

General Notes on Data

- (A) Long title is given first, followed by short title (when one was assigned).
- (B) The total quantity may have been procured under one or more contracts.
- (C) Where two or more contracts were involved, the unit cost is the average of unit costs of the separate contracts.
- (D) Following key numbers signify following producing or manufacturing agencies.
1. Signal Corps Laboratories, Fort Monmouth, N. J.
 2. Wallace and Tiernan Products, Inc., Belleville, New Jersey.
 3. Teletype Corporation, Chicago, Illinois.
 4. L.C. Smith-Corning Typewriter Co., Syracuse, New York.
 5. ~~Army Security Agency (formerly Signal Security Agency, Signal Intelligence Service, etc.)~~
 5. 6. Fournier Institute, Chicago, Illinois.

- (E) Only such technical literature and/or manuals as contain information describing the equipment are included. ~~Under the Special notes below will be found~~
- ~~(F) Under "Patent Status" are given only data relative to any patents or patent applications filed by U. S. employees covering the specific item or applicable to specific features thereof.~~

Special notes on the items listed

- (1) Item 1 was purely an experimental model and was never put into service; available in ASA museum. Cost of development unknown but might be obtained from old records of Signal Corps Laboratories. This development was covered by U.S. Patent No. 2,028,772, which issued 28 Jan 1936
- (2) The two machines constituting Item 2 were pilot models for Item 3; available in ASA museum. Cost of development unknown but might be obtained from old records of Signal Corps Laboratories. This development was covered by U.S. Patent Application No. 682,096, which was filed 25 July 1933 and is still pending
- (3) These machines were delivered in August 1933 and were in service until superseded by Item 7; then destroyed except for one in ASA museum. Pat application mentioned under item 2 covers these machines
- (4) These machines incorporated some minor modifications in Item 3. Eight machines were purchased from the War Department by the State Department. All machines were in service for several years. Pat. App. 682,096 applies also to these machines.
- (5) This served as pilot model for Item 6; available in ASA museum. Basic principles covered in U.S. Patent Application mentioned under item 7 below. This unit ~~(Keying Unit # 889)~~ replaced the key-tape transmitter of Items 3 and 4 and served as controlling element for stepping the rotors.
- (6) These units were in use for at most 2 years, until Converter M-134-C replaced Converters M-134 and M-134 A.

Basic cryptographic principles are covered by U.S. Patent Application No. 70,412, which REF. ID: A273725 of Feb 1936 and is still in secrecy status.

(7) This machine constituted the principal one used by Army and Navy for intra and inter-service high and medium-echelon classified communications. Preliminary models and pre-production models developed by Teletype Corp; available in Navy museum. It is believed that certain patent applications have been filed by U. S. Navy personnel to cover certain special features of this equipment. *Patented by the Teletype Corporation, Chicago, Ill.,*

(8) These were experimental models constructed in an attempt to produce a smaller and lighter version of Converter M-134-C; available in ASA museum. *Cryptographic principles the same as in item 7.*

(9) These special cipher units were purchased from the Navy. They made Converter M-134-C (Item No. 7) utilizable for combined communications (with British only) as one version of a cryptographic machine designated as the CCM (Combined Cipher Machine).

(10) These were development models for Item No. 11. *The cryptographic principles are covered in U.S. Patent Application No. 443,320, which was filed 16 May 1942 and is still in secrecy status.*

(11) These machines were employed for on-line and off-line teletype and radioteletype communications; machines available in ASA museum. *The Navy also used these machines. A few were issued to British for use only in Combined Communications.*

(12) Development model, followed by an additional development model before standardizing; available in ASA museum. *Cryptographic features similar to those of Item 10.*

(13) These were delivered too late to be employed during actual hostilities; now in storage. A few were used in service tests for a very short time. A few were used in Europe in 1946 by U.S. Constabulary Force for a short time.

(14) Development model, followed by an additional development model before standardizing; available in ASA museum. *Certain features covered in U.S. Patent Application No. 549,086, which was filed 11 August 1944 and is still in secrecy status.*

(15) The State Department, ~~procured~~ *received* 1000 of these machines, put a number of them into service for a short period. The Army used them briefly in service tests, but the machine was never used extensively because of poor performance.

(16) Developmental model; available in ASA museum.

(17) This item was the one forming the subject matter of Project C-52, Contract OEMsr-542, of Office of Scientific Research and Development, National Defense Research Council, Division 13, NDRC, Washington, 1946, pp 120-22. Developmental work done by Fournier Institute at no cost to the Government.

(18) Rotors of several types were made. The type used with items 2, 3, and 4 were Enigma Style, not reversible or invertible; other rotors were all of Hebern invertible type.

and returned them.

Item No.	(See Note A) Nomenclature or Designation	(See Note B) Total Quantity Procured	(See Note C) Unit Cost	(See Note D) Prod. Agency or Manufacturer	(See Note E) Technical Literature	(See Note F) Patent Status
1.	Converter M-134-T-1	1	Unknown	1	Exhibit No. 1	U.S. Patent #2,028,772, issued 28 Jan 36
2.	Converter M-134-T-2	2	Unknown	1	Exhibits Nos. 2 and 3	U.S. Patent Application #682,096 filed 25 July 33; in secrecy status
3.	Converter M-134 (SIGHIC)	12	\$2,135.	2	Exhibits Nos	See Item #2
4.	Converter M-134-A (SIGMYC)	56	\$2,400	2	Exhibits Nos	See Item #2
5.	Keying Unit M-229	1	\$2,955	1	Exhibits Nos	Basic principles covered by application under Item 7
6.	Keying Unit M-229 (SIGGOO)	75	\$500	2	Exhibits Nos.	See Item #5
7.	Converter M-134-C (SIBABA)	3,330	\$1,567	3	Exhibits Nos	Army: U.S. Pat. Application No. 70,412 filed 23 March 36; in secrecy status. Navy: (Some have been filed; details not known.) <i>(By Navy)</i>
8.	Converter M-161-C	2	\$12,132	3	Exhibit	Covered under Item 7

Item No.	Nomenclature or Designation (1)	Total Quantity Procured (2)	Unit Cost (3)	Prod. Agency or Manufacturer	Technical Literature (4)	Patent Status
9	Special Cipher Unit (SIGAMU)	1,375	\$210	3	Exhibits Nos	
10	Converter M-228	2	\$6,417.50	1	None	U.S. Pat. Application No. 443,320, filed 16 May 42, in secrecy status.
11	Converter M-228	3,200	\$526.40	3	Exhibit	See under Item 10
12	Converter M-294	1	\$20,000	3	None	Cryptographic features covered by application under Item 10.
13	Converter M-294 (SIGNIN)	500	\$2300	3	Exhibit	Cryptographic features covered by application under Item No. 10
14	Converter M-325	2	\$3500	4	None	U.S. Pat. Application No. 549,086, filed 11 Aug 1944, in secrecy status.
15	Converter M-325 (SIGFOY)	12,000	\$150	4	Exhibit	See under Item 14
16	Converter M-409	1	\$37,000	3	None	See under Item 17
17	Rotors	8	unknown	65	Exhibit	
18	Rotors			3		

a. ABA type

b. NIN type

c. FOY type.