at 202-653-8138.

FEDERAL COMMUNICATIONS COMMISSION



Donna R. Searcy  
Secretary

APPENDIX A

Parties filing comments in this proceeding:

American Radio Relay League, Inc.  
Arconati, James E.  
BellSouth Corporation  
Carson, Frank  
Cassel, James E.  
Cellular Services Group  
Cellular Telecommunications Industry Association  
Costello, Michael  
Doerschler, Gregory K.  
Dubois, George  
Electronic Equipment Bank  
Fish, Brian  
Fleet Call, Inc.  
Garrison, Steven  
Grove Enterprises  
GTE Service Corporation  
Harris Corporation  
Hartoin, Thomas W.  
Jancuk, Jerome B.  
Krauss, Jeffrey  
Langner, John W.  
Late Night Software  
Mor, Jack  
Morgan, Brian  
Murray, Ray  
Nakamura, Jiro  
Open Systems Solutions, Inc.  
Paul, Craig  
PrivaFone  
Raetz, George  
Roberts, Brian S.  
Salo, Lawr V.  
Sergeant, Steven  
Snider, Philip M.  
Snyder, Eric E.  
Southwestern Bell Mobile Systems, Inc.  
Tandy Corporation  
Truran, David  
Ulfers, Bernhard G.  
Uniden America Corporation  
Vanguard Cellular Systems, Inc.  
Wells, William C.  
Whittingham, Duane  
Wilkinson, Charles E.  
Youngberg, Mike  
Zimmer, Roy

Parties filing reply comments in this proceeding:

Cellular Telecommunications Industry Association  
Consumer Electronics Group of the Electronics Industries Association  
Fleet Call, Inc.  
McCaw Cellular Communications, Inc.  
NYNEX Mobile Communications Company  
Uniden America Corporation

APPENDIX B

Part 2 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 2--FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

1. The authority citation for Part 2 continues to read as follows:

**AUTHORITY:** Sec. 4, 302, 303 and 307 of the Communications Act of 1934, as amended, 47 U.S.C. 154, 154(i), 302, 303, 303(r) and 307.

2. Section 2.975 is amended by adding a new paragraph (a) (8) to read as follows:

**Section 2.975 Application for notification.**

(a) \* \* \*

(8) Applications for the notification of receivers contained in frequency converters designed or marketed for use with scanning receivers shall include a statement describing the methods used to comply with the design requirements of Section 15.121(a) of this Chapter or the marketing requirements of Section 15.121(b) of this Chapter.

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3. Section 2.1033 is amended by adding a new paragraph (b) (12) to read as follows:

**Section 2.1033 Application for certification.**

\* \* \* \* \*

(b) \* \* \*

(12) Applications for the certification of scanning receivers shall include a statement describing the methods used to comply with the design requirements of Section 15.121(a) of this Chapter or the marketing requirements of Section 15.121(b) of this Chapter.

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Part 15 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 15--RADIO FREQUENCY DEVICES

1. The authority citation for Part 15 continues to read as follows:

**AUTHORITY:** Sec. 4, 302, 303 and 307 of the Communications Act of 1934, as amended, 47 U.S.C. 154, 302, 303 and 307

2. Section 15.37 is amended by revising paragraph (b), and adding a new paragraph (f), to read as follows:

**Section 15.37 Transition provisions for compliance with the rules.**

\* \* \* \* \*

(b) \* \* \* In addition, receivers are subject to the provisions in paragraph (f) of this Section.

\* \* \* \* \*

(f) The manufacture or importation of scanning receivers, and frequency converters designed or marketed for use with scanning receivers, that do not comply with the provisions of Section 15.121 of this Part shall cease on or before April 26, 1994. Effective April 26, 1993, the Commission will not grant equipment authorization for receivers that do not comply with the provisions of Section 15.121 of this Part. This paragraph does not prohibit the sale or use of authorized receivers manufactured in the United States, or imported into the United States, prior to April 26, 1994.

3. Section 15.121 is added to read as follows:

**Section 15.121 Scanning receivers and frequency converters designed or marketed for use with scanning receivers.**

(a) Except as provided in paragraph (b), scanning receivers, and frequency converters designed or marketed for use with scanning receivers, must be incapable of operating (tuning), or readily being altered by the user to operate, within the frequency bands allocated to the Domestic Public Cellular Radio Telecommunications Service in Part 22 of this Chapter (cellular telephone bands). Receivers capable of "readily being altered by the user" include, but are not limited to, those for which the ability to receive transmissions in the cellular telephone bands can be added by clipping the leads of, or installing, a simple component such as a diode, resistor and/or jumper wire; replacing a plug-in semiconductor chip; or programming a semiconductor chip using special access codes or an external device, such as a personal computer. Scanning receivers, and frequency converters designed or marketed for use with scanning receivers, must also be incapable of converting digital cellular transmissions to analog voice audio.

(b) Scanning receivers, and frequency converters designed or marketed for use with scanning receivers, that are manufactured exclusively for, and marketed exclusively to, entities described in 18 U.S.C. Section 2512(2) are not subject to the requirements of paragraph (a).