

**1A1 KEY TELEPHONE SYSTEM**  
**CUT THROUGH AND CONTROL CIRCUIT**  
**FOR AUTOMATIC CUTOFF**  
**USING 26B AND 29A KEY TELEPHONE UNITS**  
**CONNECTION DATA**

**1.00 GENERAL**

**1.01** This section covers connections required at key telephone units to provide automatic cutoff of stations on central office, PBX, tie, and station lines.

**1.02** Due to extensive changes marginal arrows have been omitted.

**2.00 CONNECTIONS**

**2.01** Table A shows wiring options and apparatus required to provide various automatic cutoff features.

**2.02** Fig. 2 shows the necessary terminations for power supply, cross connection of key telephone units, and terminations of key or running cables from key telephone stations.

**2.03** Fig. 1 is a feature circuit drawing and has been included as an aid for clearing possible troubles which might be encountered.

**TABLE A**  
**AUTOMATIC CUTOFF FEATURES**

Feature or Option		Provides		
		Apparatus	Wiring Options	Quantity
		KTU		
Cut through and control circuit for automatic cutoff circuit	Station can cut off other stations but cannot be cut off.	29A	H, J	One per station per line*
	Station can cut off other stations and can be cut off, except during a call.		H, K	
	Station cannot cut off other stations and can be cut off, except during a call.		K	One per line
Automatic cutoff circuit		26B		One per line per five stations

\* Stations which can cut off some other stations from a line but are not required to cut off each other may be grouped and provided with one 29A KTU for each group instead of for each station.

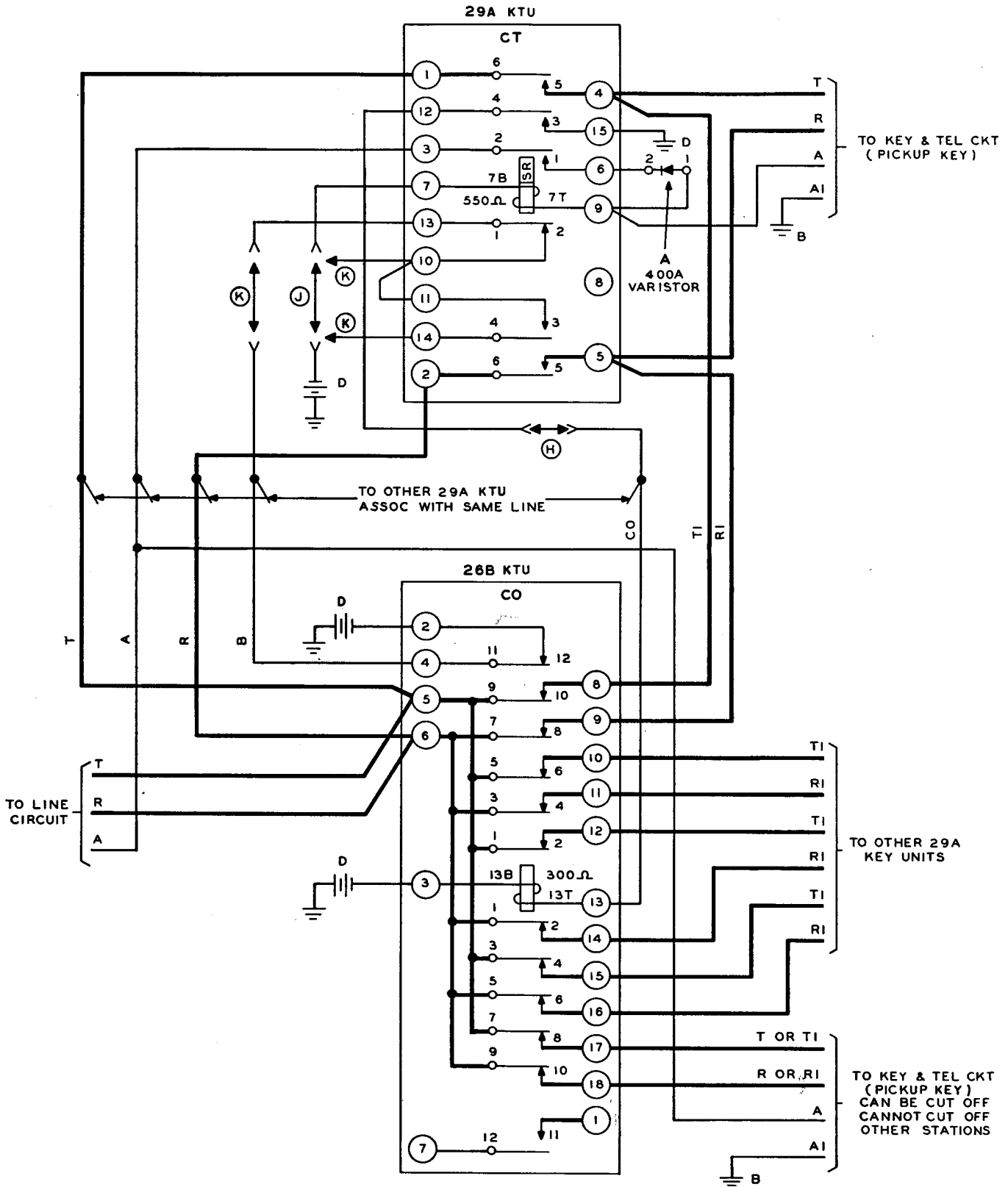


Fig. 1 - Cut Through and Control Circuit for Automatic Cutoff, 26B and 29A KTUs

**3.00 DESCRIPTION OF OPERATION**

**3.01 Station Can Cut Off Other Stations but Cannot Be Cut Off (H and J Wiring)—**

When a call is answered or originated by this station, the *CT* relay is operated over the *A* and *A1* leads to ground.

The operated *CT* relay:

- Closes a second path from tip and ring of line to tip and ring of station.
- Connects ground to the *A* lead of line circuit through the *A* varistor to permit release of the *CT* relay if a second station picks up the call and the first station disconnects.
- Operates the *CO* relay.

The operated *CO* relay:

- Opens the normal connections for tip and ring to all stations associated with the automatic cutoff feature.

**3.02 Station Can Cut Off Other Stations and Can Be Cut Off, Except During a Call (H and K Wiring)—**When a call is answered or originated by this station, the *CT* relay is operated by battery through contacts of the *CO* relay over the *A* and *A1* leads to ground.

The operated *CT* relay:

- Transfers the winding of the *CT* relay from operating battery to holding battery through its own front contacts.
- Closes a second path from tip and ring of line to tip and ring of station.

- Connects ground to the *A* lead of the line circuit through the *A* varistor.
- Operates the *CO* relay.

The operated *CO* relay:

- Opens the normal connections for tip and ring to all stations associated with the automatic cutoff feature.
- Removes operating battery from the *CT* relays of stations which can be cut off, except during a call.

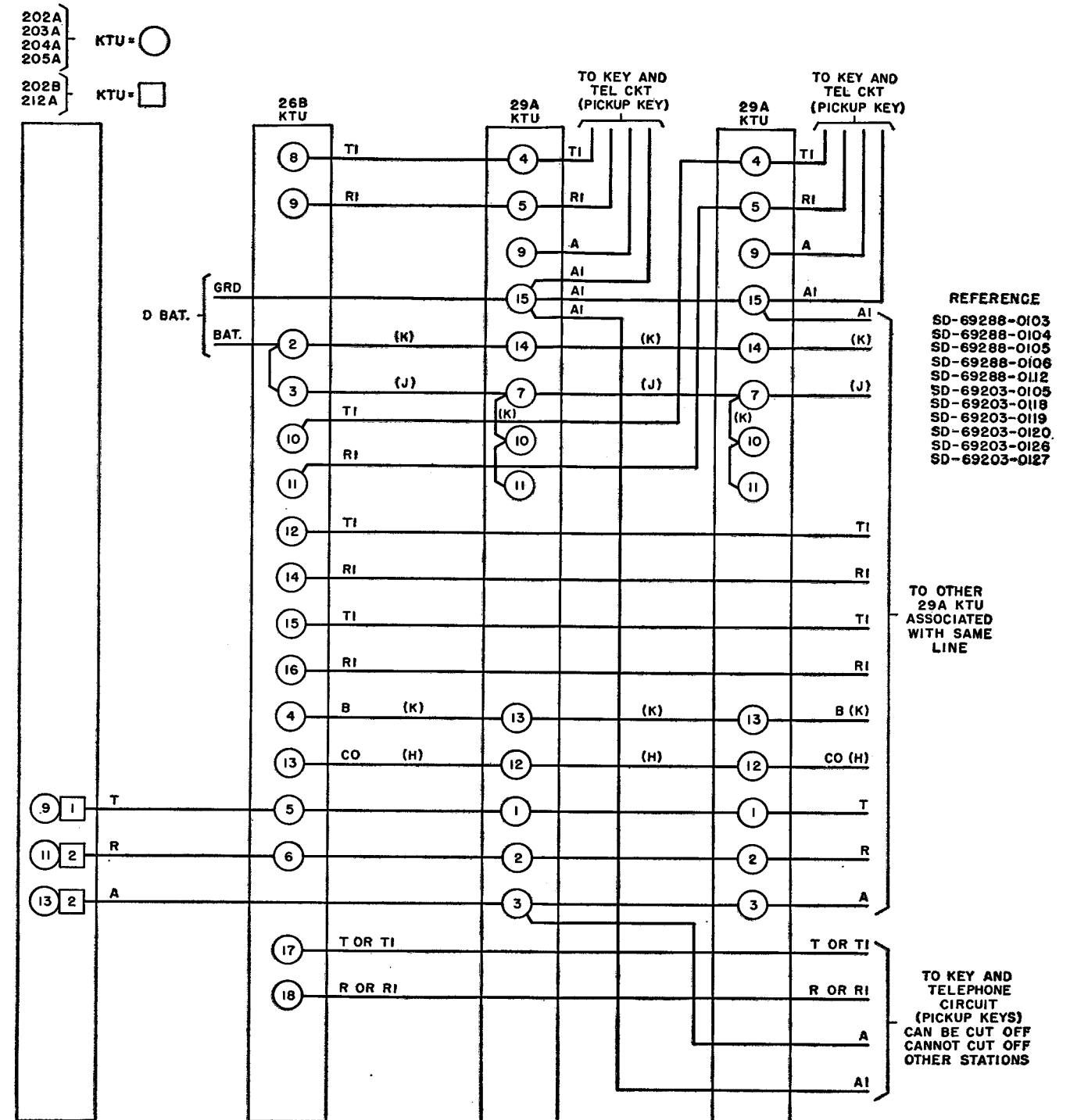
**3.03 Station Cannot Cut Off Other Stations and Can Be Cut Off, Except During a Call (K Wiring)—**When a call is answered or originated by such a station, the *CT* relay is operated by battery through contacts of the *CO* relay over the *A* and *A1* leads to ground.

The operated *CT* relay:

- Transfers the winding of the *CT* relay from operating battery to holding battery through its own front contacts.
- Closes a second path from tip and ring of line to tip and ring of station.
- Connects ground to the *A* lead of the line circuit through the *A* varistor.

All such stations on a line may be connected in parallel to the 29A KTU associated with the line.

**3.04 Station Cannot Cut Off Other Stations but Can Be Cut Off at Any Time—**When a call is answered or originated by such a station, no changes occur in the automatic cutoff circuit. All such stations on a line may be connected in parallel at the 26B KTU associated with the line.



**Note 1:** All straps shown shall be added to obtain features desired.

**Note 2:** Lamp leads from stations arranged for automatic cutoff should be connected in the usual manner.

**Fig. 2—** Cut Through and Control Circuit for Automatic Cutoff, 26B and 29A KTUs