

DOCUMENTATION HANDBOOK



**PHONTECH
CIS 3130
COMMAND INTERCOM SYSTEM**



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SYSTEM / MASTER / REMOTE STATIONS:

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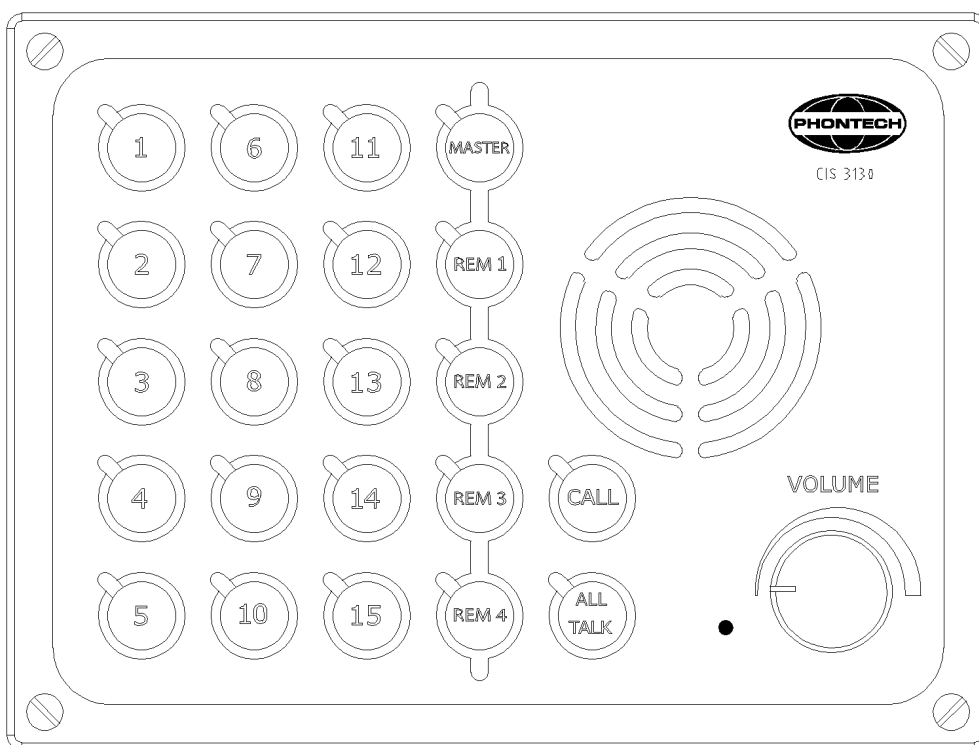
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CIS SYSTEM TYPE 3130 SYSTEM DESCRIPTION.

SYSTEMBESKRIVELSE.



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**TITLE: CIS 3130 VERSION 05827
SYSTEM DECRPTION,
OPERATION AND CONFIGURATION**

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1 INTRODUCTION / INTRODUKSJON

Eng.:

The Command Intercom System CIS 3130 is designed to meet the requirements for two-way talk back and internal communication on board ships.

The system is based on the MASTER station, type CIS 3130. This unit can operate separately with different substations connected, or the system may be expanded with up to four REMOTE stations, type CIS 3132.

The MASTER station, CIS 3130, is normally located on the ships bridge.

The REMOTE stations, CIS 3132, may be located in locations requiring full communication facility on the ship, like the engine control room, captains office, secondary bridge, etc.

The SUBSTATIONS are located throughout the ship; the crew cabins, engine room, mooring stations, generator rooms etc.

In noisy areas, suitable headsets are fitted.

Phontech can deliver several types of substations and additional equipment for the different purposes.

No.:

Intercom system type CIS 3130 er utviklet for å møte behov og krav for intern kommunikasjon på skip.

Intercom systemet er basert på MASTER stasjon, type CIS 3130. I utgangspunktet kan dette apparatet operere understasjonene alene. Imidlertid kan systemet utvides med inntil fire REMOTE stasjoner type CIS 3132.

MASTER stasjon CIS 3130 blir i de aller fleste tilfeller plassert på skipets bro.

REMOTE stasjonene kan plasseres på andre viktige steder hvor alle fasiliteter kreves, som maskin kontrollrom, kapteinens kontor, sekundær bro osv.

BIAPPARATENE plasseres rundt om på skipet, som i mannskaps-lugarer, maskinrom, fortøyningsstasjoner, generator-rom osv.

I støyfylte områder, kan det benyttes tilpassede hodesett.

Phontech leverer flere typer biapparater og tilleggsutstyr til alle formål.

2 GENERAL DESCRIPTION / GENERELL BESKRIVELSE

Eng.:

The CIS 3130 is delivered as follows:

- CIS 3130, MASTER STATION
- CIS 3132, REMOTE STATION
- SUBSTATIONS / ACCESSORIES
 - 9xxx range of units
 - 0xxx range of units
 - Loudspeakers
 - Microphones
 - Handsets
 - Headsets
 - Flashing and rotating lights
 - Hooters and sirens

The MASTER/REMOTE stations contain all active electronics required in a CIS 3130 system. The substations are designed to be as durable as possible to ensure long time performance in rough environments.

The CIS 3130 unit is supplied with a "loudspeaker as substation - automatic call disable" facility. This makes the installer able to connect plain loudspeakers directly as a substation. During power on the CIS 3130 unit will detect such connections and automatically adapt.

No.:

CIS 3130 systemet leveres I følgende moduler:

- *3130 CIS MASTER STASJON*
- *3132 CIS STASJONÆR REMOTE STASJON*
- *BIAPPARATER, TILLEGGSTYR*
 - *9xxx serie av enheter*
 - *0xxx serie av enheter*
 - *Høytalere*
 - *Mikrofoner*
 - *Håndsett*
 - *Hodesett*
 - *Blink og roterende lys*
 - *Horn og sirener*

MASTER/REMOTE stasjonene inneholder all aktiv elektronikk som trengs i et CIS 3130 system. Biapparatene er konstruert enkle og robuste for å funksjonere over lang tid i et utsatt miljø. CIS 3130 er utstyrt med en "høytaler som biapparat - automatisk oppkallssperre" funksjon. Dette muliggjør tilkobling av rene høytalere som biapparater. Ved spenningspåslag vil apparatet CIS 3130 registrere slike tilkoblinger og tilpasse seg denne konfigurasjonen.

3 FACILITY LIST / **LISTE OVER FASILITETER**

Eng.:

(See figure 1)

CIS 3130:

- Connection for 15 substation lines
- Connection for 4 REMOTE stations type CIS 3132
- Control of 4 Public Address System zones
- Combination of PA zone and substation on the same line key as a zone reply substation
- Loudspeaker as substation - automatic call disable
- Connection for port and starboard bridge wing stations
- Connection for Phontech SPA (small public address) system
- Integrated loudspeaker
- Built-in condenser microphone
- Automatic gain control for speech level
- Loudspeaker volume control
- Tri-coloured key indicator led's
- CALL key
- ALL/TALK key
- Automatic all call function
- Extra signal organ output for line 1-8
- External loudspeaker output connections
- Output for external signal device, own unit

OPTIONS.

- Additional line amplifier – 25W
- Gooseneck/handheld microphone connection
- Foot pedal connection for hands free operation

No.:

(Se figur 1)

CIS 3130:

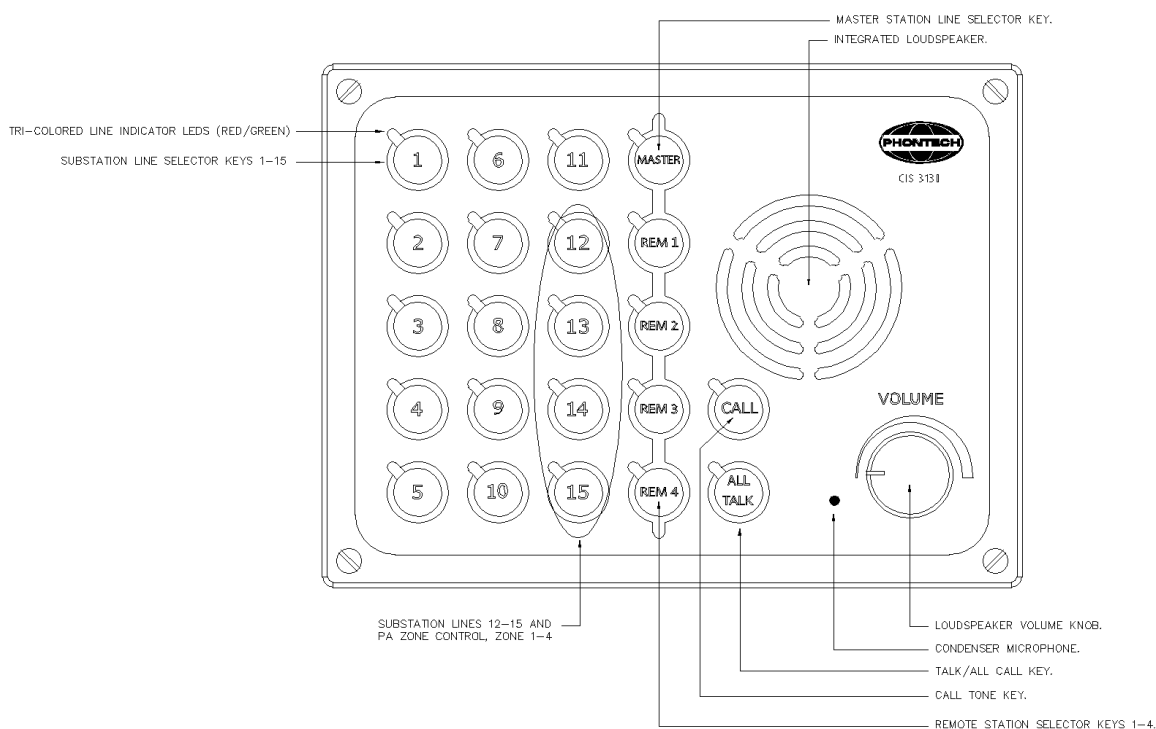
- *Tilkobling for 15 biapparat linjer*
- *Tilkobling for 4 REMOTE stasjoner type CIS 3132*
- *Kontroll av 4 Meldingsanlegg (PA-system) soner*
- *Kombinasjon av PA-system sone og biapparat som et sone tilbakesvar biapparat.*
- *Høytaler som biapparat - automatisk oppkallssperre*
- *Tilkobling for babord og styrbord broving stasjoner*
- *Tilkobling for Phontech SPA (small public address) system*
- *Innbygget høytaler*
- *Innbygget kondensator mikrofon*

- AGC krets. (automatisk talenivå kontroll for tale)
- Høytaler volum kontroll knapp
- Tre farget linjetast indikator lysdioder
- CALL (oppkallstone) tast
- ALL / TALK (alle kall / tale) tast
- Automatisk alle kall funksjon
- Ekstra signal organ utgang for biapparat linje 1-8
- Utgang for ekstern høytaler
- Utgang for eksternt signal organ, egen enhet

FUNKSJONER TILGJENGELIGE PÅ BESTILLING:

- Ekstra linjeforsterker - 25 W.
- Tilkobling for svanehals mikrofon / handmikrofon.
- Fotpedal- tilkobling for håndfri betjening.

FIGURE 1.
FIGUR 1.





4 MOUNTING - INSTALLATION - SCREEN CONNECTION / MONTERING - INSTALLASJON - SKJERM TERMINERING

4.1 MOUNTING / MONTERING

Eng.:

The MASTER / REMOTE station CIS 3130/3132 are delivered for flush mounting.
On request the units may be delivered with wall-mounting box (option).

Front plate dimensions, CIS 3130/3132:	144 x 192 mm. (HxW)
Cut-out dimensions for flush-mounting, CIS 3130 / 3132:	115 x 163 mm. (HxW)
Depth, CIS 3130 / 3132 flush mounted:	100 mm.
wall mounted:	100 mm.

No.:

*Master / REMOTE stasjonene CIS 3130/3132 leveres for innfelt montering.
På forespørsel kan enheten leveres med monteringsboks for vegg (skott) (tillegg).*

<i>Front dimensjoner, CIS 3130 / 3132:</i>	144 x 192 mm. (HxB)
<i>Innfellingsmål for CIS 3130 / 3132:</i>	115 x 163 mm. (HxB)
<i>Dybde, CIS 3130 / 3132 innfelt:</i>	100 mm.
vegg (skott) montert	100 mm.

4.2 INSTALLATION / INSTALLASJON

Eng.:

The installation should be planned in details before commencing. The cables should be listed in a cable plan, with number of pairs etc.

The location of each unit in the intercom system should be planned to obtain maximum performance and user availability.

The locations of the MASTER and REMOTE stations with regards to the operators must be taken especially into consideration.

Please note that the gooseneck microphone (if installed) is "close talk". A close talk microphone has the ability to reduce surrounding noise to a minimum. The drawback is that the operator has to talk close, no more than 5-10 cm away from the microphone. *An extension adaptor can be delivered on request.*

The MASTER and REMOTE stations are delivered for flush mounting. Optional wall mounting boxes are delivered on request.

Phontech strongly recommend the use of junction box(es) for the external cable distribution. The compact design makes some limitations to the cable inlet in the MASTER and Remote stations. The main junction box must be located as close to the master station as possible. A multi-pair cable is to be used between this junction box and the MASTER station.

See the simplified installation diagram on attached in this document.

On request Phontech can supply the junction boxes.

Some SUBSTATIONS are delivered with wall mounting box as standard.

No.:

*Installasjonen skal planlegges i detalj før arbeidet startes. Det skal utarbeides en kabelliste for hele installasjonen, denne kabelplanen skal inneholde kabeltype, antall par osv.
Den fysiske plasseringen av hver enhet skal planlegges nøye slik at man oppnår en optimal ytelse og brukervennlighet.
Det er spesielt viktig at MASTER og REMOTENE plasseres gunstigst mulig i forhold til operatørene.
Ta spesielle hensyn ved montering av svanehals mikrofoner. Denne type mikrofon er konstruert slik at den reduserer bakgrunnsstøy (noise cancelling). Dette innebærer imidlertid at man må snakke direkte inn i mikrofonen med kortest mulig avstand. Svanehals mikrofoner må derfor plasseres slik at operatøren kan snakke maksimum 5-10 cm fra mikrofonen. Forlengelsesadapter kan levers på bestilling.
MASTER og REMOTENE leveres for innfelt montering. På forespørsel kan monteringsboks for vegg (skott) leveres.
Phontech anbefaler å bruke koblingsbokser i installasjonen. Den kompakte konstruksjonen setter visse begrensinger i kabel tilgangen i MASTER og REMOTE stasjonene.
Hovedkoblingsboksen må plasseres så nær MASTER som mulig. Det trekkes en stamkabel mellom disse. Se forenklet installasjons diagram på siste side.
På forespørsel kan Phontech levere koblingsbokser.
Enkelte BIAPPARATER leveres med monteringsboks for vegg (skott) som standard.*

4.3 CABLE TERMINATION / KABEL TERMINERING.

Eng.:

First, ensure that the cable to be used is according to the Phontech specifications. See the CABLE REQUIREMENT chapter (5) in this document.

No.:

Først, stadfest at kablene er i henhold til Phontechs spesifikasjoner. Se under KRAV TIL KABEL (Ref. kapittel 5) i dette dokumentet.

4.4 GLANDS / NIPLER

Eng.:

The cables enter the units by means of cable glands. Where cable glands are not supplied from factory, the installer must adapt the glands to the actual cable outer diameter. This is to obtain the specified inlet protection.

No.:

Kablene føres inn i enhetene ved hjelp av nipler. Der disse ikke er levert fra fabrikk, må installatøren påse at det monteres nipler av riktig type og størrelse i forhold til kabelens ytre diameter. Dette for å oppnå den spesifiserte beskyttelse og tetthet.



4.5 SCREENING / SKJERMING

Eng.:

The cable screen must be terminated as specified in the general installation drawing 99309-000-EC.

No.:

Kabelens skjerm skal termineres som vist på den generelle installasjonstegningen 99309-000-EC.

4.6 FERRULING / TERMINERINGSHYLSER

Eng.:

The conductors should be ferruled prior to termination onto the screw terminals.

No.:

Det bør monteres termineringshylser på alle ledere som skal termineres i skruterminaler.

4.7 MARKING / MERKING

Eng.:

Each cable is to be marked with cable numbers.

Each conductor is to be marked with the specific termination numbers.

Please note that Phontech uses plug-able screw terminals as standard. This is to make the installation and service work as easy and durable as possible.

No.:

Alle kabler skal merkes med kabelnummer.

Hver leder skal merkes med terminalnummer.

Merk at Phontech bruker pluggbare skruterminaler som standard. Dette er for å forenkle installasjons og servicejobben.

4.8 FASTENING / FESTING

Eng.:

Where applicable, the cables and the conductors shall be clamped to the structure with cable ties.

No.:

Der det er hensiktsmessig skal kablen og lederne festes med festebånd.

4.9 PRESERVATION / KONSERVERING

Eng.:

Prior to, during, and after completion of the installation the equipment surfaces are to be protected against acid holding fluids, pollution, moist, impacts etc.

This is in order to avoid damaged equipment for which Phontech will claim void warranty.

No.:

Før, under og etter ferdigstilling av installasjonen skal utstyret beskyttes mot fuktighet, syreholdige væsker, forurensing, støv, slag osv.

Dette for å unngå skader på utstyret, som Phontech frasier seg garantiansvar for.

4.10 SCREEN CONNECTION / SKJERM TERMINERING

Eng.:

In order to obtain maximum performance after installation, it is necessary to terminate the cables and ground the screens in a good manner. The cables are to de-isolated by removing approximately 250 mm of the outer insulation. Then the screen braid is cut off approximately 30 mm longer than the outer isolation. The conductors are to be de-isolated and ferruled before they are inserted into the terminals. The outer screen is clamped to the cable fixing arcs inside the cabinet. Cable ties of a conductive type (metal) are recommended for best result.

See figure 2 for more details.

No.:

For å oppnå optimal ytelse etter installasjonen, er det nødvendig å terminere kablene og jorde kabelskjermene på en god måte. Kablene avisoleres ved å fjerne ca. 250 mm av ytterkappen.

Deretter kuttes skjermen ca.30 mm lengre enn ytterkappen.

Lederne avisoleres og det monteres endehylser før de festes i skruklemmene.

Yterskjermen festes til festebuene i apparatet. Festebånd av ledende type (metall) anbefales for best resultat.

Se figur 2 for detaljer.

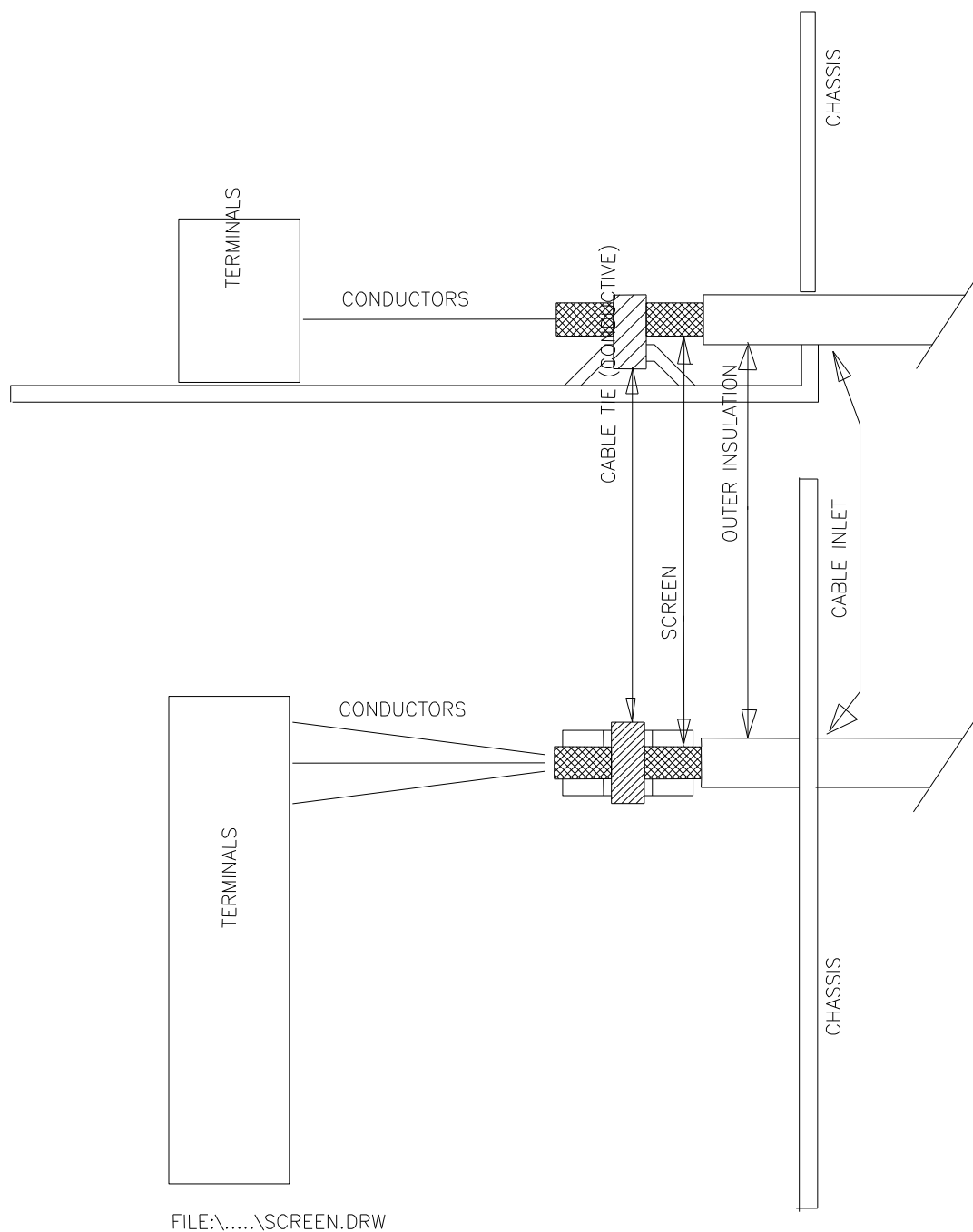


FIGURE 2.
FIGUR 2.

Eng.:

The cables outer screen is to be terminated as shown. A conductive type of cable tie is recommended to obtain best possible screen connections.

No.:

Kablens ytterskjerm termineres som vist. Ledende festebånd anbefales for å oppnå best mulig forbindelse for skjermen.

5 CABLE REQUIREMENTS / **KRAV TIL KABEL**

Eng.:

All cables used with the Command Intercom System must be of approved ship cable type.

!! ESPECIALLY IMPORTANT:

The cables must be:

- Common outer screen
- Individually twisted pairs
- Recommended conductor size is 0.75 mm²
- All cabling in the CIS must be a separate network.
- **DO NOT COMBINE DIFFERENT SYSTEMS IN THE SAME CABLE. THIS IS TO PREVENT DISTURBANCE AND NOISE CAUSED BY INTERFERENCE.**

Between the MASTER and REMOTE stations:	3 pairs
To SUBSTATIONS:	1 pair
If extra signal device:	1 extra pair (total 2 pairs)
To bridge wings:	3 pairs
Power cables:	1 pair + Ground

Consult the drawing 99309-000-EC for detailed system connection.

No.:

Alle kabler som brukes i Command Intercom Systemet skal være godkjent skipskabel.

MEGET VIKTIG:

Kablene skal være:

- *Felles ytterskjerm*
- *Individuelt revolverte par*
- *Anbefalt ledertverrsnitt er 0.75 mm²*
- *All kabling I CIS systemet skal være ett separat nett*
- ***KOMBINER IKKE FORSKJELLIGE SYSTEMER I SAMME KABEL. DETTE FOR Å UNNGÅ FORSTYRRELSER OG STØY PÅ GRUNN AV INTERFERENS.***

<i>Mellom MASTER og REMOTE stasjonene:</i>	<i>3 par</i>
<i>Til biapparater:</i>	<i>1 par</i>
<i>Dersom ekstra signalorgan:</i>	<i>1 ekstra par (totalt 2 par)</i>
<i>Til brovinger:</i>	<i>3 par</i>
<i>Kabler for driftsspenning:</i>	<i>1 par + jord</i>

Se tegning 99309-000-EC for REMOTE stasjon / broving / biapparat tilkobling.

6 LINE INDICATORS AND TONE SIGNALS / LINJE INDIKATORER OG SIGNALTONER

Eng.:

The following symbols are used to describe activity in the operating instructions:

- M** : MASTER or REMOTE station information and activity
- S** : SUBSTATION information and activity
 - : Common information and activity

No.:

Følgende symboler benyttes for å beskrive aktivitet i bruksanvisningen:

- M** : *MASTER eller REMOTE enhet informasjon og aktivitet*
- S** : *SUBSTASJON informasjon og aktivitet*
 - : *Felles informasjon og aktivitet*

6.1 LINE INDICATORS / LINJE INDIKATORER

Eng.:

- M** In the idle status / after power-up, the line indicator lights illuminates dim green as night orientation light.
- M** Bright green line indicators are calling lines that requires responding by activating the line keys
- M** Red line indicators are active lines connected to the speech path.
- M** Yellow line indicators indicate either "IN COMMAND" functionality or the call originating unit "IN USE".

No.:

- M** *I hvilestilling / etter spenningspåslag, lyser linjeindikatorene svakt grønt nattlys.*
- M** *Kraftig grønt lys indikerer oppkall og som krever respons ved at tilhørende linjetast trykkes for å aktivere linjen.*
- M** *Rød linjeindikator er aktive linjer som er innkoblet til audiokanalen.*
- M** *Gul linjeindikator er enten "IN COMMAND" funksjonen eller det viser hvem som har initiert et oppkall; "IN USE"*

6.2 TONE SIGNALS / TONE SIGNALER

Eng.:

The MASTER and REMOTE stations are equipped with 3 different tone signals

- The "call" signal – continuous (when activated), medium frequency (1000 Hz)
 - This tone signal is sounded whenever there is a call signal in the system. Either manually engaged or automatically during ALL CALL.
- M** The "busy" signal – 3 successive short bursts, low frequency (400 Hz)

- This tone signal is sounded whenever a REMOTE station is denied access to a requested activity. (I.e. when the system is busy when a line is tried engaged).
- M** The “illegal” signal – 1 short burst, medium frequency (1000 Hz) immediately followed by a fast high-to-low frequency sweep (1500 – 300 Hz).
 - This tone signal is sounded when illegal situations occur.
 - If the tone is sounded once the illegal situation is temporary and a legal situation may be restored by the system. **No corrective actions are required.**
 - If the tone is sounded every time a function is activated a permanent illegal situation is connected to this specific situation. Otherwise the system may work correctly. **In this case the fault should be located and repaired.**
 - If the tone is sounded repeatedly the situation is permanently illegal. **In this case the fault must be located and repaired.**

No.:

MASTER og REMOTE stasjonene kan sende ut 3 forskjellige tone signaler:

- *“CALL” (oppkall) signal – et kontinuerlig (når det er aktivt,) medium frekvens (1000 Hz)*
 - *Dette tone signalet lyder ved oppkalls signalering i systemet. Enten iverksatt manuelt, eller automatisk i forbindelse med allekall.*
- M** *“BUSY” (opptatt) signal – 3 suksessive korte støy, lav frekvens (400 Hz).*
 - *Dette tone signalet lyder når en REMOTE stasjon nektes tilgang ved valg av en aktivitet eller funksjon. (F. eks dersom systemet er opptatt når en linje forsakes satt.)*
- M** *“ILLEGAL” signal – 1 kort støy, medium frekvens (1000 Hz) etterfulgt av et raskt høy-til-lav frekvens sveip (1500 – 300 Hz).*
 - *Dette tone signalet benyttes dersom det oppstår en ulovlig tilstand.*
 - *Dersom tonen lyder en gang er den ulovlige tilstanden forbigående og normal operasjon kan gjenopprettes av systemet. **Ingen korrigerende tiltak er nødvendig.***
 - *Dersom tonen lyder hver gang en funksjonen aktiveres skyldes dette en permanent ulovlig tilstand (feil) forbundet med den spesifikke situasjonen. Ut over dette kan systemet fungere normalt. **I dette tilfelle bør feilen lokaliseres og rettes.***
 - *Dersom tonen lyder kontinuerlig repetert er det en permanent ulovlig tilstand (feil) I systemet. **Feilen må lokaliseres og rettes.***

7 OVERALL SYSTEM PERFORMANCE / OVERORDNET SYSTEM OPPFØRSEL

7.1 PRIORITY STRUCTURE / PRIORITETSSTRUKTUR

Eng.:

- The CIS 3130 system is provided with a basic priority structure with the MASTER station CIS 3130 with overall priority. The MASTER will at all times monitor the system activity and be able to join and/or control any call.
- In addition the system is equipped with an “IN COMMAND” function (Ref. chapter 7.2) giving access to one REMOTE station CIS 3132 to have the same facility as MASTER.
- Otherwise, the basic priority structure of the system is “first come first serve”.
- As the system consists only of one speech path, only one call is allowed simultaneously. All lines selected and all calls engaged at the same time will be connected in conference.
- If an idle REMOTE tries to engage any calls when others occupy the speech path, the unit will sound the “busy” signal. Unless the unit has the “IN COMMAND” function activated.

No.:

- *CIS 3130 systemet er underlagt en prioritetsstruktur der MASTER stasjon CIS 3130 har total prioritet. MASTER vil alltid monitorere aktiviteten i systemet og delta eller kontrollere enhver samtale.*
- *I tillegg har systemet en “IN COMMAND” funksjon (Ref. kapittel 7.2) som gir tilgang til at en REMOTE stasjon CIS 3132 kan ha samme prioritet og funksjon som MASTER.*
- *Ut over dette har systemet en ”først til mølla” prioritetsstruktur.*
- *På grunn av at systemet kun er utstyrt med en talekanal vil kun en samtale tillates samtidig. Alle linjer som legges inn samtidig vil dermed havne i en konferanse samtale.*
- *Dersom en ledig REMOTE forsøker å gjøre et oppkall mens andre okkuperer talekanalen vil enheten sende ut opptatt (“BUSY”) signal. Unntatt dersom enheten har ”IN COMMAND” funksjonen aktivert.*

7.2 IN COMMAND

Eng.:

The “IN COMMAND” function is only applicable to the REMOTE stations. By using this each REMOTE station can obtain the priority structure (Ref. chapter 7.1) of the MASTER station and monitor all calls and activity in the system as well as control and join the calls.

- M** The “IN COMMAND” function is indicated on the MASTER and all REMOTES by a yellow line indicator of the unit that is in command.
- M** To engage the “IN COMMAND” on a REMOTE station press the units own line key. The unit must be idle to get access to this operation.
- M** The units own line indicator switches to yellow.
- M** The unit will also immediately mirror the status of the MASTER and update line indicators and audio connections.

No.:

“IN COMMAND” funksjonen gjelder bare REMOTE stasjonene. Ved å denne funksjonen kan en REMOTE tilegne seg same prioritetsstruktur (Ref. kapittel 7.1) som MASTEREN og på den måten monitorere all aktivitet i systemet og delta i konferansene.

- M** *“IN COMMAND” funksjonen indikeres på MASTEREN og alle REMOTENE med gult lys i linjeindikatoren for den stasjonen som har funksjonen aktivert.*
- M** *For å iverksette “IN COMMAND” funksjonen må REMOTENS egen linjetast velges på eget panel. Enheten må dessuten være ledig, dvs. ingen linjer aktivert, for å få tilgang.*
- M** *Stasjonens egen linje indikator skifter til gul.*
- M** *Stasjonen vil umiddelbart også speile tilstanden på MASTER ved å oppdatere alle linje indikatorene og audio forbindelsene.*

7.3 THE “IN USE” INDICATION AND FUNCTIONALITY / “IN USE” INDIKASJON OG FUNKSJONALITET

Eng.:

- M** *First time a line is engaged after being idle, the system indicates this by turning on the yellow line indicator of the MASTER or the REMOTE in question as the “IN USE” indicator.*
- M** *The yellow line indicator is automatically turned off when the last line is released.*
- M** *If there is a yellow line indicator the unit in question will at all times monitor the system activity and join any call.*

No.:

- M** *Første gang en linje engasjeres indikerer systemet dette ved å tenne den gule linjeindikatoren for enheten.*
- M** *Den gule linje indikatoren vil automatisk slukkes når den siste linjen slås av.*
- M** *Dersom systemet inneholder en gul linjeindikator vil den stasjonen som lyset indikerer alltid monitorere systemets aktivitet og være i stand til delta i konferansene.*

7.4 INTERFACE TO PUBLIC ADDRESS / GRENSESNIITT MOT MELDINGSANLEGG (PUBLIC ADDRESS)

Eng.:

The CIS 3130 system can operate as a part of a Public Address (PA) system. It can either be configured to operate as access units (MASTER / REMOTE) with or without zone control, or it can be configured to make all CIS units a part of the loudspeaker network of the PA system. When the system is configured as PA access units, the internal DIP Switch 4 (ref.....) configures whether the interface is zone controlled or only ALL CALL based. In the zone control mode the **substations buttons 12-15 controls zone 1-4** respectively.

No.:

CIS systemet kan settes opp til å være en del av et meldingsanlegg (PA-system). Det kan enten konfigureres til å fungerer som kontrollenheter (MASTER / REMOTE) med eller uten sone kontroll, eller systemets enheter kan utgjøre en del av PA-systemets høyttalernetverk. Når det er

satt opp som PA kontrollenheter vil intern Kippbryter 4 (ref.....) kontrollere om grensesnittet kontrollerer soner, eller om det kun formidler ALLE KALL. Når systemet er satt opp til å kontrollere soner vil **biapparat tastene 12-15 kontrollere sone 1-4** respektivt.

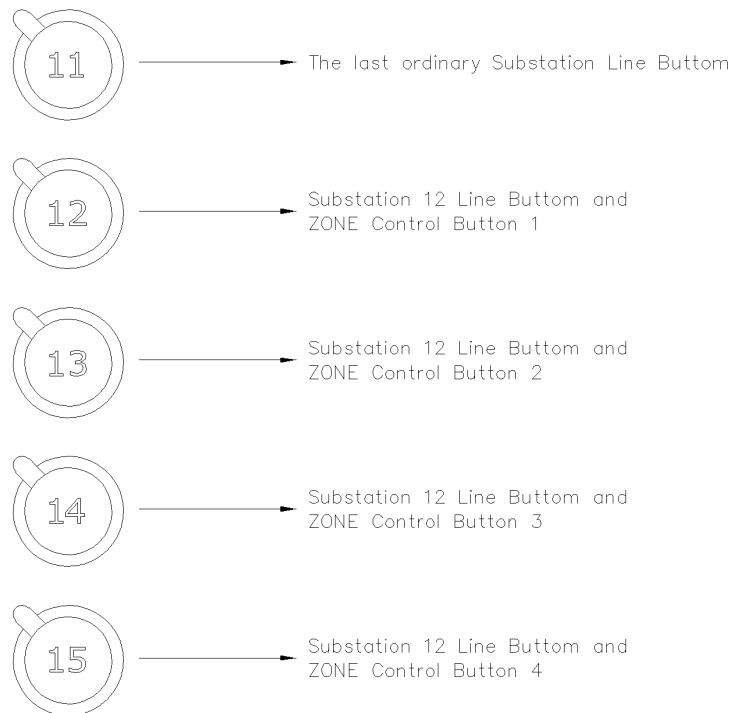


Figure 3.
Figur 3.

8 NORMAL USE - OPERATION INSTRUCTIONS / **NORMAL BRUK – BRUKSANVISNING**

8.1 A SUBSTATION CALLS THE MASTER / ***ET BIAPPARAT KALLER MASTER STASJONEN***

Eng.:

- S** Press the CALL button
- M** The corresponding line indicator turns bright green. This will be on until it is manually reset.
- M** If the system was initially idle the master will also generate the call signal tone in the loudspeaker and activate the external signal device if connected (flash light, siren etc.) as long as the substations call button is pressed. The tone stops and the external signal device is deactivated when the substations call button is released.
- M** To answer the call, the procedure: “THE MASTER CALLS A SUBSTATION” (Ref. chapter 8.3) is to be followed.

No.:

- S** Trykk på “CALL” knappen (oppkall).
- M** Den tilhørende linje indikatoren tennes, klar grønn. Den forblir grønn inntil den blir manuelt resatt ved å aktivere linjen.
- M** Dersom systemet på forhånd var ledig, vil MASTEREN også generere et oppkallssignal (CALL) i høyttaleren og aktivere eksternt signal organ (blinklys, sirene etc.) dersom dette finnes inntil oppkallstasten slippes.
- M** For å besvare oppkallet følges prosedyren “MASTEREN KALLER OPP ET BIAPPARAT” (Ref. kapittel 8.3).

8.2 A SUBSTATION CALLS A REMOTE / ET BIAPPARAT KALLER EN REMOTE STASJON

Eng.:

A substation can not decide whether to call the MASTER or a REMOTE station. A call from the substation will always be presented on the MASTER station, but can also be forwarded to a REMOTE station in these situations:

- A REMOTE station has already called another unit (MASTER/REMOTE/SUBSTATION) and is registered as “IN USE” (Ref. chapter 7.3)
- A REMOTE station has been defined as “IN COMMAND” (Ref. chapter 7.1).

- S** The actual calling procedure is the same as “A SUBSTATION CALLS THE MASTER” (Ref. chapter 8.1).

No.:

Et BIAPPARAT kan ikke bestemme hvorvidt en MASTER eller en REMOTE skal kalles opp. Et oppkall fra et BIAPPARAT vil alltid presenteres på MASTER, men også videreformidles til en REMOTE i følgende situasjoner:

- En REMOTE stasjon har allerede kallet opp et annet apparat (MASTER/REMOTE/BIAPPARAT) og blitt registrert som “IN USE” (Ref. kapittel 7.3)
- En REMOTE stasjon er definert som “IN COMMAND” (Ref. kapittel 7.1).

- S** Oppkallsprosedyren er den samme som “ET BIAPPARAT KALLER OPP MASTER STASJONEN” (Ref. kapittel 8.1).

8.3 THE MASTER CALLS A SUBSTATION / MASTER STASJONEN KALLER OPP ET BIAPPARAT

Eng.:

- M** Select the line by operating the appropriate line key. The line indicator led turns red. More than one line can be called simultaneously.
- M** In case the system was initially idle a yellow light will be activated in the MASTER line indicator as the “IN USE” indicator (Ref chapter 7.3). (Unless this is lit yellow from before due to the default “IN COMMAND” (Ref. chapter 7.1) function.)
- M** Press the TALK key to talk to the selected substation(s). If the unit is equipped with a gooseneck microphone the operator must talk very close to the microphone.

- M** Alternatively press the CALL key to generate an attention tone in the substation unit loudspeaker and activate the external signal device if connected. (Flash light, siren etc.)
- M** Release the TALK key to listen to the reply from the substation operator.
- S** If the substation is equipped with a TALK button press this to override the “privacy function”. Reply to the call. Otherwise, just reply.
- S** To ensure the best possible sound quality, keep the TALK key pressed at all time during the call.
- M** Press the activated line keys to de-select the lines. The red led’s will switch off. When the last line is switched off the yellow “IN USE” indicator is also turned off. (Unless this is also the “IN COMMAND” indicator).

No.:

- M** *Velg en linje ved å trykke på tilhørende linjetast. Linjeindikatoren skifter til klar rød. Flere enn en linje kan aktiveres samtidig.*
- M** *Dersom systemet på forhånd var ledig, vil et gult lys i tennes i linjeindikatoren for MASTER for å indikere “IN USE” funksjon (Ref kapittel 7.3). (Unntatt dersom denne er tent på forhånd for å indikere “IN COMMAND” funksjon (Ref. kapittel 7.1))*
- M** *Trykk TALK for å gi beskjed til valgt BIAPPARAT(ER). Dersom enheten er utstyrt med svanehals mikrofon må operatøren snakke svært tett inntil mikrofonen.*
- M** *Alternativt, trykk CALL for å generere oppkalls tone i BIAPPARATETS høyttaler og aktivere eksternt signal organ (blinklys, sirene etc.) dersom dette finnes.*
- M** *Slipp TALK for å lytte på svar fra BIAPPARAT operatøren.*
- S** *Dersom BIAPPARATET er utstyrt med en “TALK” (tale) knapp, må denne trykkes for å oppheve innlytte sperren og svare tilbake. Dersom den ikke har ”TALK” knapp kan svar avleveres direkte.*
- S** *For å oppnå best mulig lyd kvalitet bør “TALK” knappen være trykket hele tiden under samtalen, også i lyttesituasjon.*
- M** *Gjentrykk på de aktiverte linjetastene slår linjene av. Den røde linjeindikasjonen slås da av. Når siste linje slås av vil den gule ”IN USE” indikatoren også bli slått av (Dersom den ikke samtidig også er indikator for “IN COMMAND” funksjonen).*

8.4 THE MASTER CALLS A REMOTE / MASTEREN KALLER EN REMOTE

Eng.:

- M** Select the line by operating the appropriate line key. The line indicator led turns red. More than one line can be called simultaneously.
- M** (A combination of REMOTES and SUBSTATIONS can be called simultaneously)
- M** In case the system was initially idle a yellow light will be activated in the MASTER line indicator as the “IN USE” indicator (Ref chapter 7.3). (Unless this is lit yellow from before due to the default “IN COMMAND” (Ref. chapter 7.1) function.)
- M** Press the TALK key to talk to the selected REMOTE station(s). If the unit is equipped with a gooseneck microphone the operator must talk very close to the microphone.

- M Alternatively press the CALL key to generate an attention tone in the REMOTE unit loudspeaker and activate the external signal device if connected. (Flash light, siren etc.)
- M Release the TALK key to listen to the reply from the REMOTE station operator.
- M The called REMOTE must use the TALK key or otherwise activate TALK to answer back to the MASTER.
- M Press the activated line keys to de-select the lines. The red led's will switch off. When the last line is switched off the yellow "IN USE" indicator is also turned off. (Unless this is also the "IN COMMAND" indicator).

No.:

- M *Velg en linje ved å trykke ønsket linjetast. Tilhørende linjeindikator tennes rød. Flere linjer kan aktiveres samtidig.*
- M *(Det kan også velges en kombinasjon av REMOTER og BIAPPARATER.)*
- M *Dersom systemet på forhånd var ledig, vil et gult lys i tennes i linjeindikatoren for MASTER for å indikere "IN USE" funksjon (Ref kapittel 7.3). (Unntatt dersom denne er tent på forhånd for å indikere "IN COMMAND" funksjon (Ref. kapittel 7.1))*
- M *Trykk TALK for å gi beskjed til valgt REMOTE(ER). Dersom enheten er utstyrt med svanehals mikrofon må operatøren snakke svært tett inntil mikrofonen.*
- M *Alternativt, trykk CALL for å generere oppkalls tone i REMOTENS høyttaler og aktivere eksternt signal organ (blinklys, sirene etc.) dersom dette finnes.*
- M *Slipp TALK for å lytte på svar fra REMOTE operatøren.*
- M *Den oppkalte REMOTEN må trykke TALK tasten, eller på annen måte aktivere TALK for å svare tilbake til MASTEREN.*
- M *Gjentrykk på de aktiverte linjetastene slår linjene av. Den røde linjeindikasjonen slås da av. Når siste linje slås av vil den gule "IN USE" indikatoren også bli slått av (Dersom den ikke samtidig også er indikator for "IN COMMAND" funksjonen).*

8.5 A REMOTE CALLS A SUBSTATION / EN REMOTE STASJON KALLER OPP ET BIAPPARAT

Eng.:

Condition: The REMOTE station is not "IN COMMAND"

(In case the REMOTE station is "IN COMMAND" it will behave as a master following the procedure of "THE MASTER CALLS A SUBSTATION" (Ref. chapter 8.3).)

- M Select the line by operating the appropriate line key.
 - If the system is not available (some other remote or the master is occupying the system) the unit responds with the "busy" signal. (Ref. chapter 6.2)
- M The line indicator remains off.
- M If the call is of high priority 2 things can be done:
 - Press TALK to activate the ALL CALL function (Ref. chapter 8.6) and make an announcement.

- Engage “IN COMMAND” function (Ref. chapter 7.2) in order to join the ongoing conference, and/or set up a new conference. In this case the existing “IN COMMAND” REMOTE station will be cut off and loose all line set-ups.
- If the system is available the unit will get access.
- M** The line indicator led turns red. More than one line can be called simultaneously.
- M** When the first line is engaged the MASTER is automatically also connected and its line indicator turns red. This is according to the priority structure (Ref. chapter 7.1)
- M** The REMOTE’S own line indicator turns yellow to indicate “IN USE” (Ref. chapter 7.3)
- M** Press the TALK key to talk to the selected substation(s). If the unit is equipped with a gooseneck microphone the operator must talk very close to the microphone.
- M** Alternatively press the CALL key to generate an attention tone in the substation unit loudspeaker and activate the external signal device if connected. (Flash light, siren etc.)
- M** Release the TALK key to listen to the reply from the substation operator.
- S** If the substation is equipped with a TALK button press this to override the “privacy function”. Reply to the call. Otherwise, just reply.
- S** To ensure the best possible sound quality, keep the TALK key pressed at all time during the call.
- M** Press the activated line keys to de-select the lines. The red led’s will switch off.
 - The system will not allow the REMOTE to disengage the MASTER if SUBSTATIONS still remain engaged. In case this is attempted the REMOTE responds with the “busy” signal.
- M** When the last line is switched off the yellow “IN USE” indicator is also turned off. (Unless this is also the “IN COMMAND” indicator).

No.:

Betingelse: REMOTE stasjonen er ikke “IN COMMAND”

(Dersom REMOTEN stasjonen er “IN COMMAND” vil den oppføre seg som en MASTER og følge prosedyren for “MASTER STASJONEN KALLER OPP ET BIAPPARAT” (Ref. kapittel 8.3).)

M *Velg en linje ved å trykk ønsket linjetast.*

- *Dersom systemet ikke er tilgjengelig (MASTEREN eller en annen REMOTE har belagt systemet) vil enheten svare med ”opptatt” signalet. (Ref. kapittel 6.2)*

M *Linje indikatoren forblir slukket.*

M *Dersom samtalen er av høy viktighet kan 2 ting gjøres:*

- *Trykk TALK for å engasjere ALLE KALL funksjon (Ref. kapittel 8.6) og gi den ønskede beskjeden.*
- *Aktiver “IN COMMAND” funksjonen (Ref. kapittel 7.2) for å innhente systemoppsettet fra MASTER og dermed kunne delta eller sette opp en ny konferanse. I dette tilfelle vil en eksisterende “IN COMMAND” REMOTE stasjon bli utkoblet og miste alle iverksatte linjer*

- *Dersom systemet er tilgjengelig vil enheten få aksess.*

- M *Linjeindikatoren skifter til klar rød. Flere enn en linje kan aktiveres samtidig.*
- M *Når første linje kobles opp forbindes også automatisk MASTEREN og dens linjeindikator tennes rød. Dette følger systemets prioritetsstruktur (Ref. kapittel 7.1)*
- M *REMOTENS egen linjeindikator tennes gul for å indikere "IN USE" (Ref. kapittel 7.3)*
- M *Trykk TALK for å gi beskjed til valgt BIAPPARAT(ER). Dersom enheten er utstyrt med svanehals mikrofon må operatøren snakke svært tett inntil mikrofonen.*
- M *Alternativt, trykk CALL for å generere oppkalls tone i BIAPPARATETS høyttaler og aktivere eksternt signal organ (blinklys, sirene etc.) dersom dette finnes.*
- M *Slipp TALK for å lytte på svar fra BIAPPARAT operatøren.*
- S *Dersom BIAPPARATET er utstyrt med en "TALK" (tale) knapp, må denne trykkes for å oppheve innlytte sperren og svare tilbake. Dersom den ikke har "TALK" knapp kan svar avleveres direkte.*
- S *For å oppnå best mulig lyd kvalitet bør "TALK" knappen være trykket hele tiden under samtalen, også i lyttesituasjon.*
- M *Gjentrykk på de aktiverte linjetastene slår linjene av. Den røde linjeindikasjonen slås da av.*
 - *Systemet vil ikke tillate REMOTEN å koble ned MASTER før alle BIAPPARATENE er nedkoblet. Dersom dette forsøkes vil REMOTEN reagere ved å sende ut opptatt signalet.*
- M *Når siste linje slås av vil den gule "IN USE" indikatoren også bli slått av (Dersom den ikke samtidig også er indikator for "IN COMMAND" funksjonen).*

8.6 A REMOTE CALLS THE MASTER OR ANOTHER REMOTE / EN REMOTE ENHET KALLER OPP MASTER ELLER EN ANNEN REMOTE

Eng.:

Condition: The REMOTE station is not "IN COMMAND"

(In case the REMOTE station is "IN COMMAND" it will behave as a master following the procedure of "THE MASTER CALLS A REMOTE (Ref. chapter 8.4).)

- M Select the line by operating the appropriate line key.
 - If the system is not available (some other REMOTE or the MASTER is occupying the system) the unit responds with the "busy" signal. (Ref. chapter 6.2)
- M The line indicator remains off.
- M If the call is of high priority 2 things can be done:
 - Press TALK to activate the ALL CALL function (Ref. chapter 8.6) and make an announcement.
 - Engage "IN COMMAND" function (Ref. chapter 7.2) in order to join the ongoing conference, and/or set up a new conference. In this case the existing "IN COMMAND" REMOTE station will be cut off and loose all line set-ups.
- If the system is available the unit will get access.
- M The line indicator led turns red. More than one line, and a combination of MASTER, REMOTES and SUBSTATIONS, can be called simultaneously.

- M When the first line is engaged the MASTER is automatically also connected and its line indicator turns red. This is according to the priority structure (Ref. chapter 7.1)
- M The REMOTE'S own line indicator turns yellow to indicate "IN USE" (Ref. chapter 7.3)
- M Press the TALK key to talk to the selected substation(s). If the unit is equipped with a gooseneck microphone the operator must talk very close to the microphone.
- M Alternatively press the CALL key to generate an attention tone in the MASTER or REMOTE unit loudspeaker and activate the external signal device if connected. (Flash light, siren etc.)
- M Release the TALK key to listen to the reply from the MASTER or REMOTE operator.
- S The called MASTER or REMOTE must use the TALK key or otherwise activate TALK to answer back to the MASTER.
- M Press the activated line keys to de-select the lines. The red led's will switch off. When the last line is switched off the yellow "IN USE" indicator is also turned off. (Unless this is also the "IN COMMAND" indicator).

No.:

*Betingelse: REMOTE stasjonen er ikke "IN COMMAND"
(Dersom REMOTEN stasjonen er "IN COMMAND" vil den oppføre seg som en MASTER og følge prosedyren for "MASTER STASJONEN KALLER OPP EN REMOTE" (Ref. kapittel 8.4).)*

- M *Velg en linje ved å trykk ønsket linjetast.*
 - *Dersom systemet ikke er tilgjengelig (MASTEREN eller en annen REMOTE har belagt systemet) vil enheten svare med "opptatt" signalet. (Ref. kapittel 6.2)*
- M *Linje indikatoren forblir slukket.*
- M *Dersom samtalen er av høy viktighet kan 2 ting gjøres:*
 - *Trykk TALK for å engasjere ALLE KALL funksjon (Ref. kapittel 8.6) og gi den ønskede beskjeden.*
 - *Aktiver "IN COMMAND" funksjonen (Ref. kapittel 7.2) for å innhente systemoppsettet fra MASTER og dermed kunne delta eller sette opp en ny konferanse. I dette tilfelle vil en eksisterende "IN COMMAND" REMOTE stasjon bli utkoblet og miste alle iverksatte linjer*
- *Dersom systemet er tilgjengelig vil enheten få aksess.*
- M *Linjeindikatoren skifter til klar rød. Flere enn en linje, og en kombinasjon av MASTER, REMOTER og BIAPPARATER kan aktiveres samtidig.*
- M *Når første linje kobles opp forbindes også automatisk MASTEREN og dens linjeindikator tennes rød. Dette følger systemets prioritetsstruktur (Ref. kapittel 7.1)*
- M *REMOTENS egen linjeindikator tennes gul for å indikere "IN USE" (Ref. kapittel 7.3)*
- M *Trykk TALK for å gi beskjed til valgt MASTER eller REMOTE(ER). Dersom enheten er utstyrt med svanehals mikrofon må operatøren snakke svært tett inntil mikrofonen.*
- M *Alternativt, trykk CALL for å generere oppkalls tone i MASTER eller REMOTE stasjonens høyttaler og aktivere eksternt signal organ (blinklys, sirene etc.) dersom dette finnes.*
- M *Slipp TALK for å lytte på svar fra MASTER eller REMOTE operatøren.*
- M *Når MASTER eller REMOTE svarer må de alltid trykke TALK eller på annen måte aktivere TALK funksjonen.*

- M** *Gjentrykk på de aktiverte linjetastene slår linjene av. Den røde linjeindikasjonen slås da av. Når siste linje slås av vil den gule "IN USE" indikatoren også bli slått av (Dersom den ikke samtidig også er indikator for "IN COMMAND" funksjonen).*

8.7 MASTER OR REMOTE ALL CALL (Paging only) / ALLE KALL FRA HOVEDAPPARAT ELLER REMOTE (Kun meldinger)

Eng.:

- M** Press the "ALL/TALK" key without any lines engaged when the system is idle. The MASTER (or REMOTE) station automatically enters the ALL CALL mode. All line indicators turns red.
- M** All units, MASTER, REMOTES and SUBSTATIONS will automatically output the all-call paging alert tone; the normal call chopped into 6 rapid bursts.
- M** Make the announcement. If the unit is equipped with a gooseneck microphone the operator must talk very close to the microphone.
- M** The system automatically returns to idle when the TALK button is released.

No.:

- M** *Trykk på ALL/TALK tasten uten at linjer er engasjert på forhånd. MASTER (eller REMOTE) stasjonen vil da automatisk opprette ALLE KALL modus. Alle linje indikatorene tennes røde.*
- M** *Alle systemenhetene; MASTER, REMOTER og BIAPPARATER vil automatisk generere en ALLE KALL oppkalls tone i enhetenes høyttalere. Oppkallstonen er 6 raske støt med den ordinære manuelt aktiverte oppkallstonen.*
- M** *Gjør annonseringen. Dersom enheten er utstyrt med svanehals mikrofon må operatøren snakke svært tett inntil mikrofonen.*
- M** *Systemet returnerer automatisk tilbake til utgangspunktet når TALK slippes.*

8.8 PUBLIC ADDRESS SYSTEM ACCESS WITHOUT ZONE SELECTION / MELDINGSANLEGG (PA SYSTEM) AKTIVERING UTEN SONEVALG.

Eng.:

- M** Press the "ALL/TALK" key without any lines engaged when the system is idle. The system automatically enters the ALL CALL mode (ref. chapter 8.7). Along with the system ALL CALL the MASTER will output the EXT. Audio and the EXT. PTT signal to engage the connected PA system.

No.:

- M** *Trykk på ALL/TALK tasten uten at linjer er engasjert på forhånd. Systemet vil da automatisk opprette ALLE KALL modus (ref. kapittel 8.7). Sammen med system ALLE KALL vil MASTER aktivere EXT. audio og EXT. PTT utgang som er tilkoblet det eksterne PA-systemet.*

8.9 PUBLIC ADDRESS SYSTEM ACCESS WITH ZONE SELECTION / MELDINGSANLEGG (PA SYSTEM) AKTIVERING MED SONEVALG.

Eng.:

- M Set the zone selection (zone 1-4 is substituting substation line 12-15, ref. chapter 7.4) by operating the appropriate line key. The line indicator led turns red. More than one line can be selected simultaneously. Zone selections can also be made along with selection of ordinary substation lines.
- M In case the system was initially idle a yellow light will be activated in the MASTER line indicator as the “IN USE” indicator (Ref chapter 7.3). (Unless this is lit yellow from before due to the default “IN COMMAND” (Ref. chapter 7.1) function.)
- M Press the TALK key to give messages to the selected zone(s) and substation(s). If the unit is equipped with a gooseneck microphone the operator must talk very close to the microphone.
- M When the TALK key is released is possible to listen to the reply from the selected substation operator(s). There is no reply facility from the PA-zones unless the zone is equipped with a reply substation.

Condition:

A substation is connected to the substation line dedicated to Zone selection of an attached PA-system:

- S If the substation is equipped with a TALK button press this to override the “privacy function”. Reply to the call. Otherwise, just reply.
- S To ensure the best possible sound quality, keep the TALK key pressed at all time during the call.

Note:

All communication/messages from the MASTER / REMOTE will be heard both in the SUBSTATION and all zone loudspeakers.

- M Press the activated line keys to de-select the lines. The red led’s will switch off. When the last line is switched off the yellow “IN USE” indicator is also turned off. (Unless this is also the “IN COMMAND” indicator).

No.:

- M *Velg en sone (sone 1-4 erstatter biapparat på linje 12-15, ref. kapittel 7.4) ved å trykke på tilhørende linjetast. Linjeindikatoren skifter til klar rød. Flere enn en linje kan aktiveres samtidig. Sonevalg kan også gjøres sammen med normale biapparat linjer.*
- M *Dersom systemet på forhånd var ledig, vil et gult lys i tennes i linjeindikatoren for MASTER for å indikere “IN USE” funksjon (Ref kapittel 7.3). (Unntatt dersom denne er tent på forhånd for å indikere “IN COMMAND” funksjon (Ref. kapittel 7.1))*
- M *Trykk TALK for å gi beskjed til valgt sone(r) og BIAPPARAT(ER). Dersom enheten er utstyrt med svanehals mikrofon må operatøren snakke svært tett inntil mikrofonen.*
- M *Slipp TALK for å lytte på svar fra BIAPPARAT operatøren(e). Det er ikke mulig å svare tilbake på en PA-system sone dersom denne ikke samtidig er utstyrt med et tilbakesvar biapparat.*

Betingelse:

Et BIAPPARAT er koblet til den biapparat linjen som er dedikert til Sone styring på det tilhørende PA-systemet.

- S *Dersom BIAPPARATET er utstyrt med en “TALK” (tale) knapp, må denne trykkes for å oppheve innlytte sperren og svare tilbake. Dersom den ikke har ”TALK” knapp kan svar avleveres direkte.*

S For å oppnå best mulig lyd kvalitet bør "TALK" knappen være trykket hele tiden under samtalen, også i lyttesituasjon.

Merk:

Alle beskjeder fra MASTER / REMOTE vil lyde både i biapparatet og i alle Sone høyttalere samtidig.

M Gjentrykk på de aktiverte linjetastene slår linjene av. Den røde linjeindikasjonen slås da av. Når siste linje slås av vil den gule "IN USE" indikatoren også bli slått av (Dersom den ikke samtidig også er indikator for "IN COMMAND" funksjonen).

9 INDIRECT FUNCTIONALITY / INDIREKTE FUNKSJONALITET

Eng.:

The CIS 3130 system is equipped with some "programmable" functions and facilities by means of jumpers or by alternative or additional connections.

(Some of the jumpers in question is located on the main PCB (97301-011) of the unit and is normally hid by the "add-on" PCB (97301-009). To access these the power to the system must be turned off and the board removed carefully. After the reconfiguration the board must be replaced with special attention to mate the board connectors properly.)

No.:

CIS 3130 er utstyrt med en del funksjoner og fasiliteter som enten er "programmerbare" vha. linker eller som krever alternativ eller ekstra tilkoblinger av utstyr.

(Enkelte av linkene som er beskrevet befinner seg på enhetens hovedkort (PCB 97301-011) og er normalt dekket av kortet som er plagget på – "add-on" kort (PCB 97301-009). For å komme til må strømforsyningen til systemet slås av og kortet fjernes forsiktig. Etter at omkonfigurasjonen er gjort må PCB 97301-009 plugges på igjen. Det er meget viktig å passe på at pluggene mellom kortene treffer riktig.)

9.1 ADDITIONAL UNIT MICROPHONE / EKSTRA MIKROFON TILKOBLET ENHETEN

Eng.:

The MASTER and REMOTE units can be equipped with an additional microphone as a replacement for the integrated one. This facilitates the use of either directive, noise cancelling gooseneck microphones or handheld microphones.

The additional microphone is to be connected to the internal connection-block J3, pin 5-8 on PCB 97301-011. It is also necessary to adjust the settings of the jumpers ST1/2 (Ref. chapter 11) accordingly. As this connection is not easy to attach in the field Phontech can provide pre-terminated microphones.

When this microphone is used the unit loudspeaker will be muted and thus prevent howling. The additional microphone cannot be used together with the integrated one.

No.:

MASTER og REMOTE enhetene kan utstyres med ekstern mikrofon i stedet for enhetenes integrerte. Dette gir mulighet for enten å benytte direkte svanehals mikrofoner, som er mindre følsomme for omgivelsesstøy, eller håndholdte mikrofoner.

Mikrofonen tilkobles det interne koblings-stykket J3, pinne 5-8 på PCB 97301-011 samtidig som link ST1/2 tilpasses (Ref. kapittel 11). Da denne koblingen ikke er spesielt egnet for felt-tilpasning kan ferdigterminerte mikrofoner skaffes til veie av Phontech.

Ved bruk av denne mikrofonen vil enhetens egen høyttaler ikke gi medhør og dermed hindre eventuelt rundhyl.

Ekstra mikrofon kan ikke benyttes sammen med apparatets integrerte.

9.2 BRIDGE WING AND MISCELLANEOUS CONNECTIONS / TILKOBLING FOR BROVING OG DIVERSE

Eng.:

The MASTER station CIS 3130 is prepared for two bridge wing connections (terminals 14-21). Ref. document 99309-000-EC.

The Remote station CIS 3132 is equally equipped and in case these are not used for bridge wings they can be connected to other systems.

Using alternative configuration by means of the jumpers ST3, ST5 and ST6/7 the Starboard bridge wing connections (terminal 14-17) can be programmed to different requirements (Ref. chapter 11).

When the system is activated through the bridge wing input by a microphone close by, the units own loudspeaker will monitor the message and may cause howling.

Bridge wing equipment:

- Bridge wing microphone 9117
- Bridge wing handset 9018
- Loudspeaker/microphone configuration provided by the connection box 0013

Miscellaneous equipment (starboard bridge wing connection + reprogramming (Ref. chapter 11)):

- Emergency muster station paging microphone
- PA-system
- PABX paging

No.:

MASTER stasjon CIS 3130 er forberedt for 2 broving tilkoblinger (terminal 14-21). Ref. dokument 99309-000-EC.

REMOTE stasjon CIS 3132 har også denne muligheten. Dersom en REMOTE ikke er tilknyttet brovinger direkte, kan disse tilkoblingene benyttes til annet eksternt utstyr.

Ved hjelp av alternativ konfigurasjon på linkene ST3, ST5 og ST6/7 kan dessuten Styrbord broving tilkobling (terminal 14-17) programmeres til forskjellig oppførsel (Ref. kapittel 11).

Når systemet nøkles gjennom broving inngangen vil også enhetens egen høyttaler gi medhør. Dette medfører at en eventuell mikrofon ikke kan plasseres i nærområdet på grunn av faren for rundhyl.

Broving utstyr:

- *Broving mikrofon 9117*
- *Broving håndsett 9018*
- *Høyttaler/mikrofon konfigurasjon via enhet 0013*

Alternativt utstyr (styrbord broving tilkobling+ omprogrammering (Ref. kapittel 11)):

- *Nødmikrofon ved livbåt- /mønstrings-stasjon*
- *PA-system*
- *PABX meldingsformidling*

9.3 EXTERNAL LOUDSPEAKER / EKSTERN HØYTTALER

Eng.:

Both the MASTER and the REMOTE units are equipped with additional loudspeaker outputs. This loudspeaker will work in parallel to the unit's internal loudspeaker and will also be volume adjusted by the volume potentiometer. The loudspeaker is connected to terminals 12 and 13. Ref. document 99309-000-EC.

No.:

Både MASTER og REMOTE stasjonene utstyrt med utgang for ekstra høyttaler. Høyttaleren vil fungere i parallell med enhetenes egen høyttaler og følger volumjusteringen til denne. Høyttaleren tilkobles terminalene 12 og 13. Ref. dokument 99309-000-EC.

9.4 EXTRA SIGNAL DEVICES – SUBSTATIONS / EKSTRA SIGNAL ORGAN - BIAPPARATER

Eng.:

Some substation types are equipped with an interface to extra signal device. This interface is a separate signal on a separate pair in the cable between the MASTER and the substation. A CIS 3130 system can contain up to 8 such substation types. These must always be the first eight substations in the system. For the first four the control terminals are located on the main board – 973001-011 (terminals 7-10). The last four (substation lines 5-8) are located on the add-on board – 97301-009 (terminals 41-44). Ref. document 99309-000-EC. All signal outputs for the extra signal devices are using terminal 11 (on the main board 97301-011) as a common return signal.

No.:

Enkelte biapparater er utstyrt med grensesnitt for ekstra signal organ. Dette er separate signaler som styres på egen par i linjen mellom MASTER og biapparat. I CIS 3130 systemet kan opp til 8 slike biapparater benyttes. Signalutgangene vil alltid følge de første 8 linjene slik at

installasjonene må tilpasses dette. De 4 første linjene har sine ekstra signal utganger på terminaler på hovedkortet – 97301-011 (terminal 7-10), mens de 4 neste (linje 5-8) har terminalene plassert på "add-on" kortet – 97301-009 (terminal 41-44). Ref. dokument 99309-000-EC.

Alle ekstra signal utgangene benytter terminal 11 (på hovedkortet – 97301-011) som fellespunkt / retursignal.

9.5 EXTRA SIGNAL DEVICE, OWN UNIT / EKSTRA SIGNAL ORGAN – EGEN ENHET

Eng.:

In the CIS 3130 system both the MASTER and the REMOTE stations are equipped with an extra signal device output for the unit itself (terminal 59 on the add-on board – 97301-009). This output is activated along with the call signal in the loudspeaker. (If some lines are engaged on the unit and some line indicators light red, the call signal will be muted. In that case the extra signal device output will not be activated either.)

Also this output uses terminal 11 on the main board – 97301-011 as the return signal.

No.:

I CIS 3130 systemet er både MASTER og REMOTE enhetene utstyrt med ekstra signalorgan utgang for egen enhet (terminal 59 på "add-on" kortet – 97301-009). Denne aktiveres sammen med oppkallsignalet i høyttaleren. (Dersom enheten har aktivert linjer, og en eller flere linjeindikatorer lyser rødt, vil ikke oppkallsignalet lyde. Da vil heller ikke den utgangen for det eksterne signal organet aktiveres.)

Også denne ekstra signal organ utgangen benytter terminal 11 på hovedkortet - 97301-011 som retursignal.

9.6 LOUDSPEAKER AS SUBSTATION (automatic call disable) / HØYTTALER SOM BIAPPARAT (automatisk oppkallssperre)

Eng.:

The substation lines of the MASTER station CIS 3130 is intended for Phontech substation types. Most of these substations are equipped with a call button to generate a call signal to the system. Some substation locations however do not need this call facility and a plain loudspeaker would be sufficient.

Placing a plain loudspeaker on a substation line will however normally cause a permanent call signal. The MASTER station CIS 3130 can adapt to this situation if the system is booted (power off and on again) with the loudspeaker(s) connected. The unit will scan all lines, detect and mask out all lines in the permanent call condition.

After this initialisation the masked line(s) will never generate calls, but can be reset or reconfigured by removing the loudspeaker(s) and then reboot the system.

No.:

I et CIS 3130 er alle biapparat linjene tilpasset Phontech biapparat typer. Flesteparten av disse er utstyrt med oppkallknapp for å generere oppkall i systemet. Enkelte posisjoner vil likevel ikke ha behov for oppkall og en ren høyttaler vil kunne dekke behovet.

En høyttaler direkte på en biapparat linje vil normalt forårsake en kontinuerlig oppkall signal. MASTER stasjon CIS 3130 kan tilpasse seg denne situasjonen dersom systemet startes opp (spenningsforsyningen av og på igjen) med høyttalerne tilkoblet. Enheten vil søke gjennom alle linjene og maske ut alle linjer med kontinuerlig oppkall aktivert.

Etter denne initialiseringen vil de utmaskedede linjene aldri kunne generere oppkall. Situasjonen kan likevel tilbakestilles eller omkonfigureres ved å restarte systemet på nytt.

9.7 EXTERNAL PA-SYSTEM ACCESS TO ALL CIS UNITS / EKSTERN MELDINGSSYSTEM (PA-SYSTEM) TILGANG TIL ALLE CIS ENHETER

Eng.:

If an external PA-system is connected and the system is properly configured (ref. chapter 9.2), all CIS units, MASTER, REMOTES and all SUBSTATIONS will output the message given, independently of any present activity.

Note:

It is not possible to configure both inward and outward access to the CIS 3130 from the same PA system in the same installation. This will most certain cause the 2 systems to lock up and be unavailable for further use.

No.:

Dersom et eksternt meldingsanlegg (PA-system) er tilkoblet og systemet er korrekt konfigurert (ref. kapittel 9.2), vil alle CIS enheter, MASTER, REMOTER og alle BIAPPARATER formidle meldinger uavhengig av pågående aktivitet.

Merk:

Det er ikke mulig å konfigurere både inn- og utgang til CIS 3130 fra det samme PA-systemet i samme installasjon. En slik kobling vil mest sannsynlig føre til at de 2 systemene låser seg og ikke lenger kan fungere.

10 TECHNICAL DATA / **TEKNISKE DATA**

Eng. / No.:

MASTER STATION CIS 3130.

Operation voltage / *Driftsspennning*: 24 VDC
Current drain / *Strømtrekk*: 2 A max.

Substation line capacity / *Biapparat linje kapasitet*: 15 lines.
Remote station line capacity / *REMOTE kapasitet*: 4 lines (audio + data)
Power amp.capacity / *Forsterkereffekt*: 30 W total
Up to 10 W per line.
Max 10W per 5 lines

Frequency range / *Frekvensområde*: Better than 400-6000 Hz (-3dB)
Distortion / *Distorsjon*: Better than 2.5%.

Extra signal organ output line 1-8 + own unit /
Ekstra signal organ output linje 1-8 + egen enhet: 24 VDC, max 150mA
Open collector output to GND

Bridge wing microphone input /
Broving mikrofon inngang: 200 Ohm / 10 mV typ.

Bridge wing loudspeaker output /
Broving høyttaler utgang: 8 Ohm / 5W typ.

Line level, Stb. Bridge wing /
Linjenivå styrbord broving inngang: 775 mV (0dBm) typ.

REMOTE STATION CIS 3132.

Operation voltage / *Driftsspennning*: 24 VDC
Current drain / *Strømtrekk*: 1 A max.

Power amp.capacity / *Forsterkereffekt*: 10 W total

Frequency range / *Frekvensområde*: Better than 400-6000 Hz (-3dB)
Distortion / *Distorsjon*: Better than 2.5%.

Extra signal organ, own unit /
Ekstra signal organ, egen enhet: 24 VDC, max 150mA
Open collector output to GND

Bridge wing microphone input /
Broving mikrofon inngang: 200 Ohm / 10 mV typ.

Bridge wing loudspeaker output /
Broving høyttaler utgang: 8 Ohm / 5W typ.

Line level, Stb. Bridge wing /
Linjenivå styrbord broving inngang: 775 mV (0dBm) typ.

11 STRAPPING AND CONNECTION POINT LOCATIONS – **MAIN BOARD: PCB 97301-011 /** **LOKALISERING AV LINKER OG TILKOBLINGER –** **HOVEDKORT: PCB 97301-011**

Eng.:

J3 Terminal / pin No.	Function / Equipment
1 & 2	Volume potentiometer
3 & 4	Unit loudspeaker
5 & 6	Additional microphone
7 & 8	Additional TALK activator

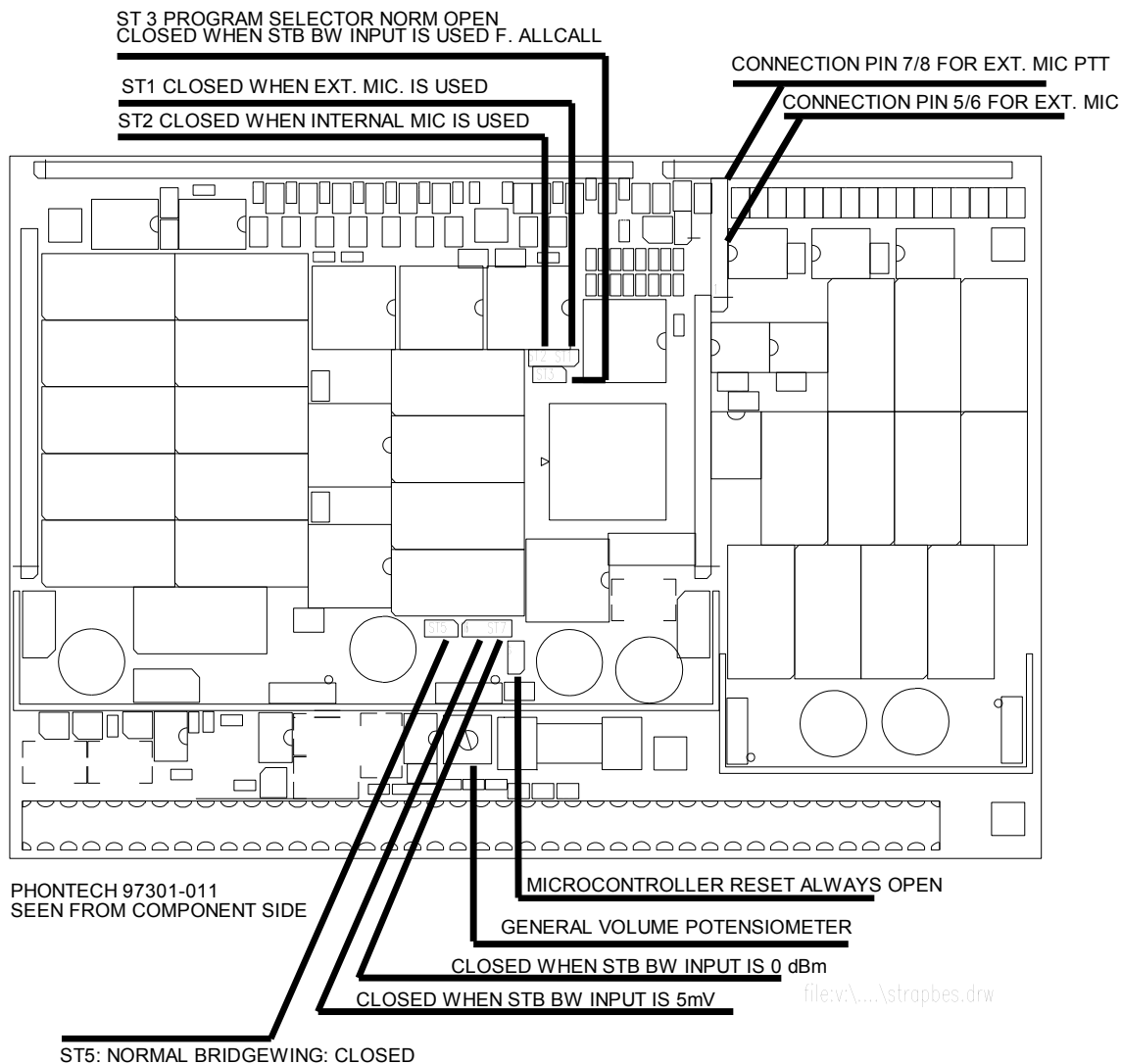
Jumper	Condition	Description / Functionality	Standard
ST2 ST1 • •---•	<u>ST1 closed</u> ST2 open	Using an additional microphone, the integrated microphone is not used	
ST2 ST1 •---• •	ST1 open <u>ST2 closed</u>	Using the integrated microphone, an additional unit microphone is not mounted	✓
ST3 • •	ST3 open	Starboard bridge wing interface is used as bridge wing interface – NORMAL	✓
ST3 •---•	<u>ST3 closed</u>	Starboard bridge wing interface is used as input for external PRIORITY ALL CALL	
ST4 • •	ST4 open	<u>Microcontroller RESET: Always open during normal working conditions</u>	✓
ST4 •---•	<u>ST4 closed</u>	Only to be used by service personnel: Always open during normal working conditions	
ST5 • •	ST5 open	<u>Disable loudspeaker audio to the starboard bridge wing interface.</u> This facility is used in line feed conditions. i.e. PA-system, PABX etc.	
ST5 •---•	<u>ST5 closed</u>	<u>Enable loudspeaker audio to the starboard bridge wing.</u> This facility is used in NORMAL bridge wing operation	✓
ST7 ST6 • •---•	<u>ST6 closed-</u> ST7 open	<u>The starboard bridge wing is connected to a line level (0dBm) interface, i.e. PA system, PABX etc. See post 8.</u>	
ST7 ST6 •---• •	ST6 open- <u>ST7 closed</u>	<u>The starboard bridge wing is connected to a microphone level interface, i.e. bridge wing microphone, microphone for PRIORITY ALL CALL See post 4</u>	✓



No.:

<i>J3 Terminal / pinne nummer.</i>	<i>Funksjon / Utstyr</i>
1 & 2	Volum potensiometer
3 & 4	Intern høyttaler
5 & 6	Mikrofon
7 & 8	TAL aktivering

<i>Link</i>	<i>Tilstand</i>	<i>Beskrivelse / Funksjon</i>	<i>Standard</i>
ST2 ST1 ● ●---●	<u>ST1 lukket</u> ST2 åpen	<u>Tilleggsmikrofon tilkople</u> t. Intern-mikrofonen ikke i bruk.	
ST2 ST1 ●---● ●	ST1 åpen <u>ST2 lukket</u>	Intern-mikrofon i bruk. Tilleggsmikrofon ikke tilkoplet.	✓
ST3 ● ●	ST3 åpen	Styrbord broving inngang er i bruk som broving.– NORMAL	✓
ST3 ●---●	<u>ST3 lukket</u>	Styrbord broving inngang er i bruk som inngang for nødmelding. PRIORITERT ALLE KALL	
ST4 ● ●	ST4 åpen	Mikroprosessor RESET: Alltid åpen under normaldrift.	✓
ST4 ●---●	<u>ST4 lukket</u>	Skal kun brukes av service personell. Alltid åpen under normal drift.	
ST5 ● ●	ST5 åpen	Sperre for lyd til styrbord broving. Denne funksjonen brukes ved linjetilkoblinger som PA system, PABX osv.	
ST5 ●---●	<u>ST5 lukket</u>	Åpne for lyd ut til styrbord broving. Denne funksjonen brukes NORMALT ved broving-tilkobling.	✓
ST7 ST6 ● ●---●	<u>ST6 lukket-</u> ST7 åpen	Styrbord broving er tilkoplet linje 0dBm nivå. Typisk PA system, PABX osv. Se post 8	
ST7 ST6 ●---● ●	ST6 åpen- <u>ST7 lukket</u>	Styrbord broving er tilkoplet et mikrofonnivå utstyr. Typisk broving mikrofon, mikrofon for PRIORITERT ALLE KALL.	✓



12 DIPSWITCH SETTING, ADD-ON BOARD 97307-009 / KIPPBRYTER SETTING, "ADD-ON" KORT 97301-009

Eng.:

See figure 4 for localisation.

JUMPER - ST:

The ST jumper shall normally be left open in all REMOTE stations and closed in the MASTER station.

If, however the system consists of many REMOTES the data communication line can be too long and jam the signals. In this case the jumper can be closed on one (preferably the farthest) REMOTE or more.

DIP SWITCHES:

- DIP switch 1: MASTER/REMOTE address bit 0
- DIP switch 2: MASTER/REMOTE address bit 1
- DIP switch 3: MASTER/REMOTE address bit 2
- DIP switch 4: **OFF** = External zones & PTT / **ON** = PTT only during ALL CALL **Note 2**
- DIP switch 5: **OFF** (intended for future use)
- DIP switch 6: **OFF** (intended for future use)
- DIP switch 7: Don't care
- DIP switch 8: Always ON **Note 3**

Note 1

Note 1:

Address table:

DIP SW: 3 2 1	Address:	DIP SW: 3 2 1	Address:
0 0 0	MASTER	1 0 1	ILLEGAL
0 0 1	REMOTE No. 1	1 1 0	ILLEGAL
0 1 0	REMOTE No. 2	1 1 1	ILLEGAL
0 1 1	REMOTE No. 3		
1 0 0	REMOTE No. 4		

Note 2:

EXT PTT can either be configured to be zone controlled or activated only during ALL CALL
OFF = EXT. PTT is activated together with Zone 1- 4 (Substation key 12 – 15 respectively)
ON = EXT. PTT is only activated together with ALL CALL

Note 3:

The DIP-switch 8 shall always be in the ON position. This is to enable the data communication between MASTER and the REMOTES. If set to off, the system will output the illegal signal.

No.:

Se figur 4 for lokalisering.

ST-LINK:ST-linken skal normalt være åpen i alle REMOTER og lukket i MASTEREN.

Dersom systemet består av mange REMOTER kan datalinjen bli for lang og vanskelig å kommunisere på. I dette tilfelle kan linken lukkes også på en (fortrinnsvis den lengst unna) REMOTE eller flere.

KIPPBRYTERE:

- | | | |
|---------------|---|-----------------|
| Kippbryter 1: | MASTER/REMOTE adresse bit 0 | } Note 1 |
| Kippbryter 2: | MASTER/REMOTE adresse bit 1 | |
| Kippbryter 3: | MASTER/REMOTE adresse bit 2 | |
| Kippbryter 4: | AV = Eksterne soner & PTT / PÅ = PTT kun ved ALLEKALL | Note 2 |
| Kippbryter 5: | AV (reservert til fremtidig bruk) | |
| Kippbryter 6: | AV (reservert til fremtidig bruk) | |
| Kippbryter 7: | Ukritrisk | |
| Kippbryter 8: | Alltid PÅ | Note 3 |

Note 1:

Adresse tabell:

KIPPBR.: 3 2 1	Adresse:	KIPPBR.: 3 2 1	Address:
0 0 0	MASTER	1 0 1	ILLEGAL
0 0 1	REMOTE Nr. 1	1 1 0	ILLEGAL
0 1 0	REMOTE Nr. 2	1 1 1	ILLEGAL
0 1 1	REMOTE Nr. 3		
1 0 0	REMOTE Nr. 4		

Note 2:

EXT PTT kan enten konfigureres til å fungerer sammen med sonekontroll utgangene, eller kun ved ALLEKALL.

AV = EXT. PTT er aktivert sammen med Sone 1- 4 (Biapparat tast 12 – 15 respektivt).

PÅ = EXT. PTT aktiveres kun ved ALLEKALL.

Note 3:

Kippbryter 8 skal alltid være i PÅ posisjon. Denne aktiverer data kommunikasjon mellom MASTER og REMOTENE. Dersom den settes i AV posisjon vil systemet sende ut "illegal" signalet.

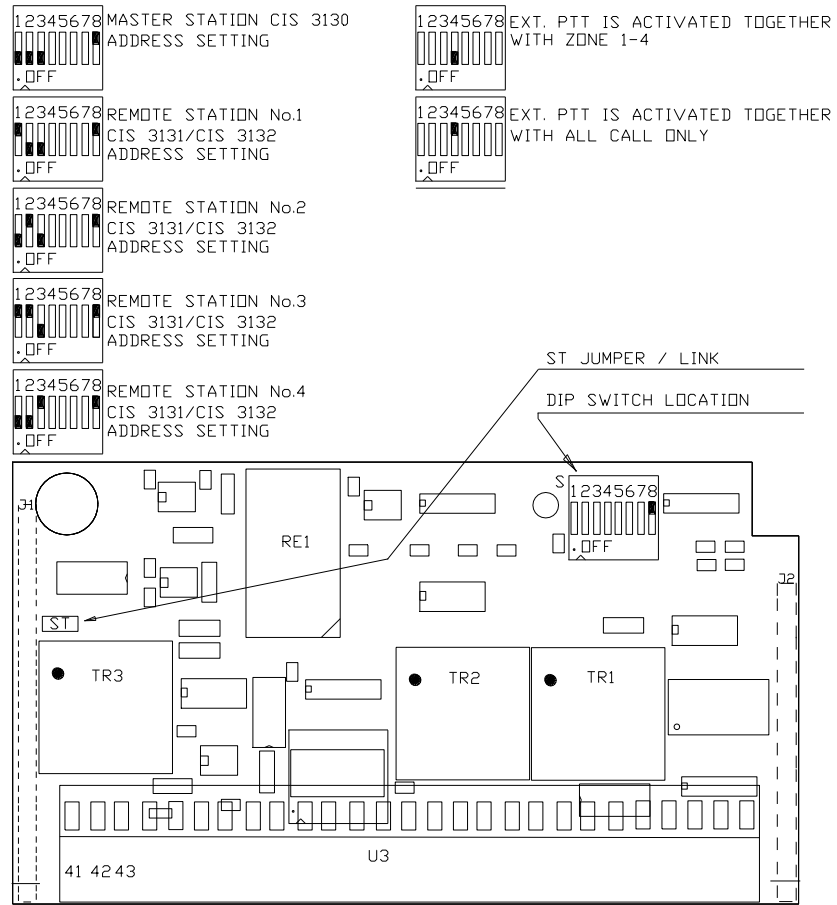
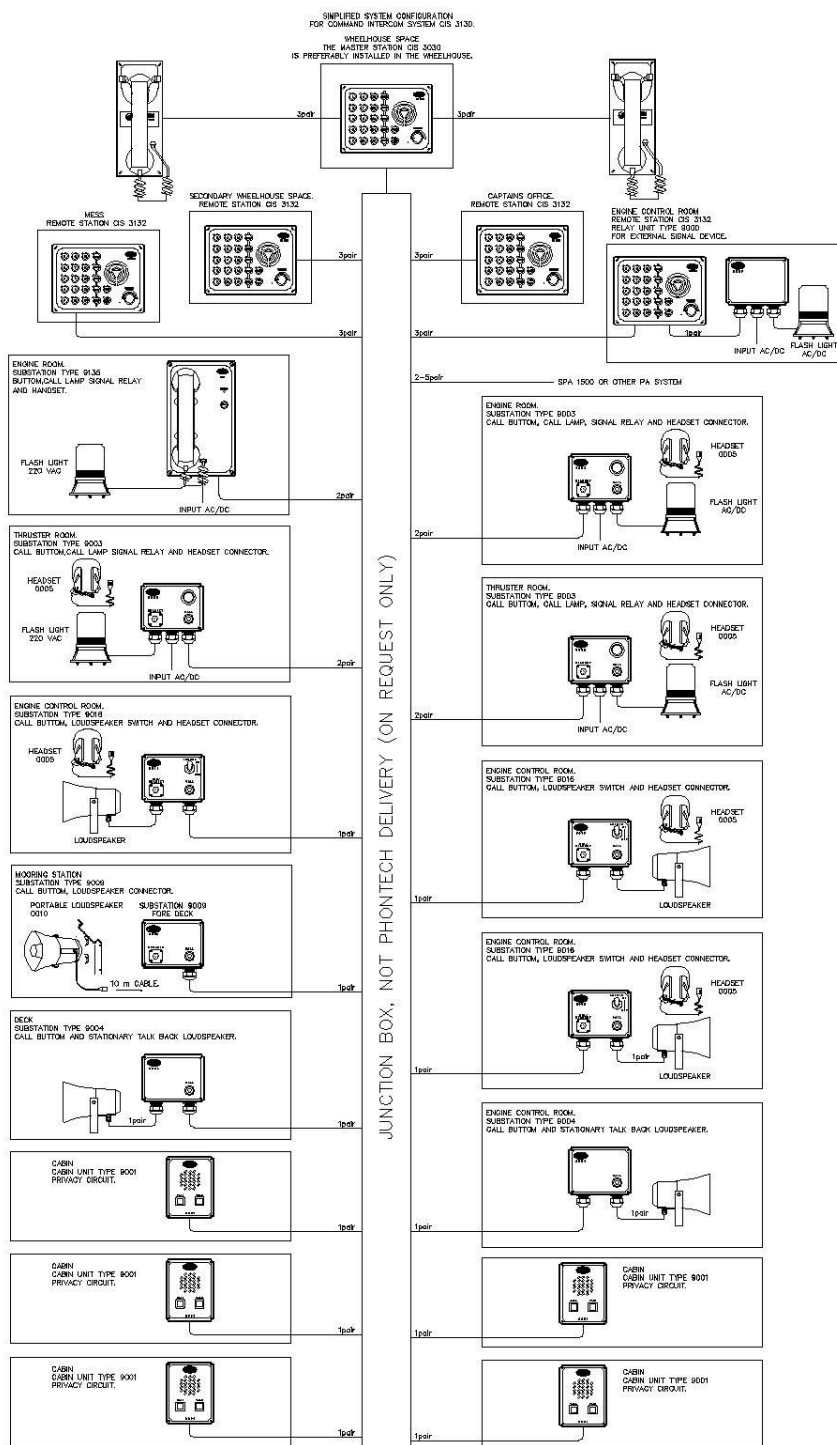


Figure 4.
Figur 4.

13 SIMPLIFIED SINGLE LINE DIAGRAM, TYPICAL FORENKLET ENKELTLINJE DIAGRAM, TYPISK INSTALLASJON



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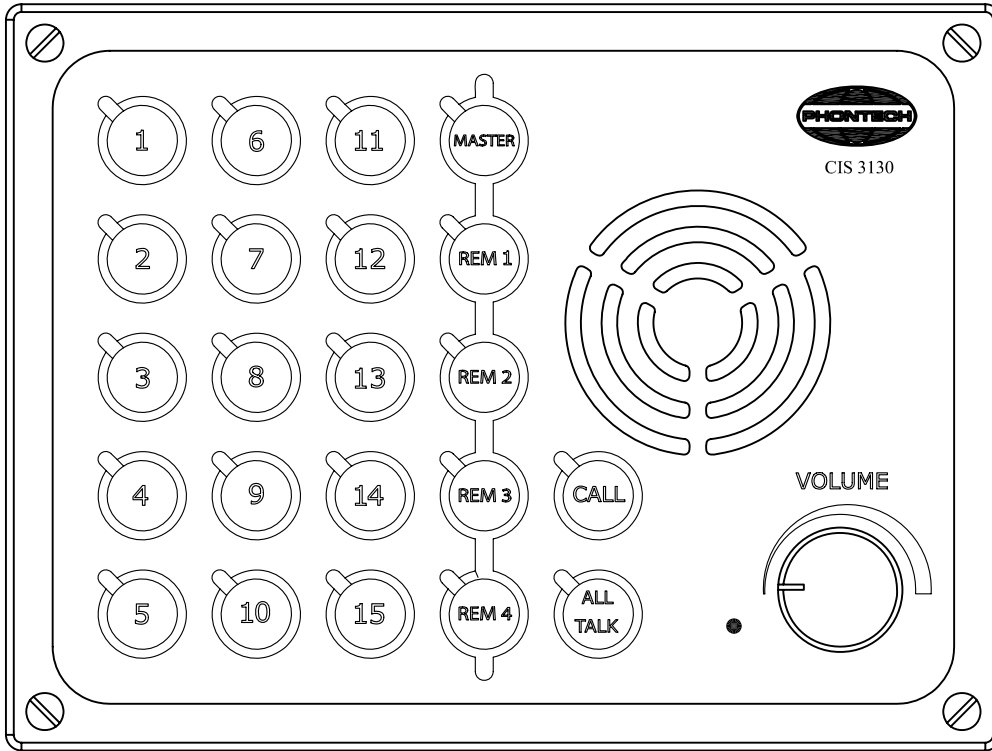
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FRONT VIEW



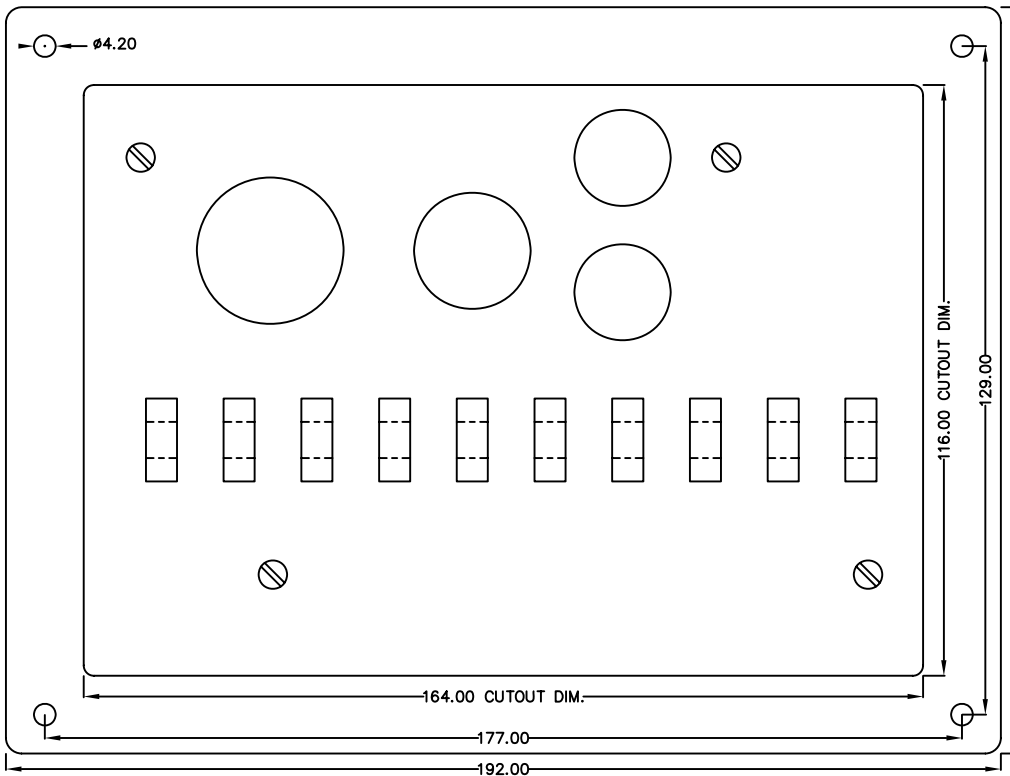
B

B

C

C

REAR VIEW



D

D

E

E

NOTES:

- MATERIAL: ALUMINIUM 57S.
- COLOUR: BLACK (RAL 9005).
- IP GRADE: IP-20.
- WEIGHT: APP. 2,70Kg.
- POWER: 24VDC.
- DEPTH: 100,00mm. EX. FRONT.

F

F

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	03.09.2008	FINAL DOCUMENTATION	CD		ASK

TITLE: 3130 MASTER STATION CIS
VERSION 05827.
MECHANICAL LAYOUT.



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SIZE:	A3	UED No:	
DOC. No:	08300-004-ML		
FILE NAME:	08300-004-ML.DWG		

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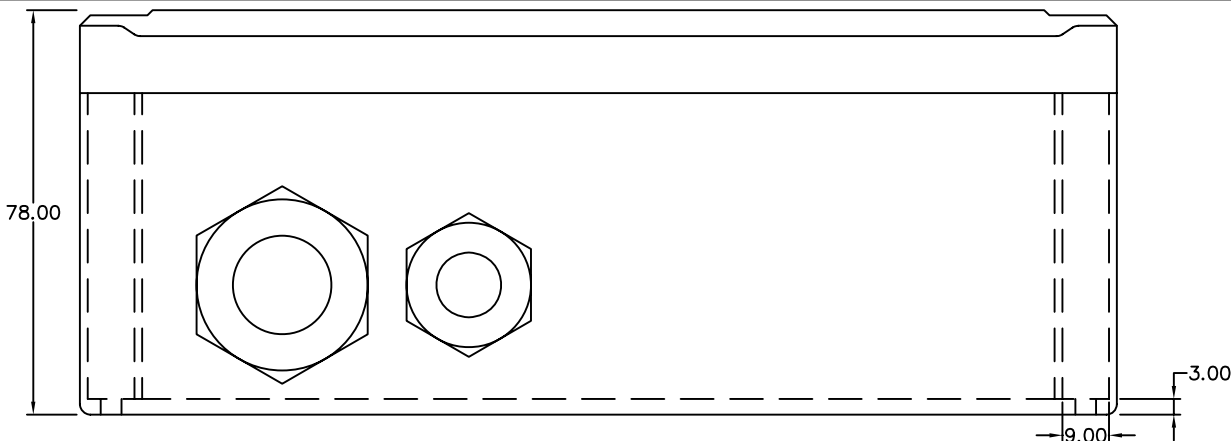
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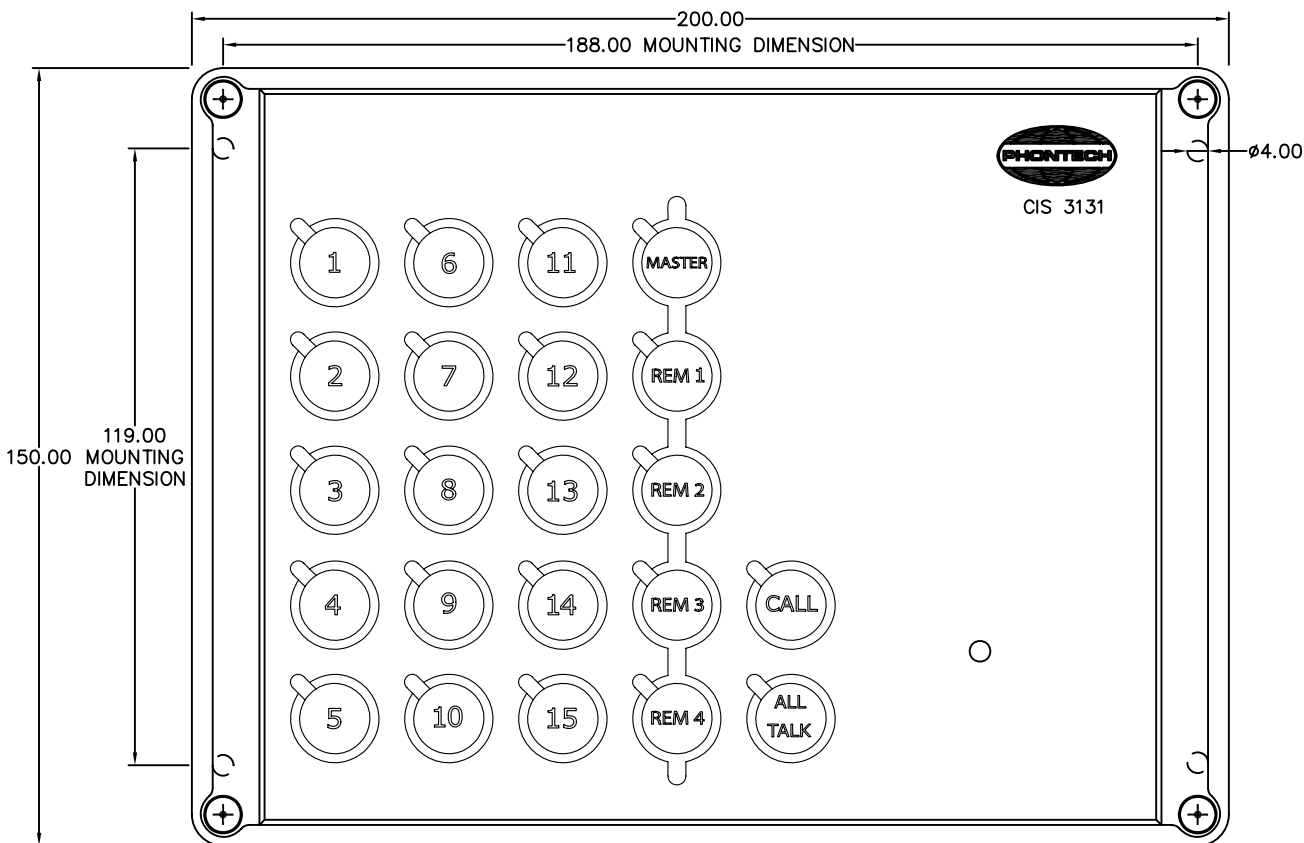
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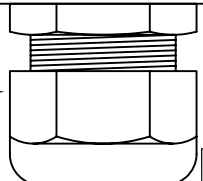
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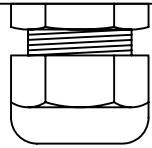
C

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GLAND PG-21
CABLE RANGE:
13-18mm.
FOR AUDIO AND
24VDC FROM
MAIN J.B.



GLAND PG-13,5
CABLE RANGE: 6-12mm.
FOR EXTERNAL LOUDSPEAKER



EQUIPMENT DATA:

MANUFACTURER	: PHONTECH AS.	FIXING DETAILS	: 4pcs. M4 BOLT.
MODEL/TYPE	: CIS-3131.	ACCESS	: FRONT.
RACK/BOX SUPPL.	: BOPLA.	CABLE ENTRY	: BOTTOM.
RACK/BOX TYPE	: EM-223 F.	GLAND TYPE	: SEE DRAWING.
MATERIAL	: POLYCARBONATE.	PROTECTION IP	: IP-55.
COLOUR	: RAL 7035/9005.	POWER SUPPLY	: FROM MASTER.
WEIGHT OF UNIT	: 1,50Kg.	POWER CONSUMP.	: NA.
MOUNTING	: TO WALL.	HEAT DISSIPATION	: NA.

NOTE:

— THE UNIT MUST BE PROTECTED IF IT CAN BE EXPOSED FOR HEAVY SEAS. (MOUNTED IN CABINET).



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REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	03.09.2008	FINAL DOCUMENTATION	CD		ASK

TITLE: 3131 REMOTE STATION CIS.
VERSION 05827.
MECHANICAL LAYOUT.

SIZE:	A3	UED No:	
DOC. No:	08300-005-ML		
FILE NAME:	08300-005-ML.DWG		

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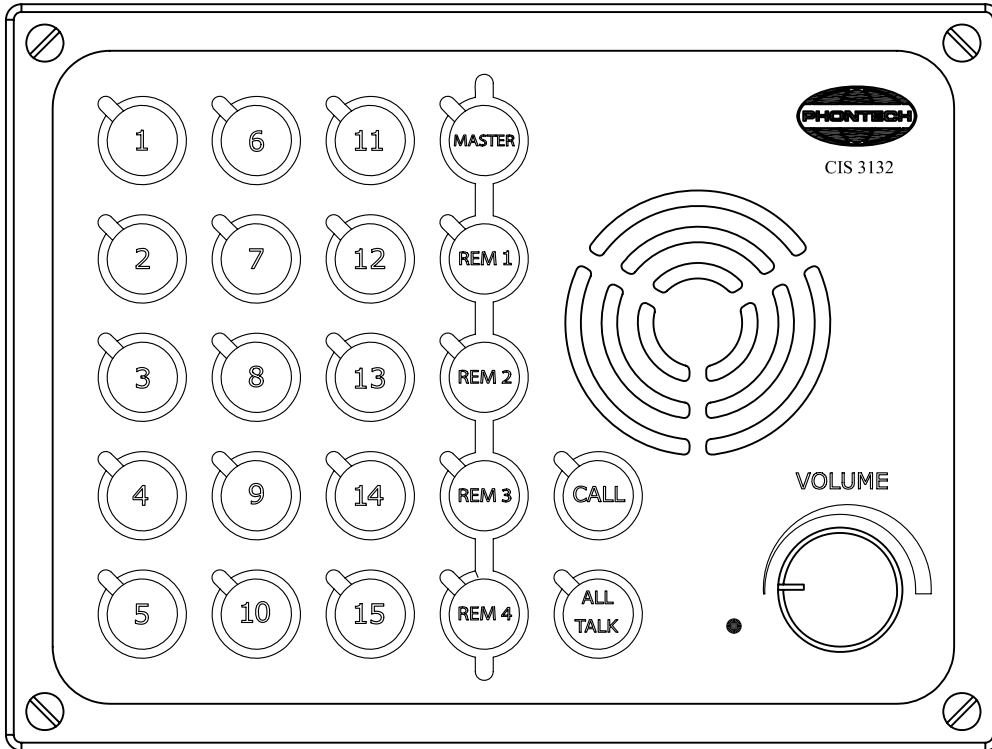
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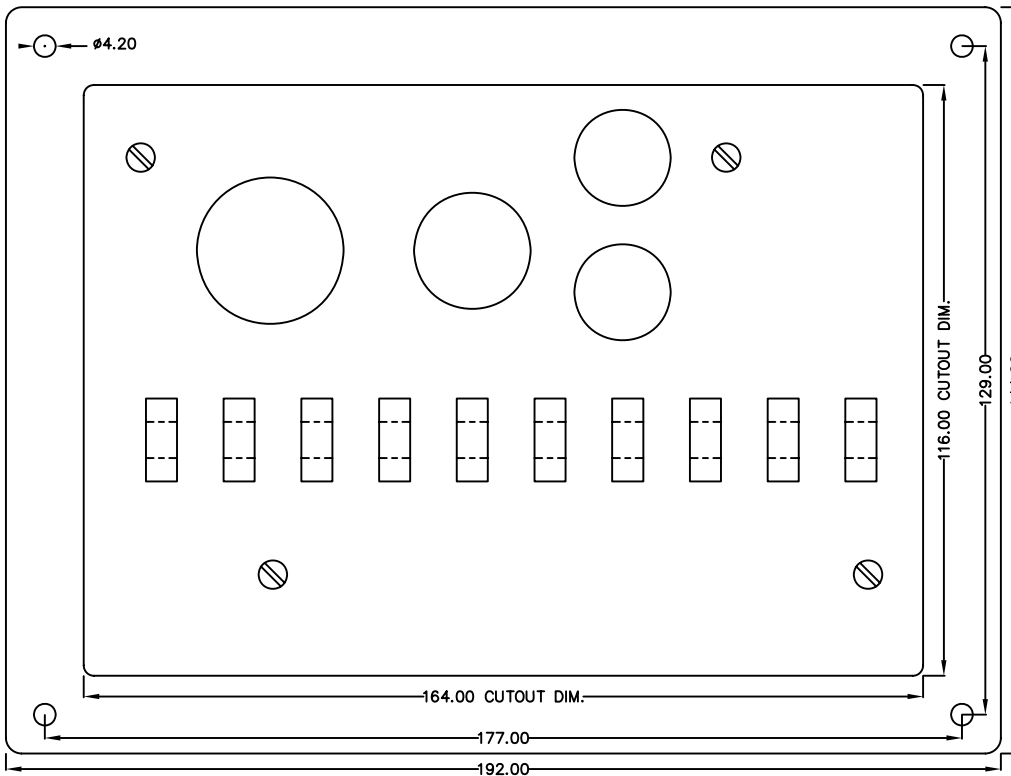
F

F

FRONT VIEW



REAR VIEW



NOTES:

- MATERIAL: ALUMINIUM 57S.
- COLOUR: BLACK (RAL 9005).
- IP GRADE: IP-20.
- WEIGHT: APP. 2,70Kg.
- POWER: 24VDC.
- DEPTH: 100,00mm. EX. FRONT.

0	03.09.2008	FINAL DOCUMENTATION	CD		ASK				
REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED				

TITLE: 3132 REMOTE STATION CIS.
VERSION 05827.
MECHANICAL LAYOUT.



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SIZE:	A3	UED No:	
DOC. No:	08300-006-ML		
FILE NAME:	08300-006-ML.DWG		

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MASTER STATION (BRIDGE) TYPE CIS 3130

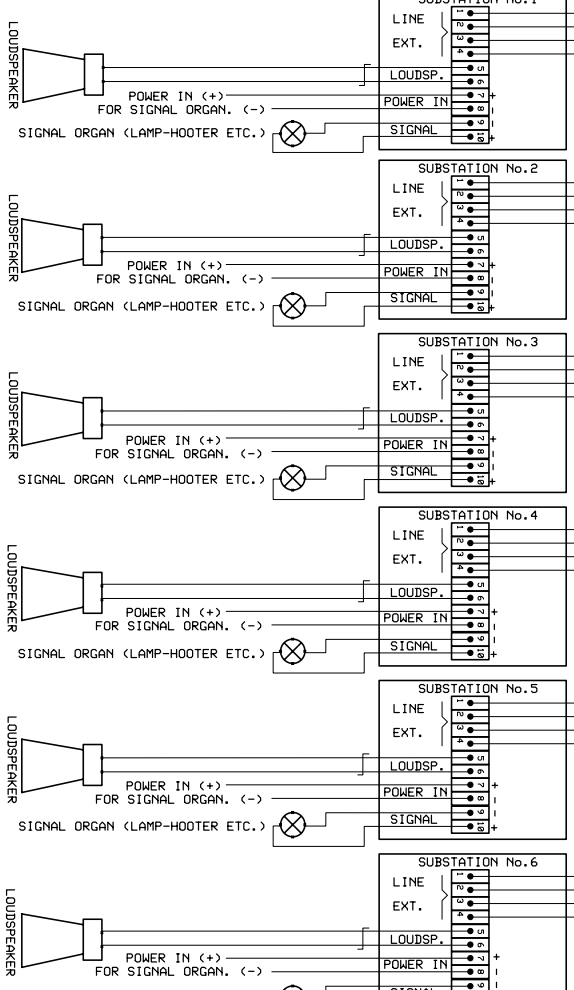
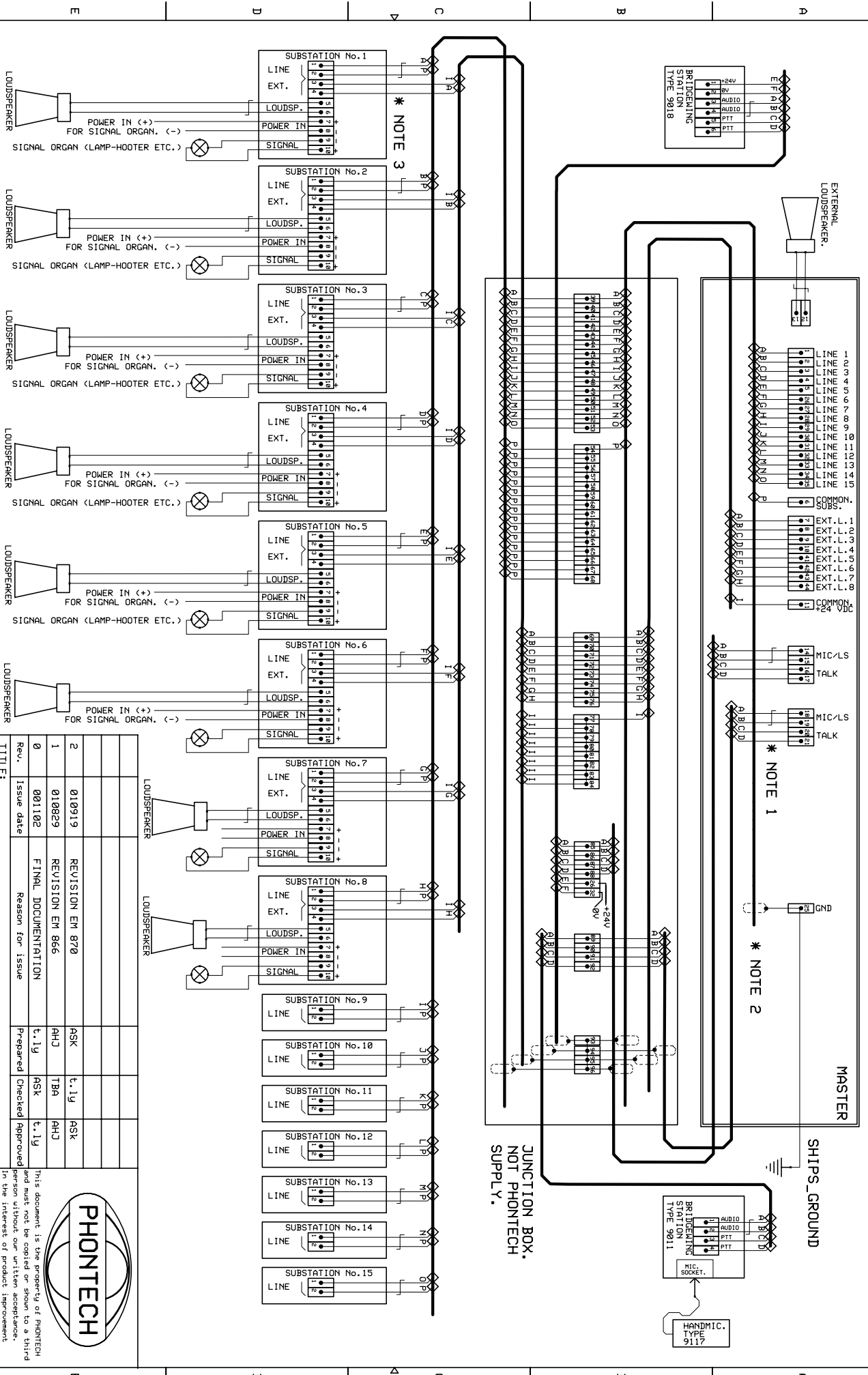


TABLE: Revision and Issue Information

Rev.	Issue date	Reason for issue	Prepared	Checked	Approved
0	001102	FINAL DOCUMENTATION	t.1y	ASK	t.1y
1	010829	REVISION EM 866	AHJ	TBA	AHJ
2	010919	REVISION EM 870	ASK	t.1y	ASK

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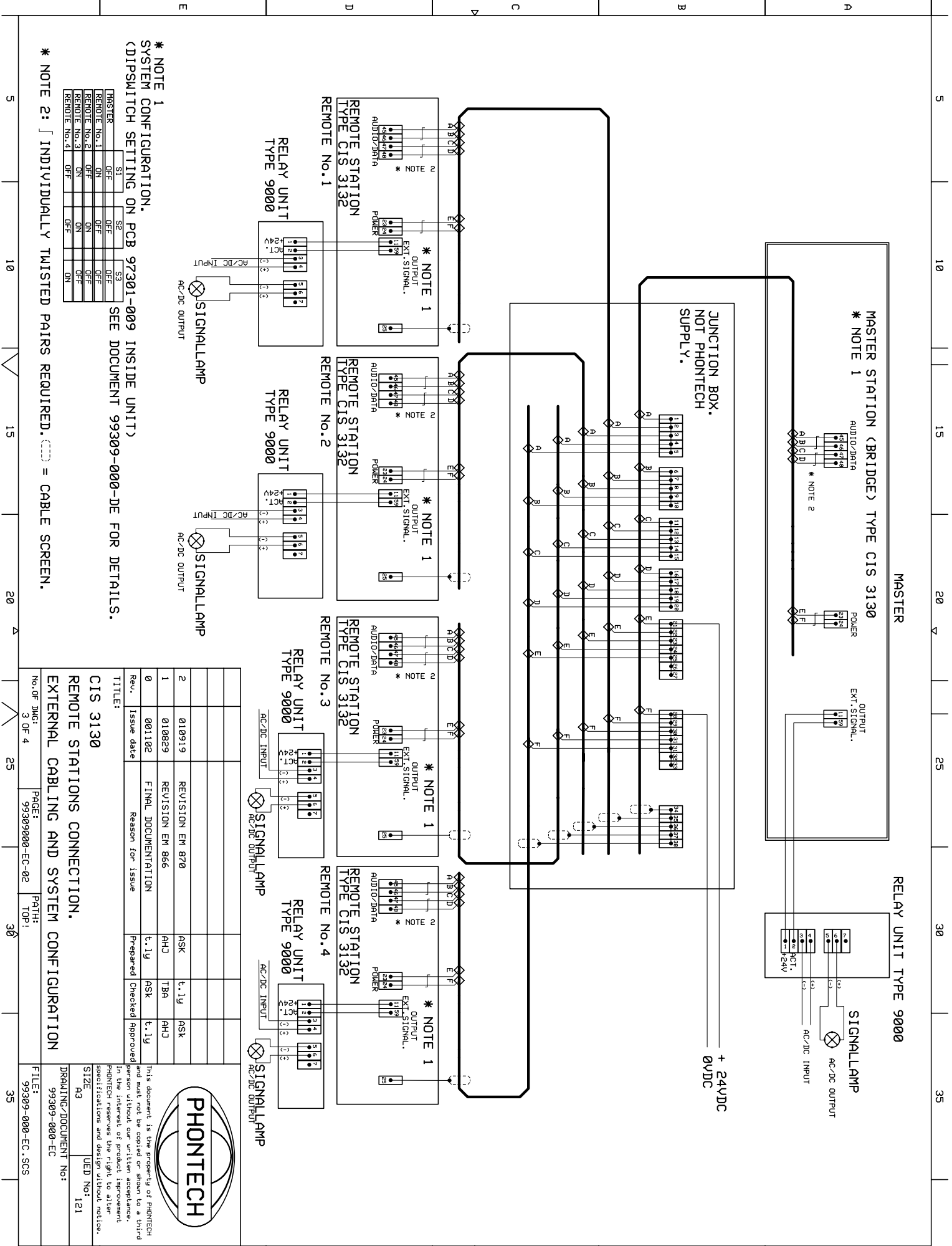
DRIVING DOCUMENT No: 99309-000-EC

FILE: 99309-000-EC.SCS

SIZE: A3

UED No: 121

- * NOTE 1: INDIVIDUALLY TWISTED PAIRS REQUIRED.
- * NOTE 2: COMMON OUTER SCREEN REQUIRED.
- * NOTE 3: SUBSTATION 1 TO 8 MAY ALSO BE WITHOUT EXTERNAL SIGNAL DEVICE (CONNECTED AS SUBSTATION 9-15)



MASTER STATION (BRIDGE) TYPE CIS 3130
* NOTE 1

MASTER

RELAY UNIT TYPE 9000

* NOTE 1
SYSTEM CONFIGURATION.
(DIPSWITCH SETTING ON PCB 97301-009 INSIDE UNIT)
SEE DOCUMENT 99309-000-DE FOR DETAILS.

DIPSWITCH	S1	S2	S3
REMOTE No.1	ON	OFF	OFF
REMOTE No.2	OFF	ON	OFF
REMOTE No.3	ON	ON	OFF
REMOTE No.4	OFF	OFF	ON

* NOTE 2: INDIVIDUALLY TWISTED PAIRS REQUIRED. () = CABLE SCREEN.

Rev.	Issue date	Reason for issue	Prepared	Checked	Approved
0	001102	FINAL DOCUMENTATION	t.l.y	ASK	t.l.y
1	010829	REVISION EM 866	AHJ	TBA	AHJ
2	010919	REVISION EM 870	ASK	t.l.y	ASK

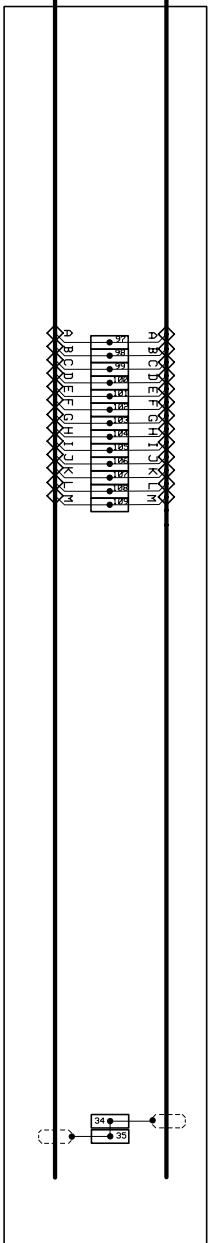
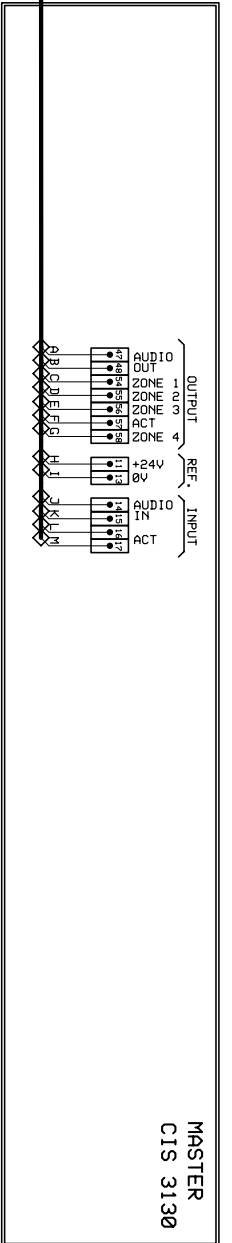


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DRIVING DOCUMENT No: 99309-000-EC
UED No: 121

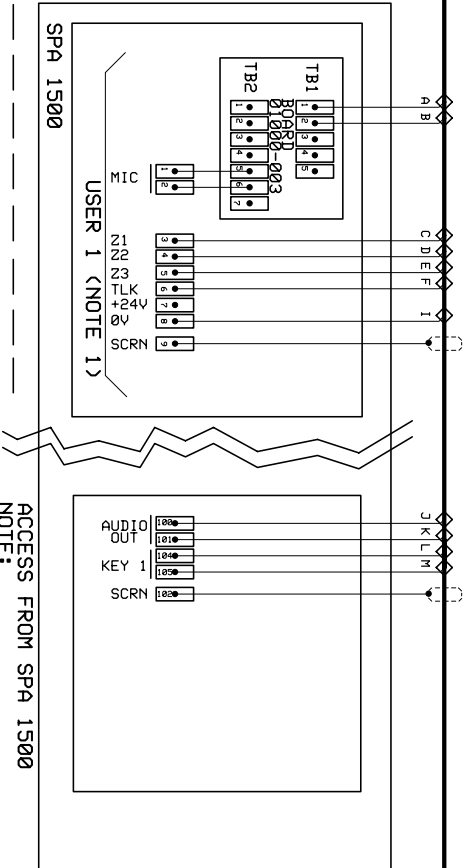
No. OF Dwg: 3 OF 4	DATE: 99309000-EC-02	PATH: TOP1	FILE: 99309-000-EC.SCS
PAGE: 30			

MASTER STATION (BRIDGE) TYPE CIS 3130

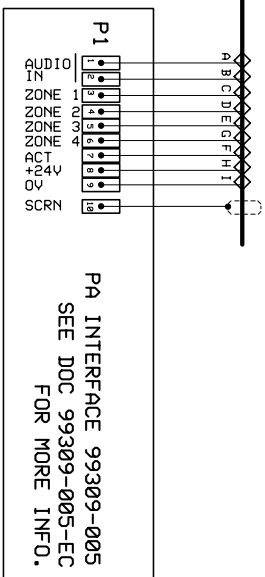


JUNCTION BOX,
NOT PHONTECH
SUPPLY.

EXTERNAL PA ACCESS
WITH ZONE CONTROL
(SPA 1500)



ACCESS FROM SPA 1500
NOTE:
CAN NOT BE COMBINED WITH
PA ACCESS (LEFT EXAMPLE)

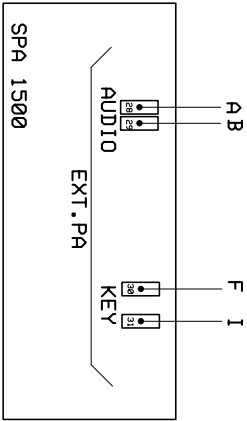


PA INTERFACE 99309-005
SEE DOC. 99309-005-EC
FOR MORE INFO.

PA FACILITIES

- MAX 4 ZONES.
- ANY NUMBER OF AMPLIFIERS
- ANY NUMBER OF LOUDSPEAKERS
- NO OUTPUT POWER LIMITATION

EXTERNAL PA ACCESS
ALL ZONES OR
PRE-DEFINED.
(SPA 1500)



* NOTE 1: USER 2 AND 3 CAN BE USED IF LOWER PRIORITY
ACCESS IS REQUIRED. SEE SPA 1500 DOCUMENTATION
FOR MORE DETAILS.

Rev.	Issue date	Reason for issue	Prepared	Checked	Approved
0	001102	FINAL DOCUMENTATION	t.1y	ASK	t.1y
1	010829	REVISION EM 866	AHJ	TBA	AHJ
2	010919	REVISION EM 870	ASK	t.1y	ASK

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PHONTECH

SIZE A3
DRAWING/DOCUMENT No: 99309-000-EC
UED No: 121

CIS 3130
EXT. PA SYSTEM CONNECTION
EXTERNAL CABLING AND SYSTEM CONFIGURATION

No. OF DWG: 4 OF 4	PAGE: 99309000-EC-03	PATH: TOP1	FILE: 99309-000-EC.SCS
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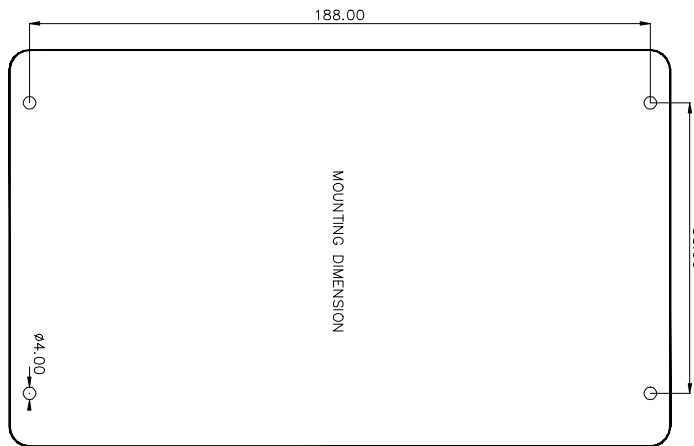
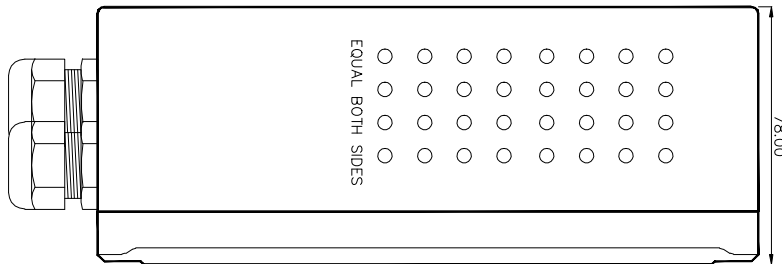
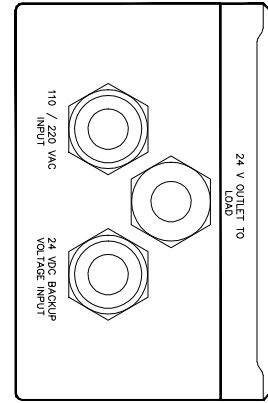
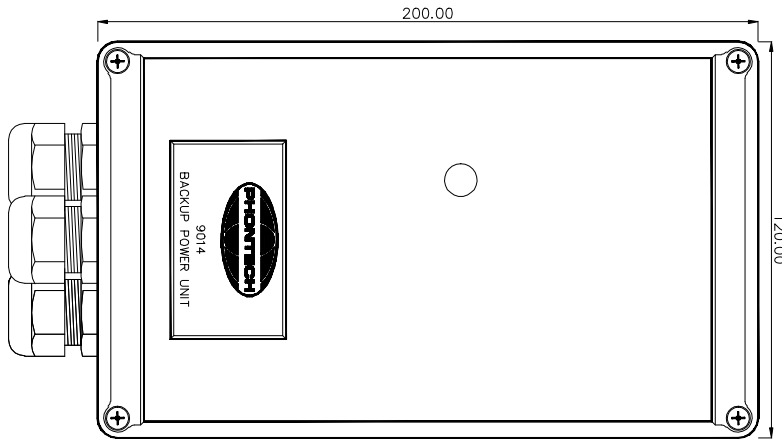
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EQUIPMENT DATA:

MANUFACTURER	: PHONTECH AS.	FIXING DETAILS	: 4pcs. M4 BOLT.
MODEL/TYPE	: BACKUP POWER 9014.	ACCESS	: FRONT.
RACK/BOX SUPPL.	: BOPLA.	CABLE ENTRY	: BOTTOM.
RACK/BOX TYPE	: EUROMAS II, ET-221.	GLANG TYPE	: 3pcs. PG-13,5.
MATERIAL	: ABS.	PROTECTION IP	: IP-20.
COLOUR	: RAL 7035, GREY.	POWER SUPPLY	: 110/220VAC.
WEIGHT OF UNIT	: APP. 1,00Kg.	POWER CONSUMP.	: 70 mA /(IDLE).
MOUNTING	: TO WALL.	HEAT DISSIPATION	: NA.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
2	2000.10.03	CHANGE ORDER No. 794.	R.F.	Tly	Tly
1	99.03.16	CHANGE ORDER No. 731.	R.F.	Tly	Tly
0	99.02.25	AS BUILT.	R.F.	Tly	Tly



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TITLE: GENERAL PURPOSE BACKUP POWER UNIT.
9014.
MECHANICAL LAYOUT.

SIZE: A3 UED No: 27/172
DOC. No: 99900-001-ML
FILE NAME: 99900-001-ML.DWG

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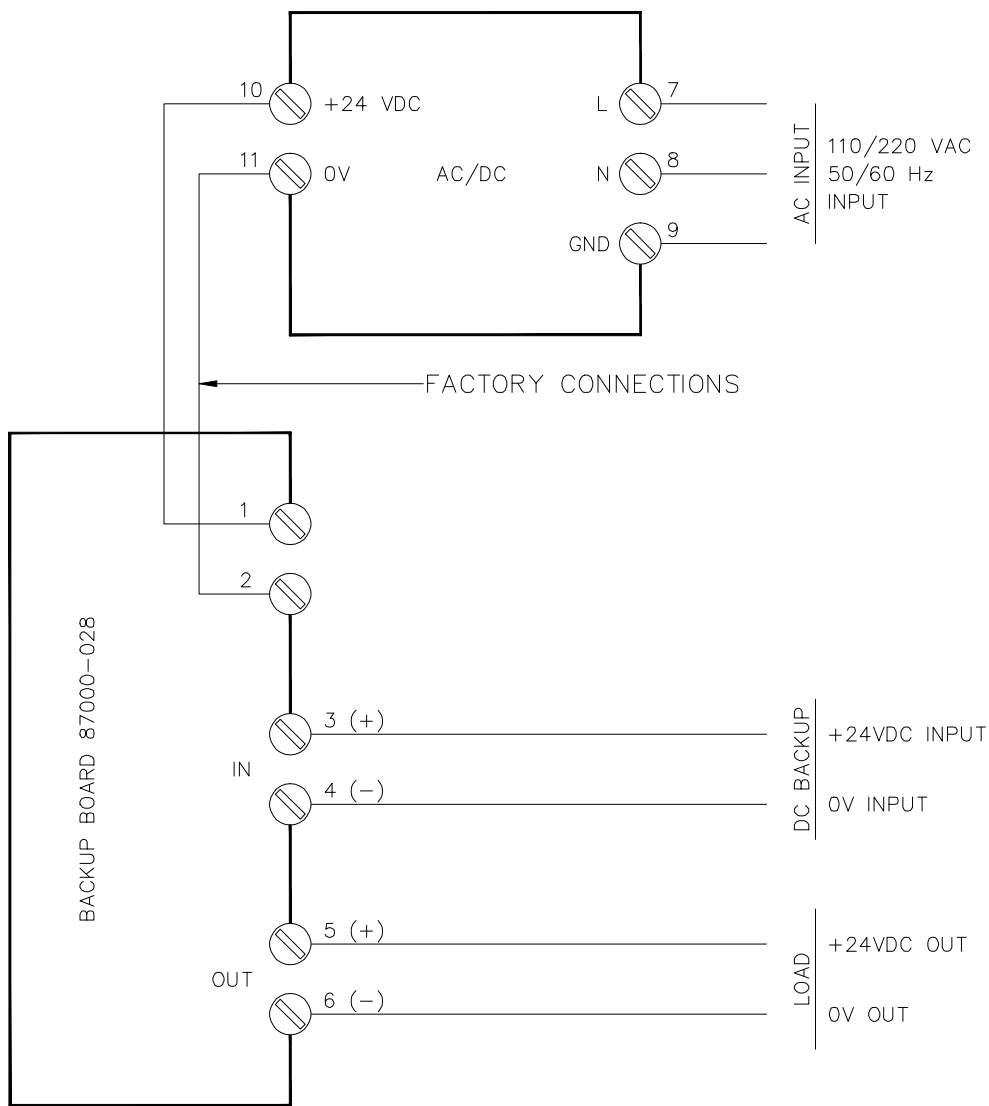
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0	99.02.25	AS BUILT.	Tly	TBA	Tly
REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED



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TITLE: GENERAL PURPOSE BACKUP POWER SUPPLY.
9014.
INTERNAL WIRING.

SIZE: A3 UED No: 27/172
DOC. No: 99900-001-IW
FILE NAME: 99900-001-IW.DWG

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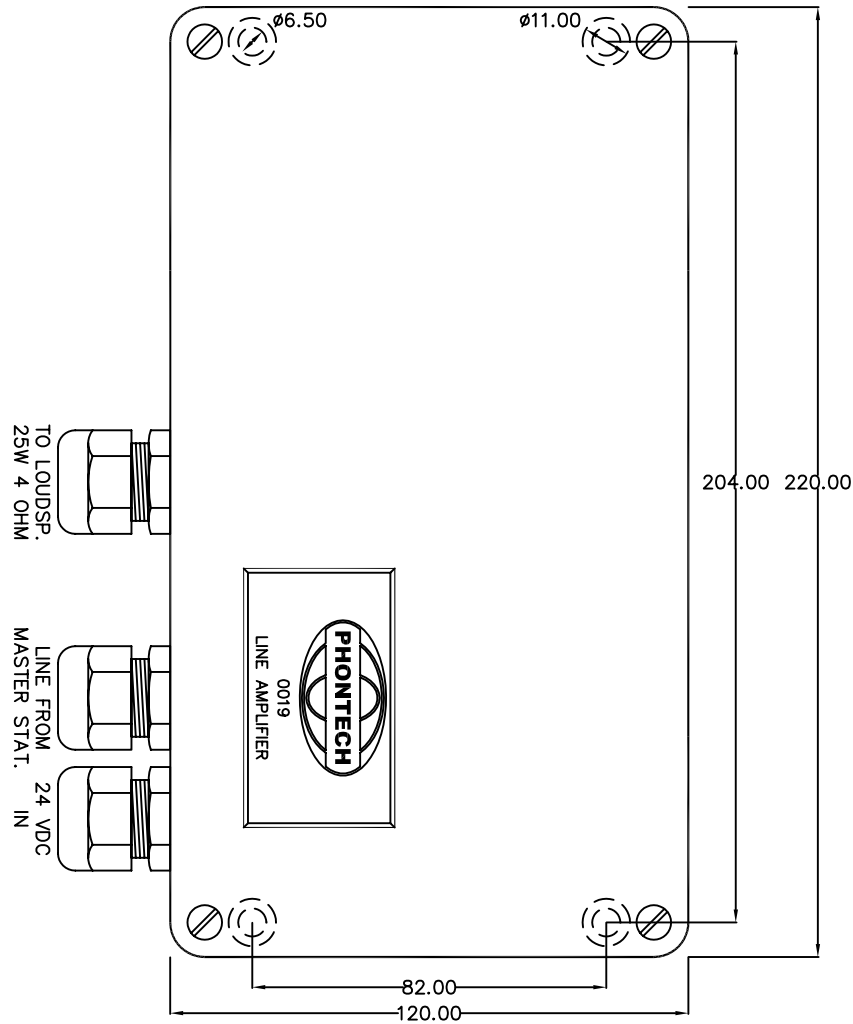
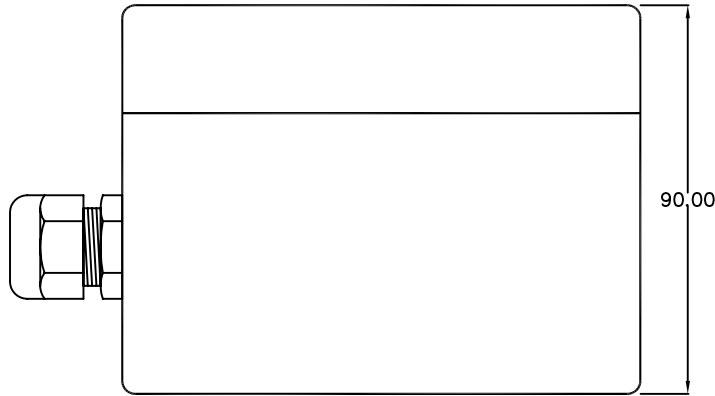
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EQUIPMENT DATA:

MANUFACTURER : PHONTECH AS.
 MODEL/TYPE : LINE AMPLIFIER.
 RACK/BOX SUPPL. : POK 5 127760.
 RACK/BOX TYPE : POLY BOX.
 MATERIAL : GRP.
 COLOUR : RAL 7001.
 WEIGHT OF UNIT : 1,65Kg.
 MOUNTING : TO WALL.

FIXING DETAILS : 4pcs. M5 BOLT.
 ACCESS : FRONT.
 CABLE ENTRY : BOTTOM.
 GLAND TYPE : PG-11.
 PROTECTION IP : IP-65.
 POWER SUPPLY : 24VDC.
 POWER CONSUMP. : NA.
 HEAT DISSIPATION : NA.

1	2000.09.25	CHANGE ORDER No. 789	R.F.	ASK	TLy	
0	98.02.26	AS BUILT.	H.H.	ASK	H.H.	
REV no:	ISSUE DATE	REASON FOR ISSUE	MA.BY	CH. BY	APP.BY	
TITLE: LINE AMPLIFIER 0019. MECHANICAL LAYOUT.						
Ref. no:	No. of DWG:	TRACE BY:	SCALE:			
	1 of 1	R.F.	1 : 1			



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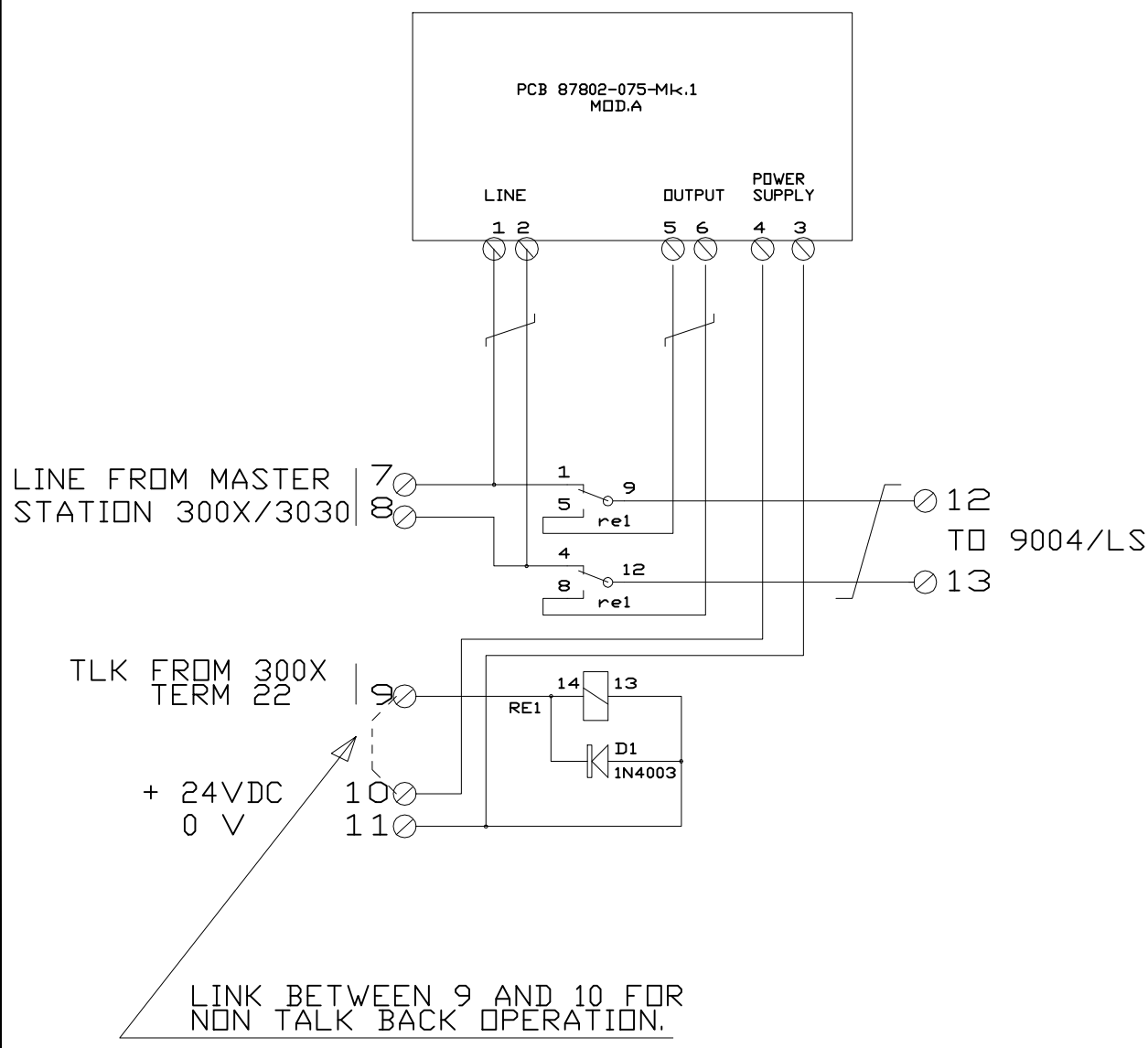
SIZE: A3 UED no:
 DOC. No: 88000-004-ML
 FILE: 88000-004-ML.DWG

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REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
3	000925	REVISION CHANGE 799	t.ly		
2	990204	REVISION CHANGE 724	t.ly		
1	951109	REVISION CHANGE 577	t.ly		
0	951109	FINAL DOCUMENTATION	t.ly		



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TITLE:
LINE AMPLIFIER
0019

SIZE: A4 UED No: N/A
 DOC. No: 88000-004-IW
 FILE NAME: 88000-004-IW.DWG

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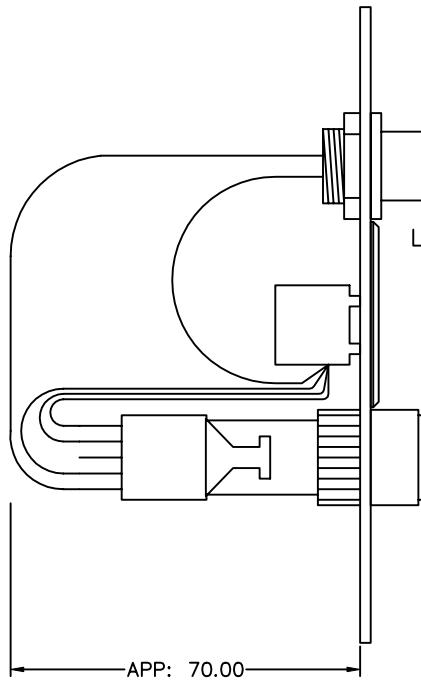
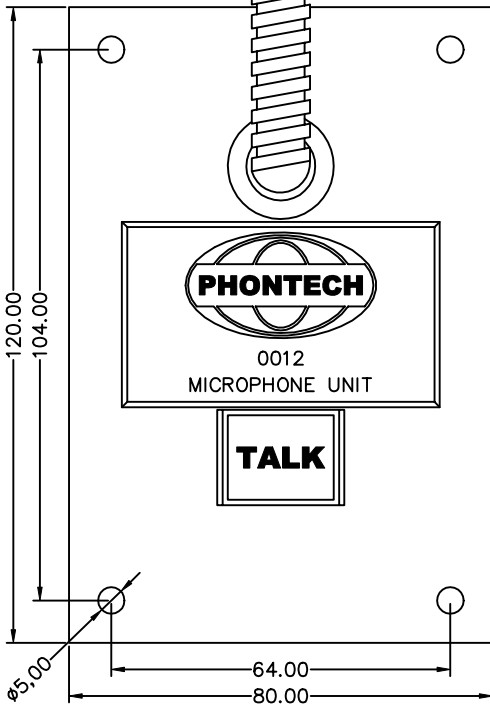
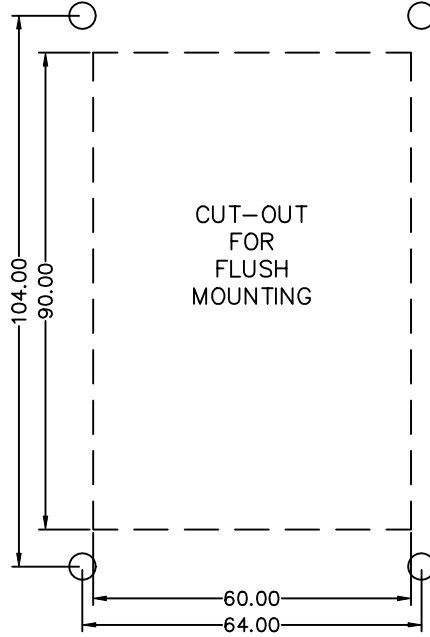
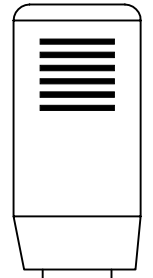
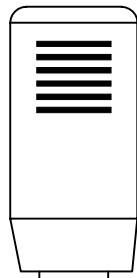
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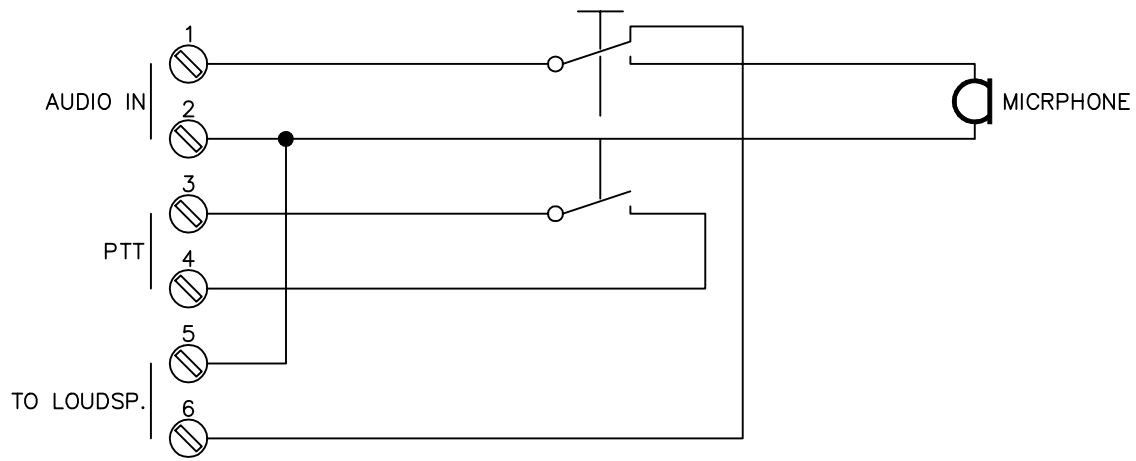
REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	92.05.13	AS BUILT.	R.F.	A.I.	JHB



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TITLE: BRIDGE WING MIC UNIT, 0012.
WITH GOOSENECK.
MECHANICAL LAYOUT.

SIZE:	A3	UED No:	
DOC. No:	87000-035-MD		
FILE NAME:	0012-ML.DWG		



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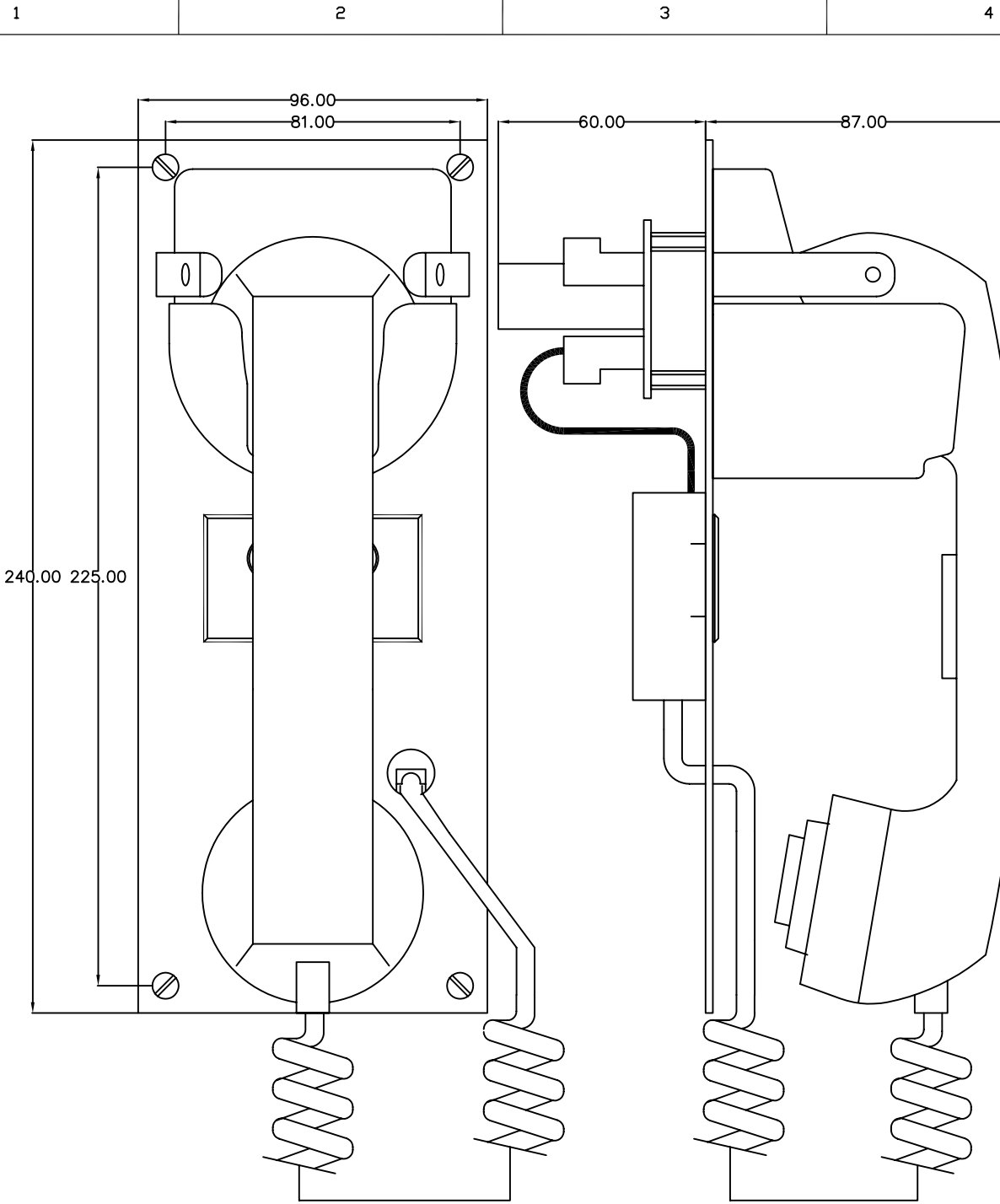
0	87.12.23	AS BUILT.	R.F.	JHB	JHB
REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED



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TITLE: BRIDGE WING MIC UNIT, 0012.
WITH GOOSENECK.
INTERNAL WIRING.

SIZE: A4 UED No:
DOC. No: 87000-035-IW
FILE NAME: 0012-IW.DWG



- NOTES:
 -REQUIRED OPENING FOR FLUSH-MOUNTING: 66 x 210mm.
 15,00mm IN FROM EACH SIDE.
 -COLOUR: FRONT: BLACK. TELEPHONE: BLACK.
 -WEIGHT: APP. 1,50Kg.
 -FIXING DETAILS: 4pcs. M4 SCREW.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
1	2000.10.03	REVISION EM-796.	R.F.	E.D.	Tly
0	97.06.26	AS BUILT.	R.F.	P.A.	Tly



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TITLE: IN-BRIDGE WING UNIT.
 9018.
 MECHANICAL LAYOUT.

SIZE:	A3	UED No:	27/161
DOC. No:	97900-000-ML		
FILE NAME:	97900-000-ML.DWG		

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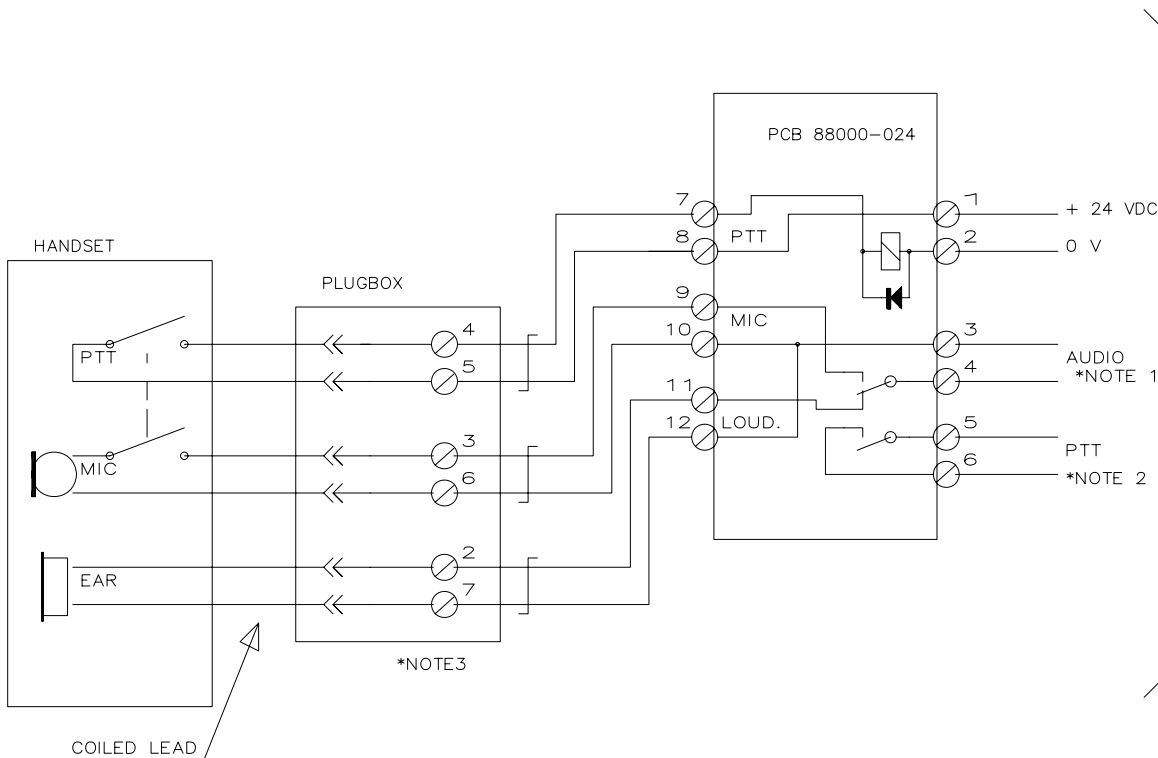
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CONNECTED TO PHONTECH COMMAND
SYSTEM 3000 AND 3100 SERIES

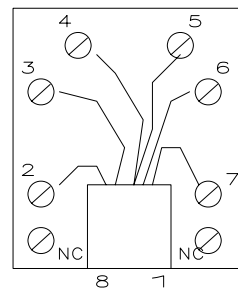
NOTE 1
AUDIO LINE TERMINALS
ON DIFFERENT MASTER UNITS

3000: 10,11
3001: 18,19
3002: 26,27
3100: STARBOARD: 14,15
3100: PORT: 18,19
3101: STARBOARD: 14,15
3101: PORT: 18,19
3102: STARBOARD: 14,15
3102: PORT: 18,19

NOTE 2
PTT LINE TERMINALS
ON DIFFERENT MASTER UNITS

3000: 12,13
3001: 16,17
3002: 28,29
3100: STARBOARD: 16,17
3100: PORT: 20,21
3101: STARBOARD: 16,17
3101: PORT: 20,21
3102: STARBOARD: 16,17
3102: PORT: 20,21

NOTE 3
PLUGBOX LAYOUT
TOP VIEW



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0	97.06.26	AS BUILT.	TLy	ASk	ASK
REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED



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F

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TITLE: IN-BRIDGE WING UNIT.
9018.
INTERNAL WIRING.

SIZE: A4 UED No: 27/161
DOC. No: 97900-000-IW
FILE NAME: 97900-000-IW.DWG

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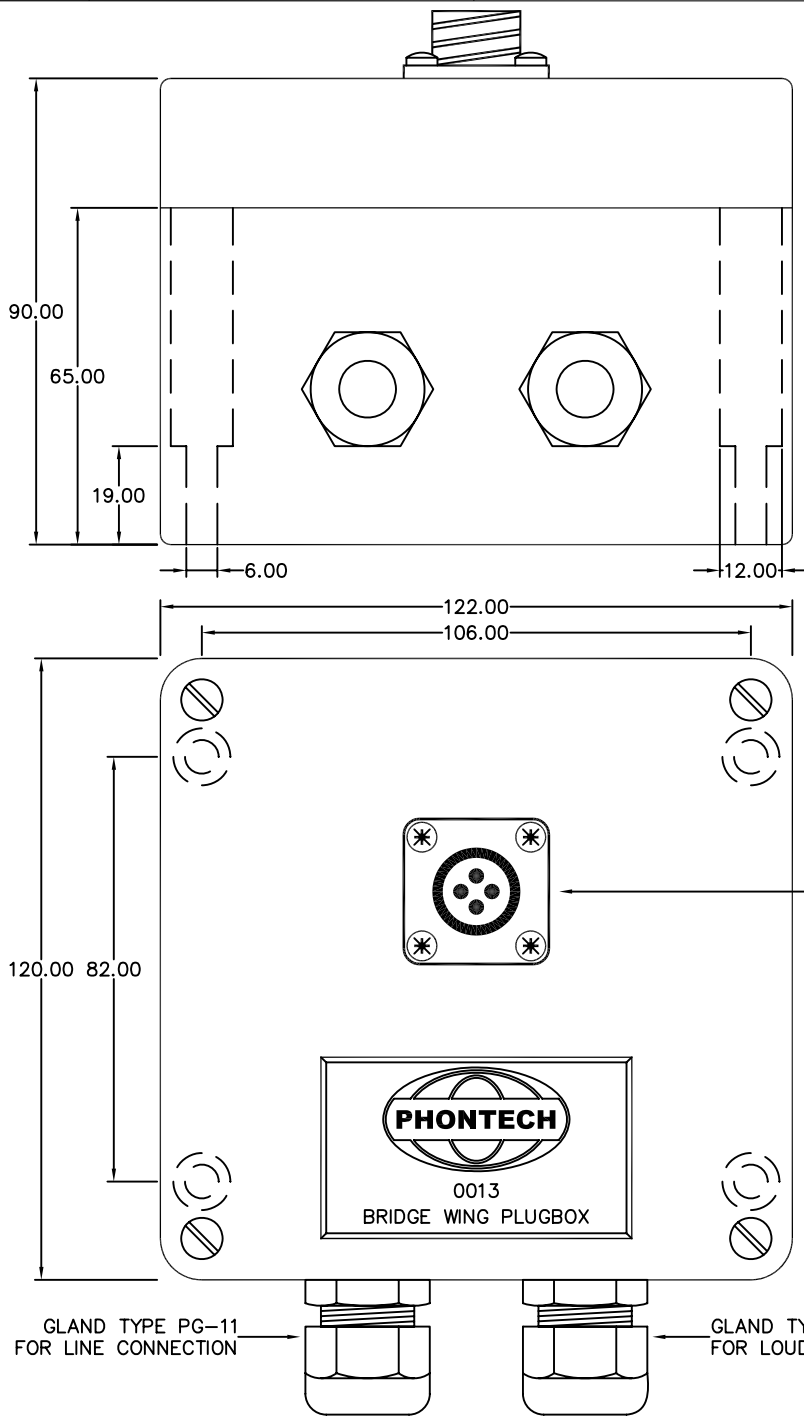
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EQUIPMENT DATA:

MANUFACTURER : PHONTECH AS.	FIXING DETAILS : 4pcs. M4 BOLT.
MODEL/TYPE : PLUGBOX, 0013.	ACCESS : FRONT.
RACK/BOX SUPPL. : ROSE.	CABLE ENTRY : BOTTOM.
RACK/BOX TYPE : 12.12.09.	GLAND TYPE : 2pcs. SKINTOP.
MATERIAL : GRP.	PROTECTION IP : IP-65.
COLOUR : RAL 7001.	POWER SUPPLY : NA.
WEIGHT OF UNIT : APP. 3,00Kg.	POWER CONSUMP. : NA.
MOUNTING : TO WALL.	HEAT DISSIPATION : NA.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
1	2000.10.02	CHANGE ORDER No.795	R.F.	TLy	P.A.
0	88.02.16	AS BUILT.	R.F.	TLy	JHB



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TITLE: BRIDGE WING PLUGBOX FOR MIC./L.S.
TYPE 0013.
MECHANICAL LAYOUT.

SIZE: A3 UED No:
DOC. No: 87000-036-ML
FILE NAME: 87000-036-ML.DWG

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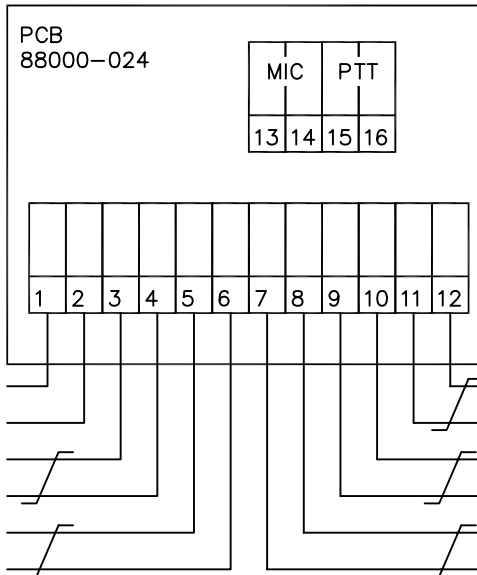
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0	16.02.1988	AS BUILT.	R.F.	TLy	ASK
REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED



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TITLE: BRIDGE WING UNIT, 0013.
EXTERNAL CONNECTION.

SIZE:	A4	UED No:	
DOC. No:	87000-036-EC		
FILE NAME:	87000-036-EC.DWG		

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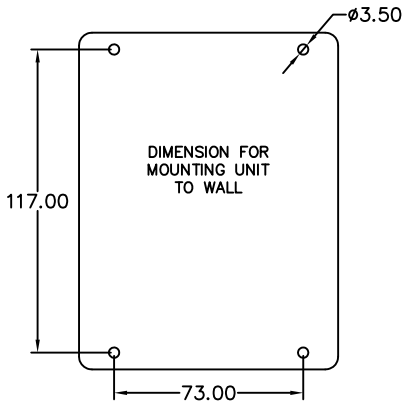
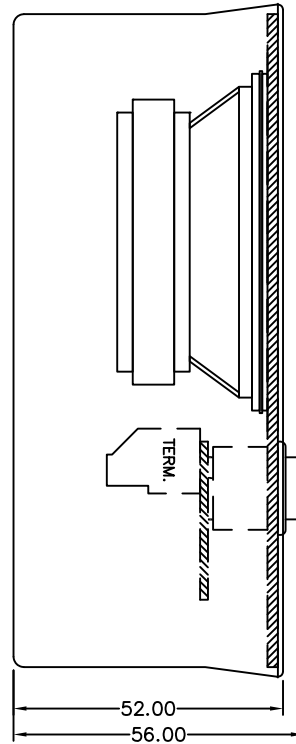
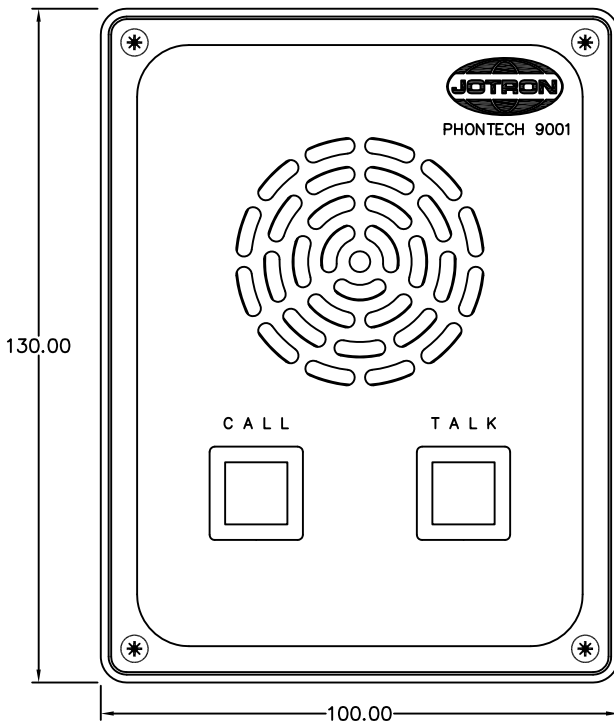
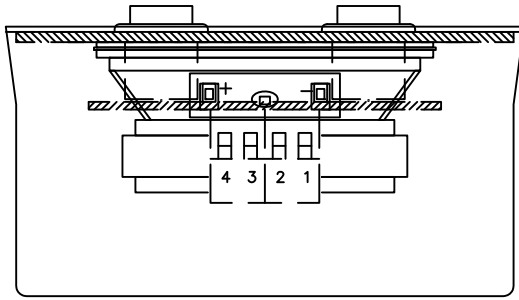
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EQUIPMENT DATA:

MANUFACTURER	: JOTRON PHONTECH AS.	FIXING DETAILS	: SEE INSIDE BOX.
MODEL/TYPE	: SUBSTATION.	ACCESS	: FRONT.
RACK/BOX SUPPL.	: JOTRON PHONTECH AS.	CABLE ENTRY	: BOTTOM/REAR.
RACK/BOX TYPE	: NA.	GLAND TYPE	: YARD SUPPLY.
MATERIAL	: PC/ABS BLEND, ABS.	PROTECTION IP	: IP-31
COLOUR	: RAL 9005/9006.	POWER SUPPLY	: NA.
WEIGHT OF UNIT	: 0,3Kg.	POWER CONSUMP.	: NA.
MOUNTING	: TO WALL.	HEAT DISSIPATION	: NA.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.22	DVM COMPLETION	ASK		ASK
B	2010.05.07	DVM REVISION	ASK		ASK
A	2010.04.19	DEVELOPMENT	CD		CD



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TITLE: 9001, ABS – CABIN SUBSTATION

MECHANICAL LAYOUT.

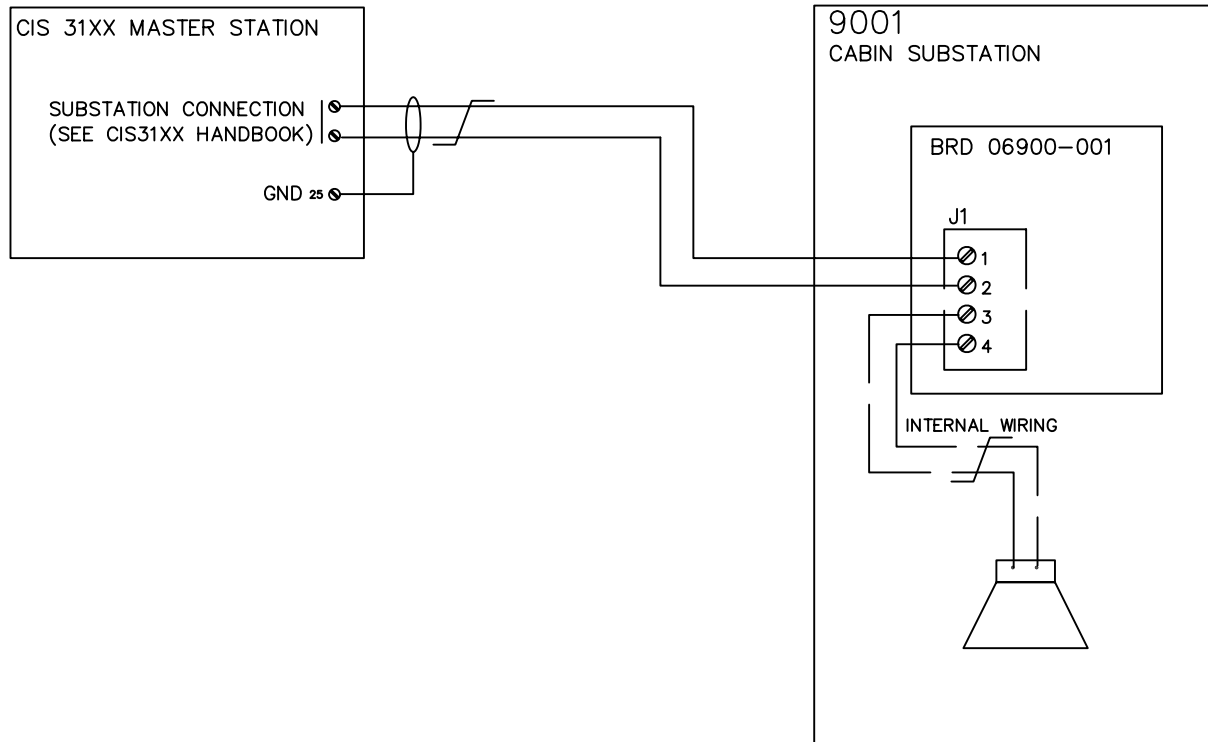
SIZE:	A3	PAGE:	
DRAWING No:	09908-001-ML		
FILE NAME:	09908-001-ML.DWG		

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REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.23	DVM COMPLETION	ASK		ASK
A	2010.04.23	DEVELOPMENT.	ASK		ASK



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TITLE: 9001, ABS – CABIN SUBSTATION
EXTERNAL CONNECTION

SIZE: A4 UED No:
DOC. No: 09908-001-EC
FILE NAME: 09908-001-EC.DWG

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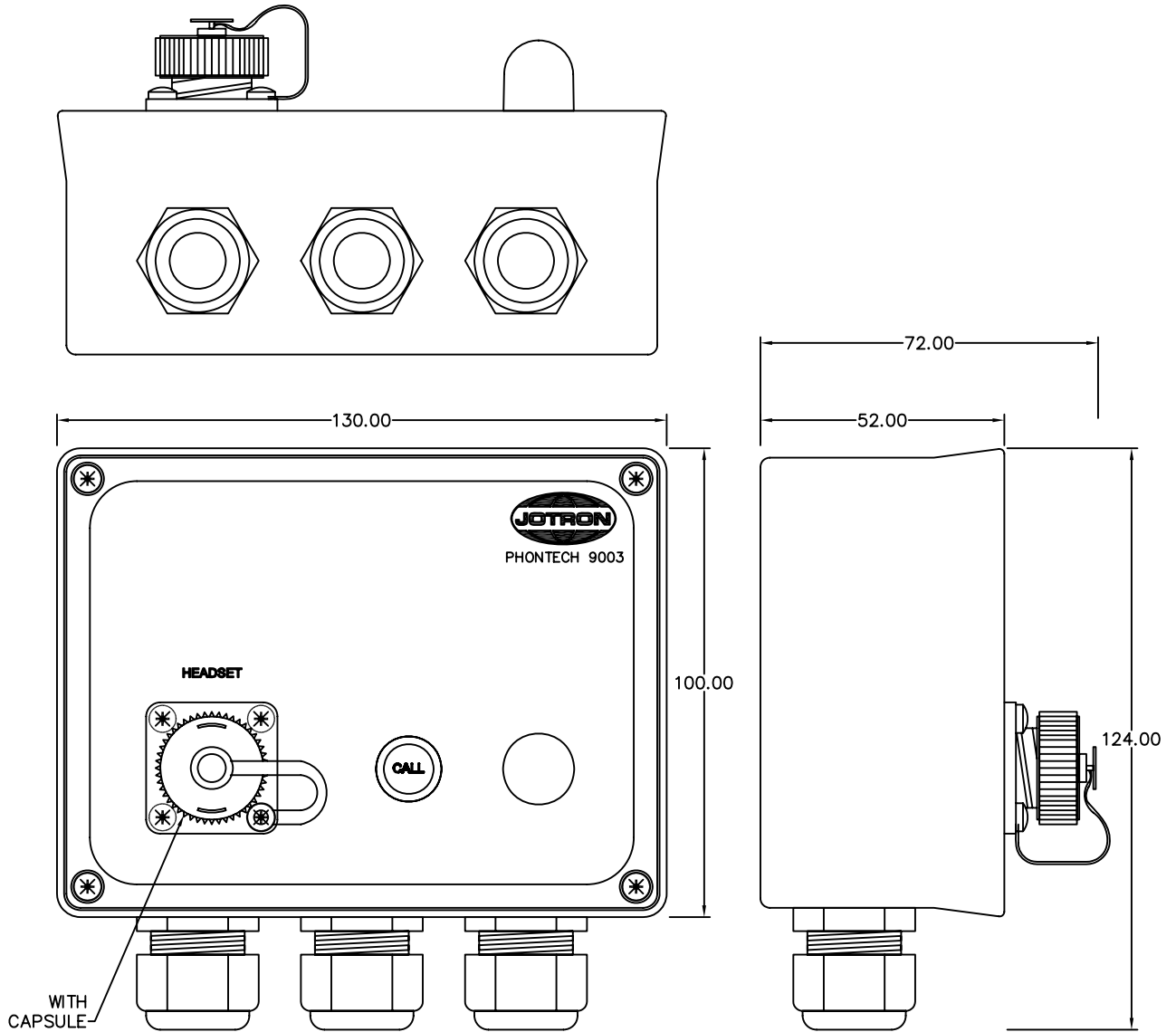
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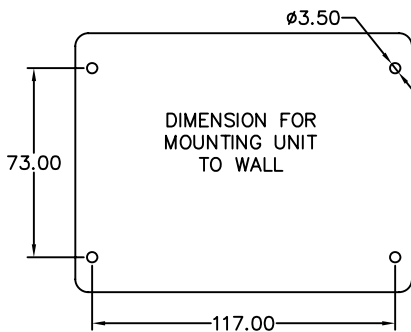


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EQUIPMENT DATA:

MANUFACTURER : JOTRON PHONTECH AS	FIXING DETAILS : SEE INSIDE BOX.
MODEL/TYPE : CALL/PLUGBOX.	ACCESS : FRONT.
RACK/BOX SUPPL. : JOTRON PHONTECH AS.	CABLE ENTRY : BOTTOM.
RACK/BOX TYPE : NA.	GLAND TYPE : 3pcs. M20.
MATERIAL : PC/ABS BLEND, ABS.	PROTECTION IP : IP-56
COLOUR : RAL 9005/9006.	POWER SUPPLY : FROM CENTRAL.
WEIGHT OF UNIT : 0,3Kg.	POWER CONSUMP. : NA.
MOUNTING : TO WALL.	HEAT DISSIPATION : NA.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.29	DVM COMPLETION	ASK		ASK
A	2010.06.21	DEVELOPMENT	CD		CD

TITLE: 9003, ABS - SUBSTATION FOR HEADSET

MECHANICAL LAYOUT



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SIZE: A3	PAGE:
DRAWING No: 09908-011-ML	
FILE NAME: 09908-011-ML.DWG	

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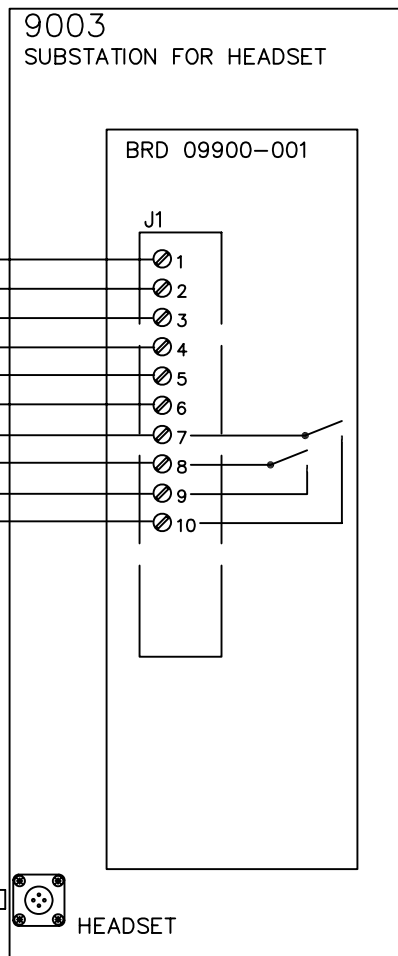
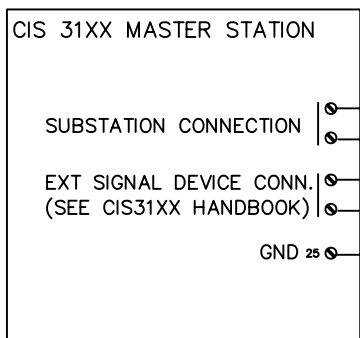
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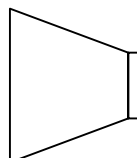
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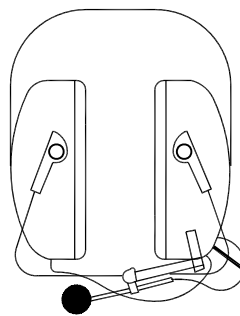
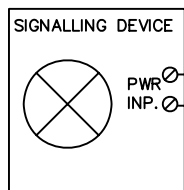
A



EXTERNAL LOUDSPEAKER



RATED POWER FOR THE
SIGNALLING DEVICE:
90-240 VAC / 5-48VDC
8 A



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REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.29	DVM COMPLETION	ASK		ASK
A	2010.06.21	DEVELOPMENT.	ASK		ASK



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TITLE: 9003, ABS - SUBSTATION FOR HEADSET

EXTERNAL CONNECTION

SIZE: A4 UED No:
DOC. No: 09908-011-EC
FILE NAME: 09908-011-EC.DWG

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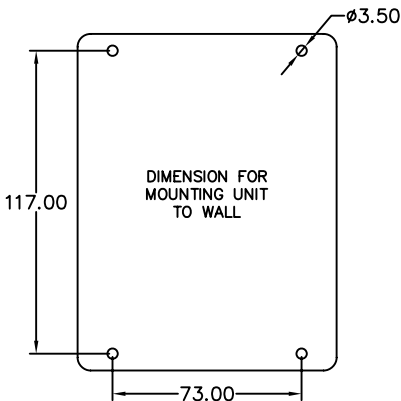
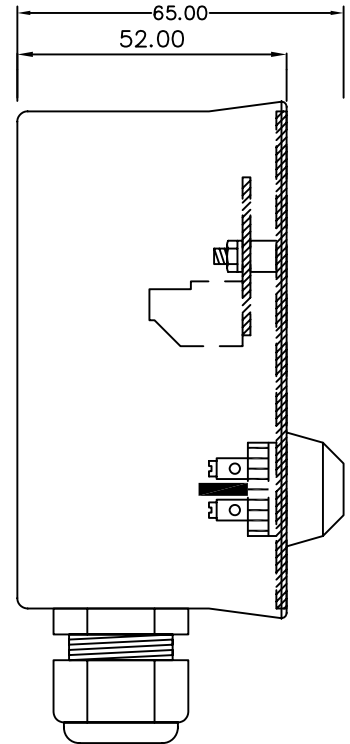
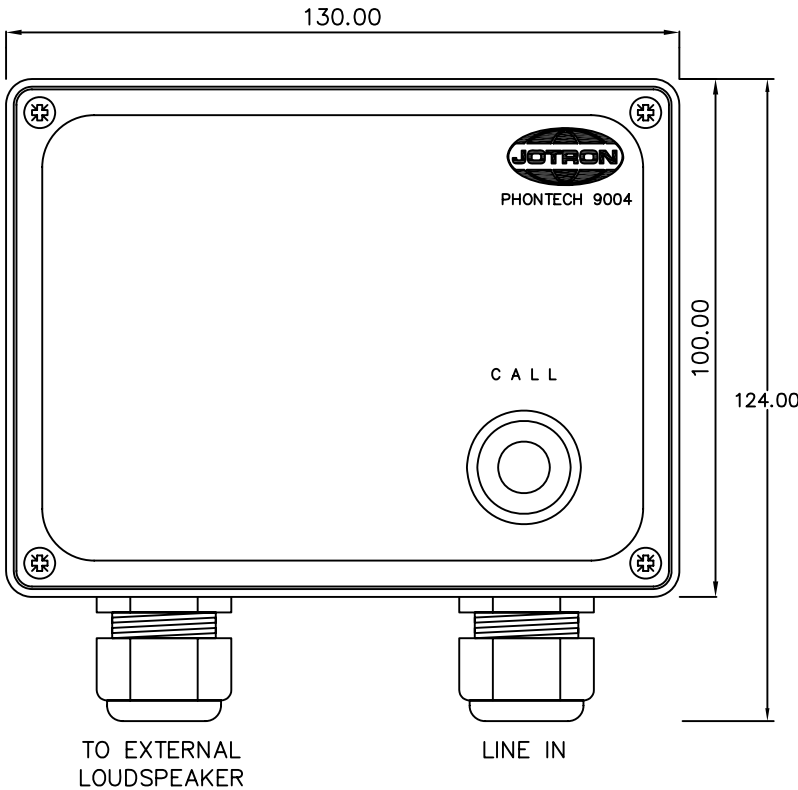
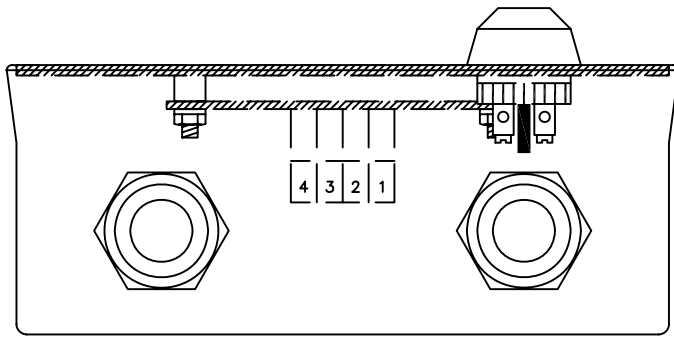
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EQUIPMENT DATA:

MANUFACTURER	: JOTRON PHONTECH AS	FIXING DETAILS	: SEE INSIDE BOX
MODEL/TYPE	: CALL UNIT	ACCESS	: FRONT
RACK/BOX SUPPL.	: JOTRON PHONTECH AS	CABLE ENTRY	: BOTTOM
RACK/BOX TYPE	: NA.	GLAND TYPE	: 2pcs. M20
MATERIAL	: PC/ABS BLEND	PROTECTION IP	: IP-56
COLOUR	: RAL 9005/9006	POWER SUPPLY	: NA.
WEIGHT OF UNIT	: 0,3Kg.	POWER CONSUMP.	: NA.
MOUNTING	: TO WALL	HEAT DISSIPATION	: NA.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.23	DVM COMPLETION	ASK		ASK
B	2010.05.07	DVM REVISION	ASK		ASK
A	2010.04.27	DEVELOPMENT	CD		CD

TITLE: 9004, ABS – CALL UNIT
MECHANICAL LAYOUT.



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SIZE:	A3	UED No:	
DOC. No:	09908-003-ML		
FILE NAME:	09908-003-ML.DWG		

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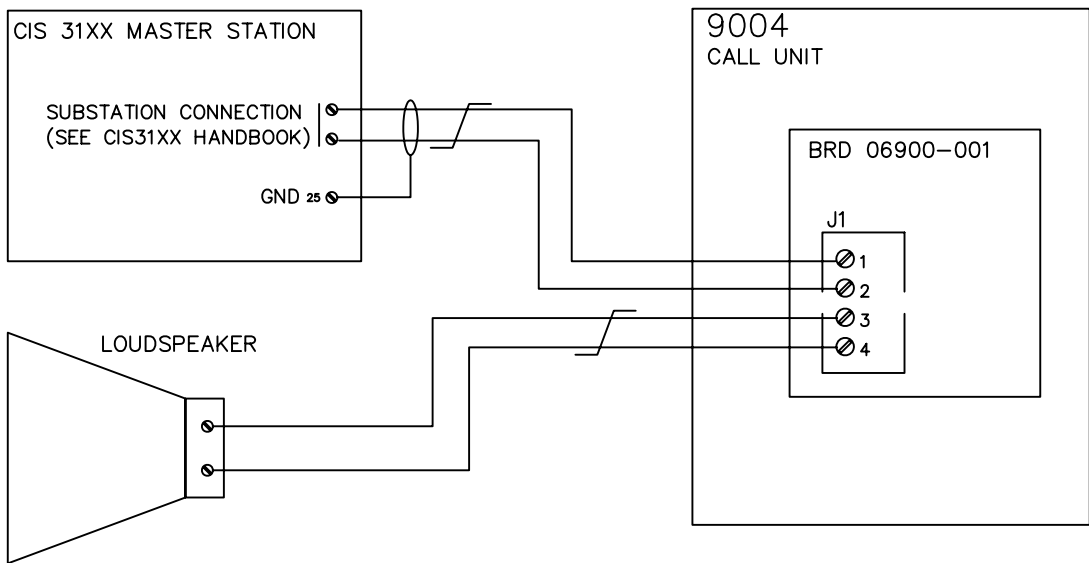
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REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.23	DVM COMPLETION	ASK		ASK
A	2010.04.27	DEVELOPMENT.	ASK		ASK



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TITLE: 9004, ABS - CALL UNIT
EXTERNAL CONNECTION

SIZE: A4 UED No:
DOC. No: 09908-003-EC
FILE NAME: 09908-003-EC.DWG

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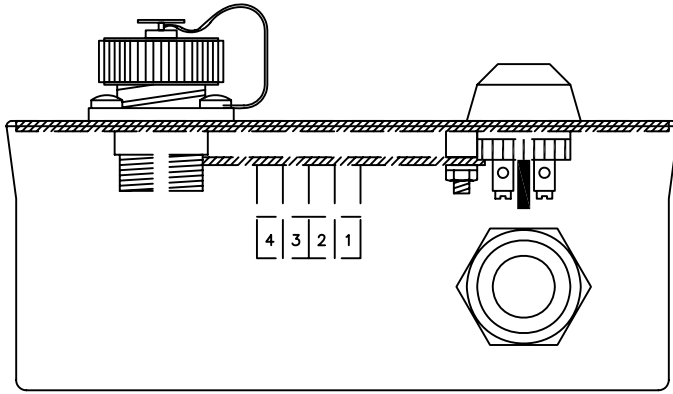
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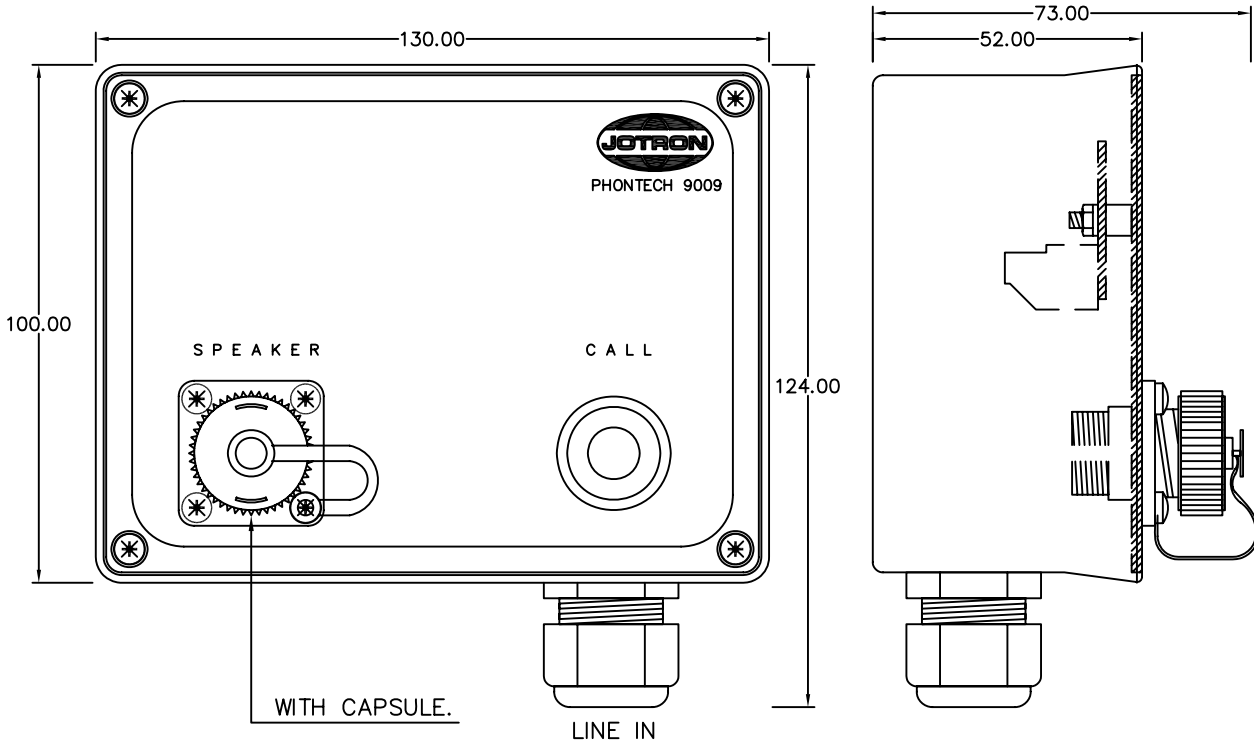
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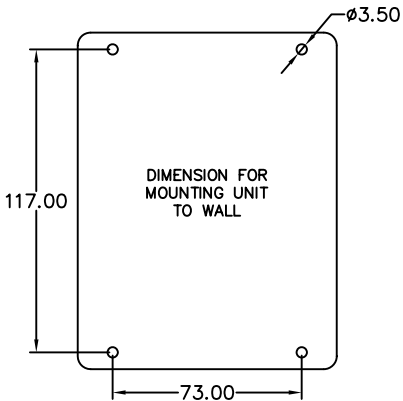
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EQUIPMENT DATA:

MANUFACTURER	: JOTRON PHONTECH AS.	FIXING DETAILS	: SEE INSIDE BOX.
MODEL/TYPE	: CALL/PLUGBOX.	ACCESS	: FRONT.
RACK/BOX SUPPL.	: JOTRON PHONTECH AS.	CABLE ENTRY	: BOTTOM.
RACK/BOX TYPE	: NA.	GLAND TYPE	: 1pcs. M20.
MATERIAL	: PC/ABS BLEND, ABS.	PROTECTION IP	: IP-56.
COLOUR	: RAL 9005/NATUR.	POWER SUPPLY	: FROM CENTRAL.
WEIGHT OF UNIT	: 0,3Kg.	POWER CONSUMP.	: NA.
MOUNTING	: TO WALL.	HEAT DISSIPATION	: NA.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.07.23	DVM COMPLETION	ASK		ASK
A	2010.05.10	DEVELOPMENT.	CD		CD

TITLE: 9009, ABS - SUBSTATION.

MECHANICAL LAYOUT.



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SIZE:	A3	UED No:	
DOC. No:	09908-004-ML		
FILE NAME:	09908-004-ML.DWG		

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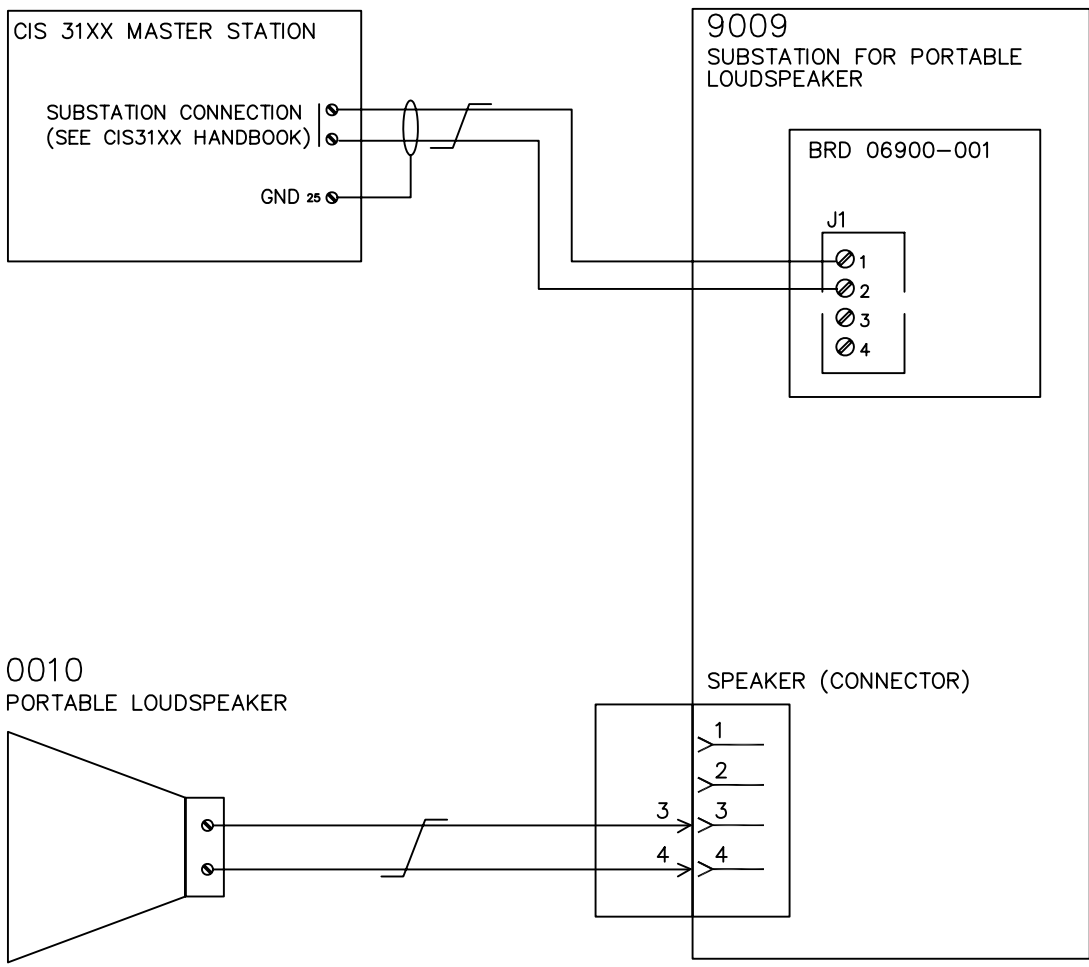
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REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.24	DVM COMPLETION	ASK		ASK
A	2010.04.27	DEVELOPMENT.	ASK		ASK



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TITLE: 9009, ABS – SUBSTATION FOR PORTABLE LOUDSPEAKER
EXTERNAL CONNECTION

SIZE: A4 UED No:
DOC. No: 09908-004-EC
FILE NAME: 09908-004-EC.DWG

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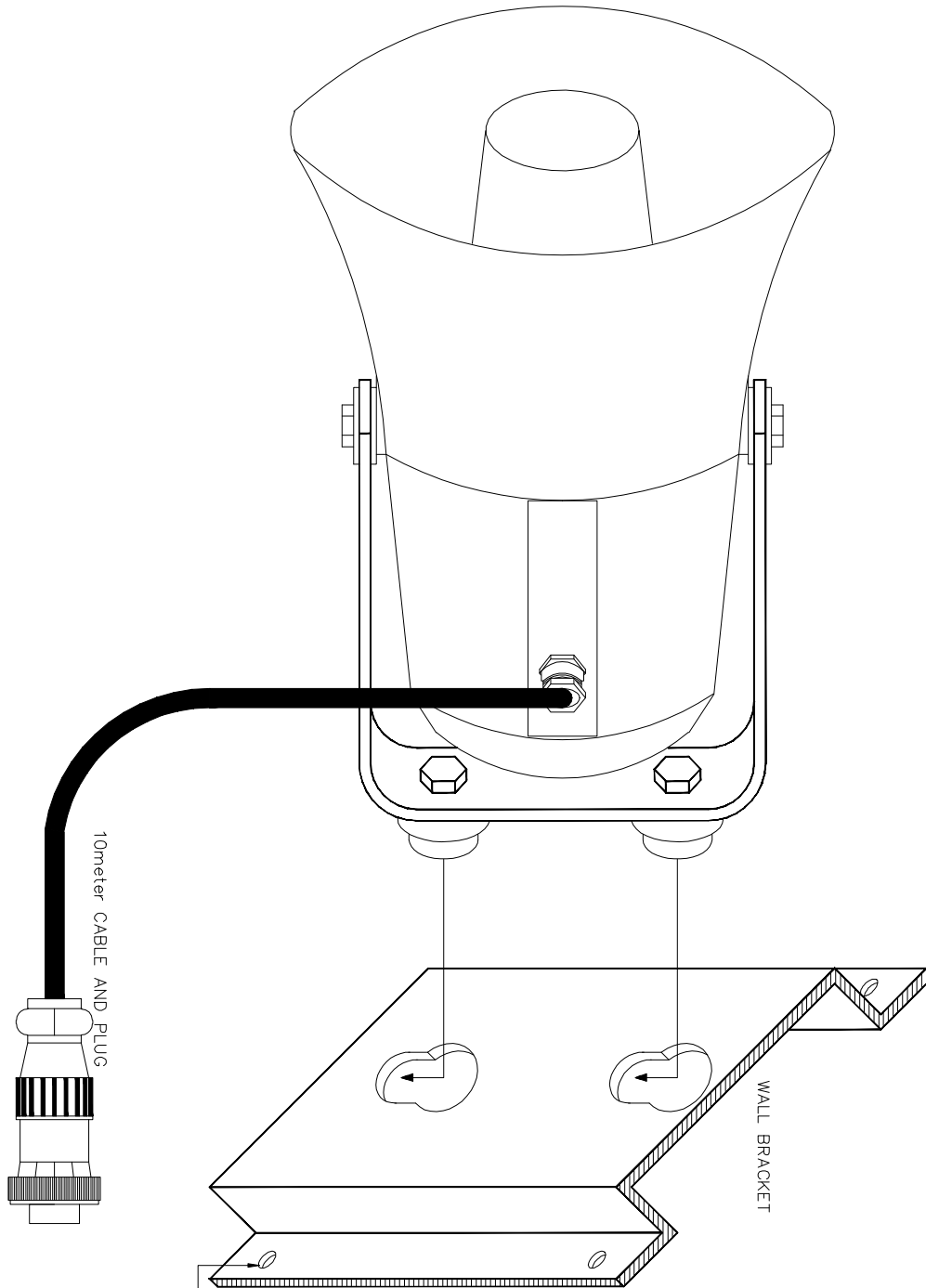
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10meter CABLE AND PLUG

WALL BRACKET

Ø6,00mm
FOR MOUNTING
TO WALL.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
1	98.11.09	REVISION, EM 713.	R.F.	TBA	ASK
0	90.11.23	AS BUILT.	R.F.	TBA	ASK



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TITLE: PORTABLE LOUDSPEAKER W/BRACKET.
0010.
MECHANICAL LAYOUT.

SIZE: A3 UED No:
DOC. No: 87000-022-ML
FILE NAME: 87000-022-ML.DWG

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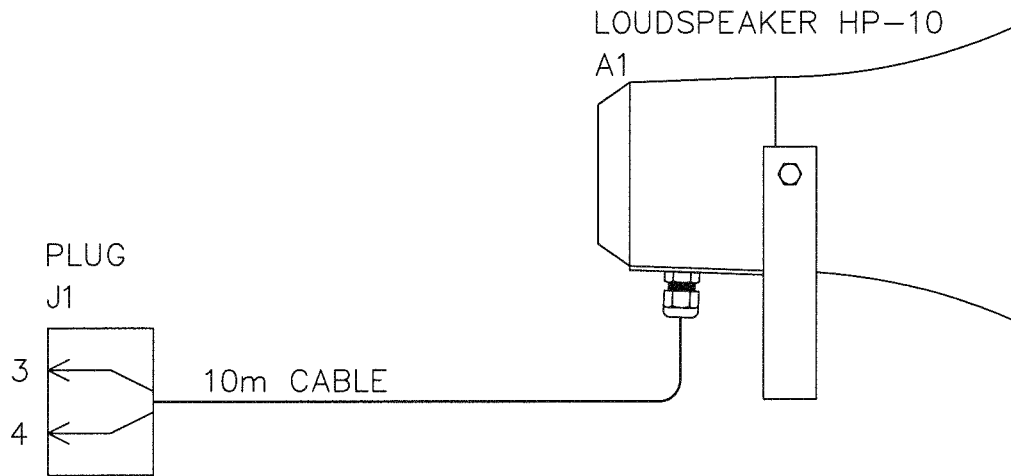
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NOTE:
 KRYMPESTRØMPE MED LIM MÅ BENYTTES PÅ PLUGGEN.
 2stk. ø8,00x30mm.
 1stk. ø15,00x30mm.
 1stk. ø23,00x55mm.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
1	2001.11.08	REVISION EM-891.	R.F.	P.A.	TBA
0	89.09.18	FINAL DOCUMENTATION.	R.F.	JHB	TBA



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TITLE: PORTABLE HORNSPEAKER 0010.
 INTERNAL WIRING.

SIZE: A4 UED No:
 DOC. No: 87000-022-IW
 FILE NAME: 87000-022-IW.DWG

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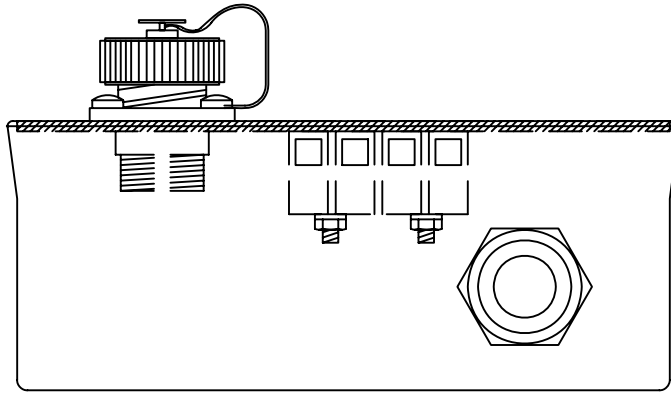
B

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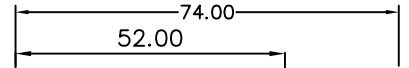
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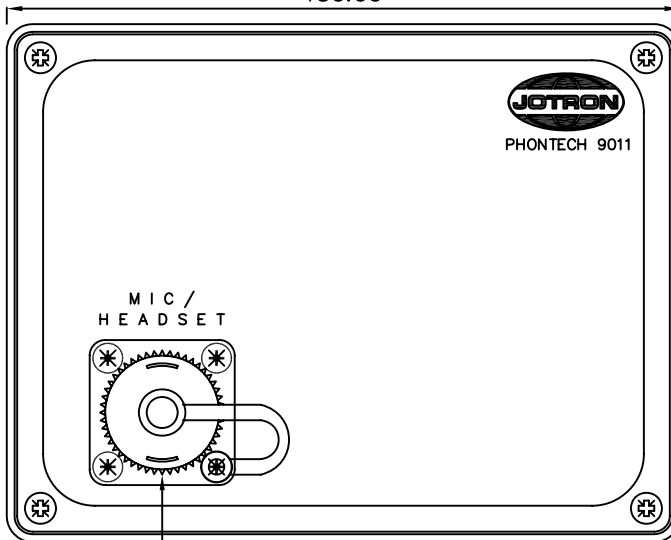
D



130.00



52.00



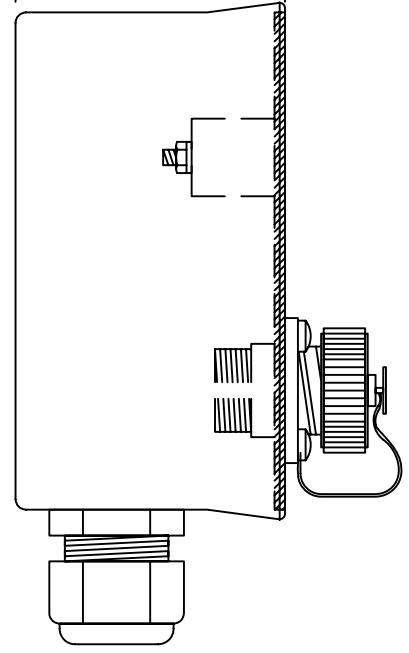
100.00

124.00

MIC /
HEADSET

WITH CAPSULE.

LINE IN

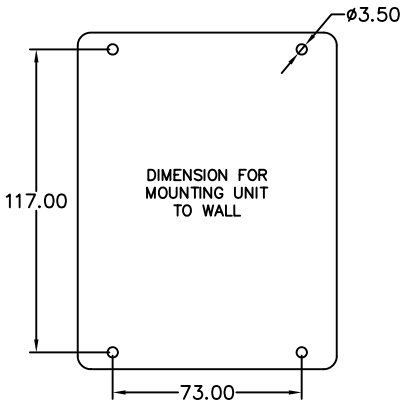


E

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EQUIPMENT DATA:

MANUFACTURER	: JOTRON PHONTECH AS.	FIXING DETAILS	: SEE INSIDE BOX.
MODEL/TYPE	: PLUGBOX.	ACCESS	: FRONT.
RACK/BOX SUPPL.	: JOTRON PHONTECH AS.	CABLE ENTRY	: BOTTOM.
RACK/BOX TYPE	: NA.	GLAND TYPE	: 1pcs. M20.
MATERIAL	: PC/ABS BLEND, ABS.	PROTECTION IP	: IP-56.
COLOUR	: RAL 9005/NATUR.	POWER SUPPLY	: FROM CENTRAL.
WEIGHT OF UNIT	: 0,3Kg.	POWER CONSUMP.	: NA.
MOUNTING	: TO WALL.	HEAT DISSIPATION	: NA.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.24	DVM COMPLETION	ASK		ASK
A	2010.05.10	DEVELOPMENT.	CD		CD

TITLE: 9011, ABS - PLUGBOX.

MECHANICAL LAYOUT.



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SIZE:	A3	UED No:	
DOC. No:	09908-005-ML		
FILE NAME:	09908-005-ML.DWG		

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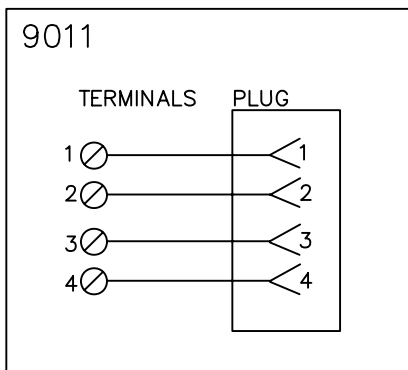
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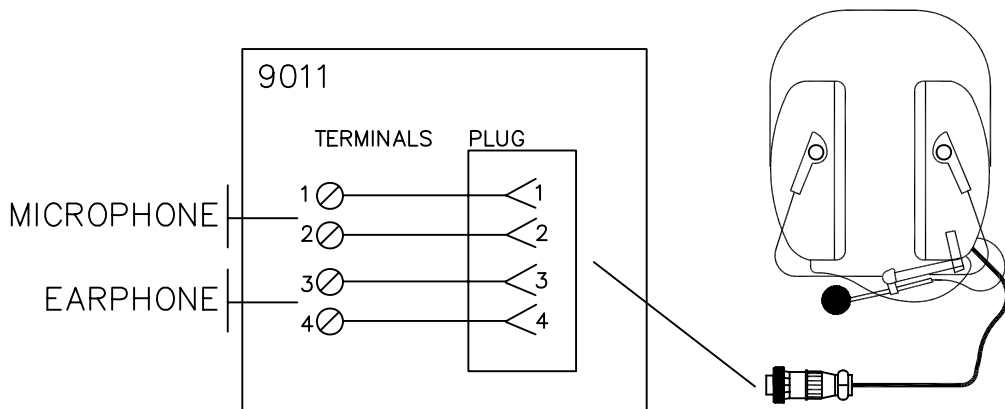
A

B

GENERAL PURPOSE

B

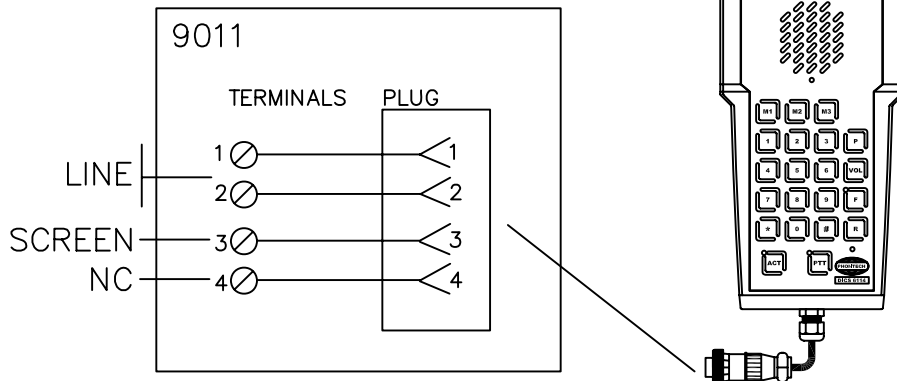
C



C

HEADSET / MICROPHONE

D



D

DICS 6114

E

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.24	DVM COMPLETION	ASK		ASK
A	2010.05.07	DEVELOPMENT.	ASK		ASK

E



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F

TITLE: 9011, ABS – PLUGBOX WEATHERPROOF

EXTERNAL CONNECTION

F

SIZE: A4 UED No:

DOC. No: 09908-005-EC

FILE NAME: 09908-005-EC.DWG

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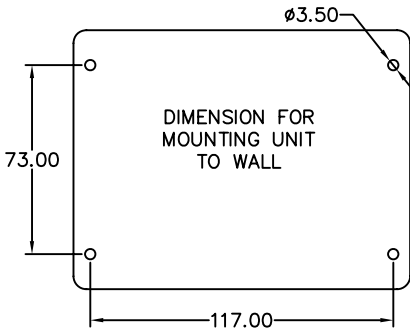
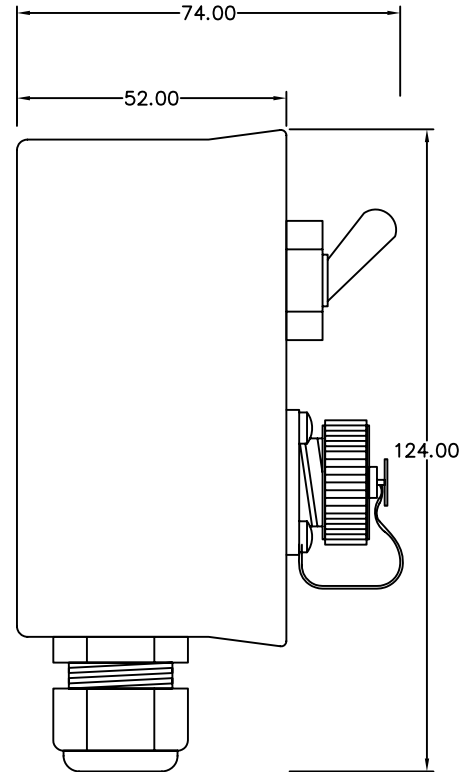
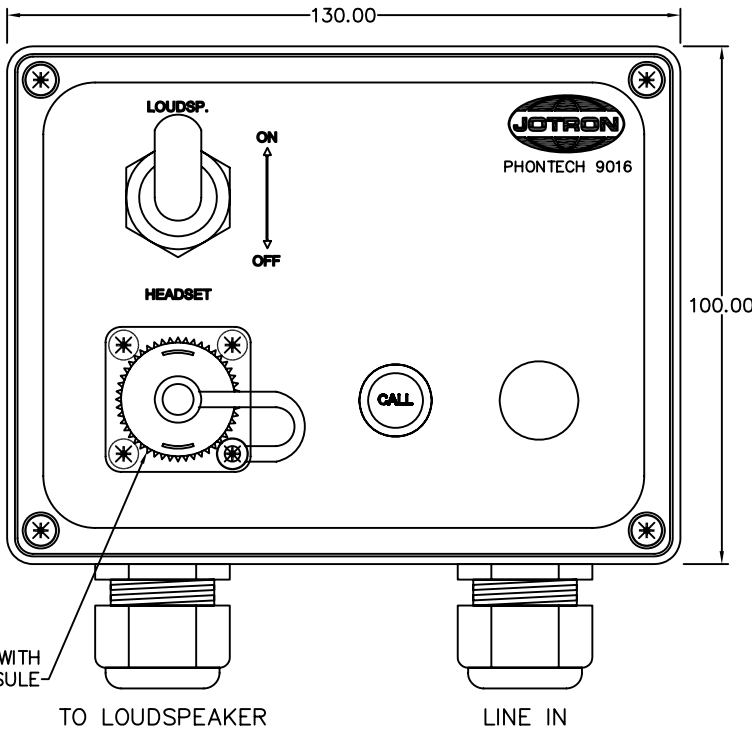
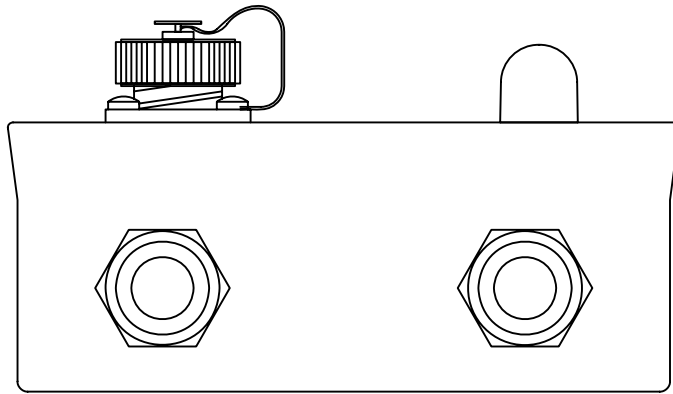
B

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EQUIPMENT DATA:

MANUFACTURER : JOTRON PHONTECH AS.	FIXING DETAILS : SEE INSIDE BOX.
MODEL/TYPE : CALL/PLUG BOX.	ACCESS : FRONT.
RACK/BOX SUPPL. : JOTRON PHONTECH AS.	CABLE ENTRY : BOTTOM.
RACK/BOX TYPE : NA.	GLAND TYPE : 2pcs. M20
MATERIAL : PC/ABS BLEND, ABS.	PROTECTION IP : IP-56.
COLOUR : RAL 9005/9006.	POWER SUPPLY : FROM CENTRAL.
WEIGHT OF UNIT : 0,3Kg.	POWER CONSUMP. : NA.
MOUNTING : TO WALL.	HEAT DISSIPATION : NA.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.29	DVM COMPLETION	ASK		ASK
A	2010.06.21	DEVELOPMENT	CD		CD

TITLE: 9016, ABS - SUBSTATION.

MECHANICAL LAYOUT



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SIZE: A3	PAGE:
DRAWING No: 09908-012-ML	
FILE NAME: 09908-012-ML.DWG	

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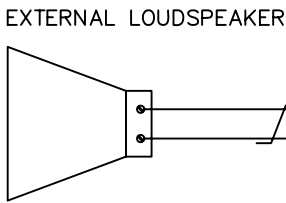
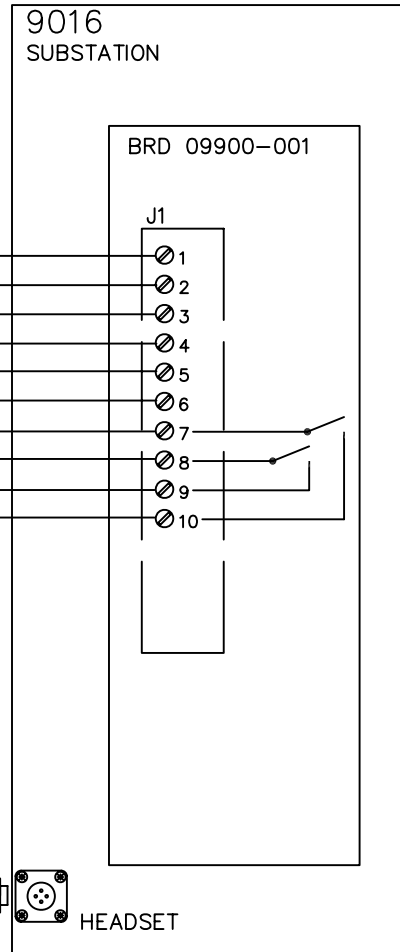
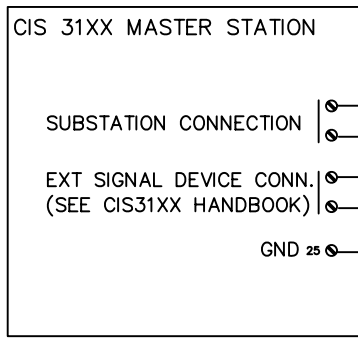
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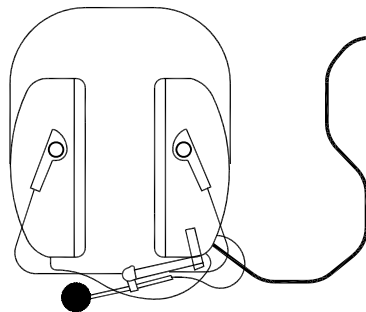
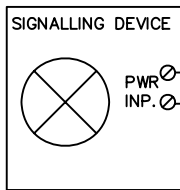
D

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RATED POWER FOR THE
SIGNALLING DEVICE:
90-240 VAC / 5-48VDC
8 A



REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.29	DVM COMPLETION	ASK		ASK
A	2010.06.21	DEVELOPMENT.	ASK		ASK



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TITLE: 9016, ABS – SUBSTATION
EXTERNAL CONNECTION

SIZE: A4 UED No:
DOC. No: 09908-012-EC
FILE NAME: 09908-012-EC.DWG

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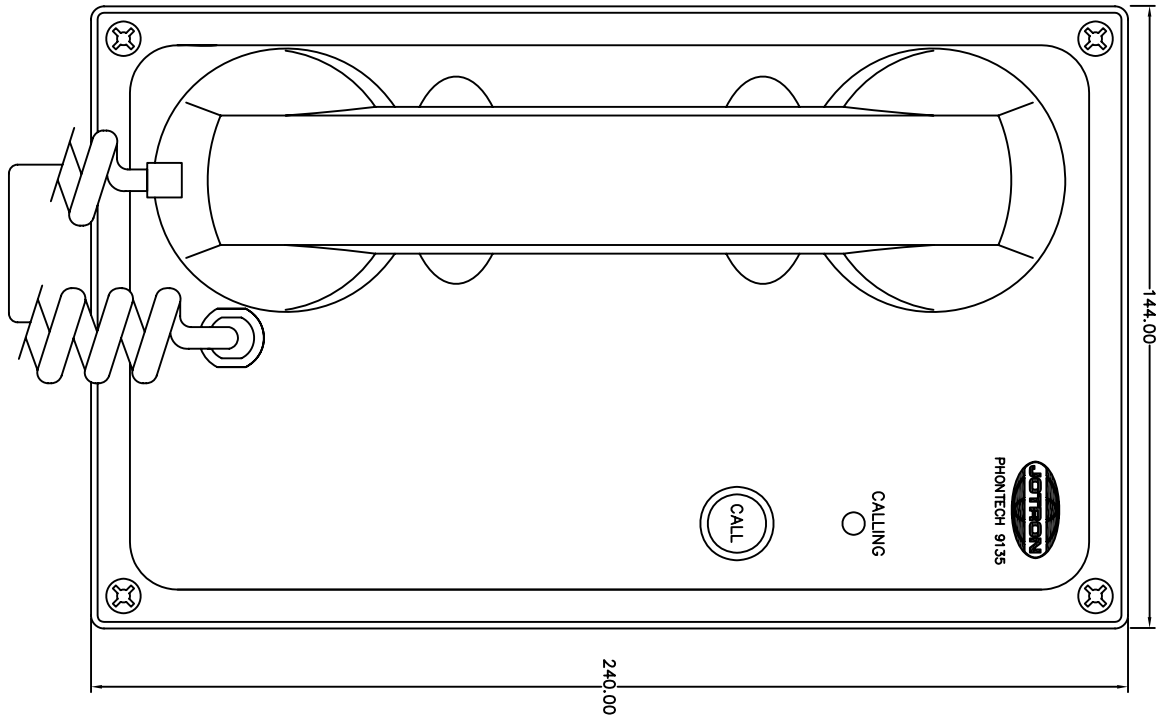
D

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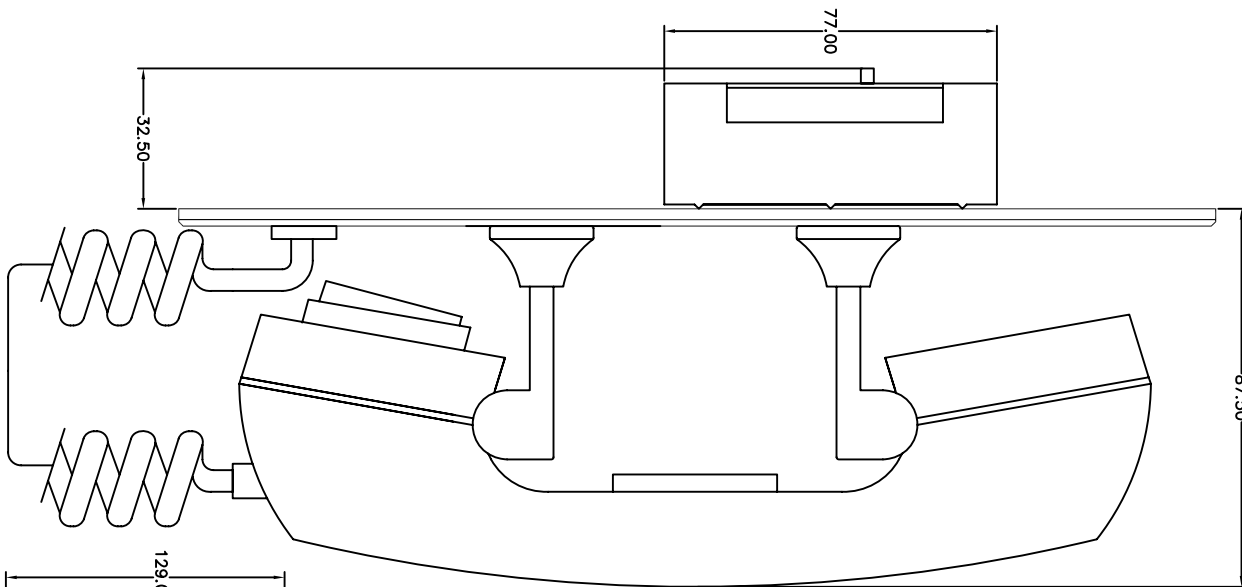
E

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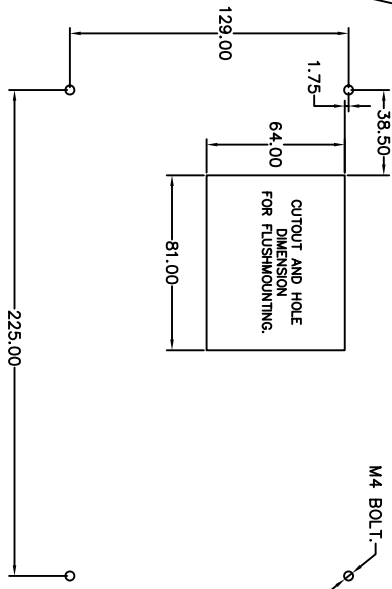
F



FRONT VIEW



SIDE VIEW



REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
2	20.09.2010	REVISION EM 1299.	CD	TBA	ASK
1	20.12.2009	REVISION EM 1246.	CD	TBA	ASK
0	21.04.2009	AS BUILT.	CD		

TITLE: HANDSET SUBSTATION w/RELAY
9135.
MECHANICAL LAYOUT.



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SIZE:	A3	UED No:	
DOC. No:	08900-001-ML		
FILE NAME:	08900-001-ML.dwg		

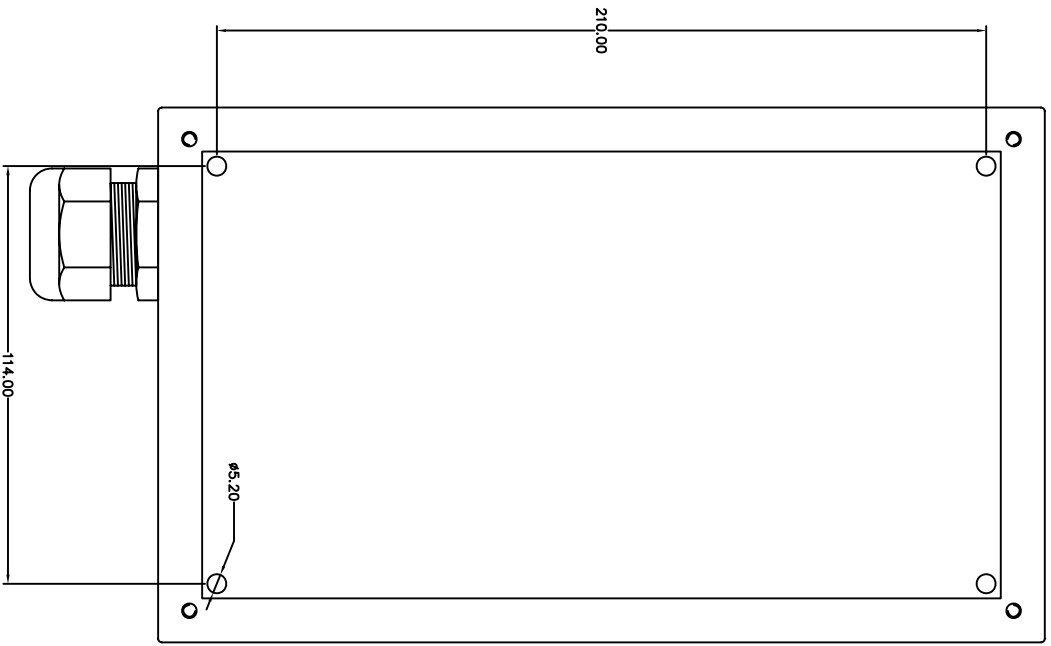
1

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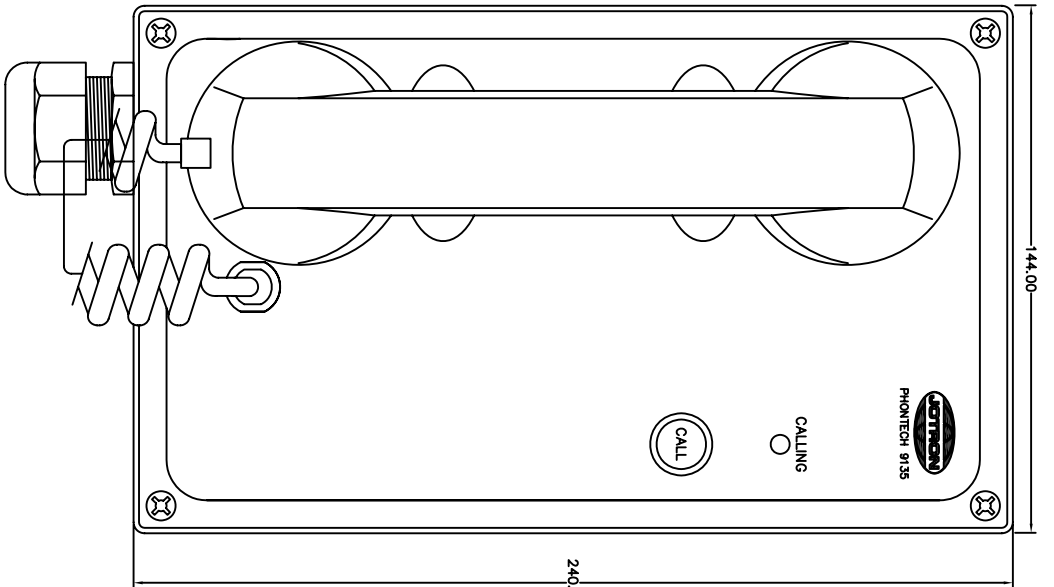
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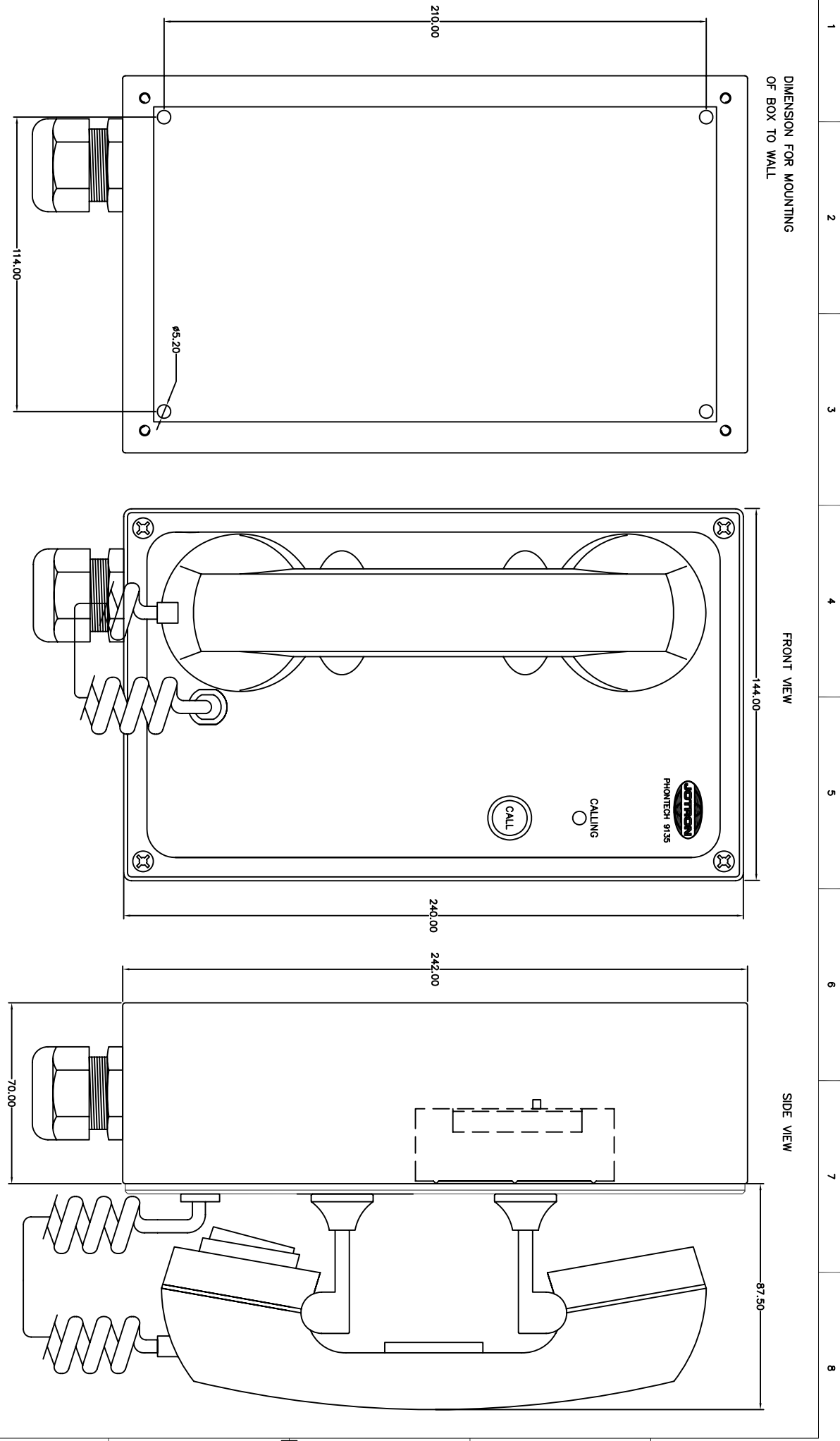
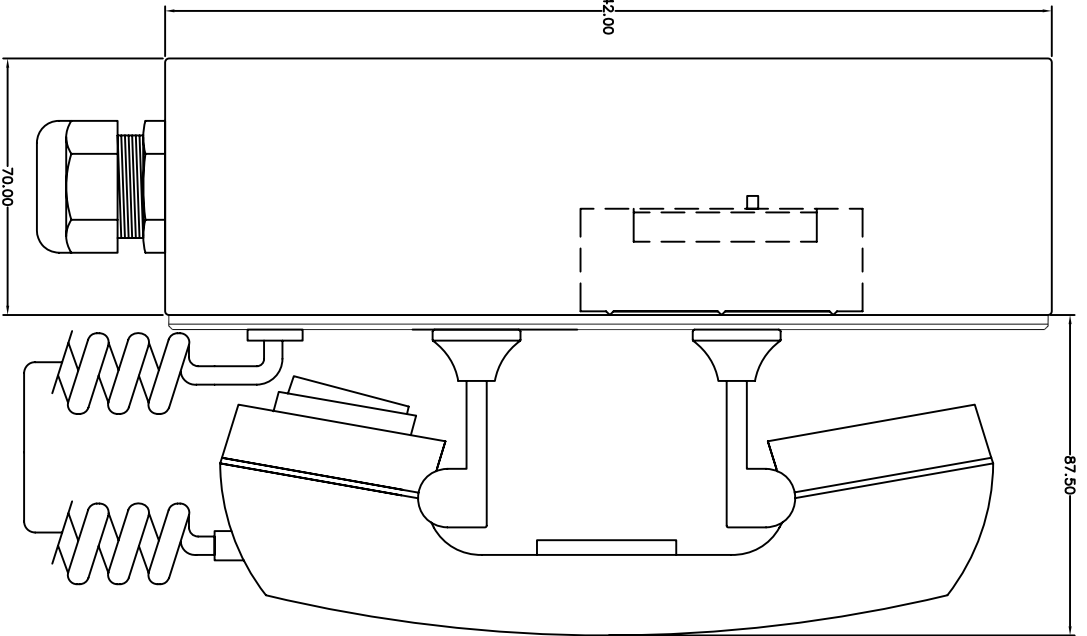
DIMENSION FOR MOUNTING
OF BOX TO WALL



FRONT VIEW



SIDE VIEW



REV. No.	ISSUE DATE	REASON FOR ISSUE	APPROVED	DATE	APPROVED
0	21.02.2011	DRAW COMPLETION			

PHONTECH

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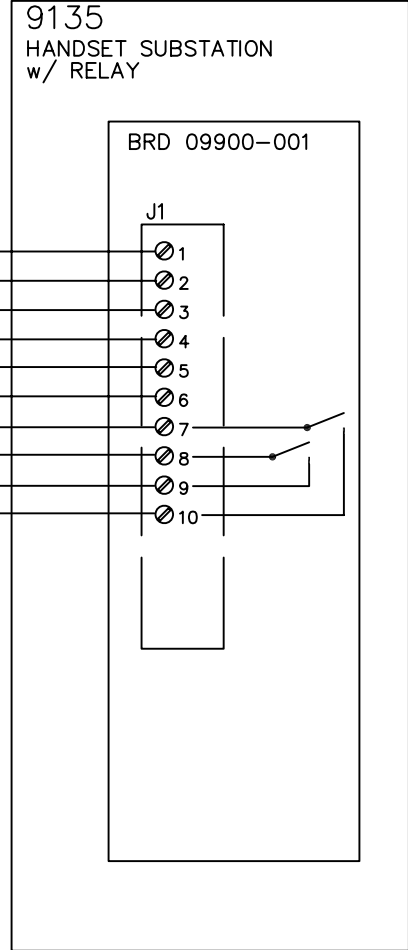
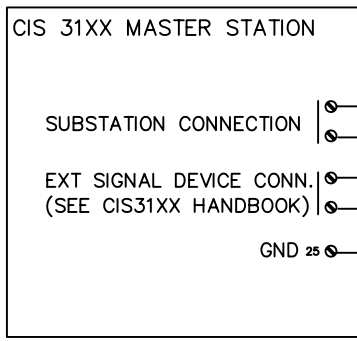
PHONTECH 9135, HANDSET SUBSTATION w/RELAY WALL MOUNTING

MECHANICAL LAYOUT

SIZE: A3
 Drawing No: 08900-001-ML-02
 FILE NAME: 08900-001-ML-02.dwg

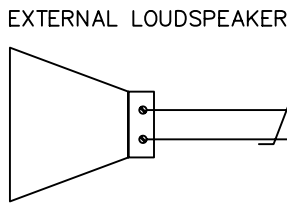
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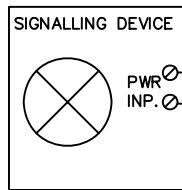
B



RATED POWER FOR THE
SIGNALLING DEVICE:
90-240 VAC / 5-48VDC
8 A

C

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0	2010.09.30	DVM COMPLETION	ASK		ASK
A	2010.05.10	DEVELOPMENT.	ASK		ASK
REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED



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F

F

TITLE: 9135, HANDSET SUBSTATION
w/ RELAY
EXTERNAL CONNECTION

SIZE: A4 UED No:
DOC. No: 08900-001-EC
FILE NAME: 08900-001-EC.DWG

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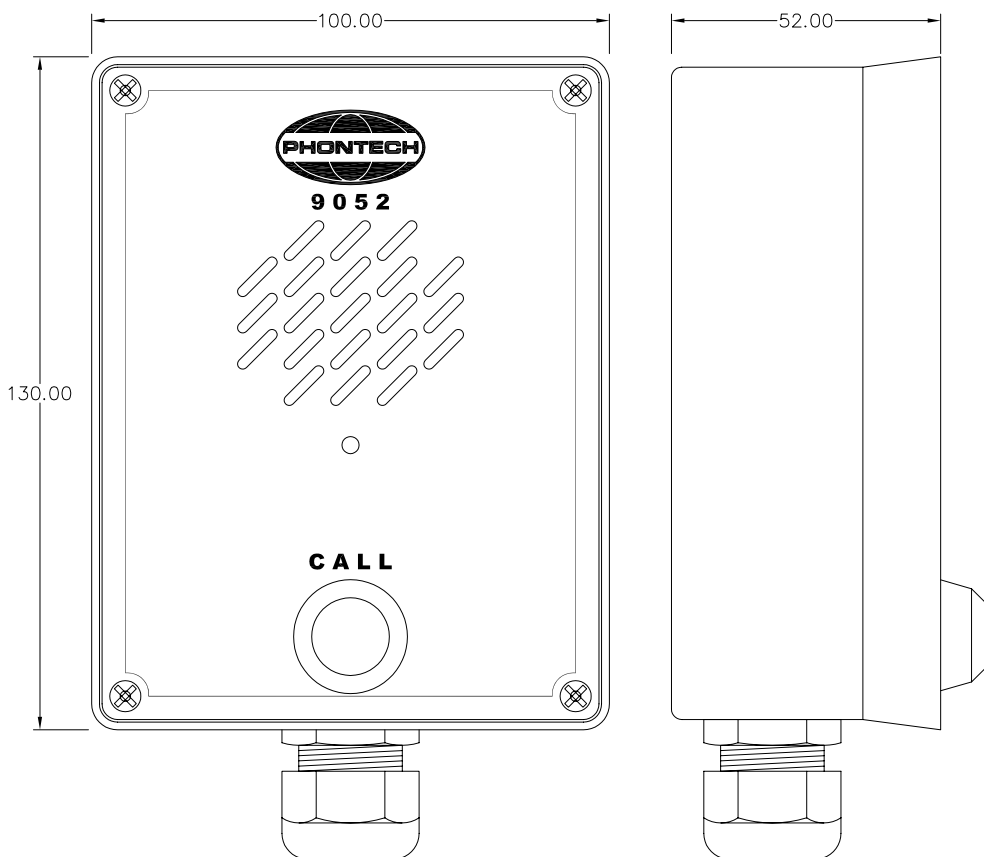
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EQUIPMENT DATA:

MANUFACTURER	: PHONTECH AS.	FIXING DETAILS	: SEE MOUNTING KIT.
MODEL/TYPE	: SUBSTATION.	ACCESS	: FRONT.
RACK/BOX SUPPL.	: PHONTECH AS.	CABLE ENTRY	: BOTTOM.
RACK/BOX TYPE	: UNIVERSAL.	GLAND TYPE	: PG-13,5.
MATERIAL	: BYBLEND/AISI 316.	PROTECTION IP	: IP-55.
COLOUR	: RAL 9005/NATUR.	POWER SUPPLY	: NA.
WEIGHT OF UNIT	: APP: 0.6 Kg.	POWER CONSUMP.	: NA.
MOUNTING	: TO WALL.	HEAT DISSIPATION	: NA.

0	2003.03.27	FINAL DOCUMENTATION	R.F.	TBA	ASK
REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED



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TITLE: SUBSTATION 9052.
WATER TIGHT
MECHANICAL LAYOUT.

SIZE:	A3	UED No:	M032
DOC. No:	02900-005-ML		
FILE NAME:	02900-005-ML.DWG		

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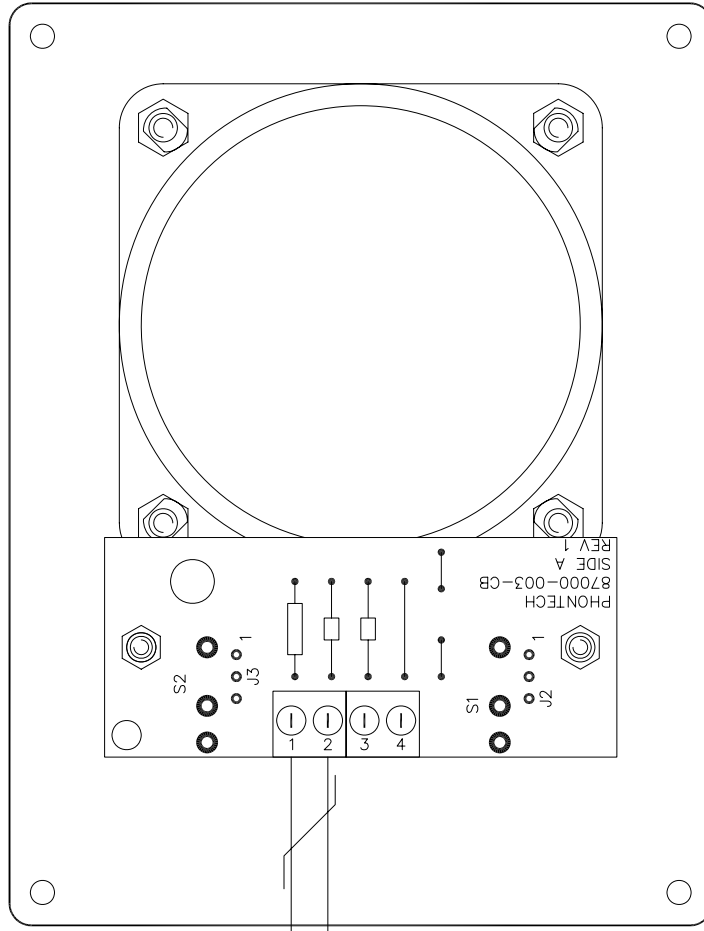
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LINE IN
FROM
CIS-31XX SYSTEM

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0	2003.05.06	FINAL DOCUMENTATION	R.F.	TBA	ASK
REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED



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F

F

TITLE: SUBSTATION 9052.
WATER TIGHT
EXTERNAL CONNECTION.

SIZE: A4 UED No: M032
DOC. No: 02900-005-EC
FILE NAME: 02900-005-EC.DWG

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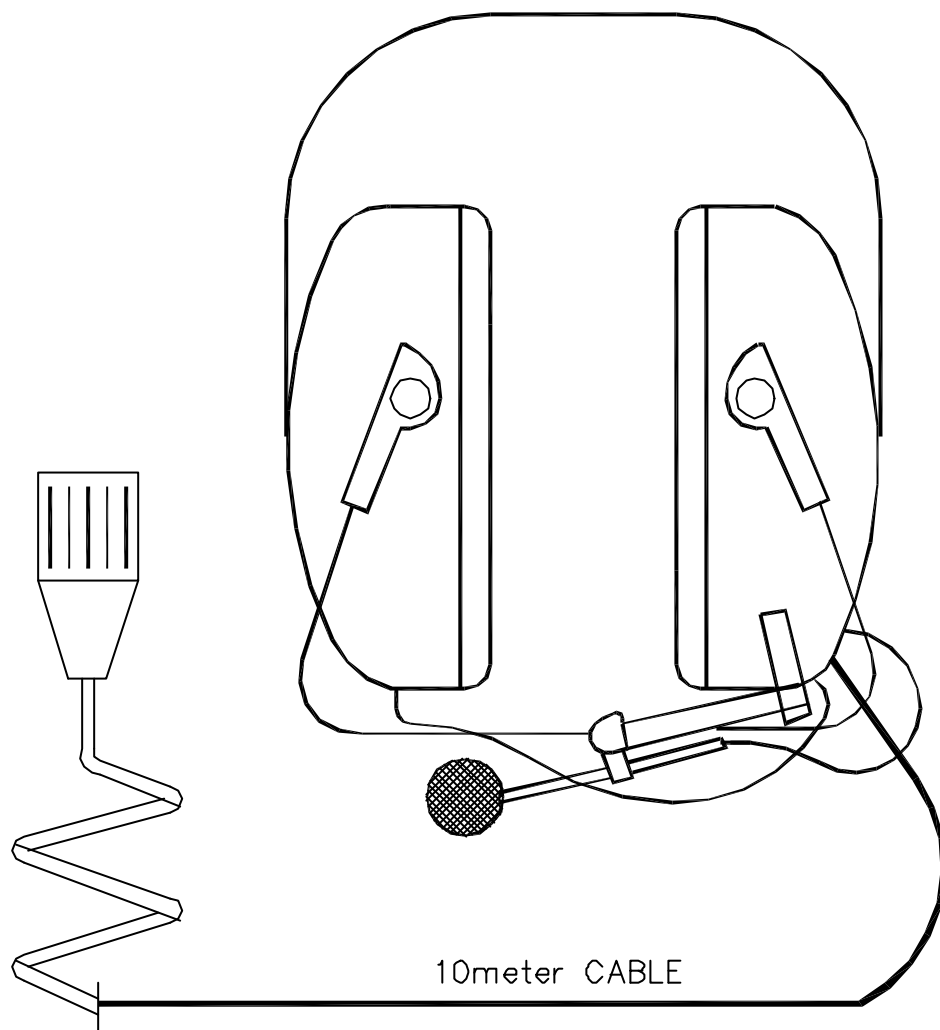
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REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	87.10.19	AS BUILT.	R.F.	JHB	JHB



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F

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TITLE: HEADSET.
0005.
MECHANICAL LAYOUT.

SIZE: A4 UED No:
DOC. No: 87000-027-ML
FILE NAME: 0005-ML.DWG

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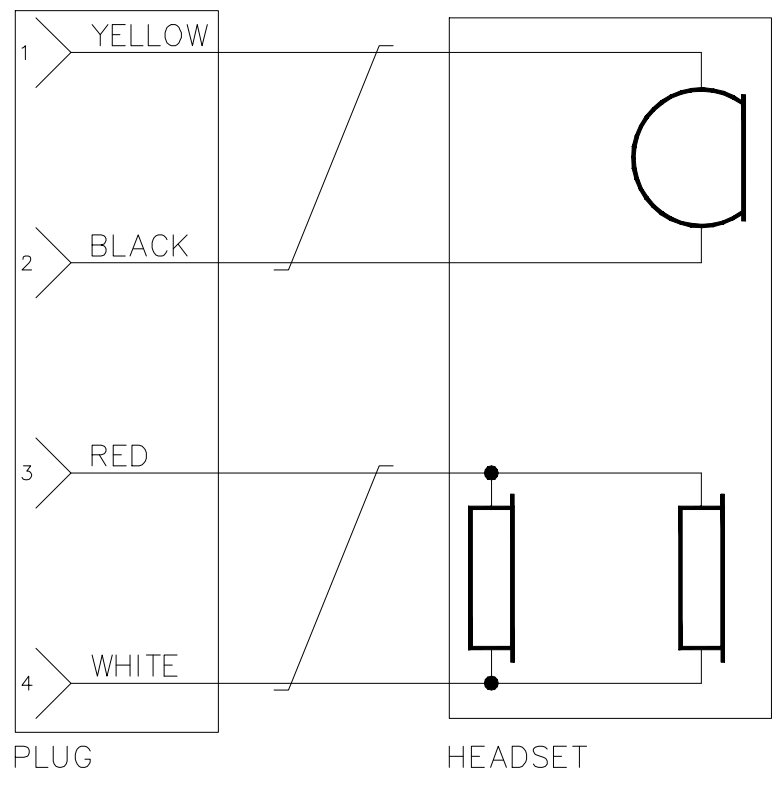
D

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NOTE: 10meter CABLE.

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
1	89.01.30	CHANGE ORDER No.139	R.F.	JHB	JHB
0	87.10.19	AS BUILT.	R.F.	JHB	JHB



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TITLE: HEADSET.
0005.
INTERNAL WIRING.

SIZE: A4
DOC. No: 87000-027-IW
FILE NAME: 0005-IW.DWG

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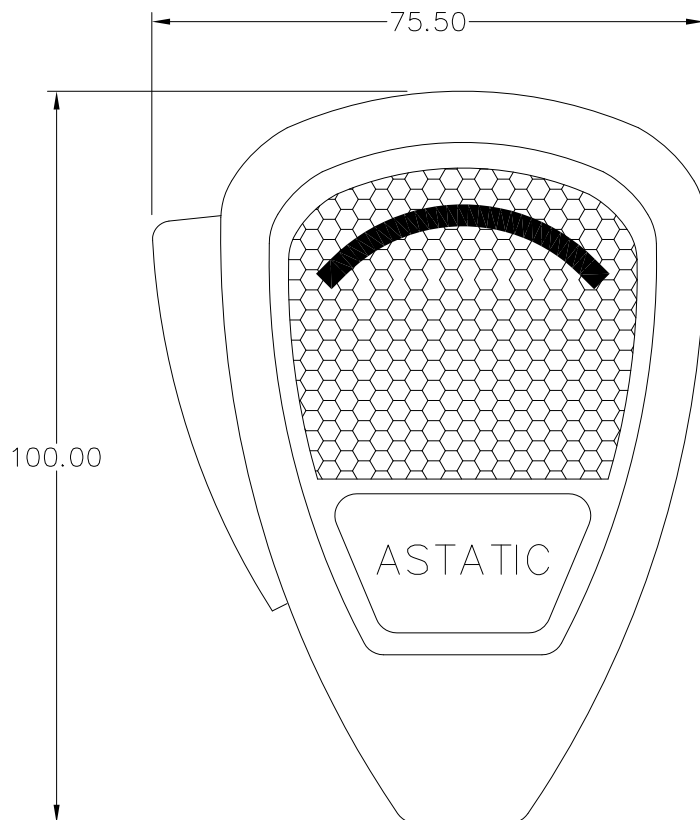
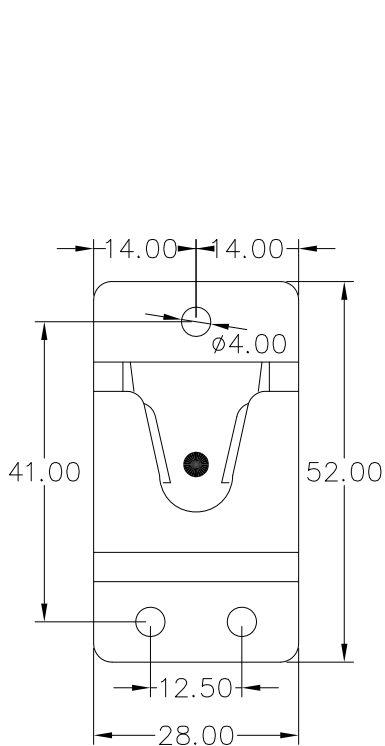
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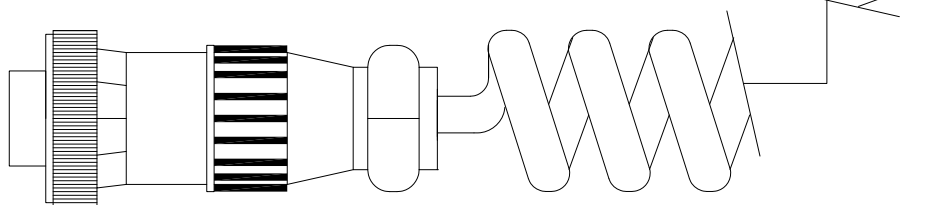
F

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NOTES:

- CURLED CABLE APP. 0,55m INCLUDED PLUG.
- COLOUR: BLACK.
- SUPPLIED WITH MOUNTING BRACKET.



REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
1	16.02.2007	REVISION, EM 1082	ASk	TBA	ASk
0	98.01.20	AS BUILT.	R.F.	TBA	A.I.



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TITLE: HANDHELD MICROPHONE WITH PLUG.
9017.
MECHANICAL LAYOUT.

SIZE:	A4	UED No:	
DOC. No:	96900-017-ML		
FILE NAME:	96900-017-ML.dwg		

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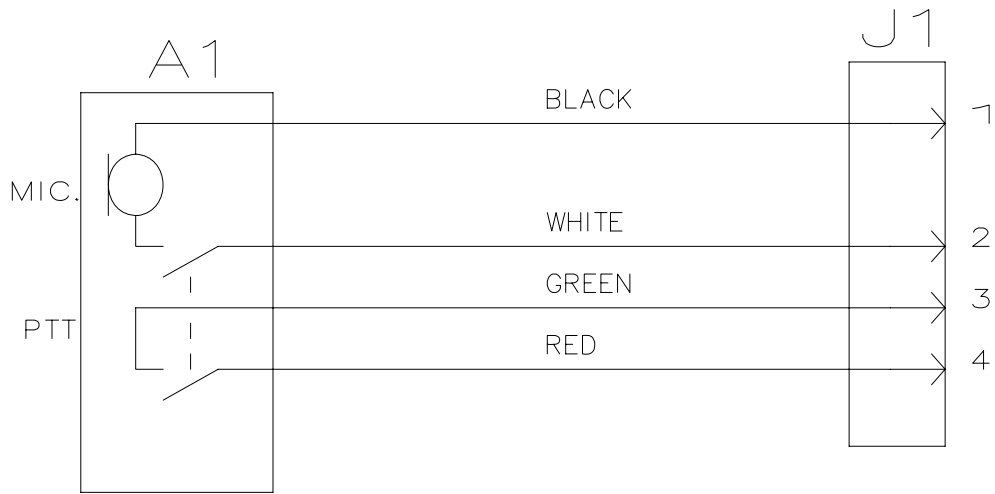
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REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
1	16.02.2007	REVISION, EM 1082	ASk	TBA	ASk
0	98.01.20	AS BUILT.	R.F.	TBA	A.I.



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TITLE: HANDHELD MICROPHONE WITH PLUG.
9017.
INTERNAL WIRING.

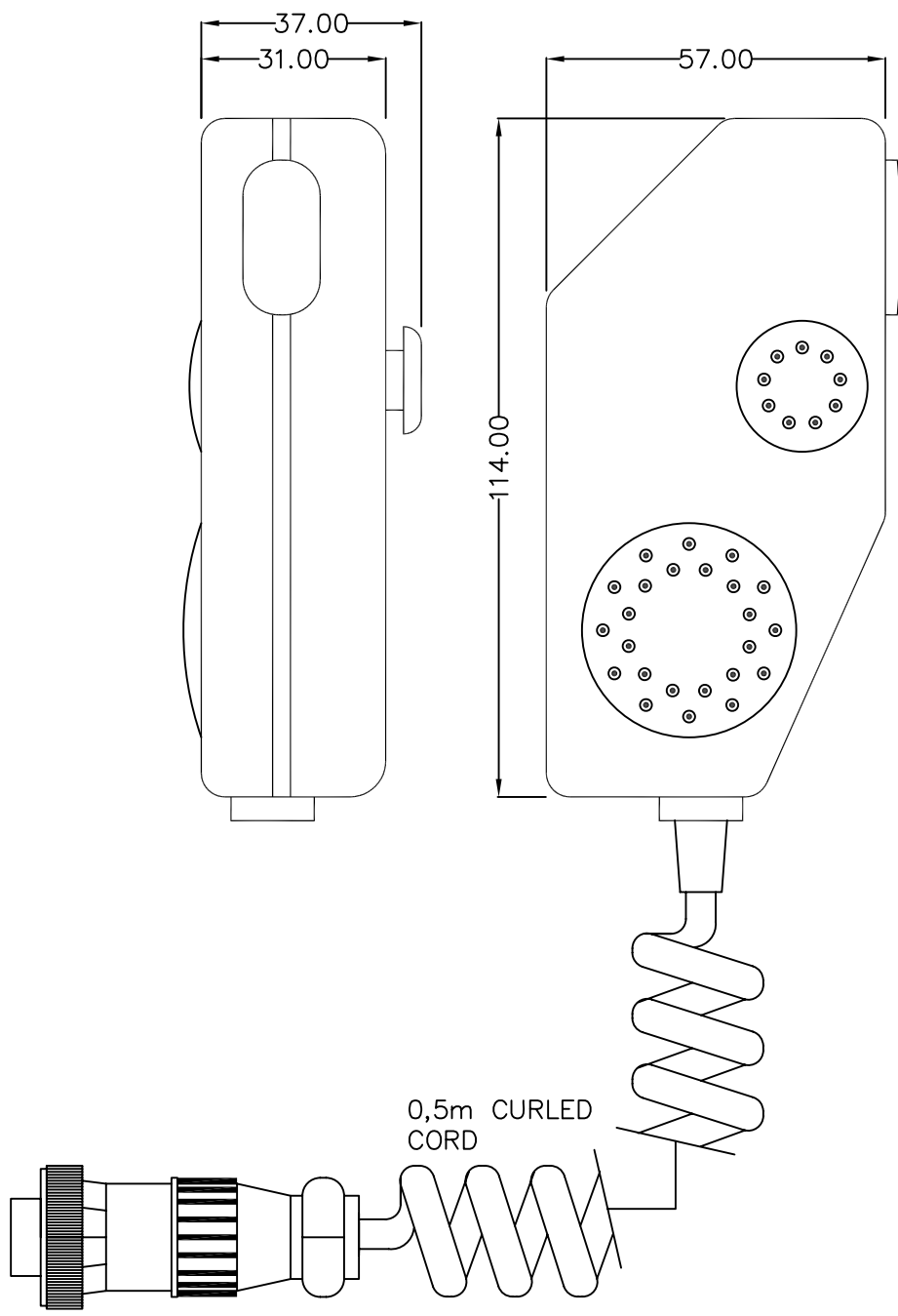
SIZE:	A4	UED No:	
DOC. No:	96900-017-IW		
FILE NAME:	96900-017-IW.dwg		

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REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
1	29.04.2011	REVISION, EM 1374	ASK	TBA	ASK
0	12.04.1999	AS BUILT	R.F	ASK	R.F.



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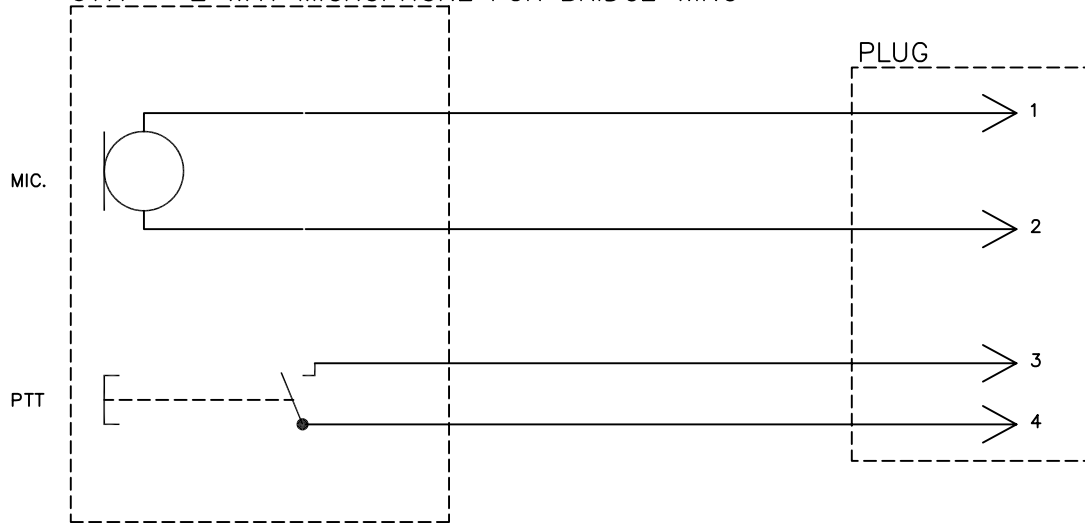
TITLE: 9117 - 2 WAY MICROPHONE FOR BRIDGE WING
MECHANICAL LAYOUT

SIZE: A4 PAGE: --
DRAWING No: 96900-018-ML
FILE NAME: 96900-018-ML.DWG

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9117 - 2 WAY MICROPHONE FOR BRIDGE WING



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REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	03.05.2011	AS BUILT	ASK	TBA	ASK



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F

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TITLE: 9117 - 2 WAY MICROPHONE FOR BRIDGE WING
EXTERNAL CONNECTION

SIZE: A4	PAGE: --
DRAWING No: 96900-018-EC	
FILE NAME: 96900-018-EC.DWG	

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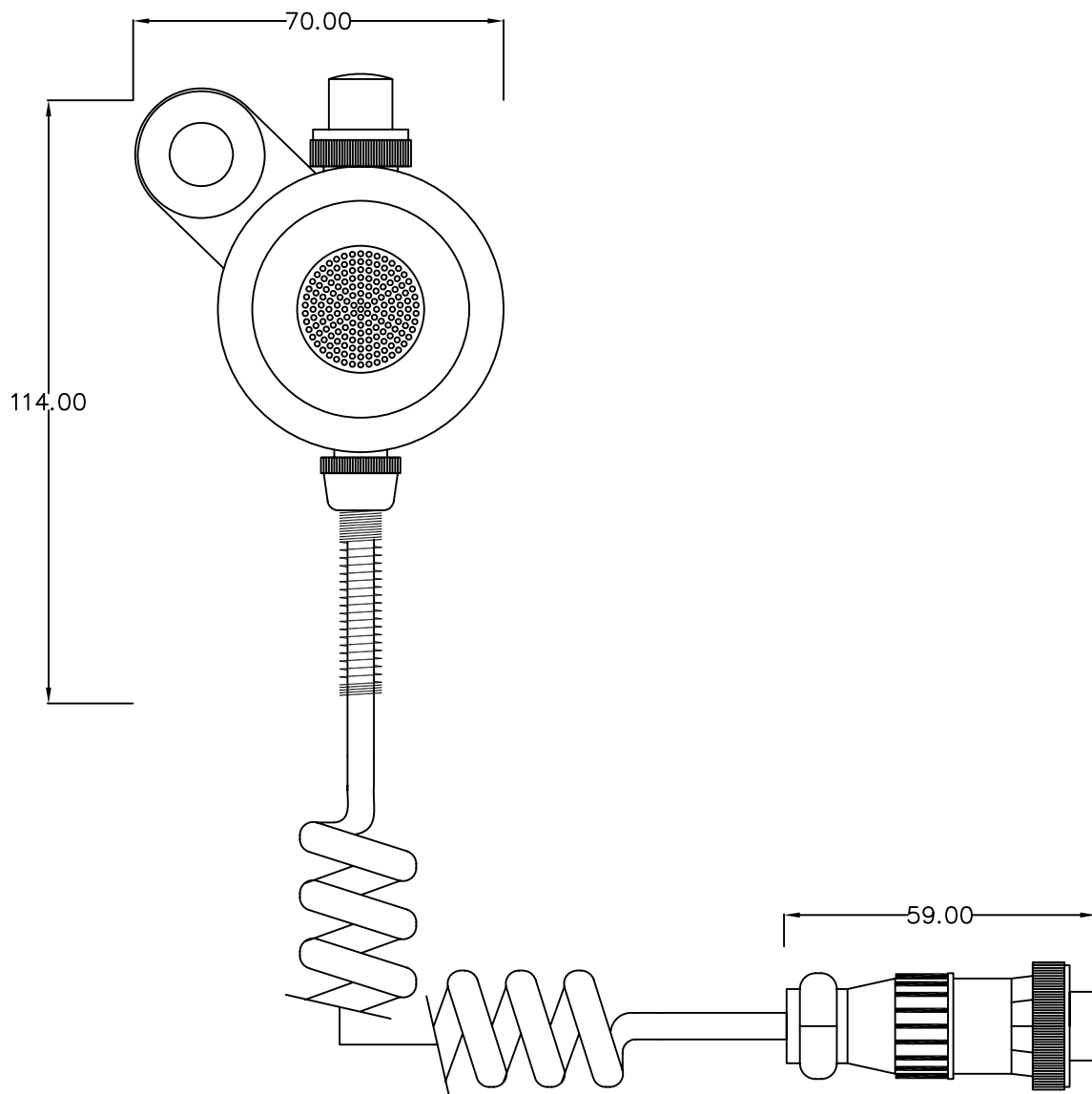
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REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
1	03.05.2011	REVISION, EM 1376	ASK	TBA	ASK
0	20.02.1998	AS BUILT	R.F	P.A.	R.F.



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F

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TITLE: 9217 – WATERPROOF HAND–HELD MICROPHONE
MECHANICAL LAYOUT

SIZE: A4 PAGE: --
DRAWING No: 96900–019–ML
FILE NAME: 96900–019–ML.DWG

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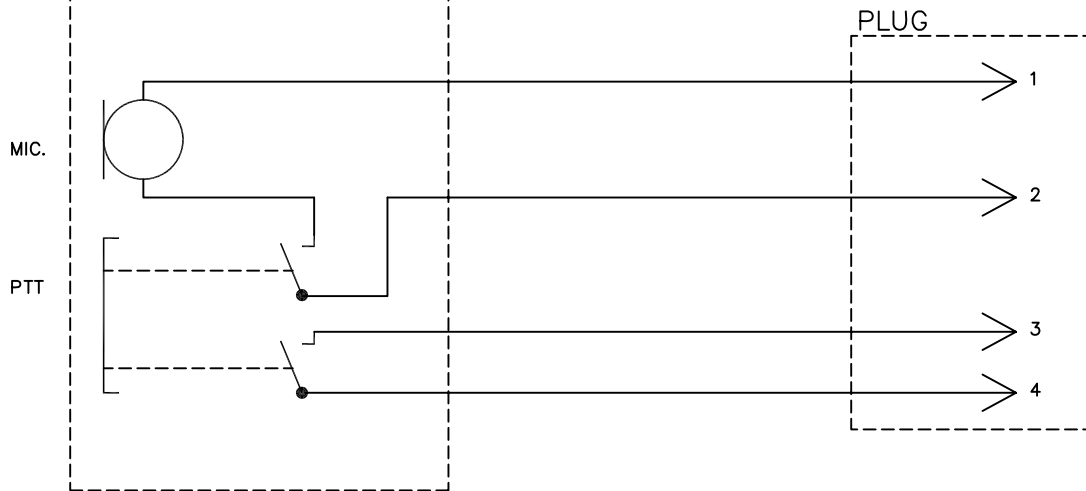
E

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9217 - WATERPROOF HAND-HELD MICROPHONE



REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	04.05.2011	AS BUILT	ASK	TBA	ASK



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TITLE: 9217 - WATERPROOF HAND-HELD MICROPHONE
MECHANICAL LAYOUT

SIZE: A4 PAGE: --
DRAWING No: 96900-019-EC
FILE NAME: 96900-019-EC.DWG



DNH^{AS}

N-3770 Kragerø
NORWAY
 Phone: (47) 35 98 56 00
 Fax: (47) 35 98 56 10
 E-mail: dnh@dnh.no
 Web-site: www.dnh.no

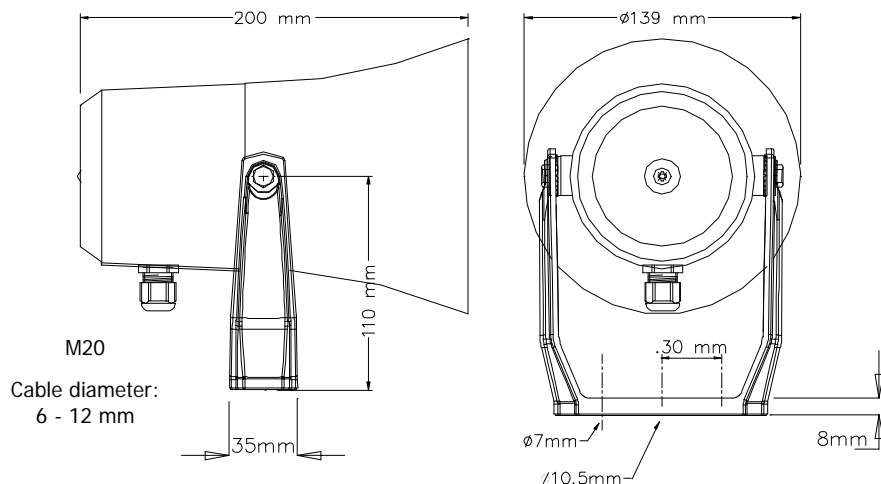
DNH WW Ltd. Phone:.....(44) 1908 275 000
England Fax:.....(44) 1908 275 100
 E-mail:.....dnh@dnh.co.uk

DNH Phone:.....(33) 1 5380 0276
France Fax:.....(33) 1 4588 1594
 E-mail:.....etienne@dnh.no

DNH GmbH Phone:.....(49) 040 6569 30-0
Germany Fax:.....(49) 040 6569 30-30
 E-mail:.....dnh@dnh.de

DNH Phone:.....(1) 484 494 5790
Speakers Inc. Fax:.....(1) 484 494 5793
USA E-mail:.....dnh@dnhspeakers.com

ISO 9001 CERTIFIED



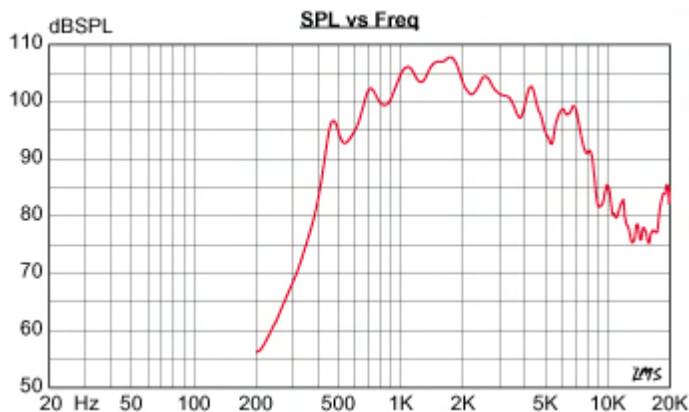
70/100 volt Combined Transformer:

Primary connections:
 5 : 7 70 Volt line
 5 : 8 100 Volt line

Secondary nominal tapings:

1 : 4 10,0 W
 1 : 3 5,0 W
 2 : 4 3,5 W
 1 : 2 2,5 W
 3 : 4 1,5 W
 2 : 3 0,8 W

Sound pressure levels at different frequencies at 1W/1m sine wave.



Material / Color ABS / RAL 7035
 Mounting Bracket
 Termination Internal screw connections
 Weight (2,9 lb) 1,3 kg
 IP-rating (UL equivalent) (12 & 4X) 56
 Max / min amb temp 90 °C / -50 °C
 Rated / max. power 10 W / 15 W
 SPL 1W/1m 106 dB
 SPL rated power 116 dB
 Effective freq. range 410 – 8000 Hz
 Dispersion (-6dB) 1kHz / 4kHz 150° / 45°
 Directivity factor, Q (2kHz) 7,4
 Options Impedances, colors, labels

Installation, Operation and Maintenance Procedures

- When mounting the loudspeaker please ensure that it is re-assembled in the same manner in which it was received. Fasten the bracket with 1-3 screws and ensure to use all washers in the intended position to assure the IP rating.
- To change the position of the loudspeaker, please adjust the bracket (by loosening / tightening the screws) as required.
- For optimum performance, always use the correct voltage / power and operate within the frequency limits as stated.
- Do not open loudspeaker when energized.
- Fasten lid with a torque of 1 - 2 Nm.
- This loudspeaker is supplied with a 2 year warranty against defective materials and workmanship.





ISO 9001 CERTIFIED

DNH^{AS}

**N-3770 Kragerø
NORWAY**
Phone: (47) 35 98 56 00
Fax: (47) 35 98 56 10
E-mail: dnh@dnh.no
Web-site: www.dnh.no

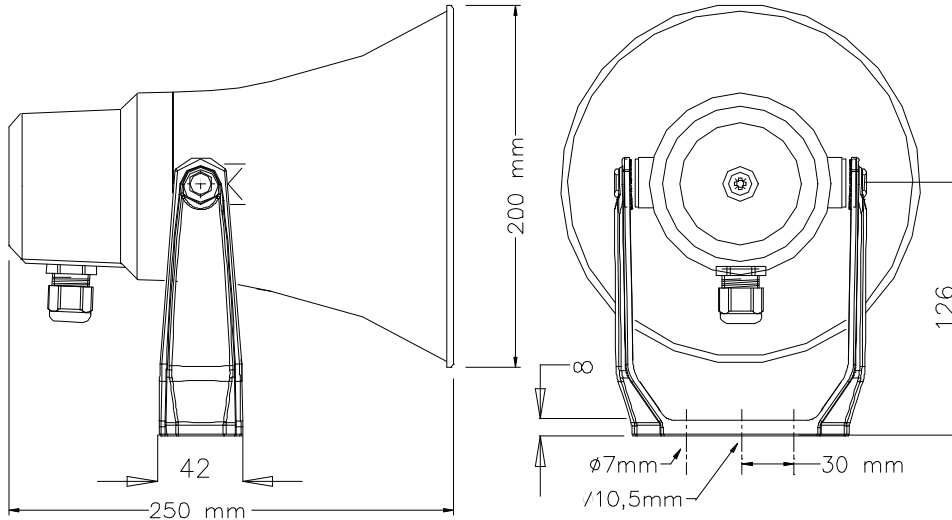
**DNH WW Ltd.
England** Phone:.....(44) 1908 275 000
Fax:.....(44) 1908 275 100
E-mail:.....dnh@dnh.co.uk

**DNH
France** Phone:.....(33) 1 5380 0276
Fax:.....(33) 1 4588 1594
E-mail:.....etienne@dnh.no

**DNH GmbH
Germany** Phone:.....(49) 040 6569 30-0
Fax:.....(49) 040 6569 30-30
E-mail:.....dnh@dnh.de

**DNH
Speakers Inc.
USA** Phone:.....(1) 484 494 5790
Fax:.....(1) 484 494 5793
E-mail:.....dnh@dnhspeakers.com

HP-15(T)



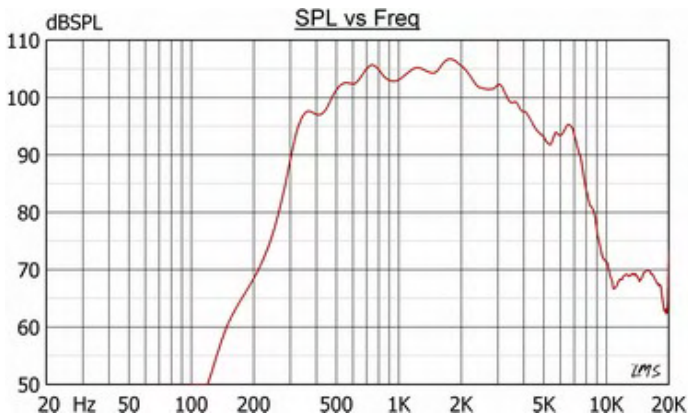
50/100 volt Combined
Transformer:

Primary connections:
5 : 6 50 Volt line
5 : 8 100 Volt line

Secondary nominal
tappings:

1 : 4 15,0 W
1 : 3 7,5 W
2 : 4 5,0 W
1 : 2 4,0 W
3 : 4 2,0 W
2 : 3 0,8 W

Sound pressure levels at different frequencies at 1W/1m sine wave



Material / Color ASA / RAL 7035
Mounting Bracket
Termination Inside screw connections
Weight 1,7 kg
IP-rating 56
Max. / min. amb. temp 90 °C / -50 °C
Rated / max. power 15 W / 20 W
SPL 1W/1m 108 dB
SPL rated power 118 dB
Effective freq. range 330 – 8000 Hz
Dispersion (-6dB) 1kHz / 4kHz 130° / 35°
Directivity factor, Q (2kHz) 8,3
Options Impedances, colors, labels

Installation, Operation and Maintenance Procedures

- When mounting the loudspeaker please ensure that it is re-assembled in the same manner in which it was received. Fasten the bracket with 1-3 screws and ensure to use all washers in the intended position to assure the IP rating.
- To change the position of the loudspeaker please adjust the bracket (by loosening / tightening the screws) as required.
- For optimum performance, always use the correct voltage / power and operate within the frequency limits as stated.
- Do not open loudspeaker when energized.
- Fasten lid with a torque of 1 - 2 Nm.
- This loudspeaker is supplied with a 2 year warranty against defective workmanship.





DNH^{AS}

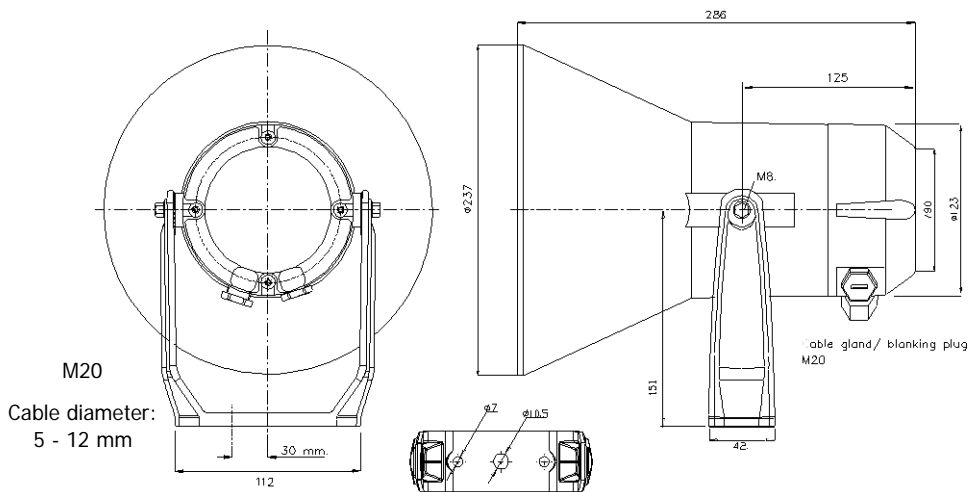
**N-3770 Kragerø
NORWAY**
 Phone: (47) 35 98 56 00
 Fax: (47) 35 98 56 10
 E-mail: dnh@dnh.no
 Web-site: www.dnh.no

**DNH WW Ltd.
England**
 Phone:.....(44) 1908 275 000
 Fax:.....(44) 1908 275 100
 E-mail:.....dnh@dnh.co.uk

**DNH GmbH
Germany**
 Phone:.....(49) 040 6569 30-0
 Fax:.....(49) 040 6569 30-30
 E-mail:.....dnh@dnh.de

**DNH
Speakers Inc.
USA**
 Phone:.....(1) 484 494 5790
 Fax:.....(1) 484 494 5793
 E-mail:.....dnh@dnhspeakers.com

ISO 9001 CERTIFIED



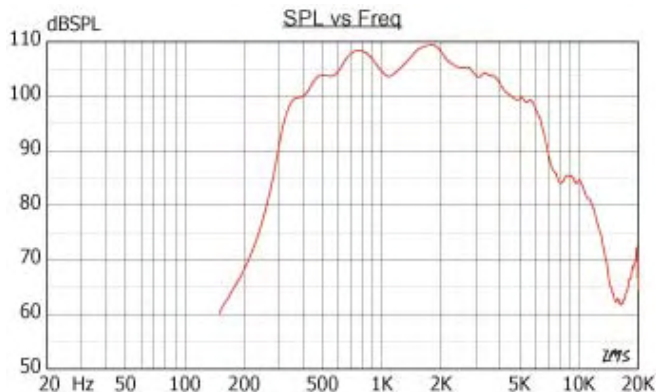
50/70/100 volt
 Combined Transformer:

Primary connections:
 6 : 7 50 Volt line
 6 : 8 70 Volt line
 6 : 9 100 Volt line

Secondary nominal
 tapings:
 1 : 4 20,0 W
 1 : 3 10,0 W
 2 : 4 6,0 W
 1 : 2 5,0 W
 3 : 4 2,0 W
 2 : 3 1,5 W

6 = White, 8= Green,
 9 = Red

1W/1m sine wave smooth 1/3 octave



Material / ColorPolyamide / RAL 7035
 Mounting.....Bracket
 Termination..... Inside screw connections
 Weight 2,5 kg
 IP-rating.....67
 Max. / min. amb. temp 150 °C / -50 °C
 Rated / max. power 20 W / 25 W
 SPL 1W/1m 110 dB
 SPL rated power 122 dB
 Effective freq. range..... 310 – 8000 Hz
 Dispersion (-6dB) 1kHz / 4kHz..... 115° / 30°
 Directivity factor, Q (2kHz).....9,3
 Options.....impedances, colors, labels

Installation, Operation and Maintenance Procedures

- When mounting the loudspeaker please ensure that it is re-assembled in the same manner in which it was received. Fasten bracket with 1-3 screws.
- To change the position of the loudspeaker please adjust the bracket (by loosening / tightening the screws) as required.
- For optimum performance, always use the correct voltage / power and operate within the frequency limits as stated.
- Do not open loudspeaker when energized.
- Fasten lid with a torque of 2 - 3 Nm.
- This loudspeaker is supplied with a 2 year warranty against defective workmanship.

1

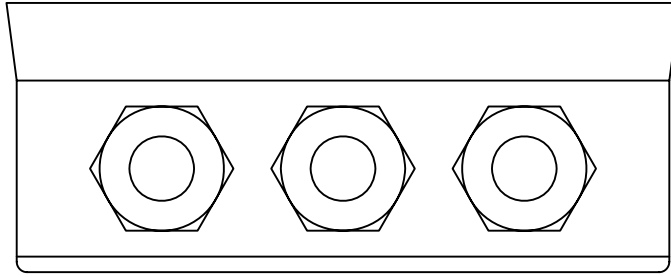
2

3

4

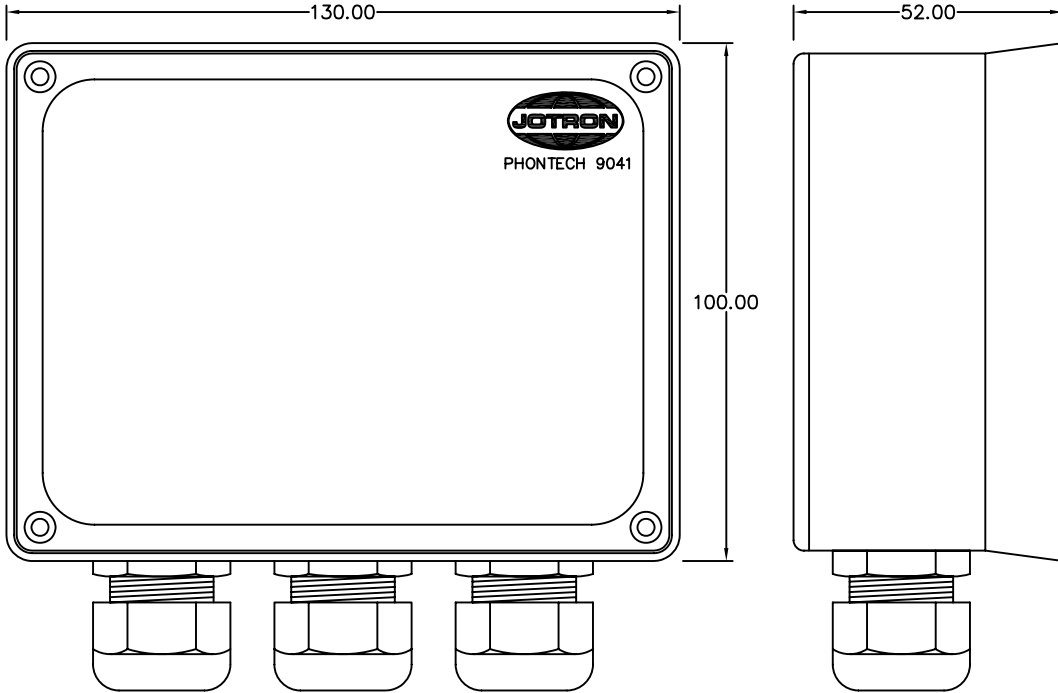
A

A



B

B



C

C

D

D

LINE IN FROM MASTER STATION LINE OUT TO LOUD-SPEAKER LINE OUT TO CALL UNIT

E

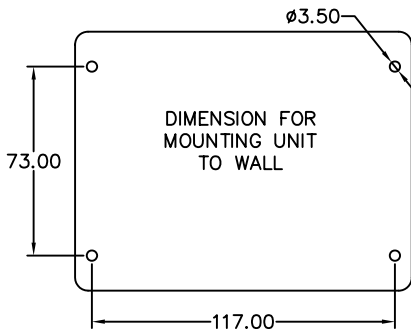
E

EQUIPMENT DATA:

MANUFACTURER : JOTRON PHONTECH AS	FIXING DETAILS : SEE INSIDE BOX
MODEL/TYPE : EX INTERFACE UNIT	ACCESS : FRONT
RACK/BOX SUPPL. : JOTRON PHONTECH AS	CABLE ENTRY : BOTTOM
RACK/BOX TYPE : NA.	GLAND TYPE : 3pcs. M20
MATERIAL : PC/ABS BLEND, ABS	PROTECTION IP : IP-56
COLOUR : RAL 9005/9006	POWER SUPPLY : FROM CENTRAL
WEIGHT OF UNIT : 0,30Kg.	POWER CONSUMP. : NA.
MOUNTING : TO WALL	HEAT DISSIPATION : NA.

F

F



REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.27	DVM COMPLETION	ASK		ASK
B	2010.05.07	DVM REVISION	ASK		ASK
A	2010.04.21	DEVELOPMENT	CD		CD



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TITLE: 9041, ABS - EX INTERFACE UNIT FOR SUBSTATIONS
MECHANICAL LAYOUT.

SIZE: A3	PAGE:
DRAWING No: 09908-006-ML	
FILE NAME: 09908-006-ML.DWG	

1

2

3

4

1

2

3

A

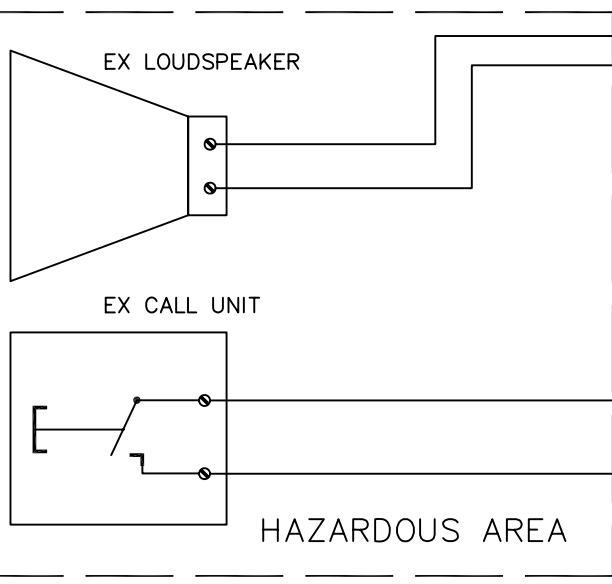
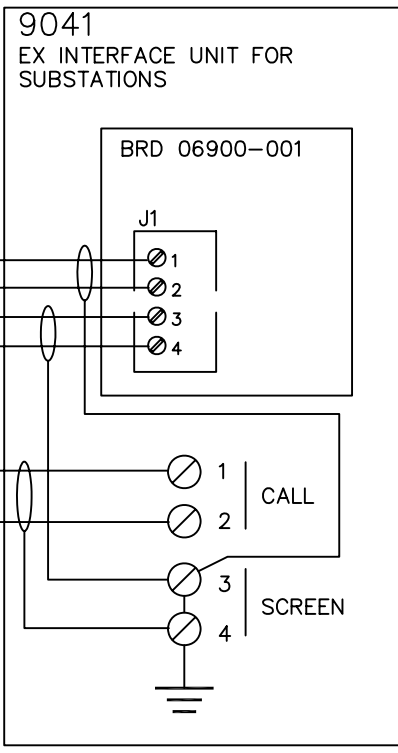
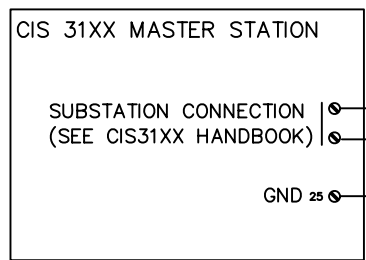
A

B

B

C

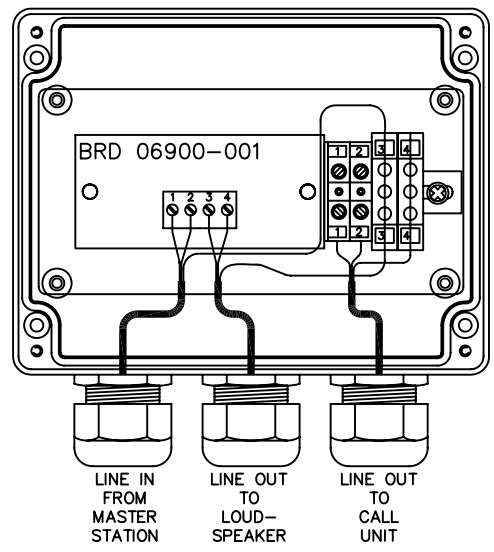
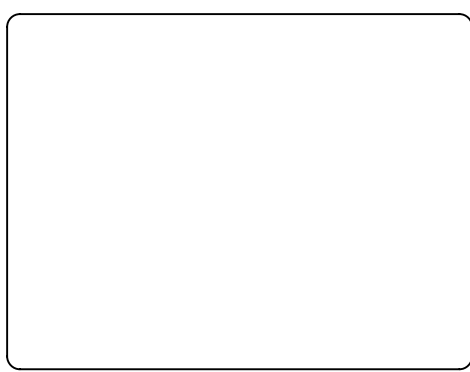
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SAFE AREA

D

D



E

E

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
0	2010.09.27	DVM COMPLETION	ASK		ASK
B	2010.09.22	DVM REVISION	ASK		ASK
A	2010.04.20	DEVELOPMENT.	ASK		ASK



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F

F

TITLE: 9041, ABS – EX INTERFACE UNIT FOR SUBSTATIONS
EXTERNAL CONNECTION

SIZE: A4 UED No:
DOC. No: 09908-006-EC
FILE NAME: 09908-006-EC.DWG

1

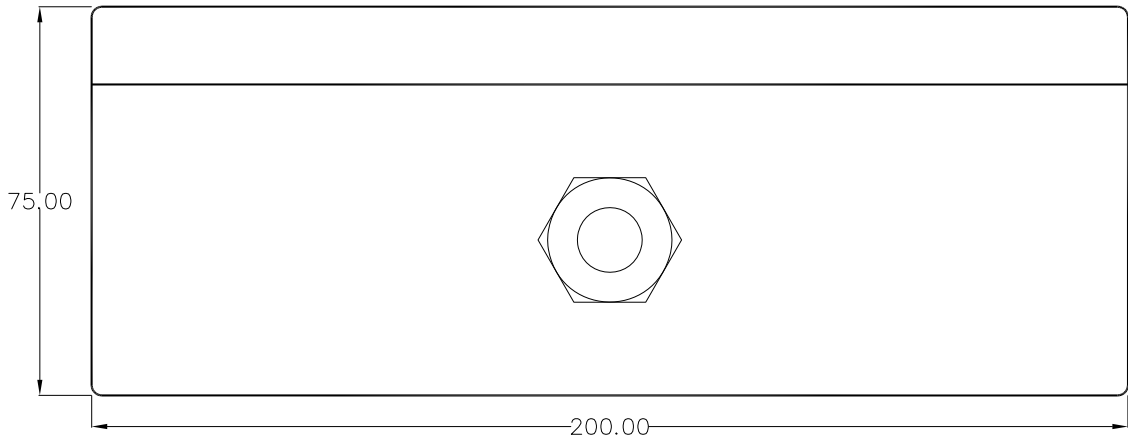
2

3

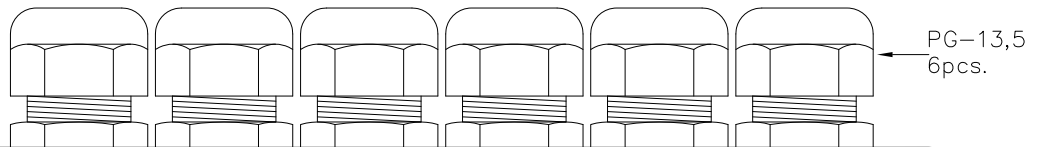
4

1 2 3 4

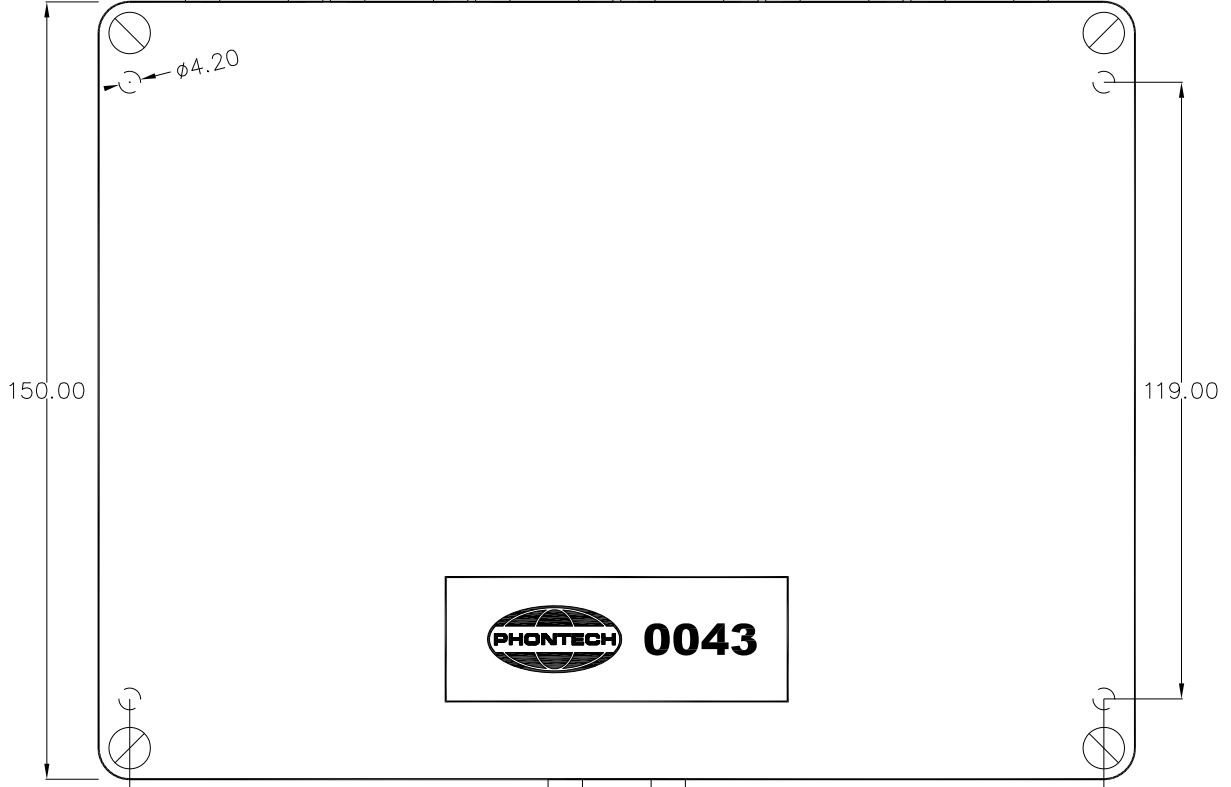
A



B



C



D

E

F

REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
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0	11.02.1994	AS BUILT.	R.F.	ASk	AHJ

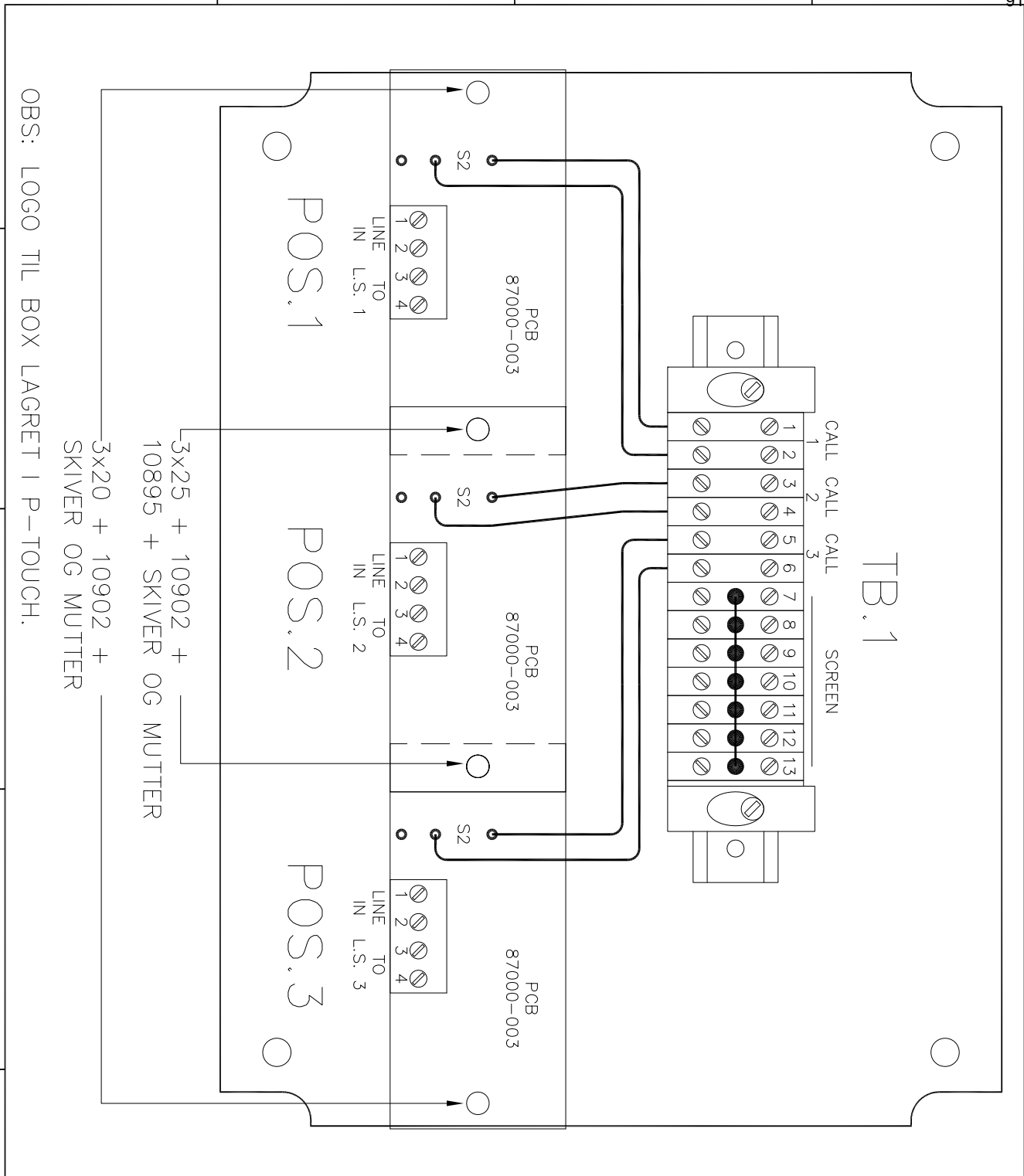


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TITLE: EXTERNAL LOUDSPEAKER INTERFACE.
0043.
MECHANICAL LAYOUT.

SIZE: A3 UED No:
DOC. No: 94000-003-ML
FILE NAME: 94000-003-ML.DWG

1 2 3 4



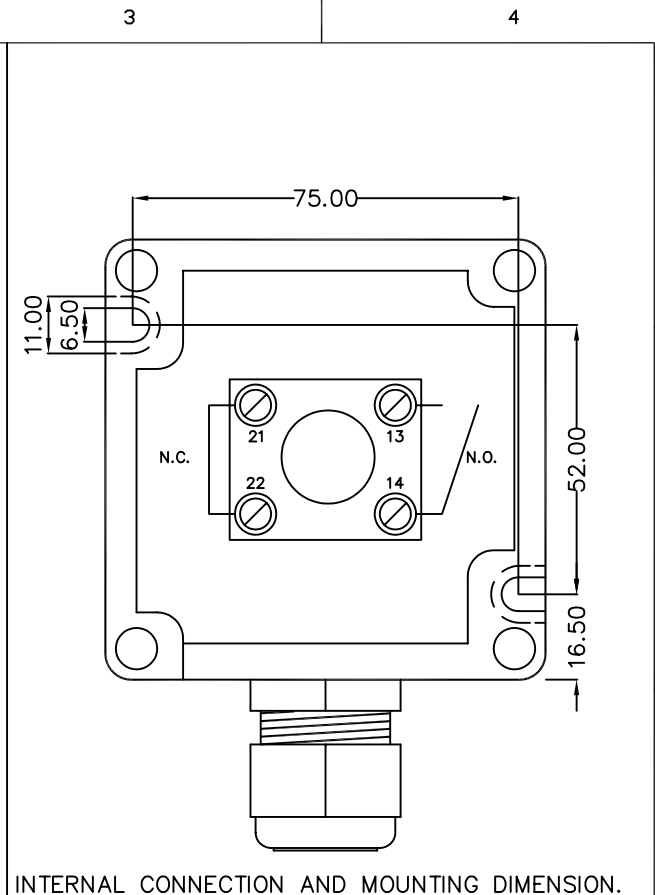
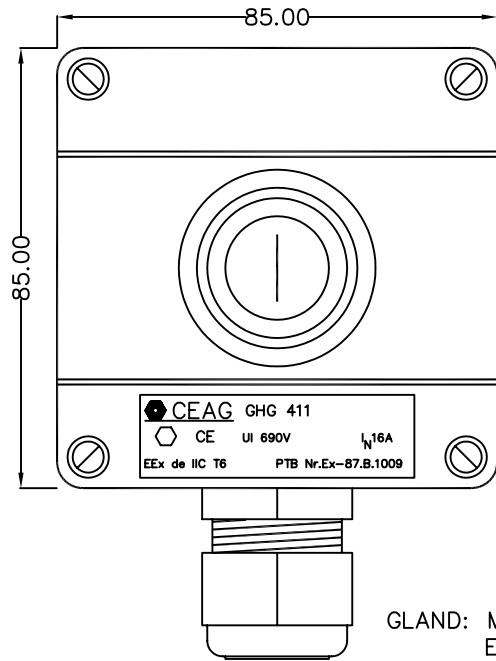
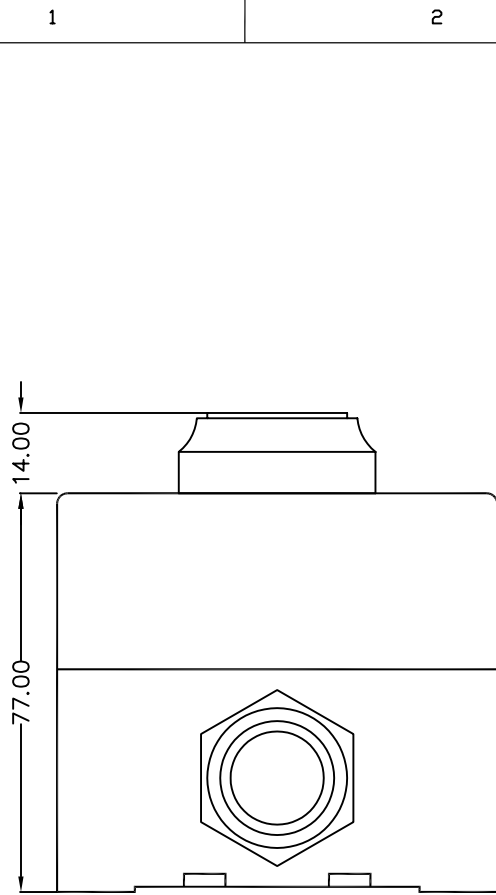
REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED
1	03.10.2000	CHANGE ORDER No.798	R.F.	AHJ	AHJ
0	11.02.1994	AS BUILT.	R.F.	ASk	AHJ



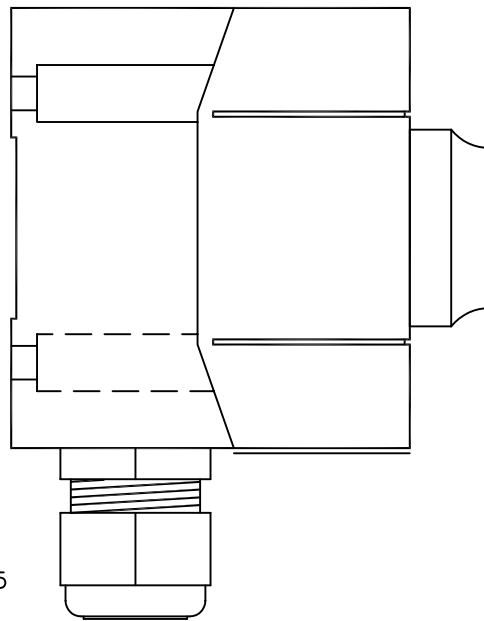
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TITLE: EXTERNAL LOUDSPEAKER INTERFACE.
0043.
INTERNAL WIRING.

SIZE: A4 UED No:
DOC. No: 94000-003-IW
FILE NAME: 94000-003-IW.DWG



INTERNAL CONNECTION AND MOUNTING DIMENSION.



GLAND: M25x1,5
EEx ell

A	13.01.1999	FOR INFORMATION.	R.F.	P.A.	D.A.
REV No.	ISSUE DATE	REASON FOR ISSUE	PREPARED	CHECKED	APPROVED

TITLE: CALL UNIT.
GHG-411.
MECHANICAL LAYOUT.



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SIZE:	A3	UED No:	
DOC. No:	4526-GHG-411		
FILE NAME:	GHG-411.DWG		



DNH^{AS}

**N-3770 Kragerø
NORWAY**
Phone:.....(47) 35 98 56 00
Fax:.....(47) 35 98 56 10
E-mail:.....dnh@dnh.no
Web-site: www.dnh.no

**DNH WW Ltd.
England**

Phone:.....(44) 1908 275 000
Fax:.....(44) 1908 275 100
E-mail:.....dnh@dnh.co.uk

DSP-15 EExmN(T)

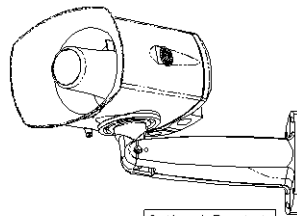
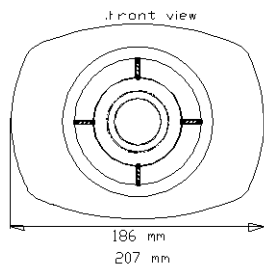
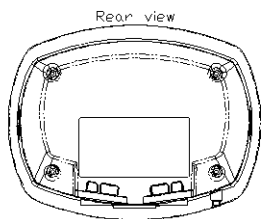
**DNH GmbH
Germany**

Phone:.....(49) 040 6569 30-0
Fax:.....(49) 040 6569 30-30
E-mail:.....dnh@dnh.de

**DNH
Speakers Inc.
USA**

Phone:.....(1) 484 494 5790
Fax:.....(1) 484 494 5793
E-mail:.....dnh@dnhspeakers.com

ISO 9001 CERTIFIED



Optional Bracket
Antistatic plastic

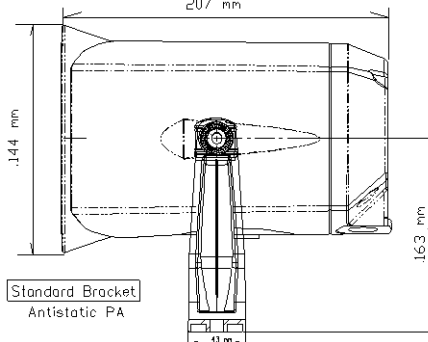
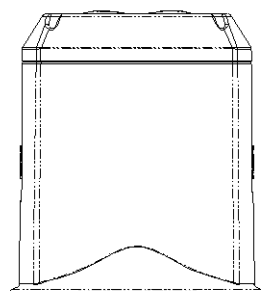
Transformer:
100 V line

Primary nominal tapings:
Cores in cable are no. 1-4

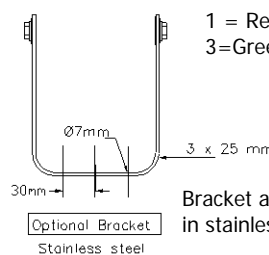
1 : 2	15,0 W
2 : 3	8,0 W
3 : 4	4,0 W
1 : 3	3,0 W
2 : 4	1,5 W
1 : 4	0,8 W

1 = Red, 2=Yellow
3=Green, 4 = Blue

1 x M20 IECEx
approved cable gland
and 1 x IECEx
approved blind plug.



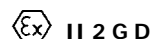
Standard Bracket
Antistatic PA



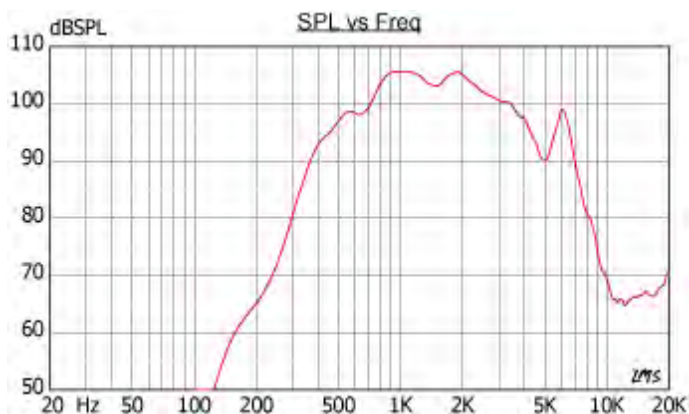
Optional Bracket
Stainless steel

Bracket and all outside nuts and screws
in stainless steel.

Certified by/ Certification Code/ Number: NEMKO / Ex dema IIB + H2 T4 / IECEx NEM 05.0005
Certified by/ Certification code/ Number: NEMKO / Ex dema IIC T4 / IECEx NEM 05.0005



1W/1m sine wave smooth 1/3 octave IIB+H₂ version



	IIB	IIC
Material / Color	Anti-static PA / Black	
Mounting	Bracket	
Termination	e-chamber, screw terminals	
Weight w/ transformer	2,2 kg	
IP-rating	67	
Max / min amb temp	55°C / -50°C	
Rated / max. power	15 W / 15 W	
SPL 1W/1m	105 dB	102 dB
SPL rated power	116 dB	113 dB
Effective freq range	410 – 7000 Hz	500-6000
Dispersion (-6dB) 1kHz / 4kHz	200° / 50°	105° / 35°
Options	Impedances, colors, labels	

Installation, Operation and Maintenance Procedures

- When mounting the loudspeaker please ensure that it is re-assembled in the same manner in which it was received. Fasten bracket with 1-3 screws.
- To change the position of the loudspeaker, please adjust the standard bracket (by loosening / tightening the screws) as required.
- DSP-15 EExmN/T IECEx can be supplied with 3 different bracket systems, according to customer requirements.
- DSP-15EExmN/T IECEx can be delivered as 25W version with transformer.
- For optimum performance, always use the correct voltage / power and operate within the frequency limits as stated.
- Use only certified/specified cable glands and blanking plugs.
- Do not open loudspeaker when energized.
- Fasten lid with a torque of 2 - 3 Nm.
- This loudspeaker is supplied with a 2 year warranty against defective materials and workmanship.



Jotron AS
Jotron UK Ltd.
Jotron Phontech AS
Jotron Consultas AS
Jotron Asia Pte. Ltd.
Jotron USA, Inc.
UAB Jotron



www.jotron.com