

CENTRAL STOCK PLAN
FOR PLUG-IN UNITS -

PLUG-IN UNITS
FOR MAINTENANCE SPARES

In connection with the establishment of Detailed Continuing Property Record of Central Office Equipment, a review of all types of plug-in equipment was necessary to establish standardized requirements for plug-in unit spares. Spares in this sense refer to only those plug-in units retained at an office or maintenance location and used for replacement of defective in-service units.

Attached is a list of maximum authorized spares for the following types of equipment using plug-in units.

1. N1 Carrier Terminal Equipment
2. N2 Carrier Terminal Equipment
3. N3 Carrier Terminal Equipment
4. O, ON1, ON2 Carrier Terminal and Junction Equipment
5. T1 Carrier Terminal Equipment
6. N Type Repeaters
7. O, ON Type Repeaters
8. T1 Type Repeaters
9. Signaling Equipment - SF
10. E Type Telephone Repeaters
11. V Type Telephone Repeaters
12. Carrier Telegraph Channel Equipment
13. Telegraph Repeater Equipment
14. Telegraph Coupling Equipment
15. L Carrier Supergroup Connector Equipment

16. L Carrier Multiplex Transmitting and Receiving Bay Equipment for L60, L120, L600 and L1860 Type Bays
17. L Carrier Multiplex Common and Mix Bay Equipment
18. LMX1 Receiving Group Bank Bay Equipment
19. L Carrier WM Wideband Equipment
20. A5 Channel Bank Equipment
21. Wire Line Entrance Link Equipment of Microwave Systems
22. L1 and L3 Carrier Terminal and Repeater Equipment
23. No. 1 Electronic Switching System Equipment
24. A1 Digital Data Equipment
25. 1 Type Terminating Sets
26. 3A Echo Suppressor Equipment
27. T1 Carrier Wideband Bank Equipment
28. TD, TH, TJ and TL/TM Microwave Radio Systems Equipment
29. B1 Data Carrier Terminal and Junctor-Converter Bay Equipment
30. B1 Data Carrier Frequency Shift Pulsing Transmitting and Receiving Equipment
31. 10A and 10B Telegraph Testboard Equipment
32. Calculagraph Equipment
33. A2A and A2B Video Channel Equipment

Requirements above the authorized spares shall be handled on the normal Central Office Equipment Recommendation basis.

PLUG-INS FOR MAINTENANCE SPARESN1 Carrier Terminal

Group Transmitter
Group Receiver

No. of Units in
Service by Type

Spare Units

1-50 (see Note 1 and 2)
51-100
Over 100

1
2
3

Channel Units (see Note 2)

No. of Units in Service
by Type (Msg, Thru, Pgm, etc.)

Spare Units

1-25
26-50
51-75
76-100
Over 100

1
2
3
4
5

Note: Provide as replacement spare one of each type carrier frequency sub-assembly in service (see Note 4).

N2 Carrier Terminal

Group Transmitter
Group Receiver
Alarm Unit
Line Terminating Unit
Power Supply Unit
CGA Signal Receiver
Restoral Oscillator
Alarm and Restoral Unit
Alarm Link Unit

No. of Units in
Service by Type

Spare Units

1-50 (see Note 1 and 2)
51-100
Over 100

1
2
3

Modem Unit (see Note 2)

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-50	1
51-100	2
Over 100	3

Comandor (see Note 2)
VF Amplifier

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-50	2
51-100	4
Over 100	6

N3 Carrier Frequency Supply

- Power Converter and Regulator, (see N3 Carrier Terminal for Spares)
- 4 KHz Generator
- Doubler-amplifier
- Dual Amplifier

Note: For the above plug-ins furnish 1 spare of each type with first carrier supply bay only. Spares do not include bay installed alternate units.

N3 Carrier Terminal

- Group Transmitter
- Group Receiver
- Power Converter and Regulator
- Alarm and Restoral Unit
- Line Terminating Unit
- Combining and Switching Unit

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-50 (see Note 1 and 2)	1
51-100	2
Over 100	3

Frequency Correction Unit
Channel Group Modem

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-50 (see Note 2)	1
51-100	2
Over 100	3

Channel Modem and Associated Filters (see Note 2)

<u>No. of Units in Service</u>	<u>Spare Units</u>
1-50	2
51-100	4
Over 100	6

Note: Provide as replacement spare one of each type channel filter in service (see Note 4).

Comandor (see Note 2)
VF Amplifier

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-50	2
51-100	4
Over 100	6

Double Channel Regulator and Associated Filter

<u>No. of Units in Service</u>	<u>Spare Units</u>
1-50 (see Note 2)	1
51-100	2
Over 100	3

Note: Provide as replacement spare one of each type filter in service (see Note 4).

Restoral Oscillator

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-50	1
51-100	2
Over 100	3

O-ON Carrier Terminal and Junction Equipment

Group Transmitter
Group Oscillator
Twin Channel
Miscellaneous Oscillator

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-25	1

O-ON Carrier Terminal and Junction Equipment (cont'd.)

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
26-50	2
51-100	3
101-200	5
Above 200	7

Group Receiver and Associated Filters

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-25 (see Note 2)	1
26-50	2
51-100	3
101-200	5
Above 200	7

Note: Provide as replacement spare one of each type filter in service (see Note 4).

Channel Unit and Associated Filter (see Note 2)

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-50	1
51-100	2
101-150	3
151-200	4
201-250	5
251-300	6

Notes:

- (a) Provide 1 additional spare for each 50 channels or portion thereof.
- (b) Provide as replacement spare one of each type filter in service (see Note 4).

<u>T1 Carrier Terminal and Repeater Equipment</u>	<u>Spare Units</u>
1-12 Terminals	1 ea J98711F-L1 (32 boards)
13-48 Terminals	2 ea J98711F-L1 (32 boards)
49-96 Terminals	2 ea J98711F-L1 (32 boards)

T1 Carrier Terminal and Repeater Equipment (cont'd.)Spare Units

Control Units	2 ea J98710B for offices having 201B's
Channel Units	2% of each type in service, 1 minimum 5 maximum
Repeaters	5% of each type in service, maximum 10 of each type (201's or 206's)
Power Supply Load Units (Initial Installations, only)	2 ea J98711R-L1 (for offices with 9'0" bays) 3 ea J98711R-L1 (for offices with 11'6" bays)
Test Boards	J98711T-L1 (4 boards) 1-12 Terms - 1 13-24 Terms - 2 25-48 Terms - 3 Over 48 Terms - 4
LBO's	4 of each type in service, 10-836A for testing
130V Power Dissipation Unit	2 ea J98710M for offices having 206B Repeaters
24V Regulators	J86498-L3 1-24 Terminals 2 25-48 Terminals 3 Over 48 Terminals 4
Convertors	J86498-L4 1-24 Terminals 1 25-48 Terminals 2 Over 48 Terminals 3
42-48V Regulators	J86498-L5 1-24 Terminals 1 25-48 Terminals 2 Over 48 Terminals 3

N Type Repeater - Central Office Locations

J98703 Tube or Transistorized
 J99321 N2 Repeater, Adaptors, Constant Current Regulators, etc.

N Type Repeater - Central Office Locations (cont'd.)

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-50 (see Notes 1 and 2)	2
Over 50	3

N Type Repeater - N Repeater Stations (see Note 3)

J98703 Tube or Transistorized
 J99321 N2 Repeater, *Adapters, Constant Current Regulators, etc.*
 240 Type Flat Gain Amplifier
 4038 Type Network

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-25 in maintenance area (see Note 1)	2
26-50	4
51-150	6
Over 150	8

Note: Spare repeaters, amplifiers, etc. for repeater route maintenance are not to be located at or charged to individual repeater stations, but shall be located at and charged to the maintaining office or location.

O-ON Repeater

O Repeater Amplifier and Associated Filters (see Note, below)
 O Repeater Oscillator
 ON Repeater

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-50 (see Note 1 and 2)	2
51-100	3
Over 100	4

Note: Provide as replacement spare one of each type filter in service (see Note 4).

Signaling Equipment - SF

E & F - Type SF

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-20	2

Signaling Equipment - SF (cont'd.)

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
21-100	4
101-500	6
Over 500	8

Tube Type SF

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-20	1
21-100	2
101-500	4
Over 500	6

E Type Telephone Repeater Equipment

E2 Repeater
E3 Repeater
E6 Repeater and Associated Networks
E7 Repeater and Associated Networks

<u>No. of Units in Service by Type</u>	<u>Spare Unit</u>
Any Amount	1%, 2 minimum

Carrier Telegraph Channel and Repeater Equipment

43A1 Telegraph Channel and Networks
144 Telegraph Coupling Unit
96A1 Telegraph Repeater
143 Type Regenerative Repeater
145 Type Regenerative Repeater

<u>No. of Units in Service by Type</u>	<u>Spare Units</u>
1-5	1
6-10	2
11-40	3
41-100	4
101-200	6
201-500	8
Over 500	8

V Type Telephone Repeater Equipment

V3 Amplifier (J68647A)
 227 Type Amplifier
 359 Type Equalizer
 849 Type Network

No. of Units in
 Service by Type

Spare Units

Any Amount

1%, 2 minimum

I Type Terminating Sets

No. of Units in
 Service by Type

Spare Unit

Any Amount

1%, 2 minimum

Echo Suppressor Equipment

No. of Units in
 Service by Type

Spare Units

1-50
 51-100
 Over 100

1
 2
 3

Calculagraph Equipment

Calculagraphs

No. of Units in
 Service by Type

Spare Units

Up to 50
 51-100
 Over 100

3
 4
 6

L Carrier and Multiplex Equipment

Solid state plug-in modules used as cold maintenance spares should be provided on the basis of 2% spare with a minimum of two and a maximum of ten for each type required per office.

MMX2

Mastergroup

1 spare module per working
 mastergroup level (1-6) per
 3 line (coax) bay

L Carrier and Multiplex Equipment (cont'd.)

LMX2	
Supergroup Bank	1 spare module per 3 working
Group Bank	1 spare module per 30 working (3 adjacent bays on a common carrier supply)
Channel Bank	No dedicated spare; however, due to office rearrangements and growth, spares are usually available.
Mastergroup Connectors	1 spare per type per office
Supergroup and Group Connectors	2% spare with a minimum of 2 and a maximum of 5 per office
L1 and L3	
Pilot Alarm Units	5% spare of each type of unit in use with a minimum of 2 units for each type.
Line Amplifiers, Regulators	10% spare of each type of unit in use with a minimum of 2 units for each type

For the following list of equipment the spare plug-in equipment will be determined jointly by the Area Plant and Engineering groups:

TD, TH, TJ and TL-TM microwave radio systems equipment
 MJ Mobile Radio (IMTS) Control Terminal equipment
 No. 1 Electronic Switching Systems equipment

A2A and A2B video channel equipment

A1 digital data equipment

B1 data carrier terminal and junctor-converter bay equipment

B1 data carrier frequency shift pulsing transmitting and receiving equipment

10A and 10B telegraph testboard equipment

Note 1: Plug-in units used in switching sets are not to be considered as unmounted spares. They are to be provided at the time the switching sets are provided and considered as "in service."

Note 2: The amount of spare plug-ins for a main toll office in a division headquarters city should be double that as listed.

Note 3: Unattended offices should not be provided spare plug-in units. However, a minimum of spares should be placed at a maintenance center for maintenance truck, i.e., a maintenance central office should have its normal spares plus the amount needed for maintenance service of local nonattended offices.

Spare units at maintenance location for use at unattended offices.

<u>No. of CDO's Maintained by a Maintenance Location</u>	<u>Amount of Equipment</u>
1-5	Provide same as Auth. for 1 office
Over 5	Provide same as Auth. for 2 offices

Note 4: The cost of such filters and/or sub-assemblies which are less than retirement units shall be charged to the appropriate maintenance (R) account effective January 1, 1969.