

HME International

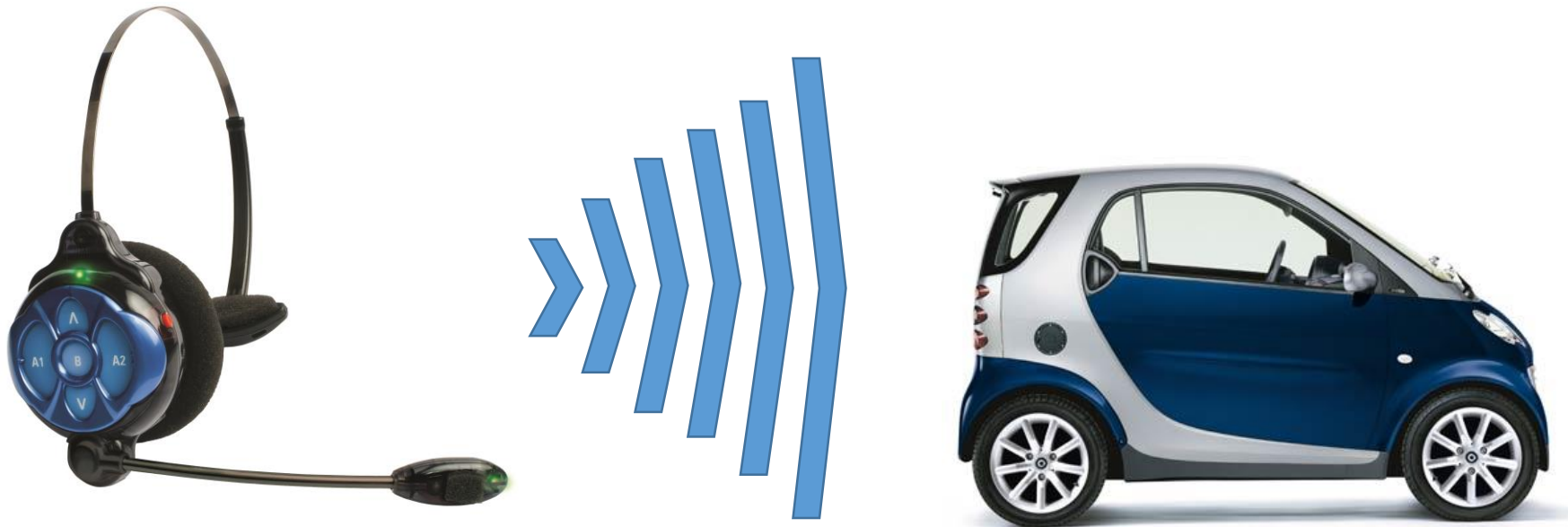
TECHNICAL TRAINING

DRIVE THRU AUDIO

Drive Thru Audio

WHAT OUR SYSTEM IS

A wireless headset system that is used in taking customer orders in drive thru.



Drive Thru Audio

WHY THIS IS IMPORTANT

- Improve customer experience
- Multitasking while taking orders
- Increase speed of service



Drive Thru Audio

HOW IT WORKS

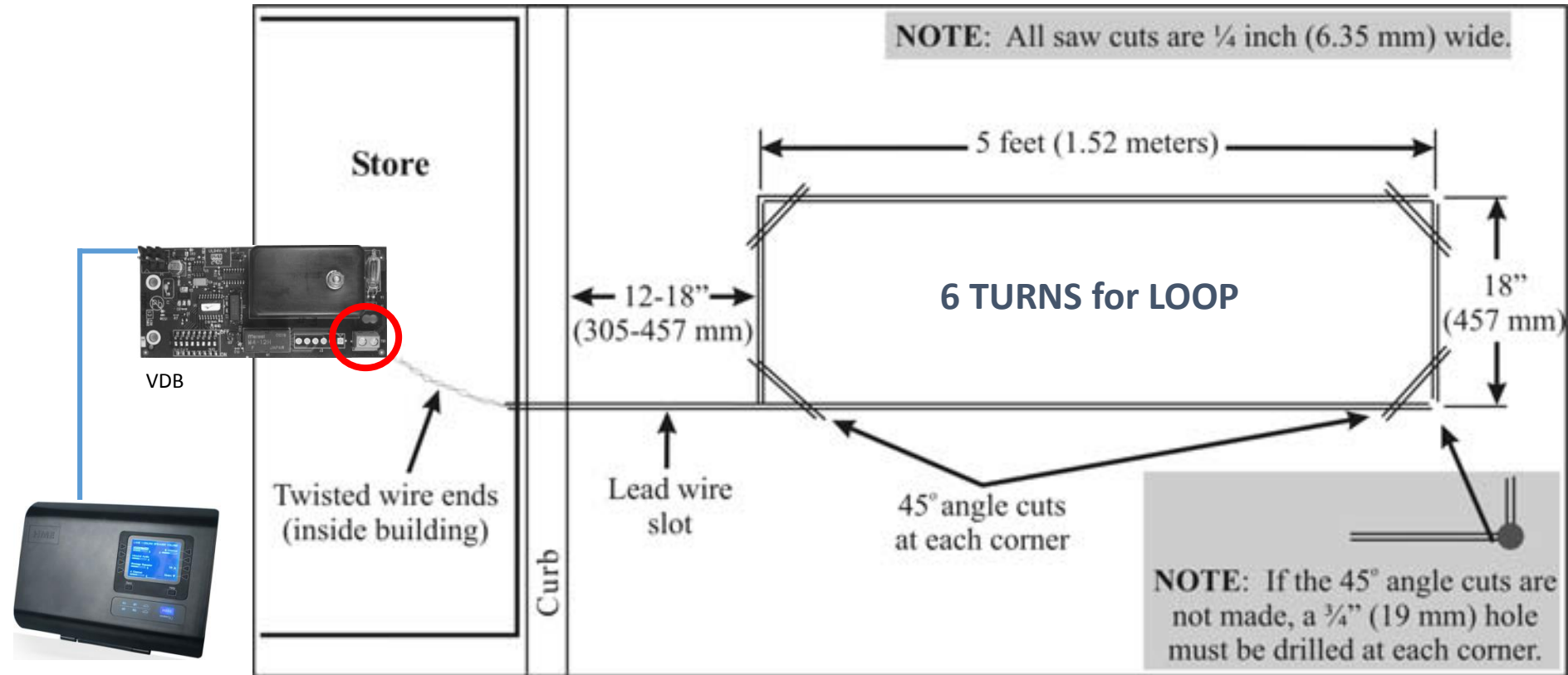


Drive Thru Audio

WHAT THE COMPONENTS ARE



SAWCUT LOOP INSTALLATION



LOOP READINGS:

- Inductance: 100-150 μH
- Loop Resistance: 1 +/- Ω
- Resistance to Ground: 50 M Ω steady to Ground using Megohmmeter

DETECTION

OTHER DETECTION METHODS



DETECTION

EXTECH METERS USED FOR LOOPS



LCR METER (390193)

Measures inductance (L) and resistance (R)



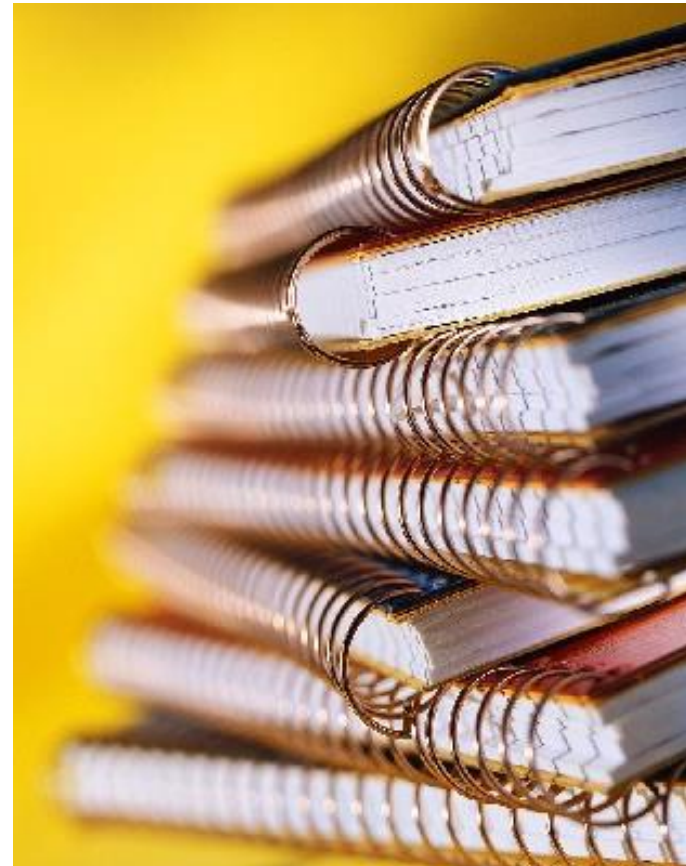
MEGOHM METER (403360)

Tests the insulation of wiring for any leaks to ground

Detection

Review

- HME systems use magnetic loops to detect cars.
- Specifications and dimensions of the loop are critical in making sure detection will function properly.
- Inductance, resistance and megohm readings are required to verify proper levels and operation.

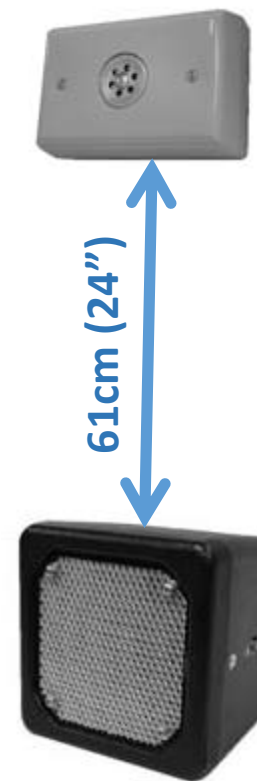


Installation standards

OUTSIDE THE STORE

MICROPHONE AND SPEAKER MOUNTING

- No physical or mechanical mounting
- Completely float in acoustic foam
- Minimum of 61cm (24") of separation between the microphone and speaker

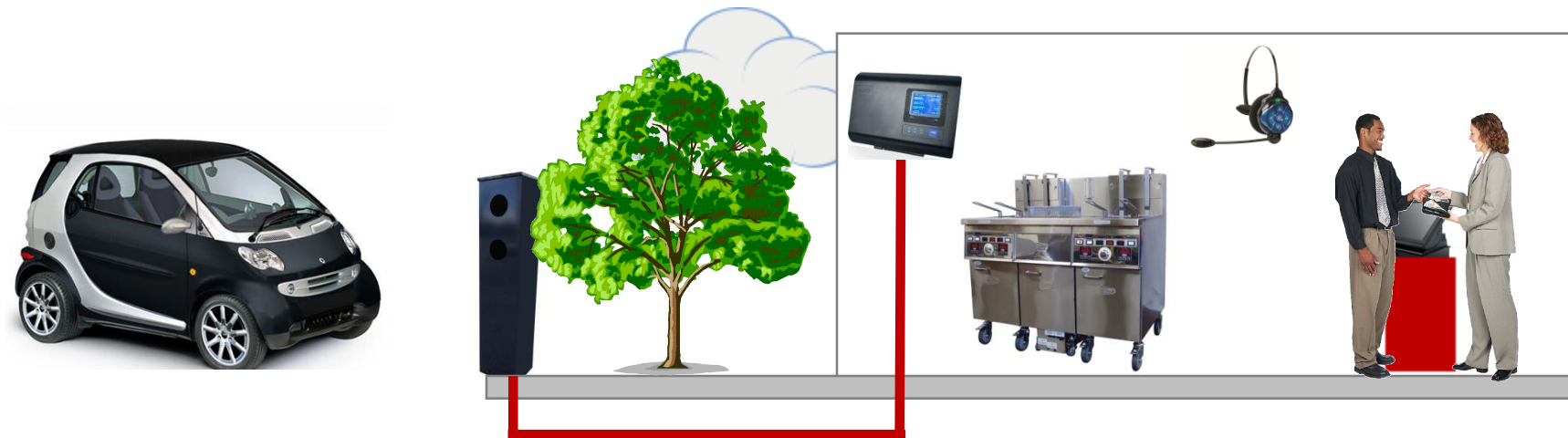


Installation standards

OUTSIDE THE STORE

Conduit

- Need isolated conduit for HME cables
- Ideal end location is the base station



HME Installation standards - Cabling

- **Need 2 HME cables** (Belden equivalent 8723) run from each menu board / speaker post to base station location in the store (1 for microphone, 1 for speaker and detection). Run **NO** other cables in this conduit
- **Microphone cable:**
 - Shield must be terminated at base station ground and covered with installation
 - Shield must not be terminated at speaker post (base station only)
 - Use Red and Black wire of dedicated cable
- **Outbound Speaker / Loop cable:**
 - Must be separate cable from microphone input, shield connection is not used
 - Connect Green and White wire to speaker and Red and Black wire to Loop signal



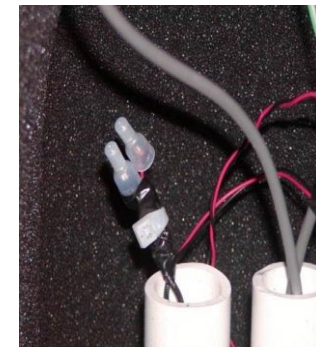
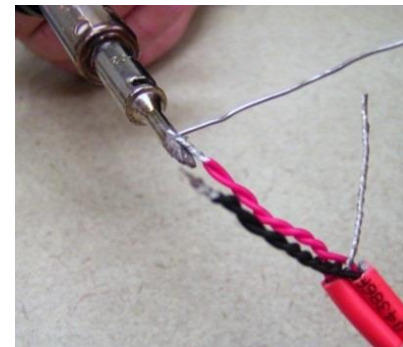
Installation standards

OUTSIDE THE STORE

Wiring

All speaker post connections **MUST** be:

1. Soldered
2. Crimp Capped
3. Insulated with Electrical Tape
4. Secured with Tie Wrap



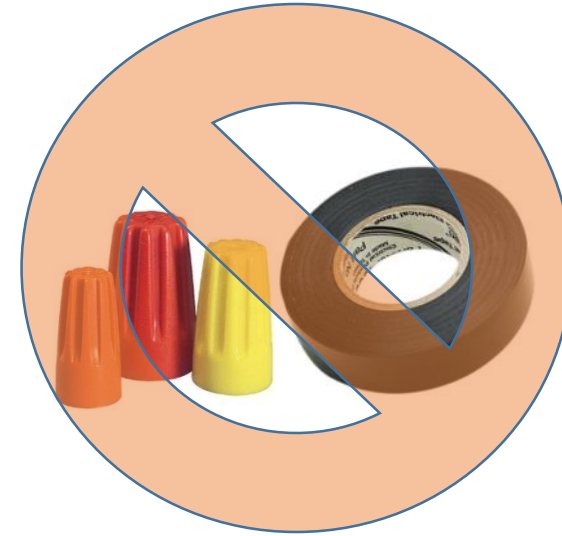
Installation standards

OUTSIDE THE STORE

Wiring

Do not use:

1. Wire nuts
2. Twisted/taped connections
3. Low quality connections



Do not leave any extra shield wire or foil unclipped.

Installation standards

OUTSIDE THE STORE

Review

- No mechanical mounting of microphone or speaker
- Pack speaker post full of acoustic foam
- Always use the highest quality connections
- Any connections made below spec will cause audio and detection issues



Installation standards

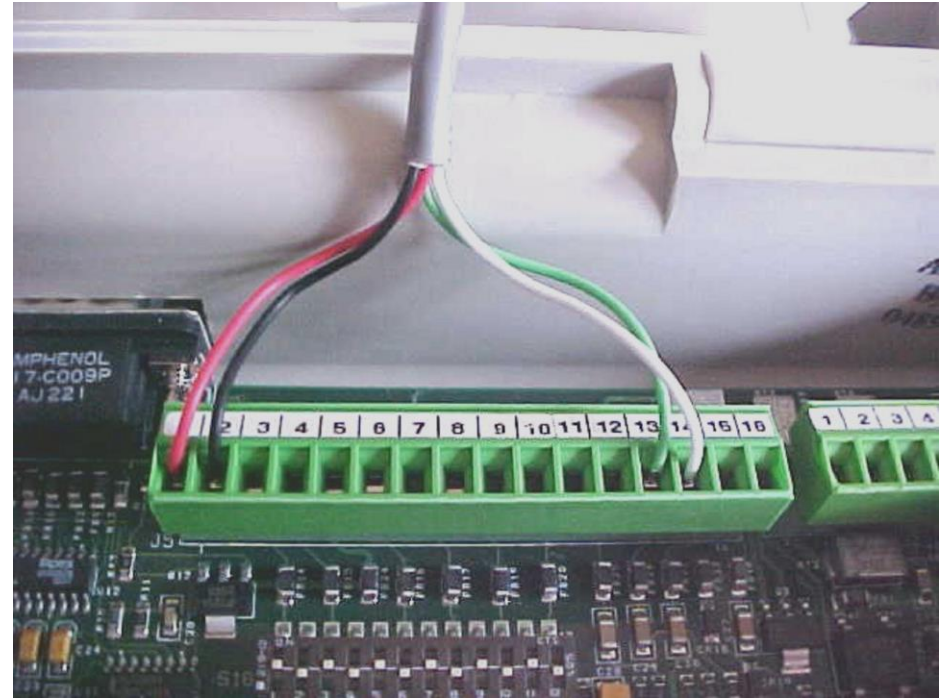
INSIDE THE STORE

Wiring – **Good Example**

Clipped foil and shield wire

No exposed conductor

No excess cable length



Installation standards

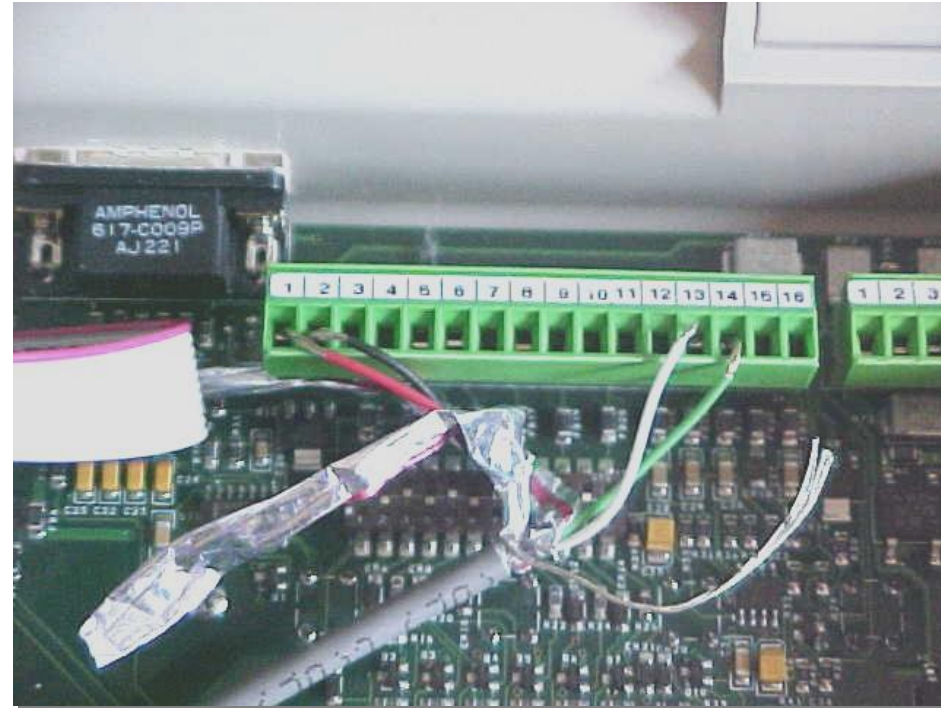
INSIDE THE STORE

Wiring – **Bad Example**

Exposed foil and shield wire

Exposed conductor

Overall, very poor wiring



Installation standards

INSIDE THE STORE

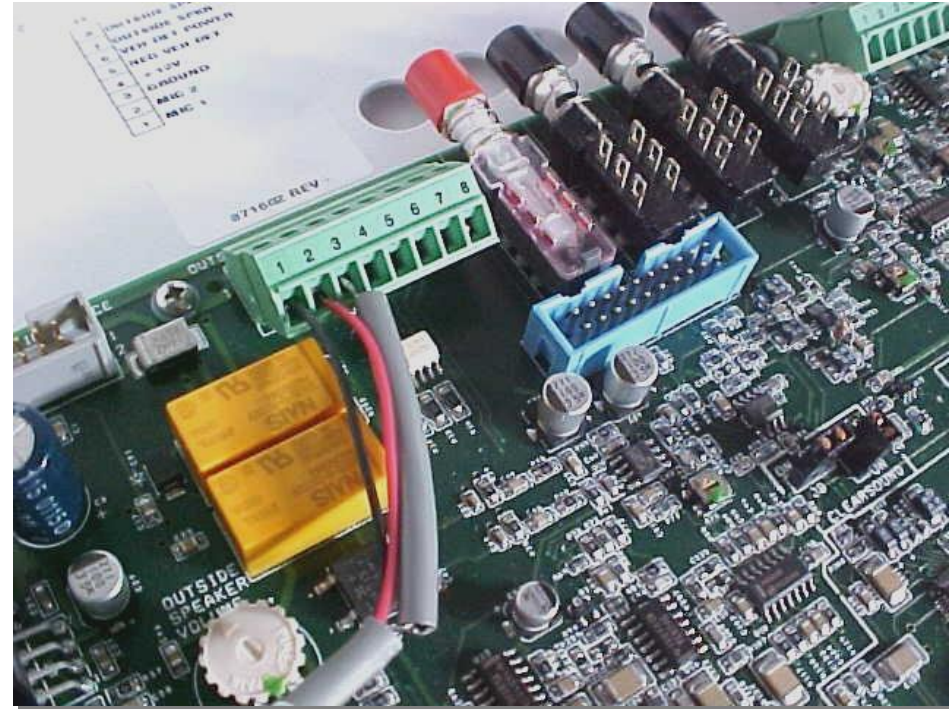
Wiring – **Good Example**

Tubing Over the Shield Wire

Clipped Foil

No Exposed Conductor

No Extra Length



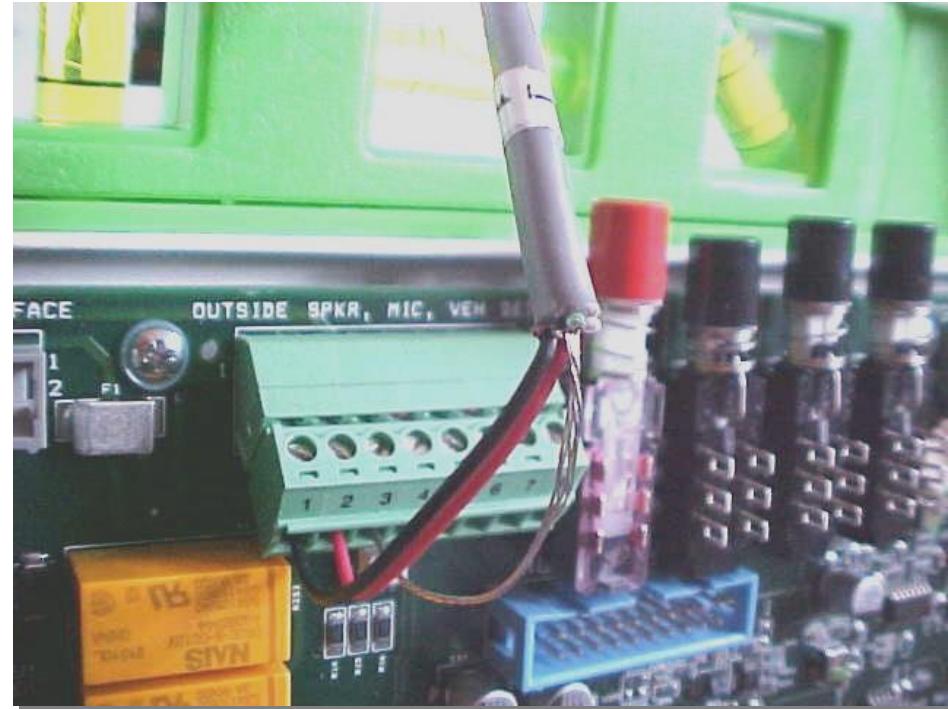
Installation standards

INSIDE THE STORE

Wiring – **Bad Example**

Exposed Shield (must be covered)

Exposed Conductor



Installation standards

INSIDE THE STORE

Review

- Clip any exposed conductor or foil
- Do not leave excess cable
- Cover all ground wires with insulation tubing



TROUBLESHOOTING

Headset Overview

2 Styles of Headsets

- HS12 Headset/COM6000 Combination
- HS6000 All-In-One, Odyssey Headset



Old (6000)



New (6100)



Troubleshooting

Headset Overview

COM6100/HS12 Combination

- **Parts:** headset, beltpac and battery
- **Troubleshooting:** swap headsets, batteries and clean contacts
- **Important Note:** If a non-functioning headset or battery is used, the beltpac will not power on



Troubleshooting

System Functions

Speed Team

- Disables the microphone, speaker and vehicle detector at the speaker post
- Used in times of long car lines
- Can accidentally be activated by the end user



Troubleshooting

System Functions

Override

- Bypasses the detector
- Constantly activates detection
- Use as a troubleshooting step
- Can be accidentally activated by the end user



HME International

TECHNICAL TRAINING

AUDIO QUALITY

AUDIO QUALITY

AUDIO SYMPTOMS

- Echo
- Environmental Noise
- RF Interference
- Multi-path
- Static
- 60 Hz hum



AUDIO QUALITY

ECHO CANCELLER

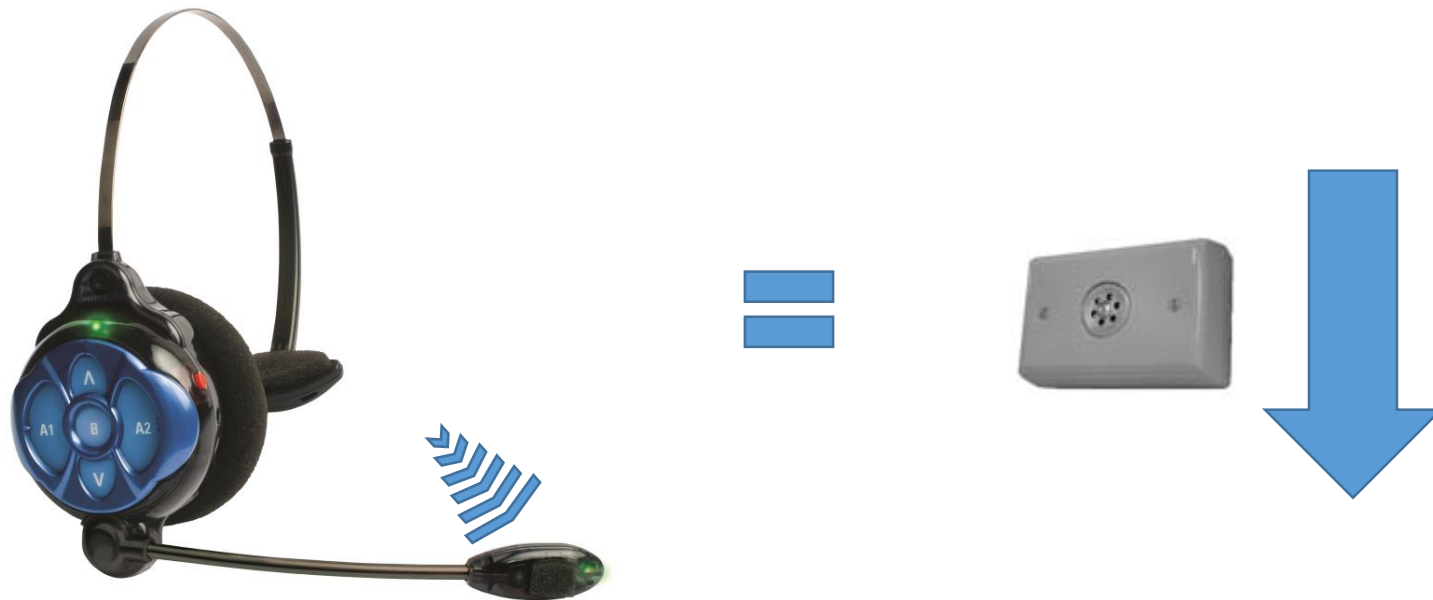
Reduces the operator's voice returning from the outside speaker to the headset as an echo.



AUDIO QUALITY

VAA

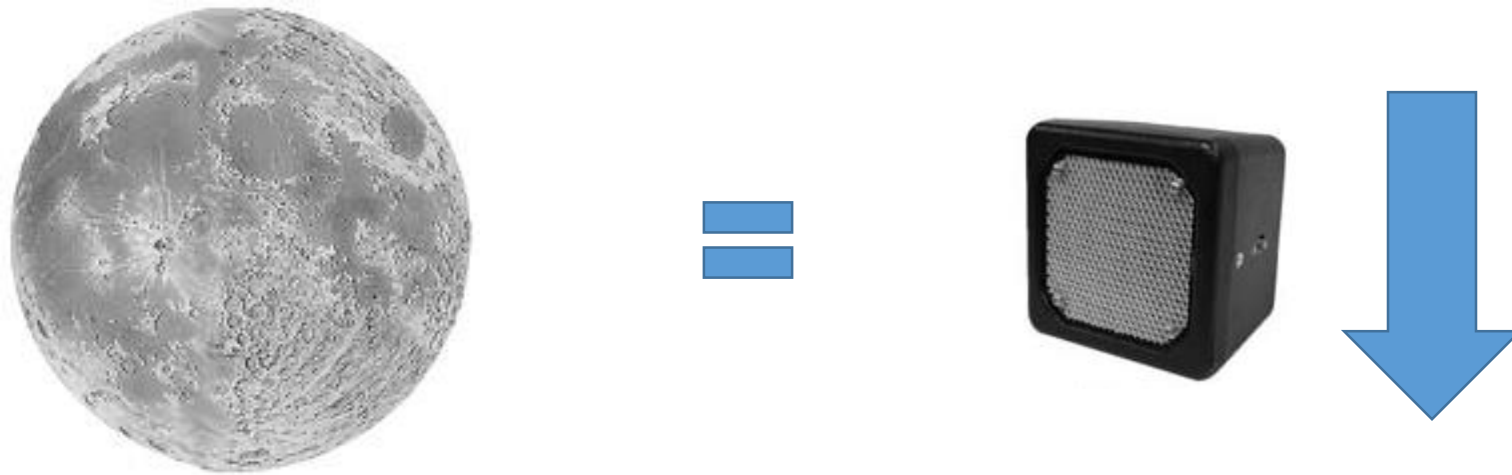
Reduces the outside microphone volume when someone speaks into a headset using the A button.



AUDIO QUALITY

AVC

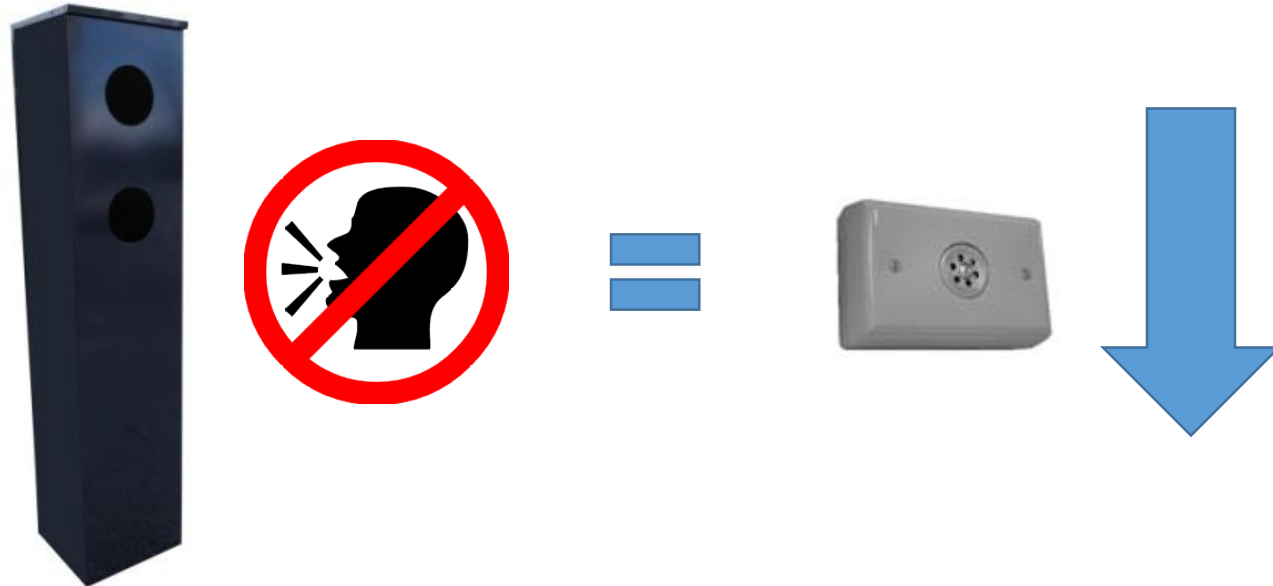
When the noise outside becomes more quiet, the outbound volume is turned down.



AUDIO QUALITY

ANC

Reduces the outside microphone volume in the headsets when the customer outside isn't speaking.



Questions?

TECHNICAL TRAINING

AUDIO QUALITY

ion IQ™ TECHNICAL TRAINING



ion IQ™

TECHNICAL TRAINING HEADSET SYSTEM



HME		Wireless Intercom System		ion IQ™
	Status			
Status		Lane 1	Lane 2	
Vehicle detection	Vehicle detection:	Normal	Normal	
Volume adjust	Customer Greeter:	✓		
Register headsets	Reminder messages:	-		
Message Center	Alert messages:	-		
Store settings	Lane config.:	Dual/Y		
Installer settings	Speed Team:	-		
Network settings	Dedicated mode:	-		
Reports	Store open:	Open		
Diagnostics	Base ID:	hme-base6100-004143.hme.com		
Service				
ion IQ Mobile				

Network
Capable

OVERVIEW OF THE ion|IQ™

- Register up to 15 headsets
- Adjustments all menu driven
- One base for 2 order points
- All functions available over network
- Uses COM6000, HS6000 headsets
- Uses new COM6100 and ION-AIO
- Extended range antenna's available (EC10 & EC20)



ion IQ™ TECHNICAL TRAINING

Equipment 6000 series



COM6000



AC40 Battery charger



HS6000-AIO



Battery (6000)



ion IQ™ TECHNICAL TRAINING

Equipment 6100 series



COM6100



AC50 battery charger



Battery (6100)



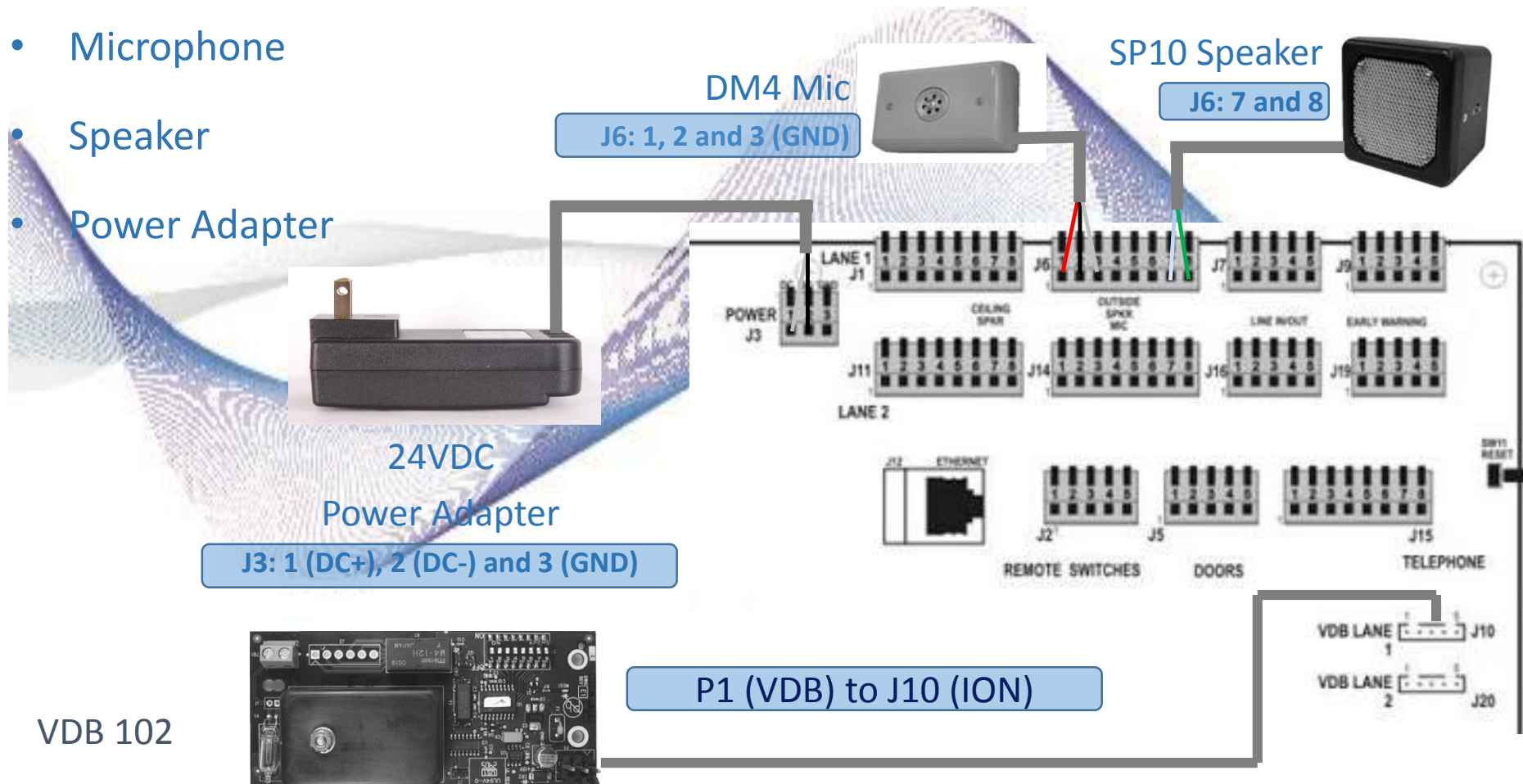
AC50 power supply



ION-AIO (6100)

BASIC CONNECTIONS

- Microphone
- Speaker
- Power Adapter

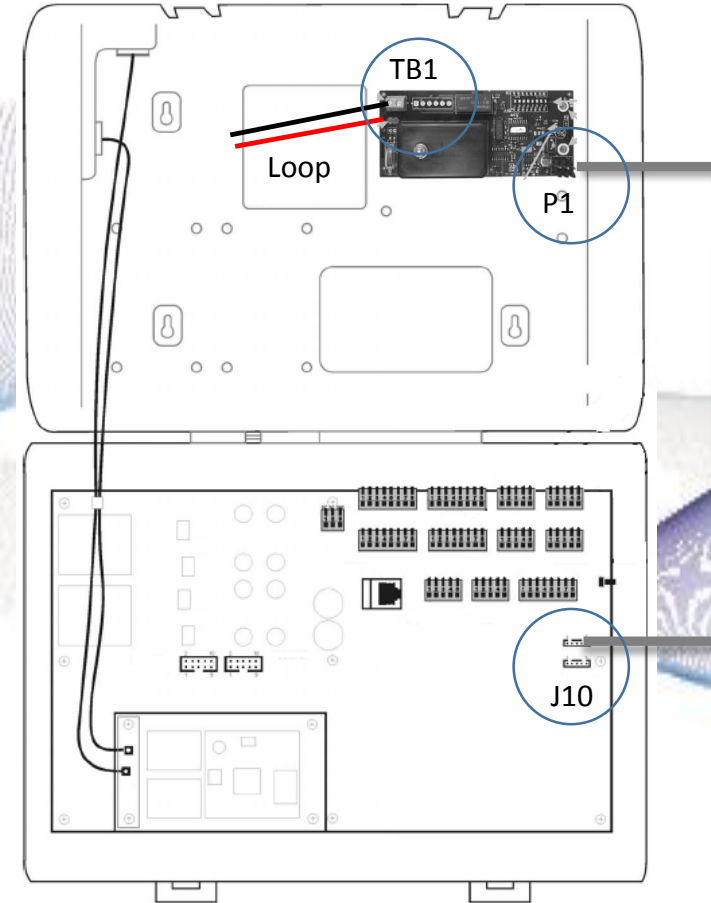
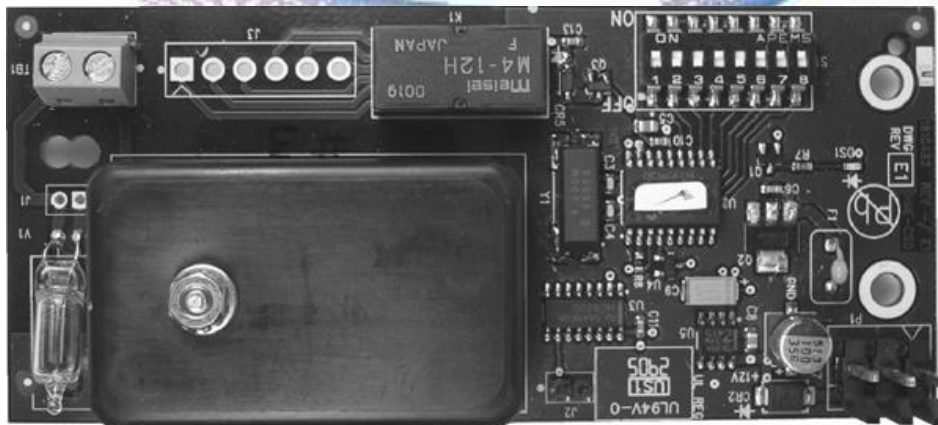


BASIC CONNECTIONS

- Vehicle Detection
 - VDB-to-Base Cable: supplies vehicle detection to the base station
 - Loop wires (shared cable with speaker)

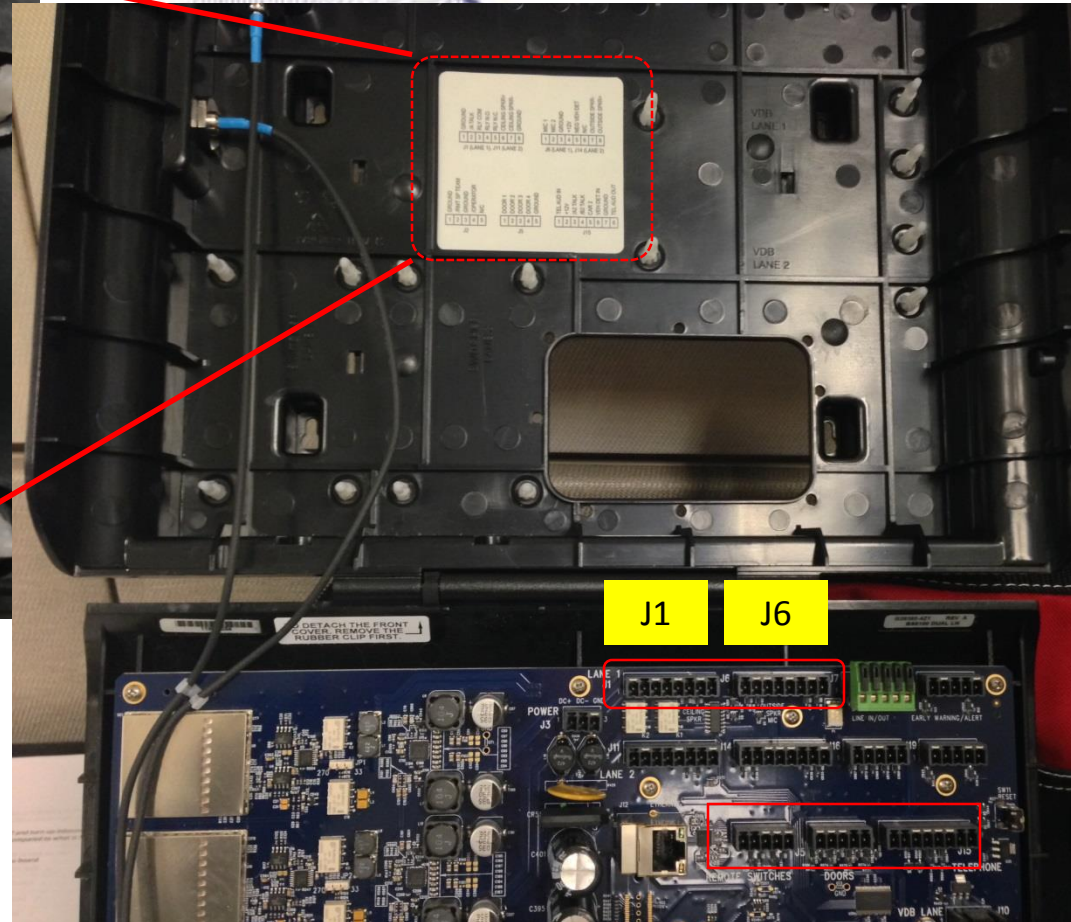
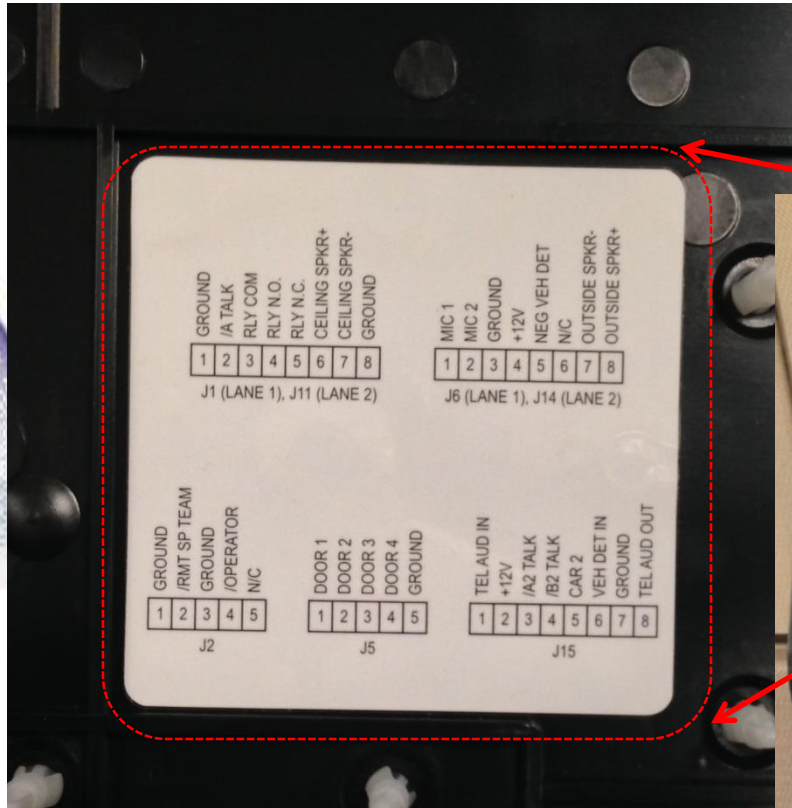
TB1 - Loop

Dip switches



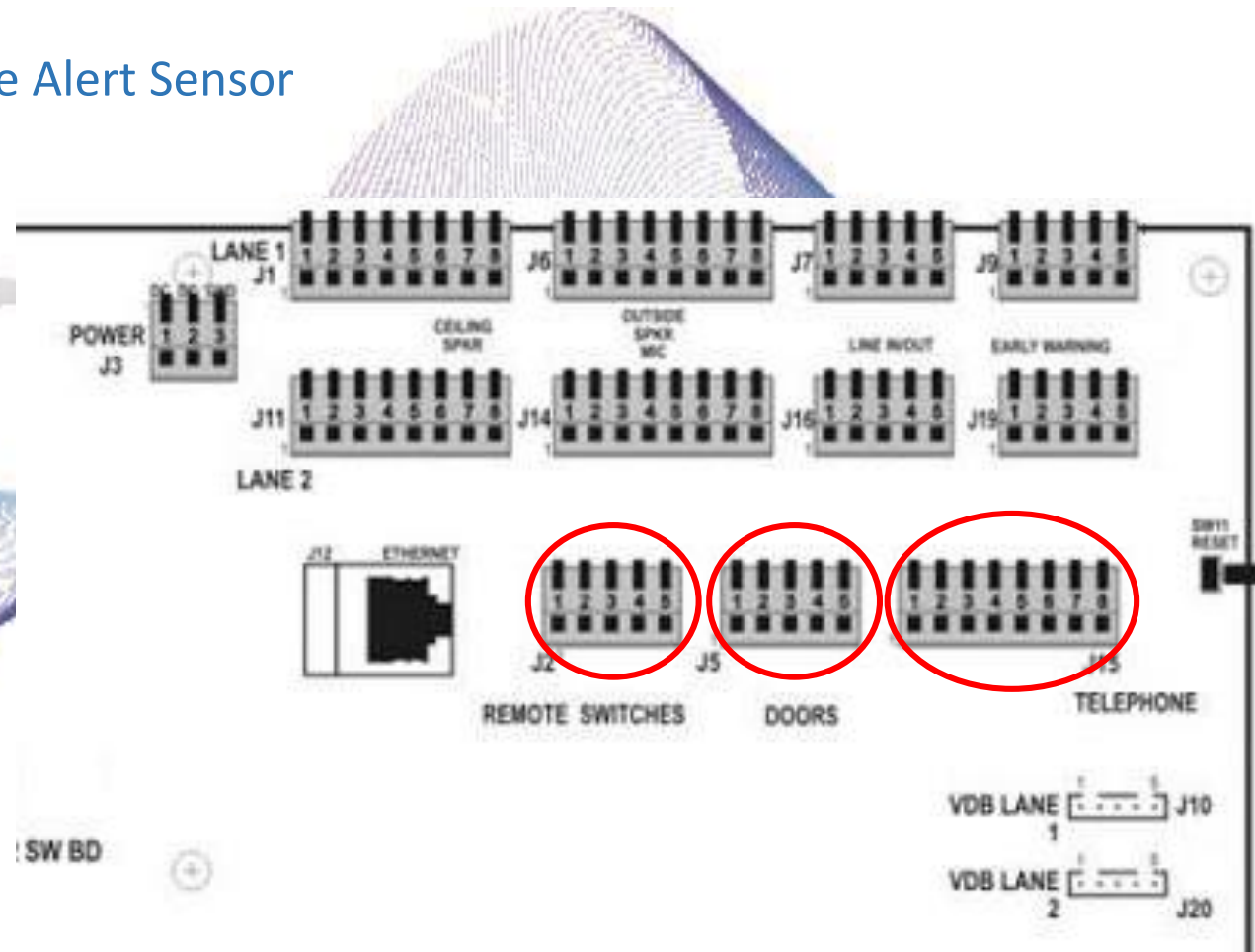
P1 – VDB to Base

ION Connector Identification Label



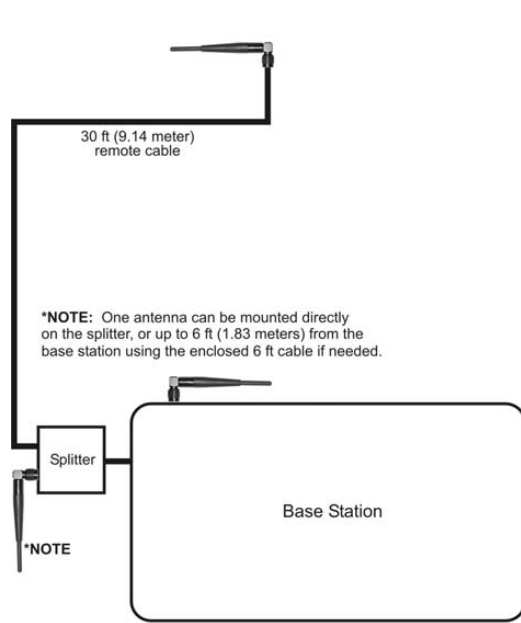
Additional Equipment connections

- TA6000 – Telephone interface
- TA6100 – Temperature Alert Sensor
- DS1 – Door switch kit
- MS10 Mode switch

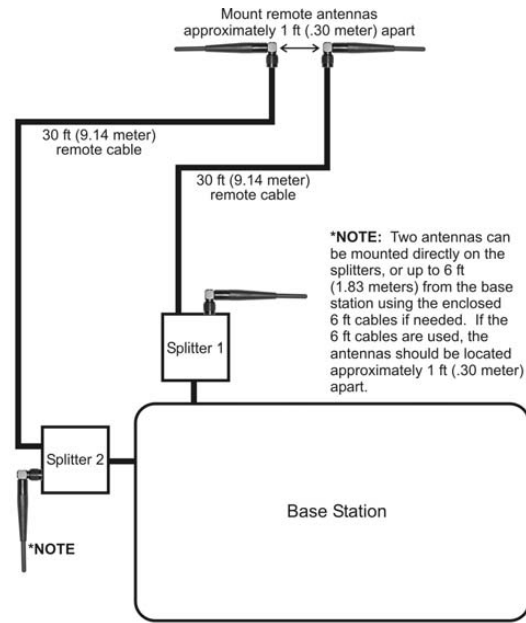


ionTM Technical Training

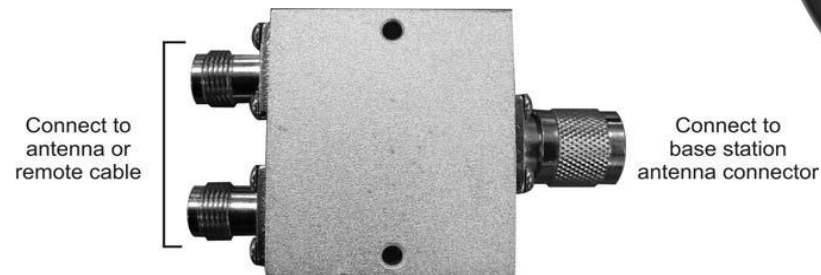
EC10 – Extended Coverage Antenna kit



One splitter hookup using one EC10 kit



Two splitter hookup using two EC10 kits



EC10 splitter

EC20 – Extended Coverage Antenna kit



EC20 Antenna



Antenna mounting bracket



Antenna adaptor cable, 3 ft (.91 meter)

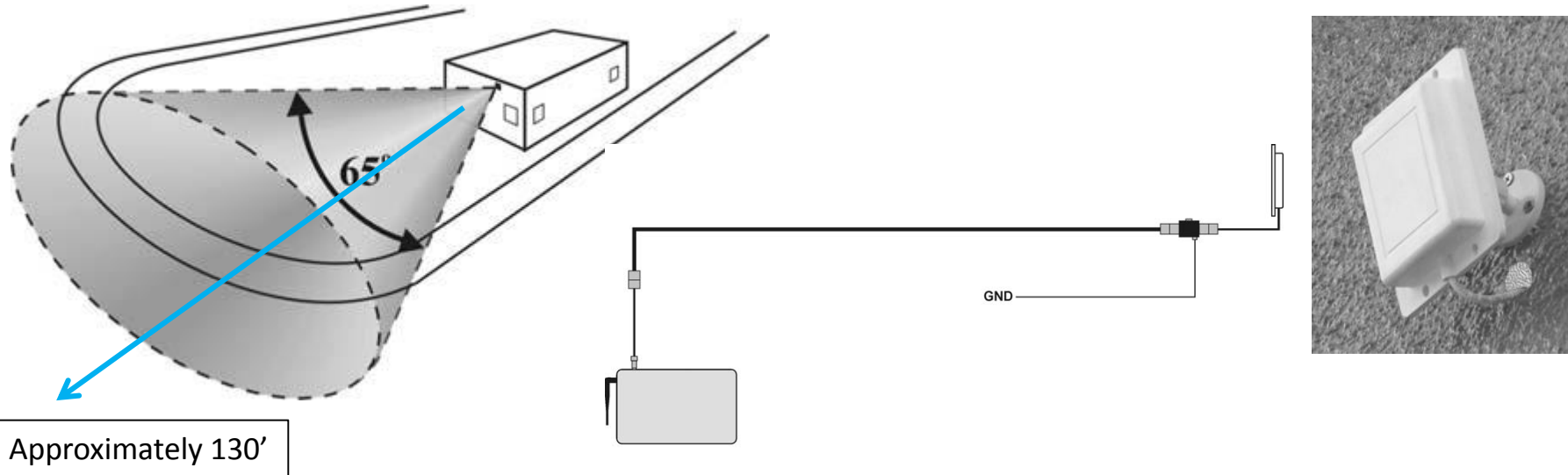


Coaxial cable, 100 ft (30.48 meters)



Lightning arrestor

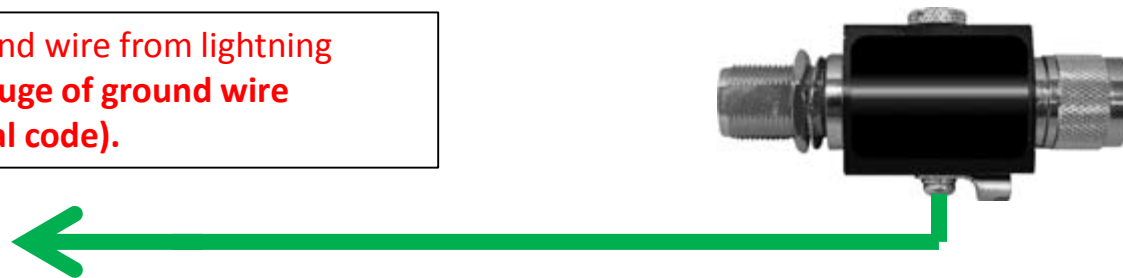
ionTech™ Technical Training



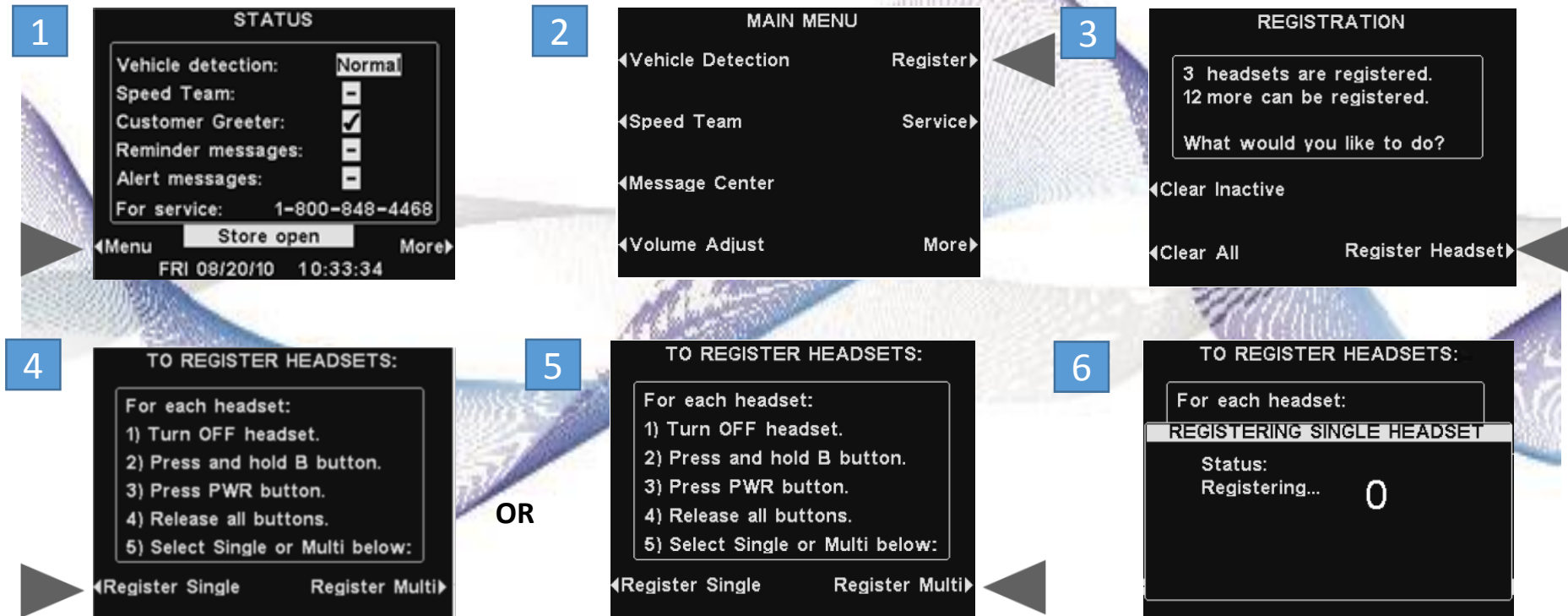
Depending on which headset / belt-pac you are using range will be approx. 130' extending outward from the front of the antenna

- Installer is responsible for connecting ground wire from lightning arrestor to grounding location (**The type / gauge of ground wire used for lightning must comply with the local code.**)

Nearest grounding point



HEADSET REGISTRATION



Hold "B" button while turning on headset power to register.

HANDS-FREE (HF) ON/OFF (A1 / A2)

Note: If Customer wants to use Auto hands free mode (AHF) both the base (Installer setup) and the headset (A1 or A2 & Volume ▲) will need to be programmed for AHF.

Hands Free On

1. Turn Headset Power Off
2. Press and Hold B and **UP** Arrow
3. Press Power Button
4. Release All Buttons

Hands Free Off

1. Turn Headset Power Off
2. Press and Hold B and **DOWN** Arrow
3. Press Power Button
4. Release All Buttons

HANDS-FREE ON/OFF (B)

Note: New headsets ship with “B” hands free off – If customer wants “B” hands free to be active - you will need to set-up each headset in “B” hands free “On” mode.

Hands Free On

1. Turn Headset Power Off
2. Press and Hold B and A2
3. Press Power Button
4. Release All Buttons

Hands Free Off

1. Turn Headset Power Off
2. Press and Hold B and A2 (toggle)
3. Press Power Button
4. Release All Buttons

AUTO HANDS-FREE (AHF)

* AHF must be turned on (☑) in installer setup

Note: For dual lane stores you will need 2 headsets / coms if both lanes want to operate in AHF mode – it is also recommended to turn dedicated mode on as you will be unable to access the lane you are not assigned to.

Auto Handsfree On

1. Turn Headset Power Off
2. Press and Hold A1 and **UP** Arrow
3. Press Power Button
4. Release All Buttons

Auto Handsfree Off

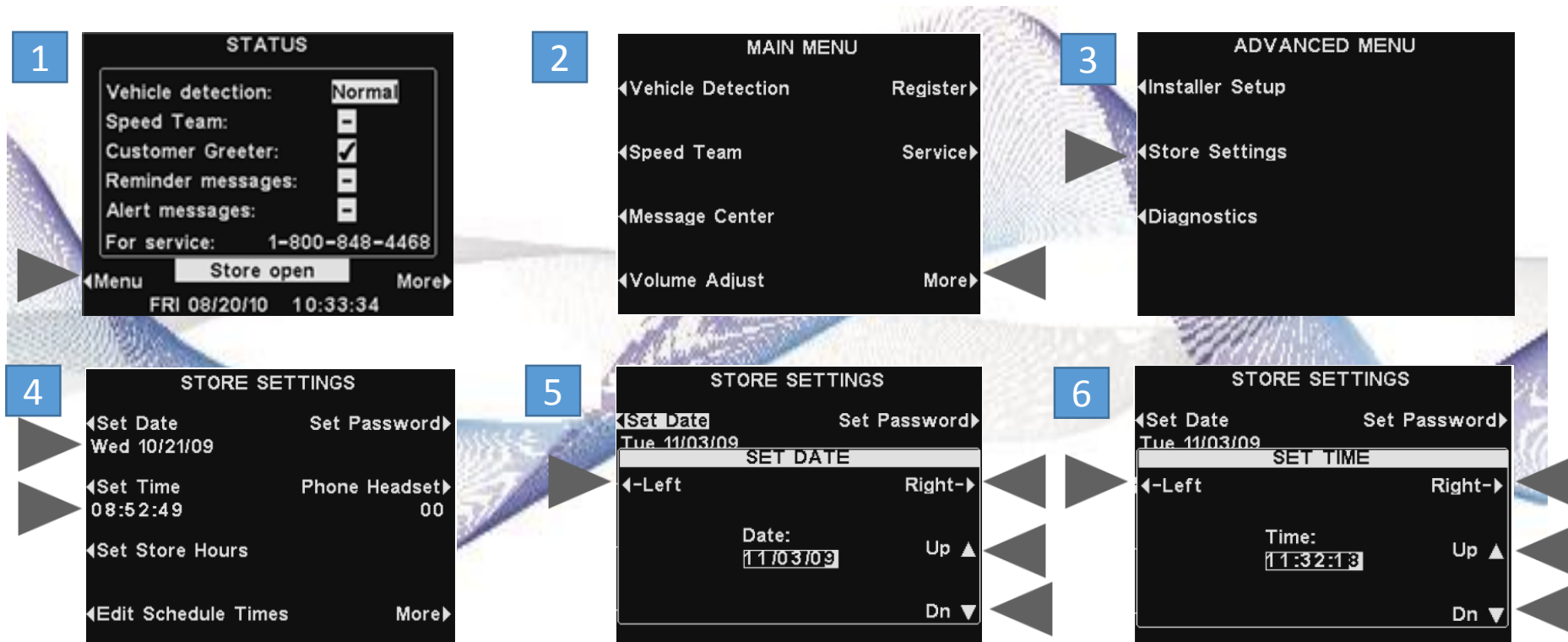
1. Turn Headset Power Off
2. Press and A1 and **DOWN** Arrow
3. Press Power Button
4. Release All Buttons

SETTING UP FOR A STORE

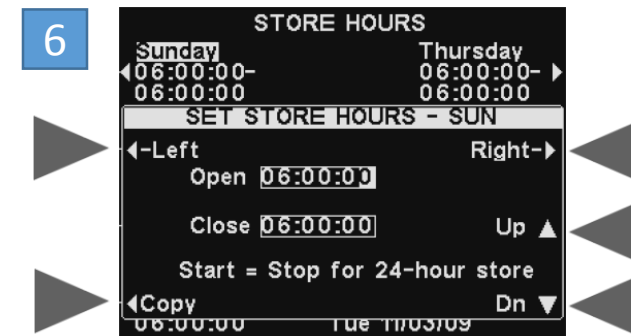
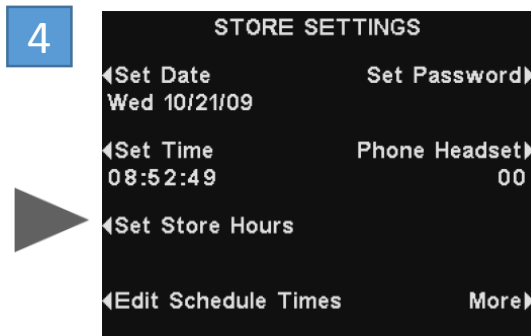
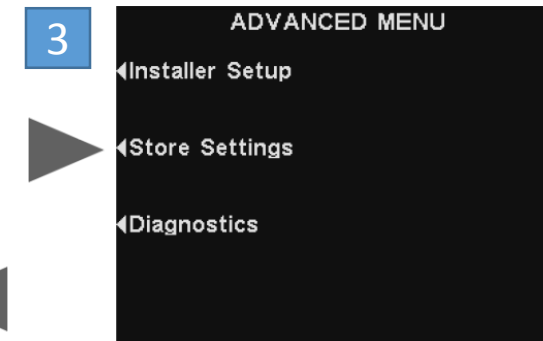
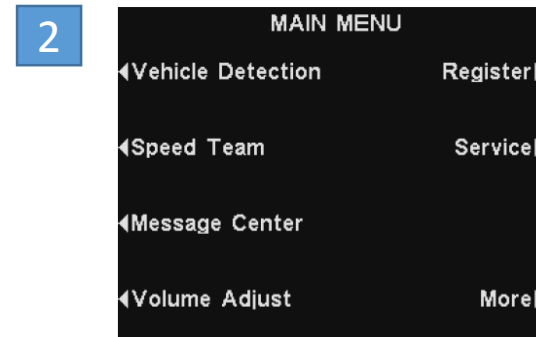
- Date and Time
- Store Hours
- Message Center
 - Schedule Times
 - Customer Greeter
 - Reminder Message
 - Alert Message



DATE AND TIME



STORE HOURS





Technical Training

MESSAGE CENTER

Greetings



Reminders



Alerts



MESSAGE CENTER

Customer Greeter



10 total greetings

2 more for “Store Closed” and “Pull Forward”

16 second maximum for each message

Triggered by detection

MESSAGE CENTER

Reminder Messages



15 total Reminder Messages

9 various pre-recorded reminders

3 messages with pre recorded help

3 additional blank messages

Triggered by time

MESSAGE CENTER

Alert Messages



5-6 Alert Message available

Single lane base has 5, dual has 6

4 pre-recorded message

1-2 additional message for lane alert inputs

Triggered by switch

MESSAGE CENTER

Schedule Times



12 Schedule Times available

Used in activating or deactivating messages

Each message has an independent schedule

A Schedule Time can be set for 24 hours

MESSAGE CENTER

Schedule Times



	Start	-	Stop
1	06:00:00		10:00:00
2	10:00:00		14:00:00
3	14:00:00		17:00:00
4	17:00:00		20:00:00
5	21:00:00		06:00:00
6	06:00:00		06:00:00
7	06:00:00		06:00:00

Up
Dn

Edit▶

Fri 12/11/09 16:06:07

When should messages play?

When should they not play?

Specific messages for breakfast?

Lunch? Dinner?

MESSAGE CENTER

Schedule Times

SELECT SCHEDULE TIMES (SUN)

	Start	-	Stop	Select	
1	06:00:00		10:00:00	Off	
2	10:00:00		14:00:00	Off	
3	14:00:00		17:00:00	Off	
4	17:00:00		20:00:00	Off	▲ Up
5	21:00:00		06:00:00	Off	▼ Dn
6	06:00:00		06:00:00	On	
7	06:00:00		06:00:00	Off	

On/Off ▶

Schedule time 6 is On, all others Off
Message will always play



ALL NEW

EOS | HD™

Digital drive-thru headset system with HD audio

Introducing EOS | HD



Hear What You've Been Missing

ALL NEW

What Does EOS|HD Offer?

EOS | HD™

Digital drive-thru headset system with HD audio

- **HD Audio**
- Improved (Inbound) Drive-Thru Noise Reduction by an additional 44% over ION
- ALL NEW (Outbound) Store Noise Reduction (88% reduction in background noise)
- Echo Cancellation 17 times greater than ION
- **Order Accuracy, Speed of Service, Customer Experience**

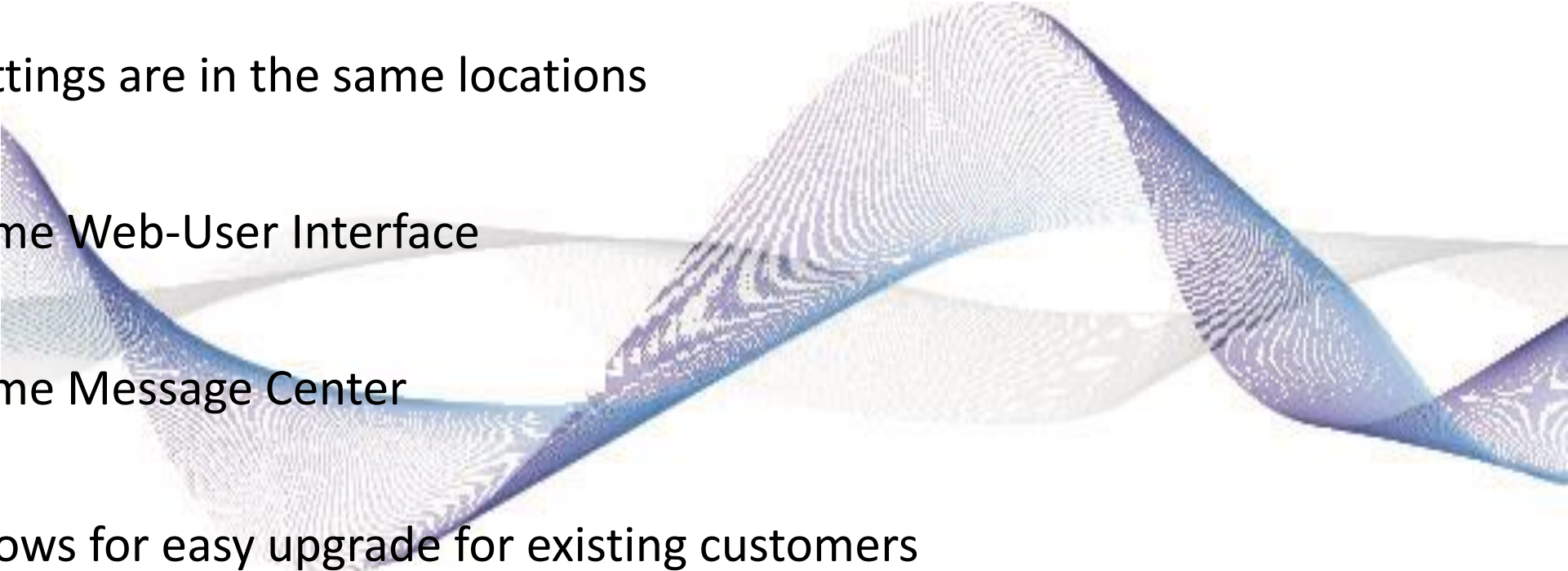


ALL NEW

User Interface

EOS | HD™

Digital drive-thru headset system with HD audio

- Same Menu System as 6100
 - Settings are in the same locations
 - Same Web-User Interface
 - Same Message Center
 - Allows for easy upgrade for existing customers
- 

ALL NEW

EOS | HD All-in-One

EOS | HD™

Digital drive-thru headset system with HD audio

- New Headsets required for Wide-Band HD Audio
 - New color scheme and bezel to easily differentiate the two headsets
- Same operation as ION | IQ AIO
- Each headset now comes with 3 languages
English/Spanish/French (Hold A1 and volume down and power on. Repeat to toggle through languages.)



ALL NEW

Installation Considerations

EOS | HD™

Digital drive-thru headset system with HD audio

- Phantom-Powered Microphone (Condenser / Capacitive)
 - **Requires 3-wire connection to function**
 - This is needed to capture the additional frequencies of wideband
 - Will require new runs for installation if it isn't an existing 6000 + system
 - On system upgrades installers will have to ensure 3 wires are continuous (NO SPLICES)!
- Greet Signal to timer from CEILING SPKR +/-

ALL NEW

Cable

EOS | HD™

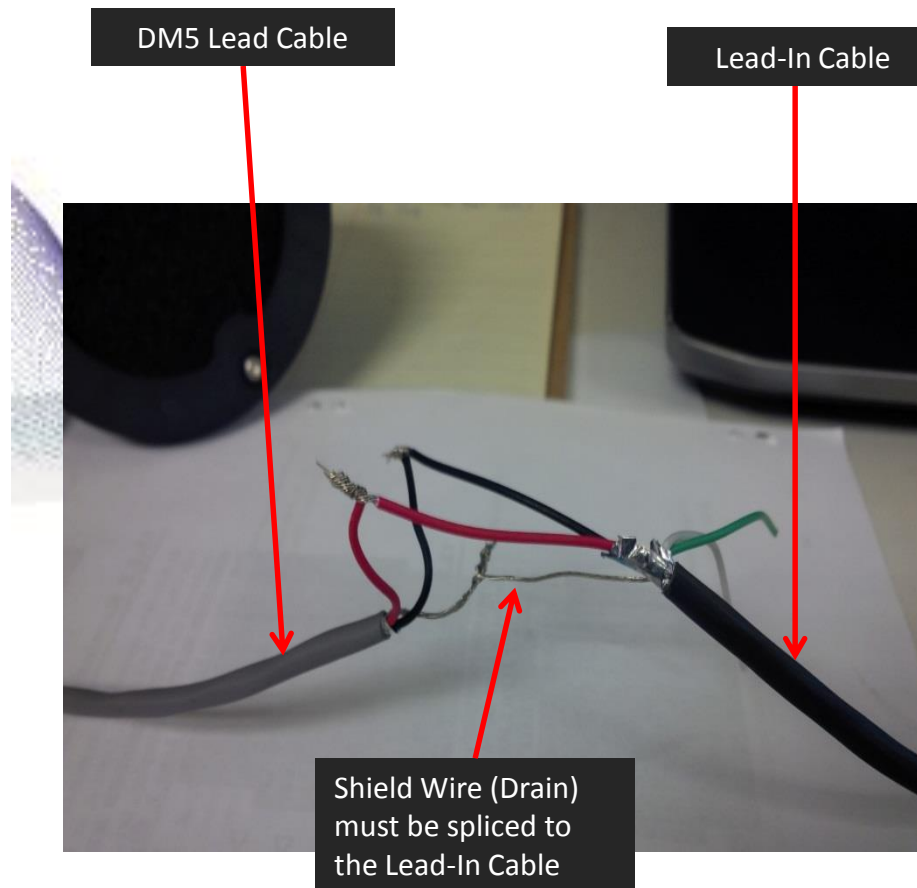
Digital drive-thru headset system with HD audio

- Pull new HME audio cable as the “first step” in the EOS installation process
- All cabling must be continuous (home-run), from the DM5 microphone, and speaker/loop, all the way to the EOS base station. No splicing except at the element and lead-in cable splice inside the speaker post / menu board
- If it is not possible to pull new cable:
 - Confirm if extra pairs of wire (to power DM5) are available and use existing cable
 - If the existing cable does not have enough conductors (3) to power the DM5 then notify your Installation Coordinator immediately

ALL NEW

DM5 to Lead-in Cable EOS | HD™

Digital drive-thru headset system with HD audio



DM5 is a capacitive mic = requires phantom power so drain wire must be connected at the mic and in the base to ground

The Shield (Drain) wire must be completely insulated with shrink tubing or tape to isolate any chance of a short to the speaker post

ALL NEW

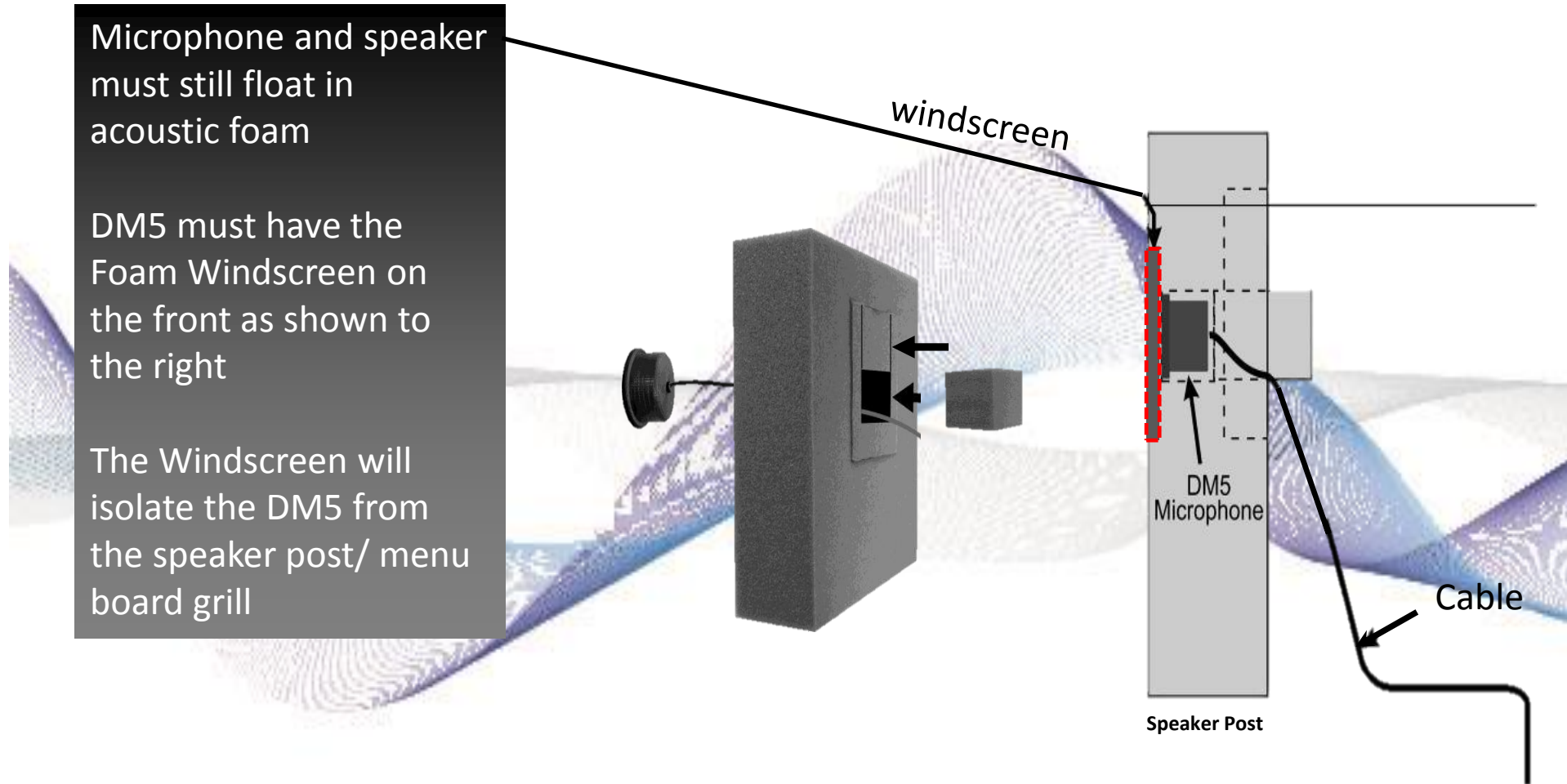
Installation Differences EOS | HD™

Digital drive-thru headset system with HD audio

Microphone and speaker must still float in acoustic foam

DM5 must have the Foam Windscreen on the front as shown to the right

The Windscreen will isolate the DM5 from the speaker post/ menu board grill

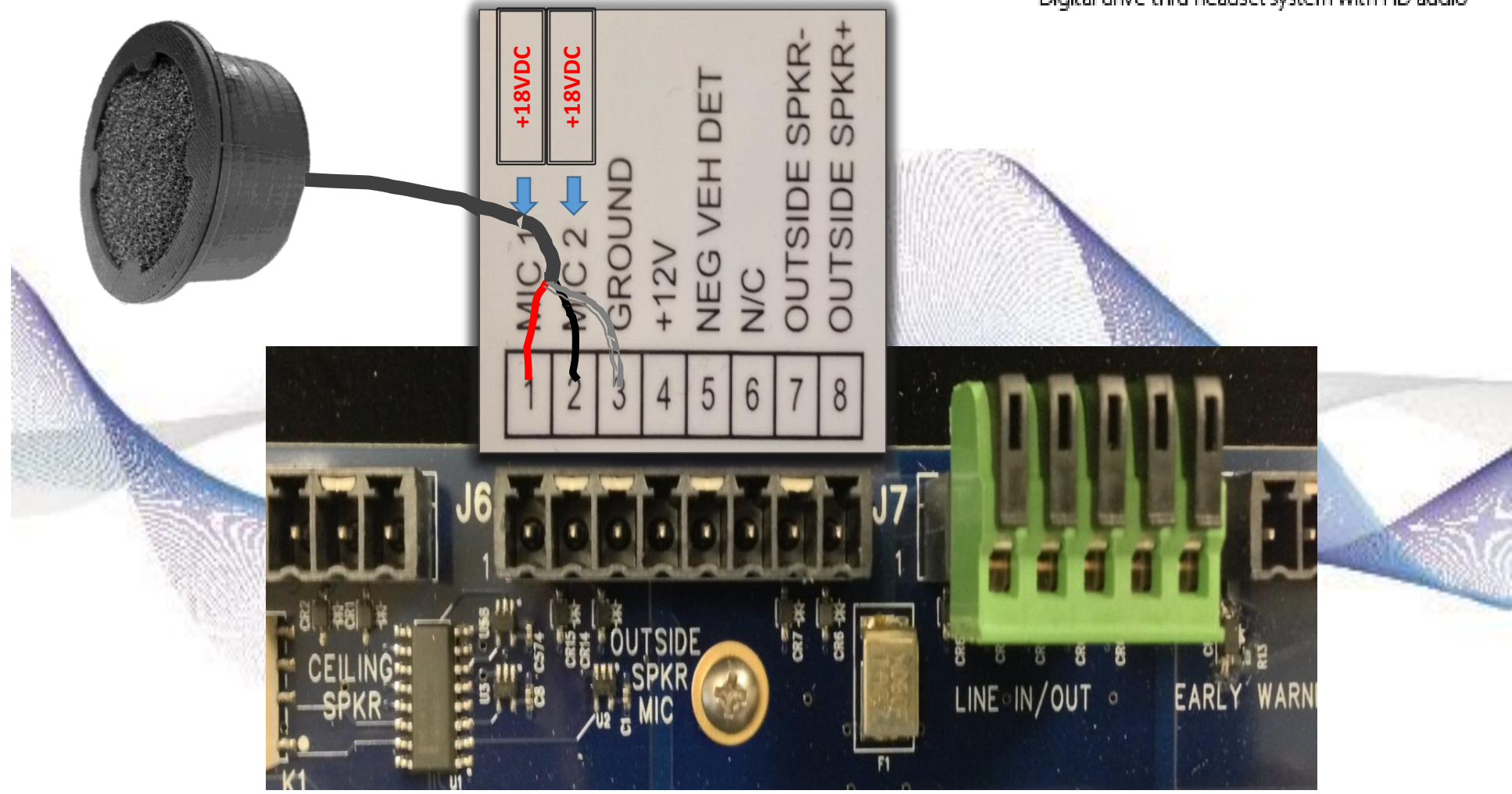


ALL NEW

EOS | HD™

Digital drive-thru headset system with HD audio

Installation Differences



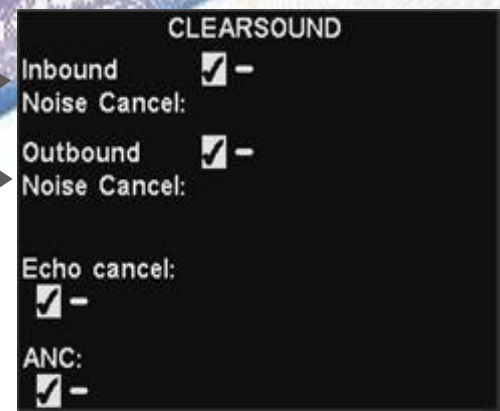
ALL NEW

EOS | HD™

Digital drive-thru headset system with HD audio

Installation Differences

SPEAKER POST MIC selection = DM5/DM6/Half

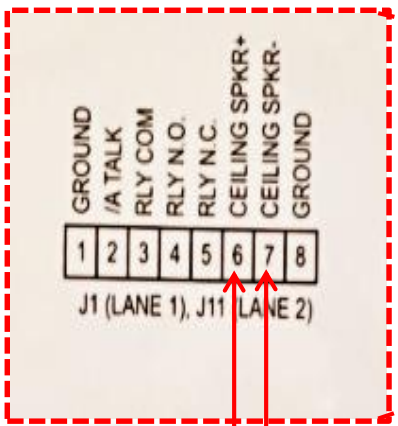


ClearSound Noise Cancel on both Inbound and Outbound

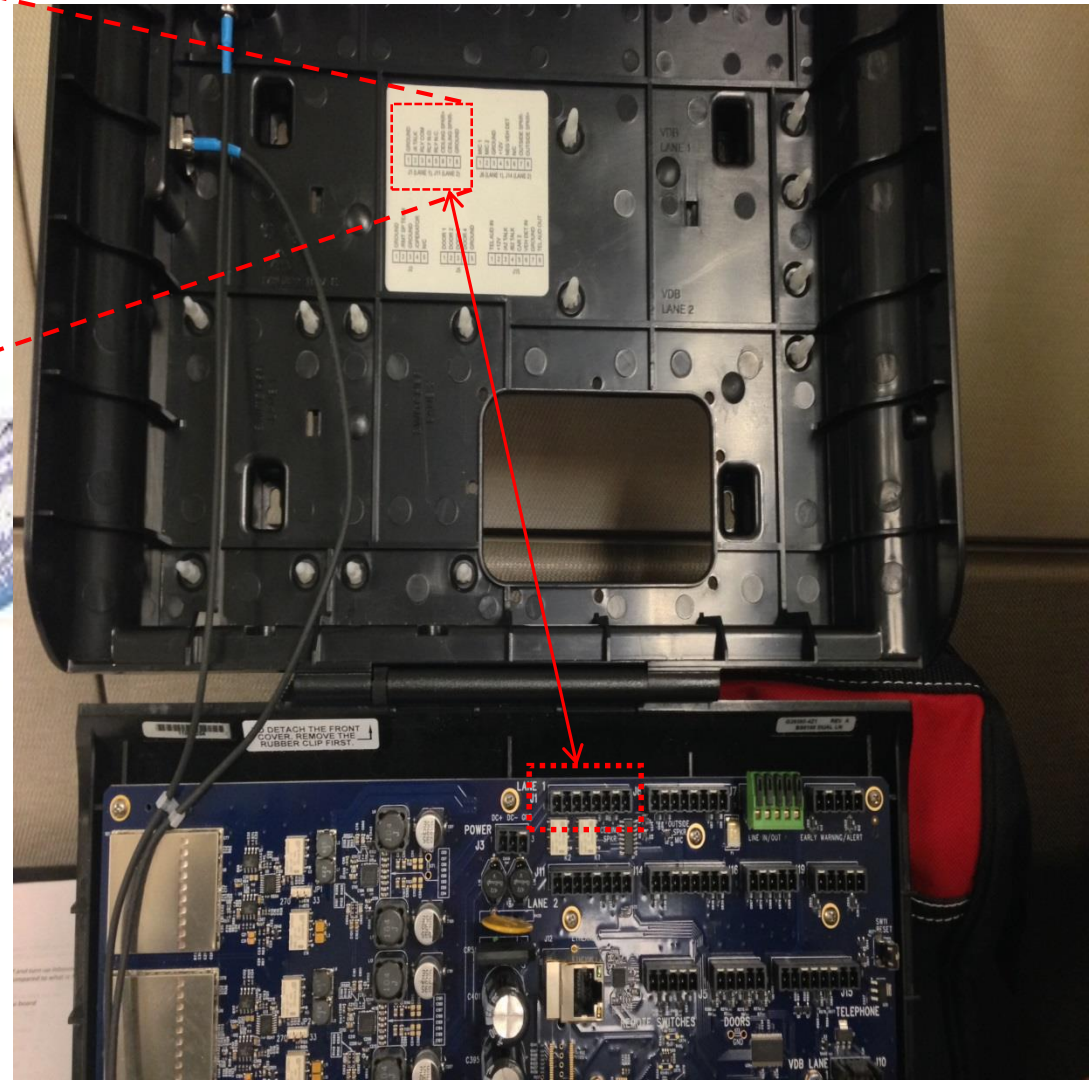
ALL NEW

Installation Differences EOS | HD™

Digital drive-thru headset system with HD audio



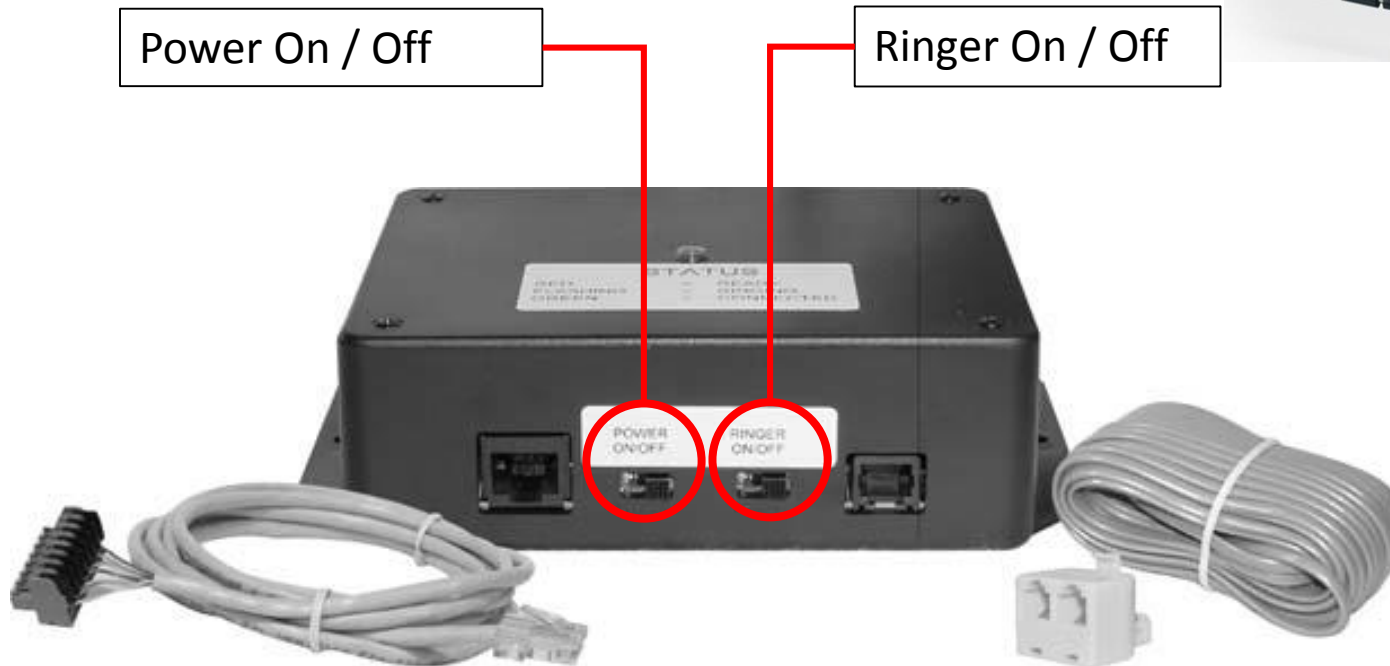
Greet Signal to Timer system from J1-6&7 (CEILING SPKR +/-)



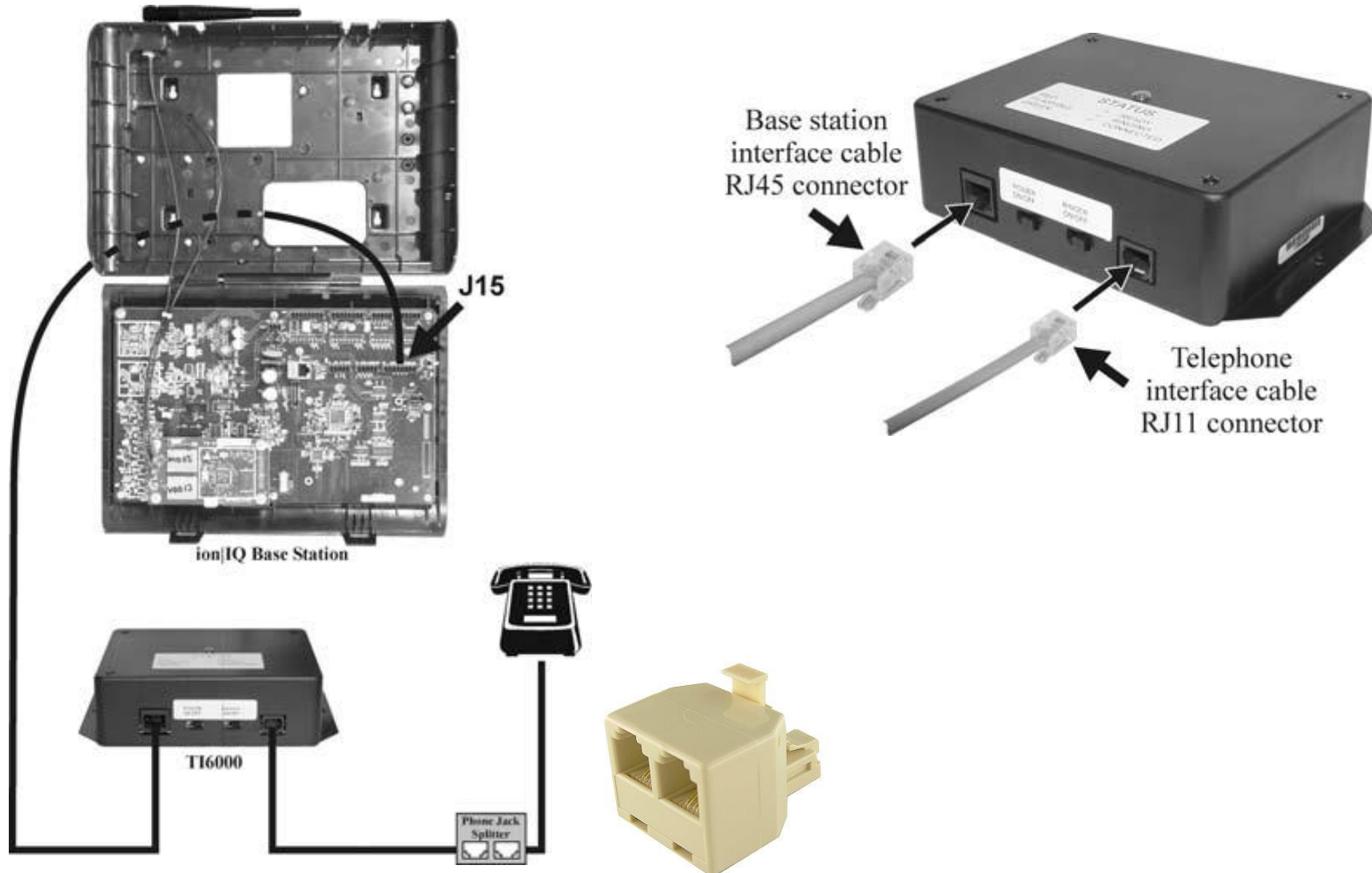
Telephone Interface

TI6000 kit includes:

- (1) TI6000 interface box
- (1) RJ-11 splitter
- (1) 50' line cable
- (1) ION interface cable



Telephone Interface



Telephone Interface

Assign a *SPECIFIC* headset to answer the phone

Works with both single and dual lane systems

All headsets will hear the ring tone (steady tone – 2 times) when call is incoming

Only the assigned headset will be able to answer the phone and call will be private to that specific headset only

Use *A1 or A2* to answer and talk on the phone (unlatching or letting go in PTT places call on hold – no audio either direction)

You can place the call on hold at any time by pressing the *A1 or A2* button, pressing the *A1 or A2* button again will reconnect you to the call

Note: If message (customer greeter or reminder) is playing in the headset when the call is received, two *A* presses are required to answer the phone (1st press cancels message)

Use *B* to hang up the phone

Note: There is no option to play the ring tone over the ceiling speaker

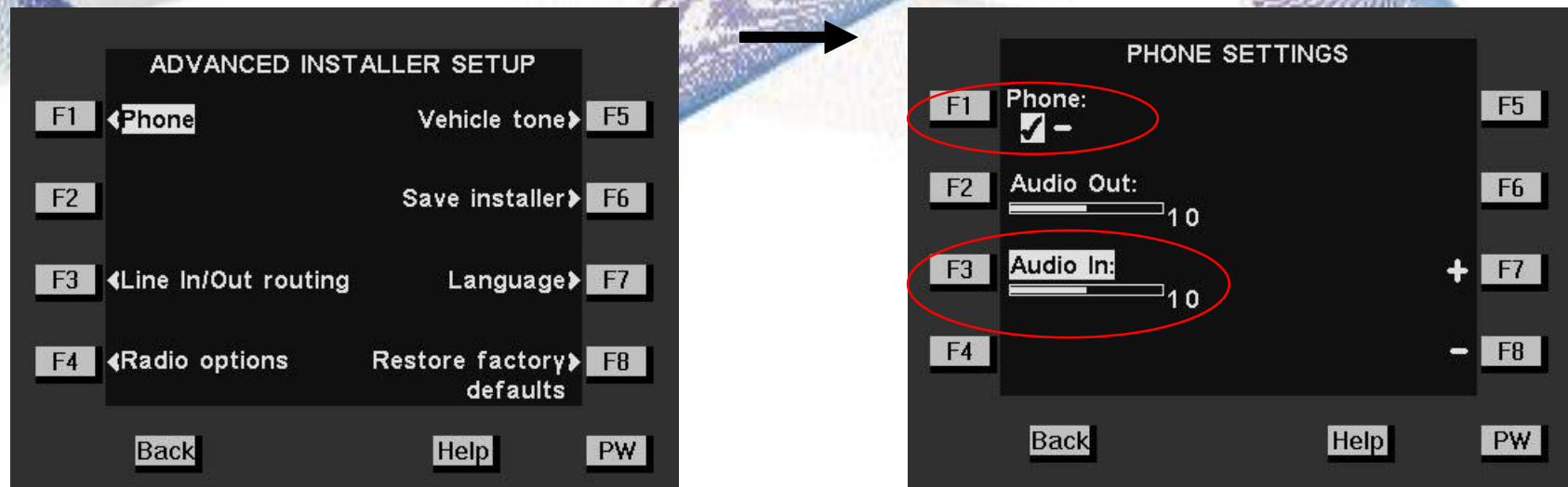
Telephone Interface

Phone interface mode must be enabled in the *INSTALLER* settings menu.

Select *Menu>More>Installer Settings (password required)>More>Phone* menu.

Allows turning feature on and off, as well as adjusting volume levels.

It is recommended that you increase the “audio In” from default setting of 10 to a setting of 13 or 14 to allow for the 2 ring tones to be better heard in headsets and to better hear the caller.



Telephone Interface

Assigned headset selected in the *STORE SETTINGS* menu.

Menu>More>Store Settings (password may be required).

Allows selecting headset number (00- 09, 10=headset A, 11=headset B etc.).

