

**SS1A SELECTIVE SIGNALING SYSTEM  
PULSING COUNTING AND INTERDIGITAL  
CONTROL CIRCUIT  
EQUIPMENT DESIGN REQUIREMENTS  
STATION SYSTEMS**

**1. GENERAL**

**Scope**

**1.01** This specification, together with the supplementary information listed herein, covers the equipment design requirements for the equipment units and circuits to be used in the engineering, manufacture, and installation of the SS1A selective signaling system.

**Capacity**

**1.02** The SS1A selective signaling system is capable of providing a maximum of 81 codes.

**Description**

**1.03** The SS1A selective signaling system provides sending, receiving, decoding, and controlling elements required for dial controlled signaling between distant stations of 4-wire private line telephone systems and for controlling distant stations for privacy. This system is a 2-digit dialing system utilizing frequency shift signaling for transmission over long distance lines. Station codes are generated by means of dial pulses transformed to frequency shift signals by keyer circuits. The signals are detected and reconverted to dial pulses by single frequency signaling units. The reconverted pulses are counted by the decoder with a resulting ground pulse to operate a signal at the associated telephone set.

**1.04** Equipment is arranged in two basic configurations, nonprivacy and privacy (see Fig. 1 and 2). The send and receive unit for nonprivacy consists of a decoder, keyer, code relay, and a 4-wire private line terminating unit (J53045A, L1), and also includes a fuse panel with special terminal strips for optional strapping. A mounting is provided for an SF signaling unit (J98613DE) which is ordered separately.

**1.05** The privacy version is provided as list 2 (in addition to list 1 of J53047A), and provides common control, station lockout, and a first station control circuit. The nonprivacy version may be ordered as J53047A, List 1, and the privacy version as J53047A, Lists 1 and 2. However, due to the equipment design, it is not feasible to add list 2 in the field.

**1.06** The required number of stations are provided for the nonprivacy version using station control units (J53047B), which have a capacity of up to six stations on a 2- by 23-inch mounting plate. The privacy version may be obtained with manual privacy (J53047C) or without this feature (J53047D). The manual privacy unit also includes control circuits for three stations and when combined with the station control unit (J53047D) provides system capacity. When manual privacy is not desired, control units (J53047D) which have a capacity of up to five stations each on a 2- by 23-inch mounting plate provide system capacity. In the privacy configuration, the send and receive unit provides a control circuit for the first station.

## SUBDIVISIONS OF EQUIPMENT AND DETAILED INDEX

WECo J drawings listed should be ordered by referring to the prefix and base number and requesting the current dash (—) number.

EQUIPMENT CODE	RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING	CIRCUITS PER UNIT	2-INCH MTG PLATES PER UNIT
J53047A	AT&TCo Std	Send and Receive One to 81 Codes Unit — Relay Unit	J53047A-( )	SD-69566-01 SD-69594-01	1	9
J53047B	AT&TCo Std	Station Control Unit Without Privacy — Relay Unit	J53047B-( )	SD-69594-01	6	1
J53047C	AT&TCo Std	Station Control Unit With Manual Privacy — Relay Unit	J53047C-( )	SD-69594-01	3	1
J53047D	AT&TCo Std	Station Control Unit With Privacy — Relay Unit	J53047D-( )	SD-69594-01	5	1

## Circuit Schematic Index

CIRCUIT DRAWING	J53047 EQUIP. CODE
SD-69566-01	A
SD-69594-01	A through D

**List 1** — Assembly, wiring, and equipment for one send and receive unit, without privacy, including one 4-wire private line termination unit. Wired and equipped in accordance with SD-69594-01 as follows:

	WIRE	EQUIP
Decoder, Fig. 1	1	1
Keyer, Fig. 2	1	1
First Digit Code Relay, Fig. 8	9	9
4-Wire Private Line Term. Unit J53045A-( ), L1	1	1

**List 2** — Wiring and equipment required in addition to list 1 for common control and first station control unit, in accordance with SD-69594-01, wired and equipped for privacy as follows:

	WIRE	EQUIP
Common Control and Station Lockout, Fig. 3	1	1
Station Control, Fig. 6	1	1

**List 3** — Apparatus required in addition to list 1 to provide loop-back test in accordance with SD-69566-01, Fig. 10 — J53045A-( ), L2.

## 2. SUPPLEMENTARY INFORMATION

AA128.006 — List of General Equipment Requirements Sections  
812-000-000 — Station Systems Index  
J53045 (AA321.035) — 4-Wire Private Line Terminating and Station Equipment  
J64730 (AA268.207) — No. 2B Signaling Test Set  
J98613 (AA388.091) — E-Type AC Trunk Signaling System  
Current Drain Data — SD-69594-01, Circuit Note 101

## 3. EQUIPMENT

**J53047A (AT&TCo Std) — Send and Receive One to 81 Codes Unit — Relay Unit**

Equipment — J53047A-( )

**List 4** — Apparatus required in addition to list 1 to provide on premises talk-back amplifier in accordance with SD-69566-01, Fig. 11 — J53045A-( ), L3.

**J53047B (AT&TCo Std)—Station Control Unit Without Privacy — Relay Unit**

Equipment — J53047A-( )

**List 1** — Assembly, wiring, and equipment for one station control and gate unit without privacy, wired and equipped for one station in accordance with SD-69594-01, Fig. 5 and 7.

**List 2** — Wiring and equipment required in addition to list 1 for one additional station (max 5) in accordance with SD-69594-01, Fig. 7.

**J53047C (AT&TCo Std)—Station Control Unit With Manual Privacy — Relay Unit**

Equipment — J53047C-( )

**List 1** — Assembly, wiring, and equipment for one station control and gate unit with manual privacy, in accordance with SD-69594-01, wired and equipped as follows:

	WIRE	EQUIP
Gate Circuit, Fig. 5	1	1
Manual Privacy Control Circuit, Fig. 4	1	1
Station Control Circuit, Fig. 6	3	3

**J53047D (AT&TCo Std)—Station Control Unit With Privacy — Relay Unit**

Equipment — J53047D-( )

**List 1** — Assembly, wiring, and equipment for one station control and gate unit with privacy, wired and equipped for one station in accordance with SD-69594-01, Fig. 5 and 6.

**List 2** — Wiring and equipment in addition to list 1 for one additional station (max 4) in accordance with SD-69594-01, Fig. 6.

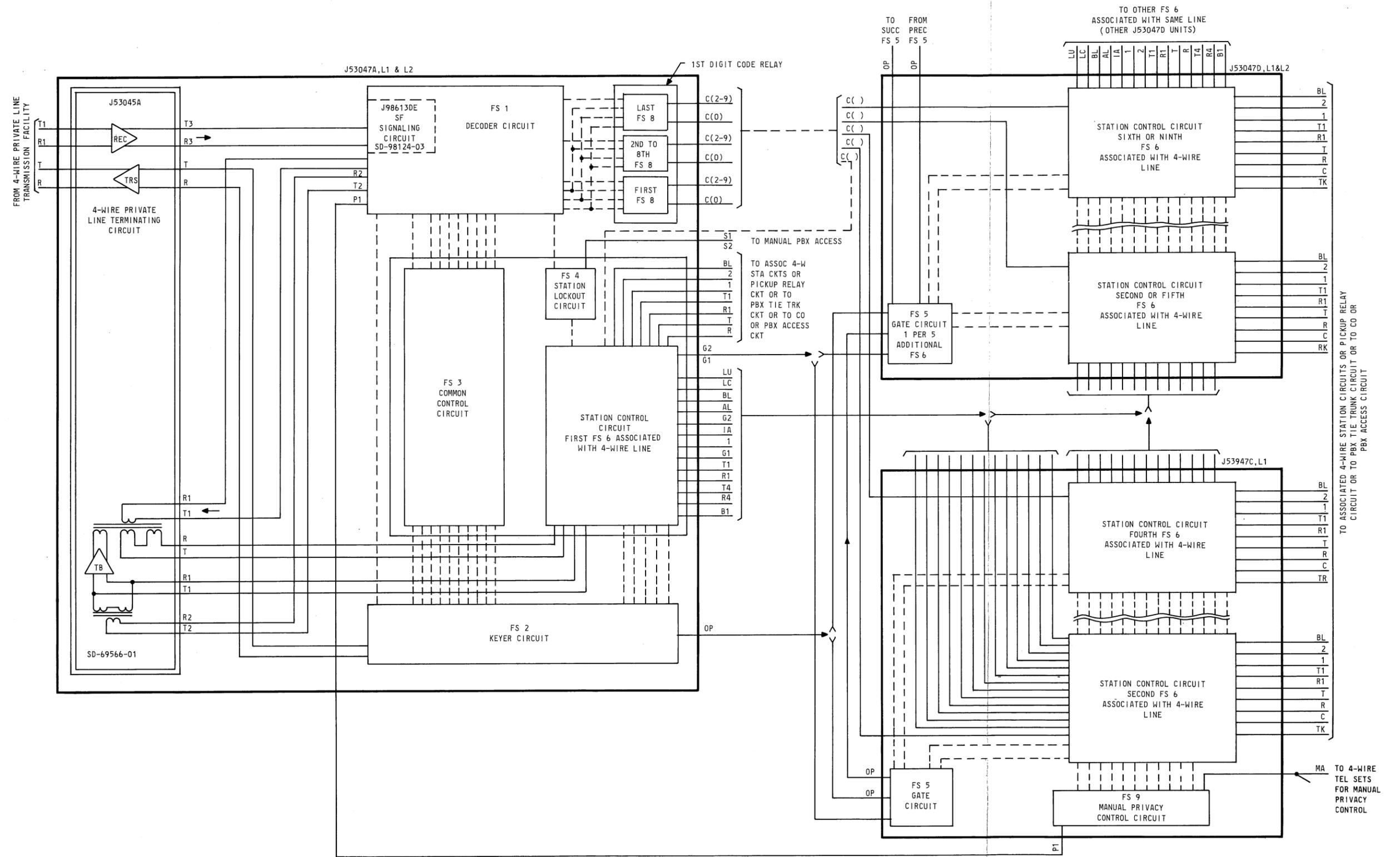


Fig. 1 - Send and Receive One to 81 Codes Equipment Arrangement for Privacy

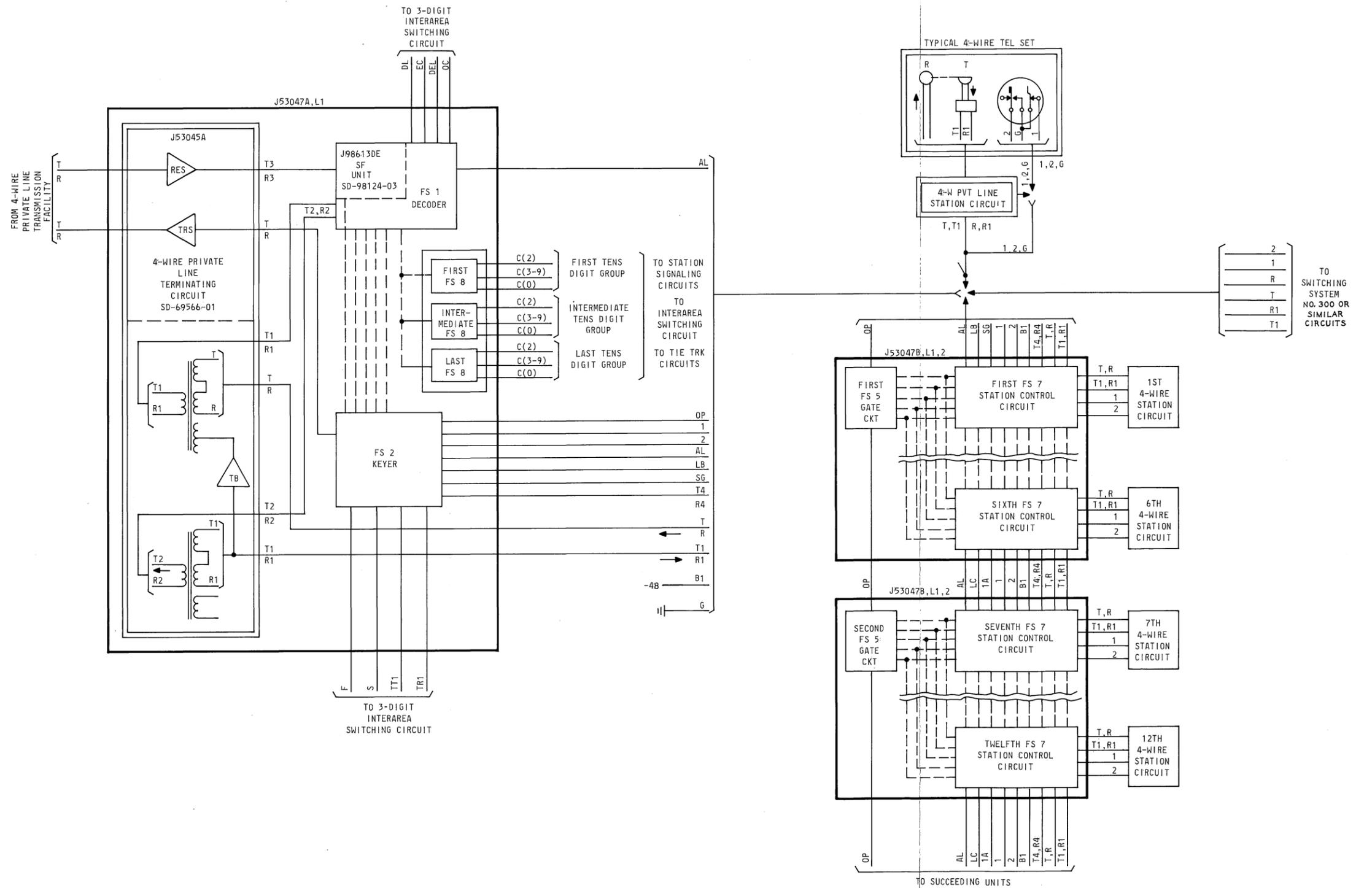


Fig. 2 - Send and Receive One to 81 Codes Equipment Arrangement for Nonprivacy