INSTRUCTIONS FOR INSTALLING THE 186630 MODIFICATION KIT TO PROVIDE BREAK DETECTION AND INDICATION ON MODEL 33 AND 35 SETS EQUIPPED WITH THE 186627 SET LOGIC OR 109C OR 109F TYPE DATA SET

1.   GENERAL

1.01   The 186630 modification kit provides a signal line break detection and indication feature on Model 33 and 35 KSR and ASR Sets using the 186627 set logic assembly. The kit can also be used on teletypewriters, equipped with 109C or 109F type Data Set in the Data Line Concentrator System, if a 344318 cable assembly is used. The 344318 cable assembly is not part of the 186630 modification kit and must be ordered separately.

1.02   On detection of a break in the receive signal line, the 186630 kit will stop the tape reader on ASR sets, shunt the send signal line, light an indicator on the faceplate, and permit manual reset by means of a pushbutton containing the break indicator lamp.

1.03   The 186630 kit consists of:

Qty	Part No.	Description	Qty	Part No.	Description
2	2191	Lockwasher	1	182714	Cap
2	6805	Screw	1	303833	Card, circuit
2	7002	Washer	1	336460	Plate
2	152441	Washer	2	336461	Post
1	171559	Lamp	1	336462	Bracket
6	181240	Screw	1	336465	Bracket
2	181243	Screw	1	336471	Cable

1.04   Additional information as to the necessary faceplates required, and the sets with which this kit is compatible, is given in Tables A through C.

1.05   For part numbers referred to, other than the parts in the kit, and for parts ordering information see Teletype Parts Bulletin 1184B (Model 33) or 1187B (Model 35). Teletype Bulletin 280B, Vol 1 and Vol 2 contain the adjustments and lubrication information for Model 35 equipment. Teletype Bulletin 310B, Vol 1 and Vol 2 contain the adjustments and lubrication information for Model 33 equipment.

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Table A

The Model 33 sets with which the 186627 logic assembly or the 109C or 109F type Data Set, and the 186630 modification kit are compatible, are listed here.

UNIT and TYPE	CODE
ASR - Sprocket Feed	33TDA
ASR - Friction Feed	33TDB
KSR - Sprocket Feed	33TDF
KSR - Friction Feed	33TDE

The above units need one of the following faceplate assemblies to be complete:

334889	No Dial
334890	With Rotary Dial, or
334891	With TOUCH-TONE* Dial
341337	No Dial With VBLA (Voice Band Loop Around) Switch

*Registered Service Mark of AT&T Co.

Table B

The Model 35 ASR Sets with which the 186627 logic assembly or
the 109C or 109F type Data Set, and the 186630 modification kit
are compatible, are listed here.

UNIT and TYPE	CODE
Cabinet	LAAC305
Electrical Service Unit	LESU349
Keyboard Base	LAK816AVJ
Motor	LMU3
Reader Base	LCXB800
Reader	LXD803
Call Control Unit	UCC29
Reperforator Gears - 100 WPM	163025
Printer Gears - 100 WPM	161295
Mounting Hardware Kit	320492
Modification Kit to Adapt M35 to Accept UCC29	336474 (Covered in Specification 50695S)
Plus Either:	
Printer, Friction Feed	LP813DC/AVA
or Printer, Sprocket Feed	LP846DC/AUZ
and Either:	
Nontyping Reperforator	LRPE807
or Typing Reperforator	LPR809DRM

The above units need one of the following faceplate
assemblies to be complete:

     334889 No Dial
     334890 With Rotary Dial, or
     334891 With TOUCH-TONE Dial
     341337 No Dial With VBLA (Voice Band Loop
                Around) Switch

Table C

The Model 35 KSR Sets with which the 186627 logic assembly or the
109C or 109F type Data Set, and the 186630 modification kit are
compatible, are listed here.

UNIT and TYPE	CODE
Cabinet	LAC305
Electrical Service Unit	LESU300
Keyboard	LK807AVJ
Motor	LMU3
Call Control Unit	UCC29
Printer Gears - 100 WPM	161295
Mounting Hardware Kit	320457
Modification Kit to Adapt Model 35 to Accept UCC29	336474 (Covered in Specification 50695S)
Plus Either:	
Printer, Friction Feed	LP831DC/AVA
or Printer, Sprocket Feed	LP846DC/AUZ

The above units need one of the following faceplate
assemblies to be complete:

    334889 No Dial
    334890 With Rotary Dial, or
    334891 With TOUCH-TONE Dial
    341337 No Dial With VBLA (Voice Band Loop Around)
             Switch

Note: When the sets in Tables A through C are used with a 109C or
109F type Data Set, the 336463 cable is required and must be
ordered separately.

2.   INSTALLATION

2.01   On ASR sets only, remove the yellow strap between terminals F and H on
        the break detector card connector "CN" of UCC29. The strap must be re-
moved to stop the tape reader on receipt of a line break.

2.02   Assemble the modification kit per Figure 3 on the Model 33 set. On
        Model 35 sets, mount the 336462 bracket to the spacer plate per Figure
4. Use the lower pair of holes on the 336462 bracket to mount the 336465 brac-
et on Model 35 sets.

2.03   When the modification kit is used with the 109C or 109F Data Set, discard
        the 336471 cable. Unplug the 336463 cable assembly from the rear of the
UCC29, positions 1 and 2. Plug one end of the 344318 cable assembly, ordered
separately, into the call control unit, positions 1 and 2. Coil the 336463

cable from the data set above the data set on Model 33 or in back of the data set on Model 35, and plug it into the other end of the 344318 cable assembly.

2.04   When used with the 186627 set logic assembly, connect the 336471 cable with the R-S lead to TB13, R-BR to TB6, BL to TB12, and O-G to TB9.

2.05   Remove and discard the 119634 button plug from the hole in the faceplate labeled BRK RLS.

2.06   With the data set or set logic assembly positioned front to rear so the 635 type keyswitch does not bind the opening of the faceplate, position the 336462 bracket so that the break reset switch and indicator lamp projects through the faceplate approximately in the middle of its free travel on its shoulder screws. Adjust the vertical position of the 336465 lamp bracket so that the bottom edge of the lens is just below the faceplate.

3.   THEORY OF OPERATION

3.01   The 303833 break detector card consists of two timing circuits and a relay. One timing circuit is used to delay the input signal by a nominal 1.5 milliseconds. This allows the second timing circuit which is the break timer to tolerate a 1.5 milliseconds marking pulse during the break signal which may result from noise on the line. The card mounts in an existing card connector above the power supply section of the UCC29 call control unit. The output of the card terminates at the primary interface connectors no. 1 (CAH) and no. 2 (CAJ) at the rear of the call control unit.

   Note: The interface is brought out to the control logic in one of two ways, depending on which package is used.

3.02   The interface may be brought out in a one-to-one extension cable, 336464, which is part of the 186627 set logic assembly, with Molex connectors on both ends. When used in this application, the break lamp and reset switch are connected in the circuit by the customer at the time of installation by placing spade lugs of the 336471 cable under specified screw terminals on the 186627 logic assembly. Refer to Figure 2.

3.03   The interface may also be brought out in a cable, 336463, with spade lugs on one end for use with the 109C or 109F type Data Sets. When used in this application, the break lamp and reset switch are connected in the circuit by having their wire leads factory crimped to the proper points in the 344318 cable. One end of the cable is plugged into the UCC29 call control unit and the other end is then plugged into the 336463 cable assembly. The 336471 cable assembly is discarded when the modification kit is used with these data sets. Refer to Figure 1.
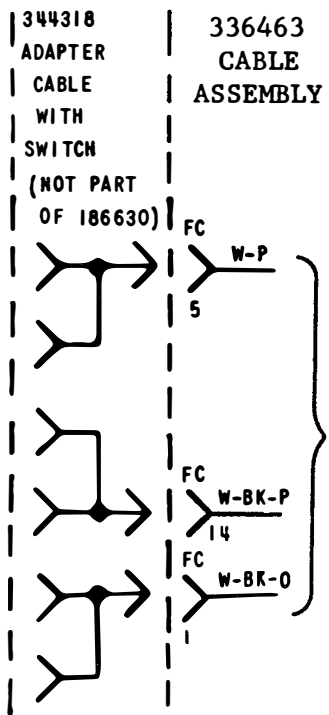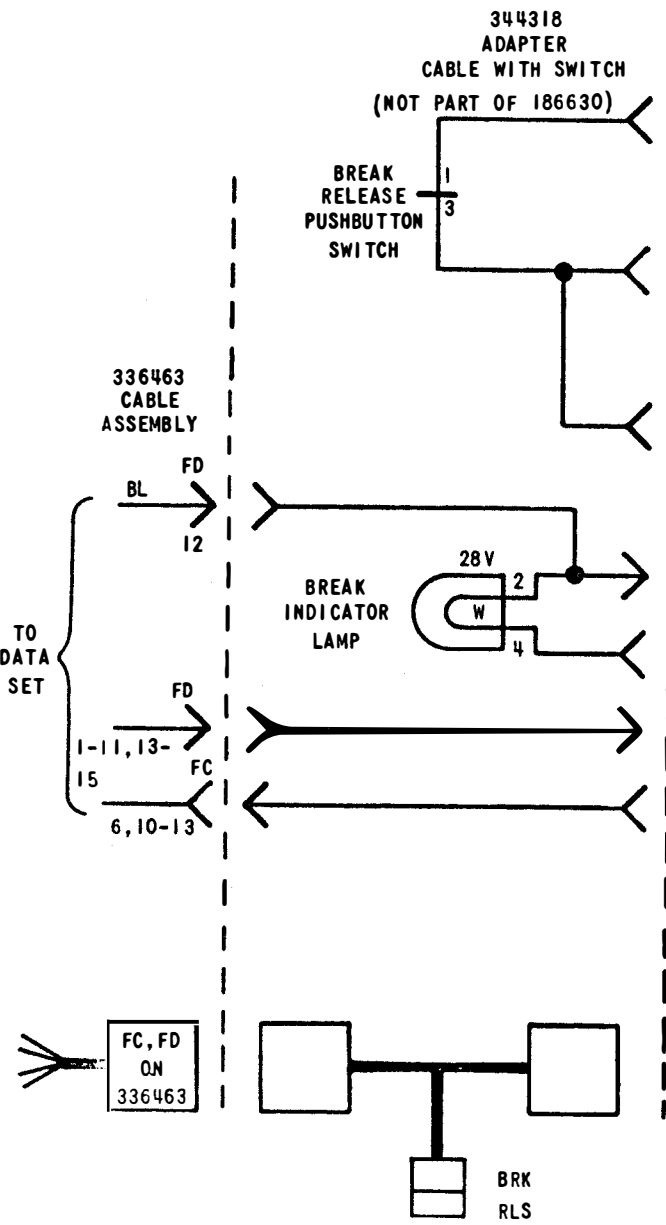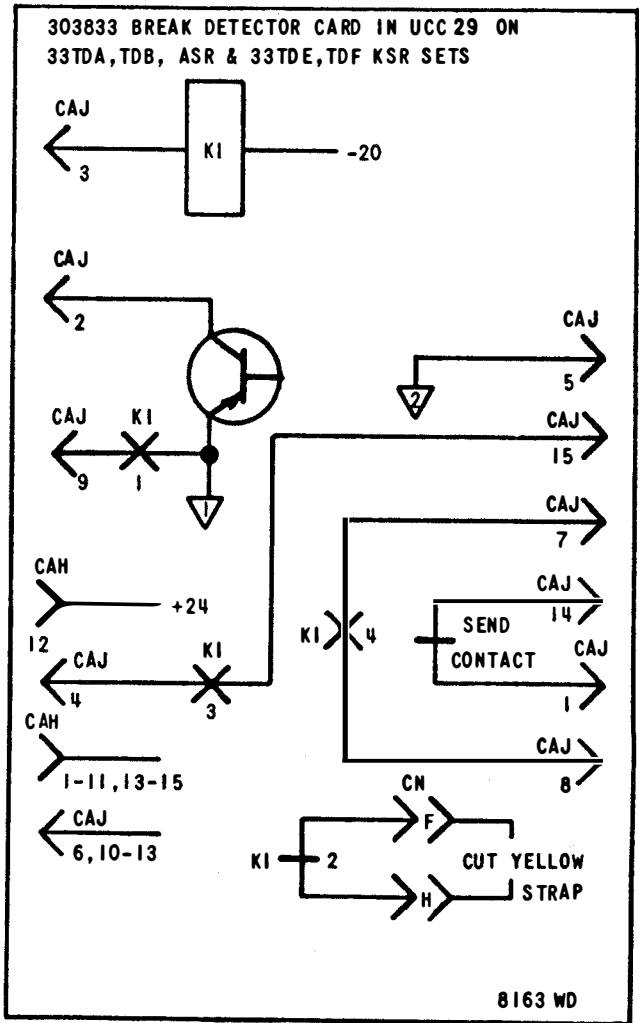
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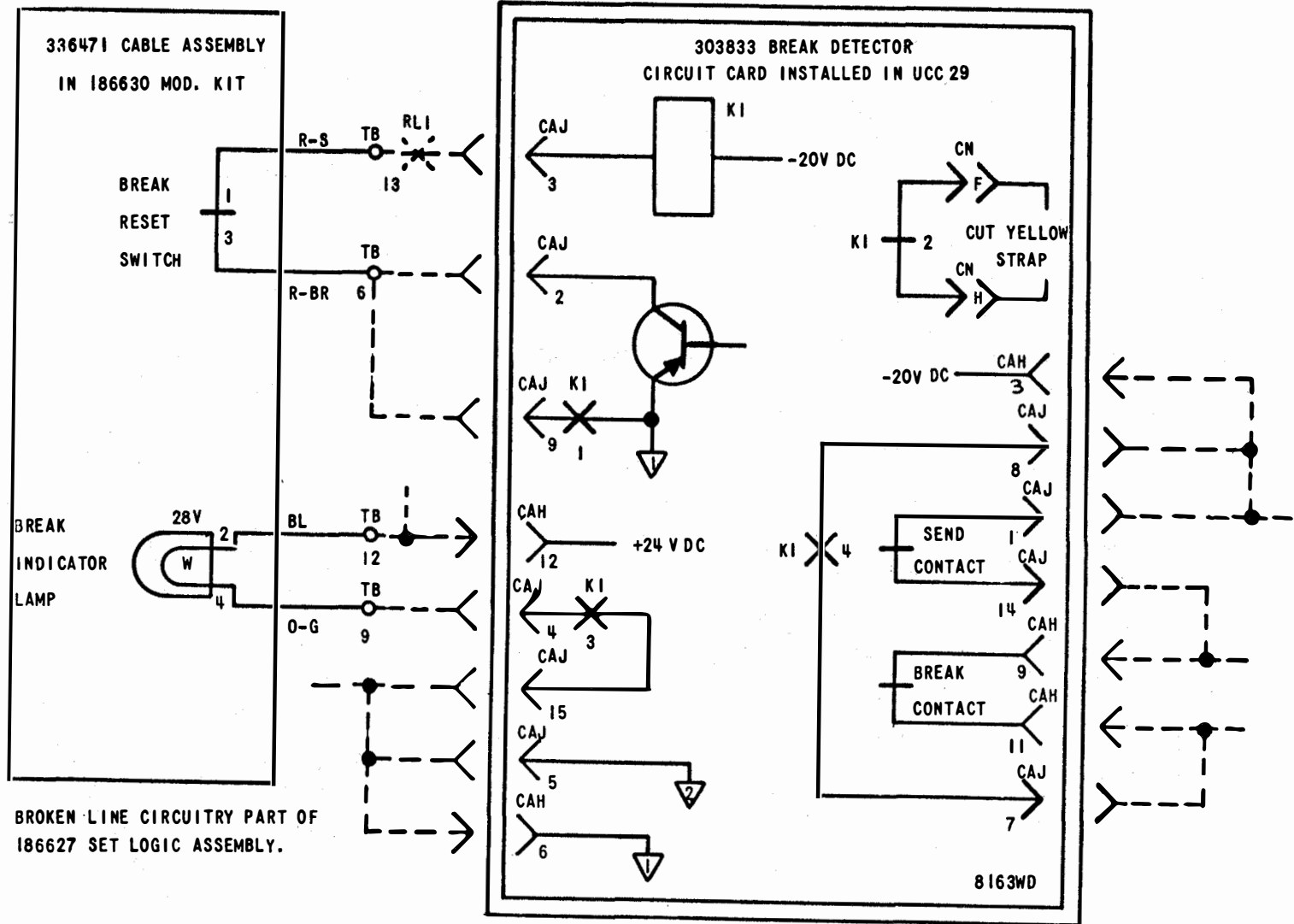Figure 1 - Break Detection With 109C or 109F Data Set 186630 Modification Kit

Figure 2 - Break Detection With 186627 Set Logic Assembly

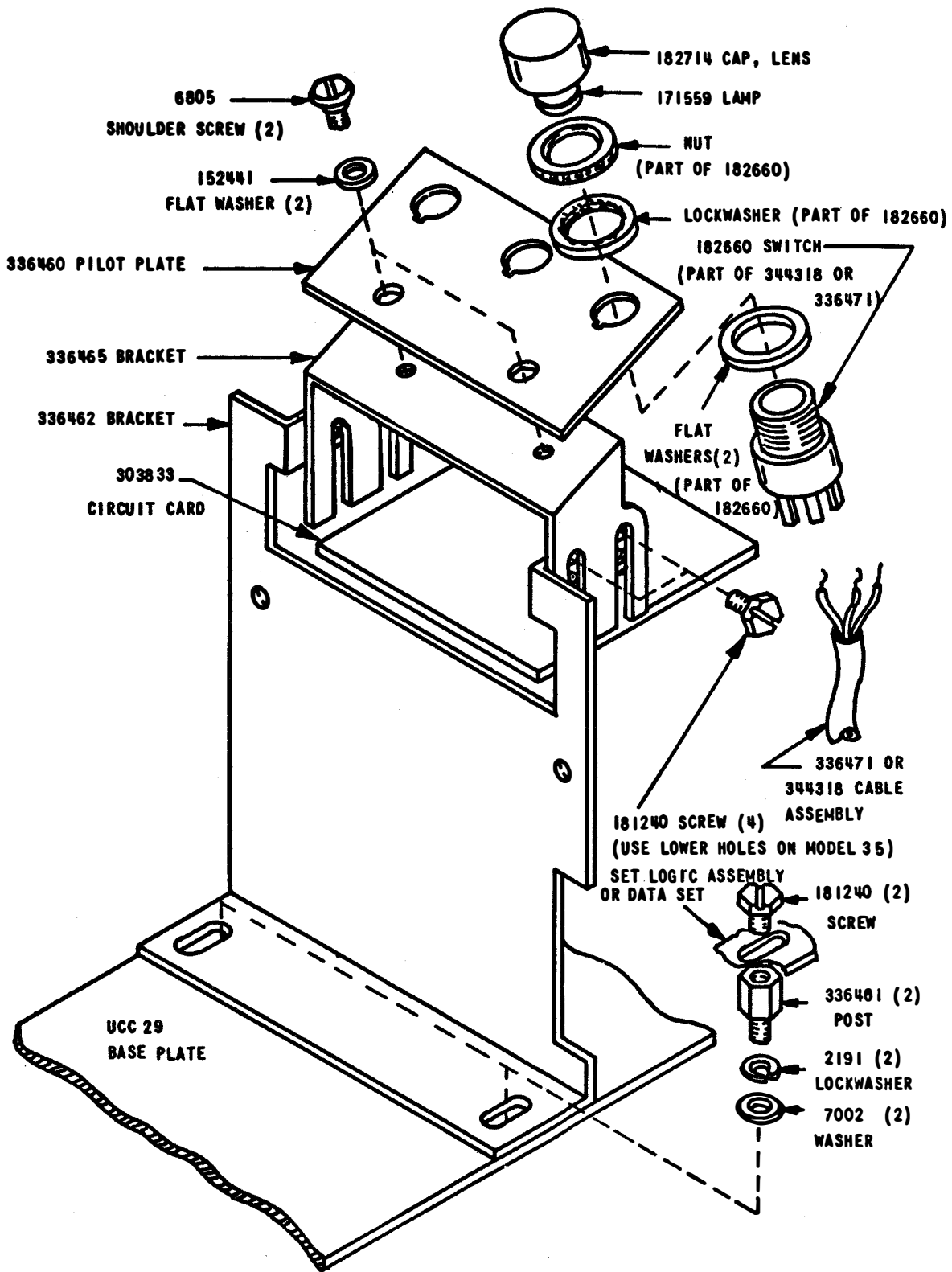**336471 CABLE ASSEMBLY IN 186630 MOD. KIT**

BREAK RESET SWITCH

BREAK INDICATOR LAMP

28V

BROKEN LINE CIRCUITRY PART OF 186627 SET LOGIC ASSEMBLY.

303833 BREAK DETECTOR CIRCUIT CARD INSTALLED IN UCC 29

CUT YELLOW STRAP

SEND CONTACT

BREAK CONTACT

8163WD

6805
SHOULDER SCREW (2)

182714 CAP, LENS

171559 LAMP

NUT
(PART OF 182660)

152441
FLAT WASHER (2)

LOCKWASHER (PART OF 182660)

182660 SWITCH
(PART OF 344318 OR
336471)

336460 PILOT PLATE

336465 BRACKET

336462 BRACKET

FLAT
WASHERS(2)
(PART OF
182660)

303833
CIRCUIT CARD

336471 OR
344318 CABLE
ASSEMBLY

181240 SCREW (4)
(USE LOWER HOLES ON MODEL 35)

SET LOGIC ASSEMBLY
OR DATA SET

181240 (2)
SCREW

336481 (2)
POST

2191 (2)
LOCKWASHER

7002 (2)
WASHER

UCC 29
BASE PLATE

Figure 3 - Installation in Model 33 Set

FACEPLATE

109C OR 109F DATA SET OR
SET LOGIC ASSEMBLY

181243 (2)
SCREW

336462 BRACKET

SET LOGIC
CIRCUIT CARD

192271 PLATE

55320

336459
PLATE

Figure 4 - 186630 Modification Kit
Break Detector and Indicator Mounting in Model 35 Sets

SPECIFICATION 50773S