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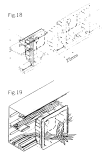
## 18 Outlet Boxes



The 1-gang and 2-gang outlet boxes clip into all 100mm wide trunking using the semicircular grooves extruded within the trunking profile. To install the boxes within the trunking engage the lower clips of the box in the lower semicircular groove, slowly pivot box, whilst slightly spreading the trunking until the upper clip and groove engage.

Should dividers be installed the full depth dividers are cut short to align with box ends. 1- or 2-gang under box dividers, to suit trunking depth, should be installed at each box location prior to installing the boxes, (Fig.18) Adjacent boxes should not be less than 25mm apart to ease lid cutting and installation.

The boxes will accept any standard wiring accessory with 60.3mm (gang) or 120.6mm (2-gang) fixing centres that may be installed within a 25mm deep box. For those accessories requiring a greater depth the back of the box may be removed by cutting the retaining tongues with a Stanley knife to allow the accessory to project into the trunking.

Alternatively a spacer battens (2.34 WHI 1 gang or 71.53 WHI 2 gang) may be fitted between the accessory mounting plate and the mounting box. This will increase the accessory projection by 18mm from the trunking front cover.

To connect the accessory pass the cable through the most convenient entry flap in the ends or sides of the box. (Fig. 19)



## 19 Plug-in Lighting

The MK Plug-in Lighting Connector for use with the MK Wall Plug (List No.1661WHI) is supplied mounted onto a short length of Premier lid suitable in width to fit the 50mm, 75mm and 100mm trunking. The unit should be wired and installed in the trunking. A joint cover (not supplied with the fittings) should be fitted at each end (Fig.20).

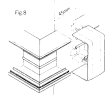
**Note** The fitting is supplied for connecting cables to remote luminaires. Luminaires should not be suspended from trunking.

## 20 Lidding Up

For neatness and ease of installation, lids should, wherever possible, be installed in complete lengths. Where it is necessary to cut lids, use cutting block KB1 and a 12" hacksaw with 18TPI blade or a fine-toothed tenman saw.

At lid joints leave a gap of 20mm to allow fitting of joint cover moulding (Fig.22)

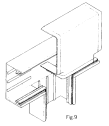
## 8 External Corner (fabricated)



Measure trunking to corner apex, and cut trunking 45mm short. Fit external corner fabrication to feed trunking using internal coupler. Do not attach fitting to wall. Again using internal coupler, attach and align subsequent trunking length, using any free movement in fitting joints to achieve optimum alignment. Fix trunking and fitting to wall.

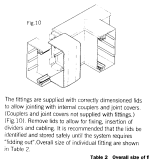
**Note** Each fabricated fitting should be installed using an internal and joint cover coupler (not supplied with fittings) at each joint. (Fig.8)

## 9 Moulded Tee and Flat Angle



For fitting moulded tee strike centre line of 'take off' trunking. Cut away side wall of 'through' trunking to suit 'take off' trunking. Butt up 'take off' trunking body to 'through' trunking and temporarily fit tee moulding to ensure correct alignment. Fix 'take off' trunking as shown in (Fig. 2). Remove fitting on completion and store safely.
A similar technique can be used for fitting the flat angle.

## 10 Fabricated Tees, Crosses and Special Angles



The fittings are supplied with correctly dimensioned lids to allow jointing with internal couplers and joint covers. (Couplers and joint covers are supplied with fittings.) (Fig.10). Remove lids to allow for fixing, insertion of dividers and cabling. It is recommended that the lids be identified and stored safely until the system requires "fabricating out". Overall size of individual fitting are shown in Table 2.

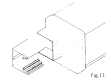
**Table 2 Overall size of fittings**

| Trunking System | Cross or Tee Dimension (mm) A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| NCT/50/50 | 150 | 50 | 150 | 50 | 150 | 75 | 75 | 75 |
| NCT/75/50 | 150 | 50 | 150 | 50 | 225 | 75 | 117 | 117 |
| NCT/75/75 | 225 | 75 | 225 | 75 | 225 | 75 | 117 | 117 |
| NCT/100/50 | 150 | 50 | 150 | 50 | 250 | 75 | 117 | 117 |
| NCT/100/75 | 225 | 75 | 225 | 75 | 250 | 75 | 117 | 117 |
| NCT/100/100 | 250 | 75 | 250 | 75 | 250 | 75 | 117 | 117 |



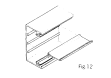
REAR VIEW SHEET 2

## 11 Reducers



To joint lengths of different sized trunking, use the appropriate reducer. For correct alignment of adjacent trunking bodies, temporarily slip reducer onto first trunking. Fix trunking as shown in Section 2. Remove the reducer, return to protective packaging and store safely until lidding out. (Fig.11)

## 12 Dividers (service segregation)



Divider lengths are available for each trunking depth. The divider clip fits to the tee bar mounting rail extruded on the trunking base. To correctly fit divider, the extension foot of the female clip profile is mounted below the tee bar for horizontal runs and to the right-hand side on vertical runs.

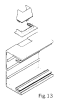
**Note**
**a)** The free edge of the divider is supported by the cable retainer (see Section 17).

**b)** Where dividers and accessory mounting boxes are installed, "under box" dividers are available to suit each 100mm wide trunking depth (Fig.18) for ease of installation and segregation (see Section 18).

**c)** To maintain segregation at trunking intersections, reducers, and side wall service entry or exit points, it is necessary to construct in situ the compartment crossovers using wall conduit, rectangular channeling or mini trunking from the MK Egg Mini Trunking range.

**d)** Cut dividers 10mm short of trunking end when fitting a trunking stop end (see Section 16).

## 13 Mini-Trunking Adaptor



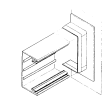
Locate the position of the mini-trunking run and cut an aperture 40mm x 16mm in the Premier Trunking side wall. See Fig.13. Secure adaptor flange mounting using Egoweld no.3. Clip in adaptor from YEA range to suit selected mini-trunking size YT1 to YT3. Insert mini-trunking into adaptor and fix to wall in accordance with mini-trunking instructions.

## 14 Partition Wall Cover

This is used to mask the cutout around the trunking where it runs through a partition wall (Fig.14). Having passed the trunking through the partition, fix the wall cover to the partition using screws or adhesive as required.

**Note** For future maintenance work check that both the partition and partition wall cover will not restrict trunking lid removal

## 15 Flange Coupler

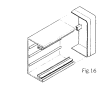


This is used as a 'butt joint' interface between trunking and other electrical equipment (Fig.15). It may also be used as a Partition Wall Cover.

Coupler may be fixed to other equipment with screws or bonded with a suitable adhesive.

Select position of trunking flange coupler. Align and fix trunking run. Clip on flange coupler and fix to host equipment.

## 16 Stop Ends

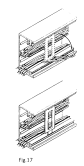


The stop-ends clip on to the central divider mounting rail on the base of the trunking body and can be used at both left- and right-hand-ends.

When fitting stop end and at a return allow at least 5mm between the end of the trunking and the adjacent wall. It may be advantageous to fit the stop-end to trunking prior to installation.

Where the stop-end could be subjected to lateral force, i.e. at a point other than a return, the mounting clip should be solvent welded to the rail. (Fig.16)

## 17 Cable Retainer



The cable retainer clips into the semicircular grooves extruded within the trunking profile.

To install wider retainer into lower semicircular groove. It is now possible to pivot the retainer such that the opposite end enters the upper groove (Fig.17). To release the retainer slightly spread trunking and unclip upper end. Pivot retainer in lower grooved to fully open position. The end tongue will automatically enter the outer groove in the trunking and lock the retainer open.

tThis will also occur if the lower end is released first and the retainer hinged upward. The upper tongue will enter the upper groove and lock the retainer open.) In this way the retainer may be used as a wiring installation aid. Hinging the retainer into the lower position allows it to be used as a cable tray at the time of installation, or as a cable support to ease cable sorting for maintenance.

Care should be taken when closing retainers, checking that the divider support prongs engage below each divider. Retainers should be installed at 750mm maximum centres on straight runs or within 100mm of each end, corner or change in plane.





FRONT VIEW SHEET 2

420

## 22 Cabling Capacity

These tables are issued for guidance only when using Premier trunking and must be read in conjunction with the 15th/16th Edition of the IEE Wiring Regulations.

The Table refers to single core PVC insulated cables.

In order to calculate the cable carrying capacity, proceed as follows:

1. For each individual cable that will be used obtain the appropriate factor from Table 4.

2. Add the factors together and compare the total with the factors for each trunking in Table 5.

3. The size of the trunking should have a factor equal to or greater than the total of the cable factors taken from Table 4.

Each of the trunking sections (Fig.28) incorporates locators on the inside back face to accommodate the clip-in dividers. These dividers organise the interior of the trunking into 2, 3 or 4 equal compartments approximately 25 mm in width.

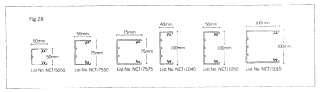
**Note** The cable capacity of the 100mm trunking profiles is not affected by the intermittent introduction of outlet boxes

**Table 4**
**A Cable factors for trunking**

| Type of conductor | Cross-section area (mm²) | Factor |
|---|---|---|
| Solid | 1.5 | 7.1 |
| | 2.5 | 10.2 |
| Stranded | 1.5 | 8.1 |
| | 2.5 | 11.4 |
| | 4 | 15.2 |
| | 6 | 22.9 |
| | 10 | 36.3 |

**Table 5**
**B Total factors for trunking**

| Trunking Type | Size (mm) | Compartment Total factor |
|---|---|---|
| NCT/50/50 | 50 × 50 | 853 |
| NCT/75/50 | 75 × 50 | 1366 |
| NCT/75/75 | 75 × 75 | 2080 |
| NCT/100/40 | 100 × 40 | 1355 |
| NCT/100/50 | 100 × 50 | 1778 |
| NCT/100/100 | 100 × 100 | 3972 |





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PART NO. 21356 PL ED 2

## Premier Trunking Fixing Instructions

### Introduction

Premier Trunking consists of six integrated trunking systems. The 50x50mm, 75x50mm and 75x75mm trunking are for general cable distribution. The 100x40mm and 100x50mm trunking can be used for mounting accessories. The 100x100mm trunking, as well as providing generous cable space, can also be used for mounting accessories.

### 1 Planning

Establish the trunking size to be used. Provisionally locate positions of service outlets to be mounted in the 100mm trunking.

**Note** The other trunking sizes in the range integrate with the 100mm size via the range of Premier Trunking Reducers (see Section 11).

Minimum dimensions for installing Premier Trunking at a recess or reveal are shown in Table 1.

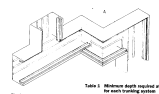


Fig.1

**Table 1 Minimum depth required at reveals for each trunking system**

| Trunking size (mm) | Dimension A (mm) |
|---|---|
| 50×50 | 100 |
| 75×50 | 100 |
| 75×75 | 130 |
| 100×40 | 90 |
| 100×50 | 100 |
| 100×100 | 210 |

### 2 Preparation

Surfaces where the trunking is to be mounted should be complete and prepared for final decoration.

All Premier components are supplied in protective packaging which should only be removed immediately prior to installation. In the case of the trunking the lid should be separated from the body and returned to the protective sleeve until required.

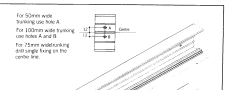




Fig.2

### 3 Trunking Installation

"Strike" line of trunking run using plumb bob and chalk line for vertical runs and spirit level for horizontal runs. Drill trunking with oversized holes in positions and at maximum centres as shown in (Fig.3) and (Fig.3). Fix with dome-head screws using fibre or rubber washers. Do not tighten the screws to their fullest extent to allow for expansion movement in the trunking.

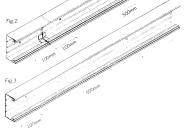




Fig.3

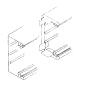


1st FOLD

FRONT VIEW SHEET 1

REAR VIEW SHEET 1

## 4 Internal Trunking Coupler



The internal coupler may be used as an installation aid. Clip the coupler to the end of the free trunking length, offer up to the fixed trunking and slide home. Joint covers may align with internal coupler positions, with the joint cover marking any gaps. See section on "lidding up"

## 5 Internal Corners (moulded)

Measure distance into corner and cut trunking length 2mm short. Clip in wall plate to complete the enclosure. Fix trunking length. Offer up return trunking length, align profiles so that a butt joint is achieved at the corner and fix.

The internal angle moulding will not fully close gaps and complete the enclosure.

## 6 Internal Corner (fabricated)

Measure distance into corner and cut trunking length 145mm short. Temporarily assemble fitting to trunking using internal coupler and corner joint. Offer up trunking complete with fitting to fixed trunking as described in Section 4. Check that the internal corner fitting fits snugly into the corner. Fix trunking body. Remove joint cover and corner fitting lids, and store safely. Fix corner fitting to wall. Continue installing trunking as described in Sections 3 & 4.

**Note** Each fabricated fitting should be installed using an internal coupler and a joint cover (not supplied with fittings) at each joint (Fig. 6)

## 7 External Corner (moulded)

For a fully secure corner, mitre trunking body (Fig.7). However in order to comply with IEE wiring regulations the trunking bodies need only meet at corner apex with the corner moulding completing the enclosure. Should this method be used a fully secure corner cover clip engagement cannot be guaranteed due to variable buckling tolerances. In this instance for a fully secure cover lightly solvent weld corner cover moulding clips to trunking groove.

## 20 Lidding Up continued...

At internal corners (Fig.23), external corners (Fig.24), flat angles (Fig.25) and 'Tee' tees (Fig.26), leave gaps between lids and the end of the trunking body in accordance with the table 3.

Alternatively all moulded fittings may be clipped onto trunking bodies prior to lidding out and the actual dimensions measured between the tapered moulding lines (Fig.27) allowing for overlap.

To fit lids to trunking body, locate top and bottom clips into the trunking starting at the end of a trunking run. Pressing firmly slide the hand along the length taking care to ensure both clips are fully engaged. Where clip engagement resists firm pressure, a sharp blow with the palm of the hand will engage the clips.

Fig.23

Fig.24

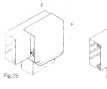


Fig.25

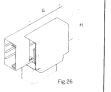


Fig.26

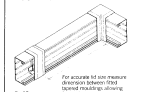


Fig.27

*For accurate lid size measure the distance between tapered mouldings allowing for overlap.*

**Table 3** **All dimensions shown in the table are in mm.**

| | | 50×50 | 75×50 | 75×75 | 100×40 | 100×50 | 100×100 |
|---|---|---|---|---|---|---|---|
| Internal Corner | A | 62 | 62 | 87 | 52 | 62 | 140 |
| | B | 62 | 62 | 87 | 52 | 62 | 140 |
| External Corner | C | 62 | 62 | 87 | 52 | 62 | 140 |
| | D | 62 | 62 | 87 | 52 | 62 | 140 |
| Flat Angle | E | 66 | 90 | 90 | 115 | 115 | 140 |
| | F | 66 | 90 | 90 | 115 | 115 | 140 |
| Tee | G | 74 | 99 | 99 | 124 | 124 | 124 |
| | H | 66 | 90 | 90 | 115 | 115 | 115 |

## 21 Lid Removal

Isolate all power supplies and data circuits prior to removal of lids. Lid removal is readily achieved if a wiring accessory is present. Removal of the accessory allows pressure to be exerted to the underside of the lid to initiate clip disengagement and commence lid peel.

Should an accessory not be available, remove moulded fitting by placing the head of a small flat screwdriver at the junction adjacent to the edge of the trunking lid and lowering outwards, slowly disengaging the fitting clips. If necessary repeat for other fitting edge. (Fig.21)

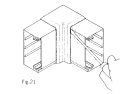


Fig.21

**Note** A wood or plastic block positioned below the screwdriver head will avoid damage to the surrounding area.



300

NOTES

1. ALL DIMENSIONS ARE NOMINAL.
2. BLACK PRINTING ON WHITE BACKGROUND.
3. PERIPHERY OF LABEL NOT TO BE LINED.
4. LEAVES TO BE ASSEMBLED IN CORRECT ORDER & STAPLED TOGETHER.

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SHEET 1 OF 1 SHEETS