

CENTRAL OFFICE ALARM SYSTEM
NJ01046
STRAPPING AND INTERCONNECTION
INSTRUCTIONS
COMMON SYSTEMS

1. GENERAL

1.01 This practice provides information for strapping and interconnections of the Central Office Alarm System, NS01046-01. It provides engineering, installation, and plant maintenance personnel with information pertaining to the strapping of the various equipment that is a part of the system. This system provides audible and visual alarm indications for the central office equipment requiring alarms. It also provides for the grouping of these alarms. The grouping arrangement, to be applied, is determined by the plant maintenance personnel. This grouping may be by types of equipment, location of the equipment, or a combination of both. Means are also provided to change the grouping from the normal or day tour arrangement to arrangements better suited for evening, night, or weekend coverage. Strapping on the various terminal strips provides the desired grouping arrangement. To properly interconnect the five subsystems; Audible, Building, Display, Grouping, and Visual which comprise the overall system, strapping is performed at four locations:

- (a) The aisle, room, or area terminal strip
- (b) The floor alarm bay (FLA)
- (c) The master office alarm bay (MO)
- (d) The building alarm terminal strip

In the succeeding paragraphs, at each location, the purpose of each unit which required strapping is explained; the required strapping is typically shown; and the responsibility for performing this strapping is listed. Table M at the end of this practice summarizes this information.

2. EQUIPMENT TO BE STRAPPED

Aisle, Room, or Area Terminal Strip NJ01046 AM

2.01 The circuits in an aisle, room, or area which require connection to the Alarm System are cabled to the NJ01046 AM terminal strip. This is the input point to the Alarm System and concentrates these alarms in an aisle to a single set per aisle. Strapping for the Audible, Visual, and Display Subsystems may be performed at this point. Illustrated in Table A is a properly documented terminal strip strapping chart. The alarm input leads are assigned to the vacant terminals, 46 to 99, 112 to 126, and 135 to 177 by the engineer. Once the assignment has been made, strapping may be specified.

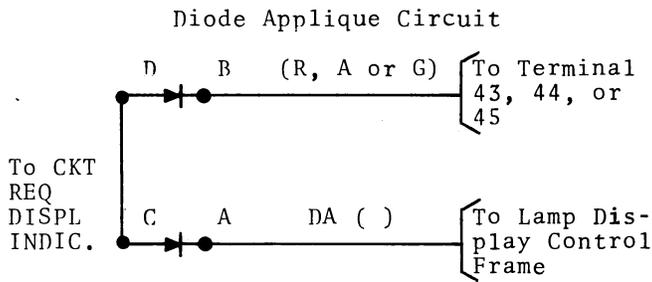
Visual Subsystem Strapping

2.02 All like designated visual leads are strapped in parallel and then connected to punching 37, 38, or 39 depending on whether a red, amber, or green aisle pilot lamp is to be lit. This strapping is performed by the installer as directed by the engineer. Example: In Table A, an amber aisle pilot lamp indication (A lead) is to be provided for T95072-35, Figure 2 and is assigned to punching 98. Therefore, punching 98 is connected to punching 44 which will operate the lamp when ground is applied to the A lead.

Display Subsystem Strapping

2.03 A display alarm indication (DA lead) may be derived at the aisle terminal strip. This is obtained from a visual lead. When an alarm requires a lamp display appearance, a diode applique circuit, Fig. 1, is mounted on the aisle terminal strip.

FIGURE 1



CIRCUIT	LETTERED TERMINALS			
	A	B	C	D
	NUMBERED TERMINALS			
1	127	128	100	101
2	129	130	102	103
3	131	132	104	105
4	133	134	106	107

Fig. 1—Diode Applique Circuit

In the event more than one circuit requires the same display indication, combination is made prior to connection to the applique circuit. The engineer specifies the strapping to be performed by the installer. On the Sample Chart, the T50095-36 visual leads (G) are strapped in common on 48, 51, 54, and 102. The applique output lead on 130 connects to 45 for the lamp indication and to the lamp display control frame in the alarm bay for 129.

Audible Subsystem Strapping

2.04 The audible leads on the terminal strip are strapped by the installer as directed by the plant force, or the plant force may specify and perform the strapping. Terminals 1 to 36 are preassigned for four classes of audible alarms; minor, major, service, and power failure. Terminal 40 is used for alarm system alarms. Each class, excluding the alarm system alarms which are common to the office, is divided into nine functional groups. Hence, F, DL, SV, and PF 1-9 each. These are hereafter called the "36 class leads." The telephone company plant is responsible for determining the number of functional groups and the required strapping of the equipment requiring

alarms to the proper audible functional group. In the example, minor groups 2, 3 and service 3 have been selected by the customer.

2.05 *Functional Grouping:* Before the audible leads are strapped, clear understanding of the meaning of a "FUNCTIONAL GROUP" is necessary. A functional group may refer to either type of equipment: telegraph carrier, radio, etc, or the equipment in an area. Since an audible alarm is only provided on a functional group basis, it is important that due consideration to this item be given when performing strapping. Paragraphs 2.06 and 2.07 provide typical examples.

2.06 *Functional Grouping by Type:* Assume a toll terminal floor with carrier, telegraph, and multiplex intermingled. Each type of equipment has its own maintenance and operating force and requires a major alarm. So that each maintenance group will only answer its own alarm, these three types of equipment are assigned to different functional groups—say major group 1, 2, and 3, respectively. Accordingly, the carrier major alarm leads in each aisle would be made common and strapped to terminal 10. In a similar fashion the telegraph and multiplex would tie to terminal 11 and 12, respectively.

2.07 *Functional Grouping by Area:* Now assume that the equipment is segregated by area on a floor. They would again strap to the same numbered punchings but the strapping would occur on different terminal strips, not the same one. In summary, equipment in the same aisle, assigned to the same functional group, is strapped together and then connected to the appropriate terminal corresponding to the type of alarm (major, minor, etc) and functional group. This completes the strapping requirements at an aisle, room, or area terminal strip.

Floor Alarm Bay Strapping

2.08 The primary purpose of strapping at the floor alarm bay is to concentrate the sets of alarm leads from each aisle, room, or area to one set per floor.

2.09 *Aisle Pilot Control and Grouping Panel NJ01046E:* This unit is a replacement of the floor audible alarm control panel NJ01046AH and the aisle pilot lamp control panel NJ01046AJ. The visual section consists of a 285A terminal strip

TABLE A

AISLE I5

(AIS T.S. LOC NR RR 435.66)

25IG AISLE T.S. ASSIGNMENT TABLE TO BE USED FOR JOB RECORD
(TELCO TO PROVIDE INFORMATION ON STRAPPING AUDIBLE LEADS FOR SPECIFIC FUNCTIONAL ALARM GROUPS)

PCHG	CIRCUIT DRAWING	FIG.	ALM LD DESIG	PCHG FROM	STRP TO	PCHG	CIRCUIT DRAWING	FIG.	ALM LD DESIG	BAY	PCHG FROM	STRP TO	NOTE	PCHG	CIRCUIT DRAWING	FIG.	ALM LD DESIG	BAY	PCHG FROM	STRP TO	NOTE	PCHG	CIRCUIT DRAWING	FIG.	ALM LD DESIG	BAY	PCHG FROM	STRP TO	NOTE
1			F-1			46	T-50095-36	81	F	435.51	2	50	1	91	T-95072-35	3	F	434.52	3	93		136	T-95072-35	1	A(-)	434.52		137	
2			F-2	46	47				G4		49	178	1	92		3	R		43	94		137							
3			F-3	91	48				G		102	51	1	93		2	F+		91	95		138							
4			F-4		49				G5		52	47	1	94		2	R+		92	96		139							
5			F-5		50				DL, F	435.55	46	108	1	95		2	F-		93			140							
6			F-6		51				R, G		48	54	1	96		2	R-		94	128		141							
7			F-7		52				GRD		49	55	1	97		2	SV		21			142							
8			F-8		53				F	435.58			1	98		2	A		44			143							
9			F-9		54				G		51		1	99								144							
10			DL-1		55				GRD		52		1	100								145							
11			DL-2		56									101			CKT 1 (CH BNK)		101	111	1	145							
12			DL-3		57									102					100	1	146	T-95072-35	1	A(-)	434.52		147	1	
13			DL-4		58									103					103	48	1	147	T-50225-31	2	A(-)	435.51	146	148	1
14			DL-5		59									104					102	1	148		2	A(-)	435.55	147	149	1	
15			DL-6		60									105								149		2	A(-)	435.58	148		1
16			DL-7		61									106								150							
17			DL-8		62									107								151							
18			DL-9		63									108								152							
19	NT-01046-34	5	SV-1		64									109					434.52	50	110	1	153						
20			SV-2		65									110								154	T-95072-35	1	A(SV)	434.52		155	
21			SV-3	97	66									111								155	T-55348-31	7	A	434.53	154		
22			SV-4		67									112								156							
23			SV-5		68									113								157							
24			SV-6		69									114								158							
25			SV-7		70									115								159							
26			SV-8		71									116								160							
27			SV-9		72									117								161							
28			PF-1		73									118								162							
29			PF-2		74									119								163	T-95072-35	1	A(+)	434.52		164	
30			PF-3		75									120								164		10	A(+)	435.66	163		
31			PF-4		76									121								165							
32			PF-5		77									122								166							
33			PF-6		78									123								167							
34			PF-7		79									124								168							
35			PF-8		80									125								169							
36			PF-9		81									126								170							
37			R		82									127								171							
38	NT-01046-34	24	A	43	83									128								172							
39			G	45	84									129								173							
40	NT-01046-34	12	AB		85									130								174							
41					86									131								175							
42					87									132								176							
43			APR	37	92									133								177							
44	NT-01046-34	25	APA	38	98									134															
45			APG	39	130									135															
178			GRD	47																									
179	NT-01046-34	25	B		180																								
180			ABS		179																								

with diodes across the inner terminals. The outer terminals are for interconnection.

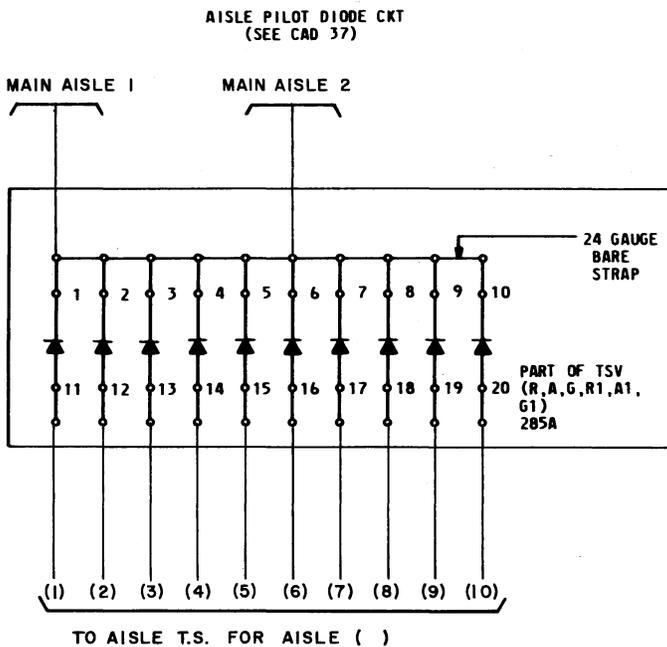


Fig. 2—Aisle Pilot Diode Circuit

Six 285A terminal strips are provided on the unit: two each for red, amber, and green. These are designated TSR, TSR1, TSA, TSA1, TSG, and TSG1, respectively. Aisles which are common to the same main aisle shall be strapped on punching 1 to 10 as indicated in Table B.

Strapping on this unit is performed by the installer as directed by the engineer.

2.10 NJ01046AJ Aisle Pilot Lamp Control Panel (MD): This panel substitutes diodes for the aisle pilot relays previously required. Each diode serves a lamp color associated with an aisle. Therefore, each diode output is paralleled within the same main aisle by installer strapping to the adjacent diode. One lead, MR, MA, or MG is cabled to the appropriate main aisle pilot relay. A typical arrangement is shown in Table C.

Strapping on this unit is performed by the installer as directed by the engineer.

NJ01046AH Floor Audible Alarm Control Panel (MD)

2.11 Strapping on the floor audible alarm control 60 pin connector, NS01046-01, Fig. 31, is provided by the installer exactly as shown in Fig. 31. This connector (12 per panel) parallels the audible alarm leads (less ABS) on a floor and yields one set of outputs (the 36 class leads) for a floor. If a connector is removed, it will disable (for maintenance purposes) it and all *preceding* connectors for the three functional audible alarm groups with which it is associated. A typical arrangement is shown in Table D.

2.12 NJ01046B Miscellaneous Relay Unit: The NJ01046B Miscellaneous Relay Unit and the NJ01046C ABS Alarm Unit, replace the J93009B Alarm Relay Cabinet. The purpose of the miscellaneous relay unit is to include on one unit a complete set of basic alarm relays. These consist of one set of relays for one audible functional group and a set of main aisle pilot relays. Also, space is available for a tone bar or alarm battery alarm relay.

2.13 NJ01046C ABS Fuse Alarm Unit: The purpose of this unit is to indicate alarm system fuse alarm problems. Connection is provided to the fuse alarm circuit SD-95072-01, Fig. 11, 12, and 13. The unit is prestrapped on terminal strip B, punchings 3 to 12 for relays 1 to 10, respectively. If the fuse panels being alarmed are in different aisles, the straps should be removed for these particular relays. Strapping arrangements are as shown in the preceding section.

2.14 J93009B Miscellaneous Alarm Relay Unit (MD for NJ01046 Alarm System): This unit has the capacity to mount 48 miscellaneous alarm relays. The first 16 mounting positions are preassigned for relays that have up to 12 contacts. Positions 17 to 48 are for use with relays requiring 9 or less contacts. Spare positions among the first 16 can be used to mount relays with 9 or less contacts to avoid overflowing to a second J93009B relay unit. These relays are installer connected to the unit local cable which is wired to the rear of three BB6A terminal strips mounted on a bar at the top of the unit. On the front of these three terminal strips the engineer specifies the strapping shown on the interconnection figures. The installer connects the specified straps.

TABLE B

TYPICAL ASSIGNMENT AISLE PILOT CONTROL AND GROUPING PANEL

Aisle Pilot Control	Aisle No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17					
& Grouping Panel	No. 1	AUD ALM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
		TERM ASN	or	or	or	or	or	or	or	or	or	or	or										
			21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
	Assignment																					
	To Main Aisle	(1)RR(A)9-1,(G)10-1,(R)11-1											(2) FG 1- PLT EA										
	No. 2	Aisle No.	21	22	23	24	25	26	27	28	29	30	31										
		AUD ALM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
		TERM ASN	or	or	or	or	or	or	or	or	or	or	or										
			21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
	Assignment																					
	To Main Aisle												(3) FG 2 PLT EB										
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10		
		TS R,A,G											TS R1,A1 G1										
	Col. A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W		

NOTES:

- A. In Col. A indicate the number of the unit equipped. When 40 aisles are exceeded, locate 3rd etc. unit miscellaneous to avoid cable congestion and indicate location.
- B. In Col. N, P, U, V, & W aisle numbers for aisles 18, 19, 20, 32 & 33 are omitted. This indicates future aisles not connected to alarm system.
- C. (1)RR(A)9-1,(G)10-1,(R)11-1 indicates main aisle 1 & position of associated relay in J93009B Alarm Cabinet.
- D. (2) FG1- PLT EA indicates main aisle 2 & position of associated relays in NJ01046B unit.
- E. In Col. H & J for unit 1, strap omission between Terminal 7 & 8 indicates strap cut by installer.
- F. In Col. B & T strap connection indicates main aisle overflow to a second unit and strap added by installer.
- G. In Col. A AUD ALM TERM ASN indicates 36 class lead assignment to associated connector terminal from each aisle Terminal Strip.

TABLE C

TYPICAL-TERMINATION RECORD TABLE AISLE PILOT LAMP CONTROL FRAME							
MAIN AISLE	ROW	TERMINAL					
		A	B	C	D	E	F
		FOR LEADS DESIG R	FOR LEADS DESIG MR	FOR LEADS DESIG A	FOR LEADS DESIG MA	FOR LEADS DESIG G	FOR LEADS DESIG MG
	1	AISLE 1 TS		AISLE 1 TS		AISLE 1 TS	
	2		RR POS 8-1		RR POS 9-1		RR POS 24-1
	3	AISLE 2 TS		AISLE 2 TS		AISLE 2 TS	
	4						
	5	AISLE 3 TS		AISLE 3 TS		AISLE 3 TS	
	6						
	7	AISLE 4 TS		AISLE 4 TS		AISLE 4 TS	
	8		RR POS 10-1		RR POS 11-1		RR POS 25-1
PWR R	9	PWR P. 1					
PWR RM	10		RR POS 28-1				
PWR RM	11	PWR P. 2					
PWR RM	12						
	13						
	14						
	15						
	64						
	ROW	A	B	C	D	E	F

TABLE D

TYPICAL ASSIGNMENT - AUD ALM CONT PANEL FROM AISLE TS

FL AUD ALM CONT FR	AISLE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	X
NO. 1	TERM NO.	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	X
NO. 2	AISLE NO.	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
	TERM NO.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
NO. 3	AISLE NO.	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
	TERM NO.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

The required interconnections and unit strapping are illustrated in Tables E and F. The work is performed by the installer as directed by the engineer.

2.15 NJ01046 AK Lamp Display Control Terminal Strip: This terminal strip performs three functions:

- (a) It distributes the lamp display relay output leads for a floor. Fixed strapping provided by the shop is used for this portion of the TS.
- (b) The DA-D terminal area combines lamp display input leads from the various aisles to one point in the floor.

(c) While the alarm tie cable area of the terminal strip does not require strapping to provide access to the tie cable area, it may be necessary to strap from the DA-D area to a tie cable pair.

2.16 The fixed lamp display output is arranged so that a maximum of five lamps are assigned to a single lamp display relay contact. Since the lamp current flow approaches 100 ma, assignment of more than five lamps per contact must be avoided to prevent relay contact damage.

2.17 As indicated in 2.15, item b combining of the various DA-D lead indications are performed on this area of the terminal strip. These interconnections are made by the installer as specified by the engineer. On the filled-out sample table following, it is desired to indicate 17E toll

TABLE E

TYPICAL TABLE FOR USE OF NJ01046B & C & D CODES										
FUNCTIONAL GROUP NUMBER	MTG PLT LOC	SUFFIX	EQUIPMENT LISTS	ALM INPUTS COMB	TONE BAR MULT (PF)	DA/ FLOOR MULT	DA () CONN	AB CONN	THIS FMNCT GR CONN TO ESS	NOTE
-	EM	C-1	L-1							
-	EL		L-1, 9L-2							
-										
8	EJ	B-1	L-1							
-										
6	EG		L-1							
-										
4	EE		L-1, 5						YES	
3-2	ED		L-1							
3-1	EC		L-1							
2	EB		L-1, 2, 4						YES	
1	EA		L-1, 2, 3				(2)			
COL A	B	C	D	E	F	G	H	J	K	L

NOTES:

- IN COL A INDICATE THE NUMBER OF THE FUNCTIONAL GROUP EQUIPPED. 3-1, 3-2 INDICATES FUNCTIONAL GROUP 3 HAS MORE THAN 3 AUDIBLE ALARM APPEARANCES. THAT -1 IS THE FIRST GROUP. THAT -2 IS THE SECOND GROUP.
- IN COL B INDICATE PLATE LOCATION OF UNIT. LEAVE BLANK FOR UNEQUIPPED SPACE.
- IN COL C INDICATES NJ01046 CODE SUFFIX.
- IN COL D INDICATES LIST STRUCTURE.
- IN COL E SHOWN MULTIPLYING OF ALARM INPUT LEADS PF, SV, F, DL WHEN MORE THAN 3 ALARM APPEARANCE ARE REQUIRED.
- IN COL F INDICATE WHICH FUNCTIONAL GROUPS (IF ANY) ARE CONNECTED TO OPERATING ROOM TONE BAR RELAY. UNDER HEADING SHOWN CLASS OF CONNECTED ALARM. IN EXAMPLE SHOWN ONLY POWER FAILURE ON FUNCTION GROUPS 1, 2 & 6 ARE CONNECTED TO TONE BAR.
- IN COL G INDICATE COMBINING OF LAMP DISPLAY INPUT LEAD DA & SHOWN FLOOR ASSIGNMENT IN ().
- IN COL H INDICATE USAGE AND CONNECTION OF DA () LEAD.
- IN COL J SHOWN INTERCONNECTION OF AB LEADS BETWEEN A3 & A6 RELAYS.
- IN COL K INDICATE FUNCTIONAL GROUP (S) CONNECTING TO NJ01046AE UNIT.
- IN COL L INDICATE BY A WIRING LIST NOTE IF A3 RELAY STRAPPING IS CUT.

TABLE F

ASSIGNMENT OF 'DA' LEADS FROM AISLE TERMINAL STRIP OR ALARM TIE CABLE													
PCHG A ASGN			PCHG B ASGN										
CKT	PCHG A	ASSOC DISPL LP	PCHG B	DA-D LD FROM		CKT NO ASSOC WITH PCHG A	PCHG B	DA D LD FROM		CKT NO ASSOC WITH PCHG A	PCHG B	DA D LD FROM	
				AIS TS	PCHG			AIS TS	PCHG			AIS TS	PCHG
1	A-53	MSC 7TH FLOOR	B-53	1	127	1	B-55	7	127	3	B-57		
				6	127								
2	A-54	PLB 7TH FLOOR	C-53	2	127	1	C-55				C-57		
				11	127								
3	A-55	17E BD 7TH FL	D-53	3	127	1	D-55				D-57		
				12	127								
4	A-56		E-53	4	127	1	E-55				E-57		
				9	127								
5	A-57		F-53	5	127	1	F-55				F-57		
6	A-58		B-54	10	127	2	B-56				B-58		
7	A-59		C-54				C-56				C-58		
8	A-60		D-54				D-56				D-58		
			E-54				E-56				E-58		
			F-54				F-56				F-58		

test board floor 7. Therefore, from the aisle associated with the 17E boards, Aisle 7, Pchg 127, a cable is run to the DA-D TS, circuit 3 location B55 associated with A55 the circuit for the 17E indication. If the terminal strip is located in the master alarm bay, the connection is run directly to the lamp display relay, or if on another floor, connection is made via a tie cable assignment.

Two arrangements are available, an eight circuit layout in the master bay or a 20 circuit input for a floor alarm bay. Again, connection is made by the installer as directed by the engineer.

2.18 NS01046-01, Sheet D-1, Note 112 outlines overall application of tie cable usage.

(a) "To provide inputs (DA leads) to the lamp display relay panel in the Master Office Bay from each floor." This will cause an assigned lamp to light in all lamp displays in the office. DA leads may be derived at the following equipments:

- (1) Aisle Terminal Strip
- (2) Main Pilot (R), (A), or (G) Relay
- (3) Main Pilot Power (MR) or (MG) Relay
- (4) Building Alarm Relay Panel Output

(5) Aisle Pilot Lamp Control Unit associated with Power Alarms. (MD)

In general, the DA leads on the output side of the main aisle pilot relays will be strapped together, and one lead run to the tie cable punchings on the lamp display control unit, for the floor. This lead connected in tie cable to the master office bay is assigned to a particular LD relay which will, when operated, indicates the floor on which an alarm occurs.

If there is equipment on the floor for which a lamp indication is desired in addition to floor identification, DA leads can be derived at the aisle terminal strip(s) using the diode applique circuit. In addition, if trouble occurs in the power alarm or other circuits, DA leads may be obtained from the main pilot power relays, the aisle pilot lamp control unit associated with power alarms, or at a room terminal strip associated with power or specific equipment. In all cases, these leads are assigned at the lamp display control unit for the particular floor and run as indicated in the previous paragraph.

(b) "Group all AB relays together to indicate ABS alarm." An ABS supply failure must activate the ABS subsets on all floors. To parallel all AB relays on all floors, all inputs are multiplied at the master office audible alarm combining unit or master office unit using the tie cable

Functional Groups" are established. Assume a thru carrier main station with a dummy functional group for power and another for the transmission equipment. If a third audible alarm functional group with audible devices is provided during the day coverage, the groups are combined to signal the personnel on duty. This arrangement assumes that the relays and audible devices for functional groups one and two are **NOT** furnished. By changing functional group combining, the alarms can be silenced during unattended periods. This will require connection to a suitable telemetry or alarm sending circuit during the unattended mode.

2.20 Master Office Audible Alarm Combining Frame NJ01046AG-1 (MD):

The audible alarms are combined by floors, or area, where there is more than one floor or area associated with an alarm system. This combining is made at the master office audible alarm combining frame unit. All the cabling to this frame is terminated on the rear and the vertical row strapping is made on the front of the panel using jumper clips. Row A is cabled to the master office grouping relay panel NJ01046AD-1. Rows B thru J are cabled to the first thru eighth floors or areas associated with the alarm system and Row K is wired to another combining frame if there are more than eight floors or areas associated with the alarm system. The strapping on this frame provides access to the audible alarms to permit day, evening, or night grouping. This strapping is made by the installer as directed by the engineer.

TABLE H

NJ01046A-1 OR NJ01046AN-1	NJ01046AG-1	TERMINAL ROWS ASSIGNED							
		TO FIG 5 & 62			TO FIG 12				
		LOCATION		ASS REL IN ALM UNIT					
TERM ROW	FL OR ZONE	BAY	REL POS	BAY	TERM				
FIRST COMBINING FRAME NJ01046A-1	A								
	B								
	C								
	D								
	E								
	F								
	G								
	H								
	J								
	SECOND COMBINING FRAME NJ01046AN-1	A							
		B							
C									
D									
E									
F									
G									
H									
J									
K									

2.21 Master Office Grouping Relay Panel NJ01046AD-1 (MD):

As mentioned previously, the grouping of the alarms may be changed from the normal or day tour arrangement to arrangements better suited for evening, night, or weekend coverage. The strapping for the day and evening tours is made at the master office grouping relay panel NJ01046AD-1. The grouping relay panel has two terminal strips TSA and TSB. The cabling from the master audible alarm grouping frame NJ01046AF-1, terminates on TSA. The strapping is made on TSB. This strapping is made by the plant forces or by the installer as directed by the plant. Table J following provides this information.

TABLE J

TERMINAL STRIP "B" STRAPPING								
TEL CO SHALL PROVIDE STRAPPING AS REQUIRED IN ORDER TO GROUP ONE "AUDIBLE FUNCTIONAL GROUP" TO ANOTHER "AUDIBLE FUNCTIONAL GROUP". STRAPS SIMILARLY DESIGNATED PCMG TOGETHER FOR EITHER THE DAY GROUPING OR THE EVENING GROUPING OPERATION.								
AUDIBLE FUNCTIONAL GROUP	DAY GROUP				EVENING GROUP			
	PF	MJ	MN	SV	PF	MJ	MN	SV
1	A13	B1	C1	D1	E1	F1	G1	H13
2	A2	B2	C2	D2	E2	F2	G2	H2
3	A3	B3	C3	D3	E3	F3	G3	H3
4	A4	B4	C4	D4	E4	F4	G4	H4
5	A5	B5	C5	D5	E5	F5	G5	H5
6	A6	B6	C6	D6	E6	F6	G6	H6
7	A7	B7	C7	D7	E7	F7	G7	H7
8	A8	B8	C8	D8	E8	F8	G8	H8
9	A9	B9	C9	D9	E9	F9	G9	H9

2.22 Master Audible Alarm Grouping Frame NJ01046AF (MD):

The strapping for the night tour is made on the master audible alarm grouping frame NJ01046AF-1. There are four punchings for each of the nine groups in the four classes of groupable alarms. The four terminals for each group is strapped in the shop. Each of the nine groups is connected to the master office grouping relay panel NJ01046AD-1. A programmable connector is furnished and required strapping is made on this connector. The switching from the day, to evening, to night grouping is automatic or may be done manually at the automatic and manual alarm grouping control panel NJ01046AB-1 switch. This strapping is made by the plant forces or by the installer as directed by plant. A typical connection is shown in Fig. 3.

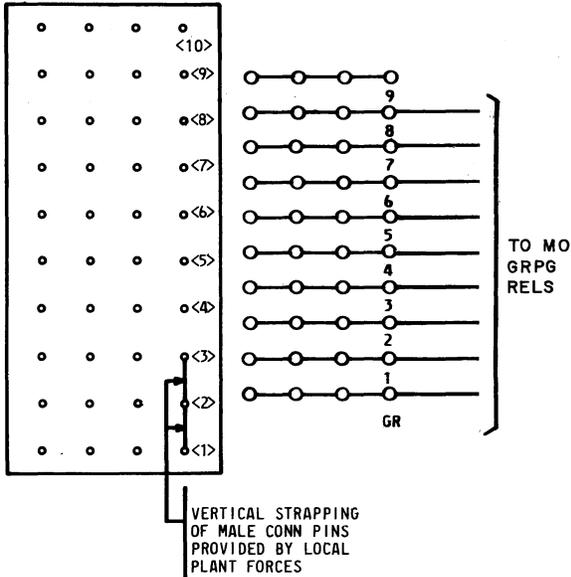


Fig. 3—Group Connection

Master Office Control Panel NJ01046A-1

2.23 This unit is a replacement of the Master Office Audible Alarm Combining Terminal Strip (NJ01046AG-1), Master Office Grouping Relay Panel (NJ01046AD-1), Automatic and Manual Alarm Grouping Relay Panel (NJ01046AB-1), and the Audible Alarm Grouping Panel (NJ01046AF). The functions described in 2.20, 2.21, and 2.22 are now performed by this unit. Consolidation of the floor or area alarms is performed on the A and B terminals strips as shown in Table H. Because of mechanical space limitations, the NJ01046A unit

will accommodate seven floors on areas rather than the eight floors of the NJ01046AG unit. If the alarm system exceeds these capacity limitations, an NJ01046AN unit may be used to accommodate the overflow.

Day and evening program grouping is performed in a manner similar to the chart of Paragraph 2.21. However, the terminal numbers are different. These are listed in Table K.

TABLE K

STRAPPING OF TERMINAL STRIP "C" AND "D" ON NJ01046A-1
 TEL. CO. SHALL PROVIDE STRAPPING AS REQUIRED IN ORDER TO GROUP ONE "AUDIBLE FUNCTIONAL GROUP" TO ANOTHER "AUDIBLE FUNCTIONAL GROUP" STRAP SIMILARLY DESIGNATED TERMS TOGETHER FOR EITHER THE DAY GROUPING OR THE EVENING GROUPING OPERATION.

AUDIBLE FUNCTIONAL GROUP	DAY GROUP (TSC)					EVENING GROUP (TSD)				
	PF	UJ	UN	SV	Y	FF	UJ	UN	SV	X
1	A11	B11	C11	D11	E11	A1	B1	C1	D1	E1
2	A12	B12	C12	D12	E12	A2	B2	C2	D2	E2
3	A13	B13	C13	D13	E13	A3	B3	C3	D3	E3
4	A14	B14	C14	D14	E14	A4	B4	C4	D4	E4
5	A15	B15	C15	D15	E15	A5	B5	C5	D5	E5
6	A16	B16	C16	D16	E16	A6	B6	C6	D6	E6
7	A17	B17	C17	D17	E17	A7	B7	C7	D7	E7
8	A18	B18	C18	D18	E18	A8	B8	C8	D8	E8
9	A19	B19	C19	D19	E19	A9	B9	C9	D9	E9

The strapping for the night tour is accomplished by inserting shorting pins in the four XY grouping matrices. (See Fig. 4.) The control groups 1 to 9 are connected and assigned on horizontal rows with the shorting pins on vertical columns. This connection is performed by the plant forces or by the installer as directed by the plant.

NOTE:

CONTROL GROUPS STRAPPED COMMON (4,6,9); (7,8); (3,5); (1,2).

X - SHORTING PINS

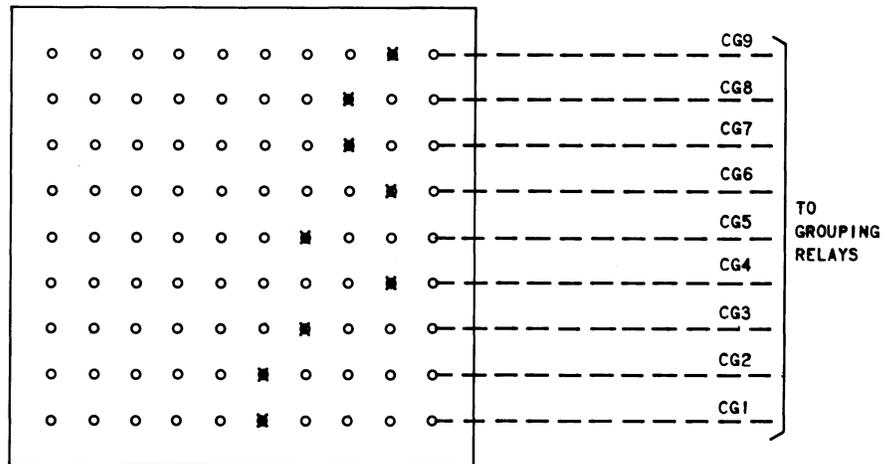


Fig. 4—XY Matrix Connection

SECTION 801-601-181

Strapping at Contractor Furnished Building Alarm Terminal Strip

2.24 Fig. 37 and associated sheet Note 1 on NS01046-01 refer to grouping of building alarms at this location. In general, one of two conditions will occur. Either all building alarms will be brought out individually or some or all of them may be grouped together. For example, there are five ventilating fans at one location, these could

and should be made common at the building alarm terminal strip and only one alarm indication brought out to the central office alarm system. If the fans are dispersed throughout the building, multiplying would be undesirable, and they should be separately alarmed. The associated alarm cut-off keys and lamps may be either centrally located or provided near the equipment served. This strapping is performed by the plant force or by the installer as directed by the plant force.

TABLE I

TYPICAL BLDG ALM TERM STRIP ASSIGNMENT					
BLDG ALM	TS TERM NO.	REL CKT AND BA & GRD NO.	VIS P/L LOC	FL NO	AUDIBLE CLASSIFICATION
BOILER	1 & 2	1	AIS 22	1	
AIR COND COMP	3 & 4	1	AIS 22	1	
SLUMP PUMP H.WATER	5 & 6	2	AIS 1	BASE	
ENG FRESH AIR TRANS	7 & 8	3	AIS 4	1	
WATER TNK LOW PR	9 & 10	4	AIS 8	1	

TABLE M

<u>LOCATION</u>	<u>EQUIPMENT</u>	<u>INFORMATION PROVIDED BY</u>	<u>STRAPPED BY</u>
AISLE, ROOM, OR AREA TERMINAL STRIP	NJ01046AM	TEL CO PLANT +ENGINEER	PLANT AND INSTALLER
FLA BAY OR CMO	NJ01046E	ENGINEER	INSTALLER
	NJ01046AH	NS01046-01	SHOP
	J93009B NJ01046B, C, D	ENGINEER ENGINEER	INSTALLER INSTALLER
	NJ01046AK	ENGINEER & NS01046-01	INSTALLER AND SHOP
CMO BAY	NJ01046AD	TEL CO PLANT	PLANT
	NJ01046AG	ENGINEER	INSTALLER
	NJ01046AF	TEL CO PLANT	PLANT
	NJ01046A	ENGINEER & TEL CO PLANT	PLANT
MISC	BLDG ALM T.S.	TEL CO PLANT	PLANT

*Where plant is shown alone, this indicated they perform the work or arrange for work to be done by the installer.

+The word "ENGINEER" as used in Table M refers to the Western Electric Engineer preparing the specification.