I. GENERAL

All standard accepted wiring practices apply to the IC300 Intercom. Shields should be terminated only at the end going to the intercom unit. Do not connect the shield going to the menu board with the metal on the menu board or a ground loop can be formed, thereby causing excessive hum on the incoming audio. When using the music input, do not connect the shield from the music source to the IC300 intercom unit.
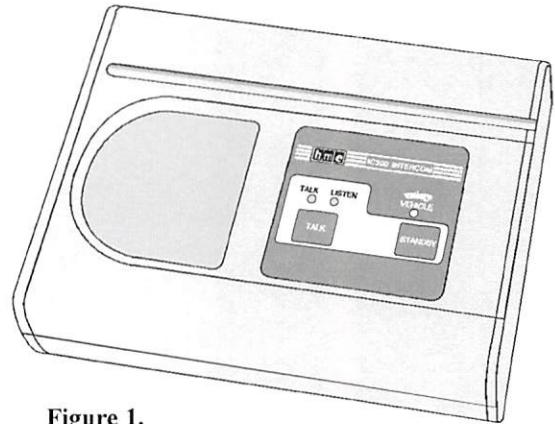
Figure 1.
IC300 Intercom top view

II. INSTALLATION PROCEDURE

Refer to Figures 1, 2 and 3 for controls, adjustments and DIP switches, and Figures 4 and 5 for wiring connections.

1. Remove two screws retaining the access cover for DIP switches and volume controls.

Remove screw

NITE VR-2
DAY VR-1
CEILING INCOMING VR-5
CEILING ALERT VOLUME VR-6
MAIN ALERT VOLUME VR-4

Access cover

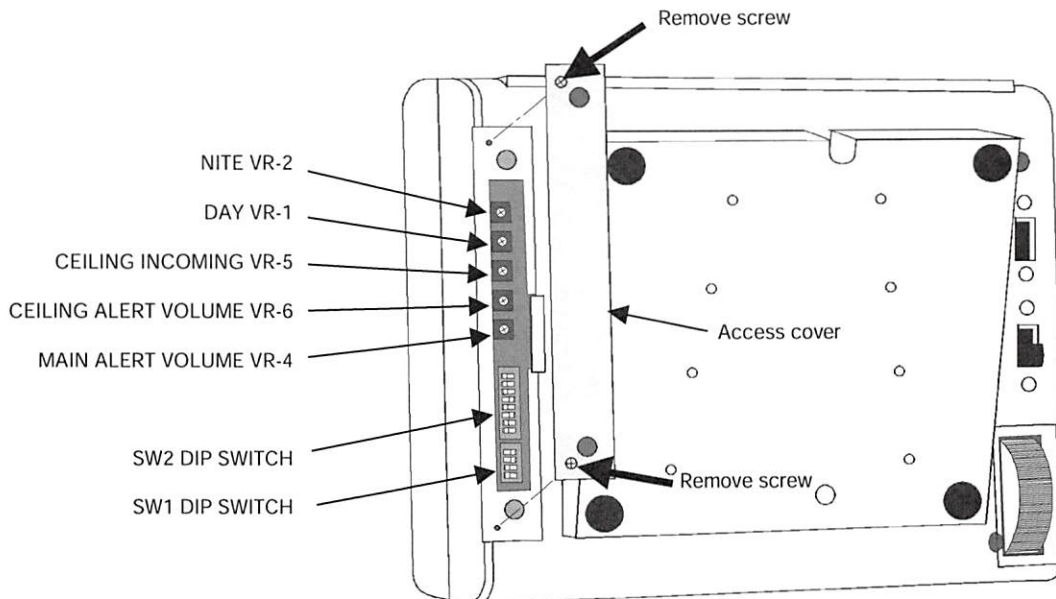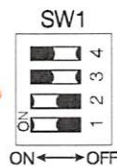SW2 DIP SWITCH
SW1 DIP SWITCH

Remove screw

Figure 2.   IC300 Intercom bottom view

2. Set the SW1 DIP switches for split or combo applications at the menu board.

Split
For separate Outside Microphone
#1 & #2 should be ON
#3 & #4 should be OFF

SW1
ON ← → OFF

Combo
For Speaker or Horn only
#1 & #2 should be OFF
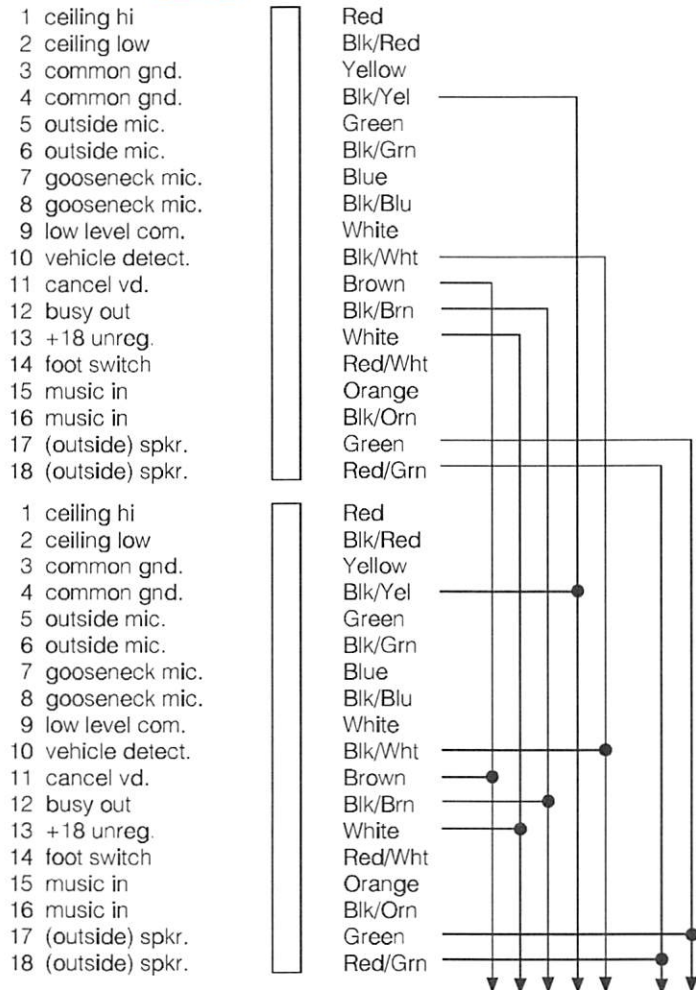#3 & #4 should be ON

SW1
ON ← → OFF

IC 300

Pin-Outs and Cable Color Codes

J1 = 18-pin Molex connector (Installed with wires pointing up)

Pin 1 - Red ⎬ Ceiling speaker – Hot   **NOTE:** Pins 1 and 2 are tied together.
Pin 2 - Black/Red
Pin 3 - Yellow   Ceiling speaker – Ground
Pin 4 - Black/Yellow   Outside microphone shield (Low level input ground)
Pin 5 - Green   Outside microphone audio in from menu board
Pin 6 - Black/Green   Outside microphone audio in from menu board
Pin 7 - Blue   Optional gooseneck microphone audio in
Pin 8 - Black/Blue   Optional gooseneck microphone audio in
Pin 9 - White   Low level common ground
Pin 10 – Black/White   Vehicle detect input – Requires pulse or presence closure to +18VDC
                         (available on pin 13) to activate
Pin 11 – Brown   Cancel vehicle detect – Requires a ground input to operate
Pin 12 – Black/Brown   Busy output buss – Applies to daisy chain
Pin 13 – White   +18VDC unregulated out – Used for vehicle detection trigger and/or may power
                         sonar vehicle detector
Pin 14 – Red/White   Foot switch key buss – Switches to pin 3 or 4
Pin 15 – Orange   Music input
Pin 16 – Black/Orange   Music input
Pin 17 – Green   Outside speaker or Combo speaker/microphone
Pin 18 – Red/Green   Outside speaker or Combo speaker/microphone

Optional - Not used if you have a Combo speaker/mic (handwritten note pointing to pins 4, 5, 6)

From External Detector (handwritten note pointing to pins 9, 10)

Multiple IC300 Intercom Unit Wiring Diagram

1 ceiling hi	Red
2 ceiling low	Blk/Red
3 common gnd.	Yellow
4 common gnd.	Blk/Yel
5 outside mic.	Green
6 outside mic.	Blk/Grn
7 gooseneck mic.	Blue
8 gooseneck mic.	Blk/Blu
9 low level com.	White
10 vehicle detect.	Blk/Wht
11 cancel vd.	Brown
12 busy out	Blk/Brn
13 +18 unreg.	White
14 foot switch	Red/Wht
15 music in	Orange
16 music in	Blk/Orn
17 (outside) spkr.	Green
18 (outside) spkr.	Red/Grn

1 ceiling hi	Red
2 ceiling low	Blk/Red
3 common gnd.	Yellow
4 common gnd.	Blk/Yel
5 outside mic.	Green
6 outside mic.	Blk/Grn
7 gooseneck mic.	Blue
8 gooseneck mic.	Blk/Blu
9 low level com.	White
10 vehicle detect.	Blk/Wht
11 cancel vd.	Brown
12 busy out	Blk/Brn
13 +18 unreg.	White
14 foot switch	Red/Wht
15 music in	Orange
16 music in	Blk/Orn
17 (outside) spkr.	Green
18 (outside) spkr.	Red/Grn

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IC 300

VEHICLE DETECTOR

Common — bk/wh

Normally open — wh

bk/yl

Veh Det
Ground
Greet
Greet

TIMER

NOTE: The System 30 Timer must be set for **POSITIVE** detection.

CEILING SPEAKER

rd
yl

gn
rd/gn

OUTSIDE SPEAKER/ MICROPHONE

Wire Color Code
bk = black
wh = white
yl = yellow
rd = red
gn = green

IMPORTANT!
The 18-pin connector MUST be installed with the wires facing the top of the IC300.

18-pin connector

rd   rd/gn

IC300 Intercom
(bottom view)

AC ADAPTER

NOTE: For combination outside speaker/microphone SW1 DIP switch #1 & #2 should be OFF #3 & #4 should be ON
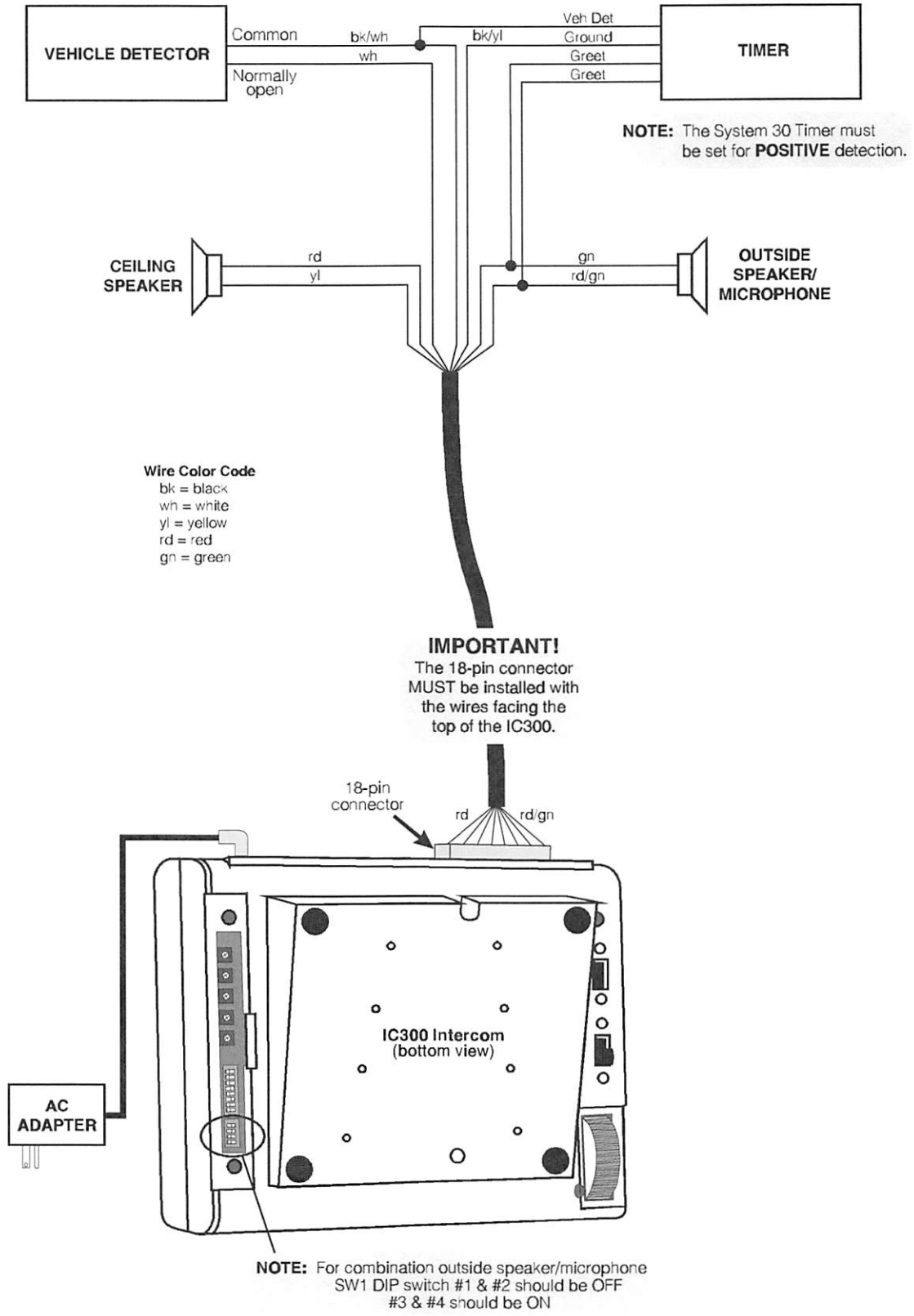
Figure 4.

Wiring Diagram for Stand-Alone IC300 Intercom

IC 100

OPTIONAL VDB100/101 VEHICLE DETECTOR BOARD INSTALLATION

If you are installing an HME VDB100/101 into the IC100/IC200, refer to Figure 8 and follow the instructions below.

• Using the tip of a small, standard (slotted) screwdriver, remove the plastic screw cover from each of the four corners on the bottom of the IC100/IC200 base station. Using a Phillips (cross-point) screwdriver, remove the screw from under each of the screw covers.

• VERY CAREFULLY, lift the cover off the base station.

> **CAUTION:** *Do not pull the cables inside the base station loose when lifting the cover.*

• Carefully position the three holes in the VDB100/101 circuit board over the three plastic standoffs on the large circuit board inside the IC100/IC200 base station. Press down on the VDB100/101 until the tips of the three standoffs snap through the holes.

• Connect the two loose wires from the large circuit board, labled •VDB TB1," to the TB1 connector on the VDB100/101.

• Connect the cable attached to the P1 connector on the VDB100/101 to the J6 connector on the large circuit board, near the end of the VDB100/101.

• Replace the cover on the IC100/IC200 base station by carefully fitting it over the end panels, so the panels fit into the grooves inside the ends of the cover. Slide the cover down until it fits evenly against the bottom of the unit. Using a Phillips (cross-point) screwdriver, lightly tighten the screws at the four corners of the cover. Replace the plastic screw covers over each of the four screws.
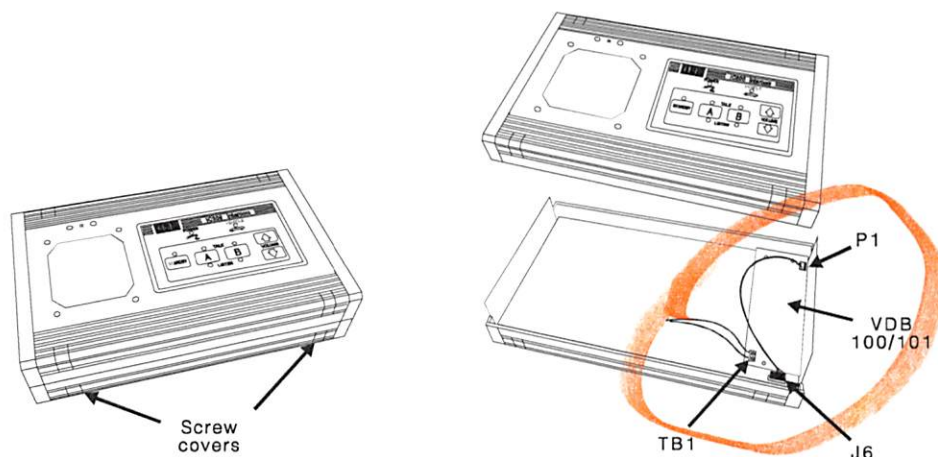

Screw covers

P1

VDB 100/101

TB1   J6

Figure 8.   Installing the optional VDB100/101

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IC 100

Optional
with IC200 only:

P2
connector plug
(pre-connected)

50 foot (15 meter) cable
with 10-pin connector plug
on one end and color-coded
wires at other end comes
with remote station.

J1: FOOTSWITCH CONNECTOR

IC200R Remote Station
(Rear view)

S2:
8 ON-HEAR OUTBOUND
7
6
5
4
3
2 ON-VP TONE
1 ON-A CHAN

Connect color-coded wires
at end of remote station cable
to loose P2 connector plug
as follows.

PIN	COLOR
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White/Shield
10	Black

P2
connector
plug:
10 9 8 7 6 5 4 3 2 1

J1: FOOTSWITCH CONNECTOR

S2: SWITCH SETTINGS

8 ON- -VEH POL
7 ON-A LISTEN
6 ON-A TALK
5 ON-NO REMOTE
4 ON-PULSE DET
3 ON-
2 ON-ATTEN 2
1 ON-ATTEN 1

OUT BOUND   CELL MUTE

IC100 / IC200
Base Station
(Rear view)

J2: Only on IC200
Connector for
remote station -
(See P2 above
for connections)

JUMPER SETTINGS J7 J4
Both jumpers must
be in the left,
SPEAKER
ONLY
position.

VOLUME ADJ
VEH TONE   CEILING   MASTER

P11 connector plug:

OUTSIDE MIC
OUTSIDE MIC
OUTSIDE MIC GND
HEAR IN
HEAR IN GND
LOOP IN MIC AUDIO
LOOP IN MIC SW GND
GSND MIC SW
GSND
16VAC IN
16VAC IN
VDET OUT + (SIG)
VDET OUT - (GND)
OUTSIDE SPEAKER
OUTSIDE SPEAKER
CEILING SPEAKER
CEILING SPEAKER

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

AC
GND
AC
16VAC Adapter

SP2000A
Outside
Speaker

This hookup is used with any type
of external vehicle detector.

This hookup is used with an internal
VDB100/101 in the base station.

External
vehicle
detector

CAUTION:
Check polarity
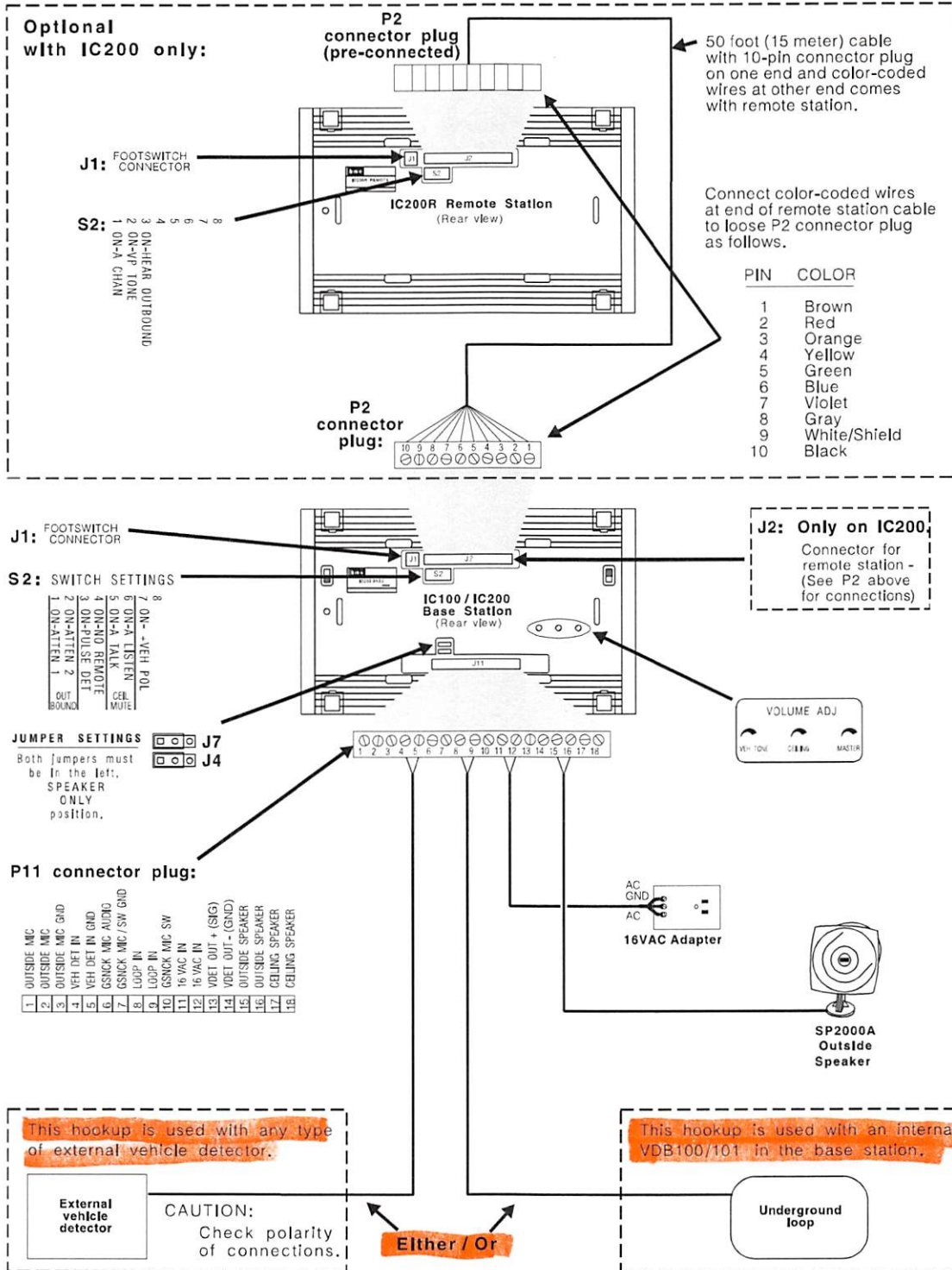of connections.

Either / Or

Underground
loop

Figure 12.   Stand-alone IC100 / IC200 Intercom and
optional IC200R Remote Station wiring diagram

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