

BELL SYSTEM PRACTICES
Teletypewriter Stations

ADDENDUM P36.101
Issue 1, October, 1957
AT&TCo Standard

15 TELETYPEWRITER

LIST OF UNITS AND AUXILIARY FEATURES

1. GENERAL

- 1.001 This addendum supplements Section P36.101, Issue 4.
- 1.002 This addendum is issued to add a set of parts for feeding of multiple copy paper and to make changes and additions to the tables on typing units and cover plates.

2. CODING OF INDIVIDUAL TELETYPEWRITER UNITS

The following changes apply to Part 2 of the section:

- (a) 2.01 — table revised
- (b) 2.11 — table revised

(A) Typing Units:

- 2.01 (a) Change heading of middle column under "Printing on Blank" from "Prints Period on Upper Case" to "Prints Dash on Upper Case."
- (b) For the 15AE typing unit delete the X relating to "Send Receive Break Mechanism" from the "Operated on Single Blank" column and insert an X in the "Operated on Two Blanks" column.
- (c) Change the last sentence of Note 5 to read: "15AE and 15R units returned to the repair shops will be provided with this feature."

(H) Cover Plates:

2.11 (a) For both the 15S35 and 15S38 new cover plates add an X in the "Power Switch Opening" column and a reference to Note 3 in the last column.

(b) Add the following note:

Note 3: Switch slot not provided in old style. 15S cover plates of later design are provided with switch slot similar to 15C but the opening is covered by a switch plate. "ON" and "OFF" name plates are assembled on reverse side of cover plate available for use when required.

3. AUXILIARY FEATURES

Add the following to Part 3 of the section:

3.04 Miscellaneous Parts

<u>Code</u>	<u>Description</u>	<u>Reference</u>
TP115790 Set of Parts	To convert a 15 or 20 tele-typewriter to a single-pressure roller from the six associated pressure-roller type.	5692S

15 TELETYPEWRITER

LIST OF UNITS AND AUXILIARY FEATURES

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1. GENERAL

1.01 This section lists by code designation the various items of 15 teletypewriter apparatus, together with such auxiliary features as are not covered by Teletype Corporation bulletin 1037.

1.02 This section is reissued to:

- (a) Bring the coding information up to date, including adding codes new since the previous issue.
- (b) Eliminate from the section auxiliary features included in Teletype Corporation bulletin 1037.
- (c) Make more extensive use of tables for presenting the information.
- (d) Make numerous editorial changes to improve the section.

The changes are so extensive that the use of marginal arrows to indicate them is not feasible.

1.03 An auxiliary feature is an apparatus assembly which is not regularly a part of coded units, but is ordered separately to be installed by the factory before delivery or by others after delivery. In a few instances, coded machines include parts listed as auxiliary features, but this is the exception. The tariff usually provides for an additional charge for auxiliary features.

1.04 The 15 teletypewriter types the characters in lines on a page, normally 72 characters or less per line. The paper is fed in roll form normally 8-1/2 inches wide. Arrangements are available for receiving only or for sending and receiving.

1.05 To indicate the color of the finish, Bell System codes use a number suffix. These numbers, together with the corresponding letter suffix used with Teletype Corporation codes, are shown in the table below.

Finish	Bell System Suffix	Teletype Corp. Suffix
Black Gloss	34	BA
Walnut Grain	35	CA
Mahogany Grain	36	CB
Black Wrinkle	37	AA
Dark-Brown Wrinkle	38	AD
Light-Brown Wrinkle	39	AC
Gray-Green Wrinkle	40	AB

2. CODING OF INDIVIDUAL TELETYPEWRITER UNITS

(A) Typing Units:

2.01

Code	See 2.03	Speed W.P.M.	Friction	Sprocket	Pullbar and Typebar For Break	Selector Magnet P=Pulling H=Holding	Figs. H	Figs. M	Built In Mechanical	Remote Motor Control	Figs. H Contacts (Momentarily Open)	Manual Motor Switch	Printing Suppressed, Upper and Lower Case	Prints Period On Upper Case	Prints Period Upper and Lower Case	Operated on Single Blank	Operated on Two Blanks	Send Rec. Brk. Mech.	Printing on Blank	Notes
15A	A	60	X		X	P			X				X							
15B	A	60	X		X	P	X						X							
15C	A	60		X	X	P			X				X							
15D	A	60		X	X	P	X						X							
15E	B	60	X		X	P			X				X							
15F	B	60	X		X	P	X						X							
15G	B	60		X	X	P			X				X							
15H	B	60		X	X	P	X						X							
15J	C	60	X			P		X	X											
15K	C	60	X			P	X		X											
15L	C	60		X		P		X	X											
15M	C	60		X		P	X		X											
15N	A	60	X		X	P	X						X							
15P	A	60		X	X	P	X						X							
15R	D	60	X		X	P			X	X										5
15S	C	60	X			P			X	X										
15T	C	60		X		P			X	X										
15U	A	60 or 75	X			H			X	X				X						4
15W	A	60 or 75		X		H			X	X				X						4
15Y	C	60 or 75	X			H			X	X				X						4
15AA	C	60 or 75		X		H			X	X				X						4
15AB	C	60 or 75		X		H			X	X				X						4, 6
15AD	C	60 or 75	X			H			X	X				X						4, 6
15AE	D	60 or 75	X		X	H			X		X			X						4, 5
15AF	Note 1	100	X			H			X	X				X						1, 3, 4, 7
15AG	C	100	X			H			X	X				X						3, 4, 7
15AH	B	60 or 75	X			H			X	X				X						4
15AJ	Note 2	60 or 75		X		H			X	X				X						2, 4, 8
15AK	C	60 or 75	X			H			X	X				X						4, 9

Manufacture Discontinued

Standard

Notes

1. Similar to type pallet arrangement A except has slant line through zero.
2. Similar to type pallet arrangement A except that the type pallets are of the long gothic type, .200" high. In addition there is an asterisk on the upper case of B. The 15AJ typing unit is normally used for service order work.
3. This unit is not to be operated at 60 or 75 w.p.m.
4. Equipped with the holding magnet, TP113703 terminal block assembly and 5000 ohm shunt. (The terminal block assembly replaces the TP94490 series—parallel switch formerly furnished.)
5. 15R and 15AE units, for weather map service prior to 1951, had CR and LF in LTRS position only. New typing unit standards require CR and LF in both LTRS and FIGS positions. All new 15AE units will be provided with this feature. 15AE and 15R units returned to the repair shops will be provided with this feature only when specified by the Telephone Company.
6. Has contacts on FIGS H and lower case H to close an external circuit. No typing or spacing on FIGS H. Has contact to give momentary close on FIGS. Has universal contact assembly (make and transfer) (these contacts are provided to operate an external circuit). This unit normally for use in 81-type switching systems.
7. Has a typebar-segment dust shield.
8. Tabulate on FIGS Z.
9. Has two-color ribbon mechanism with automatic shift for operation to red on FIGS L and to black on FIGS H. Base must be modified with TP113697 set of parts furnished in a separate box with typing unit.

(B) Keyboards

2.02

Code		Type Arrangement	Blank Key Lever	5300 Ohm for .020 Amp.	1600 Ohm for .060 Amp.	Speed W.P.M.	Line Test	Key Parts	Resistance	Notes
Old	New									
MD	15A	15A37	A	×	×	60 or 75	×			
	15B	15B37	B	×	×	60 or 75	×			
	15C	15C37	C	×	×	60 or 75	×			
	15D	15D37	A			60 or 75				4, 6
	15E	15E37	C			60 or 75				6
	15F	15F37	Note 1			100				1, 2, 3, 6
	15G	15G37	C			100				2, 3, 5, 6

MD = MANUFACTURE DISCONTINUED

See paragraph 1.05 for finish codes.

Notes

1. Similar to type pallet arrangement A except has slant line through zero.
2. This unit is not to be operated at 60 or 75 w.p.m.
3. TP111851 set of parts provides operation of keyboard at 100 speed.
4. When a 15D37 keyboard is ordered, a 15E37 keyboard with the TP92232 set of parts will be supplied to convert the keyboard to arrangement A.
5. When a 15G37 keyboard is ordered from the factory, a 15F37 keyboard may be supplied with the necessary parts to convert the keyboard to arrangement C.
6. New keyboards will not be equipped with the blank key lever. However, if required, the key lever and associated keycap and spring may be ordered and added.

2.03 The different type-pallet arrangements available are shown in Figs. 1, 2, 3 and 4.

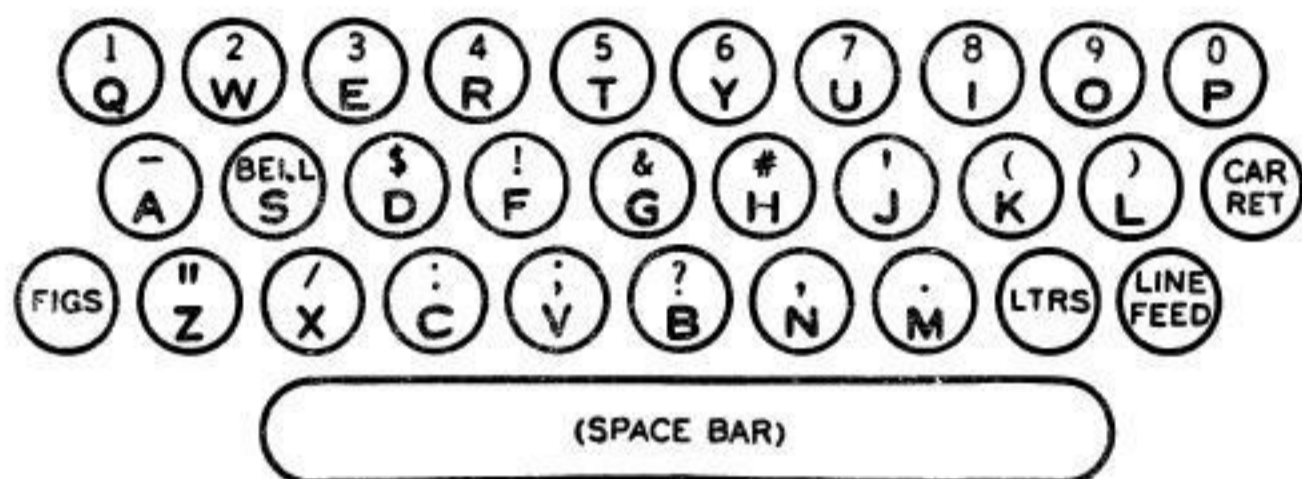


Fig. 1 Arrangement A

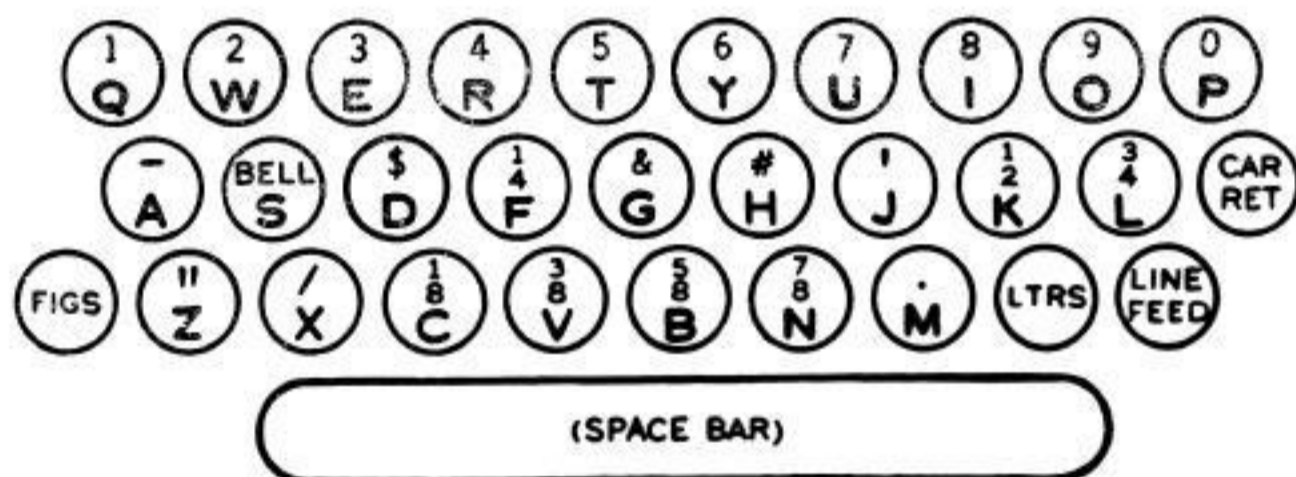


Fig. 2 Arrangement B

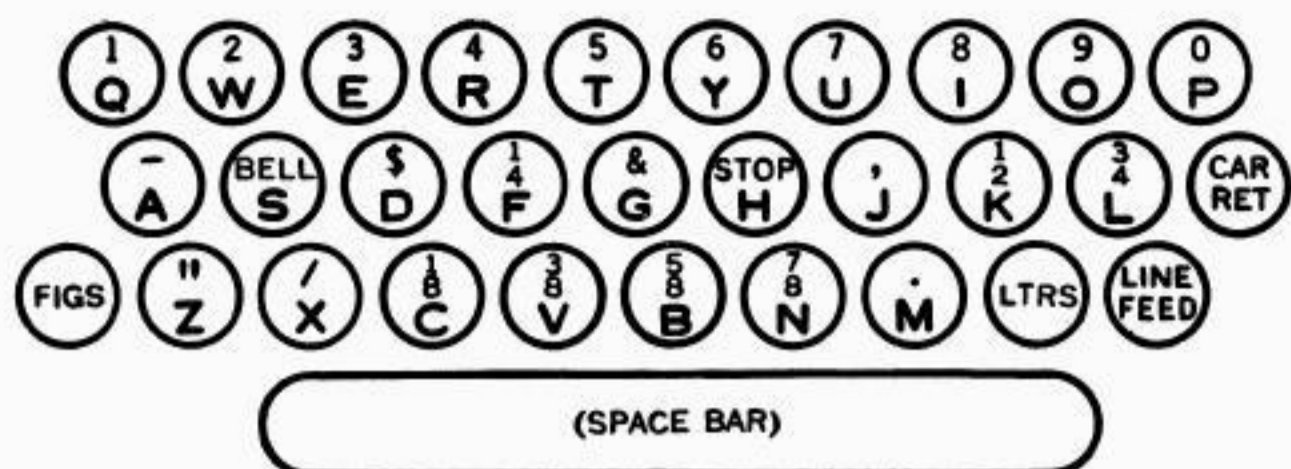


Fig. 3 Arrangement C

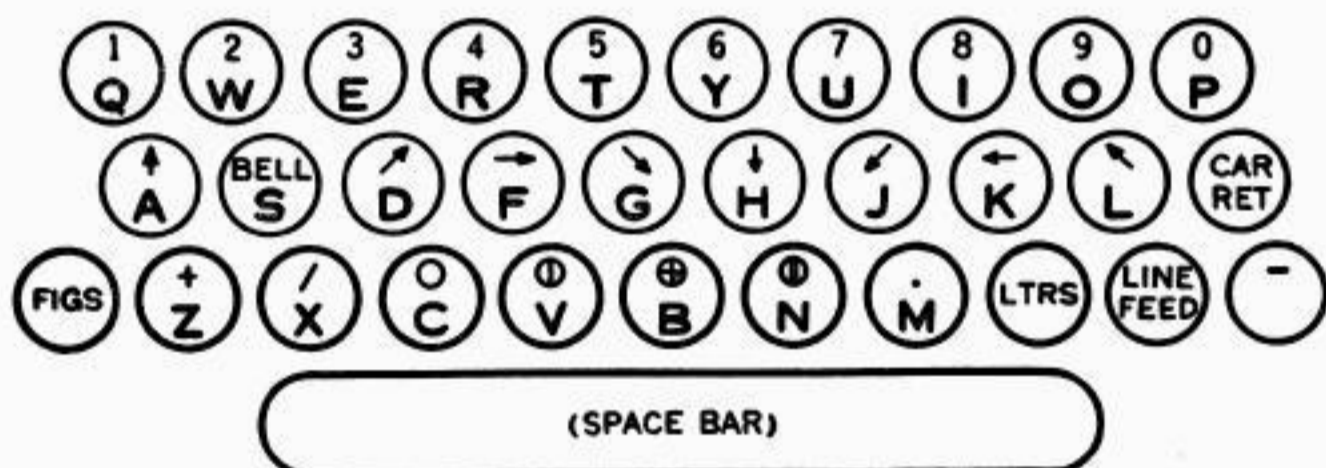


Fig. 4 Arrangement D (weather map)

(C) Motor Units

2.04

Code	Type of Motor		For Operation On 130 V. D-C		A-C Sync.		Target Lamp Bracket & Lamp		Governor and Target		Resistances		Components of the Governor Circuit		Notes						
	1	2	115 V., D-C Shunt	110 V., 60-Cycle A-C Series	50-Cycle	110 V., 60-Cycle Holtzer Cabot	110 V., 60-Cycle General Electric	1	2	One 25 Ohm	One 20-50 Ohm	One 100-100 Ohm	One 250 Ohm	One 100-200 Ohm		Two 300 Ohm	Two 500 Ohm	Four 1000 Ohm	One 1/2 Mf.	One 1 Mf.	Cond.
15A	1	X					X				X										1, 2
15B	1	X						X													1, 3
15C	1	X					X		X												1, 4
15D			X																		6
15E				X																	6
15F	1							X		X					X	X					5
15G								X	X	X	X	X	X	X				X			5
15J	1						X							X							1, 2
15K	1						X			X			X								1, 3
15L			X																		6
15M			X																		6
15N	1						X						X					X			1, 5

Note: Numbers in table refer to the notes following.

Notes:

1. A 1G 10-spot target for 60 speed is furnished with governors on a-c series and d-c shunt motors.
2. 15A may be converted to 15J by adding TP91827 set of parts and removing target lamp and bracket. The 15J motor unit may be used on a 25-cycle power supply, if a TP80913 resistor unit is separately ordered and attached.
3. 15B may be converted to 15K by adding TP91828 set of parts and removing target lamp and bracket.
4. 15C is the same as 15A except that a 15C, when equipped with the TP80913 resistor-unit assembly (separately ordered), is applicable for use with 25-cycle power.
5. For 106-type regenerative repeater. Synchronous motors 15D and 15M (60 cycles) or 15E (50 cycles) may also be used with the regenerative repeater.
6. Equipped with a fan.

(D) Sets of Gears

2.05 The coded sets of gears shown in the following table are suitable both for the earlier teletypewriters having the main-shaft gear between the shaft bearings and for the later

teletypewriters having the main-shaft gear external to the right-hand bearing.

2.06

Code	Type of Motor				Gov. Motor	Speed W.P.M.	No. Teeth		Pinion		Gear	Number Stamped On Old Gears *
	A-C Series	D-C Shunt	60-Cycle Sync.	50-Cycle Sync.			(TP-)	No. Teeth	Part No.*	(TP-)		
15A	×	Note 1				60	7	74505	35	74151	1	
15B	×					40	6	74782	42	74781	2	
15C			×			60	7	74912	30	74913	3	
15D			×			40	7	74919	46	74920	4	
15E				×		60	7	84018	25	84019	7	
15F				×		40	8	84017	44	84016	8	
15G			×			75	7	91286	24	91287		
15H					×	75	8	84105	32	84106		
15J			×			100	16	110869	42	110870		
15K					×	100	14	110874	43	110875		

Note 1: The 15A set of gears can also be used with a d-c shunt motor to obtain either 60 or 40 words per minute. To obtain 40 speed, the 60-speed, 10-spot target must be replaced by a 23-spot target, and the governor adjusted for the new speed.

* The part numbers (TP omitted) are stamped on new gears. Numbers in the right-hand column are stamped on old gears.

(E) Speed-Checking Targets

2.07 Speed-checking targets are required with motors of the governed type but not with synchronous motors.

2.08 Speed-Checking Targets

Code		Spots	Speed	Used With
Old	New			
1G	TP7105	10	60 or 75	A-C Series or D-C Shunt Motor
1H	TP7106	11	40	A-C Series Motor
1J	TP72665	23	40	D-C Shunt Motor

(F) Teletypewriter Bases

2.09 Bases are coded as follows:

Code Designation	Remarks
15A	<ol style="list-style-type: none"> Does not include line relay but provides mounting-bracket and accessories. Wires are provided for extending the relay circuit to terminals 31 and 36 but the connections are not made at the factory. Governor-circuit resistances are provided.
15B	<p>Same as 15A except:</p> <ol style="list-style-type: none"> Power switch not connected. 8000 ohms added to line-relay biasing circuit.
15C	<ol style="list-style-type: none"> Does not include mounting-bracket or accessories for line relay. (These may be added if required.) Governor-circuit resistances not furnished. Power switch not connected.
15D	<ol style="list-style-type: none"> Same as 15C base except equipped with line-relay mounting.

(G) Teletypewriter Covers

2.10

Code		Finish For Old Codes	RO = Receiving Only		SR = Sending and Receiving		Cover Plate Required	Notes
			Tape Reel Container Assembly		Cover Plate For Switch Slot			
Old	New					Used With 19 TTY		
MD 15A	—	35	RO				4	
MD 15B	—	34	RO				5	
15C	15C35		RO or SR				6	
15D	15C34		RO or SR				6	
15E	—		RO				7	
15F	—		RO				8	
MD 15J	—	Old Brass	RO				9	
15K	15C36		RO or SR				6	
MD 15L	—	36	RO				5	
15M	15M35			×	×	×	1, 3	
15N	—	Two-Tone Brown Wr.		×		×	1, 3, 10	
15P	—	Two-Tone Brown Wr.	RO or SR				11	
15S	—	35		×		×	2, 3	
15T	15C37		RO or SR					
15U	—	37		×		×	2, 3, 12	
15W	15M37			×	×	×	1, 3	
15Y	15C38		RO or SR					
15AA	15C39		RO or SR					
15AB	15C40		RO or SR					
15AD	15M39			×	×	×	1, 3	
15AE	15M40			×	×	×	1, 3	
15AF	15M38			×	×	×	1, 3	

MD = MANUFACTURE DISCONTINUED

See paragraph 1.05 for finish codes.

1. Cover includes housing for perforating mechanism. Used with perforator-transmitters having counter at the right.
2. Cover includes enlarged housing for window, for perforating mechanism and character counter.
3. New-style covers having 7/8" diameter hole in lower right corner of front hinged door will be furnished with TP119639** button to fill the hole.
4. Old-style cover.
5. Same as 15A except finish.
6. These covers do not include copyholders but holes are provided for mounting them. If covers have the holes filled with screws these must be removed from the inside of the cover.
7. Special for New York News Bureau Service.
8. Same as 15E except finish.
9. Special for Dow-Jones Service.
10. Special for Republic Steel—No power-switch slot.
11. Special for Republic Steel—No copyholder mounting-holes—no power-switch slot.
12. No mounting-holes for 15E copyholder.

** Indicates finish

(H) Cover Plates**2.11**

Type		RO = Receiving Only			Finish For Old Codes	Notes
		SR = Sending and Receiving				
Code		Old	New			
MD	15A	—	RO		35	1
	15B	—	RO		34	2
	15C	15C35	SR	×	×	
	15D	15C34	SR	×	×	
	15E	15E35	RO	×		
	15F	15E34	RO	×		
	15G	15G35	RO			
MD	15H	—	RO		34	
	15L	15C36	SR	×	×	
	15M	15E36	RO	×		
	15N	15G36	RO			
MD	15R	—	RO		36	2
	15S	15S35	SR			
		15S38	SR			
	15T	15G38	RO			
	15U	15C38	SR	×	×	
	15W	15C37	SR	×	×	
	15Y	15E37	RO	×		
	15AA	15E38	RO	×		
	15AB	15G39	RO			
	15AD	15G40	RO			

MD = MANUFACTURE DISCONTINUED

See paragraph 1.05 for finish codes.

1. Old style.
2. Same as 15A except finish.

Note: TP118485CA cover plate (walnut) can be installed to cover slot for power switch when power switch is not used.

(I) Copyholders

2.12

Code		To Right	
		To Left	
Offset			
Old	New		
15A	15A35		×
15B	15A34		×
15C	15A36		×
15D	15A39		×
15E Note 1	—	×	
15F	15A37		×
15G	15A38		×
15H	15A40		×

See paragraph 1.05 for finish codes.

1. For use with 15S cover. Has walnut **grain** finish.

(J) Line Relays

2.13 Line relays are not supplied with the teletypewriter. They must be ordered separately as required.

Code Designation	Contact Material	Line Current(ma)	Remarks
Standard Relay			
255A	#4 and tungsten Note 3	20 or 60	255A, D-163119 and D-168651 are identical

Manufacture Discontinued—Replaced by 255A

209FH	#4 and tungsten Note 3	20 or 60	
209FJ	#4 and tungsten Note 3	60	
215H	#4 and tungsten	60	

Note 1: #4 contact metal = 60% palladium and 40% copper.

Note 2: For a more complete description of relays see P31.161.

Note 3: Equipped with extra-heavy contacts of tungsten on contact screws and extra-heavy #4 contacts on armature.

(K) Perforator-Transmitter

2.14 The 15-type perforator-transmitter is a component of the 19 teletypewriter arranged to mount in a 15-type teletypewriter base in place of a standard keyboard.

2.15

Keytops		Code		Arrangement	Blank Lever and Spring	At Right		Finish For Old Codes	Notes	
		Old	New			At Left				
MD	15A	—	×	A		×		35		
	15B	—	×	B		×		35		
	15C	—	×	C		×		35		
	15D	—	×	A		×		35	1	
	15E	—	×	B		×		35	1	
	15F	—	×	C		×		35	1	
	15G	15G38			C		×		1, 2, 3	
	15J	15J35	×		A		×		1, 2, 4	
	—	15J38	×		A		×		1, 2	
	15K	15K35	×		B		×		1, 2, 4	
	—	15K38	×		B		×		1, 2	
	15L	15L35	×		C		×		1, 2, 4	
	—	15L38	×		C		×		1, 2	
	15M	—	×		A	×			35	1, 2
	15N	—	×		B	×			35	1, 2
	15P	—	×		C	×			35	1, 2
	15R	15R35	×		A		×			1, 2, 4
	—	15R38	×		A		×			1, 2
15S	15S35	×		B		×			1, 2, 4	
—	15S38	×		B		×			1, 2	
15T	15T35	×		C		×			1, 2, 4	
—	15T38	×		C		×			1, 2	
15U	15G39			C		×			1, 2	
15W	15G40			C		×			1, 2	

MD = MANUFACTURE DISCONTINUED

See paragraph 1.05 for finish codes.

1. Equipped with the following sets of parts: TP91624 set of parts to apply improved counter-control mechanism, TP91625 set of parts to apply lower punch-operating contacts and adjustable key-pressure mechanism, TP91626 set of parts to apply two-piece armature lever and follow-through feature, TP91627 set of parts to apply space mechanism.
2. Equipped with the following set of parts: TP99037 set of parts to provide improved operating margins for the punch unit, TP102896 set of parts to equip a perforator-transmitter with positive-action perforating feature.
3. When used with the 81B1 teletypewriter switching unit, STOP designation is omitted from H keytop.
4. On orders for 15J or K units the 15L will be supplied, together with the necessary key caps and nameplate to convert to the 15J or 15K. Similarly the 15T unit will be supplied on orders for 15R or 15S, with key caps and nameplate for conversion.

3. AUXILIARY FEATURES

3.01 The following lists those auxiliary features for use with the 15 teletypewriter which are not included in Teletype Corporation bulletin 1037.

Code	Description	Reference
------	-------------	-----------

3.02 Extension Bells*

Signal Engineering and Mfg. Co. 110-volt Bell for A-C or D-C	A 6-inch bell providing a loud signal when the teletypewriter motor is started (operating with remote motor control).	
---	---	--

Signal Engineering and Mfg. Co. 110-volt Relay for A-C or for D-C, equipped with open-circuit push button on right (or left) side of box mounted in upper knockout; no wiring required.	Relay for use with above 6-inch bell.	
--	---------------------------------------	--

*These bells do not meet the requirements for use in explosive atmospheres.

Code	Description	Reference
3.03 Felt Pad		
15A Teletypewriter Pad	A felt pad for use underneath the teletypewriter when it rests on an ordinary desk.	
3.04 Miscellaneous Parts		
TP99502 Set of Parts	Two-color mechanism with automatic shift arrangement for operation to red on FIGS-* and to black on FIGS-*	5261S, P36.615
*Obtain letter desired by modifying universal function lever.		
TP113650 Set of Parts	End-of-last form indicating mechanism.	5637S
TP113697 Set of Parts	Set of two-color ribbon parts for teletypewriter base.	
TP123525 Set of Parts	Kit to modify 15 typing units, pulling or holding magnets, friction or sprocket feed, to provide for manually controlled two-color printing. Includes resistor and bracket to modify the base.	5668S P36.615
TP123745 Set of Parts for Line-Feed Counting	Designed to record the number of times the line-feed key lever is depressed. It signals the operator when the form at the receiving station is ready for printing.	5680S
TP106847 Set of Timing Contact Parts	Provides for closure and opening of an external circuit with each operation of the clutch-throwout lever.	5439S
TP107270 Set of Parts	To add a polar-neutral switch on the line-relay mounting.	5454S

Code	Description	Reference
TP116324 Function Lever Contact Assembly	The TP116324 contact assembly and TP116325 mounting-plate, when used in conjunction with special function levers, may be used to open and close external circuits.	5571S

3.05 Package of Spare Parts

TP74851 (15A) Standard Package of Teletypewriter Parts	This package contains a selection of spare parts for 15 - type sending - receiving teletypewriters. For use in Central Storeroom.
TP74815 (15C) Standard Package of Teletypewriter Parts	This package contains a selection of spare parts for 15 teletypewriters. Suitable for use by individual maintenance men.
TP81052 Standard Package of Parts	This package contains a selection of spare parts for the 15 perforator-transmitter.

4. NUMERICAL LIST OF PARTS NUMBERS

4.01 For reference purposes the numbers of parts or sets of parts referred to in this section are listed in numerical order below, together with a reference to the paragraph or part of this section in which is given the name of the parts and a brief description.

Part Number (TP omitted)	Location and Description of Part
	N = Note T = Table
7105	2.08
7106	2.08
72665	2.08
74815	3.05
74851	3.05
80913	T2.04, N2 & 4
81052	3.05
91624	T2.15, N1
91625	T2.15, N1
91626	T2.15, N1
91627	T2.15, N1
91827	T2.04, N2
91828	T2.04, N3
92232	T2.02, N4
94490	T2.01, N4
99037	T2.15, N2
99502	3.04
102896	T2.14, N2
106847	3.04
107270	3.04
113650	3.04
113697	3.04, T2.01, N9
113703	T2.01, N4
116324	3.04
118485CA	T2.11, N2
119639**	T2.10, N3
123525	3.04
123745	3.04