



MODEL TSC-1005C, CA & CM INTERCOMS

INSTALLATION AND OPERATION

P/N 0219-0019d.doc

DESCRIPTION

The Model TSC-1005C is a 5 channel 2-way intercom with a CALL-IN and external input capability. The TSC-1005CA has all the features as the TSC-1005C including a siren type alarm. The TSC-1005CM has a 13" Top mounted flex microphone. They were designed to suit such applications as service stations, C stores, truck stops, or fast food restaurants. We recommend the use of ESCO speakers and interconnect cable for the best voice quality reproduction. Please read these instructions carefully before installing your intercom system.

FEATURES:

- A) **VOLUME CONTROL / ON-OFF SWITCH:** Located at the left of the intercom cabinet. Click "on" by rotating the knob clockwise (POWER ON lamp will illuminate red). Continue rotating clockwise to increase volume.
- B) **TALK / LISTEN SWITCH:** Located at the right of the intercom cabinet, depress to "talk" (or operate alarm on Model TSC-1005CA only), release to "listen".
- C) **STATION SELECTOR SWITCHES:** Located to the left of the TALK/LISTEN switch. To select station, depress switch with corresponding station number. More than one station can be selected at the same time by depressing corresponding station switches simultaneously. To deselect stations, depress any unselected station switch halfway.
- D) **CALL-IN FEATURE:** Connections located on bottom of intercom. The CALL-IN feature enables the customer to alert the operator with a beeping tone by depressing a remote mounted CALL-IN button.
- E) **STANDBY:** When all 5 stations are deselected, the intercom is in a silent "standby" mode.
- F) **EXTERNAL INPUT:** Connections located on bottom of intercom. The external input feature enables the intercom owner to route a message repeater or music to any deselected speaker stations. When a speaker station is selected the external signal is disconnected from that speaker station.
- G) **VOLUME CONTROL:** (Talk out): Located inside of the intercom, adjustment is made from the bottom of the unit. This adjustment will increase (counterclockwise), or decrease (clockwise) the outside speaker volume.
- H) **ALARM SWITCH:** Located on the rear of the intercom. Only the Model TSC-1005CA has a built-in siren type alarm. Operation of the alarm can be obtained by pressing the TALK/LISTEN and the ALARM buttons at the same time. The alarm will be broadcast over the remote speakers that have been selected. A rising and falling police type alarm can be simulated by holding the TALK/LISTEN button down and pressing and releasing the ALARM button.

FOR FURTHER INFORMATION CONTACT THE OFFICE IN YOUR AREA

4025 Tampa Road, Ste 1110
 Oldsmar, FL 34677
 Toll Free (800) 237-9710
 In Florida (813) 855-9466
 Fax (813) 855-7469

HQ
 Freedom Electronics
 170 Chastain Meadows Ct. NW
 Kennesaw, GA 30144
 Toll Free (800) 761-9369

RECOMMENDED SPEAKER CABLE

All speaker cables must be twisted-pair (unshielded or shielded) containing 18 or 22 gauge wire. If using a shielded cable (ESCO# 408-0035), ground the shield at the inside end only. Use of twisted pair cable (ESCO# 408-0036) provides easiest connection to each Sub-station speaker. All speaker cables must route through a conduit that is SEPARATE from those containing 120VAC power wiring.

DO NOT UNDER ANY CIRCUMSTANCES ROUTE AUDIO CABLES IN THE SAME CONDUIT WITH 120VAC WIRING. THIS VIOLATES THE NATIONAL ELECTRICAL CODE AND PRESENTS A HAZARD.

INSTALLATION OF THE TSC-1005C, TSC-1005CA OR TSC1005CM

A. Key points for greater sound quality.

- 1) Use recommended 18-22 gauge twisted pair wire.
- 2) Run cable separately away from high voltage power wiring.
- 3) Sub-station speakers mounted in close proximity of Master-station may result in a howl (acoustical feedback) when either one calls the other. This condition can be corrected by lowering volume or repositioning Sub-station speaker.

B. Speaker and Call switch mounting.

- 1) We recommend that you use ESCO Speakers and Call switches for optimum performance.
- 2) Mount Speakers and Call switches per the installation and application guide included.

C. Wiring

- 1) Run an appropriate length of ESCO# 408-0035 or 408-0036 speaker cable from each remote speaker and call switch to the area where the intercom is to be located (tagging wire ends is recommended to avoid confusion when final connection is made to intercom).
- 2) Strip 3/16" of insulation from the end of each wire and twist the strands together.
- 3) Connection of the remote speakers and call switches to the intercom should be as follows:
 - Speaker #1 connects to terminals marked Station #1.
 - Speaker #2 connects to terminals marked Station #2.
 - Speaker #3 connects to terminals marked Station #3.
 - Speaker #4 connects to terminals marked Station #4.
 - Speaker #5 connects to terminals marked Station #5.
 - All call switches connect to terminals marked Call.
- 4) After completing installation, tie wires to bundle platform attached to intercom with a tie-wrap to insure no movement of interconnect wiring.
- 5) Power unit up and check operation of all connected speakers. If volume is too low or an acoustical feedback is present, adjust outside speaker volume (located under intercom) accordingly.
- 6) To insure proper warranty protection, be sure to fill out warranty registration information and return immediately.

Available options for the ESCO TSC-1005 intercom

Deluxe horn speaker

Model #SPK-1001 ESCO #0216-0003

7.0"H x 10.7"W x 9.1"D

8 Ohm, 15 Watt. Wide angle paging projector. Molded ABS horn and zinc die cast universal swivel mount. Indoor or outdoor applications

Economy horn speaker

Model #SPK-1002 ESCO #0216-0002

5.75"H x 5.25"W x 6.50"D

8 Ohm, 10 Watt. Molded plastic horn, steel tilt mounting bracket. Indoor or outdoor use.

3.25" pump speaker

Model #SPK-1012 ESCO #0216-0008

3.44"W x 1.35"H

8 Ohm, 3 Watt, 7 Watt MAX. Solder terminals. Dust, smoke & moisture resistant.

Speaker/call box

Model #SPK-1003 ESCO #0941-0006

5.25"H x 7.5"W x 2.0"D

Polished stainless steel enclosure with rain lip. Momentary push-button for call. 8 Ohm, 3 Watt, 7 Watt MAX, dust & moisture resistant speaker. 1 rear & 1 bottom dual size conduit knockout. Internal terminal strip for wiring.

Call switch box

Model #SPK-1005 ESCO #0941-0007

4.5"H x 2.75"W x 2.25"D

Standard industrial single gang box enclosure. Suitable for wet locations. Red momentary push button for call.

Speaker box

Model #SPK-1009 ESCO #0941-0009

Polished stainless steel enclosure with rain lip. 8 Ohm, 3 Watt, 7 Watt MAX, dust & moisture resistant speaker. 1 rear & 1 bottom dual size conduit knockout.

8" Pre-assembled ceiling speaker assembly with volume control

Model #SPK-1019 ESCO #0216-0040

8" 10 ounce dual cone speaker, 8 ohm impedance with a premounted dual voltage 10 watt line matching transformer. High impact ABS white grill. Adjustable volume control.

Heavy duty outdoor handset

Model #SPK-1013 ESCO #0941-0002

4.5"H x 4.5"W x 2.25"D (Enclosure only)

Standard industrial dual gang box enclosure. Suitable for wet locations. Standard black handset w/polished armored cable. Hearing aid compatible receiver per EIA Standard RS-504. Response-200 to 3200 Hz/Sensitivity-minimum 72db @ 1KHz/Impedance-150 ohms nominal. Internal prewired terminal strip w/location for second external speaker. Handset on when removed from cradle, second speaker on when handset on cradle. "Call" when handset lifted off cradle.

Impedance matching transformer

Model SPK-1010 ESCO #0204-0080

Four flying leads for installation. Two mounting ears. Necessary when using external music input. Matches five - 8 ohm parallel loads.

Individual speaker volume control:

Model #SPK-1011 ESCO #0205-0008

Single shaft, triple solder lug terminals. 8 Ohm, 25 Watt. Panel or baffle mount.

Shielded speaker wire

Model #SPK-1006 ESCO #0408-0035

20AWG, one pair w/shield, jacketed

Twisted pair speaker wire

Model #SPK-1004 ESCO #0408-0036

20AWG, 2 conductor, jacketed

ESCO INTERCOM SYSTEMS & OPTION LIST:

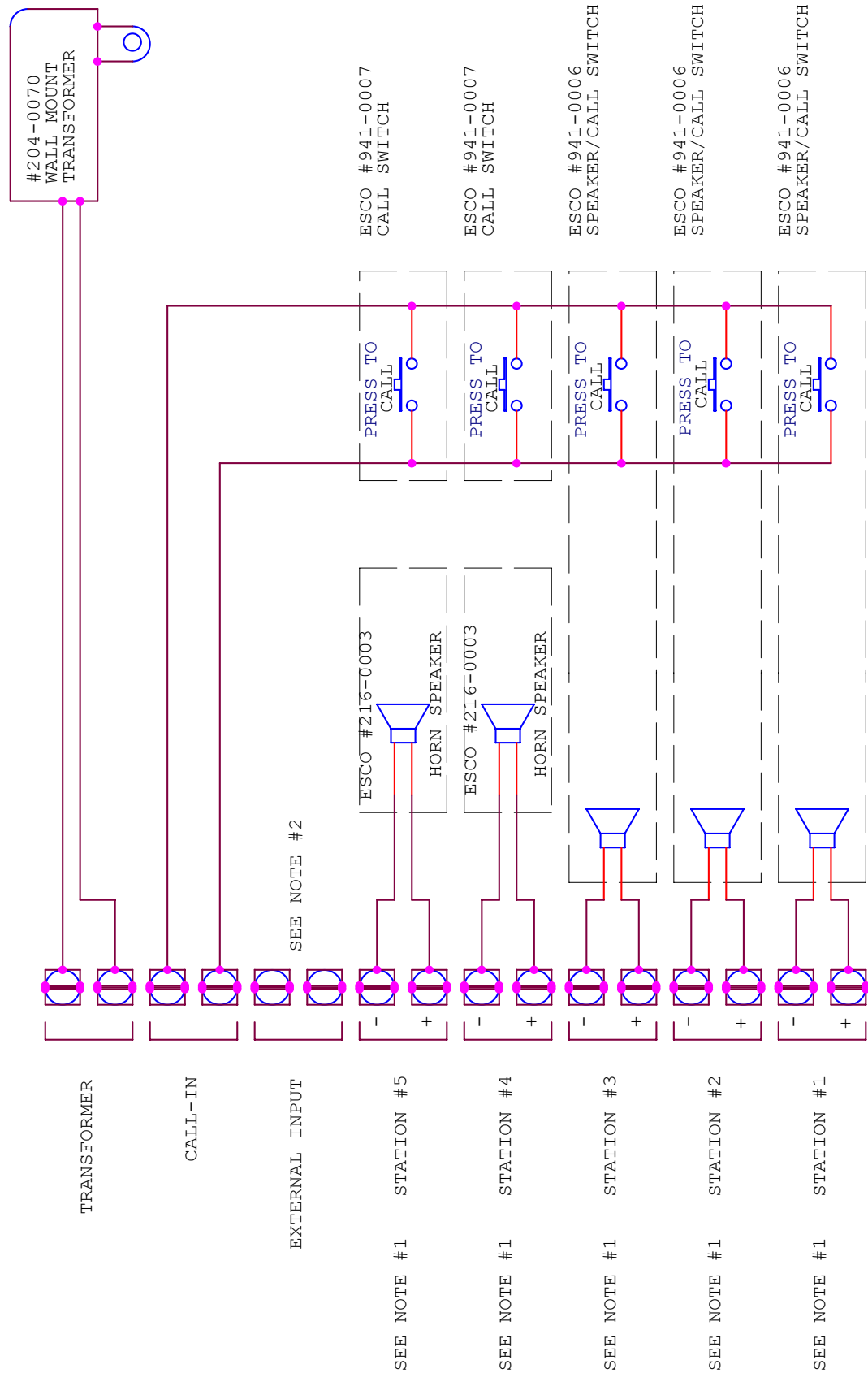
MODEL #	PART #	DESCRIPTION
<u>ESCO Commercial Series 5 Station Intercoms</u>		
TSC-1005C	0941-0004	5 Station w/call & 1 internal mic (no VOX available)
TSC-1005CA	0941-0005	5 Station w/call, 1 internal mic & alarm (no VOX available)
TSC-1005CM	0941-0027	5 Station w/call & 13" Top Mounted Flex mic (no VOX available)
TSC-1005CAM	0941-0028	5 Station w/call / alarm & 13" Top Mounted Flex mic (no VOX available)

ESCO Trademark Generation II Series 8, 12, 16, 20, 24, 28 & 32 Station Intercoms

TMK-4000	941-0107	Trademark Desktop Controller
941-0108	941-0108	Trademark Four Speaker Station Interface Card
TMK-4108	941-0111	Intercom, 8 Speaker Stations, 1 Controller
TMK-4112	941-0112	Intercom, 12 Speaker Stations, 1 Controller
TMK-4116	941-0113	Intercom, 16 Speaker Stations, 1 Controller
TMK-4120	941-0114	Intercom, 20 Speaker Stations, 1 Controller
TMK-4124	941-0115	Intercom, 24 Speaker Stations, 1 Controller
TMK-4128	941-0116	Intercom, 28 Speaker Stations, 1 Controller
TMK-4132	941-0117	Intercom, 32 Speaker Stations, 1 Controller
TMK-4208	941-0118	Intercom, 8 Speaker Stations, 2 Controllers
TMK-4212	941-0119	Intercom, 12 Speaker Stations, 2 Controllers
TMK-4216	941-0120	Intercom, 16 Speaker Stations, 2 Controllers
TMK-4220	941-0121	Intercom, 20 Speaker Stations, 2 Controllers
TMK-4224	941-0122	Intercom, 24 Speaker Stations, 2 Controllers
TMK-4228	941-0123	Intercom, 28 Speaker Stations, 2 Controllers
TMK-4232	941-0124	Intercom, 32 Speaker Stations, 2 Controllers
TMK-4308	941-0125	Intercom, 8 Speaker Stations, 3 Controllers
TMK-4312	941-0126	Intercom, 12 Speaker Stations, 3 Controllers
TMK-4316	941-0127	Intercom, 16 Speaker Stations, 3 Controllers
TMK-4320	941-0128	Intercom, 20 Speaker Stations, 3 Controllers
TMK-4324	941-0129	Intercom, 24 Speaker Stations, 3 Controllers
TMK-4328	941-0130	Intercom, 28 Speaker Stations, 3 Controllers
TMK-4332	941-0131	Intercom, 32 Speaker Stations, 3 Controllers

NOTES

- #1 All speaker cable must be shielded or twisted pair containing 18 or 22 gauge wire.
- #2 Use an impedance matching transformer (P/N 0204-0080) with any message repeater or music input. Music/message crosstalk may occur on intercom internal listen speaker when external input signal strength is too large.



ESCO SERVICES INC.

MICHIGAN FLORIDA COLORADO

INTERCOM INTERCONNECT WIRING DIAGRAM

Document Number
A TSC-1005C & TSC-1005CA

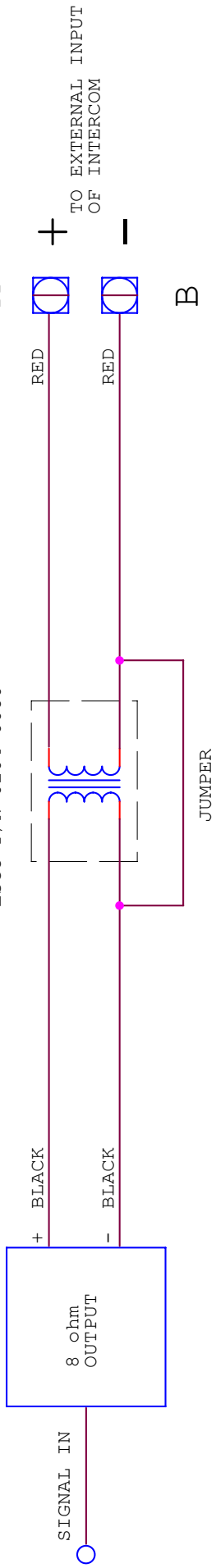
Rev
1

INTWIRE.SHT

Date: Monday, May 06, 2002

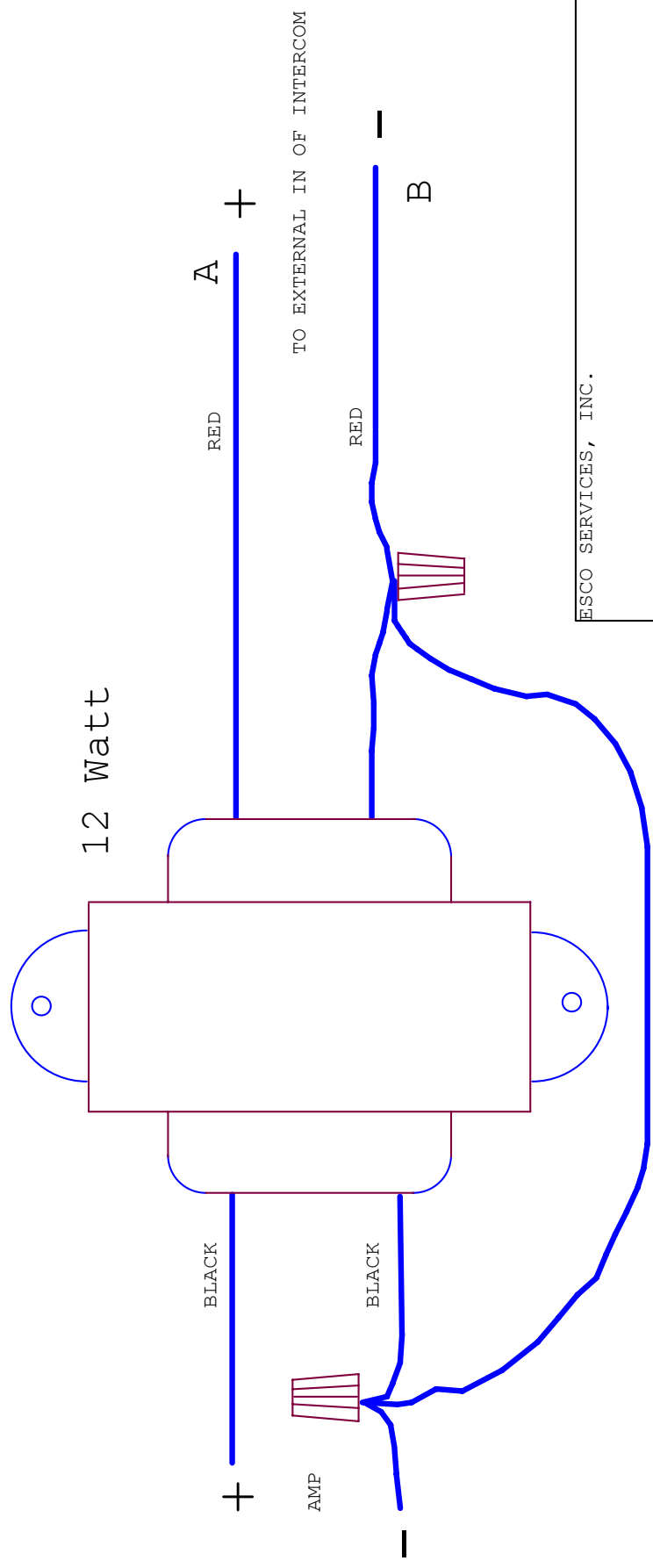
Sheet 1 of 1

AMPLIFIER
(CUSTOMER SUPPLIED)
MODEL# SPK-1010
ESCO P/N 0204-0080



IMPEDANCE MATCHING TRANSFORMER

HOOK-UP / EXTERNAL IN



- NOTES:
1. FOR USE WITH E-MODEL INTERCOM, POINTS A AND B ARE JB3-1 AND JB3-2 RESPECTIVELY, OF J-BOX.
 2. FOR USE WITH TSC-1005 SERIES, POINTS A AND B ARE LOCATED ON TERMINAL STRIP UNDERNEATH UNIT.

ESCO SERVICES, INC.

Title	
IMPEDANCE MATCHING TRANSFORMER CONNECTION	
Size	Document Number
A	IMPXFMR.SHT
Rev	
A	
Date:	Monday, May 06, 2002
Sheet	1 of 1